Family Connections, Nepotism, and Political Bargaining

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Abstract

This paper studies nepotism as tool for rent-extraction and for the exchange of political favors. We do so in the context of Brazilian municipalities using detailed population data on family links, electoral candidates and employment. First, using a RD design based on close elections, we document that the election of mayors and councilors significantly improves their relatives' employment outcomes. This effect is explained by the take up of public jobs and drives the selection of less skilled individuals into the public sector. Second, we provide evidence consistent with the idea that mayors allocate public jobs to the relatives of opposition councilors in exchange for their political support. Third, using another RD design, we show that large municipal revenues increase the intensity of these practices. Finally, we show that a measure to curb nepotism reduce but did not extinguish nepotistic practices.

JEL codes: D72, D73, J45, O17.

Keywords: Nepotism, Patronage, Close Elections.

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1 Introduction

The extent to which individuals extract economic benefits from political connections is a central question in political economy. One important channel through which such benefits may materialize is public sector employment, as politicians can use hiring and promotions to reward allies and secure political support. When public office is leveraged to benefit family members through employment opportunities, it undermines the principle of meritocracy, potentially leading to inefficiencies in public service delivery. This favoritism not only crowds out qualified candidates (Colonnelli, Prem and Teso, 2020) but can also erode trust in public institutions, increasing public expenditure without proportional gains in productivity. In contexts where state capacity is often constrained, such as in developing countries, understanding the prevalence, motivations, and consequences of nepotism is particularly important because it can weaken state capacity, undermine the provision of public goods, ultimately limiting long-term development.

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 sample 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 examine 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 20% for relatives of mayors and 7% for relatives of councilors. 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. In placebo tests, we find that the income premium is only statistically different from zero during the period in which the relative holds office, reinforcing the credibility of our esti-

mates. Furthermore, the fact that the effect disappears after the four-year term suggests that the results are driven by favoritism rather than by politicians having superior information about the skills of their relatives.

After gathering robust evidence on the existence of nepotism in the Brazilian public sector, the second part of the paper investigates its underlying motivations. In particular, we aim to understand the extent to which nepotism is used as a strategy for political bargaining. To do this, we exploit variation in our results based on the political alignment of elected politicians, focusing on councilors. Surprisingly, we find that the effects are stronger for relatives of councilors who are either in the opposition or belong to an independent coalition, distinct from the mayor's. This pattern is consistent with mayors attempting to buy political support. Moreover, our estimates indicate that the effects are stronger for relatives of independent councilors compared to those of opposition councilors. Assuming that the support of independents is more readily "for sale," this finding further supports the interpretation of nepotism as a tool for political bargaining.

Additionally, and consistent with the political bargaining mechanism, we show that the income premium for relatives of councilors is higher when the mayor is elected with a narrow margin of victory, suggesting that mayors face greater difficulty securing political support from the opposition. Following the same logic, we exploit another discontinuity in Brazilian electoral rules that allocates a larger number of council seats to municipalities once their population exceeds certain thresholds. We find that the income premium is also larger in municipalities with greater political opposition, as indicated by the presence of one additional council seat. Taken together, this evidence suggests that nepotism is indeed used as a tool to secure political support.

To further investigate the political incentives behind nepotism, we examine whether windfalls of public resources increase the prevalence of this practice. Specifically, we exploit a discontinuity in the allocation rule for federal transfers to municipalities in Brazil—the Fundo de Participação dos Municípios (FPM)—a strategy previously employed in the literature (Brollo et al., 2013; Corbi, Papaioannou and Surico, 2019). Under this rule, municipalities receive larger transfers when their predicted population crosses specific thresholds. Our results show that nepotism becomes more pronounced in municipalities with greater public revenues. In particular, the income of councilors' relatives is 6% higher in municipalities receiving additional transfers. This finding is consistent with the idea that increased fiscal resources provide mayors with greater room to bargain politically, including by using public employment to secure support from councilors.

Our final empirical exercise examines how institutional changes can curb nepotism. To do so, we analyze the impact of an anti-nepotism policy implemented in 2008 that prohibited

mayors from appointing close relatives (up to the first degree) to public positions. We compare estimates before and after the policy's implementation, showing that it reduced, though did not entirely eliminate, these practices. This highlights the importance of understanding the role of nepotism in political bargaining when designing policies aimed at addressing this issue, as our results show that not only the relatives of mayors, but also the relatives of councilors, are able to extract rents from political connections.

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 political connections as a tool for political bargaining.

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 approach 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.

This paper proceeds as follow. In section 2 we describe the institutional background, detailing municipal elections rules, how public jobs are allocated in Brazil and the nepotism legislation. We describe our datasets in section 3 and detail how we construct family links in section 4. In section 5 we discuss our empirical strategy and research strategy, as well as potential threats to identification. Section 6 presents the main evidence on the existence of nepotism in the public sector. In Section 8 we discuss the political incentives and

mechanisms. Section 9 shows results on the impact of anti-nepotism legislation. Section 10 concludes.

2 Institutional Background

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, that is they hold the executive power. 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 a open list proportional representation system and represent the legislative power within municipalities. 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 are four years long, with no limit on re-election. The primary responsibilities of councilors include drafting, amending, and approving local legislation and budget, as well as overseeing the mayor's administration and ensuring 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. 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 rulling prevented the appointment of close relatives (up to 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

The data requirements for implementing our empirical specification are as follows: (i) identifying the pool of candidates who contested close elections; (ii) identifying the pool of relatives for each candidate; and (iii) obtaining comprehensive labor market outcomes, covering both the public and private sectors, in a panel data format for the pool of relatives. In this section, we describe the data sources and the steps taken to construct our baseline dataset.

3.1 Electoral Data

Our primary source of electoral data is the Brazilian Electoral Court (TSE). The TSE microdata provide information on the pool of candidates and the number of votes each candidate

[1] Add anecdotal examples for Brazil

received. For each candidate, we can identify the municipality in which they ran, their party, coalition, and whether they ran for mayor or councilor. We have data from all elections held between 2004 and 2016 across all Brazilian municipalities. Additionally, we have detailed demographic information for each candidate, such as full name, unique tax code, gender, and self-declared race/ethnicity. We restrict the pool of candidates to those who contested close elections.

3.2 Family links

Our goal is to identify relatives – sons, partners, brothers and cousins – of each candidate on the pool of candidates who contested close elections from 2004 to 2016. Our main source of data on family links is from the Brazilian Tax Authority (Receita Federal do Brasil). This sensible and confidential data consists of the universe of tax payers dependents' in person income tax, identified by their unique tax code (CPF) and full names. In Brazil, individuals are required to file income tax returns if they meet certain conditions, such as having taxable income above R$ 28,559.70 in 2023, non-taxable or exclusively taxed income exceeding R$ 40,000, gains from the sale of assets, or operations in the stock market. Other criteria include owning property worth more than R$ 300,000 by the end of 2023, earning more than R$ 142,798.50 from rural activities, or becoming a resident of Brazil during the year.

Taxpayers are incentivized to declare dependents, such as spouses and children, because they can reduce the overall taxable income, resulting in a lower tax liability. For each dependent declared, a fixed deduction is applied, currently R$ 2,275.08 per dependent in the 2024 declaration. Additionally, expenses related to dependents, such as education and health, can also be deducted, further reducing the amount of tax owed. Therefore, individuals have enough incentives to officially declare their dependents. This is our main source for identifying relatives.

Note that individual taxpayer records tend to underrepresent the lower end of the population distribution, as only citizens earning above a certain threshold are required to declare their income. To address this limitation, we adopt a complementary approach using data from the Person's Registry (Cadastro de Pessoas Físicas, or CPF) maintained by the Receita Federal. This registry includes the universe of CPFs in Brazil and allows for the identification of the mother's full name. For this subset of individuals, we use the father's name from the CadÚnico (Cadastro Único) dataset to establish family links. CadÚnico records cover all individuals from families receiving federal social assistance, such as the Bolsa Família Program. From the CadÚnico dataset, we obtain information on the individual's date of birth, sex, education, CPF number, address, and income profile. Therefore, CadÚnico provides a direct link between family members within their respective households.

3.3 Labor Market Outcomes

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 2002-2018. 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, size of establishment, 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 Occupations (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

4 Matching Candidates, Relatives and Labor Market Outcomes

The steps to build our baseline sample are straightforward. We first select, from the TSE data, the pool of candidate pairs that contested close elections from 2004 to 2016. Specifically, we follow Colonnelli, Prem and Teso (2020) and include only races decided by a vote margin of no greater than .5 percentage points[2]. We identified over 1.1 million candidates.

Having identified the pool of candidates, we then turn to the Receita Federal data, using a perfect match by CPF to identify the close relatives of each candidate. Note that this approach does not rely on surnames and is highly precise. We were able to identify 12 million relatives of candidates, with an average of 12.6 relatives per candidate. Following this, we attempt to combine CadÚnico with registry data to identify relatives who may be absent from tax

[2]In the appendix, we explore various bandwidth definitions and also apply the optimal bandwidth selection approach proposed by Calonico, Cattaneo and Farrell (2020).

records. This approach, however, involves matching by full names. By combining these two methods, we identified relatives of candidates who contested close races.

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. Our primary measure of employment is the total yearly income recorded in RAIS. Additionally, we calculate the total income from public and private employment, constructing a yearly individual-level panel.

5 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 the relatives of election winners may differ systematically in unobserved characteristics from the relatives of election losers. 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.

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

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.[3] Consequently, our analysis compares the relatives of mayors who narrowly won to the relatives of mayors who narrowly lost the election.

[3]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.

As detailed in Section 2, Brazil employs an open-list proportional representation (OLPR) system for councilor elections. Under 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 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.

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:

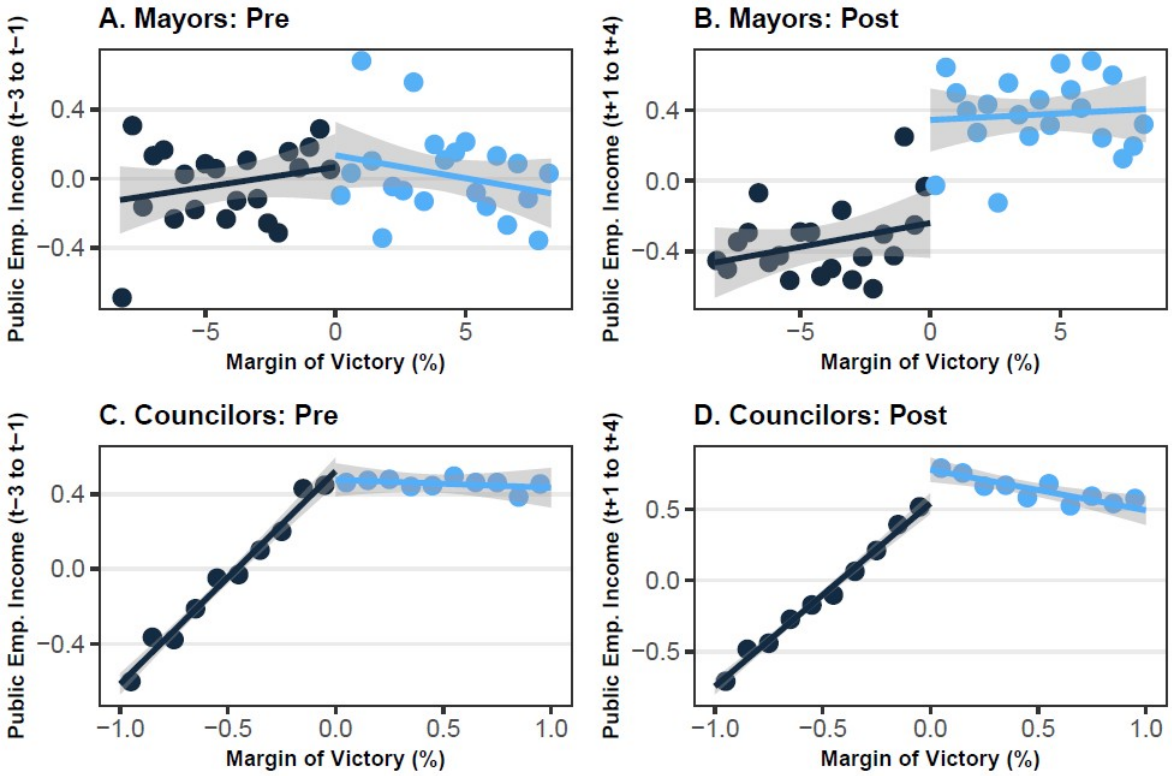
$$y_{icmtk} = \sum_{q=-3}^{6} \beta_q Win_{ck} + \theta_k MV_{ck} + \gamma_{cmtk} + \epsilon_{cmkt} \tag{2}$$

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 works as placebo estimates, while estimates for periods after the election are LATEs for having a relative politician elected.

6 Evidence of Nepotism in the Public Sector

We begin our analysis by examining the income premium associated with having a relative elected in a closely contested race. Figure **??** presents the coefficients from the event study specification described in equation 2. As illustrated in Figure **??**, both the relatives of mayors and councilors experienced an increase in labor income shortly after the start of the mandate, while no statistically significant differences were observed prior to the election. This finding supports the plausibility of the common trend assumption for winners and losers of close elections. In terms of magnitude, the results indicate that the relatives of mayors benefit more than those of councilors. A mayor in the family increases total labor income by about 20%, relative to the mean total income, while the family premium for councilors is 7%. This

Figure 1: Winning Office and Public Employment Income



difference in magnitudes is consistent with the fact that mayors have more *de jure* power to determine public employment than councilors.

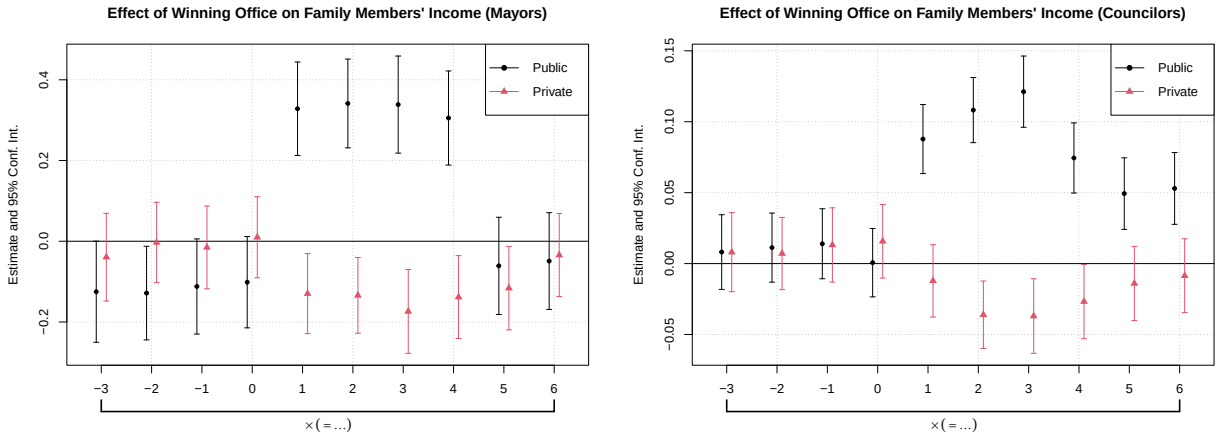
Another important aspect of the estimates shown in Figure 1 relates to the dynamics of the effect. Specifically, the positive impact on relatives' earnings does not persist beyond the 4-year term for mayors and becomes smaller for councilors. The employment premium for politicians' relatives could be explained by two main alternative stories (Colonnelli, Prem and Teso, 2020). First, it may be directly related to rent extraction, where these practices reflect blatant favoritism toward politicians' relatives. In this case, politicians may use these jobs to enrich their families and/or themselves. Second, politicians are likely to be more familiar with people close to them, therefore, hiring family members could be a way to bring competent individuals into the public sector, due to better screening.

The fact that the employment effects do not persist beyond the 4-year political term for mayor's relatives does not support the screening explanation. If relatives were highly competent workers, we would expect them to remain in the public sector for longer due to their abilities, which should become evident by the end of the political term. However, for councilors' relatives, the effect appears to be more lasting, even though the employment premium for an elected councilor significantly diminishes after 4 years. For instance, the premium in

the third year after the election is approximately 10%, declining to 5% six years after, suggesting that if there is some screening effect for councilors, it is not enough to explain all the premium.

Our main dependent variable measures the total income in the formal labor market for politicians' relatives. However, up to this point, we have not distinguished whether these jobs are in the public or private sector. To test whether the employment premium is concentrated in public sector jobs, we leverage the detailed job categories available in the RAIS data and estimate wage premiums for both mayors' and councilors' relatives in public and private employment. The results are displayed in Figure 2.

Figure 2: Winning Office and Public Employment Income



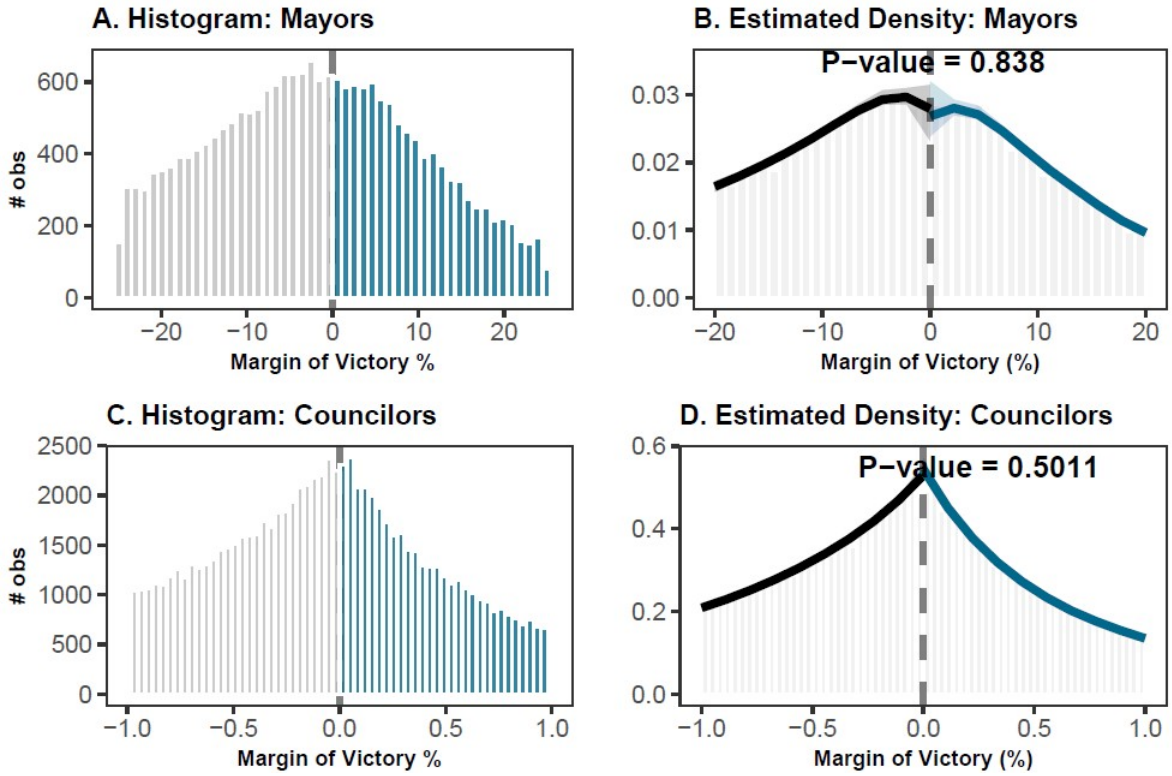
The results displayed in Figure 2 show that the positive income premium from having a relative elected comes entirely from public sector jobs. More specifically, our estimates strongly suggest a substitution effect from the private sector to the public sector following a relative's election. Having a relative elected as mayor increases public sector income by about 25% of the baseline mean income, while reducing private sector income by nearly 18%. The same pattern is observed for the relatives of councilors. The public sector income premium for having a relative elected to a seat on the municipal council is approximately 11%, while the results show a decrease in private sector employment by 4.5%. The dynamics follow the same pattern as in Figure **??**, with income premiums concentrated during the term of the elected candidates.

7 Robustness checks

7.1 Density Tests

As detailed in Section 5, the validity of our RDD estimates relies on the assumption that there is no discontinuity in the density of the running variable at the cutoff. In Figure 3, we formally test this assumption for both mayors and councilors. As shown in each panel of the figure, there is no evidence of a violation of the continuity assumption. In particular, the p-values from the binomial tests around the cutoff are 0.838 and 0.5, respectively. Overall, these results reinforce the credibility of our estimates.

Figure 3: Density Discontinuity Test on Running Variable



7.2 Favoritism vs Screening

We extend our analysis to investigate whether the observed labor income premium in previous estimates is attributable to more skilled workers benefiting due to politicians' greater knowledge of their relatives' abilities, or if it instead reflects pure favoritism. Following Colonnelli, Prem and Teso (2020), we use each relative's position in the private sector wage distribution at time $t = 0$ as a proxy for skill. To do this, we interact our treatment dummy with dummies for each tercile of the wage distribution, omitting the lowest tercile dummy.

The rationale behind this approach is that more competent individuals are likely to be better positioned in the private labor market and, therefore, would earn higher wages. If the labor income premium observed in our baseline estimates reflects better screening, we would expect higher premiums for more skilled individuals (those in the higher terciles of the wage distribution). We present results in Table 1.

Table 1: Labor Income Premium by Skill

	(1)	(2)	(3)
	lti	ltpriv	ltpub
Win X Mincer Tercile 2	-0.104**	-0.0214	-0.128***
	(0.0142)	(0.0195)	(0.00773)
Win X Mincer Tercile 3	-0.158**	-0.143**	-0.0584
	(0.0325)	(0.0215)	(0.0208)
Mincer Tercile 2	-0.0926	0.188**	-0.364***
	(0.0457)	(0.0280)	(0.0353)
Mincer Tercile 3	1.025**	0.916**	0.0610
	(0.152)	(0.131)	(0.0310)
Win	0.142**	-0.0491	0.253***
	(0.0325)	(0.0313)	(0.0175)
MV X 2008 Election	0.00397	-0.0173**	0.0268***
	(0.00354)	(0.00383)	(0.00228)
MV X 2012 Election	0.0115*	-0.00449	0.0207***
	(0.00359)	(0.00413)	(0.00118)
MV X 2016 Election	0.0266***	0.0112*	0.0201***
	(0.00178)	(0.00280)	(0.00128)
Constant	6.570***	5.829***	0.907***
	(0.0777)	(0.0630)	(0.0261)
Observations	7518070	7518070	7518070

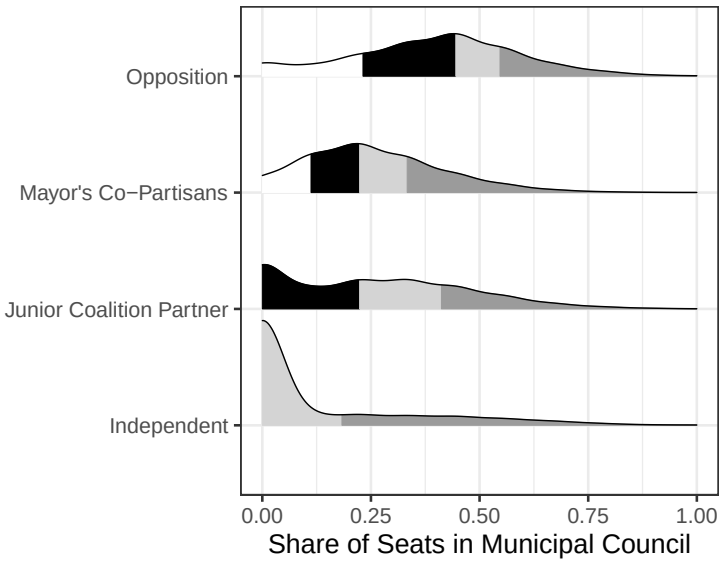
Each column of Table 1 presents results from the same model, but with different dependent variables. In column (1), the dependent variable is the log of total labor income; in column (2), it is private sector income; and in column (3), it is public sector income. The results in Table 1 are inconsistent with the screening hypothesis. As shown, there is a smaller premium for higher terciles of the wage distribution compared to the lower tercile (the omitted category). This evidence suggests that our baseline estimates of the income premium associated with having a relative elected as a politician are unlikely to be fully explained by better screening.

8 Nepotism as a Tool for Political Bargaining

Having presented strong evidence of nepotism in the Brazilian public sector, we now turn our analysis to better understand the mechanisms behind it. The fact that councilors' relatives

benefit from a public employment premium is particularly interesting, given that most public jobs are controlled by the mayor. There are two possible explanations for this. First, it may be driven by councilors from the mayor's party benefiting from the electoral victory, aligning with the concept of patronage or a plain favoritism. Second, councilors' relatives may secure public jobs as a means of buying their political support in the council. From the mayor's perspective, public jobs are arguably one of the most effective tools for securing political backing, as they are targetable, credible, and reversible (Robinson and Verdier, 2013). If councilors withdraw their support, their relatives can be immediately dismissed.

Figure 4: Distribution of seats by political alignment

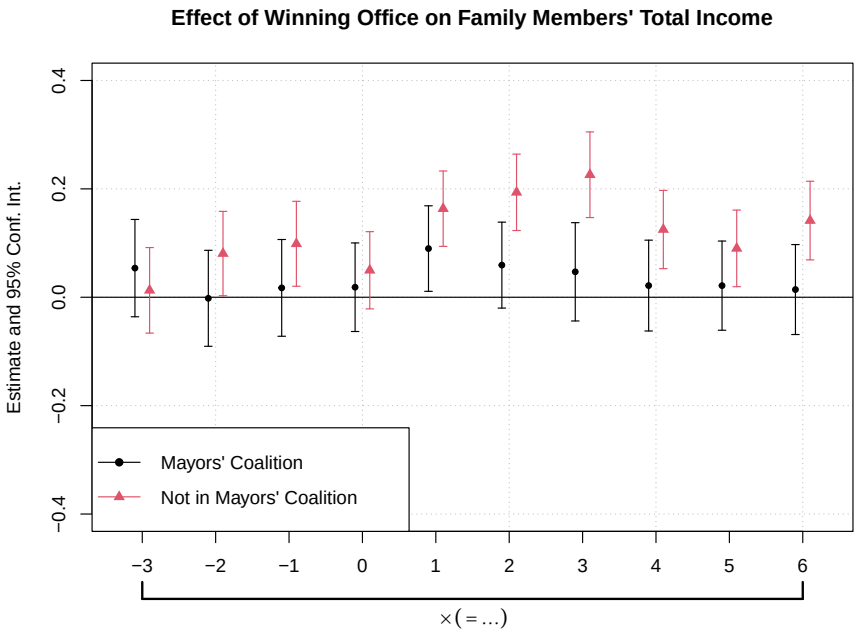


To explore these political incentives, we analyze the political composition of councils. As a starting point, it is important to note that there is considerable variation in the number of seats held by councilors according to their political alignment. Figure 4 displays the distribution of the share of seats occupied by councilors in opposition to the winning mayor, co-partisans, junior coalition partners, and independents. This classification is based on the electoral microdata described in previous sections. As shown in the figure, the share of independent councilors tends to be small. However, there is significant variation in the shares of seats occupied by the opposition and co-partisans. This highlights the need for mayors to seek political support from the opposition, because they need support to approve the yearly budget and municipal laws.

Therefore, our first step in disentangling these possible explanations is to examine the differences in labor income premiums between the relatives of marginally elected councilors in the opposition and the relatives of marginally elected councilors within the mayor's coali-

tion. If the primary reason for councilors' relatives securing public jobs is the mayor's effort to gain political support, we would expect larger effects on the labor income premium for the relatives of opposition councilors. Figure 5 presents results from our baseline event study specification, where we split the sample by political alignment.

Figure 5: Nepotism and Political Bargaining

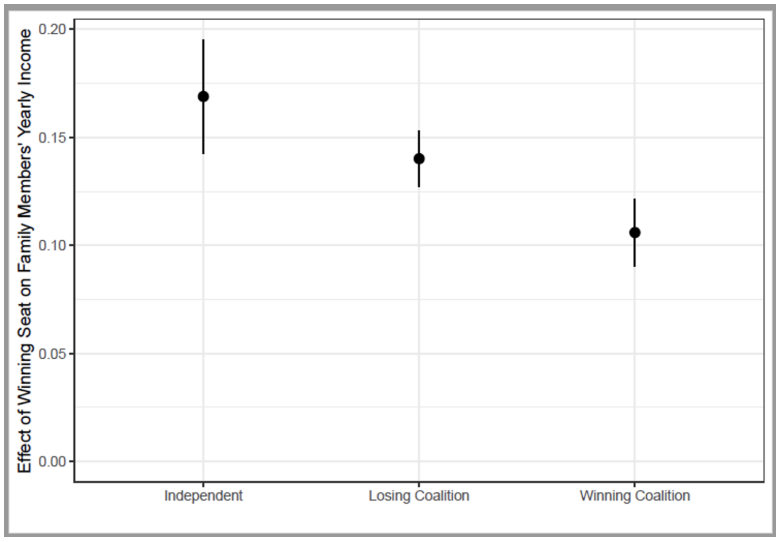


The results displayed in Figure 5 are consistent with the political bargaining argument. The estimates show a much stronger and statistically significant labor income premium for the relatives of marginally elected councilors who are not part of the mayor's coalition. Specifically, we find a premium of about a 20% increase in labor income compared to the relatives of non-elected councilors when the elected councilor belongs to the opposition. In contrast, the labor income for the relatives of councilors from the mayor's coalition shows no statistically significant difference compared to the relatives of non-elected councilors. This indicates that the entire effect observed for councilors stems from those in the opposition, strongly suggesting that the primary explanation for this premium is the mayor's effort to secure political support.

Figure 5 shows that the results for councilors are primarily driven by those elected from the opposition to the mayor's coalition. To explore this mechanism of political bargaining further, Figure 6 presents results for independent candidates as well. If the labor income premium is driven by the mayor's efforts to secure political support, it is reasonable to expect a stronger effect for independent councilors, as their support can help the mayor achieve a

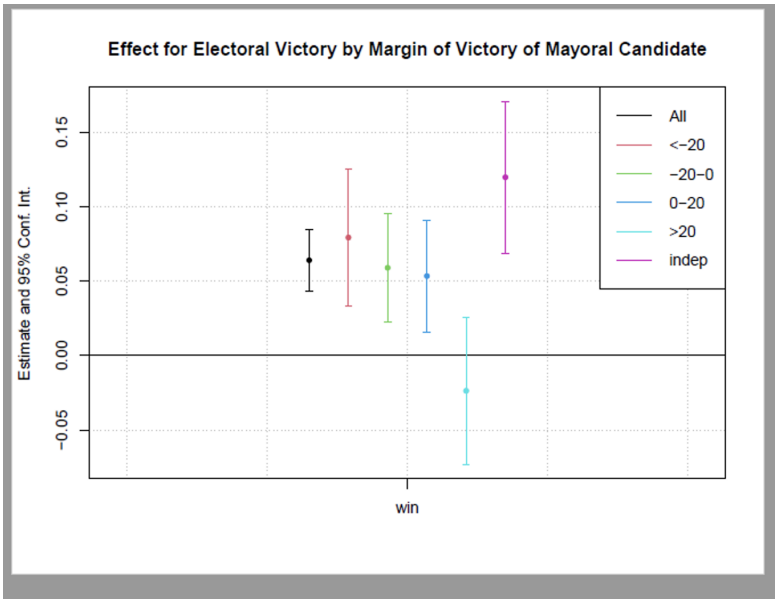
majority and is typically easier to obtain than that of opposition councilors. As shown in Figure 6 , the labor income premium is highest for independent councilors, with an increase of 17.5%, followed by opposition councilors at 15%, and councilors from the same coalition at 10%. These results are consistent with the political bargaining hypothesis.

Figure 6: Effect of Winning Office on Family Member's Total Income by alignment



To better understand the political bargaining mechanism, our next exercise explores the competitiveness of the electoral races. We estimate heterogeneous effects by comparing the relatives of councilors elected in close elections who supported mayors with high versus low margins of victory. The rationale behind this exercise is that mayors who won by larger margins will require less effort to secure support from the council. Conversely, mayors who won by very narrow margins will need to garner more support from councilors and, as a result, may be more inclined to offer public jobs to the relatives of elected councilors. Figure 7 present the results.

Figure 7: Effect of Winning Office on Family Member's Total Income by margin of victory



Results in Figure 7 show that the employment premium is positive and statistically significant across all categories of vote margins in the mayoral elections, with one exception: councilors supporting mayors who won by large margins. For this group, we estimate a negative and insignificant labor income premium. Additionally, Figure 7 highlights a stronger effect for independent councilors. This finding aligns with the idea that very strong mayors have less need to secure political support through bargaining, as they are less reliant on buying support in the political arena.

8.1 The causal effect of a larger opposition

Another way to assess whether our results are driven by political bargaining is to examine the size of the premium when the opposition to the mayor's coalition is stronger. Indeed, the results in Figure 9 already suggest that the relatives of elected councilors who supported mayors elected by large margins, and who likely faced weaker opposition, experience no labor income premium. To further investigate this mechanism, we compare municipalities where the marginal candidate in the opposition barely win and loses the run. This allows us to conduct a quasi-experiment, comparing municipalities that have one additional seat occupied by a councilor in the mayor's coalition versus an extra seat in the opposition. The idea is that an additional seat for the opposition would increase the mayor's need to secure political support through public employment, increasing the labor income premium.

Figure 8: RD design: size of opposition

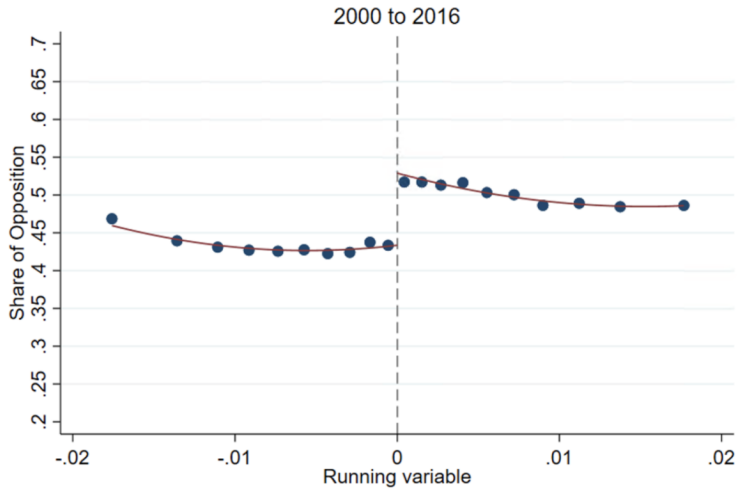
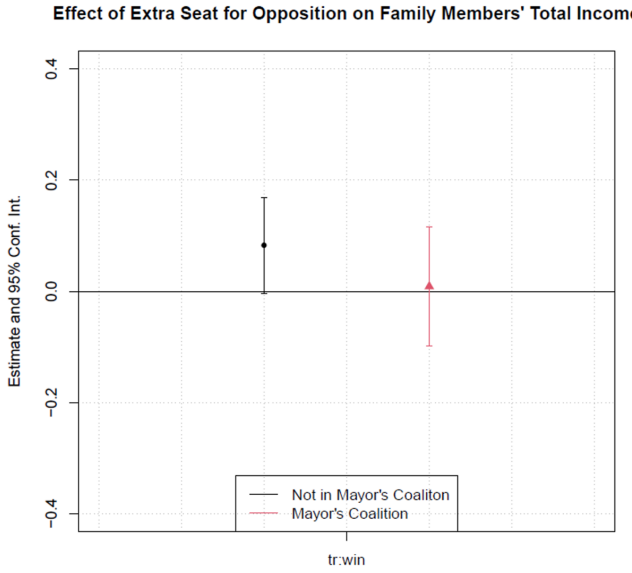


Figure 9: Effect of Extra Seat for Opposition on the Labor Income Premium



The results presented in Figure 9 are consistent with the political bargaining mechanism. We estimate that having a relative elected as a councilor, when the municipality had an additional seat held by the opposition, increases the labor income premium by approximately 15%. In contrast, when this extra seat is occupied by a councilor from the same coalition as the elected mayor, the premium is not statistically different from zero. Taken together, the evidence suggests that councilors' relatives benefit from substantial employment premiums in the public sector, with the largest gains accruing to those related to opposition councilors. This aligns with the notion that mayors use public sector jobs to secure political support.

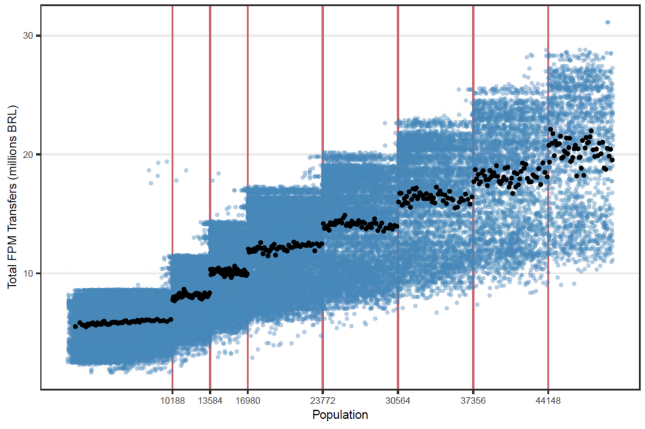
Additionally, we show that the size of the opposition causally increases the premium for non-coalition councilors, and that the marginal effect grows with opposition size, while the effects are significantly smaller for very strong mayors

8.2 Effect of Extra Public Revenue

We now extend our analysis to examine how access to additional public revenue interacts with political bargaining and affects the labor income premium for relatives of elected politicians. This approach is grounded in the political economy literature, which suggests that a boom in resources can lead to increased rent-seeking practices (Caselli and Michaels, 2013) or corruption (Vicente, 2010; Brollo et al., 2013). In our context, if the labor income premium observed for relatives of politicians reflects a strategy by mayors to secure political support from councilors, one would expect that an influx of extra resources would increase the income premium for these relatives.

To test this hypothesis, we leverage the fact that, in Brazil, 31% of municipal revenue (Corbi, Papaioannou and Surico, 2019) is derived from federal transfers, specifically through the *Fundo de Participação dos Municípios* (FPM).[4] The amount of federal transfers is determined by the municipality's population, calculated using the most recent Census prior to the fiscal year and annual population projections by the *Tribunal de Contas da União* (TCU), which follow a discontinuous rule based on population thresholds. As shown in Figure 10, municipalities just above the population cutoff receive, on average, an additional R$1.7 million in annual revenue.

Figure 10: Total FPM Revenue and Municipality Population

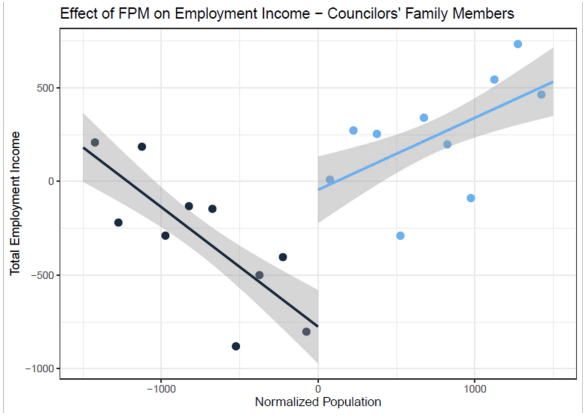


Following the approach of Brollo et al. (2013) and Corbi, Papaioannou and Surico (2019), we use a fuzzy regression discontinuity design to estimate the causal effect of extra transfers,

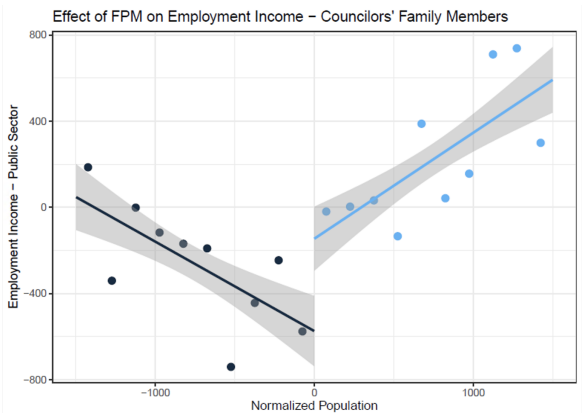
[4]Municipal Revenue Sharing Fund)

using the normalized population of municipalities as the running variable. It is important to note that this estimation is conducted at the municipal level. In this analysis, the dependent variable is the total labor income of councilors' relatives in each municipality. Thus, we compare councilor's family members income in municipalities on either side of the population thresholds. Also, since we are looking at seven different thresholds, we are less concerned about external validity as most of RD designs.

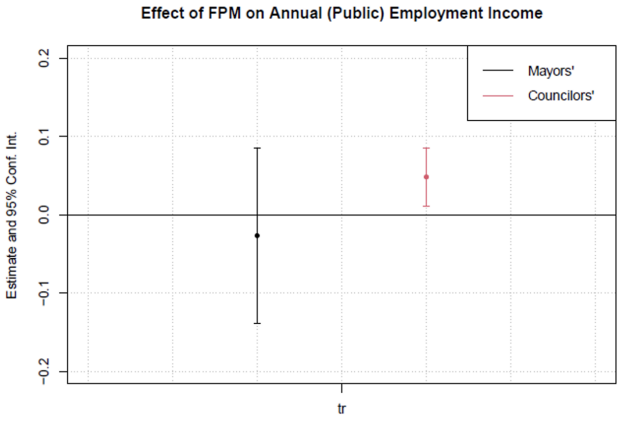
Figure 11: The effect of Extra Public Revenue on Councilor's relatives income



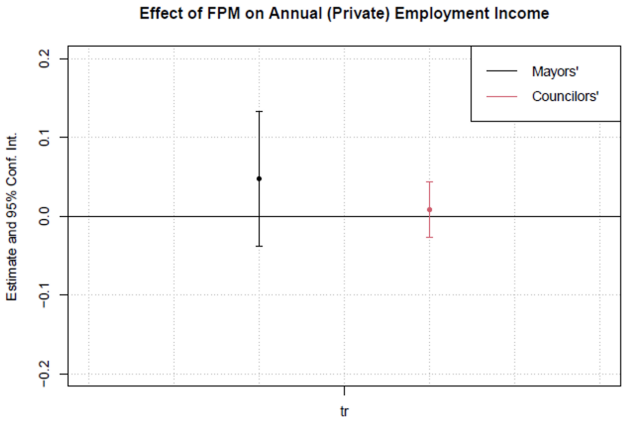
(a) Total Income



(b) Public Sector Income



(c) Public Income: Mayor's and Councilor's

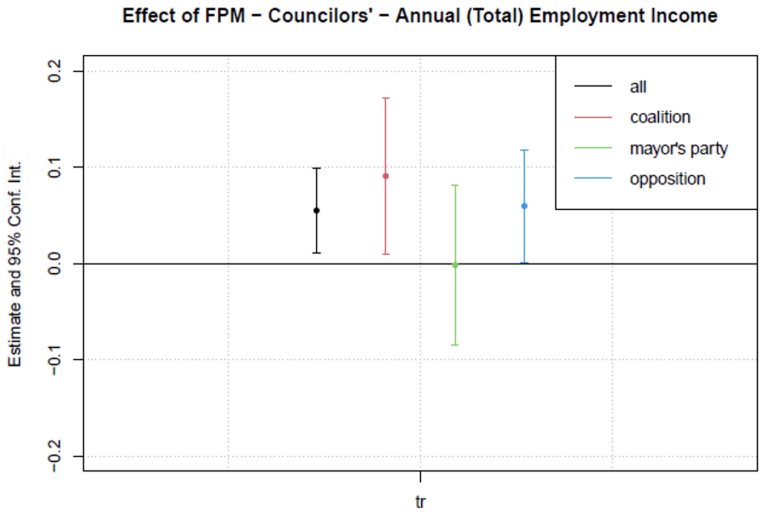


(c) Private Income: Mayor's and Councilor's

The results of this analysis are presented in Figure 11. Panels (a) and (b) in Figure 11 display graphical evidence of the jump at the discontinuity, indicating that additional public revenue from the FPM causally increases formal labor income for councilors' family members (panel (a)) and public sector labor income (panel (b)). In panels (c) and (d), we present results for the labor income of relatives of both mayors and councilors in the public and

private sectors, respectively. As shown, while extra revenue increases public sector employment income for councilors' family members by 6%, there is no statistically significant effect for relatives of mayors. Additionally, the results in panels (c) and (d) reinforce the pattern observed in previous sections: there is no effect on private sector income, but a positive effect on public sector employment.

Figure 12: Effect on FPM on Councilor's Family Members Income by alignment



However, the observed effect on public employment may simply reflect that more revenue leads to more jobs overall, as it would mechanically increase the municipality's budget. To test this possibility, we examine how the effects in Figure 12 vary by the political alignment of councilors. Specifically, we construct three new dependent variables, each representing the log of total employment income for family members of councilors within the mayor's coalition, within the mayor's party, and in the opposition. The results of these estimates are presented in Figure 12. The findings reveal a statistically significant increase in income for family members of councilors in the mayor's coalition and in the opposition, while we find null effects for councilors who are in the same party as the mayor. These results support the political bargaining hypothesis, suggesting that when available resources increase, councilors are able to secure greater benefits through political bargaining.

9 Anti-nepotism policies: before-after supreme court decision

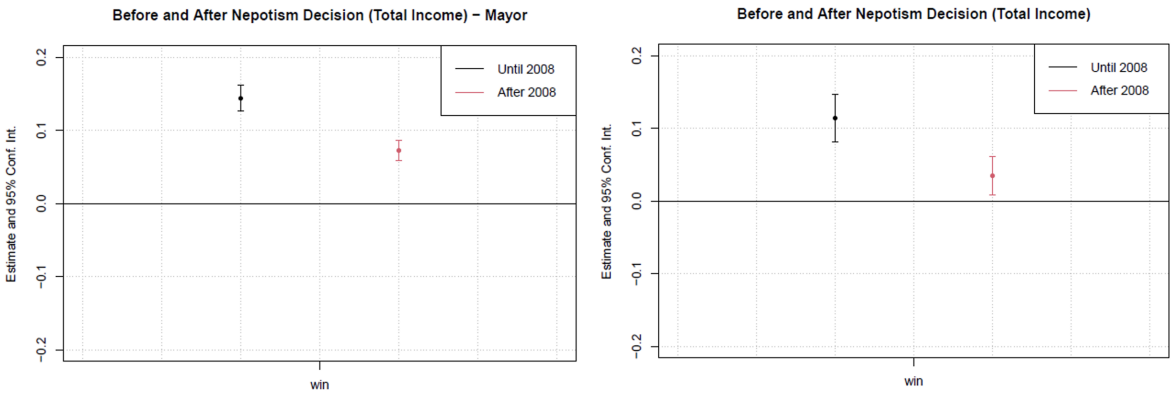
Thus far, we present strong and robust evidence of the existence of nepotism in the Brazilian public sector: family members of mayors and councilors elected in close races experience a

significant increase in formal employment income following the election. We also demonstrate that this effect originates from public sector jobs and aligns more closely with favoritism rather than improved screening, as the effect is limited to the term in office and is more pronounced for less-skilled individuals. Additionally, we show that these effects likely stem from a political bargaining mechanism, with opposition councilors observing greater benefits. Consistent with this bargaining hypothesis, we also find that councilors facing stronger mayors—those who won by larger margins—experience a smaller labor income premium. In this final section of this paper, we examine how a political reform aimed at reducing nepotism in Brazil impacts our estimates.

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. Our approach is similar to Bragança and Dahis (2022), who examined the effect of electing ruralist mayors on deforestation before and after an increase in deforestation monitoring. Results are presented in Figure 13.

Figure 13: The effect of nepotism ban on the family members premium



(a) Mayors' Family Members

(b) Councilors' Family Members

Panel (a) of Figure 13 shows that relatives of mayors elected in close races experienced a labor income premium of about 15% before the Supreme Court decision banning nepotistic appointments to public positions. After the decision took effect, this premium decreased to 8%. A similar pattern is observed for councilors' family members. As seen in Panel (b), the premium for having a relative elected as a councilor was approximately 11% until 2008, dropping to 4% after 2008. Overall, we interpret the results in Figure 13 as suggestive evidence that the anti-nepotism policy substantially reduced the family income premium, although it remains sizable.

10 Conclusion

This paper presents evidence of nepotism in the Brazilian public sector, leveraging close elections and detailed family composition data to estimate the impact of electoral victory on politicians' family members' employment outcomes. Our analysis shows that relatives of elected officials, particularly mayors, experience significant increases in public sector employment and income, highlighting the use of office for familial benefit. This effect is more pronounced for executive positions, where mayors have greater discretion over public employment compared to councilors.

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 underscores the role of public employment as a currency for political influence, especially in municipalities with substantial revenue streams.

The introduction of an anti-nepotism policy in 2008 reduced, but did not entirely eliminate, these practices. The policy's partial effect indicates the difficulty of fully curtailing nepotism through legislative measures alone, as entrenched networks and political incentives continue to shape employment decisions in the public sector. Overall, our findings contribute to the literature on political economy and governance by studying the persistence of nepotism and its implications for policy efforts aimed at promoting transparency and accountability in public administration.

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