

1 Introduction

In many countries, particularly in the developing world, the quality of public education remains low: functional illiteracy is widespread, and children do not master basic arithmetic operations. How can these educational outcomes be improved? Previous studies have found that incentives, whether these be electoral or performance-related, can help raise the quality of public services [Gulzar and Pasquale, 2017, Duflo et al., 2012]. Often relying on quasi-experimental research designs, these studies provide compelling evidence that actors respond to policy interventions.[Finan et al., 2015] But it remains unclear how these incentives connect to the broader institutional environment: who delivers these public services and to whom do they respond?

In this paper, I build on extensive fieldwork research across Brazil to argue that public education is captured by local political elites. Similar to coalition building in presidential contexts, mayors secure broader support for their policy agenda through the allocation of public sector positions to city councilors and their loyalists [Laver and Shepsle, 1990, Power, 2010]. This effectively crowds out electoral accountability, as mayors prioritize building support by other political elites over voter welfare [Ferejohn, 1986]. By catering to the city council through patronage appointments, mayors ultimately cause instability in the local educational bureaucracy, with negative downstream consequences for public school students.

To analyze how politics affect staff turnover, I analyze the relationship between municipal education staff turnover and the share of seats controlled by the executive in the local city council. In line with qualitative accounts and theoretical expectations, mayors who face stronger legislative opposition resort to greater patronage, in particular during the first year of administration. Mayors therefore resort to patronage in order to shore up legislative support, with negative consequences for student learning. I leverage data on over 2 million school teachers and school principals to estimate the effect of share of executive seats on turnover. Different model specifications confirm that turnover increases (decreases) as the share of seats held by the mayor coalition decrease (increase).

To estimate the effect of patronage on quality of education, I combine qualitative and quantitative evidence. Interviews conducted with educational bureaucrats and politicians confirm that turnover has a negative impact on teachers' ability to educate students. To validate these accounts I combine administrative data on education from the *Prova Brasil*, a nation-wide standardized exam designed to measure student learning. I construct a multiple datasets to test these claims: the

main specification contains over 1 million classrooms spread across the national territory. Using the national school census (*Censo Escolar*), I construct a school-specific turnover index that tracks year-by-year volatility in teacher staff. A set of estimations, combining multi-level modeling and fixed effects, provide strong evidence that teacher turnover has a negative effect on student learning.

This study contributes to an emerging literature on the politics of personnel and public services [Pepinsky et al., 2017, Finan et al., 2015, Gulzar and Pasquale, 2017]. Focusing on political actors refines our understanding of local politics and how intra-elite bargain reshape bureaucracies, leading to welfare loss for the broader population, as subnational actors divert resources from public services [Ferraz et al., 2012]. It also shifts focus from provision to the implementation of public services, echoing a long-standing literature on state capacity and the necessity for bureaucratic autonomy [Kohli, 2004, Evans, 1995].

The paper is structured as follows. Section 1 provides an overview of the scholarly debate over public goods provision and personnel, as well as more specific treatments of the subject in Brazil. In section 2 I present the main theoretical argument, with a formal treatment of the subject. Section 3 presents the institutional context and data, followed in section 4 by the research design and main results. Section 5 concludes.

References

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