



LETTER

# More Turnover, Less Turnout? Domestic Migration and Political Participation Across Communities

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## Abstract

Why do some areas experience lower voter turnout even under compulsory voting systems? This paper examines the impact of migration turnover – encompassing both in- and out-migration – on voter turnout across communities. While past research has focused on migrant/non-migrant differences or in-/out-migration separately, we propose that both migratory movements tend to decrease political participation due to increased transaction and social costs. Using surveys and a new panel dataset combining census and voting records from over 5,000 Brazilian municipalities, we identify a robust negative association between local migratory turnover and voter turnout. This relationship holds across various time frames, levels of aggregation, analytical approaches, and variable definitions. Individual-level data analyses further corroborate these results. Additional tests suggest social costs constitute a key mechanism deterring turnout. These findings highlight the need to consider the broader consequences of population mobility for democratic processes and representation, particularly in areas experiencing higher levels of turnover.

**Keywords:** internal migration; electoral participation; voting costs; social cohesion

## Introduction

Although the effects of international migration on political outcomes have been extensively explored (Halla, Wagner and Zweimüller 2017; Kapur 2014; Kyriazi et al. 2023), more recent studies have shifted focus to domestic mobility, analyzing its impact on citizens' political preferences and electoral participation (Gimpel and Schuknecht 2001; Hansen 2016; Lueders 2023). These studies have revealed that individuals who relocate tend to vote less than those who remain residentially stable (for example, Squire, Wolfinger and Glass 1987; Highton 2000; Highton and Wolfinger 2001). However, the wider consequences of domestic mobility on local communities are less well understood. While existing research has examined the individual costs of moving and their direct effects on voter turnout among migrants as well as the isolated impacts of in-migration or out-migration on origin and destination communities, the influence of overall migratory turnover on community-wide electoral participation remains underexplored.

This paper investigates the broad effects of population mobility on electoral participation, examining how both internal in-migration and out-migration shape voter turnout across and within communities. We argue that although geographic mobility can sometimes have positive effects, it tends to reduce electoral participation on average. This decline is driven by two primary

mechanisms: increased transaction costs and social costs (Highton 2000; Hansen 2016). Specifically, in-migration expands the pool of residents who may not register to vote locally due to barriers such as lack of information, interest, or access. Out-migration, in turn, often results in a higher proportion of voters who might continue to be registered in their former residences but be unable or unlikely to vote there. Additionally, both in- and out-migration can disrupt community cohesion – reducing residents’ capacity to apply social pressure – and alter descriptive norms of participation, both of which are recognized as key drivers of turnout (see, for example, Fowler 2005; Alesina and Giuliano 2011; Gerber, Green and Larimer 2008; Gerber and Rogers 2009; Panagopoulos 2011). Ultimately, these concurrent migratory flows can undermine both the logistical and social dimensions of voting, reducing political participation among both newcomers and long-standing residents.

To test our hypothesis, we have compiled a novel time-series cross-sectional dataset that combines census data and voting records from municipalities across Brazil from 2000 to 2010. Our analysis focuses on *migratory turnover*, a well-established demographic measure defined as the *sum* of in-migration and out-migration relative to the total population over a given period. This measure captures the full extent of residential instability by quantifying the total volume of population change, accounting for both inflows and outflows within localities (Dennett and Stillwell 2008). Previous research that relies on net migration – calculated as the *difference* between in-migration and out-migration – fails to fully capture the impact of population mobility on political outcomes, as this measure tends to obscure the distinct effects of each type of migration. Net migration figures may suggest stability in regions that are, in fact, experiencing significant population turnover. Additionally, studies that examine in-migration and out-migration separately risk misattributing the effects of these interrelated phenomena. By contrast, considering the combined effects of both inflows and outflows – which can either counteract or exacerbate each other – migratory turnover provides a more accurate understanding of how population mobility influences local political participation.

Our results reveal a strong negative association between migratory turnover and voter turnout, consistent across local and national elections, various migration measures (stocks or flows, shares or logarithmic counts), and different geographic scales – municipalities, Minimum Comparable Areas, or micro-regions. This pattern holds under different analytical approaches, including cross-sectional and panel data analyses. Individual-level survey evidence provides further support for these results, showing that residents in high-turnover areas are less likely to vote regardless of their migration status. Additionally, we show that higher migration turnover is associated with lower levels of social cohesion, suggesting a potential mechanism beyond the direct costs of voter registration.

This paper contributes to a growing literature on the effects of domestic migration on political attitudes and behaviour (Bishop and Cushing 2009; Jurjevich and Plane 2012; Gori Maia and Lu 2021; Kim 2022; Knight and Zhang 2024). To the best of our knowledge, this is the first empirical study to examine the simultaneous effects of in-migration and out-migration on community-level turnout, utilizing both stock and flow measures to assess these relationships. Our analysis advances previous findings in several key ways. First, while existing research indicates that out-migration can increase voter turnout among specific groups of voters, our findings suggest that it is generally related to lower political participation across communities. Similarly, our analysis shows that in-migration also tends to have a negative association with local turnout. Second, we find that migratory turnover can have a more detrimental impact on voter turnout than is apparent from models analyzing the effects of either in-migration or out-migration separately. Finally, complementing previous findings that highlight the lower participation barriers faced by non-migrants (Squire, Wolfinger and Glass 1987; Highton 2000), our study reveals that even among these stayers, those in high-mobility areas, are less politically active than their counterparts in more stable environments.

## Internal Migration and Turnout

The seminal study by Squire et al. (1987) identified residential mobility as a key factor affecting electoral participation. Employing validated US voting data, the authors found that individuals who had moved within the country were 5–8 per cent less likely to vote compared to those who had not relocated. They attributed this reduced turnout among migrants to *transaction costs* related to common re-registration requirements after moving and suggested measures aimed at streamlining these processes as a possible solution.

Subsequent research exploring the causes of lower voter turnout among domestic migrants has shown that elevated direct voting costs, including the challenges of re-registration and learning about new candidates and voting locations, do not fully explain their reduced participation (Hansen 2016). Rather, it is also essential to consider the social disconnection that often accompanies mobility (Highton 2000). Political behaviour is shaped not only by individual characteristics like economic status and education but also by social dynamics, including information sharing and peer pressure (Fowler 2005; Gerber and Rogers 2009; Panagopoulos 2010). This perspective emphasizes that social rewards and the repercussions of abstaining from voting influence people's intrinsic sense of duty toward their political community (Gerber, Green and Larimer 2008; Panagopoulos 2013). Supporting this notion, recent studies demonstrate that the disruption of social connections caused by relocation is a primary factor explaining the reduced voter turnout observed among migrants (Hansen 2016).

Beyond explaining lower voter turnout among migrants, these findings also offer insights into how migration can influence the behaviour of those who stay. Community members use social rewards and sanctions to shape behaviour within their social space, thereby influencing others' motivation to participate. Research has shown that pro-voting norms are most effective when individuals value their peers' opinions and when information about deviance or compliance can spread easily (Anoll 2018). Moreover, increased community integration is associated with stronger motivations to comply with prevailing social norms (Dowding, John and Rubenson 2012; Sinclair 2012). Therefore, when migration disrupts the 'glue that holds societies together'<sup>1</sup> – for instance, by decreasing generalized interpersonal trust – it imposes social costs on communities, weakening their ability to enforce civic norms and thereby diminishing individual incentives to participate (Knack 1992; Gerber, Green and Larimer 2008).

Our study expands on existing research by analyzing the role of migration turnover, combining the effects of both in- and out-migration on local voter turnout. This more comprehensive approach is essential, as analyzing in-migration or out-migration in isolation can misrepresent their impacts on political participation due to their interconnected nature. By analyzing these migratory movements together, we can more accurately evaluate the cumulative influence of local population mobility on voter engagement, thus avoiding misattributions that might otherwise overestimate or underestimate the true effects on turnout.

## Why Migration Turnover Tends to Negatively Affect Turnout

To evaluate the effect of local population mobility on political participation, two approaches are available. The first involves including both in-migration and out-migration as predictors in regression analyses. This method not only assesses the overall impact of population mobility but also distinguishes the unique influence of each type of migration on voter turnout. Including both variables is essential because they could be correlated, and thus failing to do so could introduce omitted variable bias.

The second method utilizes a demographic metric known as *migratory turnover*, which calculates the proportion of the population moving into and out of a specific area. This measure,

<sup>1</sup>See, for example, Chan, To and Chan's (2006) definition of social cohesion.

		Effect Type	
		Transaction costs ↑ difficulty to vote for migrants only	Social costs ↓ motivation to vote for migrants and non-migrants
Migration Type	In-migration	When new residents move into a community, they are less likely to be registered and familiar with local affairs  (captured by VEP)	When new residents move into a community, they have fewer social ties and can disrupt established norms of participation  (captured by VEP and RV)
	Out-migration	When residents move out of a community where they remain registered, they become more physically removed and less engaged with local issues  (captured by RV)	When residents move out of a community, remaining residents lose social ties, which can weaken local norms of participation  (captured by VEP and RV)

Figure 1. Negative Contextual Effects of Migration Turnover on Turnout.

when used as a single predictor, allows for the evaluation of the overall effect of population mobility without breaking it down into its constituent parts. Moreover, it provides insights into the dynamics between in-migration and out-migration. This is evident when the coefficient of the turnover variable deviates from the sum of the coefficients for in- and out-migration, signalling either a synergistic or counteracting interaction between these migration flows.

Elevated turnover rates, regardless of the measurement used, reflect a lack of residential stability. This instability may indicate a greater sense of transience among residents, weaker social ties, and a more fluid social fabric within the community, potentially impacting various aspects of local life, including political participation. By contrast, the more commonly used *net migration* measure – which quantifies the difference between in-migration and out-migration – primarily reflects the degree of population growth or decline due to migration and is not expected to influence social cohesion or voter turnout.<sup>2</sup>

In Figure 1, we provide a breakdown of two key mechanisms through which migration turnover is expected to influence turnout. For clarity, we categorize these mechanisms by the type of movement – in-migration and out-migration – and by the type of impact. This distinction separates effects that function through the ‘transaction costs’ mechanism from those that operate via the ‘social costs’ channel. Furthermore, we specify whether these migratory flows affect the registered voters (RV) population and/or the voting-eligible population (VEP).

The *transaction costs* associated with migration refer to the increased difficulties migrants face when voting (Squire, Wolfinger and Glass 1987). Moving to a different jurisdiction raises these costs by requiring individuals to navigate bureaucratic procedures to transfer their legal residence or by demanding longer journeys to vote in their original place of residence. At the aggregate level, in-migration tends to increase the number of local residents who are eligible to vote but not registered, thus enlarging the local voting-eligible population (VEP) but not immediately affecting the number of registered voters (RV). Conversely, out-migration leads to an increase in voters who, although still registered in a particular locality, now reside elsewhere and are thus less likely

<sup>2</sup>Net migration is more commonly adopted because it can be derived from standard demographic indicators such as birth and death rates, eliminating the need to collect migration statistics.

to participate in elections. These individuals continue to be counted as registered voters but are excluded from the VEP.

*Social costs* refer to the ways in which migration impacts voter turnout by disrupting social cohesion and altering perceptions of social norms related to political participation. Migration can weaken social cohesion by diminishing generalized interpersonal trust (Baldassarri and Abascal 2020), a key factor in fostering civic duty and political engagement (Dowding, John and Rubenson 2012). This erosion reduces community members' responsiveness to social rewards and sanctions (Hansen 2016), thereby limiting the community's ability to exert social pressure – an important driver of political participation (for example, Gerber, Green and Larimer 2008, 2010; Panagopoulos 2010). In addition to affecting cohesion, migration alters perceptions of overall levels of political engagement, shifting descriptive norms of participation. Scholars have shown that individuals tend to align their behaviour with what they believe others are doing (Cialdini and Goldstein 2004; Gerber and Rogers 2009; Goldstein and Cialdini 2011). Therefore, if migrants appear less engaged in civic duties, it can reduce others' motivation to vote. As Fowler's (2005) 'turnout cascades' model illustrates, even small correlations in behaviour among acquaintances can trigger chain reactions that result in substantial aggregate changes in turnout. In short, the combined effects of migration-driven changes in social cohesion and descriptive norms can lead to a substantial decrease in voter participation. In Appendix B, we provide a more detailed discussion of how these mechanisms operate in the contexts of both out-migration and in-migration.

Certainly, under specific conditions, migration has the potential to increase local turnout by altering the composition of the population or mobilizing non-migrants. For instance, previous research has shown that out-migration can enhance voter participation in origin communities when accompanied by economic or political remittances (Gori Maia and Lu 2021; Kapur 2014; Pérez-Armendáriz and Crow 2010). However, these positive effects are not systematic; they arise only when migrants possess certain demographic characteristics or when specific political conditions prevail in origin and destination areas. Furthermore, even when these conditions are favourable, transaction and social costs often prevent their benefits from materializing in the short term (for a detailed discussion, see Appendix B, Section 2). By contrast, the obstacles to participation arising from the increased transaction and social costs of migration are more pervasive and consistent. These challenges erode citizens' ability and motivation to vote, regardless of the migrants' profiles or the specific attributes of the local communities involved.

Finally, it is important to note that the denominator selected for calculating turnout rates significantly influences the dynamics we observe (Wigginton, Stockemer and Schouwen 2020). Variations in the turnout-to-registered voter's ratio (turnout/RV) reveal both the social and transaction costs linked to out-migration, while the turnout-to-voting-eligible population ratio (turnout/VEP) predominantly reflects social costs. Conversely, when considering in-migration, the turnout/RV ratio specifically reflects the social costs associated with in-migration, whereas the turnout/VEP ratio captures both its social and transaction costs.

### Examining Migration Turnover and Turnout in Brazil

Brazil, a vast decentralized nation, is characterized by significant domestic migration, low levels of social cohesion (for example, Kustov and Pardelli 2024), and the world's largest electorate governed by compulsory voting (Power 2009). Despite these national characteristics, there is considerable local variation in voter turnout and migration across the country (Bell et al. 2015; Dassonneville et al. 2023) (see Figures A1 and A2).

Internal migration patterns in Brazil have undergone significant shifts over the past two decades. São Paulo exemplifies the complexity of recent trends. After serving as the primary destination for internal migration for over half a century, São Paulo is now experiencing significant migratory losses to states in the Midwest, South, and North, while also resuming population retention from several Northeastern states, albeit at lower levels than before.

Consequently, the state has become an area characterized by high migratory turnover. Like São Paulo, other localities can no longer be categorized solely as ‘migratory retention’ or ‘migratory loss’ areas due to the increasing frequency of population turnover (Baeninger 2012). Overall, the increased mobility of the Brazilian population in recent decades has led to the proliferation of regions characterized by increased back-and-forth movements with shorter duration and distances (Baeninger 2012; Carvalho and Charles-Edwards 2019).

An important question concerns how these shifts in internal migration affect voter participation across the country. Under the Brazilian Constitution, voting is mandatory for literate citizens aged 18–70, while it remains optional for young people aged 16–17, individuals over 70, and illiterate citizens. If a registered voter fails to cast a ballot and does not provide a valid justification within sixty days after the election, they are subject to a fine typically ranging from 3 per cent to 10 per cent of the minimum wage. Non-compliant voters who fail to participate, justify their absence, or pay the fine are subject to additional administrative penalties. These include restrictions on obtaining essential documents, receiving public salaries or benefits, accessing loans, and enrolling in public job examinations.

Given this legal framework, one might expect migration turnover to have little impact on overall voter turnout. However, this is not necessarily the case. Voter abstention rates are significant, with an average of 21 per cent of eligible voters abstaining in recent decades. Despite standardized voting regulations throughout the country, turnout displays substantial geographic disparities, ranging from 65 per cent in some municipalities in Minas Gerais to 98 per cent in Rio Grande do Sul. Figure A1 provides a visual representation of the average turnout rates across *municípios* from 2000 to 2010. Municipalities in the south generally exhibit the highest turnout rates, while some of the lowest are observed in the Midwest and Northern regions.

One contributing factor to the elevated voter abstention rates in Brazil is the requirement for voters to cast their ballots in their designated electoral districts. This poses a challenge for migrants, who may find themselves far from their registered voting locations. If voters are outside their designated district during an election, they must either provide a valid justification for their absence or face penalties. Although transferring registration to a new electoral district is an option, the bureaucratic hurdles involved may deter many from undertaking this process soon after relocating.<sup>3</sup>

## Data and Empirical Strategy

To test our argument, we utilize an original dataset encompassing all 5,565 Brazilian municipalities as identified in the 2010 census. We analyze migration using both *flow* and *stock* measures. Flow measures capture the number or proportion of individuals migrating within a relatively short timeframe, typically one year, offering insights into rapid changes in migration dynamics. By contrast, stock measures aggregate the total number or proportion of migrants over a longer period – such as the five-year intervals recorded by the Census – providing a more comprehensive view of long-term, stable migration patterns.<sup>4</sup> Our primary dependent variable, voter turnout rate, is quantified as a percentage of locally registered voters (RV) (see, for example, Martínez i Coma and Leiva Van De Maele 2023). However, to address the nuances previously mentioned, we also conduct analyses using turnout as a percentage of the local voting-eligible population (VEP) and in log counts.

<sup>3</sup>During the period of our study, voters were required to visit the nearest electoral office in person to change their electoral domicile, bringing a set of required documents. They needed to have lived in the new municipality for at least three months, and at least one year had to have passed since their initial registration or last transfer. Furthermore, polling location updates had to be completed at least 150 days before the election.

<sup>4</sup>Beyond these periods, individuals are no longer classified as migrants. This approach reflects the expectation that the transaction costs of migration and the disruptive effects of population mobility on social ties gradually subside over time.

We begin our empirical investigation by examining the cross-sectional relationship between different types of migration and voter turnout, controlling for potential confounders (Frank and Martínez i Coma 2023). We then extend our analysis to panel data and spatial models. Following this, we use survey data to explore the association between local migratory turnover, migration status, and voting behaviour at the individual level. Finally, we assess the association between migratory turnover and social cohesion across municipalities.

All models control for a range of variables, including (the log of) total population, voting-age residents, population above the age of 16, registered voters, as well as the average per capita income, poverty levels, income Gini coefficient, urban population, and the proportion of the population with higher education. Geographic variables such as latitude, longitude, distance from the state capital, and distance from the coast are also included. For analytical robustness, cross-sectional models incorporate state fixed effects, while two-way fixed effects models adjust for both municipality and year fixed effects. For a detailed description of the data and models, see the Appendix.

## Analysis and Results

### Cross-Sectional Analysis

In Table 1 we present our cross-sectional analysis results. The dependent variable is defined as the average voter turnout during the first round of all elections between 2000 and 2010. The migration variables are calculated as average stock shares from the 2000 and 2010 census data.<sup>5</sup> Across all models, both in-migration and out-migration are consistently associated with decreased voter turnout. Notably, separate analysis of out-migration and in-migration leads to overestimated negative coefficients, as shown in models 1 and 2 compared to model 3. Turnover always shows a strongly negative association with turnout, with a coefficient larger than that of in-migration and out-migration individually but smaller than their combined sum. These effects are substantively significant. In a typical scenario, a one SD increase in average out-migration (4 per cent) or in-migration (5 per cent) stock rates is linked to a decrease of approximately 0.9 or 0.7 percentage points (0.2 SD) in average turnout rates. Comparing locations with no migration to those with the highest turnover reveals a 14 to 18 percentage point drop in voter turnout. Notably, the commonly used net migration variable does not consistently correlate with voter turnout rates. In Appendix Tables A1 and A2, we present results using average turnout for local and national elections separately. Table A3 replicates the cross-sectional analysis for the years 2000 and 2010. The results remain consistent across all specifications.

### Panel Data Analysis

Although our cross-sectional analysis considers several potential confounders, unobserved contextual factors might still bias the results. To mitigate this concern, we use two-way fixed effects models that account for potential endogeneity stemming from time-invariant omitted variables. We incorporate both stock and flow measures of migration in these models (for details, see Appendix A). Table 1 displays results using flow measures of migration, and Table A4 in the Appendix uses stock measures. The magnitudes of our coefficients are similar to those observed in the cross-sectional analysis, and our substantive findings remain consistent.<sup>6</sup>

<sup>5</sup>The 2022 census migration data has not yet been released.

<sup>6</sup>In Table A5, we interact each migration variable with a local election indicator to assess heterogeneous effects. The results suggest that turnout is generally higher in local elections, and the negative association between migration and turnout is stronger in national elections.

**Table 1.** The Relationship Between Migration Shares and Turnout Rates Across Space and Time

	Cross-Sectional Analysis					Panel Analysis				
	Migration Stock Measure					Migration Flow Measure				
	Average Turnout Rate (2000-2010)					Biennial Turnout Rate (2002-2010)				
	(1)	(2)	(3)	(4)	(5)	(1)	(2)	(3)	(4)	(5)
Out-migration	-0.902*** (0.176)		-0.828*** (0.193)			-0.498*** (0.063)		-0.474*** (0.058)		
In-migration		-0.781*** (0.185)	-0.683*** (0.191)				-0.261*** (0.091)	-0.203** (0.086)		
Migration Turnover				-1.183*** (0.119)					-0.535*** (0.096)	
Net Migration					-0.028 (0.233)					0.138** (0.054)
Unit FE	State	State	State	State	State	Municipal	Municipal	Municipal	Municipal	Municipal
Year FE	N/A	N/A	N/A	N/A	N/A	Yes	Yes	Yes	Yes	Yes
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	5,559	5,559	5,559	5,559	5,559	27,389	27,541	27,374	27,374	27,374
Adjusted R <sup>2</sup>	0.590	0.585	0.599	0.598	0.573	0.737	0.736	0.737	0.737	0.735

Notes: The left panel displays results from cross-sectional OLS regressions using stock measures of migration averaged over the period 2000–2010. By contrast, the right panel presents findings from two-way fixed effects models, employing migration flow measures from 2002 to 2010, with outcomes assessed biennially. Robust standard errors are clustered at the state level for the left panel and at the municipality level for the right panel. \*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001.



## Robustness Checks

To ensure the robustness of our findings, we conducted a series of additional tests. A key limitation of earlier analyses is the assumption that each geographic unit operates independently, overlooking the possibility that voting patterns in one municipality may influence neighbouring ones. To differentiate the effects of migratory turnover from potential spatial spillover effects, we draw on insights from previous research on voting behaviour (Gori Maia and Lu 2021) and employ spatial models (see Table A6).

Additionally, we assess the robustness of our panel specifications through several alternative approaches. First, we explore different operationalizations of both migration and turnout. In Table A7, turnout is measured as a proportion of registered voters (RV) and as a proportion of the voting-eligible population (VEP). In Table A8, we employ the log count of both turnout and migration variables rather than using their respective shares. Next, we assess the reproducibility of our findings using alternative units of analysis (see Table A9). Additionally, to address recent critiques that have raised concerns about the interpretability of TWFE models (Kropko and Kubinec 2020), we present separate results for municipality- and time-fixed effects models, which examine how within-unit and across-unit variation in migration affect voter turnout (see Tables A10 and A11). Lastly, following Lipcean and McMenamin (2024), we employ a within-between random effects (WBRE) model, often described as 'hybrid' since it combines features of more traditional fixed and random effects approaches (Table A12).

## Additional Empirical Tests

### *Mechanism*

We also investigate the hypothesis that the negative relationship between migration and voter turnout can be attributed to the disruption of local social cohesion. Cross-sectional evidence presented in Table A13 suggests that municipalities experiencing higher migratory turnover, in-migration, and out-migration tend to show reduced levels of social cohesion.

### *Individual-level Survey Evidence*

Using consolidated survey data from LAPOP (2008–2019), we explore the relationship between voting behaviour, migration status, and the level of population mobility in the respondents' municipalities. Our findings, presented in Table A14, corroborate the idea that non-migrants are more likely to vote. Furthermore, the results indicate that individuals in municipalities with high migratory turnover are less likely to vote, even after controlling for the respondents' own migration status.

## Discussion

Understanding the influence of migration on political participation is crucial as it influences not only the behaviour of migrants but also that of those who stay behind, transforming the political dynamics of both origin and destination communities. These changes can ripple outward, extending their influence beyond local contexts and potentially reshaping national political outcomes. Our study builds on existing research by showing that in-migration, out-migration, and local migratory turnover are consistently associated with lower voter participation among both migrants and non-migrants. We explain these patterns through the lens of transaction and social costs, highlighting the challenges migration imposes on political engagement. While our primary focus is on the overall relationship between population mobility and voter turnout, we recognize that the effects may vary across communities. Heterogeneous outcomes may emerge due to factors such as differences in migrants' demographic profiles or variations in the political contexts of origin and destination areas. Nonetheless, as detailed in Appendix B, Section 2, while migrant

characteristics may influence the degree of migration's negative effects on turnout – either amplifying or mitigating them – they are unlikely to reverse these effects, particularly in the short term.

A key limitation of our study is the challenge of establishing the causal effects of migration on political outcomes, as population movements are likely endogenous to other time-varying factors affecting municipalities. Despite this, the consistency of our results across various measures of electoral turnout and different empirical approaches strongly supports the argument that population mobility can undermine democratic development in both sending and receiving areas, particularly when these flows coincide, intensifying local residential instability. Furthermore, the absence of individual-level longitudinal data in Brazil constrains our ability to track changes in individual behaviour or determine how long the effects of migration persist. Additionally, our dataset does not allow us to examine the impact of migration on informal political participation, which can differ significantly from formal voting behaviour (Lueders 2023).

Future research should explore how institutional factors influence the relationship between migration turnover and voter turnout. For instance, mechanisms that lower barriers to voter re-registration can help alleviate *transaction costs*, while initiatives that foster interpersonal trust and strengthen participatory norms can mitigate the *social costs* of migration, even when transaction costs remain high. Examining these scope conditions, along with the moderating influence of factors such as migrant and community characteristics, is essential for clarifying the short- and long-term effects of migration on political participation across diverse contexts.

From a policy perspective, our findings highlight a potential conflict between promoting voter turnout and encouraging migratory movements. Recognizing the role of migration in stimulating development and its value for human freedom as a form of 'voting with one's feet' (Somin 2020), governments face strong incentives to resolve this conflict. One strategy could involve reducing the direct costs of voting and improving access to information about local candidates (for a review, see Blais and Daoust 2020). However, addressing the broader social costs associated with increased population mobility may prove more challenging, requiring innovative mechanisms to reinforce social norms related to civic duty, even without strong social ties. In summary, our research contributes to a deeper understanding of the relationship between migration and political participation, and it underscores the challenges that increasingly mobile populations pose to effective democratic engagement (Knight and Zhang 2024).

**Supplementary material.** The supplementary material for this article can be found at <https://doi.org/10.1017/S000712342500002X>.

**Data availability statement.** Replication data for this article can be found in Harvard Dataverse at: <https://doi.org/10.7910/DVN/RBXL10>.

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