Family Connections, Nepotism, and Political Bargaining

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Abstract

This paper studies nepotism as both a form of favoritism and a tool for political bargaining. We focus on Brazilian municipalities, leveraging rich population data that link family ties, electoral candidates, and employment records. Using a regression discontinuity design based on close elections, we show that the relatives of narrowly elected mayors and councilors experience sizable labor market premiums. Relatives of mayors are 16 percent more likely to secure public employment relative to the control group mean, while relatives of councilors are 9 percent more likely. These effects are concentrated in public jobs, fade once the political term ends, and are strongest for less educated relatives, consistent with favoritism rather than improved screening. We then provide evidence that nepotism operates as a bargaining device: mayors appoint the relatives of councilors, including those in the opposition, with the effects strongest when the mayor lacks a majority in the municipal council. Exploiting a second regression discontinuity design at the municipality level, we show that the premium for opposition councilors' relatives increases when the opposition narrowly secures an additional seat, reinforcing the interpretation that appointments serve as political currency. Finally, we provide suggestive evidence that stricter regulation can help curb these nepotistic appointments.

JEL codes: D72, D73, J45, O17.

Keywords: Nepotism, Favoritism, Patronage, Political Appointments, Close Elections, Political Bargaining.

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1 Introduction

Family, social, and political connections are among the most important channels through which individuals access economic opportunities (Wang, 2013; Cingano and Pinotti, 2013; Gagliarducci and Manacorda, 2020; Colonnelli, Prem and Teso, 2020). From hiring decisions in the private sector to appointments in government, kinship ties often determine who benefits from scarce positions of influence. When these connections take the form of nepotism in the public sector, they distort the allocation of jobs, undermine merit-based recruitment, and weaken the capacity of the state (Xu et al., 2023). In principle, legislative bodies are designed to provide a check on executive power and could act as a constraint on such practices (Poulsen and Varjao, 2019; Britto and Fiorin, 2020). Yet in practice they can also become sources of rents, as legislators trade their political support in exchange for favors. A central currency in this exchange is public employment: because mayors hold discretionary control over a wide range of local jobs, appointing a councilor's relatives provides a credible and reversible way to secure loyalty. This raises the possibility that nepotism is not simply a private transfer of rents within families, but part of a broader political equilibrium in which public employment is used to build and sustain legislative coalitions. Understanding whether and how nepotism operates through this bargaining channel is therefore key to assessing the functioning of political institutions and the allocation of public resources in democracies.

In this paper, we leverage unique population data from Brazil on family composition, employment, and electoral outcomes to study nepotism in the public sector, focusing on close elections of mayors and municipal councilors. Using data from the Brazilian Tax Authority, we identify relatives up to the third degree for 1.1 million candidates by exact matching based on their unique tax identification number (CPF) and tax declarations of dependents. This results in a pool of 12 million relatives whose employment outcomes we track over approximately ten years. Beyond the availability of this unique data ecosystem, Brazil offers a particularly interesting case for study, first because of the size of municipal governments, which collectively account for 6.5% of the country's GDP, and second because of the high level of discretion mayors have in appointing individuals to public jobs. This setting provides a unique opportunity to better understand the mechanisms through which political connections influence labor market outcomes.

Using this data, we start by examining whether holding public office enables politicians to influence the employment trajectories of their family members. Our results show that relatives of politicians who narrowly won elections exhibit significantly higher employment outcomes compared to the relatives of narrowly defeated candidates. In particular, we find an income premium of about 34% for relatives of mayors and 11% for relatives of councilors,

alongside an increase in the probability of securing a public job of 16% relative to the control group mean for mayoral relatives and 9% for councilor relatives. These effects are smaller than those found by Colonnelli, Prem and Teso (2020), who, using Brazilian data, estimate a 47% premium in the probability of obtaining a public job for supporters of winning mayors, such as donors and co-partisans. The difference highlights that while family connections matter substantially, the returns to political support in general can be even larger. Moreover, contrary to previous studies from developed countries (Folke, Persson and Rickne, 2017; Gagliarducci and Manacorda, 2020), we show that these gains are driven entirely by employment in the public sector, where politicians have greater discretion over appointments.

One key question is whether the advantages we document for politicians' relatives reflect superior screening of family members' abilities or simple favoritism. Our evidence points clearly to the latter. Placebo tests show that the labor market premium is only statistically different from zero during the period in which the relative holds office, reinforcing that relatives of winners and losers follow very similar trends in employment outcomes before the election. The fact that the effect vanishes once the term ends is inconsistent with a screening story, which would predict persistent gains. Moreover, the largest benefits accrue to less educated relatives, who are unlikely to be selected on the basis of unobserved talent. Taken together, these results suggest that nepotistic appointments are best interpreted as favoritism rather than improved screening.

The evidence also points to political bargaining as a central mechanism behind these effects. We show that the gains for councilors' relatives originate from jobs appointed by mayors, indicating that councilors themselves do not directly control the positions from which their families benefit. Strikingly, relatives of opposition councilors enjoy premiums comparable to those of councilors aligned with the mayor, suggesting that jobs are allocated not merely as rewards but as a means of buying legislative support. Consistent with this interpretation, heterogeneity analysis reveals that the premium arises almost entirely in municipalities where the mayor lacks a majority in the council. To further strengthen this evidence, we implement a separate regression discontinuity design at the municipality level, exploiting close seat allocations in proportional representation. This design compares councils where the opposition barely gains or loses the last seat and shows that the labor market premium for opposition councilors' relatives increases precisely when the opposition secures an extra seat, providing causal evidence that nepotistic appointments are used as a bargaining currency in local politics. This pattern suggests that officeholders deploy patronage strategically, using family ties not only to reward loyalty but also to consolidate political alliances and secure legislative support when their governing majority is fragile.

Finally, we examine whether institutional reforms can curb nepotistic practices by com-

paring our RD estimates before and after the 2008 Supreme Court decision that prohibited nepotistic appointments in public administration. For relatives of both mayors and councilors, the labor market premium in public employment was sizable in the pre-reform period but declined sharply in its immediate aftermath, disappearing in the 2008 and 2012 elections. In later years, however, the effects partially reemerged, suggesting that politicians adapted their strategies, for example by channeling benefits to more distant relatives who are harder to detect under standard monitoring. These results indicate that formal rules can substantially reduce nepotism, but their long-term effectiveness depends on sustained enforcement and strong oversight mechanisms.

This paper contributes to several branches of the political economy literature. First, it relates to studies that specifically examine the income premium associated with having a relative in public office, such as Folke, Persson and Rickne (2017), Fafchamps and Labonne (2017), Szakonyi et al. (2019), and Gagliarducci and Manacorda (2020). These papers focus on different countries, such as Sweden, Indonesia, Russia, and Italy, where distinct institutional contexts and incentive structures prevail. Our contribution to this literature is twofold. First, we innovate by leveraging detailed official data on family links, avoiding the need to rely on imperfect surname matching and enabling the identification of relatives up to the third degree. Second, while most of the existing literature finds either no income premium for the relatives of politicians or a premium arising from private sector employment, we show that nepotism can also arise through public sector appointments, particularly in institutional environments where political incentives are stronger. Our findings highlight how institutional settings can shape the use of nepotistic or kinship-based hiring as a tool for political bargaining.

Related to our study is the growing literature on the value of political connections (Fisman, 2001). This research consistently shows that politically connected firms outperform non-connected firms across several dimensions. Connected firms enjoy preferential access to credit (Khwaja and Mian, 2005; Claessens, Feijen and Laeven, 2008), experience faster revenue growth and higher profitability (Cingano and Pinotti, 2013), and obtain abnormal stock market returns around political events (Johnson and Mitton, 2003; Faccio, 2006; Ferguson and Voth, 2008). We contribute to this literature by shifting the focus from firms to individuals, showing how political connections through family and personal ties shape access to economic opportunities, and by studying both the mechanisms through which these advantages arise.

Our study is also related to papers that focus on selection into public sector jobs (Dal Bó, Finan and Rossi, 2013; Mangal, 2024; Dahis, Schiavon and Scot, 2025) and on career and promotion prospects within the public sector (Riaño, 2021). Particularly relevant to our ap-

proach is Colonnelli, Prem and Teso (2020), who study how political connections, such as being affiliated with the same party or donating money to mayors, affect public sector employment in Brazil. We contribute to this literature by focusing on family ties and blood relationships, which represent a deeper and often more durable layer of connections compared to purely political alliances. Understanding the role of blood ties is important because such relationships may generate stronger loyalty, lower monitoring costs, and higher incentives for politicians to bypass meritocratic rules, thereby offering a more persistent form of favoritism within the public sector.

The remainder of the paper is organized as follows. Section 2 provides the institutional background, describing municipal election rules, the allocation of public jobs in Brazil, and the evolution of anti-nepotism legislation. Section 3 introduces the datasets and explains how we construct family links. Section 4 outlines the empirical strategy and discusses potential threats to identification. Section 5 presents the main evidence on the existence of nepotism in the public sector. Section 6 examines the political incentives and mechanisms that drive these patterns. Section 7 explores the causal effects of an additional opposition seat on nepotistic appointments. Section 8 evaluates the impact of the Supreme Court's anti-nepotism ruling. Section 9 concludes.

2 Institutional Context

2.1 Municipal Elections in Brazil

In Brazil, municipal budgets account for 6.5% of Brazil's GDP. Voters elect 58,000 councilors and 5,570 mayors every 4 years. Mayoral elections follow a two-round system. In cities with more than 200,000 voters, candidates must secure over 50% of the valid votes in the first round to be elected. If no candidate achieves this majority, a second round is held between the two candidates with the highest vote counts. In smaller cities, a simple majority in the first round suffices for a candidate to win. Mayoral terms last four years, with the possibility of one consecutive re-election. The primary responsibilities of mayors include managing the city's administration and budget, implementing policies, and overseeing public services and local infrastructure. Additionally, mayors have considerable discretion over public employment, particularly in appointing commissioned positions and creating temporary jobs.

City councilors (vereadores) in Brazil are elected through an open-list proportional representation system and constitute the municipal legislative power; their elections are held on the same day as mayoral contests. The number of seats a party or coalition receives is based on the proportion of votes its candidates obtain in the municipal election. Within each party or coalition, candidates are ranked according to their individual vote counts, determining

who occupies the available seats. Councilor terms serve four-year terms, with no limit on re-election. Their core duties are to draft, amend, and approve local legislation and budget, as well as oversee the mayor's administration and ensure the proper management of public funds. Additionally, the position of councilor is considered part-time, allowing elected officials to maintain other employment while in office.

2.2 Jobs in the Public Sector and Nepotism Legislation

Jobs in the public sector at the municipal level in Brazil can be broadly categorized into two types: stable career positions and commissioned positions. Stable career positions are filled through competitive public examinations (*concursos públicos*), where candidates are selected based on standardized written exams, and curriculum analysis (Dahis, Schiavon and Scot, 2025). These jobs provide long-term stability and legal protections, including tenure after a probationary period, and are typically found in essential services such as education, health, and public administration. Commissioned positions, in contrast, are discretionary appointments made by elected officials, usually for leadership or advisory roles. These positions do not require a competitive examination, and individuals may be appointed or removed at the discretion of the mayor or other high-ranking officials. In 2017, municipal governments employed 11.4 million people. 73% are career civil servants. As mentioned early, mayors have more discretion over the hiring of those in senior positions (8%) and temporary jobs (18%).

Before 2008, there was no comprehensive national legal framework explicitly prohibiting nepotism in Brazil's public administration, particularly at the municipal level. Although there were some existing regulations, they mainly focused on public servants at the federal level. For instance, while the 1988 Constitution established key principles for public administration, such as legality, impersonality, and morality, these were not explicitly interpreted as prohibiting nepotism at the municipal level. As a result, the regulation of nepotistic practices was largely left to local governments, leading to widespread discretion in appointments, especially in commissioned and temporary roles.[1] Public officials, including mayors and councilors, often had significant freedom to appoint relatives to key positions without adhering to competitive selection processes.

Although some municipalities had their own rules or ethical codes addressing nepotism, enforcement was inconsistent, and the practice remained prevalent across many levels of government. It was not until the issuance of *Súmula Vinculante No. 13* by the Brazilian Supreme Court in 2008 that a clear and binding national standard was established, particularly for municipal administrations. The ruling prevented the appointment of close relatives (up to

[1] Add anecdotal examples for Brazil

the third degree) of a public official or authority to positions of trust or leadership within public administration at federal, state, or municipal levels.

3 Data

3.1 Electoral Data

Our primary source of electoral data is the Brazilian Electoral Court (TSE). The TSE microdata provide comprehensive information on all candidates and their electoral performance, including the number of votes received, the municipality of candidacy, party affiliation, coalition membership, and whether the candidate ran for mayor or councilor. We use data from all municipal elections between 2004 and 2016, covering the universe of Brazilian municipalities. In addition, the dataset contains rich demographic information on each candidate, including their full name, unique tax identification number (CPF), gender, and self-declared race/ethnicity. For our analysis, we restrict the sample to candidates competing in close elections.

3.2 Family Composition Data

Our goal is to identify relatives of each candidate in the pool of municipal elections from 2004 to 2016. To do so, we rely on administrative data from the Brazilian Tax Authority (Receita Federal do Brasil). This information comes from two main sources. The first is the Person's Registry, which covers the universe of Brazilian population, known as Cadastro de Pessoas Físicas (CPF). The CPF is a unique individual identification code assigned to all residents and many non-residents, regardless of whether they are taxpayers. It is mandatory for a wide range of activities, such as opening a bank account, enrolling in school, or accessing public services, and is therefore nearly universal. Each CPF record also includes the full name of the individual and the full name of their mother, which provides a critical link for family matching.

The second source is the personal income tax registry of dependents, where taxpayers must report their dependents' CPFs and full names. This information allows us to capture additional family connections beyond those identified in the civil registry, such as spouses and children. In Brazil, only individuals meeting certain conditions are required to file an income tax return. For example, in 2023 filing was mandatory for taxpayers who earned more than R$ 28,559.70 in taxable income, received over R$ 40,000 in non-taxable or exclusively taxed income, realized capital gains, or conducted operations in the stock market. Filing was also required for those with rural income above R$ 142,798.50, property valued at more

than R$ 300,000, or who became residents of Brazil during the year. Importantly, taxpayers have strong incentives to declare their dependents. Each dependent reduces taxable income through a fixed deduction (R$ 2,275.08 per dependent in the 2024 declaration), and additional expenses related to dependents, such as education and health, are also deductible. These benefits make it advantageous for taxpayers to officially register spouses and children, increasing the reliability of family linkages in the tax records.

Individual taxpayer records tend to underrepresent the lower end of the income distribution, since only citizens earning above a certain threshold are required to file income tax returns. To address this limitation, we complement the tax-based approach with data from the Cadastro Único para Programas Sociais (CadÚnico), the federal registry of households applying for social assistance. CadÚnico waves provide rich information on all household members, including their CPF number, date of birth, sex, education, address, and income profile. Crucially, they also record the full names of both the mother and the father, which enables us to establish family links that are not captured in taxpayer records. Given its comprehensive coverage of low-income families, particularly beneficiaries of the Bolsa Família program, CadÚnico allows us to extend our identification of family ties to populations that are largely absent from income tax data

3.3 Labor Market Data

Data on the labor market are derived from the Annual Social Information List (RAIS), which consists of a set of microdata, with an annual frequency, with restricted access, relating employers and employees, covering the universe of workers and formal firms in Brazil to the period 2002-2019. This dataset is based on socioeconomic information requested by the Brazilian Ministry of Labor from legal entities and other employers annually. RAIS data are organized by employment relationship level, defined as each combination between an employee and an employer/firm for each year, containing all employments declared active and non-active on 12/31 of each year. The information provided by the RAIS database represents the universe of the formal labor market in Brazil, providing, for each employment relationship, detailed information about each employment contract, including, among other things, the CPF of each individual (employer and employee), the type of contract, the start and end dates of each contract, contractual working hours, type of occupation, sex, race, age group, average monthly income, level of education, establishment size, region, and economic sector, among others.

It is important for our analysis to distinguish between jobs in the public and private sectors. Fortunately, the RAIS data provide detailed information across various dimensions of employment sectors. Each job is coded according to the Brazilian Classification of Occupa-

tions (Classificação Brasileira de Ocupações, hereafter CBO), which enables us to differentiate not only between public and private employment but also to identify whether public sector jobs are at the state or municipal level. As a result, we were able to construct a panel dataset of politicians' relatives, tracking their employment status, age, and job type.

3.4 Matching Candidates, Relatives and Labor Market Outcomes

Our algorithm for identifying relatives of political candidates is straightforward. We begin with the pool of candidate CPFs. Using the Person's Registry, we link candidates to their mothers through mother–child records. We then link candidates to their fathers using taxpayer dependency records. Once fathers are identified, we recover siblings by tracing back through the mother–child links in the Person's Registry. Next, we use the Receita's taxpayer dependency registry to identify candidates' spouses. Finally, we assume that both candidates and their spouses are recorded as parents, which allows us to identify their children in the Person's Registry. Than we look to dependents dataset, assuming children as declarants to find the spouses of candidates children. To identify in laws, we look for the parents of candidates spouses on Persons Registry.

Having identified parents, siblings, spouses, in-laws, children, and children's spouses, the second step of the algorithm expands the network further. We identify grandparents by tracing one additional generation upward from candidates' parents. Aunts and uncles are then obtained by locating the siblings of parents. Spouses of these aunts and uncles are identified using the dependency records in the same way as for candidates. Finally, we link these extended family members back to the Person's Registry to identify their children, who are classified as nephews, nieces, and cousins of the candidate. Overall, our algorithm recovers kinship ties up to the fourth degree, including parents, grandparents, siblings, children, spouses, children's spouses, in-laws (spouses' parents), aunts and uncles, spouses of aunts and uncles, nephews and nieces, and cousins. Finally, we apply a filter to resolve overlapping links: when an individual is connected to more than one candidate, we retain only the closest kinship tie, ensuring that each individual is linked to a single candidate. Such cases are rare, occurring in only about 1% of observations.

The final step in constructing our baseline sample is to identify each of these relatives in the RAIS data. The matching process is straightforward, as we have the CPFs of each individual in both the pool of relatives and the employer-employee database. The RAIS dataset has a census-like nature, covering all individuals in the formal labor market. Therefore, an individual who does not appear in RAIS in a given year has no formal employment during that year. We then track formal employment outcomes for each individual in our pool of candidates' relatives. Importantly, we only track outcomes for relatives that have between 18 to 55

years old. Our primary measures of employment are the probability of holding a public job in that year and the total yearly income from public jobs recorded in RAIS. Additionally, we calculate the total income from private employment, constructing a yearly individual-level panel.

4 Empirical Strategy

Our identification strategy leverages close elections of councilors and mayors at the municipal level within a regression discontinuity design (RDD) framework. This approach addresses concerns that individuals connected to politicians may differ systematically in unobserved characteristics (Besley, 2005; Dal Bó et al., 2017). By focusing on close elections, we exploit quasi-random variation in the likelihood of having a relative elected as a mayor or councilor. Our main specification is described in Equation 1.

$$y_{icmtk} = \beta Win_{ck} + \theta_k MV_{ck} + \Theta MV_c \times Win_{ck} + \gamma_{mtk} + \epsilon_{cmk} \tag{1}$$

We analyze the employment outcomes of individuals who are relatives of candidates involved in close elections. Specifically, y_{icmtk} represents an employment outcome for relative i of candidate c in municipality m, year t, during electoral term k. The variable Win_i is a binary indicator equal to one if the candidate was elected. The coefficient β captures the local average treatment effect (LATE) of winning an election on the incomes of relatives. In the analysis for mayors, MV_{ct} represents the margin of votes for candidate c in electoral term k. This margin is straightforwardly calculated as the difference in the share of valid votes between the winner and the second-place loser in elections decided in the first round.[2] Consequently, our analysis compares the relatives of mayors who narrowly won to the relatives of mayors who narrowly lost the election. We follow Colonnelli, Prem and Teso (2020) and define a mayoral election to be close if the margin of victory was lower or equal to 5% of total valid votes. Our sample comprises a 4,372 electoral races across 3,254 municipalities, where we compare 6,491 candidates and track 61,499 family members.

As detailed in Section 2, Brazil employs an open-list proportional representation (OLPR) system for councilor elections. In this system, the number of individual votes is decisive only within party or coalition lists. Consequently, the calculation of MV for councilor candidates differs slightly from that for mayors. Specifically, the margin MV_{clk} is calculated within each

[2] In Brazil, municipal elections for mayors (**prefeitos**) follow a two-round system. A second round is held only if no candidate secures more than 50% of valid votes in the first round. This rule applies exclusively to municipalities with over 200,000 registered voters. In smaller municipalities, the candidate with the most votes in the first round is declared the winner, regardless of the percentage obtained.

list l as the difference between the share of valid votes received by the least-voted elected candidate c in list l and the most-voted unelected candidate in the same list. This methodology follows the approach of Novaes (2024) and Boas, Hidalgo and Richardson (2014). It is important to note that this approach restricts the analysis to parties or coalitions that secured at least one seat. Thus, our analysis compares the relatives of councilors from the same party or coalition who narrowly won or narrowly lost a seat in the city chamber. We follow Novaes (2024) and define a councilor election as close when the margin of victory was lower or equal to 1% of total votes. This criterion yields 52,897 contests across 5,567 municipalities, in which we compare 204,657 candidates and track 1,978,215 family members.

Additionally, given that we have access to the employment outcomes of candidates' relatives over multiple years, we complemented our analysis with a dynamic event study-like specification, as described in Equation 2:

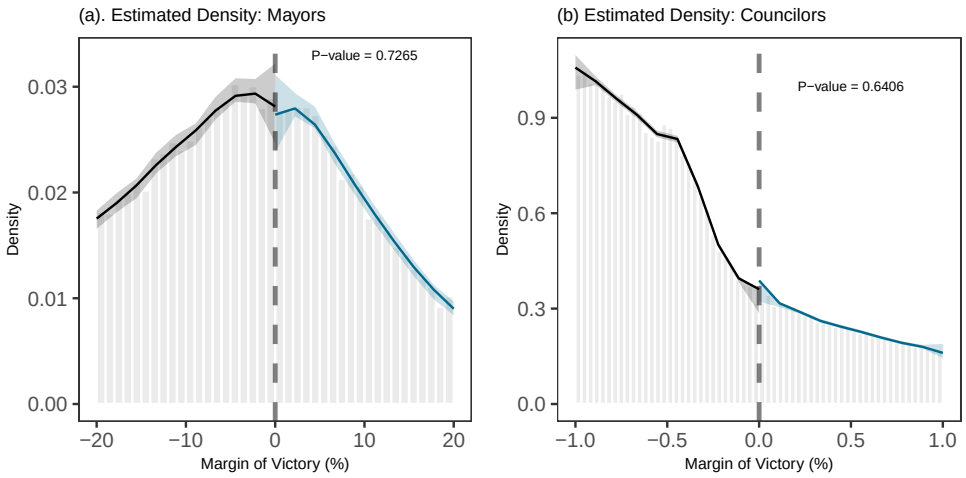
$$y_{icmtk} = \sum_{q=-3}^{6} \beta_q Win_{ck} + \theta MV_c + \Theta MV_c \times Win_{ck} + \gamma_{cmtk} + \epsilon_{cmkt} \tag{2}$$

The main advantage of this specification is that the $\beta_{t<0}$ coefficients serve as placebo estimates for the years prior to the election. This allows us to assess the plausibility of the assumption that individuals whose family members narrowly won elections exhibited similar trends in public employment prior to their mandates, compared to those whose family members narrowly lost. Thus, our identification exploits both the discontinuities in the vote margins and the timing of the election, where the estimates for periods before the election work as placebo estimates, while estimates for periods after the election are LATEs for having a relative politician elected.

4.1 Validity of RD Design

Our empirical strategy relies on the assumption that the distribution of the running variable is continuous at the cutoff. In our context, this implies that candidates cannot precisely manipulate their margin of victory to sort just above or below the threshold. A violation of this assumption would compromise the local randomization that underlies the RDD framework. To assess its validity, we employ the density test proposed by Cattaneo, Jansson and Ma (2020). Figure 1 displays histograms of the margins of victory for both mayoral (Panel (a)) and councilor (Panel (b)) elections, together with the estimated densities and corresponding p-values from the Cattaneo, Jansson and Ma (2020) tests.

Figure 1: Density of Running Variables



Notes. This figure displays the distribution of the running variable (candidate's margin of victory). Panel (a) overlays the histogram of the mayoral margin of victory with the density test proposed by Cattaneo, Jansson and Ma (2020), reporting the corresponding p-value. Panel (b) presents the same analysis for councilors' margins of victory.

The results in Figure 1 provide no evidence of a violation of the continuity assumption. The graphical evidence is visually smooth, with no indication of sorting around the cutoff. Consistently, the estimated p-values are 0.72 for mayoral elections and 0.64 for councilor elections, supporting the absence of manipulation. An additional implication of this result is that, in the absence of manipulation, local randomization ensures that individuals just above and below the cutoff are comparable. To further assess this, Table 1 reports balance tests for observable covariates of relatives on either side of the discontinuity. Panel A shows results for relatives of Mayors, while Panel B shows results for relatives of councilors.

Table 1: Balance of Covariates: Relatives Characteristics

Panel A: Mayors				
	Mean(0)	Mean(1)	Diff	Std. Diff.
Number of politicians	1.666	1.695	0.028	0.029
Age	39.389	39.500	0.111	0.010
Years of Schooling	12.000	12.040	0.040	0.010
Women	0.554	0.558	0.004	0.009
White	0.634	0.636	0.002	0.004
Prob. Candidate (2000-2020)	0.091	0.091	0.001	0.002
Prob. CadUnico	0.331	0.326	-0.005	-0.010
Panel B: Councilors				
	Mean(0)	Mean(1)	Diff	Std. Diff.
Number of politicians	1.341	1.472	0.130	0.177
Age	40.120	38.640	-1.480	-0.129
Years of Schooling	10.451	10.439	-0.012	-0.003
Women	0.531	0.538	0.008	0.016
White	0.525	0.544	0.019	0.037
Prob. Candidate (2000-2020)	0.036	0.055	0.019	0.080
Prob. CadUnico	0.506	0.509	0.003	0.007

Notes. This table reports balance tests for relatives' characteristics around the RDD cutoff. Columns 1 and 2 present means for observations just below the cutoff (0, non-elected) and just above the cutoff (1, elected). Column 3 reports the difference in means, and Column 4 shows the standardized difference in means. Panel A corresponds to mayoral elections, and Panel B to councilor elections. The covariates include the average number of politicians to whom each relative is connected, age, years of schooling, race, gender, the probability of appearing as a candidate in previous or future elections, and the probability of being registered in any wave of CadÚnico, the federal government's registry of individuals eligible for social assistance programs.

Results in Table 1 report tests for differences in observable characteristics of relatives across the cutoff. The covariates include the average number of politicians to whom each relative is connected, age, years of schooling, race, gender, the probability of appearing as a candidate in previous or future elections, and the probability of being registered in any wave of CadÚnico, the federal government's registry of individuals eligible for social assistance programs. The estimates show that relatives of candidates on either side of the discontinuity are very similar along these dimensions, providing further support for the validity of the design. In the Appendix, Table A.1 presents analogous balance tests for candidates' own characteristics. In addition, Figures A.6 and A.5 provide graphical evidence that there are no visible jumps or discontinuities at the cutoff for these covariates. Taken together, these tests

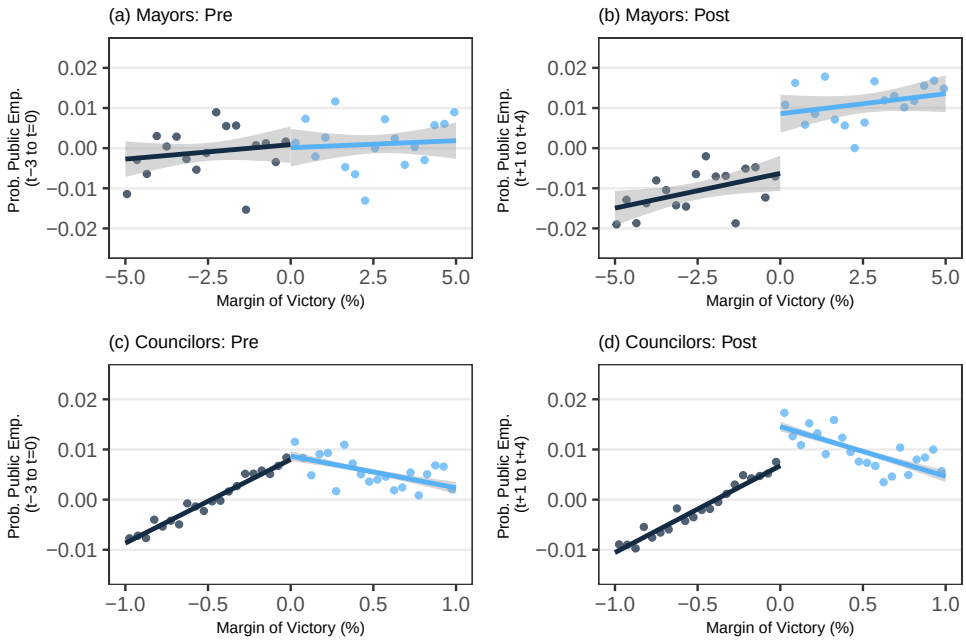
reinforce the credibility of our identification strategy.

5 Evidence of Nepotism in The Public Sector

5.1 The Labor Market Premium of Having a Relative Elected

We begin by examining the labor market premium associated with having a relative elected in a closely contested race. Figure 2 plots the residual probability of holding a public job around the RDD cutoff for candidates' relatives, after controlling for election-by-time fixed effects, up to four years after the election. The figure shows that relatives of both elected mayors (Panels (a) and (b)) and councilors (Panels (c) and (d)) experience a clear increase in the probability of public employment during the four-year term. Importantly, Panels (a) and (c) reveal no differences between winners and losers prior to the start of the term, supporting the validity of the design. Table 2 complements these visual patterns by reporting the estimated coefficients from equation 1. Consistent with the figure, the results show that having a mayoral relative elected raises both the probability of public employment and yearly earnings in public jobs. The same pattern is observed for councilors' relatives.

Figure 2: Public Employment Premium of Having a Relative in Office



Notes. This figure presents our main RD estimates of the labor market premium from having a relative elected to office. The dependent variable in all panels is the residual probability of holding a public job, after accounting for election-by-time fixed effects. Panels (a) and (b) report the estimates for relatives of mayoral candidates, while panels (c) and (d) present the corresponding results for relatives of councilor candidates. The running variable is the candidate's margin of victory, and the data are collapsed at the candidate–election level. Each panel plots local linear fits on either side of the cutoff, along with their confidence intervals.

More precisely, the probability of holding a public job increase by 3 percentage points, which means a 16% increase relative to the average of the relatives of not elected mayors, as can be seen in column (1). For councilors relatives, the probability of holding a public job increases by 1 p.p., or 9% relative to the baseline, as shown in column (1). As can be seen in column (2) of Table 2, having a mayor in the family increases total labor income by about 34%, relative to the mean public income, while the family income premium for councilors is 11%. This difference in magnitudes is consistent with the fact that mayors have more *de jure* power to determine public employment than councilors, and also mayors are the ones responsible for the majority of appointments.

The size of these effects is economically meaningful. Colonnelli, Prem and Teso (2020) estimate that candidates connected to winning mayors are 47% more likely to obtain a public job in Brazil. Our estimate of a 16% premium for mayors' relatives is therefore about 34% as large, suggesting that nepotism represents a quantitatively important, but less powerful, channel of patronage. One possible explanation for this difference is that Colonnelli, Prem and Teso (2020) define connections through party affiliation, capturing individuals who are already politically active and better positioned to benefit from winning politicians. By contrast, family members may be more heterogeneous in their political engagement and qualifications, limiting the extent to which they can translate political connections into employment. For councilors' relatives, the estimated premium is smaller still, about 9% relative to the baseline. This is consistent with the more limited appointment power of councilors, who typically control fewer jobs directly and often depend on bargaining with the mayor to place allies in public positions.

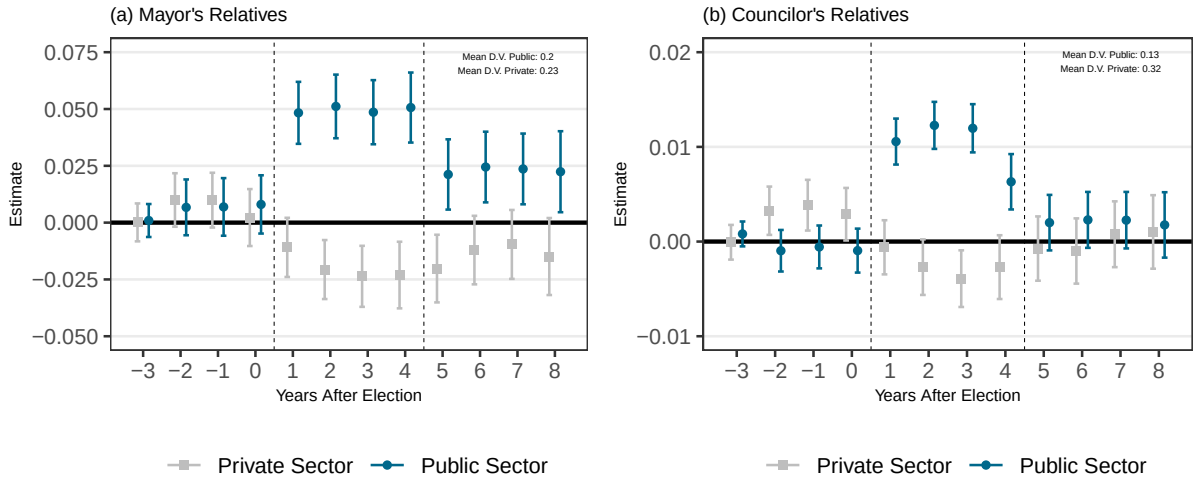
Table 2: Labor Premium of Relatives Elected to Office

	Mayors Relatives		Councilors Relatives	
	Emp. Pub.	log(ipub+1)	Emp. Pub.	log(ipub+1)
	(1)	(2)	(3)	(4)
Win	0.032***	0.344***	0.011***	0.113***
	(0.010)	(0.107)	(0.002)	(0.019)
Observations	222,951	222,951	7,217,153	7,217,153
Mean D.V.	0.20	2.15	0.13	1.38
Election-Time FE	Yes	Yes	Yes	Yes

Notes. The table presents the estimated coefficients from equation (1). The dependent variable is the probability of employment in the public sector (columns 1 and 3), or log of private earnings (column 2 and 4). Columns (1) and (2) reports results for close elections of mayoral candidates, while columns (3) and (4) reports results for councilor candidates. An election is defined as close if the margin of victory is within 5 percentage points for mayors and 1 percentage point for councilors. All specifications include municipality–election and year fixed effects. Standard errors are shown in parentheses and are clustered at the municipality–election-candidate level.

Figure 3 presents the coefficients from the event-study specification in equation 2. Each panel plots the RDD estimates of the probability of holding public and private jobs for relatives of candidates. We examine private employment to assess whether relatives also experience gains in the private sector or whether improvements are concentrated in public jobs. The figure shows that both relatives of mayors and councilors experience a sharp increase in the probability of public employment shortly after the start of the mandate, while no statistically significant differences are observed prior to the election. The absence of pre-election effects serves as a placebo test, reinforcing the credibility of the design. At the same time, we detect a small negative effect on private employment, suggesting some substitution from private to public jobs. Interestingly, this contrasts with evidence from developed countries, where nepotism tends to generate premiums in the private sector (Folke, Persson and Rickne, 2017; Gagliarducci and Manacorda, 2020). This substitution pattern holds for relatives of both mayors and councilors, although the magnitude is larger for mayoral relatives. With respect to the dynamics, the gains appear to be concentrated during the politician's term and gradually fade after the fourth year, suggesting that the benefits are closely tied to the period of office-holding rather than reflecting permanent improvements in relatives' labor market prospects.

Figure 3: Dynamic Estimates of Labor Market Premium from Relatives Elected to Office



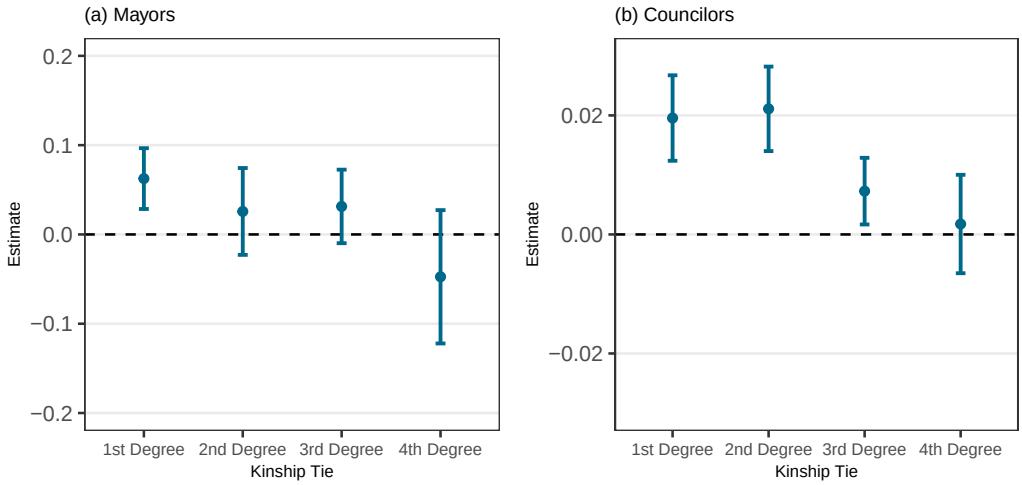
Notes. This figure presents estimates of equation 2, which measures the labor market premium from having a relative elected to office over time. The dependent variable in all panels is the probability of holding a public or private job in each period, with election-year fixed effects included as controls. Panel (a) reports the dynamic effects for relatives of mayoral candidates, while Panel (b) shows the corresponding estimates for relatives of councilor candidates. The running variable is the candidate's margin of victory. Each point represents the estimated difference between relatives of elected and non-elected candidates at a given time relative to the election, with confidence intervals shown around the estimates.

5.2 Heterogenous Effects

Now we turn to whether there is heterogeneity in how different relatives benefit from having a family member in office. In Figure 4, we report estimates by degree of kinship, following the classification adopted by the Brazilian Supreme Electoral Court. First-degree relatives include parents (father, mother), spouse, children, and in-laws (daughter/son-in-law, father-in-law, mother-in-law). Second-degree relatives are siblings and brothers/sisters-in-law. Third-degree relatives comprise aunts/uncles and nieces/nephews, while cousins are classified as fourth-degree relatives.

The results displayed in Figure 4 reveal significant heterogeneity by kinship degree. For mayoral candidates' relatives, the effects are concentrated among first-degree family members, with no statistically significant impacts for more distant relatives. For councilors, the premium is likewise concentrated among closer kin: effects are similar in magnitude for first- and second-degree relatives, and we also find a statistically significant, though smaller, premium for third-degree relatives, about half the size of those for first- and second-degree ties.

Figure 4: The Labor Market Premium from Relatives Elected by Kinship Tie



Notes. This figure presents baseline estimates of the labor market premium from having a relative elected to office, disaggregated by kinship ties. First-degree relatives include parents (father and mother), spouse, children, and in-laws (daughter- or son-in-law, father-in-law, and mother-in-law). Second-degree relatives are siblings and brothers- or sisters-in-law. Third-degree relatives comprise aunts/uncles and nieces/nephews, while cousins are classified as fourth-degree relatives. The dependent variable in all panels is an indicator equal to one if the individual held a formal public-sector job, with election-year fixed effects included as controls. Panel (a) reports the estimates for relatives of mayoral candidates, while Panel (b) presents the corresponding results for relatives of councilor candidates. The running variable is the candidate's margin of victory.

We next examine heterogeneity by relatives' gender. Results are presented in Figure A.3 in the Appendix. In this case, we do not find evidence of significant heterogeneity: both male and female relatives appear to enjoy similar labor market premiums in terms of public employment. The absence of gender differences suggests that once family ties to elected officials are in place, access to public jobs is granted relatively equally across genders. One possible interpretation is that the political logic of patronage operates primarily through kinship proximity rather than gender, with officeholders seeking to reward loyalty and strengthen family networks irrespective of whether the beneficiary is male or female. Another possibility is that the types of public jobs allocated through nepotism are diverse enough that they can accommodate both men and women, reducing the scope for systematic gender-based differences.

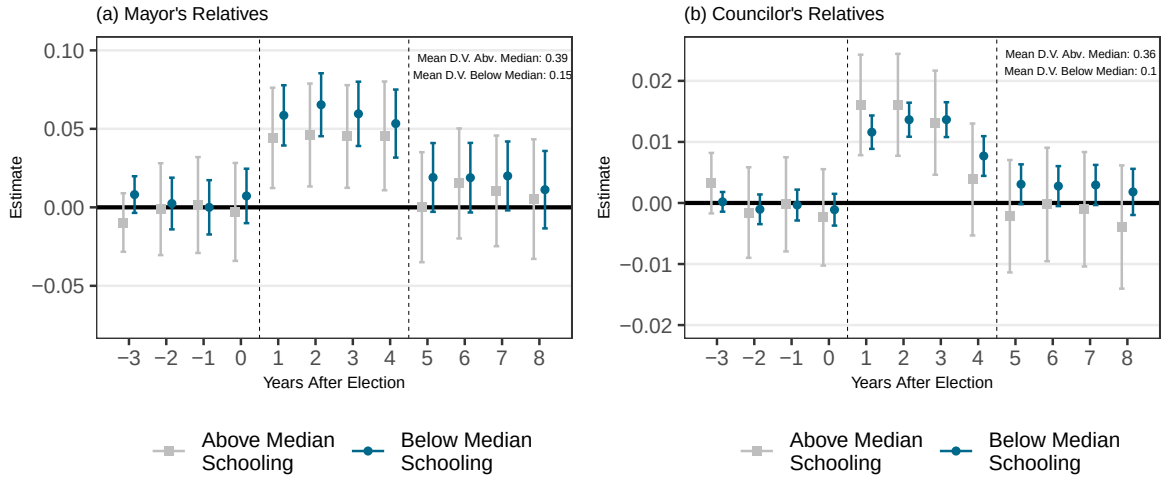
5.3 Plain Favoritism vs Better Screening

Up to this point, we have presented consistent and robust evidence that family members of elected politicians enjoy substantial labor market premiums relative to relatives of losing candidates. A potential concern, however, is that these premiums may not be driven solely by nepotism. Instead, they could reflect that these relatives are inherently more talented,

and that their proximity to the politician allows for better screening of their abilities. In this interpretation, political connections would not merely create opportunities, but rather help "select" relatives whose skills are more easily observed by the politician.[3]

This channel, however, is inconsistent with two key pieces of evidence. First, the premium fades once the political term ends. If the effect were driven by superior screening of talent, the gains should persist over time rather than vanish after four years. Second, as shown in Table 1, relatives on either side of the discontinuity are virtually identical in observable characteristics typically associated with labor market outcomes, such as age, schooling, and gender. This evidence weakens the hypothesis that elected politicians' relatives are systematically more talented than those of losing candidates. As a further test, we examine heterogeneity by years of schooling. If talent were the underlying mechanism, we would expect the premium to be concentrated among more educated relatives. We display the results in Figure 5.

Figure 5: Dynamic Estimates of Labor Market Premium: by Schooling



Notes. This figure presents estimates of equation 2, which measures the labor market premium from having a relative elected to office, splitting the sample between relatives below and above the median years of schooling. The dependent variable in all panels is the probability of holding a public or private job in each period, with election-year fixed effects included as controls. Panel (a) reports the dynamic effects for relatives of mayoral candidates, while Panel (b) presents the corresponding estimates for relatives of councilor candidates. The running variable is the candidate's margin of victory. Each point represents the estimated difference between relatives of elected and non-elected candidates at a given time relative to the election, with confidence intervals shown around the estimates.

The results in Figure 5 provide further evidence against the screening mechanism. We split the sample into relatives below and above the median years of schooling and re-estimate the event-study specification. For both mayoral and councilor elections, we find premiums

[3]For evidence that political appointments may enhance accountability and help to align the incentives of bureaucrats and politicians in Brazilian municipalities, see Toral (2024).

for relatives at all education levels, but the effects are relatively stronger among the less educated. For councilor elections, more educated relatives experience an increase in the probability of public employment equivalent to 2.7% of the control group mean, compared to about 10% for less educated relatives. Among mayoral relatives, the pattern is similar: the effect for more educated relatives is 12% of the mean, while the premium for the less educated reaches roughly 33%. Taken together, these results are difficult to reconcile with a screening-based mechanism and instead point to favoritism as the primary driver of the observed premiums.

6 Nepotism as Tool for Political Bargaining

Having established robust evidence of nepotism in the Brazilian public sector, we now turn to the mechanisms that sustain it. The case of councilors' relatives is particularly noteworthy, since most public jobs are formally under mayoral control. Two explanations are consistent with this pattern. The first is partisan patronage: councilors aligned with the mayor's party may share in the spoils of electoral victory, consistent with favoritism within the ruling coalition. The second is strategic exchange: councilors' relatives may be appointed to public jobs as part of a quid pro quo to secure political support in the council. From the mayor's perspective, public jobs constitute a particularly effective currency of exchange because they are targetable, credible, and reversible (Robinson and Verdier, 2013). If councilors withdraw support, their relatives' appointments can be immediately revoked.

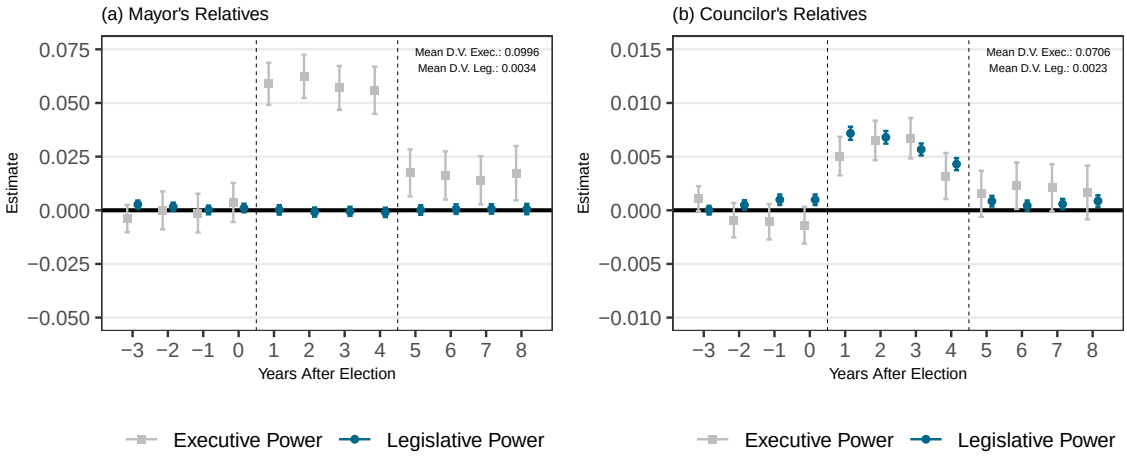
6.1 Who Appoints Relatives' Jobs: Mayors vs. Councilors

First we investigate who controls the public jobs held by relatives. To do so, we classify positions into those controlled by the executive branch, which are mostly under the authority of mayors, and those controlled by the legislative branch, which fall under the purview of councilors. Executive-controlled jobs include, for instance, positions in municipal public companies or other offices directly appointed by the mayor. Legislative-controlled jobs primarily include cabinet positions tied to councilors. We then construct two dependent variables: an indicator equal to one if the relative holds an executive-controlled job and zero otherwise, and an analogous indicator for legislative-controlled jobs. We estimate our event-study specification separately for each outcome, and present the results in Figure 6.

Results in Figure 6 show that relatives of mayors benefit exclusively from positions controlled by the executive branch. We estimate a statistically significant effect for executive jobs, while the effect for legislative jobs is precisely zero. The share of mayoral relatives employed in legislative jobs is also negligible, at only 0.3 percent, which indicates that these positions play little role in explaining the overall premium. Panel (b) reports the effects for councilors'

relatives. In this case, we estimate a premium for both executive and legislative jobs. However, the number of relatives actually employed in legislative positions is very small, at only 0.2 percent of councilors' relatives, likely reflecting the limited number of such jobs under the control of legislators. What matters most in quantitative terms is that the bulk of the premium comes from executive jobs controlled by mayors. The patterns displayed in Figure 6 are consistent with the interpretation that councilors' relatives are appointed to public jobs as part of a quid pro quo arrangement through which mayors secure political support in the council.

Figure 6: Dynamic Estimates of Labor Market Premium: Nature of Public Job Appointments



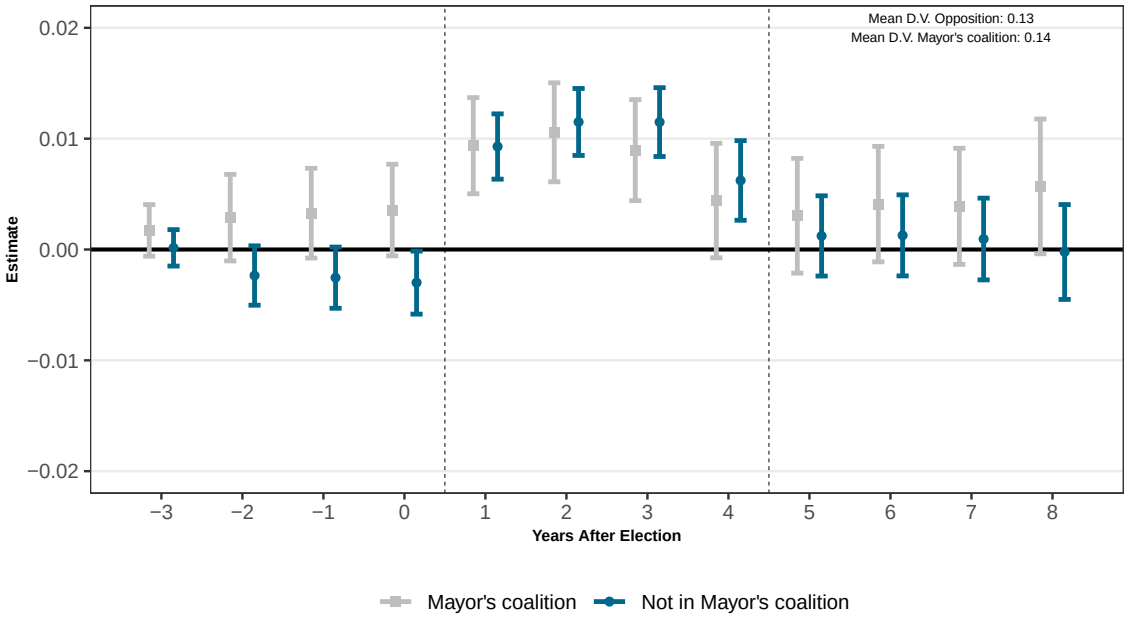
Notes. This figure presents estimates of equation 2, which measures the labor market premium from having a relative elected to office by type of job. The dependent variables are the probabilities of holding a public job controlled by the executive branch or a public job controlled by the legislative branch in each period, with election-year fixed effects included as controls. Panel (a) reports the dynamic effects for relatives of mayoral candidates, while Panel (b) presents the corresponding estimates for relatives of councilor candidates. The running variable is the candidate's margin of victory. Each point represents the estimated difference between relatives of elected and non-elected candidates at a given time relative to the election, with confidence intervals shown around the estimates.

6.2 Heterogeneous Effects by Political Allegiances

To explore these political incentives further, we analyze the political composition of municipal councils. As a starting point, it is important to note that there is considerable variation in the number of seats held by councilors according to their political alignment. Our first step in disentangling these possible explanations is to compare the labor market premiums of relatives of marginally elected councilors who are part of the mayor's coalition with those of relatives of marginally elected opposition councilors. If the observed effects stem primarily from rent extraction by mayors who distribute jobs to secure political support, we would expect to see gains only among the relatives of councilors within the mayor's coalition, with

no corresponding effects for the relatives of opposition councilors. Figure 7 reports results from our baseline event study specification, splitting the sample by political alignment.

Figure 7: Dynamic Estimates of Labor Income Premium: Aligned vs. Opposition Councilors



Notes. This figure presents estimates of equation 2, which measures the labor market premium from having a relative elected to office. The figure shows the premium over time for relatives of councilors whose coalition included the elected mayor's party and for relatives of councilors not aligned with the mayor's party. The dependent variable in all panels is the probability of holding a public job in each period, with election-year fixed effects included as controls. The running variable is the candidate's margin of victory. Each point represents the estimated difference between relatives of elected and non-elected candidates at a given time relative to the election, with confidence intervals shown around the estimates.

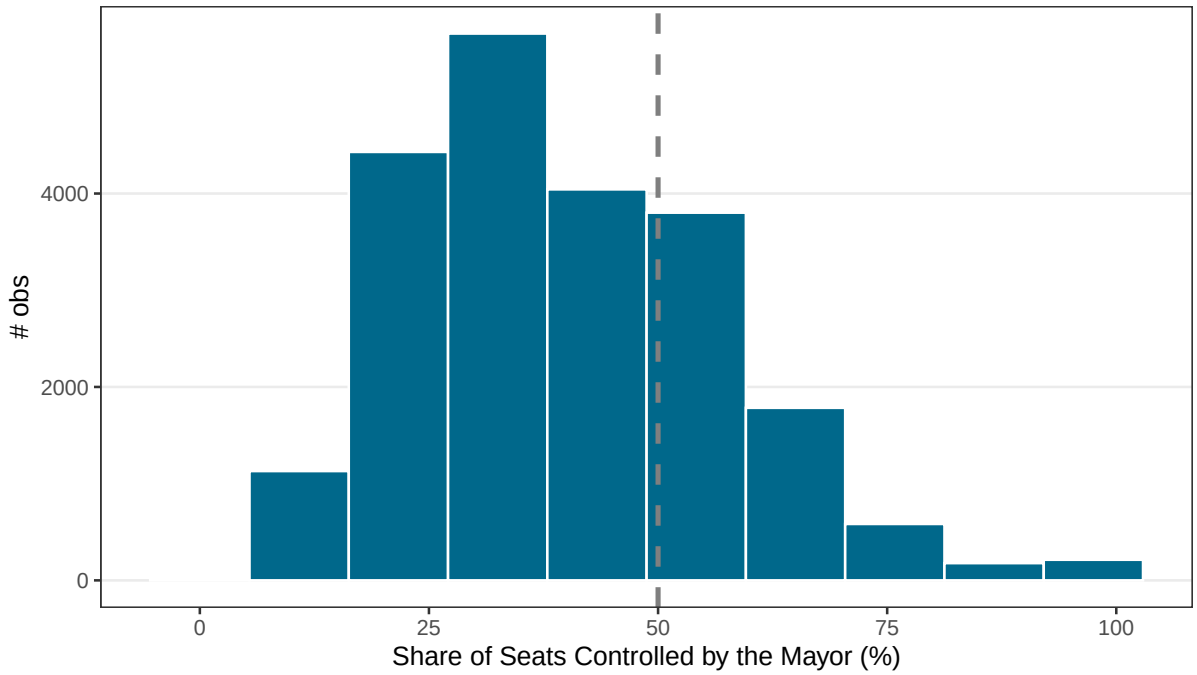
The results displayed in Figure 7 reveal a different picture. Contrary to the idea that rent extraction should only benefit the mayor's allies, we find that the labor income premium is not confined to councilors in the coalition. The estimates show that relatives of opposition councilors also experience substantial and statistically significant gains, of a magnitude comparable to those of councilors aligned with the mayor. In other words, the premium is present on both sides of the political divide, which suggests that the mechanism at play goes beyond mayors simply rewarding their allies through public employment.

6.3 Heterogeneous Effects by Mayoral Strength

In the previous section, we showed that councilors' relatives enjoy substantial labor market premiums regardless of whether the councilor is aligned with the mayor's winning coalition. This pattern suggests that the mechanism is not limited to rewarding allies but also

reflects mayors' use of job appointments to secure political support in the council. In Brazilian municipalities, the mayor's capacity to govern depends critically on council approval of a set of high-stakes decisions. Most prominently, councilors vote on the annual budget, the multi-year fiscal plan, and any changes in local taxation, all of which directly determine the resources available to the executive. They also hold veto power over the municipal master plan and zoning laws, shaping land use and urban development. Large infrastructure investments and social programs typically require legislative authorization, as do loan contracts and debt issuance. Even in areas where the executive has formal initiative, councilors can amend proposals, introduce earmarks, and delay implementation. Consequently, mayors must negotiate continuously with the council, exchanging resources and appointments for legislative backing. This institutional arrangement makes the chamber a pivotal actor in local policymaking and creates fertile ground for political bargaining over projects that are central to municipal development.

Figure 8: Distribution of Mayoral Control of Council Seats, 2004–2016

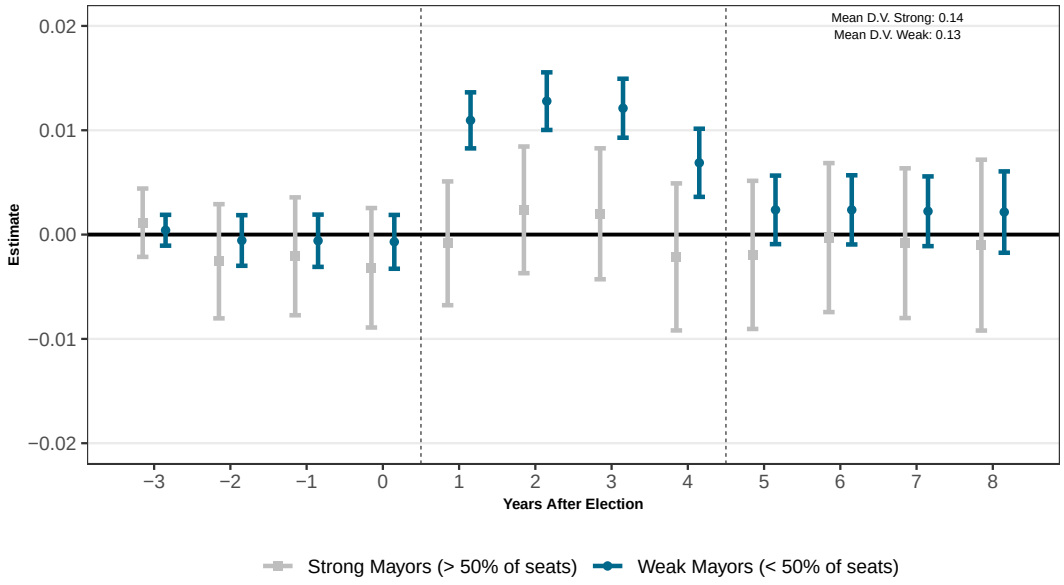


Notes. This figure shows the distribution of the share of council seats controlled by the mayor's coalition in municipal elections between 2004 and 2016.

To investigate this mechanism more directly, we exploit the substantial variation across municipalities in the share of seats controlled by the mayor's coalition. As shown in Figure 8, this share varies considerably across local governments. We then split the sample between municipalities where the mayor's coalition holds more than a simple majority and

those where it does not, and test whether the premium for having a family member on the municipal council differs between these two groups. If job appointments are indeed used as a bargaining tool, we would expect the premium to be larger in municipalities where the mayor lacks a majority and must rely more heavily on negotiating with councilors to secure legislative support. By contrast, when the mayor commands a majority, the need for such exchanges should be weaker, and the premium for councilors' relatives correspondingly smaller. We present results for this exercise in Figure 9.

Figure 9: Dynamic Estimates of Labor Market Premium by the Number of Seats on Mayor's Coalition



Notes. This figure presents estimates of equation 2, which measures the labor market premium from having a relative elected to office. The figure plots the premium over time for relatives of councilors, separately for municipalities where the mayor's coalition controls more than 50 percent of the council seats and those where it controls less than 50 percent. The dependent variable in both panels is the probability of holding a public job in each period, with election-year fixed effects included as controls. Panel (a) reports the dynamic effects for municipalities with strong mayoral coalitions (majority of seats), while Panel (b) presents the corresponding estimates for municipalities with weak mayoral coalitions (less than half of the seats). The running variable is the candidate's margin of victory. Each point represents the estimated difference between relatives of elected and non-elected councilors at a given time relative to the election, with confidence intervals shown around the estimates.

The results in Figure 9 are consistent with the bargaining mechanism. The estimated effects for councilors' relatives come entirely from municipalities where the mayor does not control a majority of seats in the council. In these settings, mayors face stronger incentives to trade public jobs for legislative support, and the premium for councilors' relatives is large and statistically significant. By contrast, when mayors hold a majority, the estimated effects for councilors' relatives are close to zero and imprecisely estimated. This pattern is precisely what the bargaining interpretation would predict: nepotistic appointments function as a cur-

rency of exchange when political support in the chamber is decisive, but lose relevance once the mayor already commands a stable majority.

7 Political Opposition and Nepotism

The heterogeneity analysis presented above suggests that political bargaining is central to explaining the employment premium of councilors' relatives, with mayors using public jobs as a tool to secure legislative support. We now examine this mechanism in a causal framework by studying how the size of the opposition affects these labor market outcomes. The key idea is that when the opposition gains an additional seat, the mayor faces greater difficulty in building a governing majority and thus has stronger incentives to use job appointments as bargaining instruments. Our strategy exploits the rules of Brazil's proportional representation system for council elections. Seats are allocated under open-list PR using the D'Hondt method, where coalitions are treated as a single unit and seats are distributed sequentially according to quotients of coalition votes divided by successive integers. The final seat in each council is therefore marginal and may swing between the mayor's coalition and the opposition due to narrow vote margins.

Following Poulsen and Varjao (2019), we use this institutional feature to implement a sharp regression discontinuity design. The running variable is the difference between the opposition's marginal quotient and that of the mayor's coalition, scaled by the total number of votes cast. Municipalities where this difference is positive are those in which the opposition secures the marginal seat. Because the allocation of the last seat hinges on small differences in votes, the design yields local quasi-random variation in opposition size. Crossing the cutoff typically increases the opposition's share of seats and often changes the council majority, thereby altering the bargaining environment faced by the mayor. This provides a credible strategy to estimate the causal effect of a larger opposition on the labor market outcomes of councilors' relatives.

7.1 RD Design

To implement the design, we rely on the rules governing the allocation of council seats in Brazil. Under open-list proportional representation, seats are distributed across party coalitions using the D'Hondt method. Parties may form coalitions, which are treated as a single unit for seat allocation. A coalition must first reach the electoral quotient, defined as the total number of valid votes divided by the number of council seats in the municipality. Coalitions falling below this threshold are excluded from the allocation process and receive no seats. Among eligible coalitions, seats are distributed sequentially according to the D'Hondt for-

mula. Let V_c denote the total number of votes received by coalition c. The method generates a sequence of quotients, defined as

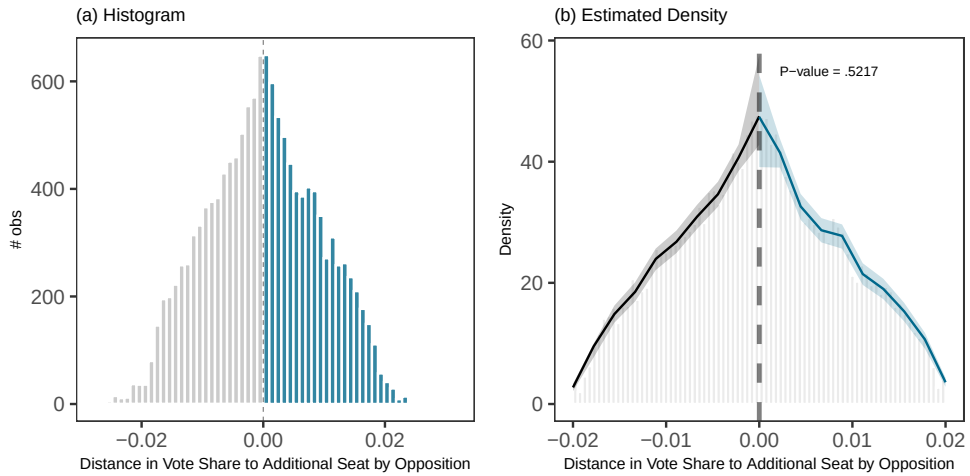
$$Q_{cs} = \frac{V_c}{s+1}, \quad s = 0, 1, 2, \ldots \tag{3}$$

where s indexes the number of seats already assigned to coalition c. All quotients are ordered from highest to lowest, and seats are assigned in sequence until all council positions are filled. By construction, the last seat in each council is marginal. It can be allocated either to the mayor's coalition or to the opposition depending on which coalition has the larger quotient at the margin. This feature creates a natural running variable for our regression discontinuity design. Following Poulsen and Varjao (2019), we define the running variable as the difference between the opposition's marginal quotient and the mayor's coalition's marginal quotient, normalized by the total number of valid votes:

$$RV_{m,t} = \frac{Q_{m,t}^{\text{opp}} - Q_{m,t}^{\text{mayor}}}{\text{TotalVotes}_{m,t}}. \tag{4}$$

The treatment occurs when $RV_{m,t} > 0$, which corresponds to the opposition gaining the final seat. We define a councilor as belonging to the opposition if their coalition is composed exclusively of parties that are not part of the mayor's coalition. The design is therefore a sharp regression discontinuity at the cutoff $RV_{m,t} = 0$, comparing municipalities where the opposition barely secures the last seat with those where it barely misses. Since the allocation of this seat depends only on very small differences in coalition vote totals, the design generates local quasi-random variation in the size of the opposition. Figure 10 presents the distribution of this running variable.

Figure 10: The Effect of an Additional Seat Held by the Opposition: First Stage



Notes. This figure displays the distribution of the running variable defined in equation 4. Panel (a) shows a histogram of the running variable, while Panel (b) overlays the histogram of the mayoral margin of victory with the density test of Cattaneo, Jansson and Ma (2020), reporting the associated p-value.

Figure 10 assesses the validity of the design by examining the distribution of the running variable around the cutoff. Panel (a) presents the histogram of the running variable, which appears smooth and shows no visual indication of excess mass on either side of the threshold. Panel (b) reports the results of a formal density test following Cattaneo, Jansson and Ma (2020), which shows no evidence of a discontinuity in the distribution of the running variable at the cutoff (p-value $= 0.52$). Together, the graphical and statistical evidence provide no indication of manipulation, supporting the validity of the continuity assumption underlying the RDD.

7.2 Results

We begin by estimating the first stage of our design, which quantifies the effect of winning the marginal seat on the share of seats held by the opposition in the municipal council. The idea behind this exercise is to verify that crossing the cutoff generates meaningful variation in opposition strength, which is the source of identifying variation in our design. We then turn to the reduced-form analysis, estimating how this increase in opposition size affects the labor market outcomes of councilors' relatives. Formally, our baseline specification takes the form:

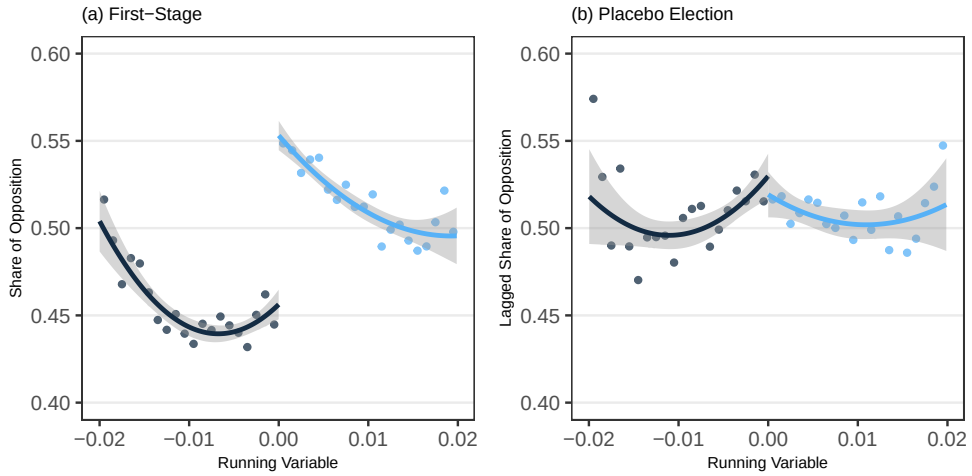
$$Y_{m,t} = \alpha + \tau \cdot \mathbf{1}[RV_{m,t} > 0] + f(RV_{m,t}) + \gamma X_{m,t} + \varepsilon_{m,t}, \tag{5}$$

where $Y_{m,t}$ denotes the outcome of interest in municipality m and election t. In the first

stage, $Y_{m,t}$ is the share of seats held by the opposition, while in the reduced form it captures the average annual earnings from public employment for councilors' relatives.[4] The treatment indicator $\mathbf{1}[RV_{m,t} > 0]$ equals one when the opposition secures the marginal seat. The coefficient of interest, τ, measures the causal effect of gaining one additional opposition seat. The function $f(RV_{m,t})$ is a flexible polynomial in the running variable. First-stage results are presented in Figure 11.

Results in Figure 11 confirm that crossing the cutoff generates substantial variation in opposition strength. Panel (a) shows a clear jump in the share of seats held by the opposition at the threshold. Gaining the marginal seat increases the opposition's seat share by about 10 percentage points, raising the average share from roughly 45 to 55 percent. This effect is politically meaningful: since the average municipal council has nine seats, one additional seat often determines whether the opposition controls a simple majority. Panel (b) of Figure 11 reports a placebo test, where we re-estimate the specification using the lagged share of opposition seats from the previous term. Consistent with the identifying assumptions, we find no evidence of a discontinuity at the cutoff in the lagged outcome, which reinforces confidence in the validity of the RD design. Taken together, these results demonstrate a strong first stage for our analysis.

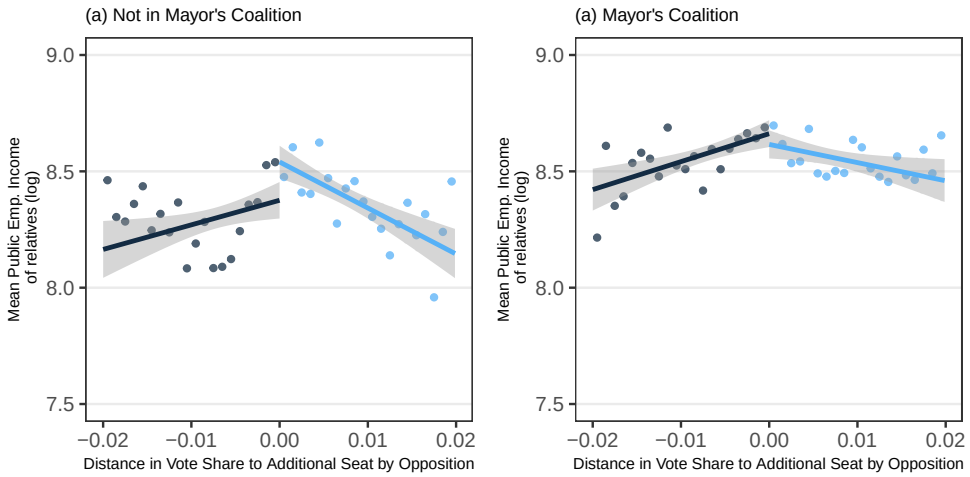
Figure 11: The Effect of Extra Seat of the Opposition: First-Stage



Notes. This figure presents our first-stage RD estimates of the effect of an additional opposition seat. Panel (a) plots the discontinuity in the share of seats controlled by the opposition in the current election, while Panel (b) reports the corresponding placebo test using the share of seats held by the opposition in the previous election. The running variable is defined in equation 4, and the analysis is restricted to cases in which the opposition gains an extra seat by a margin of up to 2% of the valid votes. The unit of observation is the municipality–term.

[4]The average is computed only for relatives of elected councilors.

Figure 12: The Effect of Extra Seat of the Opposition:

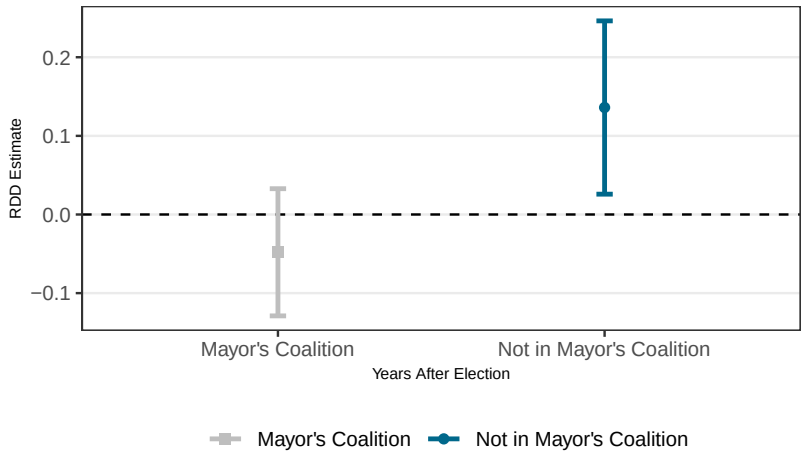


Notes. This figure presents our main RD estimates of the effect of an additional opposition seat on the average public-sector earnings of relatives of elected councilors. Panel (a) plots the discontinuity for councilors in the opposition, while Panel (b) shows the corresponding estimates for councilors aligned with the winning mayor's coalition. The running variable is defined in equation 4, and the analysis is restricted to cases in which the opposition gains an extra seat by a margin of up to 2% of the valid votes. The unit of observation is the municipality–term.

Figures 12 and 13 present the estimated effects of an additional opposition seat on the average earnings from public employment of relatives of elected councilors, distinguishing between relatives of opposition councilors and those aligned with the mayor's coalition. Figure 12 shows the standard RDD plots, where we compare outcomes for municipalities just above and just below the cutoff. Figure 13 complements this by reporting the coefficients from estimating equation 5, which summarizes the treatment effects. The results are consistent with the patterns documented in the previous section. Relatives of opposition councilors experience a substantial premium of roughly 14 percent in public-sector earnings, whereas we find no statistically significant effect for relatives of councilors in the mayor's coalition.

These findings reinforce the interpretation that nepotistic appointments function primarily as a bargaining tool. In the previous section, we showed that the premium for councilors' relatives is concentrated in contexts where the mayor lacks a strong majority and therefore faces greater pressure to secure legislative support. The evidence here points in the same direction: when the opposition marginally gains representation, the benefits accrue almost exclusively to opposition councilors' relatives. By contrast, councilors who are already aligned with the mayor's coalition do not experience similar gains, suggesting that jobs are allocated not as a blanket reward but as a strategic exchange to ensure the mayor's legislative agenda. Together, these results provide strong causal evidence that public employment is a central currency of political bargaining in Brazilian municipalities.

Figure 13: The Effect of Extra Seat of the Opposition:



Notes. This figure reports our main RD estimates of the effect of an additional opposition seat on the average public-sector earnings of relatives of elected councilors on the mayor's coalition and on the opposition. The plotted coefficients are obtained from estimating equation 5, with the running variable defined in equation 4. The analysis is restricted to cases in which the opposition gains/loose an extra seat by a margin of up to 2% of the valid votes. The unit of observation is the municipality–term.

8 Anti-Nepotism Regulation and the Labor Market Premium

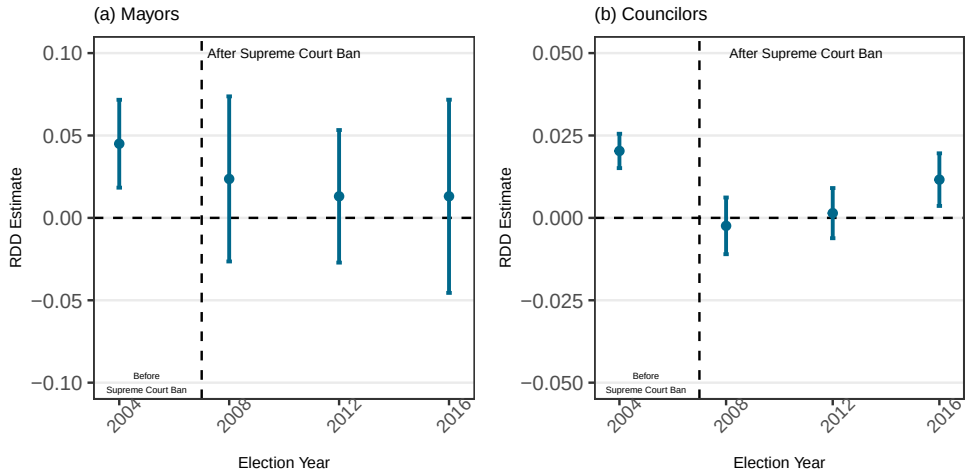
Thus far, we have presented robust evidence of nepotism in the Brazilian public sector: family members of mayors and councilors elected in close races experience sizable gains in formal employment income following the election. These effects stem from public-sector jobs and are more consistent with favoritism than with improved screening, as they are concentrated during the politician's term in office and are strongest among less-skilled individuals. We also documented that the mechanism operates through political bargaining, with the premium for councilors' relatives arising primarily when the mayor lacks a legislative majority. Moreover, we showed that allocating an additional seat to the opposition amplifies the labor market premium for relatives of opposition councilors. In this final section, we turn to a major institutional reform aimed at curbing nepotism in Brazil and examine how this policy shift affected the family income premium documented in the earlier sections.

As discussed in previous sections, prior to 2008, the practice of nepotism in the municipal public sector was not explicitly prohibited. Indeed, there was no comprehensive national legal framework addressing this practice. However, in 2008, the Brazilian Supreme Court ruled that appointing family members (up to the third degree) to public positions was unconstitutional. Although this decision did not apply to all political positions (e.g., cabinet members), it increased the cost of nepotistic practices, making it illegal for mayors and other public servants to appoint their relatives. We turn our analysis now to understand how this

policy change affected the premium of have an relative elected as mayor or councilor.

To achieve this, we return to our main specification, focusing on closely contested mayoral and councilor elections while estimating the labor income premium of relatives, comparing periods before and after the Supreme Court decision prohibiting nepotistic practices. Results are presented in Figure 14.

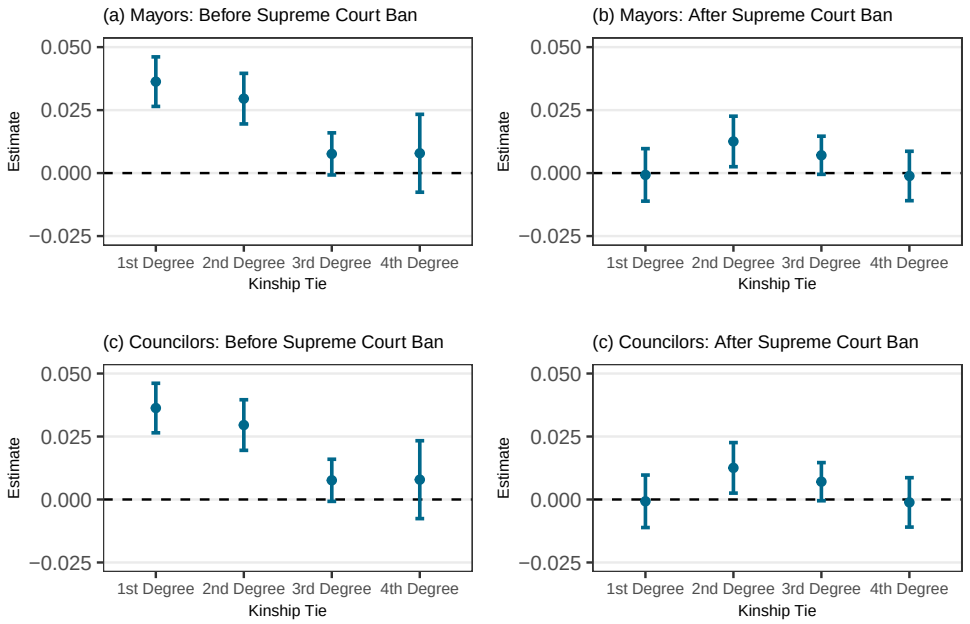
Figure 14: The Labor Market Premium of Having a Relative Elected: Before and After Antinepotism Regulation



Notes. This figure presents baseline estimates of the labor market premium from having a relative elected to office by year. The dependent variable in all panels is an indicator equal to one if the individual held a formal public-sector job, with election-year fixed effects included as controls. Panel (a) reports the estimates for relatives of mayoral candidates, while Panel (b) presents the corresponding results for relatives of councilor candidates. The running variable is the candidate's margin of victory.

Panel (a) of Figure 14 shows that relatives of mayors elected in close races experienced a labor income premium of about 5 percentage points in the probability of holding a public job prior to the Supreme Court decision banning nepotistic appointments. After the decision took effect, this premium largely disappeared. Panel (b) presents the corresponding estimates for councilors' relatives. Before the reform, they enjoyed a premium of roughly 2.5 percentage points. This effect dropped to zero in 2008 and 2012, the first two elections held after the ruling, but reemerged and became statistically significant in later years, although not in the same levels as before the policy. One possible interpretation is that politicians initially became more cautious in appointing relatives in response to the increased legal scrutiny, but gradually adapted their strategies over time. Overall, the results in Figure 14 provide suggestive evidence that the anti-nepotism policy substantially reduced the family income premium, although it did not eliminate it entirely.

Figure 15: The Labor Market Premium of Having a Relative Elected: Evidence by Kinship Tie Before and After Antinepotism Regulation



Notes. This figure presents baseline estimates of the labor market premium associated with having a relative elected to office, broken down by kinship ties before and after the Supreme Court ruling. First-degree relatives include parents (father and mother), spouse, children, and in-laws (daughter- or son-in-law, father-in-law, and mother-in-law). Second-degree relatives are siblings and brothers- or sisters-in-law. Third-degree relatives comprise aunts/uncles and nieces/nephews, while cousins are classified as fourth-degree relatives. The dependent variable in all panels is an indicator equal to one if the individual held a formal public-sector job, with election-year fixed effects included as controls. Panel (a) reports the estimates for relatives of mayoral candidates, while Panel (b) presents the corresponding results for relatives of councilor candidates. The running variable is the candidate's margin of victory.

Interestingly, the premium varies by kinship tie. Figure 15 reports our estimates of the labor market premium before and after the regulation, disaggregated by kinship. Overall, the premium declines for both relatives of mayors and councilors once the policy is in place. For mayoral relatives, after the reform (Panel (b)) the premium persists only for second-degree relatives. A similar pattern emerges for councilors: the premium disappears for first-degree relatives and remains only for second-degree relatives, although its magnitude is reduced by roughly half. This suggests that the pattern is not simply a substitution toward less direct kinship ties, as even the benefits for second-degree relatives diminish. Instead, it may reflect broader adaptation strategies by politicians and their families, for instance, channeling benefits through more informal arrangements, favoring extended networks of allies and supporters, or disguising appointments in ways that make them harder to detect. Taken together, these results indicate that regulation can play a meaningful role in curbing nepotism practices, but they also highlight the need for continuous enforcement to sustain its effectiveness.

9 Conclusion

The extent to which individuals derive economic benefits from political connections is a central question in political economy. Public sector employment is a particularly important channel, as politicians can allocate jobs and promotions to reward allies and secure legislative support. When such appointments extend to family members, such practices distort the allocation of public jobs away from the most qualified candidates, with potentially large efficiency costs for the performance of the state. Also, favoritism in hiring not only displaces qualified candidates (Colonnelli, Prem and Teso, 2020) but may also reduce trust in public institutions. In settings where state capacity is already limited, as in many developing countries, nepotism may further weaken bureaucratic effectiveness, undermine the provision of public goods, and ultimately constrain long-run development.

Our findings suggest that nepotism extends beyond mere favoritism, functioning as a strategic tool for political bargaining. Specifically, mayors appear to allocate public jobs to relatives of opposition councilors, likely as a means to secure political support in local governance. This dynamic highlights the role of public employment as a currency for political influence, particularly in municipalities where the mayor does not have the majority of seats. More broadly, the paper contributes to the literature on nepotism by leveraging highly detailed administrative microdata that allow us to trace family links with precision and identify causal effects. While most existing studies document the presence and aggregate consequences of patronage and nepotistic practices (Folke, Persson and Rickne, 2017; Colonnelli, Prem and Teso, 2020; Gagliarducci and Manacorda, 2020), we go further by unpacking the mechanisms through which nepotism operates. We show that favoritism in hiring is not merely the result of kinship ties but rather a deliberate political strategy used to build and maintain governing coalitions.

Finally, our analysis shows that institutional features and regulation can play an important role in curbing nepotism. The Supreme Court ban on nepotistic appointments substantially reduced the labor market premium enjoyed by politicians' relatives, underscoring the potential of formal rules to limit favoritism. Yet, we also find evidence that politicians adapt strategically, for instance by channeling benefits to more distant relatives who are harder to detect under conventional monitoring. This underscores the need for effective enforcement and oversight. More broadly, our results highlight that the prevalence and consequences of nepotism depend critically on the political and institutional environment, suggesting that strengthening governance frameworks is essential to reduce favoritism.

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Online Appendix to "Family Connections, Nepotism, and Political Bargaining"

Barreto, Britto, Fonseca, Gehrke, Pinotti and Sampaio

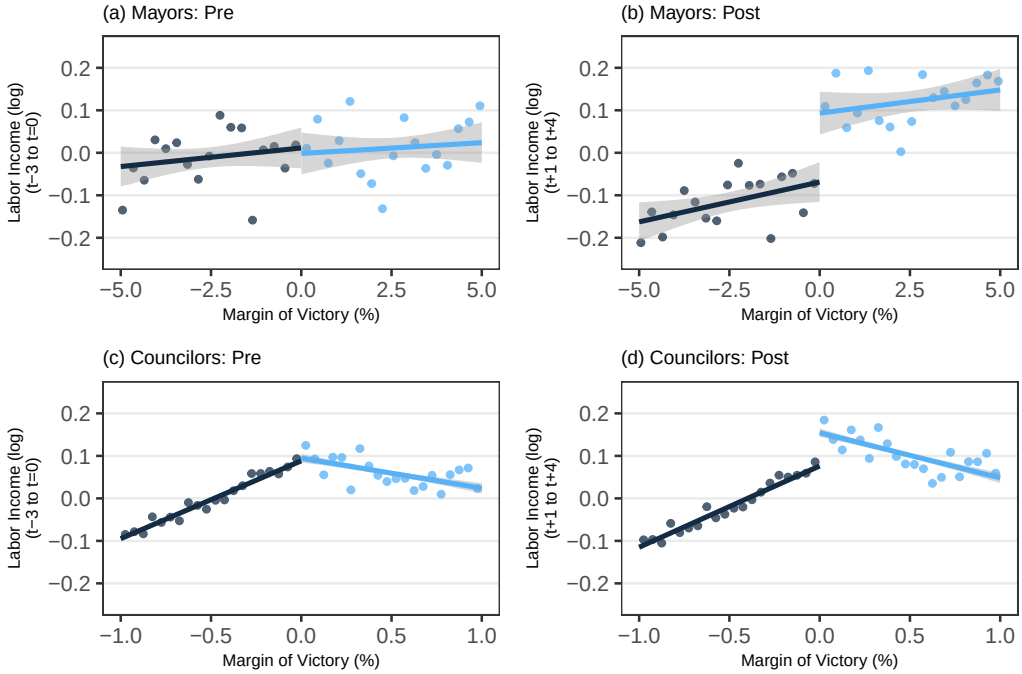
October 3, 2025

A Appendix A **2**
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A Appendix A

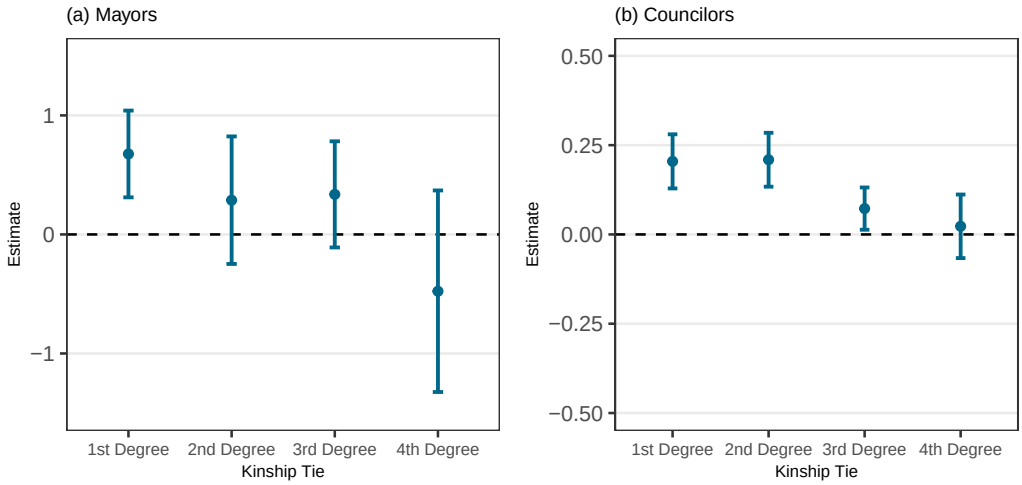
A.1 Additional Outcomes

Figure A.1: Labor Income Premium from Relatives Elected to Office



Notes. This figure presents our main RD estimates of the labor market premium from having a relative elected to office. The dependent variable in all panels is the residual of the log of earnings from public jobs, after accounting for election-by-time fixed effects. Panels (a) and (b) report the estimates for relatives of mayoral candidates, while panels (c) and (d) present the corresponding results for relatives of councilor candidates. The running variable is the candidate's margin of victory, and the data are collapsed at the candidate–election level. Each panel plots local linear fits on either side of the cutoff, along with their confidence intervals.

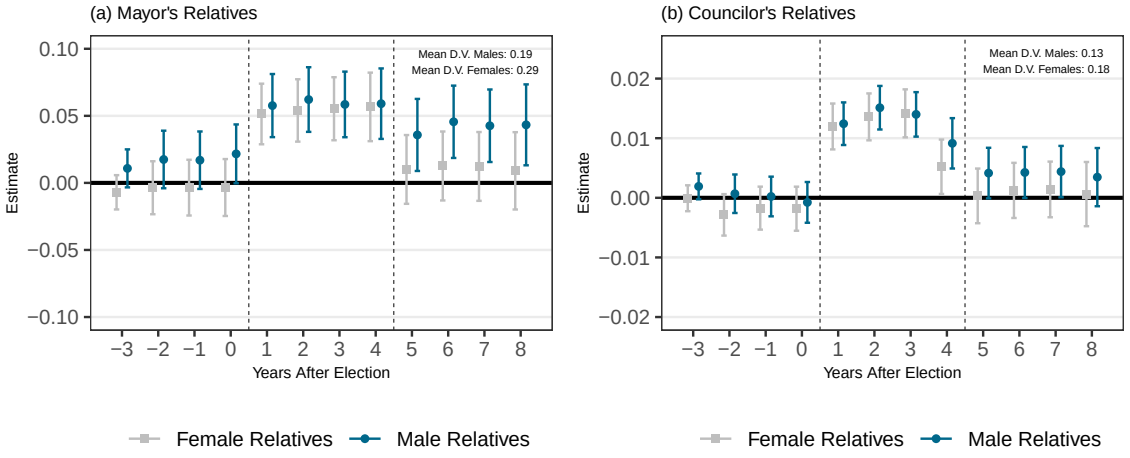
Figure A.2: The Labor Market Premium from Relatives Elected by Kinship Tie (log earnings)



Notes. This figure presents baseline estimates of the labor market premium from having a relative elected to office, disaggregated by kinship ties. First-degree relatives include parents (father and mother), spouse, children, and in-laws (daughter- or son-in-law, father-in-law, and mother-in-law). Second-degree relatives are siblings and brothers- or sisters-in-law. Third-degree relatives comprise aunts/uncles and nieces/nephews, while cousins are classified as fourth-degree relatives. The dependent variable in all panels is the log of earnings from public-sector jobs, with election-year fixed effects included as controls. Panel (a) reports the estimates for relatives of mayoral candidates, while Panel (b) presents the corresponding results for relatives of councilor candidates. The running variable is the candidate's margin of victory.

A.2 Labor Market Premium from Relatives Elected to Office by Gender

Figure A.3: Dynamic Estimates of Labor Market Premium from Relatives Elected to Office by Gender



Notes. This figure presents estimates of equation 2, which measures the labor market premium from having a relative elected to office, splitting the sample between men and women. The dependent variable in all panels is the probability of holding a public or private job in each period, with election-year fixed effects included as controls. Panel (a) reports the dynamic effects for relatives of mayoral candidates, while Panel (b) presents the corresponding estimates for relatives of councilor candidates. The running variable is the candidate's margin of victory. Each point represents the estimated difference between relatives of elected and non-elected candidates at a given time relative to the election, with confidence intervals shown around the estimates.

A.3 Balance Table: Candidates Characteristics

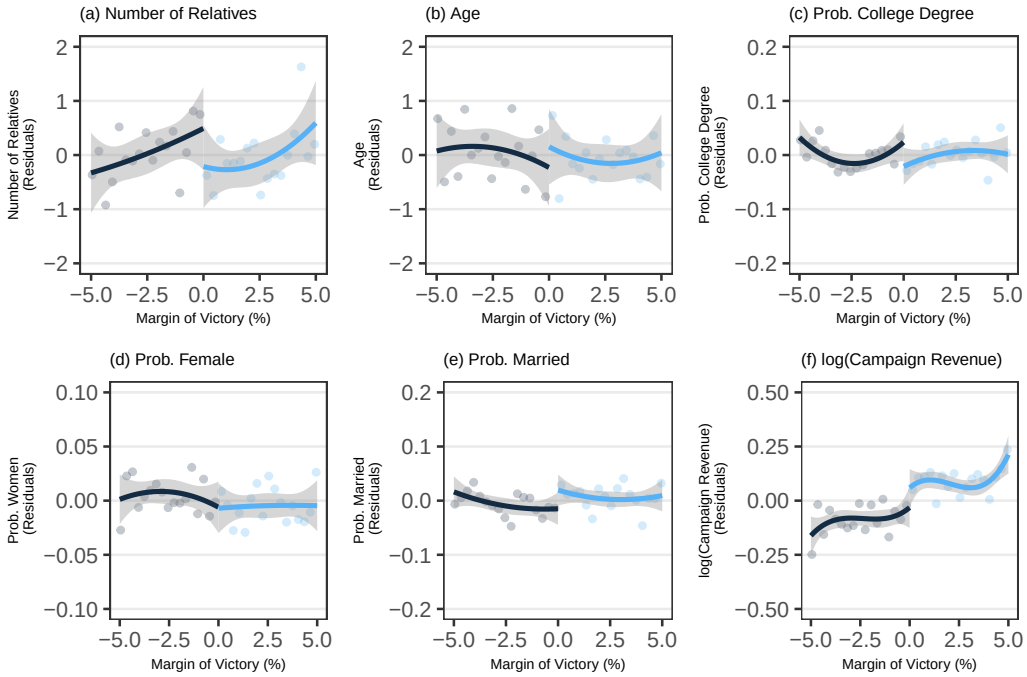
Table A.1: Balance of Covariates: Candidates Characteristics

Panel A: Mayors				
	Mean(0)	Mean(1)	Diff	Std. Diff.
Number of Relatives	11,778	11,949	0.171	0.016
Age	47,012	46,791	-0.221	-0.022
Years of Schooling	12,606	12,690	0.084	0.020
Women	0.127	0.117	-0.009	-0.029
White	0.689	0.692	0.004	0.008
Camp. Revenue (brl)	43,773.8	52,070.3	8,296.5	0.170
Camp. Expenditure (brl)	72,259.3	82,951.8	10,692.6	0.043
Panel B: Councilors				
	Mean(0)	Mean(1)	Diff	Std. Diff.
Number of Relatives	12,183	12,589	0.405	0.035
Age	43,005	41,456	-1.549	-0.154
Years of Schooling	11,143	10,706	-0.438	-0.096
Women	0.228	0.154	-0.074	-0.189
White	0.511	0.562	0.051	0.102
Camp. Revenue (brl)	2,815.3	3,105.3	290.1	0.089
Camp. Expenditure (brl)	4,619.1	6,513.5	1,894.4	0.050

Notes. This table reports balance tests for candidates' characteristics around the RDD cutoff. Columns 1 and 2 present means for observations just below the cutoff (0, non-elected) and just above the cutoff (1, elected). Column 3 reports the difference in means, and Column 4 shows the standardized difference in means. Panel A corresponds to mayoral elections, and Panel B to councilor elections.

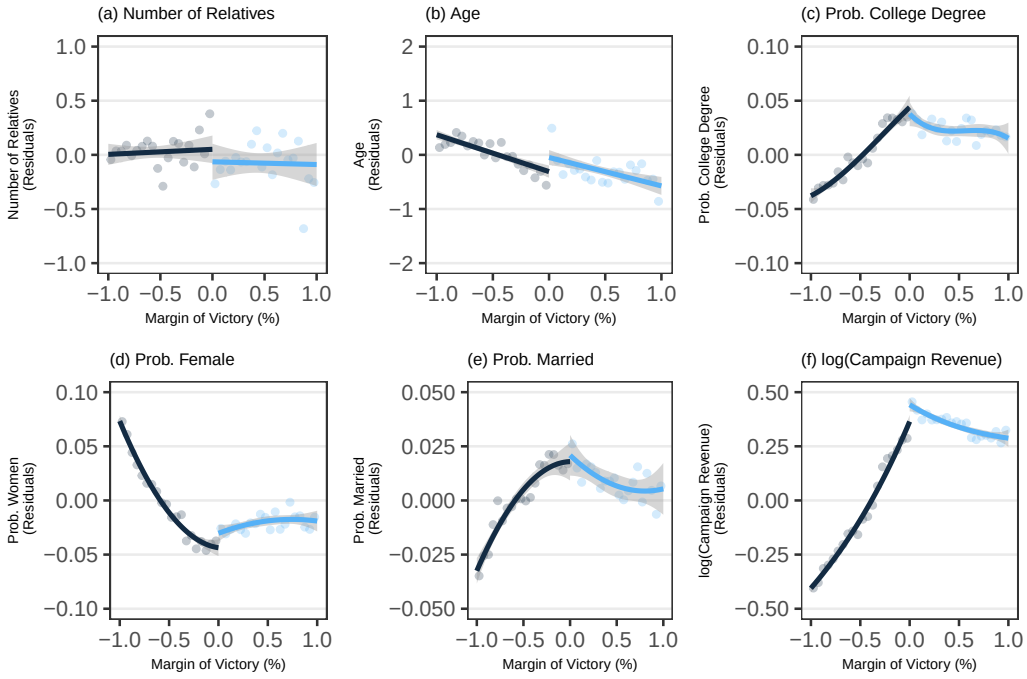
A.4 Placebo Outcomes on Candidates Characteristics

Figure A.4: Placebo Outcomes on Candidates Characteristics: Mayors



Notes. This figure presents a falsification exercise for our RD estimates using candidates characteristics as outcomes, after controlling for election-year fixed effects. Each panel uses a different outcome as dependent variable. The running variable is the candidate's margin of victory, and the dataset is collapsed at the candidate–election level.

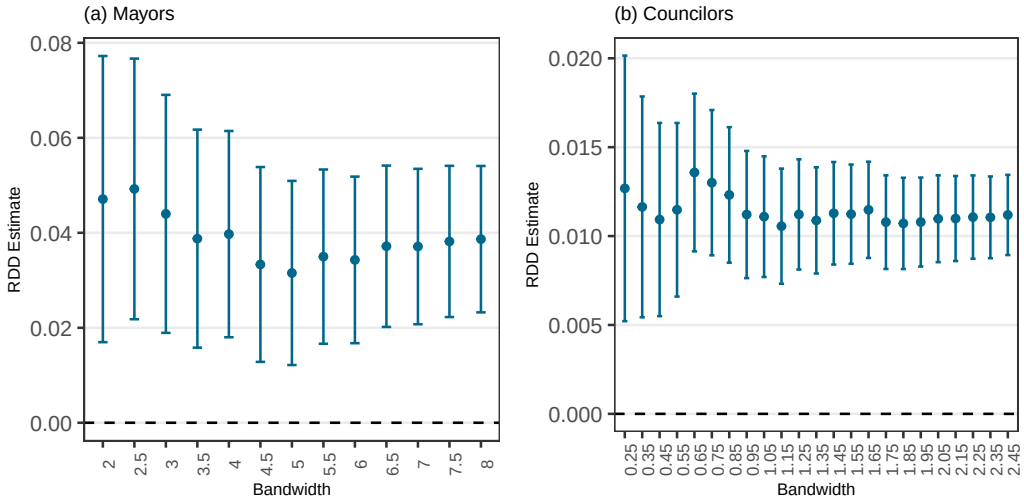
Figure A.5: Placebo Outcomes on Candidates Characteristics: Councilors



Notes. This figure presents a falsification exercise for our RD estimates using candidates characteristics as outcomes, after controlling for election-year fixed effects. Each panel uses a different outcome as dependent variable. The running variable is the candidate's margin of victory, and the dataset is collapsed at the candidate–election level.

A.5 Robustness Check: Bandwidth Sensitivity

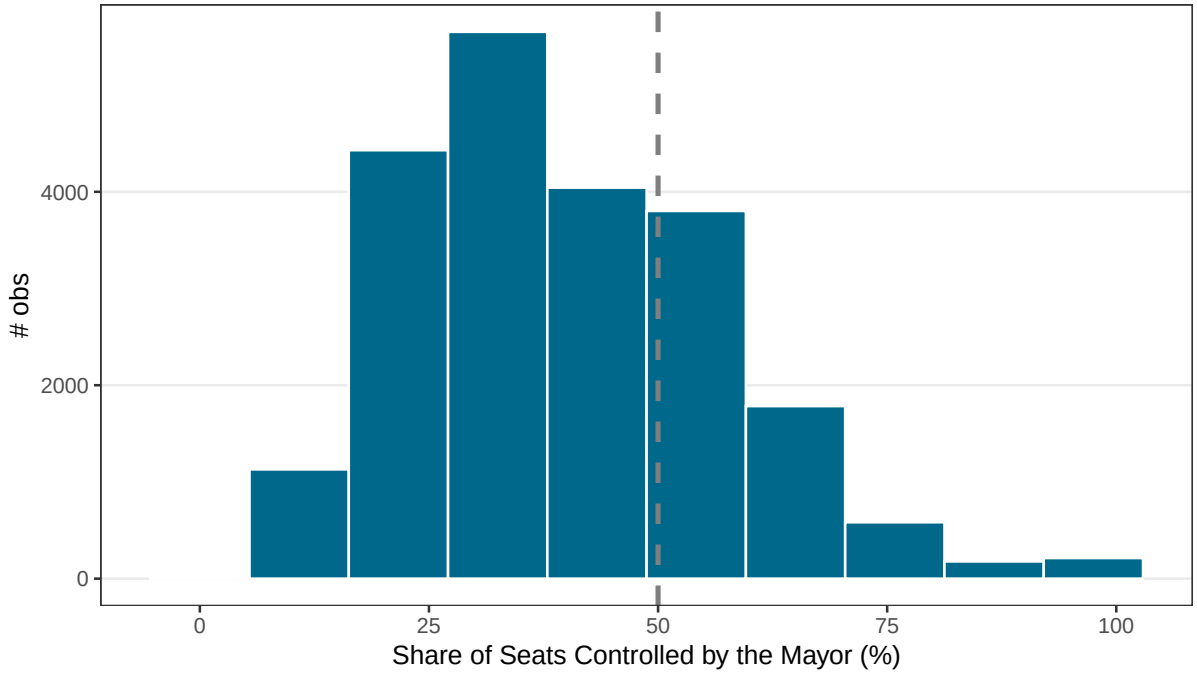
Figure A.6: Placebo Outcomes on Candidates Characteristics: Mayors



Notes. This figure presents the results of the RDD bandwidth sensitivity test. We re-estimate the baseline specification using alternative bandwidths around the cutoff (5% for mayors and 1% for councilors). Panel (a) reports results for mayoral elections, and Panel (b) for councilor elections.

A.6 Distribution of Mayoral Control of Council Seats, 2004–2016

Figure A.7: Distribution of Mayoral Control of Council Seats, 2004–2016



Notes. This figure shows the distribution of the share of council seats controlled by the mayor's coalition in municipal elections between 2004 and 2016.