

Judicial Subversion: Evidence from Brazil

Guilherme Lambais and Henrik Sigstad*

June 25, 2019

Abstract

Is a formally independent judicial system able to check abuses of political power? In this paper we show that candidates in Brazilian local elections who narrowly win an election are 60 percentage points more likely than candidates who narrowly lose to be acquitted in corruption cases filed against them before the election. We show evidence suggesting the effect comes from a direct influence of the power of elected politicians over law enforcers, rather than from elected politicians having better lawyers.

*We are grateful to Alberto Alesina, Edward Glaeser and Melissa Dell for excellent guidance throughout the project. Special thanks to Luis Fabiano de Assis and Bruno Bodart for teaching us about the workings of the Brazilian legal system, and for organizing meetings with lawyers, judges and prosecutors throughout Brazil. Thanks to Saulo Benchimol for research assistance. Also thanks to Rolf Aaberge, Daron Acemoglu, André Assumpção, Priscila Beltrami, Fernando Bizarro, Taylor Boas, Washington Brito, Filipe Campante, Fabrício Fernandes de Castro, Moya Chin, Paulo Costa, João Falcão, Eliana la Ferrara, Leopoldo Ferguson, Isabela Ferrari, João Victor Freitas Ferreira, Ray Fisman, Felipe Fontes, Siddharth George, Estêvão Gomes, Daniel Hidalgo, Moshe Hoffman, Liana Issa, Louis Kaplow, Asim Khwaja, Alejandro Lagomarsino, Leany Lemos, Horacio Larreguy, Victor Leahy, Jetson Leder-Luis, Debora Maliki, Etienne Martins, Nathan Nunn, Tzachi Raz, Mark Ramseyer, Ivan Ribeiro, Carlos Sanchez Martinez, Raul Sanchez de la Sierra, Jesse Shapiro, Andrei Shleifer, Holger Spamann, Matt Stephenson, Anderson Summa, Rafael Di Tella, Pedro Tepedino, Clémence Tricaud, Erez Yoeli, Luciana Zaffalon, and seminar participants at Harvard, MIT, University of Oslo, Universidade de Brasília, and Tribunal Regional Federal da 2a Região. We acknowledge the support of the Haddad Foundation, through the Harvard-Brazil Cities Research Grant Program of the David Rockefeller Center for Latin American Studies, and the Lynde and Harry Bradley Foundation.

1 Introduction

There are many reasons to believe that keeping elected politicians accountable to the law is important. It can prevent outright stealing of public funds, and makes sure the rules governing democratic elections are abided by. Furthermore, it might play an important role in fostering economic development by creating a predictable investment climate shielded from arbitrary government expropriations (North and Weingast 1989). Finally, it can reduce political violence as disputes with the government can be solved by legal means. Yet, such an outcome might be difficult to achieve in practice. Judges and other agents of justice can face strong incentives to not enforce the law in the face of powerful politicians. Elected officials might be able to make their careers terrible, by denying them promotions, removing them from office, or transferring them to disagreeable locations or positions. Sometimes politicians in power might even be allied with dangerous militias or criminal groups making it life-threatening go against them. Friendly law enforcers, on the other hand, might be rewarded with easier access to government jobs, contracts, or public services, to themselves or to their friends and family. Finally, politicians might starve the budgets of law enforcement institutions should they turn disloyal, or judges might fear that any decision against powerful politicians will not be enforced, as the enforcement of their decisions is typically in the hands of the executive. This is not to mention that politicians also have an important role in *making* the laws, and might create legal loopholes that lets them get away with harmful activities even when judges do apply the letter of the law.

In response to this, most modern societies have imposed an array of rules to make the judicial system more immune to political influence. These include laws that secure the tenure of judges, making them virtually impossible to remove or transfer to a different position for politicians who dislike their rulings, and rules which prohibit judges from most outside jobs, especially jobs in the executive. The power to nominate and promote judges has also been taken from the hands of politicians and given to judicial councils, or the judiciary itself, in a majority of countries (Garoupa and Ginsburg 2008). There are often similar rules protecting the independence of prosecutors. How well do these rules work? Are they sufficient to remove all influence of political power over judicial decisions, or is it still the case, even with all these safeguards, that elected politicians tend to face a more lenient justice? Apart from anecdotal evidence we know very little about this. There are some studies showing that elected politicians or their party are favored by the judiciary when they control the promotion of judges (Ramseyer and Rasmusen 2001; Sanchez-Martinez 2017 and Poblete-Cazenave 2019). However, as far as the authors are aware, we have no causal evidence showing whether politicians holding electoral offices are favored in settings where they have no such control. The contribution of this paper is to provide such evidence.

To do this we study a type of corruption court cases called *Ações de Improbidade* involving local politicians in the trial courts of the Brazilian state judiciaries. Brazilian trial courts are ideal for studying this question since all the formal ways of ensuring that judges are immune to political influence are in place. They are very difficult to remove, cannot be transferred to other positions against their will, and cannot have other jobs except teaching. Politicians have no influence over their

careers: They are appointed by a competitive exam administered by the appeals court (Tribunal de Justiça) who also determines promotions. Finally, the judges receive a very high salary placing them among Brazil's top earners. Similar rules apply to the public prosecutors who are in charge of the prosecution.

Is this enough to prevent politicians in power from having influence over judicial outcomes? Answering this question is challenging. Showing that elected politicians tend to win at a higher rate in court than others does not prove that decisions are influenced by their power, it could just be that they tend to face more frivolous cases, perhaps due to politically motivated litigation. Conversely, no difference in win rates between elected politicians and other litigants does not prove that the judicial system is immune to political influence, it could just be that prosecutors are only filing cases against powerful politicians when they have exceptionally strong evidence. We solve this empirical challenge by using a close election regression discontinuity design, focusing on corruption cases which are filed before and decided after the election. If close elections are decided at random, marginal electoral winners and marginal electoral losers will on average have similar types of corruption cases pending against them. The strength of the evidence or the gravity of the misconduct should not differ systematically. Thus, if we find that marginal electoral winners are more likely to be acquitted than the marginal losers, we would thus be able to conclude that this difference is causally due to the election result, and not to anything related to the initial strength of the case.

In our main regression we find large effects of political power on judicial outcomes. The point estimate indicates that marginal electoral winners are 60 percentage points more likely to win in court than marginal electoral losers, a difference which is statistically significant at the 1 percent level. There is no effect of the election on corruption cases decided *before* the election, indicating that marginal winning and marginal losing candidates do tend to be involved in corruption cases with similar strength of evidence. The effect is larger if a politician is elected mayor, but is also present for candidates to the local legislature.

In the second part of our analysis we try to distinguish between two main types of mechanisms that can explain the result. First, it could be due to the winners of the election investing more resources into winning the case by legal means, by hiring better lawyers. Second, it could be due to a *direct* influence of political power over law enforcers such as judges, prosecutors, judicial staff, or witnesses. This could be due to the promise of easier access to public services, jobs or contracts for themselves or their friends and families, threats by criminal groups allied to the elected politician, or just a purely psychological effect that power may inflict on the minds of law enforcers. We provide several pieces of evidence indicating that the result is unlikely to be only driven by the first channel. First, we directly measure the quantity and quality of the lawyers who are registered on each court case, and find no evidence that marginal electoral winners tend to increase the number or the quality of lawyers on their case after the election, compared to marginal electoral losers. We also find no tendency of neither the marginal winner nor the marginal loser of hiring new lawyers at a higher rate after the election than before. Thus, if electoral winners are more likely to win in court due to receiving superior legal counsel it has to be either by lawyers who are not registered on the case, or

by the lawyers registered on the case exerting more effort. The second piece of evidence against the better lawyer hypothesis is that the effect is larger if the court is located in the municipality of the politician than if the court is located in a nearby municipality. If the effect is only driven by winners having better lawyers, we would predict no such a difference since the legal means with which a lawyer can win a case does not depend on the location of the court. On the other hand, the *non-legal* means that an elected politician can use to win a case, such as offering jobs and contracts to relatives of law enforcers, is likely to be much higher if the court is located in the municipality where the politician holds power. The third piece of evidence is that the effect of winning the election on judicial outcomes seems to be larger for cases decided early in the electoral term. This is consistent with the effect being driven by the non-legal channel since the future opportunities for rewarding friendly law enforcers is largest just after the politician takes office. On the other hand, if the effect is due to electoral winners having better lawyers we would expect the effect to be larger if the case is decided late in the term, which would give the lawyers more time to have an impact. Next, we argue that an important reason to believe that electoral winners might want to get better lawyers, that they might have more at stake in the case given that they might lose office, does not apply. Even though loss of office is a possible penalty in *Ações de Improbidade* the penalty does not come into effect as long as the politician has opportunities to appeal the decision. As the Brazilian judiciary is often slow, has effectively four instances, and a myriad of ways to appeal decisions, this means that no electoral winner in our sample has actually had to step down due to being convicted in an *Ação de Improbidade*. The risk of not being able to run for future electoral offices due to an *Ação de Improbidade* is, however, real. But this applies to electoral losers as well. In fact, since there is an incumbency *disadvantage* among Brazilian mayors, marginal losers might actually have more at stake in *Ações de Improbidade* than marginal winners. Finally, we show that there is no evidence that the effect is driven by another reason for marginal winners having better lawyers: That they are less liquidity constrained. The point estimate of the effect is identical for politicians with and without higher education, and larger for politicians with a larger than median campaign.

The question of creating a judicial system that is immune to the subversion of the politically powerful has captivated researchers at least since Montesquieu (1748). Approaches vary from theoretical (e.g. Glaeser and Shleifer 2002), to case studies (e.g. Chavez 2004), and cross-country regressions (e.g. La Porta et al. 2004). Yet, there is little within country quantitative analysis. Two notable exceptions are Ramseyer and Rasmusen (2001) who show that Japanese lower court judges who are lenient in cases involving the government tend to be promoted at a higher rate, and Helmke (2005) which shows that Argentinian judges started to rule against the government when it became clear that the ruling party would lose in the coming elections. For studies which claim to offer *causal* evidence that elected politicians are favored by courts, the authors are only aware of Sanchez-Martinez (2017) and Poblete-Cazenave 2019, both making use of close election regression discontinuity designs. Our paper differ from these along several dimensions. Most importantly, both take place in settings where politicians have power over the careers of law enforcers, whereas in our setting local politician have no control over the careers of neither judges, prosecutors, nor judicial

staff. We also differ from Sanchez-Martinez (2017) by looking at court cases involving politicians themselves, rather than members of the winning political party. By showing that judges are biased towards elected politicians we contribute to the large literature on judicial bias, which have tended to focus on ethnic biases (e.g. Shayo and Zussman 2011; Alesina and Ferrara 2014; Arnold, Dobbie, and Yang 2018; Abrams, Bertrand, and Mullainathan 2012). A key challenge faced by this literature is that it is typically not possible to know whether the bias is *due* to the ethnicity of the litigant or to something correlated with ethnicity. We contribute by showing that judges are biased towards the politically powerful, and that this bias is *causally* due to gaining political power and not to something correlated with being powerful. Finally, we contribute to the broader literature on how to prevent political corruption. This literature has mostly focused on when corruption can be disincentivized by voters (see Olken and Pande 2012) or auditors (e.g. Avis, Ferraz, and Finan 2018), we contribute by adding evidence about when corruption can be disincentivized by judges.

The rest of the paper is organized as follows. Section 2 describes the legal remedies against corruption in Brazil, the careers of Brazilian judges and prosecutors, and which tools Brazilian local politicians have at their disposal to benefit or harm law enforcers. In Section 3 we discuss how we constructed a data set of corruption cases involving local politicians. Section 4 presents the empirical strategy we use to estimate the effect of being elected on judicial decisions. In Section 5 we present our main results showing that politicians are more likely to be acquitted of corruption charges if they win the election. Section 6 discusses to what extent the result is driven by electoral winners having better lawyers, or by a direct influence of political power. Section 7 concludes.

2 Institutional context

In this section, we first describe the legal remedies against corruption among elected officials in Brazil, with a focus on *Ações de Improbidade*. We then describe the judges and the prosecutors who are involved in the cases. Finally, we describe the relevant features of Brazilian local government.

2.1 The legal remedies against political corruption in Brazil

There are several legal remedies against corruption among elected officials available in Brazil. First, corruption is defined as a crime in the penal code, and there are various other corruption related crimes such as money laundering. Then there are three types of civil suits which can be brought against corruption and less serious administrative malfeasance: *Ação Civil de Improbidade Administrativa* ("Ação de Improbidade"), *Ação Civil Pública*, and *Ação Popular*. In this paper we will not look at the criminal cases against corruption. Criminal cases against mayoral candidates are sent to the appeals court in the case they win the election (a rule colloquially known as *foro privilegiado*), making it difficult to interpret a close election regression discontinuity estimate for these cases. Among the civil suits, we will focus on *Ações de Improbidade* for two reasons. First, they

are the most serious of the civil suits.¹ Second, the other civil suits can be settled which makes it difficult to interpret regression discontinuity estimates.

Ações de Improbidade can be filed against any act by a public official which causes either violation of administrative principles, damage to the treasury or illicit enrichment. Typical cases involve the hiring of public workers without proper procedure and fraud in government contracting. The suit can only be brought by the public prosecutor or the entity harmed by the corrupt act. For cases involving local politicians, the latter is typically the municipality. The possible penalties are loss of office, loss of political rights for 3-10 years, reimbursing the treasury, fines up to 100 times the monthly wage, and the prohibition of receiving government contracts for 3-10 years. Loss of political rights is seen as one of the most severe penalties, since it includes not being able to run for electoral office. The judge has a wide discretion in deciding which penalties to apply. One feature of these cases which makes interpreting our results easier is that they cannot be solved by a settlement between the parties. The cases filed by the public prosecutor are typically initiated by someone filing a complaint to the prosecutor, then the prosecutor investigates (*inquérito civil*) and chooses whether to file a case depending on the outcome of the investigation. We will only look at the cases which are filed by the public prosecutor in this paper, not those filed by the municipality: The mayor is the legal representative of the municipality, thus if a mayoral candidate who is facing a case filed by the municipality wins the election she will end up becoming both the plaintiff and the defendant, and the case is often dismissed by the judge.

An example of a typical case in our data is an Ação de Improbidade filed by the public prosecutor against the mayor of the municipality Fartura in the interior of São Paulo. The mayor had awarded a contract to provide fuel to the municipality to a firm owned by the son of the vice-mayor, and it is illegal to contract a firm which is under the influence of a public servant. In the decision the judge agreed the contract was illegal, ruled it void, and imposed small fine on the vice-mayor. However, the judge acquitted the mayor arguing the misconduct was not done in "bad faith", and did not impose any repayment of funds arguing it was not proven that the contract had lead to a financial loss to the municipality.²

2.2 Brazilian trial court judges and prosecutors

Judges at the trial courts in Brazil's state judiciaries are formally very independent of politics. They get appointed via a competitive exam administered by the appeals court, receive tenure after two years of service, and are promoted by the appeals court on criteria which alternate between seniority and merit. The only formal influence of politics is that one fifth of the appeals court judges are

¹Ação Popular can only reverse political or administrative decisions, and leads to no further penalties for the politician, whereas Ação Civil Pública can only lead to fines and injunctions.

²An important feature of Ações de Improbidade is that it is typically not enough to demonstrate that the law was broken, but also that it was broken in "bad faith". This is a very common reason for acquitting politicians. Sentences including the words não ("no") and dolo ("intentional misconduct") appear in 70% of all acquittals for which we have the legal justification.

nominated by the state governor.³ While judicial corruption is recognized as a problem, there is a general belief that trial court judges are not easily corruptible. The main reason cited is that judges earn very high wages: Just the official wage of a trial judge puts her among Brazil's top earners, not counting several perquisites such as housing allowances.

The public prosecution (*Ministério Público*) in Brazil is also formally very independent from both the executive and the judiciary, and is often called the fourth branch of government. Public prosecutors are appointed via a competitive exam administered by the state chief prosecutor, receive tenure after two years of service, and are promoted by the chief prosecutor. The chief prosecutor is, however, appointed by the governor for a two year term with the possibility a one term renewal. In practice, the governor chooses the chief prosecutor from a list of three candidates prepared after a vote among the prosecutors. Prosecutors have wide discretion in deciding which cases to work on. But any decision to drop a case is subject to review by the chief prosecutor.

Each state is divided into judicial districts, which typically covers between one to three municipalities each. If a district is composed of several municipalities, the court is typically located in the largest municipality. A judicial district might have between one to several hundred judges, depending on its size. In districts with many judges, there are judges specialized in certain areas such as civil and criminal cases. Cases are randomly allocated to judges if there are more than one judge who has jurisdiction. The public prosecution has a parallel structure to the judiciary with sections in each judicial district.

2.3 Brazilian local government

Local government in Brazil is composed of the mayor (*prefeito*) and the city council (*câmara de vereadores*). Mayors are elected via a first past the post electoral system, with the exception of cities with a population greater than 200,000 which have a second round run-off between the two top candidates if none received more than 50% of the votes. The city council is filled by an open list proportional representation system. Each candidate is part of an electoral coalition composed of several parties. The coalitions receive seats in the council according to the vote share received by all candidates within the coalition, and the seats are allocated to the candidates who received most votes.

The responsibilities of the mayor is to administrate the city budget, in areas such as education, health and transport, and to collect municipal taxes. In doing this the mayor has the power to contract firms and hire municipal workers. Many municipal employees are hired via a competitive civil service exam and receive tenure after three years of service, but there are some categories of jobs which gives the mayor much more discretion in deciding who to hire, such as commissioned posts (*cargo em comissão*), positions of trust (*função de confiança*), and temporary jobs. Mayors often make use of these job categories to circumvent the civil service exam (see Colonnelli, Teso, and Prem 2017). In fact, a large share of the corruption cases in our sample are about the misuse

³The seats are filled alternately by public prosecutors and lawyers. The organizations representing public prosecutors or lawyers prepare a list of six candidates, which is reduced to three by the appeals court, before the governor chooses.

of these categories to hire workers who should have been hired via the civil service exam. Finally, the mayor can propose municipal laws. The chief role of the city council is to approve municipal laws. However, city councilors also have the power to hire certain workers, including commissioned posts both for their office staff, such as policy and advisement jobs, and to run the city council in its various departments, such as communications, legal, and IT. In addition, the council members have to write up and vote on the annual budget for the municipality every year, which is approved into law (*Lei Orçamentária Anual*). In doing so, depending on the power of the council member, he can have some influence on how the budget will be spent, although its execution is delegated to the mayor. There are a myriad of ways in which mayors and city councilors could use public resources to affect the life of law enforcers. While judges and prosecutors personally are not allowed to be hired by the municipality or receive government contracts, there are no such prohibition for their relatives and friends. Also, judges and prosecutors, who are required to live in the judicial district, depend on municipal services such as water, electricity, and health care. It is not unlikely that elected local politicians would have it in their power to make access to such services easier for certain law enforcers.

3 Data

In this section we explain how we constructed our main data set of Ações de Improbidade involving local politicians, and present summary statistics.

3.1 Judicial data

For all states except São Paulo our data comes from the daily official publications of the courts called *Diários de Justiça*. The courts are required by law to publish all judicial decisions in these outlets, and they also publish several other minor statements about the case as it proceeds. This means thousands of pages of raw text every day. In order to generate a data set from such large source of raw text we employ a technique called *parsing* which is a method commonly used in computer science to extract the meaning of computer languages, and in computational linguistics to extract the meaning of natural language sentences. Parsing is a useful method for machine reading court documents, since such documents are typically very structured. The parser is being told the logical structure of the text, and use this to generate a data set with information about the cases such as the type of lawsuit, the names of litigants, and the decisions made by the judge. For details see the appendix. For the state of São Paulo we use the website of the court, which contains the same information as the Diários de Justiça in a more structured format. Figure 1 shows the coverage in time of the court data by state.

The final decision of the judge comes in three main categories. Either the judge rules the case totally in favor of the prosecution (*procedente*), partially in favor of the prosecution (*parcialmente procedente*) or acquits the defendant of all charges (*improcedente*). In our main specification we consider the latter case as the defendant winning, and a ruling partially or fully in favor of the

prosecution as the defendant losing.

We estimate the date of filing of the court cases as follows: First, the filing of a case is recorded in the Diários de Justiça, thus if the filing occurred within the sample period, we use this as the filing date. Otherwise we know which year the case is filed from the case number, and set the filing date to June 1st the year it was filed. In order to be sure we are not miscoding cases filed after the election as cases filed before the election we exclude all cases filed in an election year for which we don't know the exact filing date.

Each time there is a publication about a case in the Diário de Justiça the names of the lawyers registered on the case are listed, in most states together with their unique registration number with the *Ordem dos Advogados do Brasil* (OAB). We use this information to create a data set with all the lawyers registered on each Ação de Improbidade at each date there is a publication about that case. From this data set we calculate *lawyer experience* by the number of previous Ações de Improbidade that the lawyer has worked, and *lawyer success rate* by the share of these cases in which the client of the lawyer has been acquitted, given that the case has arrived at a final decision.

In addition to the Diários de Justiça we will supplementary be using the *Cadastro Nacional de Condenações Cíveis por Ato de Improbidade Administrativa e Inelegibilidade* which is a public database of politicians who has either been convicted in an Ação de Improbidade and this has been upheld by an appeals court, or the possibilities for appeals have been exhausted.

3.2 Electoral data and matching

We use election results and candidate characteristics from the electoral authorities (Tribunal Superior Eleitoral). The candidate characteristics include information about the age, gender, education, occupation, municipality of birth, and total campaign expenditure of the candidates. We match court cases to politicians on perfect name matching. If the names of defendants include the name of a politician, ignoring accents, we code this as a match. We exclude common names via the following procedure: Each token in a name is assigned a log likelihood based on the rate with which this token appears in the names of all litigants involved in a court case in the state of São Paulo between 2012 and 2017. A match is kept if the sum of the log likelihood of all tokens in the name is less than -30. Examples of names which are just uncommon enough to be included as matches are "Jefferson Carvalho Sales", "Eliana Aparecida dos Santos", and "Terezinha de Jesus Costa". Figure 2 shows the number of cases identified per municipality by state. On average we identify about one Ação de Improbidade case involving a local politician for every two municipalities.

3.3 Summary statistics

Summary statistics for all identified Ações de Improbidade involving candidates in the 2012 and 2016 local elections, filed before and decided after the election, are presented in Table 1. Most of the cases (58%) involve candidates for mayor. Among these about 86% of the candidates are ex mayors, and 46% are incumbent mayors running for re-election. From reading a sample of the cases, most seem to involve either fraud in municipal contracting or the hiring of municipal workers without

following proper procedure. The cases typically take a long time to reach a decision, on average 5 years. But 92% of the cases are decided before the next election, and 63% within the first two years after the election. The politician wins on all charges in 47% of the cases, and wins on some charges in 23% of the cases. Only in 34% of the cases does the politician lose on all charges. The court is located in the municipality for 80% of the cases. There are on average 2.6 lawyers registered on each case. On average each lawyer has experience from 4.6 previous Ações de Improbidade, but there is a very large variation in the level of experience, with the most experienced lawyer in our sample having worked with 150 previous cases.

4 Empirical strategy

We want to estimate the effect of political power on judicial decisions. If politicians in power are shown to be more likely to win in court than opposition politicians this does not prove that decisions are affected by the political power of the litigant, since elected politicians and politicians out of office are likely to be involved in very different types of cases. The ideal experiment would be to randomly allocate elected offices to politicians and look at the effect on judicial decisions on *already filed* cases. We were not able to run this experiment, so we are doing the second best which is to exploit close elections as a natural experiment. In particular, we look at corruption cases which are filed before and decided after the election, comparing politicians who marginally won the election with politicians who marginally lost the election. The idea is that the winner of a very close election is as good as randomly determined. Thus, winning and losing politicians should on average be involved in similar cases before the election, and any difference in judicial decisions has to be due to the outcome of the election. Formally, we use the bias-corrected estimator proposed by Calonico, Cattaneo, and Titiunik (2014) with local linear regression for the estimate and local quadratic regression for the bias-correction as our main specification. The specification for the local linear regression is

$$y_{ic} = \alpha + \beta E_i + \gamma WM_i + \delta E_i WM_i + \varepsilon_{ic}$$

where i is a politician and c is a corruption case filed before and decided after the election. The variable WM_i is the electoral win margin of the politician, and E_i is a dummy for whether the politician got elected. The outcome y_{ic} will vary, but in the baseline model it will be a dummy for whether the politician was acquitted in the corruption case. To avoid researcher discretion in the choice of control variables, we tie our hands by using no control variables. As a placebo check we also run the above regression for cases decided before the election. If close elections are indeed randomly decided, we should not see any effect of the election on these cases. We will also report the main results using conventional local linear specifications for different bandwidths, including the Imbens and Kalyanaraman (2012) optimal bandwidth. We cluster standard errors at the judicial district level.

For candidates for city council we calculate their win margin as follows. Let V_i denote the votes received by the candidate, V the total number of votes cast, and n the number of seats in the council.

In the case the candidate did not receive a seat the win margin is calculated as

$$WM_i = \frac{V_i - \bar{V}_i}{V/n}$$

where \bar{V}_i is the votes received by the candidate with the fewest votes within the members of i 's electoral coalition who won a seat. For candidates who won a seat the win margin is calculated as

$$WM_i = \frac{V_i - \underline{V}_i}{V/n}$$

where \underline{V}_i is the votes received by the candidate with the most votes within the members of i 's electoral coalition who did not win a seat. We divide by V/n since this is the number of votes behind each seat in the council.

5 Main results

Table 2 shows results from running the main regression discontinuity specification with a wide range of pre-election covariates as outcome variables. If close elections are indeed randomly determined we should not see any systematic differences between marginal winners and marginal losers on these variables. The first row looks at all candidates in the 2012 and 2016 local elections and show that marginal winners do not have a significantly lower probability than marginal losers of being involved in an Ação de Improbidade at the time of the election. Thus, there is no evidence that that somehow the less corrupt are able to systematically win in close races. The remaining rows look at the balance within the estimation sample: Only candidates who are involved in an Ação de Improbidade at the time of the election. For none of the variables is there a statistically significant difference between marginal winners and marginal losers, consistent with the winner in close races being randomly determined.

The result of our main regression discontinuity specification is presented in Column 1 of Table 3. The point estimate indicates that marginal electoral winners are 65 percentage points more likely than marginal electoral losers to be acquitted from the corruption charges. The effect is statistically significant at the one percent level. Figure 3 shows a clear jump in the probability of being acquitted when the number of votes passes the threshold necessary to win the election. Results using the Imbens and Kalyanaraman (2012) optimal bandwidth as well as local linear regression discontinuity specifications for different bandwidth sizes are presented in Figure 4. The optimal bandwidth selectors choose bandwidths of 13 and 9 percentage points, but the effect is statistically significant at the 5% level for any bandwidth larger than 5 percentage points. Column 2 of Table 3 shows that the result is robust to counting a ruling partially in favor of the prosecution as an acquittal rather than a conviction. The result of the placebo test is presented in Column 3. Reassuringly, there is no effect of winning the election on cases decided *before* the election. The absence of any jump at the threshold for cases decided before the election can be visually inspected in Figure 6.

One possible explanation of the result is that it might be driven by judges postponing unfavorable

decisions against elected politicians, not to any change in actual decisions. While this would also be evidence of elected politician receiving a favorable treatment by the judiciary, it would lead to a different interpretation. In order to test for whether elected politicians are able to postpone decisions in their cases, we run regression discontinuity regressions with the years between filing and the decision in Column 4 as outcome variable. The point estimate indicates that cases involving marginal winners are in fact decided four months *faster* than cases involving marginal losers. However, the effect is statistically insignificant. Furthermore, the McCrary plot in Figure 5 does not reveal any clear decrease in the number of cases as the vote share crosses the threshold for being elected. Thus, the result is unlikely to be explained by judges postponing decisions against elected politicians.

In Panel A of Table 4 we present some basic heterogeneous effects, where we split the sample into subsamples and estimate the main regression discontinuity specification separately on each subsample. We estimate p -values of the difference in effects between subsamples under the assumption that the subsamples are independently drawn. The first two rows shows that the effect is driven by both candidates for mayor and city council, with the effect being larger for mayoral candidates. The next rows show that there is no statistically significant difference in the effects comparing large and small municipalities and comparing incumbents with non-incumbents, although the point estimate is larger for large municipalities.

6 Mechanisms

Why are Brazilian local politicians more likely to be acquitted of corruption charges if they win the election? In this paper we focus on two distinct types of mechanisms. First, it could be that the electoral winners are able to be acquitted at a higher rate by hiring lawyers that are better at convincing the judge of their innocence. This could be due to knowing the law better, being more skillful in the use of interlocutory appeals, or just from being a great orator. There are at least three reasons to believe that electoral winners might have better lawyers: They might have more to lose if they are convicted, as they might have to step down from their office; they might be less liquidity constrained due to their official salary or other new sources of income; and they might be able to use the lawyers of the municipality to receive legal advice. The latter is illegal in Brazil since *Ações de Improbidade* are considered as private lawsuits of the politician, however we know anecdotally that this might happen.

The second type of mechanism we will consider is that agents of justice such as judges, judicial staff, prosecutors, and witnesses, might be influenced by the power of the politician through channels unrelated to the legal process. It might be through the politician's control over public resources. For instance, he can make it difficult for someone who witnesses against him to obtain a job in the municipality or to receive municipal contracts. Judges and prosecutors themselves are prohibited from receiving government jobs or contracts, but there are no rules preventing a mayor from offering positions in the municipality to their relatives or friends, maybe with the implicit message that they will continue in the jobs as long as the law enforcers acts friendly towards the mayor. Also, both

the prosecutor and the judge is required to live in the judicial district (though some are granted an exemption) and rely on municipal services such as water, electricity, and health care. Furthermore, there might be social benefits from siding with an elected politician such as being invited to dinner parties with the city elite. Finally, it could be that law enforcers are purely psychologically influenced by the power of the politician without expecting any rewards or punishments.

In this paper we are not going to be able to say much about which of these non-legal ways that the power of the politician might influence the outcome of the court case. But what we believe we are able to is to disentangle this broad category of mechanisms, from the ways in which power might affect judicial decision through the legal process by the work of more skillful lawyers. Although knowing which of the non-legal ways of influence are at play would be very interesting, we think that being able to disentangle between these two main categories of mechanisms is also valuable. The reason is that the policy response might be very different depending on which of the two types of mechanisms are driving the result. If the effect is through a direct influence of political power over law enforcers a reasonable policy would be to move the trial to a different location outside the reach of the politicians power, maybe to a neighboring judicial district. Conversely, if the effect is due to elected politicians hiring better lawyers such a policy will not work. Instead a more effective policy might for instance be to provide legal assistance to opposition politicians not able to afford a high quality lawyer.

In the following subsections we will show several tests which indicate that the first type of mechanism, elected politicians having better lawyers, is unlikely to explain the result, and that the evidence is more consistent with the effect coming from the second type of mechanism, elected politicians influencing judicial outcomes via non-legal means. In Section **A direct test of the lawyer hypothesis** we will show that there is no evidence that marginal electoral winners change to having more experienced or successful lawyers registered on their case after the election at a higher rate than marginal losers. Section **Location of court** shows that the effect is larger if the court is located in the municipality than if the court is in a neighboring municipality. In Section **Timing of the decision** we show that the effect seem to be larger if the decision is made early in the electoral term. In Section 6.4 we argue that there is no reasons to believe that marginal winners have more at stake in the case, and thus be willing to hire better lawyers than marginal losers. Finally, in Section 6.5 we show that there is no evidence that the effect is larger for more liquidity constrained politicians.

6.1 Direct tests of the lawyer hypothesis

The most direct test of whether the result is driven by elected politician having better lawyers is to measure whether marginal electoral winners tend to register more or better lawyers on their case after the election, at a higher rate than marginal losers. This is possible to check since at any date that there is a publication about a given case in the *Diários de Justiça* we know the identity of the lawyers on the case. On average each case in our sample has 5 publications, with 70% of the publications being after the election. Thus, counting the *number* of lawyers and whether there

are new lawyers added to the case at each date is straight forward. As proxies for the quality of each lawyer we use *lawyer experience* defined as the number of other Ações de Improbidade that the lawyer has worked on prior to the election, and *lawyer success rate* defined as the share of these cases in which the client of the lawyer has been acquitted, conditional on there having been a final decision in the case prior to the election. We calculate the average number and quality of lawyers in Diário de Justiça publications about the case before and after the election, respectively. To test whether marginal electoral winners tend to hire better lawyers after the election compared to marginal losers we run the main regression discontinuity specification with the outcome being the increase in lawyer quantity or quality after the election. If the result is explained by marginal electoral winners having better lawyers, we would expect there to be a clear jump in the post-election increase in lawyer quality or quantity for politicians who obtain just enough votes to cross the threshold for being elected.

The results are presented in Table 5. The point estimate in Column 1 shows that marginal electoral winners increase the number of lawyers by only 0.6 percentage points more than marginal losers. The standard error is large, so we cannot use this result to claim that electoral winners in general do not have more lawyers, but at least in our sample there does not seem to be any clear difference between the post-election increase in the number of lawyers of marginal winners and marginal losers. Similarly, Column 2 shows it is not the case in our sample that marginal winners are hiring new lawyers after the election at a higher rate than marginal losers. Also, Figure 7, which plots the number of new lawyers over time, does not reveal any tendency for neither electoral losers nor electoral winners to hire new lawyers at a higher rate after the election than before. There are also very small differences in average lawyer experience and success rates. The point estimate in Column 3 of Table 5 indicates that the pool of lawyers working for the marginal winner decrease by on average having experience from 0.9 Ações de Improbidade less, with the decrease for marginal winners being 0.7. This is a small difference compared to the average lawyer experience of 4. Finally, Column 4 shows that the post-election change in the rates at which the lawyers have won the case for their clients in previous Ações de Improbidade are very similar for marginal winners and marginal losers. In sum, it does not seem to be the case that marginal winners increase the quantity or quality of the lawyers who *formally* work on their case after the election any more than marginal losers.

While it is tempting to rule out the lawyer hypothesis completely after this evidence, there might still be changes to the quality of legal counsel that just looking at the lawyers formally registered on the cases does not detect. First, it might be the case that electoral winners receives informal help from lawyers not registered on the case. This is particularly an issue if elected politicians receive help from municipal lawyers, since these are not allowed to work on the case. Second, it might be the case that electoral winners pay existing lawyers to work longer hours, without changing the identity of any of the lawyers. Thus, in the following subsections we will also show a series of other, less direct, tests.

6.2 The location of the court

Brazilian judicial districts are often composed of several municipalities with the court typically seated in the largest municipality. This means that some of the politicians in our sample are tried in a court that is located in their municipality, while others are tried in a court located in a neighboring municipality. Normally law enforcers, including the judge and the prosecutor, will live in the municipality where the court is located, both because this gives a shorter commute and might have more amenities since it typically the largest of the municipalities composing the judicial district. Consequently, the chances of a politician of influencing judicial outcomes by offering easier access to public services or municipal jobs and contracts to law enforcers, their friends and families, will likely be much larger if the court is located in the municipality where the politician holds power. In other words, if the marginal winners are favored by law enforcers due to influencing decisions via non-legal means we would expect our main regression discontinuity estimate to be larger if the court is located in the municipality where the politicians are running for office. Conversely, if the effect is driven by elected politicians having access to better lawyers, there are no reason to believe that there should be a differential effect. Whether a good lawyer is able to convince the judge, should not depend on the location of the court.

The result of this exercise is presented in the first row of Panel B in Table 4. For cases which are tried in the municipality where the politician is running for office, the effect of winning the election on the probability of winning in court is 78 percentage points and significant at the 1 percent level. On the other hand, the estimated effect is -27 percentage points and statistically insignificant for cases which are tried in a court located in a different municipality. The difference between the two effects has a p -value of 6%. This means that the result is unlikely to be due only to elected politicians having better lawyers. It is also evidence against some purely psychological explanations of our result, such as judges favoring politicians in power due to not feeling legitimated to rule against democratically elected politicians in general.

6.3 Cases decided early versus late in the electoral term

Some politicians might be involved in an Ação de Improbidade which is already at an advanced stage at the time of the election, meaning that a final decision in their case is close. Other politicians might be involved in cases which are in their early stages, and a decision is only made towards the end of the electoral term when the winner is about to leave office and new elections are upcoming. Is the effect largest for the first types of cases or the latter? This is an interesting question since the two types of mechanisms have opposing predictions. If the result is driven by electoral winners having better lawyers, we should expect the effect of winning the election on judicial outcomes to be larger if the case it at an early stage when the politician takes office, since it gives lawyers more time to have an impact on the final decision. On the other hand, we would expect little effects for cases decided right after the politician takes office since most of the lawyer work has already been done before the election. However, if the result is driven by law enforcers hoping to be rewarded for a friendly attitude towards the politicians in power with easier access to public services or municipal

jobs and contracts, or fearing reprisals, we would expect the result to be largest if the decision is made just after the politician takes office. It is just after taking office that there are most future opportunities for the elected politician to use his power to reward friendly law enforcers or punish those that are disloyal. If, on the other hand, the decision in the case is made towards the end of the electoral term, the marginal winner might soon be out of office and the marginal loser might be the one who is most able to offer promises of future rewards and punishments, due to the incumbency disadvantage to be discussed below.

In order to test whether the effect is largest if the case is decided early or late in the electoral term, we run our main regression discontinuity specification on all cases that were decided in the first two years after the electoral winner took office, and all cases decided in the last two years of the term, respectively. The result is presented in Panel B of Table 4. The regression discontinuity point estimate is largest if the case is decided early in the term: A marginal electoral winner is estimated to have a 86 percentage points greater chance of being acquitted than a marginal loser if the case is decided within the first two years of the term, but only 40 percentage points greater chance of being acquitted if the case is decided in the last two years. However, the difference between the two effects has a p -value of 0.2, meaning that we can only be 80% confident that the effect is actually larger in the first two years. Another caveat of this result is that we are splitting the sample on a potentially endogenous variable, the timing of the decision. While the evidence is consistent with the effect being due to power influencing judicial outcomes by non-legal means, it could also be consistent with the lawyer hypothesis if for instance cases in which marginal electoral winners are expected to lose are postponed.

6.4 Do electoral winners have more at stake?

One of the main reasons to believe that electoral winners hire better lawyers is that they risk losing their office if they lose the case. With more at stake, they might be willing to pay more for legal counsel than electoral losers, which have no office to lose. In this section we will argue that *marginal* electoral winners are unlikely to have better lawyers than *marginal* losers due to this reason, and that in fact marginal losers have as much at stake in case as the marginal winners. The main reason is that even if the judge invokes the penalty of loss of office or the loss of political rights, the politician can continue in office as long as there still are possibilities to appeal the decision. The Brazilian legal system is composed of four instances, the trial courts, the appeal courts, the superior court, and the supreme court, and allows for a myriad of ways to appeal both interlocutory and final decisions. This, combined with the slowness of the judicial system, means that it is unlikely that an electoral winner will have to step down before his term is over even if the penalty of loss of office is imposed by the trial court in the first year of office. In fact by matching our data with the *Cadastro Nacional de Condenações Cíveis por Ato de Improbidade Administrativa e Inelegibilidade* which keeps track of convictions in Ações de Improbidade for which all possibilities of appeals has been exhausted, we found that no electoral winner in our data has actually had to step down during the term due to an Ação de Improbidade.

While it is very unlikely that any elected politician has to step down in the same term as the trial court decision, receiving the penalty of loss of political rights in an *Ação de Improbidade* can have serious consequences for the *future* political career of a politician. This was especially true after the passing of the *Clean Record Act*) (Lei da Ficha Limpa) in 2010, which stipulates that if such a sentence has been confirmed by the appeals court the politician is barred from running for any electoral office for the next eight years, even when possibilities for appeals has not been exhausted. However, this consequence applies to electoral losers as well, since marginal electoral losers also might care about their future political career. In fact, since there is an incumbency *disadvantage* among mayoral candidates in Brazil (see e.g. Klačnja and Titunik 2017) the marginal loser has a higher chance of becoming elected in the next election, and thus might even have *more* at stake in terms of a future political career than the marginal electoral winner. In Section A.2 in the Appendix we show that the marginal loser in Brazilian mayoral races is 16 percentage points more likely to become the next mayor than the marginal winner, and 13 percentage points more likely to be elected mayor in the election after. On average, the expected future years in any political office, including state and federal offices, is 1.2 years larger for marginal losers than for marginal winners. There are no differences in the future political careers between marginal winners and marginal losers in elections to the city council.

6.5 Liquidity constraints

Even if marginal winners and marginal losers might have the same *willingness* to pay for a great lawyer due to the argument above, it could be the case that the *ability* to pay is larger for the marginal winners. That is, marginal winners might be less liquidity constrained. The official salary and other income that might derive from holding electoral office could make electoral winners more able to pay for lawyers. In order to test whether liquidity constraints could explain the result we investigate in this section whether there are heterogeneous effects depending on whether politicians are likely to be liquidity constrained based on pre-election covariates. The two characteristics we look at are whether the politician has higher education, and whether the campaign expenses of the politician is larger than the median campaign. The results are presented in Panel C of Table 4 which shows no evidence of there being a larger effect for more liquidity constrained politicians. The point estimate is identical for politicians with and without higher education, and larger for politicians with large campaigns. Thus, elected politicians having better lawyers due to liquidity constraints is unlikely to be the main driver behind the result.

6.6 Other mechanisms

In this section we consider two other potential mechanisms that do not fit into any of the two main categories above.

First, in the Brazilian setting mayors have special privileges when it comes to criminal court cases called *foro especial por prerrogativa de função*, colloquially known as "foro privilegiado": Instead of being tried at the trial court criminal cases involving mayors go straight to the appeals court. Many

times the acts a politician is accused of in an Ação de Improbidade are criminal acts, which means that there might be a criminal case investigating some of the same facts running in parallel. If a candidate wins the election any criminal case in the trial court is sent to the appeals court, making it potentially more difficult for the prosecutor in the Ação de Improbidade. Also, the judge is required to take into consideration the decision in the related criminal case, which might be different if the case is tried in the appeals court. This might explain parts of our result. However, we believe that it cannot explain the full result. First, we have also collected criminal cases involving candidates for mayor and city council in the state of São Paulo, and there are four times as many Ações de Improbidade as there are criminal cases. Thus, even if each criminal case is related to an Ação de Improbidade this channel alone cannot explain an effect with the magnitude of 60 percentage points. Also, it cannot explain the result for city councilors who have no special privileges, and has a hard time explaining the fact that the effect is bigger if the court is located in the municipality and that the effect is larger if the case is decided earlier in the term.

Second, it might be that elected politicians somehow are able to bribe law enforcers using their own money, rather than by using their power over the allocation of public resources. We believe that this mechanism is unlikely to explain the result, since it is not clear why marginal losers will not be able and willing to pay the same bribe as marginal winners given the discussion in Section 6.4 and 6.5. Also, cash bribes would not predict that the effect is bigger if the court is located in the municipality, since a politician should be equally able to bribe law enforcers in a neighboring municipality.

7 Implications and future research

In this paper we have estimated that Brazilian local politicians are 60 percentage points more likely to be acquitted of corruption charges if they win the election with a small margin. This is true even though local politicians have no influence over the careers paths of neither judges, prosecutors, nor judicial staff. The most likely channel is that law enforcers are influenced by the political power which comes with electoral offices, rather than from electoral winners having better lawyers. The main implication of this result is that we need more than formal separation of powers between the judiciary and the executive to ensure that the law is blind to the political power of defendants. Even with all the standard rules protecting the independence of the judiciary in place, we find that Brazilian mayors and city councilors receive a lighter justice than opposition politicians. We cannot argue that the formal checks has no bite, but at least they are not enough to create a system of justice that is totally immune to political power. Is there anything that can be done to limit political influence further? Probably. However, this study is not designed to shed light on this question, and which institutional designs that can make sure elected politicians and the opposition receive a more equal treatment by the law beyond the standard rules must be left for future research. There is, however, one policy that our results suggest that should be investigated further: To try politicians in elected offices in courts located outside of the reach of their power.

In addition to investigating institutional designs to improve further upon judicial independence, we see several directions in which to take this line of research further. First, while the evidence we present are highly suggestive we have not showed any direct evidence of law officials being benefited or harmed by the politician. A natural next step, while difficult, is to try to measure these benefits or punishments. For instance, is it the case that judges or prosecutors tend to have relatives employed in the municipality and that this happen at a higher rate if a politician accused of corruption marginally wins the election? A second line of inquiry is to exploit the random assignment of cases to judges to try to get at whether certain judges tend to favor elected politicians at a higher rate than others.

References

- Abrams, David S, Marianne Bertrand, and Sendhil Mullainathan. 2012. “Do judges vary in their treatment of race?” *The Journal of Legal Studies* 41 (2): 347–383.
- Alesina, Alberto, and Eliana La Ferrara. 2014. “A Test of Racial Bias in Capital Sentencing”. *American Economic Review* 104 (11): 3397–3433.
- Arnold, David, Will Dobbie, and Crystal S. Yang. 2018. “Racial Bias in Bail Decisions”. *The Quarterly Journal of Economics* 133 (4): 1885–1932.
- Avis, Eric, Claudio Ferraz, and Frederico Finan. 2018. “Do Government Audits Reduce Corruption? Estimating the Impacts of Exposing Corrupt Politicians”. *Journal of Political Economy* 126 (5): 1912–1964.
- Calonico, Sebastian, Matias D. Cattaneo, and Rocio Titiunik. 2014. “Robust Nonparametric Confidence Intervals for Regression-Discontinuity Designs”. *Econometrica* 82 (6): 2295–2326.
- Chavez, Rebecca Bill. 2004. *The Rule of Law in Nascent Democracies: Judicial Politics in Argentina*. Stanford University Press.
- Colonnelli, Emanuele, Edoardo Teso, and Mounu Prem. 2017. “Patronage in the Allocation of Public Sector Jobs”.
- Garoupa, Nuno, and Tom Ginsburg. 2008. “Guarding the Guardians: Judicial Councils and Judicial Independence”. *American Journal of Comparative Law*, no. 250.
- Glaeser, Edward L, and Andrei Shleifer. 2002. “Legal Origins”. *Quarterly Journal of Economics* 117 (4): 1193–1229.
- Helmke, Gretchen. 2005. *Courts under Constraints: Judges, Generals and Presidents in Argentina*. Cambridge University Press.
- Imbens, Guido, and Karthik Kalyanaraman. 2012. “Optimal Bandwidth Choice for the Regression Discontinuity Estimator”. *The Review of Economic Studies* 79 (3): 933–959.
- Klašnja, Marko, and Rocio Titiunik. 2017. “The incumbency curse: Weak parties, term limits, and unfulfilled accountability”. *American Political Science Review* 111 (1): 129–148.
- La Porta, Rafael, et al. 2004. “Judicial Checks and Balances”. *Journal of Political Economy*.
- Montesquieu, Charles De. 1748. *Montesquieu: The spirit of the laws*. Cambridge University Press, 1989.
- North, Douglass C., and Barry R. Weingast. 1989. “Constitution and Commitment: The Evolution of Institutions Governing Public Choice in Seventeenth-Century England”. *Journal of Economic History* 49 (4): 1–19.
- Olken, Benjamin A., and Rohini Pande. 2012. “Corruption in Developing Countries”. *Annual Review of Economics* 4:479–509.

- Poblete-Cazenave, Rubén. 2019. “Crime and Punishment: Do politicians in power receive special treatment in courts? Evidence from India”.
- Ramseyer, Mark J., and Eric B. Rasmusen. 2001. “Why Are Japanese Judges so Conservative in Politically Charged Cases?” *American Political Science Review* 95 (2): 331–344.
- Sanchez-Martinez, Carlos A. 2017. “Dismantling Institutions: Court Politicization and Discrimination in Public Employment Lawsuits”.
- Shayo, Moses, and Asaf Zussman. 2011. “Judicial Ingroup Bias in the Shadow of Terrorism”. *The Quarterly Journal of Economics* 126 (3): 1447–1484.

A Appendix

A.1 Parsing court documents

This section describes how we generate a data set of court case decisions by parsing the raw text in the Diários de Justiça. Parsing is a technology used by computers to read computer languages, and in computational linguistics to extract the meaning of natural language sentences. Since court documents are highly structured it turns out that using this technology works well in extracting key information from court documents. As an illustration of the method, assume, for simplicity, that the Diários de Justiça contains a sequence of paragraphs of the following form

```
00039966420148050110 - Ação de Improbidade Administrativa
Autor: Ministério Público Estadual
Réu: José Costa de Oliveira
Sentença: Julgo procedente
```

In order to build a parser to read this information one must first specify the logical structure, or the grammar, of the text. A common way to represent such grammars is in the so-called Backus-Naur form. The following grammar in Backus-Naur form represents the structure of the above example:

```
text := case*
case := number type plaintiff defendant decision
number := digit*
type := "-" ("Acao de Improbidade Administrativa" | "Acao Civil Publica")
plaintiff := "Autor:" word*
defendant := "Reu:" word*
decision := "Sentenca:" ("Julgo procedente" | "Julgo improcedente")
```

The symbol "*" is read as "one or more" and "|" as "or". "digit" is any digit and "word" is any sequence of letters. Thus the grammar can be read as follows: The text consists of one or more cases, and a case consists of a case number, a lawsuit type, a plaintiff, a defendant, and a decision. Furthermore, a case number is a sequence of digits, a lawsuit type is either "Ação de Improbidade Administrativa" or "Ação Civil Pública", and so on. Once the grammar is specified, it can be inserted as input into parsing software which reads the text using the grammar, producing a parse tree. The parse tree can be transformed into a data set with the relevant information about each court case. Since each daily issue of a Diário contains up to several thousand pages we first extract the parts of each issue which deals with Ações de Improbidade using regular expressions before we run the parser, to save on computation time.

A.2 Incumbency disadvantage

That Brazil has an incumbency disadvantage for mayors has already been documented elsewhere (e.g. Klašnja and Titiunik 2017). In this section we reproduce this result as well as providing evi-

dence on the effect of marginally winning a mayoral election on longer term political outcomes. We also show results for city councilors. We estimate incumbency (dis)advantages using the same regression discontinuity specification as in the rest of the paper. In particular we use the bias-corrected estimator proposed by Calonico, Cattaneo, and Titiunik (2014) with a local linear regression for the estimate and local quadratic regression for the bias-correction as our main specification. The specification of the local linear regression is

$$y_{it} = \alpha + \beta E_{it} + \gamma WM_{it} + \delta E_{it}WM_{it} + \varepsilon_{ic}$$

where i is a politician and t is an election. The variable WM_{it} is the electoral win margin of the politician, and E_{it} is a dummy for whether the politician got elected. As outcomes y_{ic} we will look at future electoral outcomes. The first outcome we will study is the standard outcome in the incumbency disadvantage literature: Whether the politician gets elected to the position she was running for in the next election. We will also look at whether the politician gets elected to the position in the election after, eight years down the road. Finally, we will look at the total number of years that the politician is holding office in the future. This outcome counts any elected office, including state and federal offices. For the first outcome we will use the elections between 1998 and 2012, and for the last two outcomes we will look at the elections between 1998 and 2008. Outcomes always include electoral outcomes up until the 2018 general election. The results are presented in Table 6. Column 1 of Panel A shows that whereas marginal losers in mayoral elections become the next mayor 38% of the times, this only happens in 22% of the times for marginal winners. Column 2 shows that the marginal loser also has a 13 percentage points higher probability of becoming the mayor in the subsequent election, eight years after. Finally, Column 3 shows that the expected future years in any elected office, starting the count from the next election, is 1.2 years larger for the marginal loser than for the marginal winner. Panel B shows that the effects are very similar if we run the same regression only among non-incumbents, which means that the result is not driven by term limits (incumbents who get reelected cannot run in the next election).⁴ Panel C shows the same estimates for city councilors, which shows quite precise zeroes. For city councilors there is neither an incumbency advantage nor a disadvantage.

B Tables and figures

⁴The reason the coefficients do not change much is that only 15% of candidates in close races are incumbents.

Table 1: Summary statistics

Statistic	Mean	St. Dev.	N
Politician acquitted on all charges	0.471	0.500	448
Politician loses on some charges	0.228	0.420	448
Politician loses on all charges	0.344	0.475	448
Year filed	2,010.587	2.927	448
Year decided	2,015.413	1.819	448
Years between filing and decision	4.833	2.595	448
Decided during the 2012 electoral term	0.679	0.468	448
Decided during the 2016 electoral term	0.321	0.468	448
Decided before the next election	0.917	0.276	448
Decided within first two years of term	0.629	0.483	448
Court located in municipality	0.799	0.401	373
Candidate for mayor	0.576	0.495	448
Candidate for city council	0.424	0.495	448
Mayor running for re-election	0.461	0.499	258
Ex mayor	0.864	0.343	258
Elected mayor	0.461	0.499	258
Elected city councilor	0.326	0.470	190
Number of lawyers	2.618	1.986	298
Average lawyer experience	4.563	8.701	298
Average lawyer success rate	0.334	0.341	114

Note: Civil corruption cases involving candidates for mayor and city council in the 2012 and 2016 elections filed before and decided after the election. The variables ‘elected mayor’, ‘ex mayor’, ‘elected city councilor’, and ‘mayor running for re-election’ are calculated only among candidates running for the respective offices. Lawyer experience is the number of other Ações de Improbidade that the lawyer has worked on prior to the election date. Lawyer success rate is the share of these cases in which the client of the lawyer has been acquitted, conditional on there having been a final decision before the election.

Table 2: Balance on pre-election variables

Variable	Difference	p-value	Mean	Observations
Civil corruption case pending	-0.001	0.37	0.003	171623
Female	0.040	0.70	0.107	448
Born in Brazil	0.033	0.84	0.475	448
Incumbent mayor	-0.079	0.57	0.266	448
Farmer	0.045	0.60	0.031	448
Teacher	-0.020	0.59	0.042	448
Lawyer	-0.079	0.42	0.060	448
Civil servant	-0.049	0.66	0.112	448
Vendor	0.014	0.71	0.058	448
Businessman	-0.057	0.63	0.083	448
Higher education	0.288	0.18	0.549	448
Married	0.005	0.96	0.703	448
PMDB	0.119	0.39	0.228	448
PSDB	-0.070	0.17	0.051	448
PT	0.039	0.55	0.058	448
Number of lawyers	0.719	0.29	2.308	118
Average lawyer experience	-2.677	0.56	8.640	118
Average lawyer success rate	0.072	0.88	0.299	73

Notes: Regression discontinuity coefficients showing the estimated difference between marginal winning and marginal losing candidates in various pre-election covariates. The first row includes all candidates for mayor and city council in the 2012 and 2016 Brazilian elections. The remaining rows include only politicians in our estimation sample: Those involved in an Ação de Improbidade filed before and decided after the election. Number of lawyers, lawyer experience, and lawyer success rate calculated before the election. Estimated using the bias-corrected estimator proposed by Calonico, Cattaneo, and Titiunik (2014) with a local linear regression for the estimate and local quadratic regression for the bias-correction. The running variable is the share of votes obtained in the election. No control variables. Standard errors clustered at the judicial district level.

Table 3: Main regression discontinuity results

	Wins in court	Wins in court (2nd definition)	Placebo	Years since election
Elected (se)	0.648*** (0.17)	0.579*** (0.19)	0.042 (0.11)	-0.329 (0.46)
N	182	182	292	182
Bandwidth	0.12	0.13	0.18	0.13
Mean Marg. Loser	0.11	0.43	0.43	1.72

Notes: Regression discontinuity estimates using the bias-corrected estimator proposed by Calonico, Cattaneo, and Titiunik (2014) with a local linear regression for the estimate and local quadratic regression for the bias-correction. The running variable is the share of votes obtained in the election. No control variables. Civil corruption cases involving candidates for mayor and city council in the 2012 and 2016 elections filed before and decided after the election. Except for Column 3 which uses cases decided before the election. The variable 'Wins in court' is a dummy for the politician being acquitted on all charges. The variable 'Wins in court (2nd definition)' is a dummy for the politician being acquitted on all or some charges. 'Placebo' uses the same outcome as Column 1, but looks at cases decided before the election. 'Years since election' is the number of years between the election date and the final decision in the Ação de Improbidade. Mean Marg. Loser shows the estimated mean of the outcome variable for the marginal loser, using the local linear fit. Standard errors clustered at the judicial district level. $*p \leq 0.1$; $**p \leq 0.05$; $***p \leq 0.01$.

Table 4: Heterogeneous effects

		Coef.	(se)	N	Band- width	p-value of difference
A: General						
Candidate for Mayor	Yes	1.15***	(0.29)	119	0.10	0.09
	No	0.48*	(0.27)	63	0.14	
Municipality population larger than median	Yes	0.90***	(0.11)	83	0.08	0.25
	No	0.53*	(0.30)	99	0.12	
Incumbent	Yes	0.71**	(0.28)	101	0.10	0.66
	No	0.53*	(0.30)	99	0.12	
B: Main tests						
The court is located in the municipality	Yes	0.78***	(0.22)	130	0.10	0.06
	No	-0.27	(0.52)	25	0.10	
Court case decided in the first two years of term	Yes	0.86***	(0.18)	76	0.11	0.20
	No	0.40	(0.32)	82	0.14	
C: Liquidity constraints						
Politician has higher education	Yes	0.64***	(0.17)	110	0.10	1.00
	No	0.64**	(0.31)	72	0.13	
Politician has a larger than median campaign	Yes	1.14***	(0.27)	78	0.09	0.20
	No	0.70***	(0.22)	98	0.11	

Notes: Regression discontinuity estimates for different subsamples. 'p-value of difference' is the p-value of the difference in estimated effects between the two subsamples, assuming that the two subsamples are independently drawn. 'Incumbent' includes both incumbent mayors and city councillors. 'Court case decided in the first two years of term' is whether the final decision in the Ação de Improbidade was made within two years after the date of the election. Coefficients estimated using the bias-corrected estimator proposed by Calonico, Cattaneo, and Titiunik (2014) with a local linear regression for the estimate and local quadratic regression for the bias-correction. The running variable is the share of votes obtained in the election. No control variables. Civil corruption cases involving candidates for mayor and city council in the 2012 and 2016 elections filed before and decided after the election. Standard errors clustered at the judicial district level. * $p \leq 0.1$; ** $p \leq 0.05$; *** $p \leq 0.01$.

Table 5: The effect of winning the election on the quantity and quality of lawyers

	Difference between after and before election in:			
	Number of lawyers	Number of new lawyers	Average lawyer experience	Average lawyer past success
Elected (se)	0.0057 (0.441)	-0.0657 (0.326)	0.2096 (1.507)	-0.0452 (0.054)
N	86	86	86	42
Bandwidth	0.13	0.24	0.14	0.11
Mean Marg. Loser	0.34	0.12	-0.89	-0.0014

Notes: Regression discontinuity estimates where the outcome variable is the difference between the average of the respective variables across all publications made in the Diário de Justiça after the election and the same average before the election. Only cases where we have publications in the Diário de Justiça both before and after the election. The experience of a lawyer is defined as the number of other civil corruption cases she has worked on prior to the election. Her past success is the rate at which her client was acquitted in civil corruption cases decided before the election. Coefficients estimated using the bias-corrected estimator proposed by Calonico, Cattaneo, and Titiunik (2014) with a local linear regression for the estimate and local quadratic regression for the bias-correction. The running variable is the share of votes obtained in the election. No control variables. Civil corruption cases involving candidates for mayor and city council in the 2012 and 2016 elections filed before and decided after the election. Standard errors clustered at the judicial district level. $*p \leq 0.1$; $**p \leq 0.05$; $***p \leq 0.01$.

Table 6: Incumbency disadvantage

Candidates for	Elected in next election	Elected in subsequent election	Future years in elected office
A: Mayor			
Elected	-0.16***	-0.13***	-1.2***
(se)	(0.0150)	(0.0095)	(0.1062)
N	24281	18093	18093
Bandwidth	0.072	0.154	0.096
Mean Marg. Loser	0.38	0.20	2.93
B: Mayor, non-incumbents			
Elected	-0.15***	-0.15***	-1.3***
(se)	(0.0168)	(0.0098)	(0.1129)
N	19105	14414	14414
Bandwidth	0.073	0.176	0.099
Mean Marg. Loser	0.41	0.21	3.12
C: City council			
Elected	-0.014	-0.016	0.11
(se)	(0.017)	(0.013)	(0.139)
N	14551	15096	15119
Bandwidth	0.088	0.115	0.091
Mean Marg. Loser	0.29	0.16	2.36

Notes: Standard incumbency (dis)advantage regressions comparing future political outcomes of marginal winners with marginal losers in Brazilian local elections. Column 1 uses the elections from 1998 through 2012, while Columns 2 and 3 exclude the 2012 election. The first two columns only consider whether the candidate is elected for the office they are running for in the next elections. 'Elected in subsequent election' is whether the candidate is elected to the office in the election eight years after the initial election. Future years in elected office include all elected offices, including state and federal positions. Regression discontinuity coefficients estimated using the bias-corrected estimator proposed by Calonico, Cattaneo, and Titiunik (2014) with a local linear regression for the estimate and local quadratic regression for the bias-correction. The running variable is the share of votes obtained in the election. No control variables. $*p \leq 0.1$; $**p \leq 0.05$; $***p \leq 0.01$.

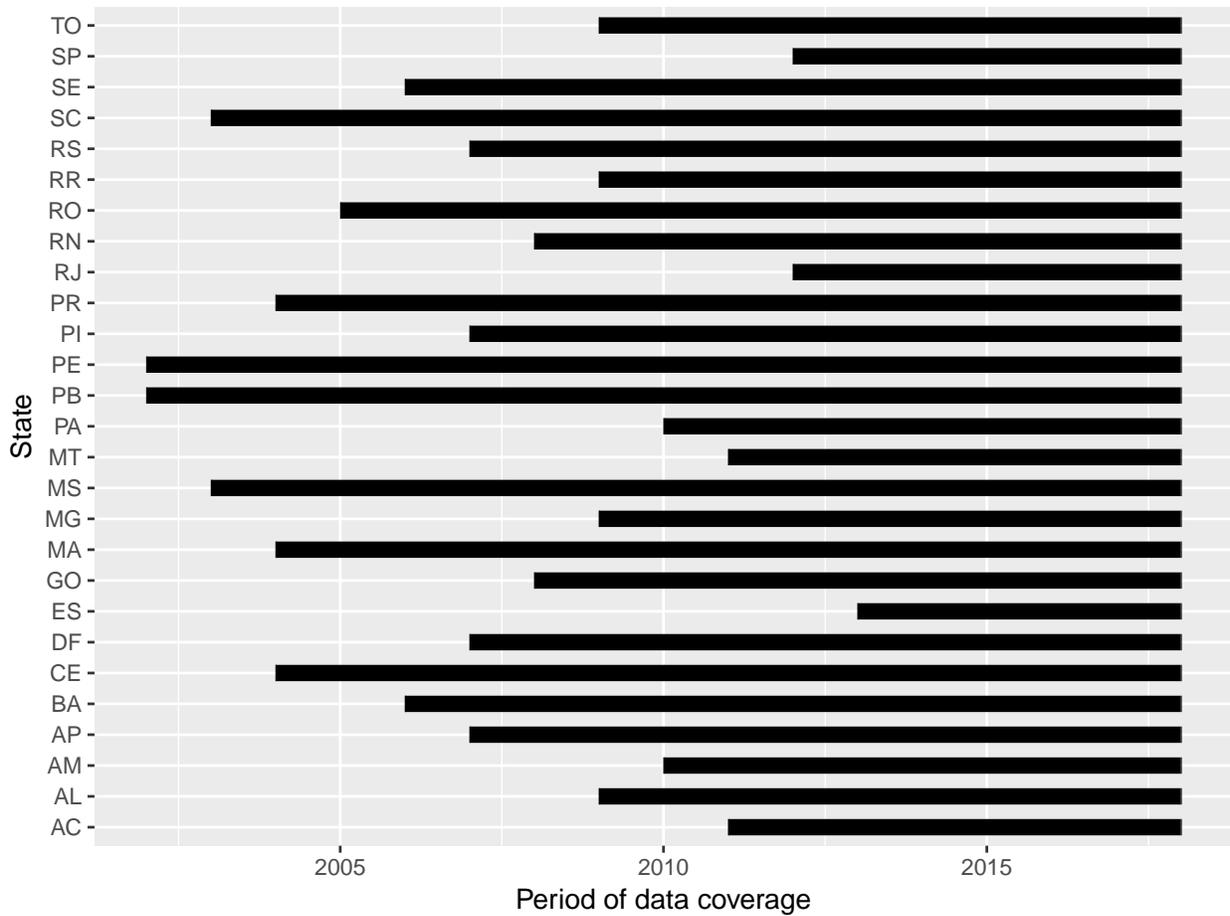


Figure 1: Coverage over time of the judicial data over time by state. The different coverage by state is due to how far back the Diários de Justiça are available at the court websites.

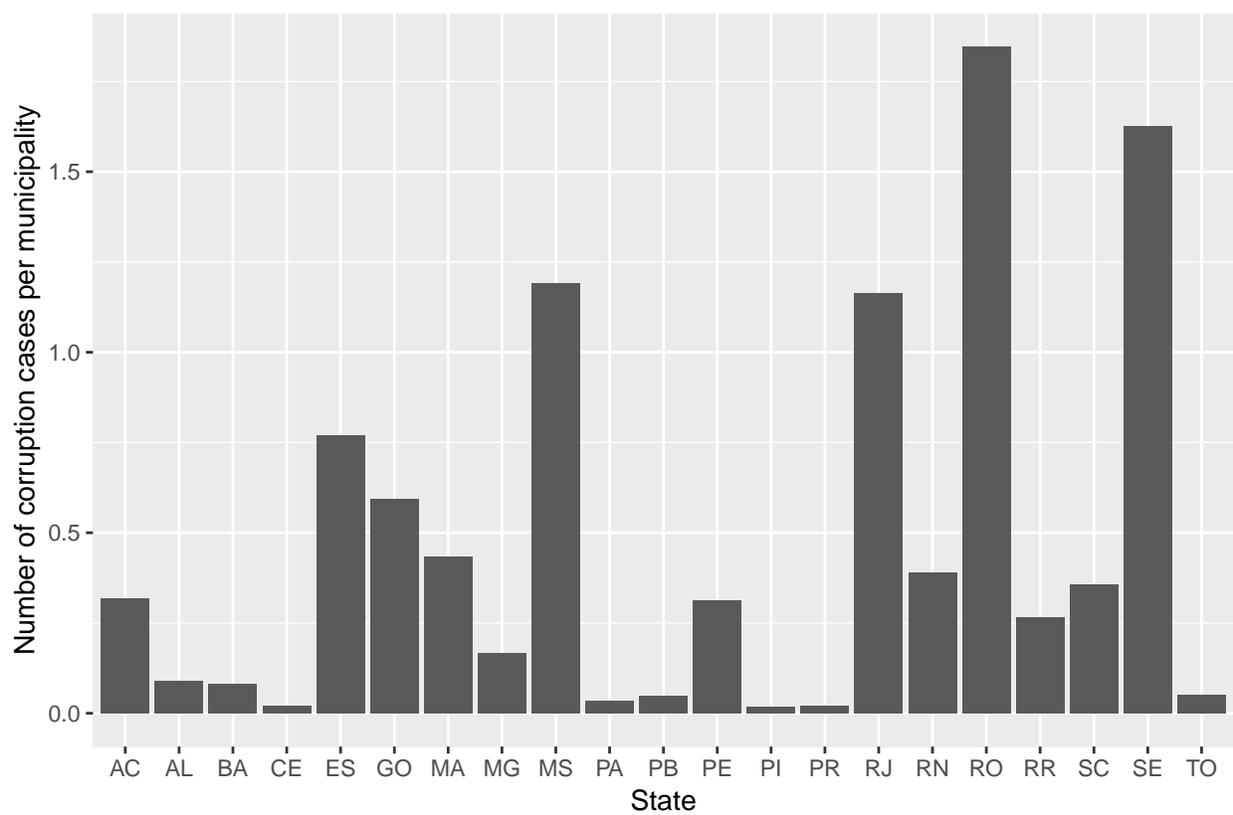


Figure 2: The number of identified Ações de Improbidade involving candidates for mayor or city council in the 2012 and 2016 elections per municipality by state.

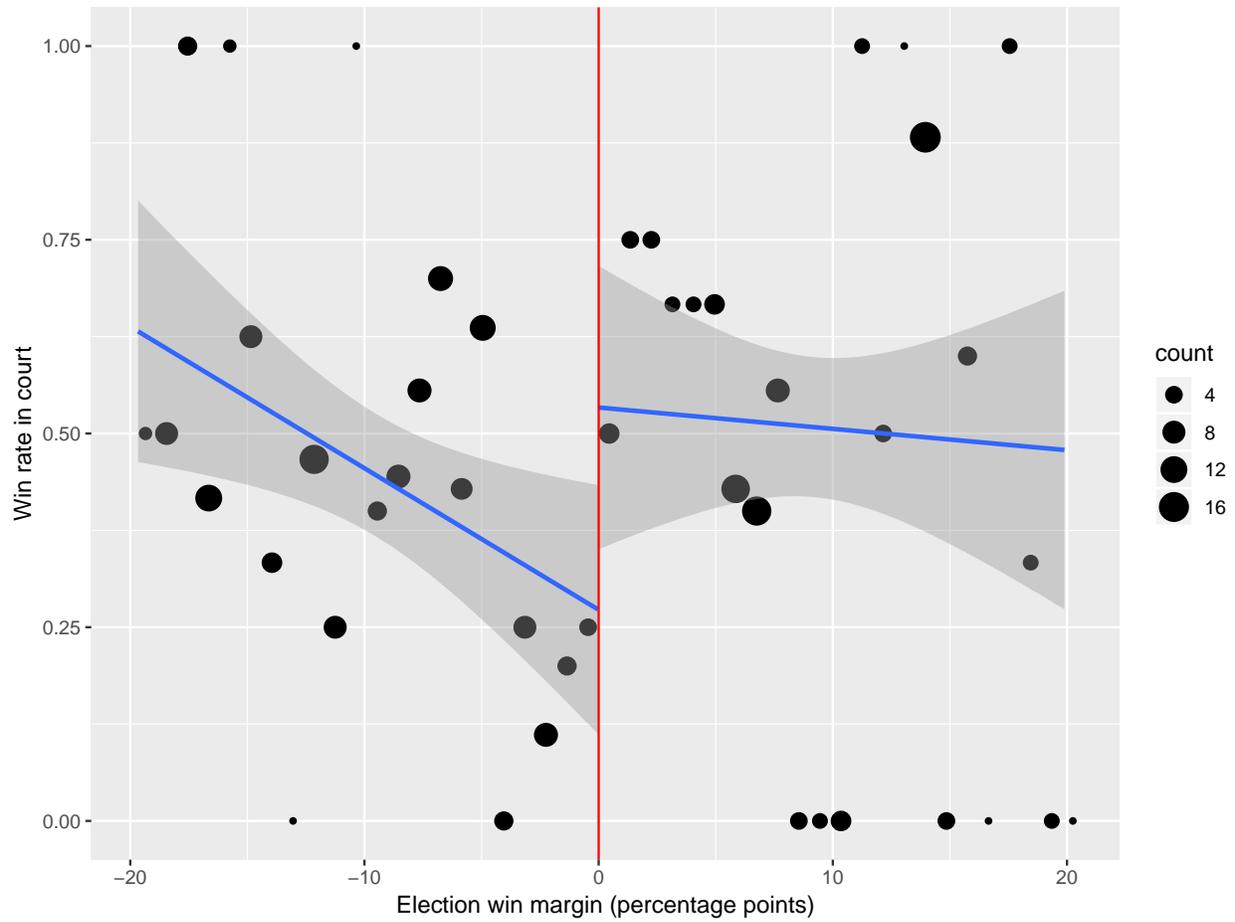


Figure 3: Regression discontinuity plot. Ações de Improbidade involving candidates for mayor or city council in the 2012 and 2016 elections filed before and decided after the election.

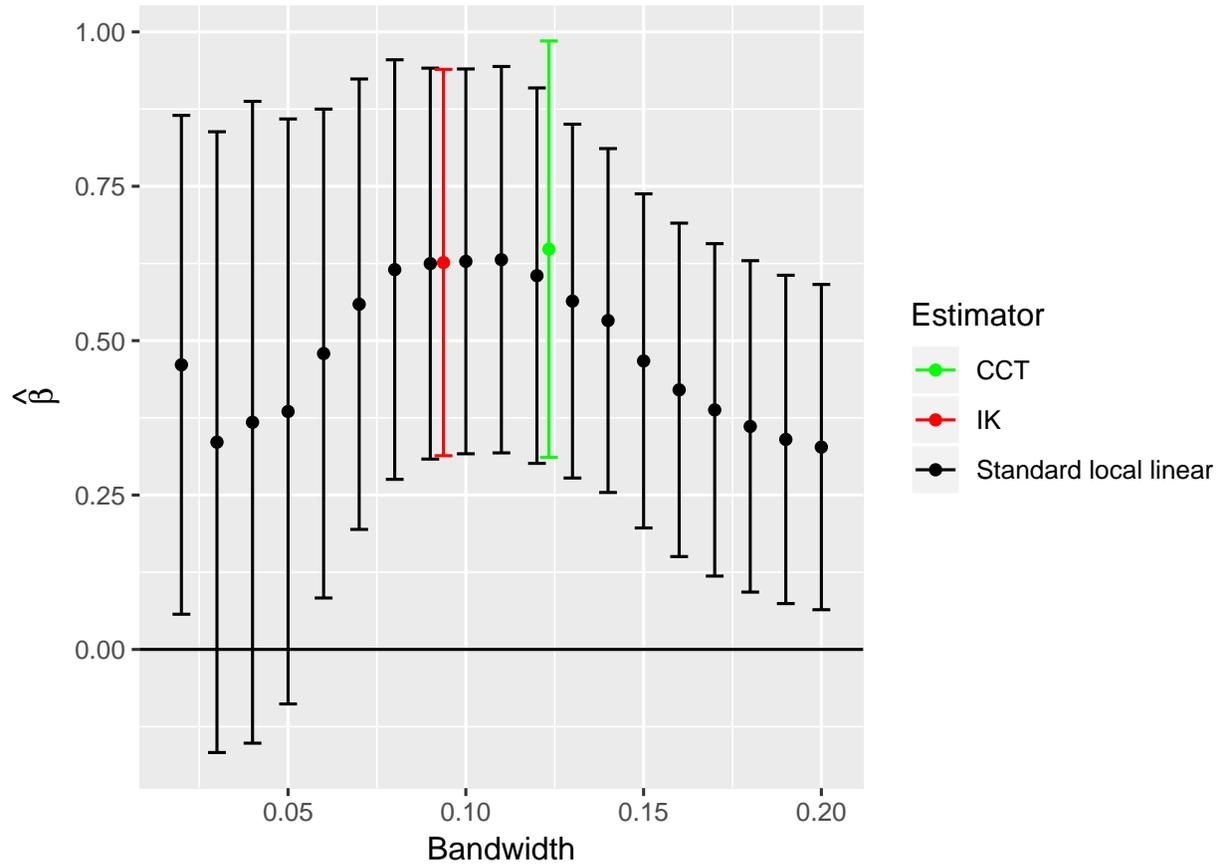


Figure 4: Regression discontinuity estimates for different bandwidths. Ações de Improbidade involving candidates for mayor or city council in the 2012 and 2016 elections filed before and decided after the election. The local linear specifications uses a triangular kernel. ‘IK’ uses the Imbens and Kalyanaraman (2012) optimal bandwidth. ‘CCT’ uses the bias-corrected estimator proposed by Calonico, Cattaneo, and Titiunik (2014) with a local linear regression for the estimate and local quadratic regression for the bias-correction. 95% confidence intervals. Standard errors clustered at the judicial district level.

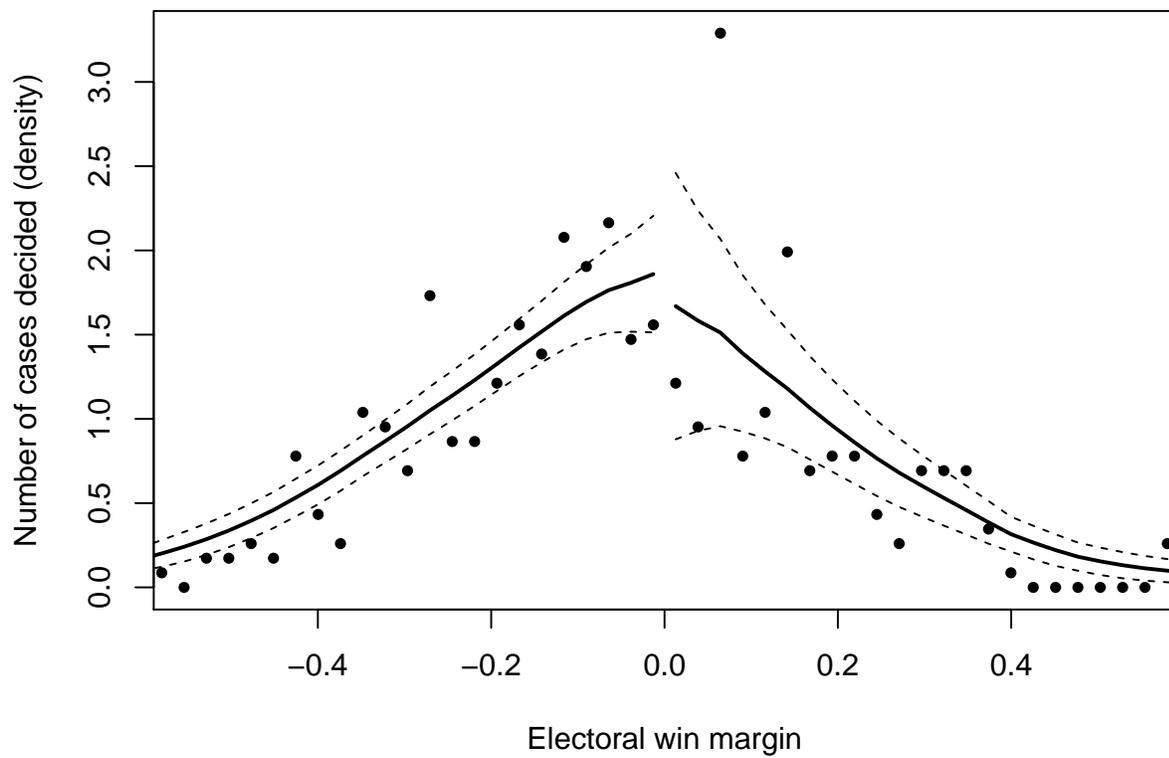


Figure 5: McCrary sorting test. Ações de Improbidade involving candidates for mayor or city council in the 2012 and 2016 elections filed before and decided after the election.

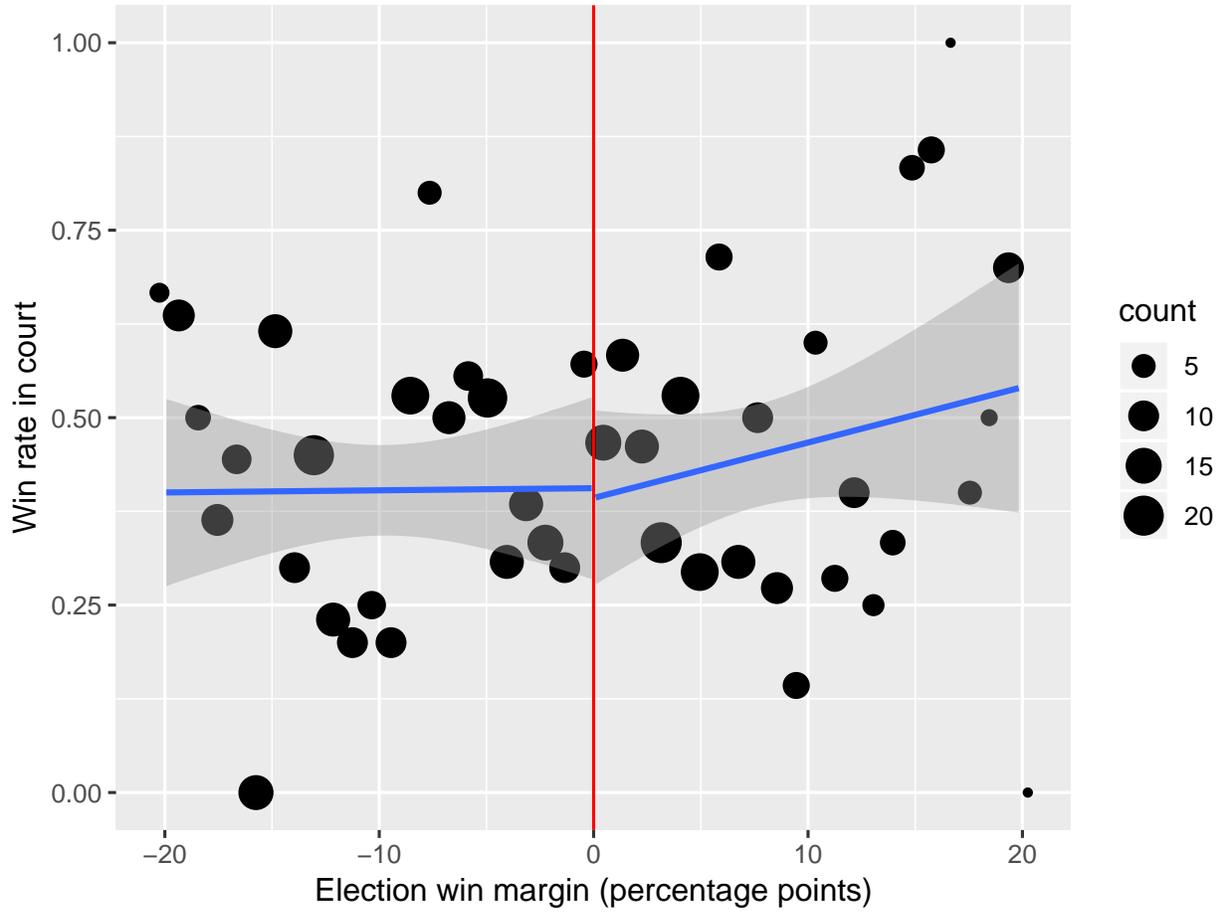


Figure 6: Placebo regression discontinuity plot. Ações de Improbidade involving candidates for mayor or city council in the 2012 and 2016 elections decided before the election.

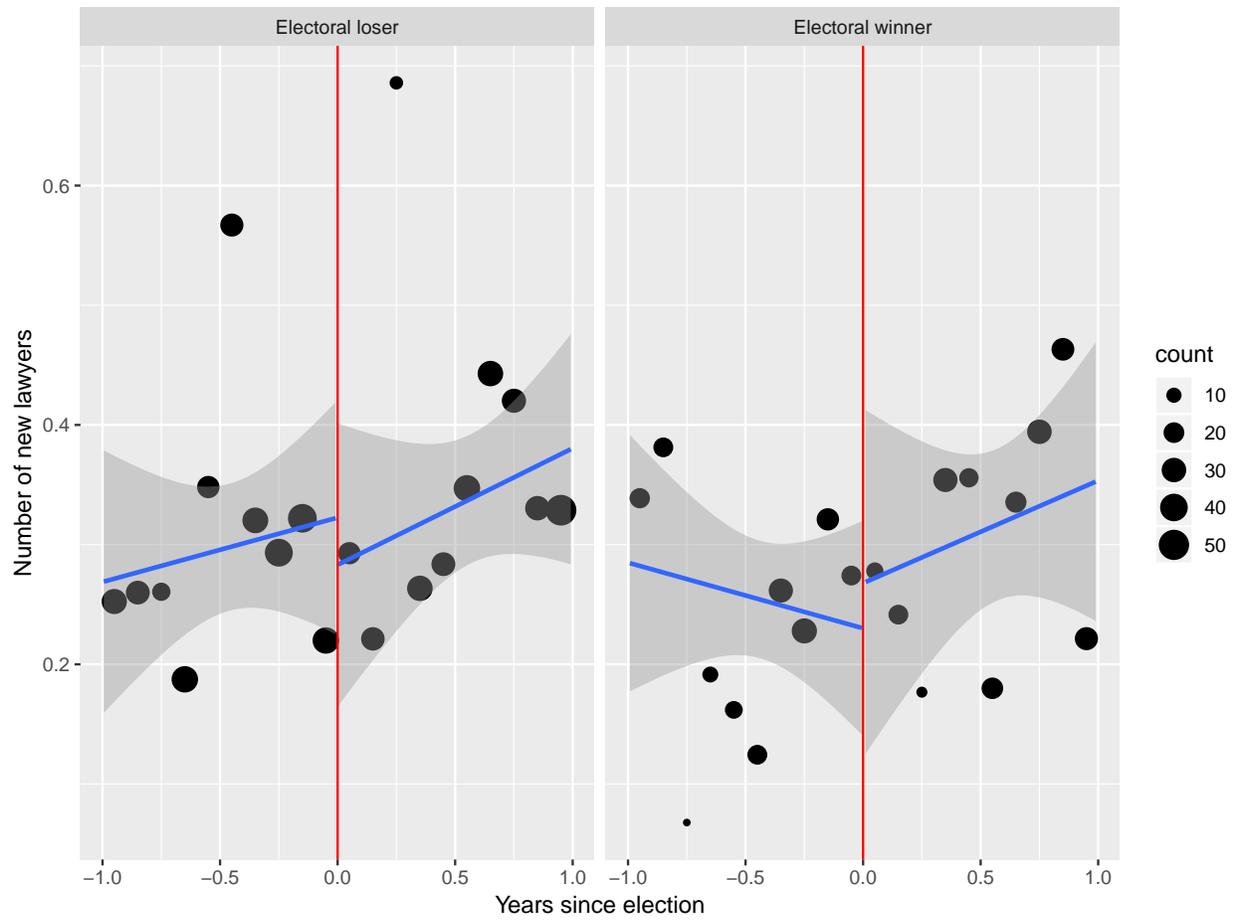


Figure 7: The number of new lawyers over the electoral cycle. One observation per publication in the Diário de Justiça. Ações de Improbidade involving candidates for mayor and city council in the 2012 and 2016 elections filed before and decided after the election.