

# Disloyal Political Brokers and the Problem of Clientelistic Party Building

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## Abstract

Political brokers are essential to clientelistic parties, but they may be unreliable agents. In party systems with competing clientelistic parties, brokers' connections are valuable to multiple parties, and brokers may defect when presented with a superior proposal. When brokers switch, parties' local linkages erode. This article analyzes how limiting party switching helps parties build more stable linkages to voters. Until recently brokers in Brazil – who also serve as local candidates – frequently changed allegiances. However, an unexpected institutional reform discouraged brokers who had won local elections from switching. Using regression discontinuity designs, I show that compared to their losing counterparts, winning candidates became more dependable party intermediaries only after the ruling. Further, I identify that the exogenously set exit barriers improved prospects for parties unable to enforce loyalty on their own. My findings show that party switching is a cause and not merely a symptom of unstable parties in clientelistic systems.

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Why are many clientelistic parties unable to build durable linkages to voters? More than eighty percent of all parties in the developing world make moderate to major efforts to provide private goods targeted to voters, but only a few of these have the “formidable partisan sub-cultures with durable loyalties” that characterize clientelistic machine parties (Roberts, 2014, 28–29).<sup>1</sup> Instead, many clientelistic parties in African, Eastern European, Latin American, and Asian countries have to endure disloyalty on the home front, as politicians in these parties often switch allegiances (Mainwaring and Scully, 1995; Deposato, 2006), and at the electoral arena, since voters’ support is unreliable over time (Weghorst and Bernhard, 2014; Tavits, 2005; Roberts, 2013; Hicken and Kuhonta, 2011).

In this article I argue not only that organizational and electoral fluidity are intertwined, but that the former causes the latter. Specifically, I examine how party switching political brokers, the fundamental piece in the clientelism machinery, damages the electoral prospects of these parties. All clientelistic parties depend on professional brokers to ensure that the exchange of goods is in fact contingent on electoral support (Stokes et al., 2013), and as long as brokers remain loyal, parties will be able to capture voters. However, brokers can be unreliable.

Brokers may seamlessly switch parties when two conditions are met. First, brokers must be the rightful owners of a network of clients, otherwise they will not be able to bring a bloc of votes to a different party. Second, there must be other parties willing to temporarily incorporate the networks brokers own, and to hire them to broker votes. In sum, brokers must be patrons themselves, and have exit options.<sup>2</sup> Scholars have focused the analysis of party–broker relationships within dominant machines. This type of clientelistic parties have substantial agency problems with brokers (Camp, 2012), but broker party switching is a lesser concern for these organizations. In countries such as Argentina

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<sup>1</sup>Proportion of clientelistic parties calculated using the Kitschelt (2013) dataset.

<sup>2</sup>These are the cases of community organizers, ethnic leaders, local bureaucrats, and provincial politicians. For a typology of different types of brokers, see Holland and Palmer-Rubin (2015).

and Mexico there is no other party in the same league as the Peronist Party or the PRI in terms of access to state resources (Calvo and Murillo, 2004; Magaloni, 2006). Moreover, these dominant parties have exclusive ties to popular sectors that can be traced back to the time and circumstances of their creation (Collier and Collier, 2002). If brokers defect from dominant clientelistic parties, they risk losing privileged access to resources and disconnect themselves from the proprietary distributional channels these parties detain. However, dominant machines are exceptional parties, and the historical contingencies leading to their superior stance over peer parties are likely unreproducible. For most parties in most party systems, there are two or more political groups whose relative ability to control state resources and pay brokers changes from one election to the next. Lacking streamlined access to mass organizations, and unable to sustain exclusive patronage networks, non-dominant clientelistic parties are vulnerable to broker disloyalty.

Party switching by elected politicians may be an attribute of many party systems where clientelism is an important mobilization tactic, but identifying how party switching from brokers affects electoral performance is empirically difficult. Brokers are frequently hired by parties only informally. Without properly detecting where these agents are located and which party they are working for, one can not analyze how their affiliation choices influence voters. In addition, party switching is endogenous to party building. If high rates of party switching prevent parties from building strong structures, deficient organization may also stimulate party disloyalty.<sup>3</sup>

In this article, I circumvent both empirical shortcomings. I take the case of Brazil to solve the issue of incomplete information on brokers, since parties in that country use local politicians – most notably mayoral candidates – as brokers for their congressional candidates. Since party affiliation for mayoral candidates is documented, I can measure the career paths of these brokers and the performance of their parties where these agents

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<sup>3</sup>Although there is no systematic analysis on brokers switching parties, studies on party switching suggest the inverse causal path proposed in this article, namely that politicians switch parties to increase their chances of being elected (Desposato, 2006; Mershon, 2014).

operate. To avoid the problem of endogeneity, I take advantage of a mostly unanticipated institutional reform that made party switching potentially costly for office-holding brokers in Brazil. In 2007 the Supreme Court ruled that politicians caught switching parties while serving office would lose their jobs, an action that effectively improved the odds of party–broker ties surviving more than one electoral cycle.

This institutional change allows me to implement a difference-in-differences approach, and assess how restricting brokers’ mobility affect the electoral performance of their modular parties. Using close mayoral races that as-if randomly define which brokers are subject to exit barriers, I check how the rate of party switching of winning brokers changed after the court ruling compared to their losing counterparts. Subsequently, I evaluate whether changing brokers’ proclivity to switch parties affects the electoral performance of congressional candidates, whose success depend on brokerage.

Until the institutional change, politicians faced no institutional hurdles to terminating one party membership and initiating another. Of all individuals running for office more than once,<sup>4</sup> 59 percent have changed parties. On average, one third of all mayoral candidates switch parties in a four-year interval.<sup>5</sup> Given the dozens of non-programmatic parties, electoral support is very fragmented. The median vote share for any party is 2.7 percent of the votes. However, this proportion triples where parties place a mayoral candidate as a broker — and where the mayoral candidate remains loyal to the party.<sup>6</sup>

Results show that the court decision effectively deterred winning candidates from party switching. Before the court decision 30% of all winning candidates changed parties, but after the court decision that number fell to 18%. The rate for losing candidates was unaltered. This forced loyalty generated a positive and substantial effect on how national and subnational candidates fared electorally at the local level. While before the

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<sup>4</sup>Since 1998, there were 1.1 million different candidates running for elections in Brazil, and 29% ran a campaign more than once.

<sup>5</sup>Figure only includes candidates that run at least two elections during this interval.

<sup>6</sup>In Brazil, mayoral elections take place two years before congressional elections; parties organize mayoral candidacies two years before congressional elections.

change in the law, having a winning or a losing candidate made little difference for future party performance, since the change parties receive an increment of 5 percentage points, or 60% more votes than cases when the party's mayoral candidate loses.

This article makes two main contributions. First, it introduces cases of non-dominant clientelistic parties to the growing literature on party-broker relations, and party organization in general. Specifically, the article shows how local politicians are essential for brokering votes, but also how unimpeded entry and exit of brokers is a threat to clientelistic party building. Second, the article shows how institutional reforms can improve the prospects of clientelistic parties. As I later argue, clientelistic parties rarely have the mechanisms to hold their team together. However, exogenous measures that limit party switching can make brokers more reliable in delivering votes, and facilitate party building at the local level.

## **When Does the Brokerage Business Run Counter to Party Building?**

Brokers are essential to clientelistic parties, but not necessarily reliable partisans. Brokers and politicians do not share the same goals or preferences, and sometimes brokers may calculate that supporting a different politician is profitable. If this potential disloyalty goes unchecked, brokers will eventually change their brokerage focus to others, and politicians will not retain electoral support from one election to the next.

The personal nature of patron-client relationships makes it impossible for individual politicians to mobilize enough clients by themselves<sup>7</sup>. Patrons need to embed themselves into clients' lives to know when to reward or punish, to earn their trust, or even citizens'

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<sup>7</sup>Scott defines patron-client relationship as "an exchange relationship ... in which an individual of higher socioeconomic status (patron) uses his own influence and resources to provide protection or benefits, or both, for a person of lower status (client) who, for his part, reciprocates by offering general support and assistance, including personal services, to the patron (Scott, 1972, 92)."

affection (Stokes, 2005; Zarazaga, 2014*b*; Lemarchand and Legg, 1972), constraining the number of direct connections they have to a few dozen clients (Scott, 1972, 94-95). This closeness between patrons and clients is what makes electoral support from the latter contingent on the distribution of goods from the former, but politicians need not only hundreds, but thousands of these individual ties in order to win large elections. The solution for finding a way to operate clientelism on a large scale is the recruitment of political brokers.<sup>8</sup>

Employing brokers may solve the scale issue of using patron–client linkages electorally, but may generate another set of problems for politicians. Recent studies show that politicians working with brokers face problems similar to those of firms in their need to maximize effort from their employees (Zarazaga, 2013; Szwarcberg, 2012; Camp, 2012; Stokes, Dunning, Nazareno and Brusco, 2013). Since brokers have more information regarding clients, and monitoring brokers is difficult and costly (Larreguy, 2012), brokers can use this asymmetry for shirking their jobs, or for capturing part of the resources politicians allocate them for distribution.

Besides information asymmetry, politicians and brokers also need to deal with the uncertainty surrounding the continuation of their business deal. Brokers without resources lose their ability to mobilize clients (Zarazaga, 2014*a*). If brokers do not find a party to provide them with resources, they will lose their mobilization potential. But the risks of dissolution also run on the other way. Brokers can find another politician willing to pay more for their services. This uncertainty puts at risk investments sunk into patron–client networks by brokers and politicians, which may reduce the willingness of brokers and politicians to invest in clientelism.

Uncertainty is less of an issue for dominant clientelistic parties. Their well documented cases illustrate one way in which these organizations have nurtured patron–

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<sup>8</sup>Or, as Stokes et al. (2013, 76) put it, “brokers are a sine qua non: it is the brokers who are embedded in dense social networks and who provide the local knowledge that is required for conditioning distribution on voter preferences or behavior.”

client networks over time.<sup>9</sup> Party–broker connections are solid for two reasons. First, these machines have preferential access to the state, limiting exposure to fiscal shortfalls following election defeats. This privileged access limits the urge brokers might have to switch to non-dominant parties, as these smaller parties face higher risks of losing access to resources, and also because disloyal brokers might face retribution from the dominant party, which might withhold resources from places controlled by competitors.<sup>10</sup>

Second, dominant parties were originally mass-party organizations, and these initial conditions granted them exclusive channels to popular sectors. The two most important dominant clientelistic machine parties in Latin America, the PJ in Argentina and the PRI in Mexico, were originally conceived as labor-based parties (Collier and Collier, 2002; Gibson, 1997). However, structural economic changes during the 1980s forced these parties to adapt their mobilization model. Part of the remodeling involved readapting their organic ties to unions to establish distribution channels of patronage (Levitsky, 2003; Roberts, 2014). Not only did their exclusive linkages to popular sectors help these parties maintain their dominance over other parties by facilitating the organization of clientelistic networks, they also increased the costs of party switching for their members. If brokers operating in the party machines decide to leave, they have to drop their connections to labor unions or any other exclusive channels the dominant party might have<sup>11</sup> In machines, most patron–client linkages are for the exclusive use of party members. Similarly, parties with strong ethnic and religious identities may run clientelistic exchanges through their self-identified groups’ organizations, making broker defections costly.

Non-dominant parties do not have patron–client connections of their own, but may hire networks from autonomous patrons. Well before the advent of elections, community chiefs, clerics, ethnic leaders, landowners, and other types of local notables had already

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<sup>9</sup>Dominant parties include the LDP in Japan (Krauss and Pekkanen, 2011), the PJ in Argentina (Gibson, 1997; Roberts, 2014), and the PRI in Mexico (Magaloni, 2006; Greene, 2007).

<sup>10</sup>As is the case of some Argentinean provinces (Gervasoni, 2010). Note that brokers might also be disloyal in dominant parties, but instead of changing parties, they might switch factions.

<sup>11</sup>Thus, brokers in dominant machines are in a sense *partisans*, as Holland and Palmer-Rubin (2015) discuss.

established considerable political capital through their private and relatively small clienteles. Instead of ignoring or dismantling these networks, politicians in regions such as Africa, Asia, and Latin America created parties to connect these networks together. In this sense, non-dominant parties are made up of two tiers: one on top, responsible for acquiring state resources and acting at the subnational or national political level; and another tier at the bottom composed of multiple modules, each with a local notable running local politics and acting as broker in favor of the stratum. Over time, these local authorities may take on new titles, such as union leader or local politician, but they remain responsible for the construction and maintenance of patron–client networks.

However, since non-dominant parties depend on these autonomous brokers and also compete against other similar parties, party–broker relationships are uncertain. If patron–client linkages take time to mature and demand constant maintenance, brokers whose access to resources is intermittent may see their investment crumble from one electoral period to another. Brokers in non-dominant clientelistic parties shield themselves from uncertainty by making themselves ready to work in not only one but any party, and making their networks available to the highest bidding party, and on short notice. This apparent opportunism on the part of brokers increases the chances clients will receive resources, just not from the party they have received them from in the past.

The fluidity of brokers has contrasting effects on party building and party system stability. The threat of individual defection by brokers increases the risks to parties of investing in local branches or local candidates. A party will not be willing to spend resources training or funding a local politician who is likely to switch parties. Some investments, such as mobilizing workers, might take time to mature, and if the party cannot properly “own” the asset, the risks of investing in this long-term political capital might be too large. On the other hand, the ability to attach to different parties allows brokers to maintain their patron–client linkages independently of any party, giving them incentives to expand the number of voters they influence over time. The more voters they are able to mobilize, the

more resources they will be able to attract to their clients and for themselves.

Party switching is common to a number of democracies where clientelism is part of politicians' toolboxes. These include Ecuador, India, Italy, Japan, Peru, Philippines, South Africa, and Ukraine (Acosta, 2004; Chhibber, 2013; Desposato, 2006; Desposato and Scheiner, 2008; McLaughlin, 2011; Thames, 2007; Heller and Mershon, 2008). However, most work on party switching has focused on floor-crossing by legislators (Heller and Mershon, 2008). Although it is reasonable to claim that party switching by legislators and brokers are correlated, there has not been any study showing such a relationship. Only recently have scholars started to document cases of brokers switching parties. Koter (2013) documents how brokers in Senegal generally behave as free agents, and a similar behavior Muñoz (2014) is captured in Peru. Holland and Palmer-Rubin (2015) conceptualize this type of free agent broker, whose determining characteristic is their control of the network. They also show evidence of broker fluidity in Colombia, and less so in Mexico, where brokers appear to be loyal to the dominant party.

Non-dominant clientelistic parties have few mechanisms to curb disloyalty on the part of their brokers. If these parties are unable to prevent disloyalty internally, exogenous institutional changes may help party organization and party building. One example would be the enactment of rules making party switching costly, such as removing incumbents from office if they choose to change parties. If incumbents value serving in office and removal from power is probable, switching may not be a viable career choice.<sup>12</sup>

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<sup>12</sup>Janda (2009) lists countries whose laws establish provisions against party switching by elected officials. Another cost laws may impose is to forbid any politician from becoming a candidate for a specified time after switching parties, which could cause a switching politician to miss the opportunity to participate in an election.

# Spreadsheets, *Deputados*, and Mayors in Brazil

*Mayors are the most important brokers for deputies.*

President F. H. Cardoso (1995–2002)<sup>13</sup>

To become a *deputado* (elected representative) in Brazil, a candidate cannot count on party labels or political advertisement. Ames, Baker and Renno (2009, 3) find that split tickets account for 70% of ballots in Brazil, and voter partisanship, according to Samuels and Zucco (2014, 3) has never been higher than 50%.<sup>14</sup> Television may be crucial for majoritarian elections (Weyland, 2001, 16; Boas, 2010, 641), but given the few seconds each *deputado* receives, *deputados* typically use their limited time only to dictate their numbers to the audience (Mainwaring, 1999, 188; Ames, 2002, 43).

*Deputados* have to find other ways to mobilize voters, and with the exception of highly-visible candidates, most resort to clientelism. These candidates face the problems of scale discussed in the previous section, so they need to attract a considerable number of brokers to mobilize voters. Brokers are usually local notables who spearheaded local networks and are willing to work for *deputados* if the *deputados* can send resources downstream, and can offer nominations for the mayoral office.

Mayoral candidates make natural brokers. These politicians have extensive knowledge of their area and its constituents, and are potentially the single interface between *deputados* and thousands of scattered voters. Interactions between mayors and *deputados* are usually a quid pro quo independent of any party strategy, and are particular to the two politicians.<sup>15</sup> The relatively small median population of Brazilian municipali-

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<sup>13</sup>Interview by author, Oct. 18, 2012.

<sup>14</sup>One single party, the Worker's Party (PT), accounts for more than half of partisan voters. The PT is the only party that has true partisans, according to Samuels (2006), who also states that "partisanship for parties other than the PT continues to reflect the traditional bases of Brazilian politics," and that "partisanship does not drive the vote for most Brazilians." (19–20).

<sup>15</sup>According to Montero (2012, 12), Brazilian parties are "decentralized and delegated to local officials." The vote-getting network also comprises municipal council members, who gravitate around mayoral candidates. There are, additionally, professional brokers, who might be aspiring politicians or simply persons who devote part of their time to helping politicians in exchange for jobs, gifts, or favors. Mayoral candi-

ties (8255 in 2012) gives mayoral candidates an opportunity to organize an encompassing support organization in their district. Large, complex party organizations may be important for electing *deputados*, but not so much for electing mayors. Other scholars have analyzed how mayoral candidates are able to deliver these votes. Hidalgo and Nichter (2015), using a regression discontinuity design, show the efforts of mayors to establish a private bloc of votes through electoral fraud. When elected, mayors have resources at their disposal to distribute selectively, but depend on pork and resources from *deputados* as well (Ames, 1995; Samuels, 2002). Local brokers do deliver the votes promised. As one party secretary stated:

What happens is that when you stipulate the number of votes [the local politician will provide], you already have a baseline of what is possible or not in that community. It is also normal to work with more than one leadership in a given municipality, without one having knowledge of the other. But in most cases we work with only one leader, to avoid one shirking as the other puts forward effort. Thus, it is normal for experienced [local] politicians to hit the agreed mark in 80% of the cases, unless some unforeseen contingency changes the situation.<sup>16</sup>

Interviews in the field testify to this retail political market. In one of these, the interviewee, a state branch manager, produced a spreadsheet containing the names of brokers and mayoral candidates, the number of votes these supporters promised before the election, and the money they received for the votes. According to this same branch manager, it would be very difficult to find a successful *deputado* without a similar spreadsheet.<sup>17</sup>

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dates, council members, and professional brokers together form a structure similar to the Japanese *kōenkai*, which are “personal groups for a particular candidate” (Krauss and Pekkanen, 2011). Although in Brazil these support groups are not formally institutionalized as in Japan, municipal organizations in Brazil also bypass party control and are under the authority of a local leadership.

<sup>16</sup>Interview by author, April, 2013.

<sup>17</sup>The origin of the support-buying fund is a *caixa dois* (unreported political donations – a type of slush fund), a common practice in political campaigns (Mainwaring, 1999; Ames, 2002; Hunter, 2010; Pereira, Rennó and Samules, 2008; Gingerich, 2014). A party secretary declared *caixa dois* to be “widespread in

Although reported transactions are largely unreliable, they provide a notion of the relationship between mayoral candidates receiving payment and brokering votes for congressional candidates. The Electoral Authority requires candidates and parties to disclose every donation and expenses on their campaign online, publishing a brief description and the ID of the person or company receiving from or donating to the campaign chest.<sup>18</sup> However, only 5 percent of the 2008 mayoral candidates figure in the 2010 *deputados'* campaign finances.<sup>19</sup>

When describing the role mayoral candidates had in their campaigns, *deputados* clearly declare them to be brokers.<sup>20</sup> One example comes from the small municipality of Santa Rita do Itueto in the state of Minas Gerais. Firmino Ton won the 2008 mayoral election for the PMDB. Two years later, Ton received R\$2500 from congressional candidate Mauro Lopes, also from PMDB (around \$1250 at the time). Lopes claimed that Ton had worked for him as “campaign coordinator in Santa Rita do Itueto.” Fifty percent of Santa Rita’s voters voted for Mauro Lopes, who was eventually elected. Another example comes from the PT, which despite its programmatic appeal, does not appear to shy away from the same dealings that other parties take part in. A candidate named Cloves from Planalto municipality, Bahia came second in the 2008 mayoral race, receiving 3991 votes out of

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all parties, and, I will not lie to you, it is how politics is conducted. If someone says otherwise, he is a hypocrite.” Reported contributions from parties to municipal campaigns are small and rare, according to São Paulo’s current mayor’s campaign manager Antonio Donato, leaving mayors responsible for funding their own campaigns (interview by author – September, 2012.)

<sup>18</sup>Law 11300/2006.

<sup>19</sup>When mayoral candidates present their campaign information, they have to report their social security number. Of the 14,305 mayoral candidates in 2008, I was able to recover the SSNs of 85% of the candidates. From this subgroup of mayoral candidates, one can check whether they appear in a *deputado's* campaign, if *deputados* correctly report the SSNs of their donors or recipients. Unfortunately, this exercise cannot be replicated for earlier years, since the 2004 campaign information, before the 2006 regulation, is even less reliable.

<sup>20</sup>A few examples from campaign finances of 2010 federal Congress candidates include: *gratificação por serviços prestados durante campanha eleitoral* (gratuity for services provided during electoral campaign), *prestação de serviço de realização de propaganda eleitoral* (provision of services in the course of political advertising), *contrato de prestação de serviços*. *Função: coordenador de campanha no município de Mutum - distritos da zona rural* (service contract. Role: campaign coordinator in the municipality of Mutum – rural area districts). Although descriptions of brokerage are abundant, many transactions are not assigned a clear description. Other transactions state that the mayoral candidate has rented cars to congressional candidates, or lent a house for local headquarters, among other descriptions.

12788. He received R\$510 from PT congressional candidate Guilherme Menezes (\$255) for “voluntary professional service for support and promotion in the electoral campaign from 9/2/2010 to 10/2/2010, using the minimum wage as reference”. Menezes captured 3337 votes in Planalto, and was also elected *deputado*.

Taken together, these campaign disclosures show that mayoral candidates are important elements of *deputados* campaigns. Comparing municipalities where mayoral candidates figure on *deputados*' campaign expenditures with those where no payment is detected, we can notice the strong relationship between party performance and party payments to mayoral candidates. On average, parties receive 16% of the votes for their congressional candidates in municipalities where they had a mayoral candidate two years earlier. However, the same average where there is a disclosed payment from a *deputado* to a mayoral candidate is 66% larger.<sup>21</sup> These associations are not causal, and likely to be confounded by municipality size (as the graph at the bottom of Figure 1 appears to indicate), and other omitted factors.

## Deputies as Party Gatekeepers

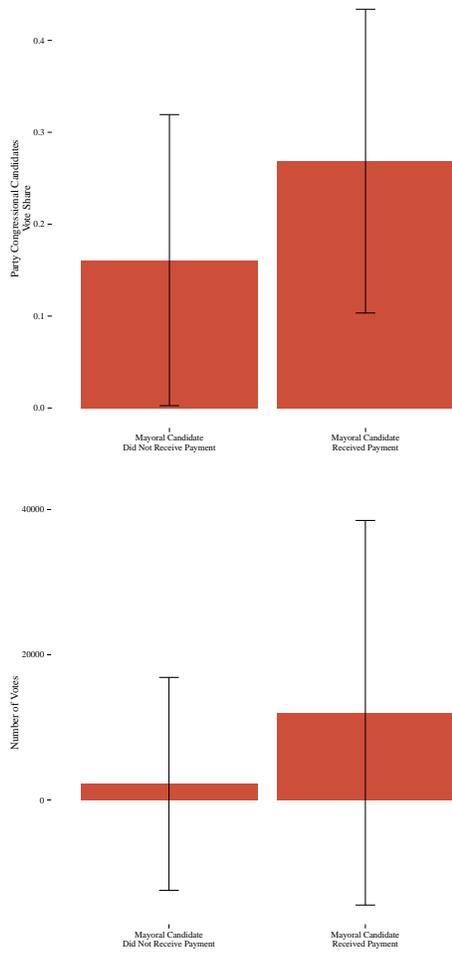
Money is, however, only part of the package *deputados* use to motivate brokers. Although there are many parties in Brazil, mayoral elections have on average fewer than three mayoral candidates. Parties often collude to limit the number of competitors.<sup>22</sup> This makes party nominations costly, and local politicians are only allowed to run if they have a sponsor at the subnational level, which are usually *deputados*.<sup>23</sup> *Deputados* can in most cases effectively decide who will be the mayoral candidate, and who will not run. Using political influence within their own organization, *deputados* often block nominations for candidates from other parties, reducing the electoral competition their prospective ally

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<sup>21</sup>See Table 6 in the Appendix for more details.

<sup>22</sup>Although the number of candidates is not high, municipal elections are very competitive, and there are no clear signs of incumbents having an advantage over their competitors (Schiumerini, 2014).

<sup>23</sup>With very few exceptions, there are no party primaries to choose mayoral candidates.



**Figure 1: Relationship Between Sending Money to 2008 Mayoral Candidates and Votes for Deputies in 2010.**

will face. In turn, the local politician who benefits from this action delivers votes to the *deputado* in the subsequent congressional election. If politicians can switch parties, *deputados* can switch allies, making party support for local bids uncertain. *Deputados* also use their leverage in the nomination process to censure disloyalty. If a mayoral candidate helps politicians from other parties without officially changing allegiance, *deputados* can lobby for the removal of that mayor, or simply prevent her from running a new campaign.

Re-nomination is not guaranteed even for winning brokers. At least 36% of all incumbents eligible to run for re-election and half of runner-ups do not attempt to run in the subsequent mayoral race. Even more striking, only 48% of incumbents run a re-election campaign in the same party they ran under previously, and only 32% of runner-ups run in the next election under the same banner as they did in the previous one. Some mayoral candidates opt to exit when chances are slim, but others do not participate in the next election because party leaders block their nomination. As it is straightforward for politicians to change parties, it is also simple for parties to jettison politicians. Brazilian law gives party leaders the power to close party branches by fiat (Guarnieri, 2011).<sup>24</sup> A mayoral candidate does not necessarily have to formally switch to help non-co-partisans, but if caught – and glancing at election results might be all that is necessary for party leaders to spot disloyalty – the mayoral candidate will likely be expelled. And if the candidate is forced to move out after the nomination window closes, by law she will not be allowed to run.

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<sup>24</sup>There are two types of local party branches: directorates and provisional committees. Although opening or closing the former requires approval from a party collegiate, party influentials, including *deputados* may still take a party branch away from an undisciplined local politician. In 2011, the Republican Party (PR) promoted a large-scale restructuring, closing down 50 branches in the state of Sao Paulo. According to the party state secretary, “local leaders [had] absolutely no commitment to the party. (...) [Having a branch in these municipalities] presented no benefit to the party, in terms of votes or otherwise.” (Chapola, R. (2010, July 15). PR destitui últimos 58 diretórios infieis. Retrieved from <http://blogs.estadao.com.br/radar-politico>).

## The Loyalty Law

Until 2007, party switching went unchecked by the electoral authority. In that year, the Democratas (formerly known as the Liberal Front Party – PFL) were suffering an exodus of their legislators, and asked the Electoral Authority to rule on who owns the elected office, the party or the candidate.<sup>25</sup> The court ruled that legislative offices belong to parties, and few months later the Supreme Court published a resolution legislating on the matter.<sup>26</sup> The decision did not change the rules for non-elected politicians, and left it that politicians could switch parties and retain office in some cases.<sup>27</sup>

Although the decision made it clear that *deputados* would lose their jobs if they switched parties, it was unclear what would happen to politicians winning elections by majority voting.<sup>28</sup> The electoral authority recommended that the new law should be applicable to all offices. The Supreme Court would have to decide on the matter, but a final decision did not come until seven months later, when the court ruled against extension of the decision to other offices. In the end, mayors elected in 2008 had to proceed at their own risk if they decided to switch parties. Some did take the risk, and either by a direct complaint by their former party, or by the initiative of the Public Prosecutor (Ministério Público), they had to face regional electoral courts. There is no consolidated data on these cases, but interviews proved that the fear of losing their jobs was real, and several media reports and judicial decisions show that disloyal mayors were forced to vacate their seats.

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<sup>25</sup>The party was left out of the governing coalition when the left-leaning Worker's Party (PT) won the presidency, a position that made a number of Democratas cadres uneasy.

<sup>26</sup>Resolução TSE n. 22.610/2007

<sup>27</sup>The law states that in cases of party merger, party revamping, “substantial” changes in party platform, or “serious” personal persecution, the switching politician may retain his mandate. The party has thirty days to submit the request. After that, the public attorney's office has an additional thirty days to petition that the politician be removed from office.

<sup>28</sup>Presidents, governors, senators, and mayors.

## Empirical Method and Data

I take advantage of the 2007 court ruling which imposed asymmetric exit barriers to measure how party disloyalty affects the brokerage duties of politicians. The ruling stipulated that if a politician in office decides to change parties, she may pay the price of being removed from office. Therefore, if switching undermines party brokerage, limiting switching should produce better coordination between party and brokers – but only in cases when the broker is serving out her term.

The design involves a two-step approach to inference. First, I use regression discontinuity designs to establish whether winning the mayoral race influences party disloyalty, and also party performance in the larger district into which the mayoral candidate is inserted; i.e., whether having a mayor win influences the election performance of a party's congressional candidates. I check how winning the mayoral race has a causal effect on these outcomes in two different periods: before and after the court ruling. Second, I measure how causal effects change across the two periods. In the following subsections I discuss each part of the two-step approach, the data I use, and the validity of the design.

### Close Elections

Victorious and defeated candidates are strikingly dissimilar groups, and any naive comparison between them would lead to biased estimates. We should expect winning candidates to be better prepared to be brokers, as winning elections is a strong indication of political competence. However, regression discontinuity (RD) designs, under certain conditions, allow us to make valid inferences about the effect of winning elections.

RD designs have been extensively covered (Thistlethwaite and Campbell, 1960; Hahn, Todd and Van der Klaauw, 2001; Lee, 2008), and scholars have already effectively used RDs to analyze close Brazilian elections, producing robust comparisons between winning and losing candidates (Titunik, 2009; Brollo and Nannicini, 2012; Boas and Hidalgo, 2011;

Schiumerini, 2014; Bueno, 2014). Crucially, RDs depend on the assumption that treated units receive the treatment by chance, and not by any omitted characteristic that differentiates them from control units. One marginal vote could have gone to either candidate, making electoral victory an as-if random event. Small margins such as one vote are rare, but sometimes the difference between winning and losing represents a small enough fraction of the total votes that the final result would be almost as if it was decided by a coin toss.

I define the local average treatment effect (LATE)  $\tau$  as

$$\tau_{p,b} = Y_{p,b}^W - Y_{p,b}^L, \quad (1)$$

where  $Y_{p,b}^W$  is the average outcome for the treated group that won the close election, and  $Y_{p,b}^L$  the average outcome of the control group;  $p$  is the period from which I draw observations (that is,  $p \in P = \{\text{Before Court Ruling, After Court Ruling}\}$ ), and  $b$  is the band of observations, described below. To estimate each average outcome, I calculate

$$Y_{p,b}^W = \frac{1}{N} \sum_{n=1}^B W_i = \bar{W}, \quad \text{and} \quad Y_{p,b}^L = \frac{1}{M} \sum_{m=1}^B L_i = \bar{L},$$

where  $N$  is the total number of units exposed to treatment and contained in  $b$ , and  $M$  is the total number of control units contained in  $b$ . In other words,  $W_i$  is a winning candidate, and  $L_i$  is a losing candidate. The *absolute* value of the difference of votes (in percentage of all valid votes) between winning candidates and losing candidates defines the margin in which I allocate units to different bands. A winning candidate is one whose margin is positive, and a losing candidate has a negative margin. Thus each race produces two units, symmetrical in their distance to the cutoff that decides who will become mayor – or treatment. The value of the absolute margin defines which aggregation the unit will join, and consequently the study group size  $N + M$ .

The choice of group size requires discretion. The natural experiment component of

RD designs is valid when treatment assignment is random, and in our electoral setting, such random assignment is increasingly plausible as we approach the marginal vote that determines winning and losing candidates. Aggregations in the design, or bands, are a set of discretionary and increasingly restrictive groupings. They range from the most permissive, the 100% margin band, which includes all units, to the most exclusive, 0.5%, which includes only units whose margin of victory (defeat) is 0.5% of all valid votes. Besides these two, I calculate LATEs for three other bands, 2.5%, 5%, and 10%. In each band, I collect all observations for treatment and control for the symmetric neighborhood. For example, the 0.5% band contains defeated units whose total vote share was 0.5% less than that of the winning candidates.

Simple t-tests of group differences (with sample variances corrected for heteroskedasticity) are clear and unbiased estimators of treatment effects.<sup>29</sup> If the RD assumptions are satisfied and there are no statistically detectable pre-treatment disparities between winners and losers, difference-of-means is enough to estimate treatment effect. The procedure eliminates the necessity of introducing further assumptions to our estimations. Thus the estimator for Equation (1) is

$$\hat{\tau}_b = \bar{W}_b - \bar{L}_b, \quad (2)$$

where  $b$  represents the band from which I collect observations in a particular test; that is,  $b \in \{0.5\%, 2.5\%, 5\%, 10\%, 100\%\}$ . Treatment and control groups from more restrictive bands are in principle the most similar to each other, but as the restriction criterion increases, the reduced number of observations might compromise the precision of the estimator. Fortunately, the fact that we have two observations in each of the two electoral cycles produces close to twenty thousand units, and some five hundred units in the vicinity of the 0.5% band. Comparing different measures can also help confirm the consistency of the estimations and reduce doubt about the discretionary choice of bands.

Although I use the results of difference of means, tables in the Appendix also present

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<sup>29</sup>For a detailed discussion, see Dunning (2012, 157–159).

other estimation procedures, namely local linear models and optimal bandwidth models, as proposed by Calonico, Cattaneo and Titiunik (2014).

## The 2007 Court Decision and the Difference-in-Differences Design

Rules are usually endogenous to the game (Boix, 1999), and the court decision is no different, since the petition to curb disloyalty in Brazil was filed by a party concerned about the outflow of partisans.<sup>30</sup> The court decision cannot be said to be a natural experiment. We cannot claim that treatment assignment is independent of the outcomes, since candidates self-select into being *potentially* subject to the rule by the act of choosing to be candidates. However, the court ruling can still be characterized as an *interrupted time-series quasi-experiment* (Campbell, Stanley and Gage, 1963; Campbell and Ross, 1968; Shadish, Cook and Campbell, 2002). The quasi-experimental aspect of the research design surfaces when I bring the court ruling to interact together with the natural experiment character of regression discontinuities. In other words, although the pool of candidates after the ruling is non-random, which complicates the comparison between the before and after court decision pools, the after-court decision group of candidates that are constrained by the law is determined to be as-if random by close elections.

The electoral court decision does not characterize the situation as a natural experiment, but campaign efforts and career decisions taken by mayors during the 2008 election were potentially independent of the court decision and of the exit costs imposed by the ruling. One factor that should alleviate concerns is that it was unclear to mayoral candidates in 2007, in the event that they won the election and switched parties, whether they would lose their jobs. The process of institutional change was decided by an independent judiciary (Kapiszewski, 2012, 5), rather than actual *deputados* or mayoral candidates. Even an initial recommendation that the law should be applied to all incumbents was

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<sup>30</sup>Thiago Boverio, Democratas lawyer in charge of the petition, personal interview with author – November, 2012

only made days past the date in which politicians were allowed to switch parties and run for the 2008 mayoral elections.<sup>31</sup> but that recommendation came some days after the window politicians had to switch parties and be eligible for running in the 2008 mayoral elections.<sup>32</sup> The small window, the non-predictable result from an independent government branch, and the uncertainty about enforcement on majoritarian incumbents reduce the possibility that the law changed how mayors planned their campaign strategies in the 2008 elections, or that mayors interfered with the process.

If the RD design provides us a measurement of the treatment effect of incumbency within periods, the difference-in-differences estimator shown in Equation (3) calculates how the treatment effects vary before and after the court decision;

$$\widehat{DiD}_b = (\hat{\tau}_{b,2} - \hat{\tau}_{b,1}), \quad (3)$$

where 1,2 denote the time periods before and after the court decision respectively. The logic of combining regression discontinuity with a difference-in-differences design is to first gauge whether incumbency causally explains party switching and party performance, and whether the causal effect is present in both periods, in only one, or in neither. The difference-in-differences estimator, on the other hand, captures the variation in the incumbency effect between the two periods. Joining the analysis of presence of causal effects with the magnitude of the variation provides us a clear and a more precise understanding of the relationship between parties and local politicians.

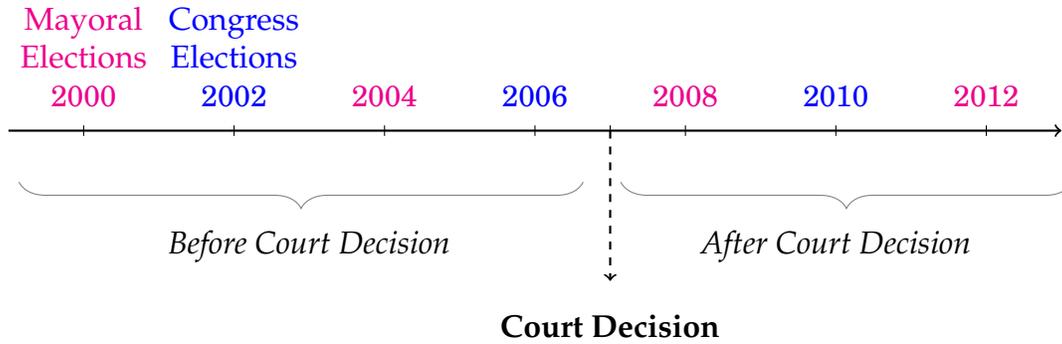
## Data

The basic units of analysis are the parties of the first and second place candidates in all municipal elections in the time period under study. For each of the two periods, I pool

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<sup>31</sup>See Article 13 of Resolução TSE n. 22.610/2007

<sup>32</sup>Giraldi, R. (2007, October 19). TSE diverge sobre a data de aplicação de fidelidade partidária para majoritários. Retrieved from [folha.uol.com.br](http://folha.uol.com.br).



**Figure 2:** *Timing of Brazilian elections and court decision, and collection of data*

the observations. The decision to pool observations makes it crucial to check for party balance between treatment and control groups. I include party dummies as part of the balance tests, as explained below. I also present exploratory evidence about intra-party effects.

Municipal elections (mayors and councilors) take place mid-term between the state and federal elections. The data consist of three mayoral election cycles, namely the 2000, 2004, and 2008 elections. The first two elections took place before the Supreme Court ruling.

For each election I contrast party performance in the state elections that took place two years after the municipal election (the 2002 and 2006 elections happen before the court decision, and 2010 after it). To analyze the career outcomes of candidates, I look at the subsequent mayoral election. It is fortuitous for the research design that municipal and congressional elections take place in different years. If campaigns are temporally disjoint, mayors' vote-brokering efforts are separated from the effort of campaigning in their own races. Figure 2 illustrates the operationalization of the variables, where  $t$  is counted in years.

To measure party performance, I calculate the vote share of all congressional candidates of a party, at the municipal level. If the party's mayoral candidate is a candidate (not necessarily for mayor) in a different party in the subsequent municipal election, the

party suffered a switch. A politician can only run as the candidate for a party if she has been a member of the organization for at least one year prior to the election. Thus, formally the switch occurs in  $t + 3$ , but unfortunately I cannot capture the exact moment when the politician decides to change parties.<sup>33</sup>

Valid regression discontinuity designs require the covariates to be statistically balanced between the treatment and control groups. Specifically, as we reduce the size of the bands from which we draw the units, we should observe the treated and control groups becoming more similar. Thus critical RD assumption of valid counterfactuals can be tested by comparing the means of the treatment and control groups' covariates.<sup>34</sup> Since in this paper I run RDs for two different periods, I check the balance for two time spans. Tables 2 and 3 in the Appendix present the balance for each period. Proper balance can be observed for both time periods. For the 0.5% band there is no statistically significant imbalance at the 5% level for any covariate.<sup>35</sup> There is some imbalance in a few variables for larger bands of observations, but the crucial RD assumption that imbalances reduce as one shortens the distance from the cutoff is confirmed by the tests.

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<sup>33</sup>Parties must divulge an updated list of members, but this requirement (TSE Provision 2/2010) has only been in force since 2010, and the self-reported data has inconsistencies in regard to the timing of switches and completeness of the party list. The MUNIC data base from the Brazilian Statistics Institute (IBGE) reports mayors' current affiliation, and affiliation at the time they they were elected. Unfortunately, the data base only reports party switching for elected mayoral candidates, and the data is not reported consistently.

<sup>34</sup>One should note that by design, demographic and other municipality-related covariates are identical between treatment and control, since there is always one winning candidate and one losing candidate for each municipality at each electoral period.

<sup>35</sup>Ideally, we would want to compare estimates before and after the court decision directly. Unfortunately, due to the design itself there is no reason to expect the two groups to be similar since the political environments before and after 2008 are likely to be different. The difference-in-differences design is built to address the issue of comparing effects across periods.

## Results: How Did the New Law Affect Uncertainty About Party–Broker Connections?

The court decision affected the career paths of the 2008 mayoral candidates and the way in which parties are structured at the local level. First, brokers who won the mayoral election reduced their rate of party switching dramatically in comparison to those candidates unaffected by the ruling. Second, these brokers were more likely to receive a renomination. Third, the forced loyalty of winning brokers spilled over to other party members below them.

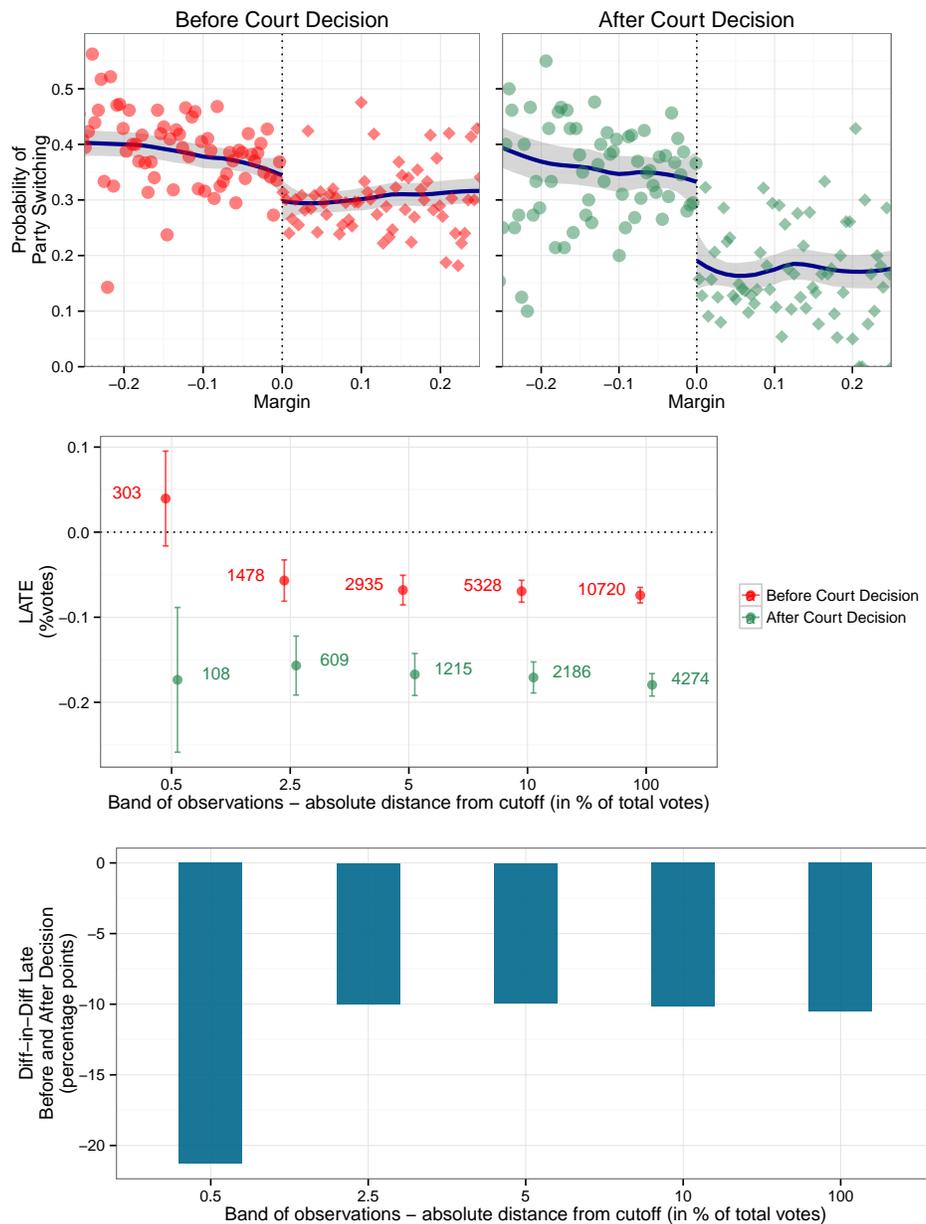
### Party Switching Rates

Figure 3 shows that defeated candidates switched parties more than winning candidates only after the court ruling. The plots in the top row of Figure 3 show the visual representation of the discontinuities, where points represent the average rate for every 1/4 percentile. Lines in this plot are LOWESS (locally weighted scatterplot smoothing) regressions, and the bands represent the 90% confidence interval of these regressions.

The bar chart in the middle row shows the difference of means between treated and control groups for each period, according to the distance from the win/lose cutoff. As we can observe, not only is the probability of switching much lower for winning candidates after the ruling, but the estimates for winners are significant for all bands. If before the ruling the probability of switching was at best 7 percentage points lower for winning candidates, after the decision this probability reduces to around half that of the defeated candidates (or 17 percentage points lower).<sup>36</sup>

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<sup>36</sup>The estimates include only politicians who remained electorally active in the subsequent municipal electoral cycle. It is reasonable to think, however, that attrition is more severe among losing candidates. As a robustness check, I run the same estimates, now including politicians absent from the next electoral cycle and classifying them as not having changed parties. In these models, the level of the dependent variable is lower, but the LATEs are largely unchanged (see Appendix Figure 10). I also chose to remove term-limited mayors from the sample. If mayors cannot compete for office in the subsequent election, it is less likely they will change parties. Including them in the treatment group would mechanically return a treatment effect of



**Figure 3: The effect of winning mayoral elections on the decision to switch parties in the future.** Top row of figures shows graphical representation of the discontinuity, with dots representing the average rate at which mayoral candidates change parties in each 1/4 percentile. Bar plot in middle row presents the local average treatment effect compared between treatment (winning parties at the mayoral election) and control (runner-up parties), with respective (robust) error bars and study group sizes. Bar plot in bottom row presents the difference-in-differences estimations between periods in percentage points of total votes. All differences are statistically significant at  $p < 0.001$ .

The blue bars depict the actual difference-in-differences. The large number of observations reduces the variance enough to make even very small differences statistically significant (except where noted, all differences are significant at  $p < 0.01$ ; see also Table 4).<sup>37</sup> The difference between periods is at least 10 percentage points, which means that the law more than doubles the rate at which winning candidates remain loyal in comparison to losing candidates.

## **Nominations, Re-Nominations, and Party Switching**

Uncertainty surrounding party nominations also decreased. Figure 4 takes a close look at the re-nomination process before and after the court decision, decomposing nomination into two possible outcomes; running again under the same party, and running again under a different party.<sup>38</sup> The probability of re-nomination is the likelihood of a mayoral candidate running again with the same party and for the same position.<sup>39</sup> Surprisingly, before the court ruling, winning an election had almost no impact on future nominations. Winning candidates were not more likely to receive a party re-nomination, nor more likely to receive a nomination from other parties. In contrast, after the court decision, incumbency turned into an important factor for politicians' future ventures.

Overall nominations (top row of Figure 4), which is the sum of re-nominations from the original party and nominations from a new one, increase markedly for winning candidates in comparison to runner-ups. The difference of local average treatment effects between the two periods in the 2.5 neighborhood is 7.3 percentage points. What explains the gap in the nomination rate between winning and losing candidates after the court decision is twofold. First, winning candidates are much more likely to receive a re-

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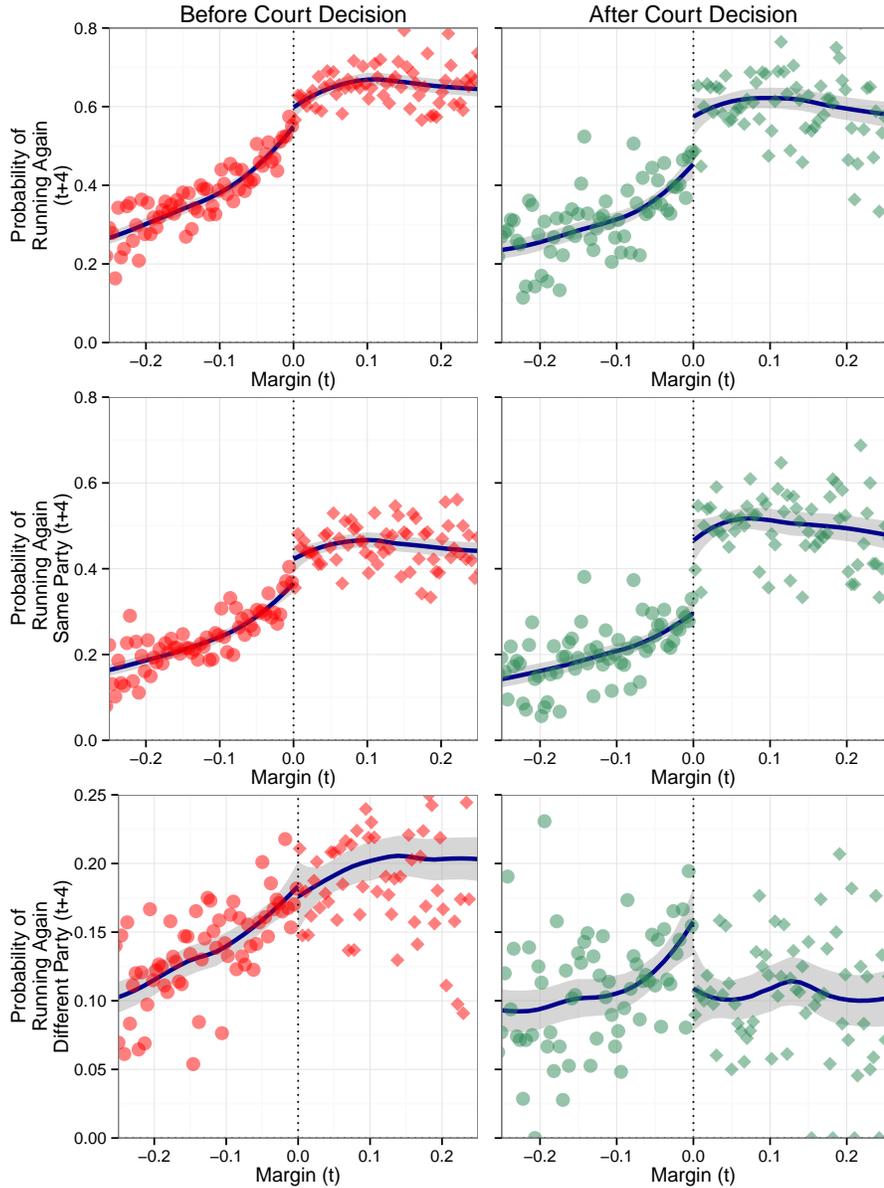
no substantive significance.

<sup>37</sup>Paired t-test with unequal variances.

<sup>38</sup>Accompanying tables with LATE estimations and differences are presented in the Appendix.

<sup>39</sup>Local politicians may be demoted to councilor or vice-mayoral candidates. If they choose to run again in the subsequent election, 99.94% of winning mayoral candidates run again as mayoral candidates. Among runner-ups, 85% run again as mayoral candidates.

nomination from their parties after the ruling. The difference between LATEs before and after the court decision is 11.2 percentage points. Second, winning candidates are much less likely to seek a nomination spot with other parties. The difference between periods is  $-3.8$  percentage points.



**Figure 4: The effect of winning mayoral elections on future nominations.** Top row of figures shows graphical representation of the probability of the candidate receiving a nomination in the subsequent election. The figures in the middle show the probability of a candidate being re-nominated by her original party, and the figures on the bottom row show the probability of the candidate switching to another party and being nominated.

## The Network Below: Councilors

For *deputados*, mayoral candidates are the access point to brokerage networks. One assumption I raise is that mayoral candidates in Brazil are not the only agents brokering votes, but retain a whole team of agents composed of paid, professional brokers, activists, and individuals who aspire to be politicians. Mayoral candidates are the “big men” (Scott, 1972), and *deputados* can only reach out to other agents through the mayoral candidate.

Council candidates are an important piece of the local clientelistic machinery, representing the second line of attack in the effort to mobilize voters, after the mayoral candidate. Running for the municipal council is commonly the first step in a politician’s career in Brazil. Each Brazilian municipality has a municipal council, whose number of councilors ranges from 9 to 55 (Ferraz and Finan, 2009). Council candidates run for office at the same time as mayors, but councilors are not term-limited. Brazil federalism leaves much of the budgetary decision-making to the local level, and *vereadores* are formally responsible for submitting proposals for the municipal budget. The municipal budget is, however, constrained by constitutional earmarks, and most of the discretion is left to mayors alone, not councilors (Schiumerini, 2014). Since mayoral candidates are ranked higher in party hierarchies, and mayoral candidates have better access to campaign donors, party resources, and, in the case of incumbent mayors, access to state resources, being part of a mayoral candidate’s network is a necessary condition for survival for an ambitious *vereador*.<sup>40</sup>

If mayoral candidates have control of their party’s councilors, councilors should follow a mayoral candidate’s lead and switch when the mayoral candidate switches, or stay put when the mayoral candidate remains loyal to his party. Considering the 2007 institutional reform, the rate at which winning councilors switched parties declined for the

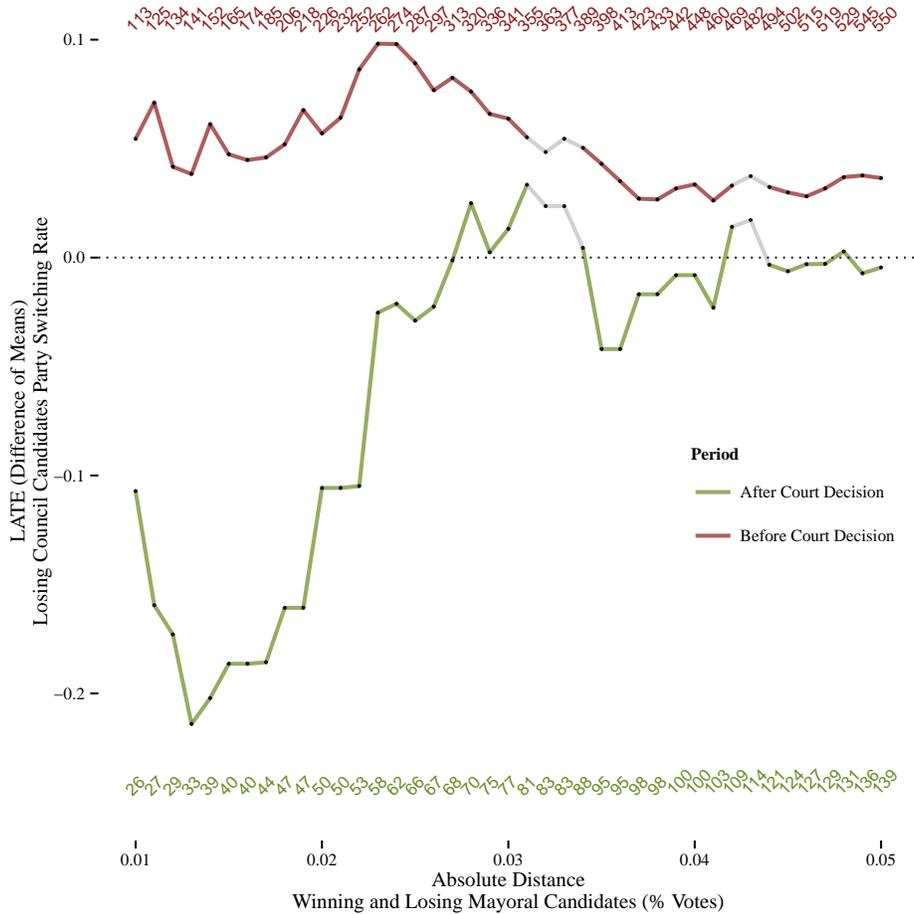
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<sup>40</sup>Most council candidates have short and unsuccessful political careers. Of all 2000 council candidates, only 45 percent ran for office in a subsequent election. Of those who remain active, 52 percent switch parties, which is more than their mayoral counterparts and indicates that party switching is an integral part of the career of clientelism agents. However, as Figure 9 in the Appendix shows, councilors’ career decisions were also affected by the loyalty law.

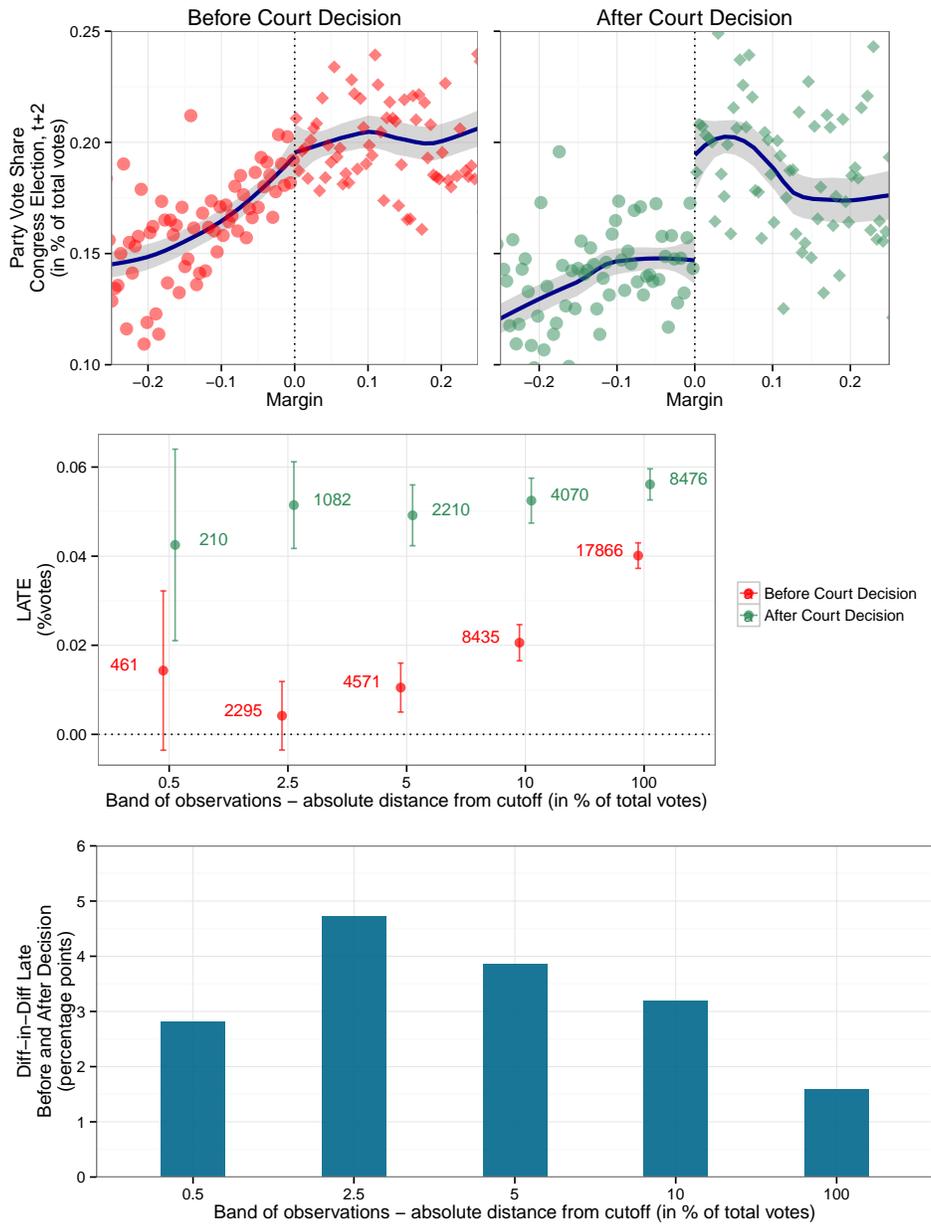
same reason that the rate for winning mayoral candidates decreased. However, the rate at which *losing* council candidates switched parties should not be directly affected by the court decision. If councilors are part of the mayoral candidate's team, losing council candidates within the party of winning mayoral candidates should show a lower rate of party switching after the law, since the rate at which winning mayoral candidates switch decreases.

The empirical test follows the same logic as the previous tests for mayoral candidates. The variable of interest is the rate of party switching by *competitive* losing council candidates. I define competitive council candidates as those who lost the election by less than five votes. Since the rate of attrition is high for *vereadores*, including them all would depress the rate considerably. Also, I choose competitive losing *vereadores*, as these cases had real chances of winning, which means that statistically they are not different than winning candidates that won by a slim margin. The hypothesis is that the rate of party switching by losing *vereadores* decreases after the law was instituted, but only for those parties whose mayoral candidate wins. In other words, the test compares the LATE before and after the law.

As we can see from Figure 5, the LATEs of the two periods are very different on close margins. While the point estimate of the LATE before the law was positive (but not statistically significant), the rate drops dramatically after the law (but they still do not achieve statistical significance). The distance between the two lines indicates the difference-in-differences effect of the law, or more precisely, shows that losing council candidates are likely to remain loyal to the mayors of their parties, now that these mayors are themselves less likely to switch. For all tests conducted within an absolute margin of 2.9% or less, the difference between periods is significant.



**Figure 5: The effect of winning mayoral elections on party switching of competitive losing council candidates.** Absolute distance is the distance between losing and winning mayoral candidates. Each point denotes the difference of means, the outcome of interest for mayoral candidates below a given absolute margin. Competitive losing council candidates are those who lost by less than five valid votes. Line sections in gray denote that the difference between the two lines (the DiD) is not statistically significant (i.e. t-statistic is below 2.0). Numbers on top and bottom indicate the study group size for each estimation in each period. At no point did the LATEs for either period achieve statistical significance.



**Figure 6: Effect of winning mayoral elections on parties' congressional electoral performance.** Top row of figures shows graphical representation of the discontinuity, with each dot representing the average vote share in the congressional election for each 1/4 percentile. Bar plot in middle row shows the local average treatment effect between treatment (winning parties in the mayoral election) and control (runner-up parties), with respective (robust) error bars and study group sizes. Bar plot in bottom row presents the difference-in-differences estimations between periods in percentage points of total votes. All differences are statistically significant at  $p$ -value  $< 0.001$ .

## Reduced Party Fluidity and Future Party Performance

Party performances by winning and losing candidates are almost identical before the court decision. However, after the ruling, the party that comes ahead in the municipality fares much better than the runner-up, as Figure 6 shows.<sup>41</sup> Winning the mayoral race causes the *deputado's* share of votes to rise by 5 percentage points compared to the losing party (in the 0.5% band), which corresponds to a 30% increase in average 2008 party performance at the municipal level. The difference-in-differences estimate is substantial; winning the election is now not only responsible for a significant increase in votes, but is more than double the previous LATE point estimate in the 0.5% band.<sup>42</sup>

As further evidence that career decisions of local politicians are crucial to understanding the surge in local party support, I devise a placebo test using term-limited mayors only, who have no incentives to formally switch parties. The test (in the Appendix) shows that the law did not affect party support in municipalities governed by term-limited mayors. In other words, the effect is only present when the law is potentially binding.

## The Effect on Individual Parties

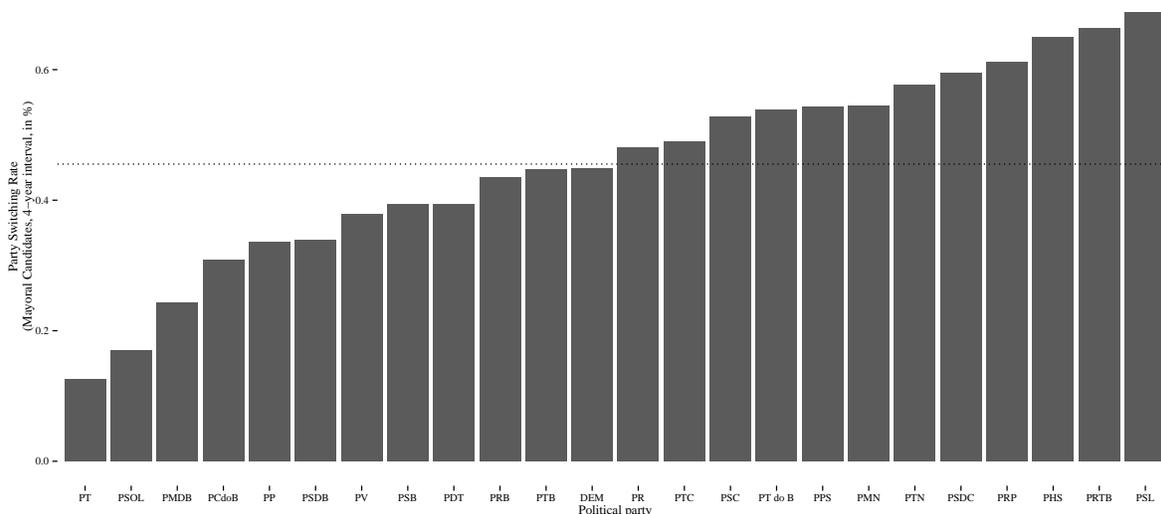
So far, the analysis pooled all parties together. In this section, I evaluate the difference-in-differences design for individual parties. Although clientelism is widespread, and interviews with party leaders and politicians indicate that all parties engage in explicit deals with mayoral candidates, some parties have historically been better at preventing party switching, and some have relied on programmatic linkages to win elections. Figure 7 shows that the average party switching rate varies considerably among the different parties, and larger ones, such as PMDB and PSDB, have rates below average. Notably, the PT, considered by scholars the most programmatic party in Brazil (Samuels, 2006), has the lowest switching rate, and according to polls the highest number of activists (Samuels

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<sup>41</sup>Estimations in Table 5 in the Appendix.

<sup>42</sup>To keep estimations consistent, I keep the study group restricted only to non-term-limited mayors for all estimations. Including term-limited mayors (not shown) does not substantively change the results.

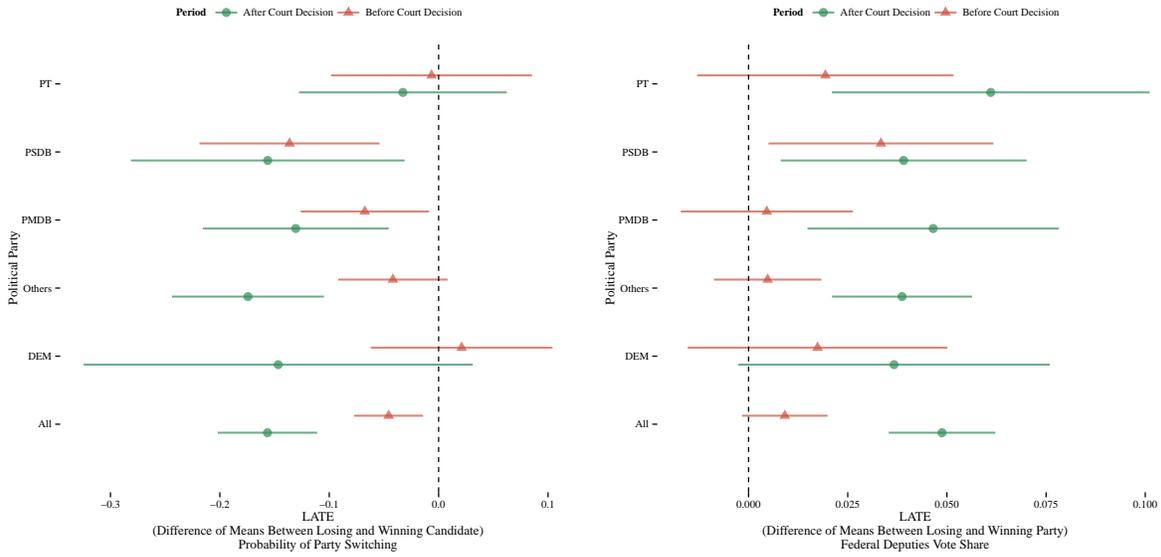
and Zucco, 2014).



**Figure 7: Average Mayoral Party Switching Rate 2000–2008, by Party.** Dotted line is the average overall party switching rate for parties, not weighted by party size.

The effect of the law seems to have touched most parties. Figure 8 shows individual effects for individual parties with enough observations to run tests with power, one grouping with all other parties, named *Others*, and the pooled result for comparison.<sup>43</sup> The plot on the left of the figure shows that all parties increased their loyalty rate after the court decision, and the plot on the right, showing the effect for congressional performance, mirrors the plot on the left: electoral performance in municipalities with winning candidates is noticeably better. One party, the PT, stands out. Its LATE for party switching changed marginally between periods, and the LATE in votes for its deputies increased significantly. It is difficult to assess the individual trajectories of parties, but the PT might have been experiencing coattail effects with its presidential candidate and its mayors enjoying extended access to state resources, as Brollo et al. (2013) show.

<sup>43</sup>Grouping the data by party reduces the study group size to a point at which the tests appear underpowered, especially for small RD windows. For this reason, I chose to be lenient with the window, arbitrarily choosing a 5 percent bandwidth. Although this reduces the robustness of the test, it allows a broader characterization of individual dynamics. I run tests for parties that have fielded more than 5,000 candidates during the entire period.



**Figure 8: The effect of winning mayoral elections on the decision to switch parties in the future and congressional performance, by Party.** LATEs calculated at the 5 percent margin.

## Alternative Hypotheses

Despite qualitative evidence of mayoral candidates working as brokers for *deputados*, we need to check the explanations that could be generated by alternative hypotheses. One reasonable competing explanation is that after 2008 voters became more responsive to party labels, and party performance improved because parties began to benefit from mayoral victories. Avelino, Biderman and Barone (2012), analyzing the 2008 elections (after the court decision), first identified the discontinuity of congressional party support among winning and losing mayoral candidates' parties, and came to the conclusion that Brazilian parties experience a reverse coattail effect. Having a mayor from a given party could signal the party's commitment to local affairs to voters, or, if the loyal mayor is competent, it may suggest to voters that the party will also do a good job in Congress.

If it is true that *deputados* receive more votes due to a party coattail, or reputation effect, we should expect the party to receive more votes for other offices as well – including the subsequent mayoral race. One possible way to test the hypothesis of party coattails is to run the same tests I use for *deputados* on gubernatorial elections, which take place on

the same day as congressional elections, but whose campaign dynamics are intrinsically different.

Gubernatorial elections also require footwork by mayoral candidates, but the market for brokerage is much more limited and less effective for this kind of electoral race. First, I found no anecdotal evidence of governors asking for support from mayoral candidates outside their coalition or from the adversary's party. Second, the number of competitive gubernatorial candidates rarely exceeds three, in contrast to the dozens of potential congressional candidates that might want to hire the mayor-broker. On average, from 1994 to 2010 2.84 gubernatorial candidates received more than 5% of the votes in each race. Third, monitoring brokerage in gubernatorial elections is difficult, since the number of votes received by competitive candidates is much larger than those received by individual *deputados*. Fourth, television ads and political platforms are more informative than those of *deputados*, making it easier for voters to compare different (and fewer) candidates, which makes direct linkages a comparatively expensive enterprise (Mainwaring, 1999, 188). Governors still need to motivate mayors in their state, but mostly to make them exert an effort, not to prevent them from switching parties.

Lastly, even if a mayor switches parties, it is possible she will switch to a party within the same governor's coalition. Figure 12 (in the Appendix) shows the estimates before and after the court ruling, and in neither is there a statistically discernible LATE. Difference-in-differences estimations are substantively small.

The effect seen for federal congressional candidates does not appear for gubernatorial candidates, but it does for state legislators (also available in the Appendix). State deputies also build brokerage networks in their campaign efforts. As with federal deputies, state deputies also appear to have their numbers increase where the incumbent is a co-partisan only after the court decision, although the impact of the change appears to be more modest.

There is other evidence that parties do not enjoy direct advantages of local incum-

bency, lending support to the hypothesis that local success is a factor of individual effort by local party politicians. As recent studies by Titunik (2009) and Schiumerini (2014) show using regression discontinuity designs, it is hard to make a case for incumbency bias in Brazil if one does not include other determinants from which voters might re-elect candidates, such as fiscal capacity. A much harder problem is to detect potential party incumbency bias (Schiumerini, 2014), and if there is any bias, it might actually be a disadvantage. It would not be reasonable to suggest an advantage exclusively for *deputados*, and not for the actual mayors or for the governor.

Another alternative explanation could be that the winning mayor receives more resources from the party because the president is from the same team, or because the mayor and governor share the same party. If the presidential party (the PSDB in 2000, and PT in all other elections) is targeting allied municipalities, and in turn voters are returning the favor by voting party candidates in, then it is unclear why voters would help individual congressional candidates but not the gubernatorial candidate. More importantly, the PT held the presidency from 2003 until after the court ruling. Recent work shows how the PT in the federal government is strategic about whom they support and punish at the local level (Brollo and Nannicini, 2012; Nunes, 2013). However, these party tactics were present both before and after the court ruling, and cannot not explain the differences across periods in party switching rates or party congressional votes at the local level.

Although Brollo and Nannicini (2012) show evidence that the national executive favors aligned municipalities when distributing federal funds, strategic transfers do not seem to explain why a party's congressional voting share improves when the party has an incumbent mayor. Resources can affect brokerage, and elected mayoral candidates are the only ones allowed to receive public funds to use at their discretion. Parties can motivate better when the party can funnel state resources as payment for brokerage services. However, Brollo and Nannicini (2012, 753) show that politically motivated transfers are concentrated in the last two years of the mayoral term, thus after the congressional

election (the authors do not separate their analysis by electoral cycle). The promise of resources could be motivating mayors to broker votes, but the employment of such resources cannot be contributing directly to congressional performance.

Finally, many developing countries devised conditioned cash transfers in recent years, and some distributional schemes are rule-based, reducing the possibility for incumbents to distribute cash benefits contingent on voter support.<sup>44</sup> However, analyzing the Brazilian case Zucco (2013, 11) notes that the electoral rewards of CCTs are restricted to a short time frame, and have not significantly changed voters' partisan preferences: the electoral effects have not extended to legislative elections, which are the arena where modular parties are most active. Moreover, during the whole period under analysis in this article Brazil had one single incumbent president's party, and the country experienced no political disruption. Finally, changes in party switching rates were more dramatic in regions where vote buying is thought to be widespread, namely northern and northeastern Brazil, but the effects of the law extend to all regions, indicating that more than clientelism being a product of social and economic factors, it is a the result of how parties organize in the country.<sup>45</sup>

## Conclusion

This paper shows how party switching from brokers undermines clientelistic parties. In many party systems, there is no one dominant clientelistic party, but many parties on an equal footing in terms of control of state resources. In these systems without dominant machines, parties also compete for brokers, who are willing to broker votes for the highest bidder. These agents are indispensable to these parties not only because they mobilize

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<sup>44</sup>*Bolsa-Familia* in Brazil has been extensively scrutinized by scholars, and although some argue that politicians might make voters believe that incumbents can withhold disbursements (Fenwick, 2009), most authors agree that the program succeeded in preventing political manipulation. The program has also made strides in reducing extreme poverty, and Zucco (2013) convincingly shows that voters have rewarded not only *petistas*, but all incumbents in executive offices for the cash-outs.

<sup>45</sup>See Figure 14 and 15 in the Appendix for details.

voters, but also because they are responsible for building build patron–client linkages. However, since brokers, and not the party, own the clientele, whenever they receive a more profitable offer for their services and decide to switch parties, they are able to take all their clients with them away from their former employer, without substantial exit costs.

Brazil never had a labor-based party in the mold of the Argentinean *Partido Justicialista* or the Mexican PRI (Collier and Collier, 2002) who would eventually turn into a dominant clientelistic machine (Gibson, 1997). On the contrary, parties in Brazil are complex meshes of fragile individual political alliances, a pattern that precedes democratization (Hagopian, 2007; Limongi, 2015) and has proved resilient in the face of socioeconomic advances. Although some party polarization is a factor in gubernatorial and presidential races, congressional campaigns have never been marked by partisanship. Without any party identity, each congressional candidate builds threads running towards different municipalities, some of which they have never visited before, but where mayors and mayoral candidates have private networks of voters. However, these networks are ready to be put into action to elect *deputados* not because of shared party allegiance, but through direct payments – usually a package that includes both party nominations and actual money. Political ties between mayoral candidates and deputies are often ephemeral, running their courses in a single election, a fact confirmed by the high party-switching rate of Brazilian politicians. And although recent analyses have shown greater partisan alignment in Congress (Figueiredo and Limongi, 2000; Hagopian, Gervasoni and Moraes, 2009; Lyne, 2008), there is no direct evidence that this coordination in the legislative chamber spills over into lower tiers of the organization. As Figueiredo and Limongi (2000, 167) note, neither ideology or roots in the society are a necessary condition for party discipline in Congress.

If one characteristic that differentiates political parties from groups of notables is *permanent organization at the local level, with regularized communication and other relationships between local and national units* (LaPalombara and Weiner, 1966, 6), when the broker tier in

the non-programmatic pyramid is constantly shifting, the distinction disappears. However, the 2007 court decision effectively reduced disloyalty from mayoral candidates subject to the law and remedied the rickety broker tier in these parties. Where these mayoral candidates were located, parties had superior performance. Not only were parties more likely to have continued fielding local candidates, these local candidates were also more likely to broker votes to congressional candidates. Political institutional reform in the developing world is a much-debated issue, but arguments are seldom grounded in empirical evidence. This article hopes to contribute to such debates by showing that reducing the gains of party switching, as the Brazilian institutional reform did, improved prospects for parties unable to enforce loyalty on their own.

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# Appendix

List of supporting information:

- Summary Statistics
- Balance Tests
- Tables for the estimations included in the main text
  - Party switching
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- Estimations mentioned in the main text
  - Nominations, re-nominations, and party switching
  - Party switching non-conditional on running again
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## Summary Statistics

All election data are available from the Brazilian Electoral Authority (Tribunal Superior Eleitoral) website.<sup>46</sup> Elections in Brazil have used electronic voting since 2002, which is also the year I start collecting congressional vote data. Fraudulent votes for *deputados* were common before the implementation of electronic voting (Hidalgo, 2010), but nowadays elections are regarded as fair. With the exception of senators, the terms of all elected offices in Brazil are four years.

Variables are measured at the municipal level. In total, the study group comprises data from 33,453 municipal campaigns. *Congressional Vote Share* and *State Legislative Vote Share* measure the total vote share of all the mayoral candidate's party candidates two years after the municipal election. *Gubernatorial Vote Share* is the proportion of votes received by the gubernatorial candidate whom the mayoral candidate's party is supporting. *Party Switch* identifies candidates who switch allegiances between municipal elections, and *Candidate Demoted* identifies candidates who run for vice-mayor or municipal council in the subsequent election. *Party Incumbent* indicates whether the mayoral candidate's party is the incumbent's party. *College Education* reports level of post-secondary education. *Single* reports whether the candidate is single at the time of the election. *Party in Gubernatorial Coalition* reports whether the mayoral candidate's party is in the winning gubernatorial candidate's coalition – including the actual candidate's party. DEM, PMDB, PSDB, and PT are the largest political parties. *Age* is the candidate's age at the time of the election. *Female* reports the gender of the candidate. Businessperson, Public Employee, Retiree, Teacher, and Councilor are examples of self-reported occupations.<sup>47</sup>

Variable	Mean	Variance	Median	Min	Max
Congressional Vote Share (t+2)	0.18	0.18	0.12	0.00	0.97
Gubernatorial Coalition Vote Share (t+2)	0.43	0.24	0.45	0.00	0.99
State Legislative Vote Share (t+2)	0.16	0.18	0.10	0.00	0.97
Party Switch (t+4)	0.16	0.36	0.00	0.00	1.00
Candidate Demoted (t+4)	0.08	0.27	0.00	0.00	1.00
Party Incumbent	0.53	0.50	1.00	0.00	1.00
College Education	0.48	0.50	0.00	0.00	1.00
Single	0.10	0.31	0.00	0.00	1.00
Party is Incumbent Governor	0.28	0.45	0.00	0.00	1.00
DEM	0.14	0.34	0.00	0.00	1.00
PMDB	0.21	0.41	0.00	0.00	1.00
PSDB	0.15	0.35	0.00	0.00	1.00
PT	0.08	0.26	0.00	0.00	1.00
Age	48.22	9.87	48.00	21.00	90.00
Female	0.09	0.28	0.00	0.00	1.00
Businessperson	0.12	0.32	0.00	0.00	1.00
Public Employee	0.07	0.25	0.00	0.00	1.00
Retiree	0.02	0.14	0.00	0.00	1.00
Teacher	0.04	0.19	0.00	0.00	1.00
Councilor	0.02	0.14	0.00	0.00	1.00

**Table 1: Summary Statistics**

<sup>46</sup> [www.tse.br](http://www.tse.br)

<sup>47</sup> All data was collected from the Brazilian Electoral Authority, TSE: [www.tse.br](http://www.tse.br).

## Balance Tests for the RD Design

Covariate	100%	b<.05	b<.025	b<.005
Party Incumbent	0.017 (0.011)	-0.01 (0.021)	0.016 (0.03)	-0.009 (0.068)
Past Municipal Vote Share	0.042 (0.004)	0.008 (0.008)	0.005 (0.011)	-0.016 (0.022)
Past Federal Congress Vote Share	0.032 (0.003)	-0.01 (0.006)	-0.022 (0.009)	-0.03 (0.019)
Past State Congress Vote Share	0.033 (0.004)	-0.001 (0.008)	0.004 (0.012)	-0.026 (0.025)
Past Gubernatorial Vote Share	0.037 (0.006)	0.012 (0.011)	0.009 (0.016)	-0.011 (0.037)
Candidate attended college	0.005 (0.007)	-0.005 (0.014)	-0.019 (0.019)	0.023 (0.043)
Candidate is single	-0.006 (0.004)	-0.015 (0.008)	-0.019 (0.011)	-0.034 (0.022)
PMDB	-0.001 (0.006)	-0.013 (0.011)	-0.038 (0.016)	-0.049 (0.035)
PT	-0.02 (0.003)	-0.004 (0.007)	0 (0.01)	0.056 (0.022)
PSDB	0.029 (0.005)	0.008 (0.01)	0.011 (0.014)	0.004 (0.032)
DEM	0.007 (0.005)	-0.001 (0.01)	-0.007 (0.014)	0.026 (0.032)
Age	-0.944 (0.135)	0.427 (0.274)	0.804 (0.385)	0.094 (0.834)
Female	-0.023 (0.004)	-0.009 (0.007)	-0.013 (0.01)	-0.004 (0.022)
Teacher	-0.004 (0.003)	0.001 (0.006)	-0.001 (0.009)	0.011 (0.019)
Businessperson	0.007 (0.004)	-0.001 (0.009)	0.003 (0.012)	0.034 (0.025)
Public Employee	0.004 (0.004)	-0.004 (0.007)	-0.007 (0.01)	-0.023 (0.024)
Retiree	-0.006 (0.002)	-0.007 (0.004)	-0.009 (0.005)	-0.008 (0.013)
Councilor	-0.004 (0.002)	0.002 (0.003)	0.004 (0.004)	0.008 (0.011)
n	21882	5626	3007	864

**Table 2: Balance Statistics - Before Court Decision** Difference in means between winning and losing candidates. Standard error in parentheses.

Covariate	100%	b<.05	b<.025	b<.005
Party Incumbent	0.147 (0.01)	0.055 (0.021)	0.091 (0.03)	0.002 (0.07)
Past Municipal Vote Share	0.062 (0.004)	0.02 (0.008)	0.02 (0.012)	-0.018 (0.029)
Past Federal Congress Vote Share	0.038 (0.004)	0.013 (0.007)	0.016 (0.01)	0.014 (0.025)
Past State Congress Vote Share	0.034 (0.004)	0.008 (0.009)	0 (0.012)	-0.011 (0.03)
Past Gubernatorial Vote Share	0.028 (0.005)	0.013 (0.01)	0.008 (0.014)	-0.002 (0.031)
Candidate attended college	0.01 (0.01)	-0.002 (0.02)	-0.001 (0.028)	-0.055 (0.065)
Candidate is single	-0.004 (0.006)	-0.003 (0.013)	-0.023 (0.019)	-0.024 (0.039)
PMDB	0.017 (0.008)	0.012 (0.016)	0.018 (0.023)	0.002 (0.055)
PT	0.007 (0.006)	0.027 (0.011)	0.026 (0.017)	0.009 (0.037)
PSDB	0.018 (0.007)	0.006 (0.013)	0.028 (0.019)	0.018 (0.046)
DEM	-0.004 (0.006)	-0.002 (0.011)	-0.004 (0.017)	-0.05 (0.041)
Age	-1.258 (0.194)	-0.967 (0.397)	-0.391 (0.576)	0.687 (1.277)
Female	-0.037 (0.006)	-0.023 (0.012)	-0.012 (0.018)	0.026 (0.042)
Teacher	-0.005 (0.003)	0.006 (0.006)	0.005 (0.008)	-0.017 (0.012)
Businessperson	-0.001 (0.006)	-0.016 (0.013)	-0.004 (0.019)	-0.016 (0.042)
Public Employee	-0.006 (0.005)	0.002 (0.01)	-0.004 (0.014)	0.034 (0.036)
Retiree	-0.019 (0.003)	-0.012 (0.007)	-0.006 (0.01)	0.026 (0.025)
Councilor	-0.02 (0.003)	-0.015 (0.007)	-0.017 (0.01)	0.009 (0.028)
n	10683	2840	1525	507

**Table 3: Balance Statistics - After Court Decision** Difference in means for winning and losing candidates. Standard error in parentheses.

## Tables for Estimations Included in the Main Text

**Table 4: LATE Party Switching**

<i>Band</i>	<i>Difference of Means</i>			<i>Local Linear</i>		
	LATE Before	LATE After	DiD	LATE Before	LATE After	DiD
0.5	0.04 (0.056)	-0.174 (0.085)	-0.213 t=-13.01	0.049 (0.119)	-0.067 (0.2)	-0.116 t=-3
2.5	-0.052 (0.024)	-0.151 (0.035)	-0.099 t=-35.18	-0.002 (0.049)	-0.107 (0.071)	-0.105 t=-18.11
5	-0.064 (0.017)	-0.161 (0.025)	-0.097 t=-68.27	-0.027 (0.034)	-0.141 (0.05)	-0.113 t=-39.51
10	-0.065 (0.013)	-0.166 (0.018)	-0.101 t=-129.32	-0.056 (0.025)	-0.171 (0.036)	-0.116 t=-75.41
100	-0.07 (0.009)	-0.174 (0.013)	-0.104 t=-257.39	-0.074 (0.013)	-0.193 (0.018)	-0.119 t=-211.12

*Notes:* The first column gives the estimation bands. *Difference of Means* are the differences between treatment and control group means. *Local Linear* are the estimates of the local average treatment effect based on a linear regression with an interaction term between the margin of votes and treatment status. *DiD* are the difference-in-differences before and after court decision LATEs (with corresponding t statistic below). Robust standard errors in parentheses.

**Table 5: LATE Congressional Votes**

<i>Band</i>	<i>Difference of Means</i>			<i>Local Linear</i>		
	LATE Before	LATE After	DiD	LATE Before	LATE After	DiD
0.5	0.011 (0.016)	0.034 (0.02)	0.023 t=8.76	0.038 (0.036)	0.052 (0.047)	0.013 t=2.17
2.5	0.01 (0.007)	0.046 (0.009)	0.036 t=72.69	0.012 (0.015)	0.032 (0.017)	0.019 t=19.56
5	0.016 (0.005)	0.046 (0.006)	0.03 t=122.02	0.011 (0.01)	0.045 (0.013)	0.034 t=69.16
10	0.027 (0.004)	0.049 (0.005)	0.022 t=167.09	0.007 (0.007)	0.047 (0.009)	0.04 t=155.74
100	0.049 (0.003)	0.06 (0.003)	0.011 t=182	0.023 (0.004)	0.039 (0.004)	0.016 t=182.54

*Notes:* The first column gives the estimation bands. *Difference of Means* are the differences between treatment and control group means. *Local Linear* are the estimates of the local average treatment effect based on a linear regression with an interaction term between the margin of votes and treatment status. *DiD* are the difference-in-differences before and after court decision LATEs (with corresponding t statistic below). Robust standard errors in parentheses.

## Estimations Mentioned in the Main Text

### Brokerage

**Table 6:** OLS: Relationship Between Sending Money to 2008 Mayoral Candidates and Votes for Deputies in 2010.

	<i>% Votes</i>		<i>Number of Votes</i>	
(Intercept)	0.163*	0.165*	2539.0*	2577.9*
	(0.002)	(0.002)	(151.4)	(150.2)
Received Payment	0.119*		4024.98*	
	(0.011)		(1031.6)	
Money Sent (in '000)		0.008*		653.7*
		(0.002)		(154.3)
<i>N</i>	10630	10630	10630	10630
<i>R</i> <sup>2</sup>	0.012	0.002	0.001	0.002
adj. <i>R</i> <sup>2</sup>	0.012	0.002	0.001	0.002
Resid. sd	0.159	0.160	15442.5	15440.6

Standard errors in parentheses

\* indicates significance at  $p < 0.05$

**Table 7: OLS: Relationship Between Sending Money to 2008 Mayoral Candidates and Votes for Deputies in 2010.**

	% Votes		Number of Votes	
(Intercept)	0.16*** (0.00)	-0.00 (0.03)	2539.00*** (151.42)	-1723.79 (1915.00)
Received Payment	0.12*** (0.01)	0.12*** (0.01)	4024.97*** (1031.64)	3334.40*** (531.21)
Money Sent (in '000)	0.01*** (0.00)	0.01*** (0.00)	653.73*** (154.30)	458.86*** (79.10)
Incumbent Mayor		0.06*** (0.00)	0.06*** (0.00)	-540.99*** (154.08)
Votes Mayor. Cand. (%)		0.11*** (0.01)	0.11*** (0.01)	-5816.9*** (1274.9)
State, Party Dummies	N	Y	N	Y
R <sup>2</sup>	0.01	0.23	0.00	0.74
Adj. R <sup>2</sup>	0.01	0.23	0.00	0.74
Num. obs.	10630	10630	10630	10630

Standard errors in parentheses

\*\*\*  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$

## Nominations, Re-Nominations, and Party Switching

**Table 8:** LATE Probability of Overall Nomination in Next Election

<i>Band</i>	<i>Difference of Means</i>			<i>Local Linear</i>		
	LATE Before	LATE After	DiD	LATE Before	LATE After	DiD
0.5	0.017 (0.046)	0.043 (0.07)	0.026 t=2.69	0.008 (0.097)	0.057 (0.158)	0.049 t=2.24
2.5	0.09 (0.02)	0.164 (0.03)	0.074 t=40.34	0.016 (0.041)	0.038 (0.061)	0.022 t=6.04
5	0.133 (0.014)	0.204 (0.021)	0.07 t=78.25	0.042 (0.029)	0.118 (0.044)	0.077 t=41.45
10	0.183 (0.011)	0.233 (0.015)	0.049 t=100.55	0.075 (0.021)	0.147 (0.031)	0.072 t=75.07
100	0.278 (0.007)	0.292 (0.011)	0.013 t=55.58	0.188 (0.01)	0.252 (0.015)	0.064 t=197.07

*Notes:* The first column gives the estimation bands. *Difference of Means* are the differences between treatment and control group means. *Local Linear* are the estimates of the local average treatment effect based on a linear regression with an interaction term between the margin of votes and treatment status. *DiD* are the difference-in-differences before and after court decision LATEs (with corresponding t statistic below). Robust standard errors in parentheses.

### The effect of the court decision on council candidates

Unlike mayors, council candidates were unambiguously affected by the court decision. If before the law winning council candidates switched parties 5% less than their losing counterparts, after the law the treatment effect of winning triples to minus 20%.<sup>48</sup>

<sup>48</sup>Margin of victory for councilors in a proportional system is not as straightforward as in majoritarian elections. Here, I define margins within-coalition, that is, the number of votes a losing candidate would have to get to win the seat of the least voted winner of their list; and for winning candidates, margin refers to the number of votes a winning candidate would have to lose to allow the most voted candidate who did not win a seat to be elected. I arbitrarily chose an absolute margin of five votes so that the number of observations for the parties would be sufficient. Whenever there is a tie, the electoral law rules that the eldest candidate is to win the seat. To prevent covariate imbalance, since mechanically winning candidates in ties are older, and age may be correlated to other relevant political variables, I eliminate margins of zero votes.

**Table 9:** LATE Probability of Re-Nomination by Current Party in Next Election

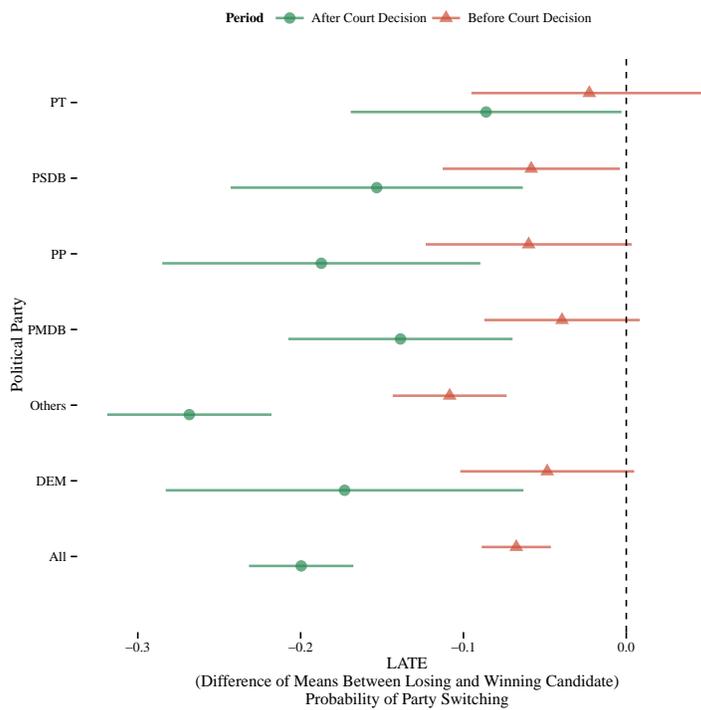
<i>Band</i>	<i>Difference of Means</i>			<i>Local Linear</i>		
	LATE Before	LATE After	DiD	LATE Before	LATE After	DiD
0.5	-0.018 (0.045)	0.114 (0.067)	0.133 t=14.44	-0.002 (0.094)	0.075 (0.146)	0.076 t=3.79
2.5	0.093 (0.02)	0.206 (0.029)	0.113 t=63.29	0.006 (0.04)	0.099 (0.059)	0.093 t=25.98
5	0.12 (0.014)	0.233 (0.02)	0.112 t=128.67	0.047 (0.029)	0.175 (0.042)	0.128 t=71.13
10	0.156 (0.01)	0.254 (0.015)	0.099 t=208.04	0.078 (0.02)	0.201 (0.03)	0.123 t=131.92
100	0.216 (0.007)	0.294 (0.01)	0.078 t=340.64	0.162 (0.01)	0.282 (0.014)	0.12 t=382.72

*Notes:* The first column gives the estimation bands. *Difference of Means* are the differences between treatment and control group means. *Local Linear* are the estimates of the local average treatment effect based on a linear regression with an interaction term between the margin of votes and treatment status. *DiD* are the difference-in-differences before and after court decision LATEs (with corresponding t statistic below). Robust standard errors in parentheses.

**Table 10:** LATE Probability of Nomination by a Different Party in Next Election

<i>Band</i>	<i>Difference of Means</i>			<i>Local Linear</i>		
	LATE Before	LATE After	DiD	LATE Before	LATE After	DiD
0.5	0.035 (0.037)	-0.071 (0.046)	-0.107 t=-16.65	0.009 (0.071)	-0.018 (0.119)	-0.028 t=-1.69
2.5	-0.003 (0.016)	-0.042 (0.02)	-0.039 t=-31.99	0.01 (0.032)	-0.06 (0.041)	-0.07 t=-28.32
5	0.013 (0.011)	-0.029 (0.014)	-0.042 t=-70.85	-0.006 (0.022)	-0.056 (0.029)	-0.051 t=-41.58
10	0.028 (0.008)	-0.022 (0.01)	-0.049 t=-157.2	-0.003 (0.016)	-0.054 (0.02)	-0.051 t=-80.1
100	0.062 (0.006)	-0.002 (0.007)	-0.064 t=-429.26	0.026 (0.008)	-0.03 (0.01)	-0.055 t=-262.88

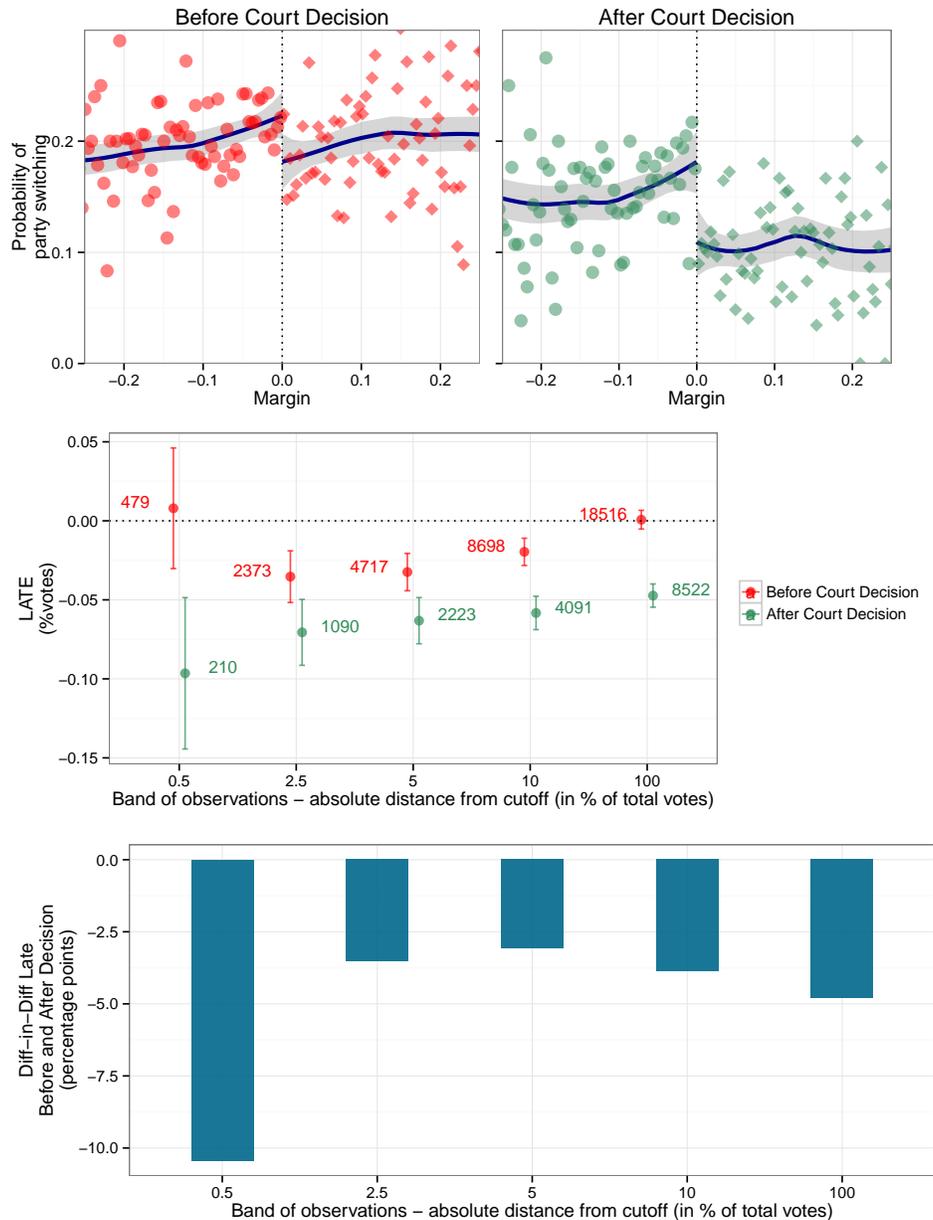
*Notes:* The first column gives the estimation bands. *Difference of Means* are the differences between treatment and control group means. *Local Linear* are the estimates of the local average treatment effect based on a linear regression with an interaction term between the margin of votes and treatment status. *DiD* are the difference-in-differences before and after court decision LATEs (with corresponding t statistic below). Robust standard errors in parentheses.



**Figure 9: The effect of winning council elections on party switching.** Includes only council candidates who won or lost by a margin equal to or greater than 1 and smaller than 5, and candidates who continued to be active in politics. Bands denote 95% CI.

## Party switching non-conditional on the politician running again

These estimations take all mayoral candidates into account, including those who do not run again in subsequent elections. Apart from a decline in the levels of the curves, the LATE estimates are consistent with the estimations used in the main text.



**Figure 10: The effect of winning mayoral elections on the decision to switch parties – all mayors.** Top row of figures shows graphical representation of the discontinuity, with dots representing the average rate at which mayoral candidates change parties in each 1/4 percentile. Bar plot in middle row presents the local average treatment effect between treatment (winning parties in the mayoral election) and control (runner-up parties), with respective (robust) error bars and study group sizes. Bar plot in bottom row presents the difference-in-differences estimations between periods in percentage points of total votes. All differences are statistically significant at  $p$ -value  $< 0.001$ .

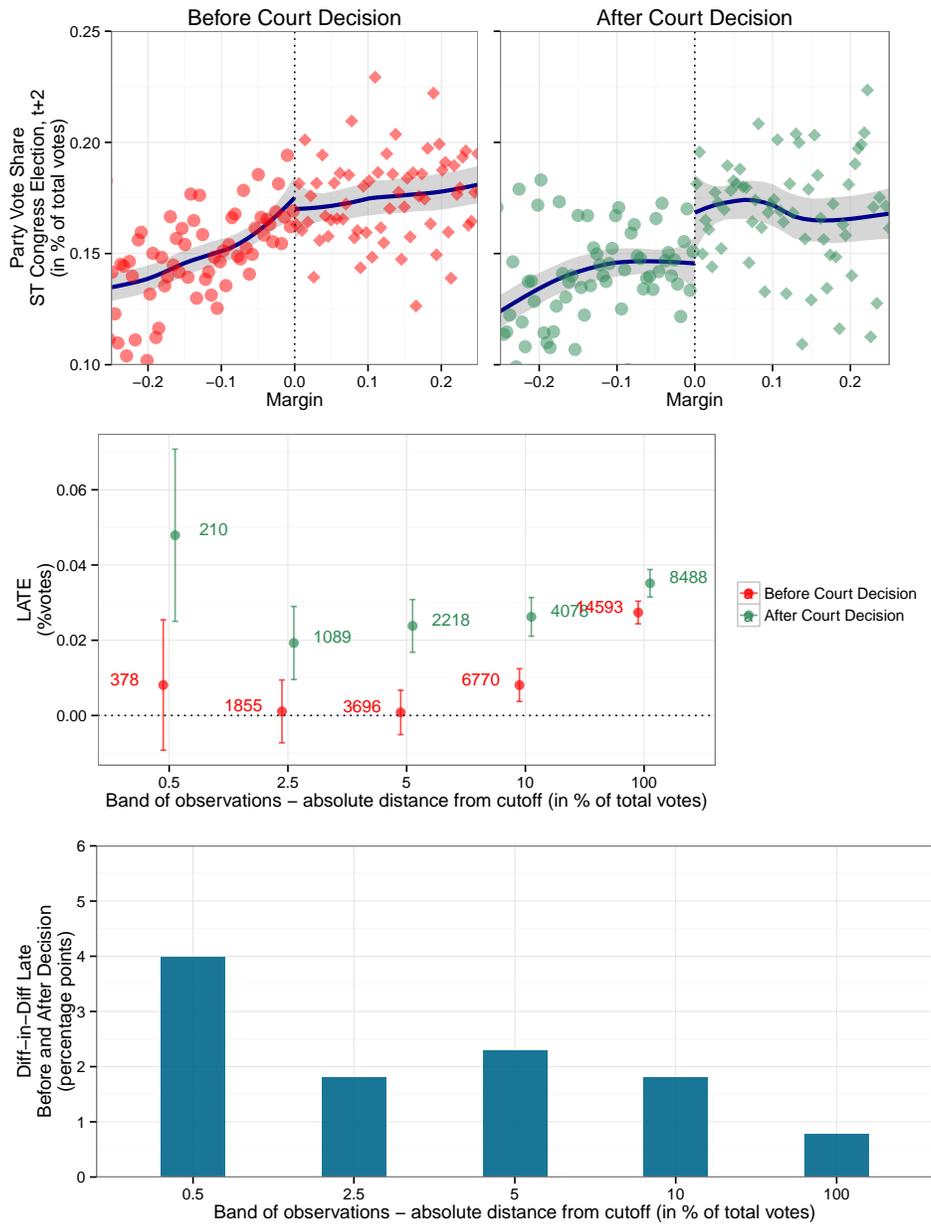
## State Congress performance

As I argue in the article, state congressional candidates also use campaign tactics similar to those of federal congressional candidates. Thus, we expect that the court decision should also affect their voting performance. As we see in Table 11, vote share of state deputies increased in municipalities where the party won the mayoral election.

**Table 11:** LATE State Congress Votes

<i>Band</i>	<i>Difference of Means</i>			<i>Local Linear</i>		
	LATE Before	LATE After	DiD	LATE Before	LATE After	DiD
0.5	0.012 (0.017)	0.035 (0.021)	0.022 t=8.12	-0.029 (0.034)	-0.001 (0.051)	0.028 t=4.27
2.5	0.009 (0.008)	0.023 (0.009)	0.014 t=28.36	0.005 (0.015)	0.035 (0.018)	0.031 t=29.55
5	0.01 (0.006)	0.025 (0.006)	0.015 t=60.87	0.011 (0.011)	0.027 (0.013)	0.016 t=31.05
10	0.017 (0.004)	0.027 (0.005)	0.009 t=69.25	0.007 (0.008)	0.025 (0.009)	0.018 t=68.54
100	0.039 (0.003)	0.041 (0.003)	0.002 t=31.93	0.015 (0.004)	0.018 (0.004)	0.003 t=39.31

*Notes:* The first column gives the estimation bands. *Difference of Means* are the differences between treatment and control group means. *Local Linear* are the estimates of the local average treatment effect based on a linear regression with an interaction term between the margin of votes and treatment status. *DiD* are the difference-in-differences before and after court decision LATEs (with corresponding t statistic below). Robust standard errors in parentheses.



**Figure 11: The effect of winning mayoral elections on parties' State Congress election performance.** Top row of figures shows graphical representation of the discontinuity, with dots representing average vote share in the state congressional election for each 1/4 percentile. Bar plot in middle row presents the local average treatment effect between treatment (winning parties at the mayoral election) and control (runner-up parties), with respective (robust) error bars and study group sizes. Bar plot in bottom row presents the difference-in-differences estimations between periods in percentage points of total votes. All differences are statistically significant at p-value < 0.001.

## Gubernatorial performance

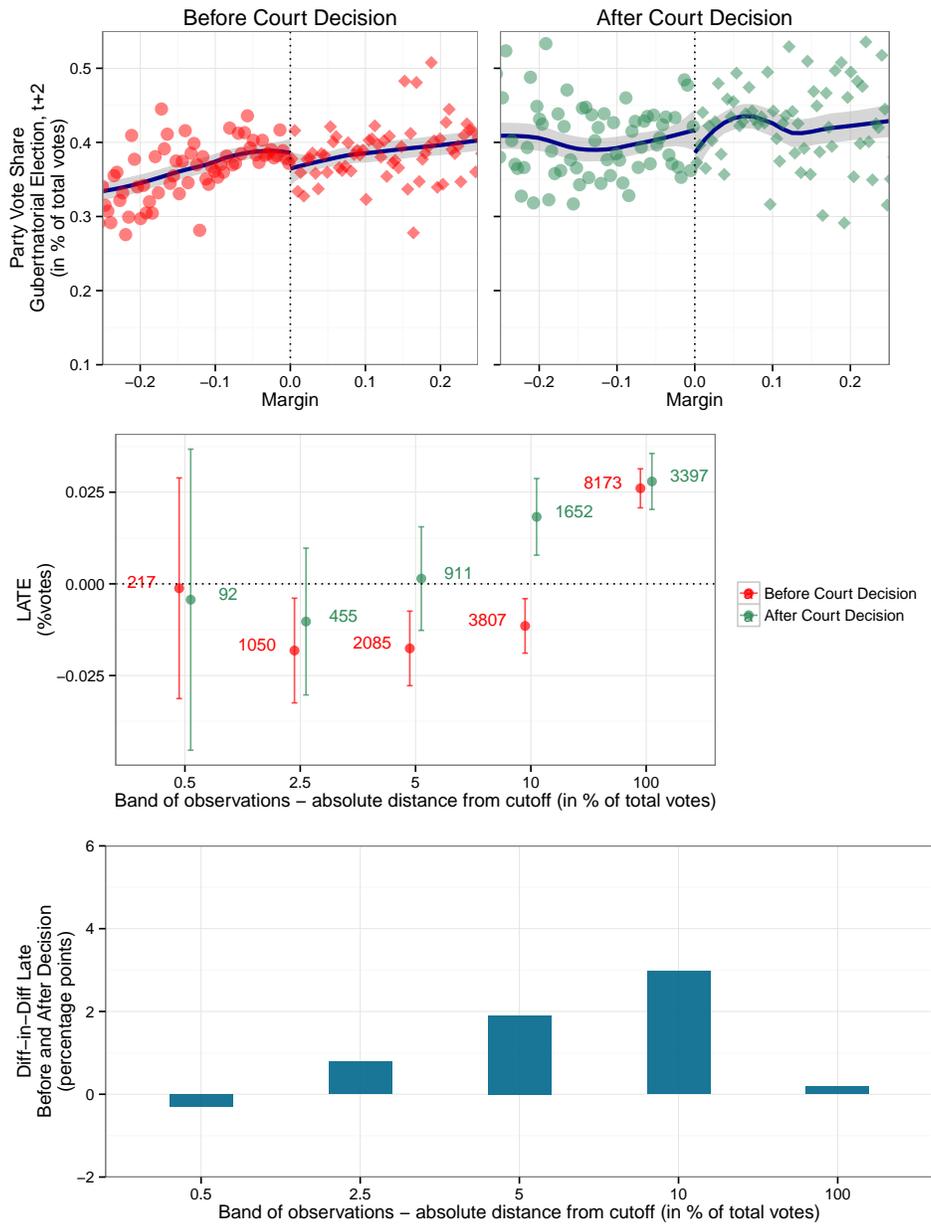
Not all parties field a candidate for governor. To more directly represent party internal coordination, I reduce the group to include only those municipalities whose party fielded a candidate for governor.<sup>49</sup>

**Table 12:** LATE Gubernatorial Votes

<i>Band</i>	<i>Difference of Means</i>			<i>Local Linear</i>		
	LATE		DiD	LATE		DiD
Before	After	Before		After		
0.5	0.004 (0.029)	0.006 (0.04)	0.002 t=0.25	-0.012 (0.066)	-0.052 (0.088)	-0.04 t=-2.27
2.5	-0.01 (0.013)	0 (0.018)	0.01 t=6.3	-0.012 (0.026)	-0.026 (0.035)	-0.014 t=-4.6
5	-0.011 (0.009)	0.008 (0.013)	0.019 t=23.66	-0.011 (0.019)	-0.006 (0.026)	0.005 t=3.23
10	-0.002 (0.007)	0.017 (0.009)	0.019 t=42.93	-0.021 (0.013)	0.001 (0.018)	0.022 t=26.42
100	0.035 (0.005)	0.033 (0.007)	-0.002 t=-10.68	-0.01 (0.007)	0.001 (0.009)	0.011 t=38.5

*Notes:* The first column gives the estimation bands. *Difference of Means* are the differences between treatment and control group means. *Local Linear* are the estimates of the local average treatment effect based on a linear regression with an interaction term between the margin of votes and treatment status. *DiD* are the difference-in-differences before and after court decision LATEs (with corresponding t statistic below). Robust standard errors in parentheses.

<sup>49</sup>I have to apply post-treatment conditioning by separating those municipalities in time  $t$  that field a gubernatorial candidate in  $t + 2$ . This particular subgroup is likely to be different from the group of municipalities whose party has not fielded a candidate for governor. We would be concerned if the decision to field a gubernatorial candidate were linked to the individual fortune of each municipality. It is possible that winning the race in an important municipality, such as the state capital, makes it more likely that the party would field a candidate. But it is unlikely that the decision to field a gubernatorial candidate is caused by the close election of other individual candidates. The effect of a biased estimate of one individual unit is likely to be lost among many other races irrelevant to the decision to field the candidate for governor. Repeating the same test changing the dependent variable slightly to the coalition's gubernatorial candidate vote share (instead of including only the party of the candidate) returns very similar results (available upon request).



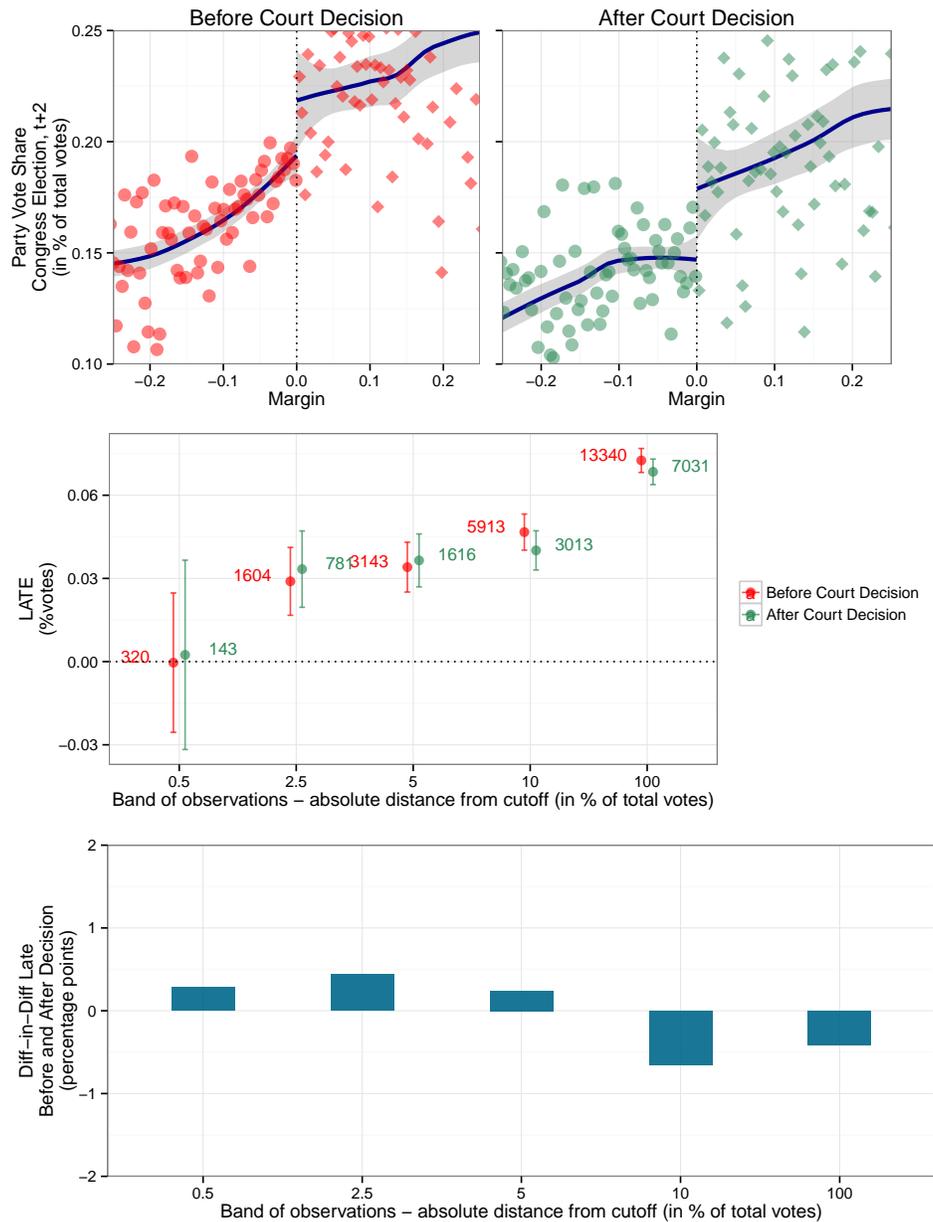
**Figure 12: The effect of winning mayoral elections on parties' gubernatorial electoral performance.** Top row of figures shows graphical representation of the discontinuity, with dots representing the average vote share at the gubernatorial election for each 1/4 percentile. Bar plot in middle row presents the local average treatment effect between treatment (winning parties at the mayoral election) and control (runner-up parties), with respective (robust) error bars and study group sizes. Bar plot in bottom row presents the difference-in-differences estimations between periods in percentage points of total votes. Difference at 0.5% has p-value < 0.023, 2.5% has p-value < 0.42. All other differences have p-value < 0.001.

## A Placebo Test: Term-Limited Mayors

The Brazilian electoral system allows executive office holders one attempt at re-election. If successful in their re-election bid, mayors are not allowed to run for mayor in the following cycle (although they are allowed to try again after a waiting period). The fact that re-nomination is not an issue for term-limited mayors means that formal party switching is not critical for them, and only very few term-limited mayors opt to switch parties for their last years in office – mostly to run for Congress in some other party. There is no reason a mayor would risk formally switching parties during her last years of office, since doing so would only bring retribution. Even if a mayor decides to help another party, she will be disloyal but she will not bother to formally switch sides.

If switching is not a path that term-limited mayors often take, the court ruling should have limited to no impact on their career choices, and also a very limited effect on the treatment effect difference between winning and losing candidates before and after the ruling. This aspect of the Brazilian electoral system allows me to use term-limited mayors as a placebo test of the design. If the assumption of barriers to exit reduces the chances of elected mayors switching to other parties, but no such mechanism applies to term-limited mayors, then we should expect no changes in the LATE between the periods before and after the court decision.

Figure 13 and Table 13 show these estimates. Although parties appear to fare better in municipalities where the experienced term-limited mayor is a partisan, how this relationship changed between the before and after-ruling periods can be ignored in terms of the size of the effect, which is never higher than 0.7 percentage points for the difference of means estimations.



**Figure 13: The effect of winning mayoral elections on parties' congressional electoral performance when the winning candidate is term limited.** Top row of figures shows graphical representation of the discontinuity, with each dot representing the average vote share at the congressional election for each 1/4 percentile. Bar plot in middle row presents the local average treatment effect between treatment (winning parties at the mayoral election) and control (runner-up parties), with respective (robust) error bars and study group sizes. Bar plot in bottom row presents the difference-in-differences estimations between periods as a proportion of the standard error of the LATE in the before-court decision period. Difference at 0.5% has p-value < 0.79, 2.5% has p-value < 0.14, 5% has p-value < 0.45. The last two differences have p-value < 0.001.

**Table 13: LATE Placebo**

<i>Band</i>	<i>Difference of Means</i>			<i>Local Linear</i>		
	LATE Before	LATE After	DiD	LATE Before	LATE After	DiD
0.5	0 (0.025)	0.002 (0.034)	0.003 t=0.49	-0.048 (0.056)	0.037 (0.075)	0.085 t=6.75
2.5	0.029 (0.012)	0.033 (0.014)	0.004 t=3.83	0.014 (0.025)	0.006 (0.028)	-0.008 t=-4.17
5	0.034 (0.009)	0.036 (0.01)	0.002 t=4.33	0.019 (0.017)	0.025 (0.019)	0.005 t=5.34
10	0.047 (0.007)	0.04 (0.007)	-0.007 t=-26.36	0.022 (0.013)	0.026 (0.014)	0.005 t=9.89
100	0.072 (0.004)	0.068 (0.005)	-0.004 t=-39.13	0.046 (0.006)	0.038 (0.007)	-0.009 t=-55.33

*Notes:* The first column gives the estimation bands. *Difference of Means* are the differences between treatment and control group means. *Local Linear* are the estimates of the local average treatment effect based on a linear regression with an interaction term between the margin of votes and treatment status. *DiD* are the difference-in-differences before and after court decision LATEs (with corresponding t statistic below). Robust standard errors in parentheses.

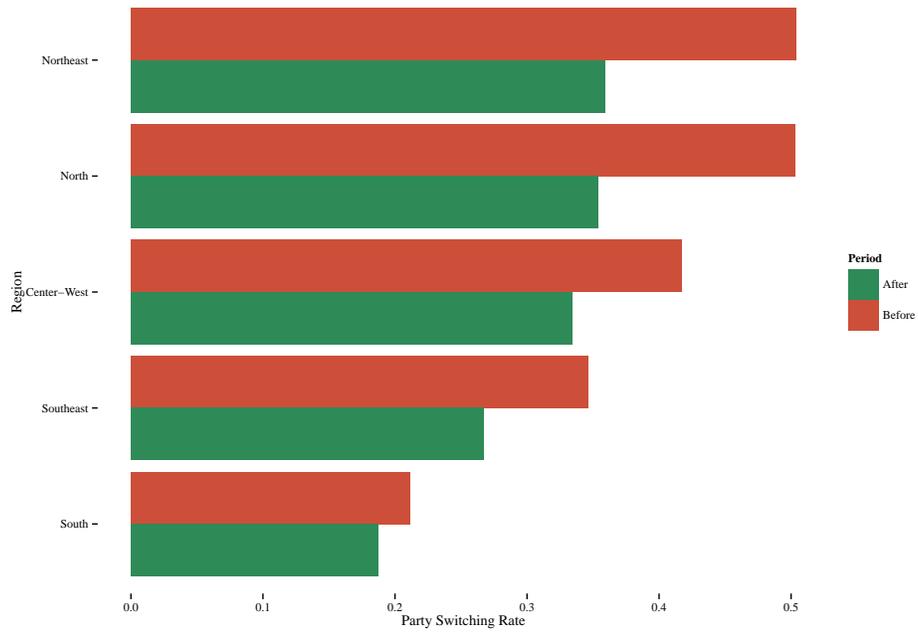
## The Effect of the Law on Different Regions

Clientelism is often associated with backwardness, oligarchical politics, and poverty. Thus, poor regions where voters on average have lower levels of education, and whose family incomes often fall below the poverty line should be fertile ground for clientelism. This theoretical argument of why clientelism is more effective in poor regions hinges on the idea that the marginal utility of a gift is higher for poor voters; thus targeting the poor generates a larger return on the same clientelistic investment.

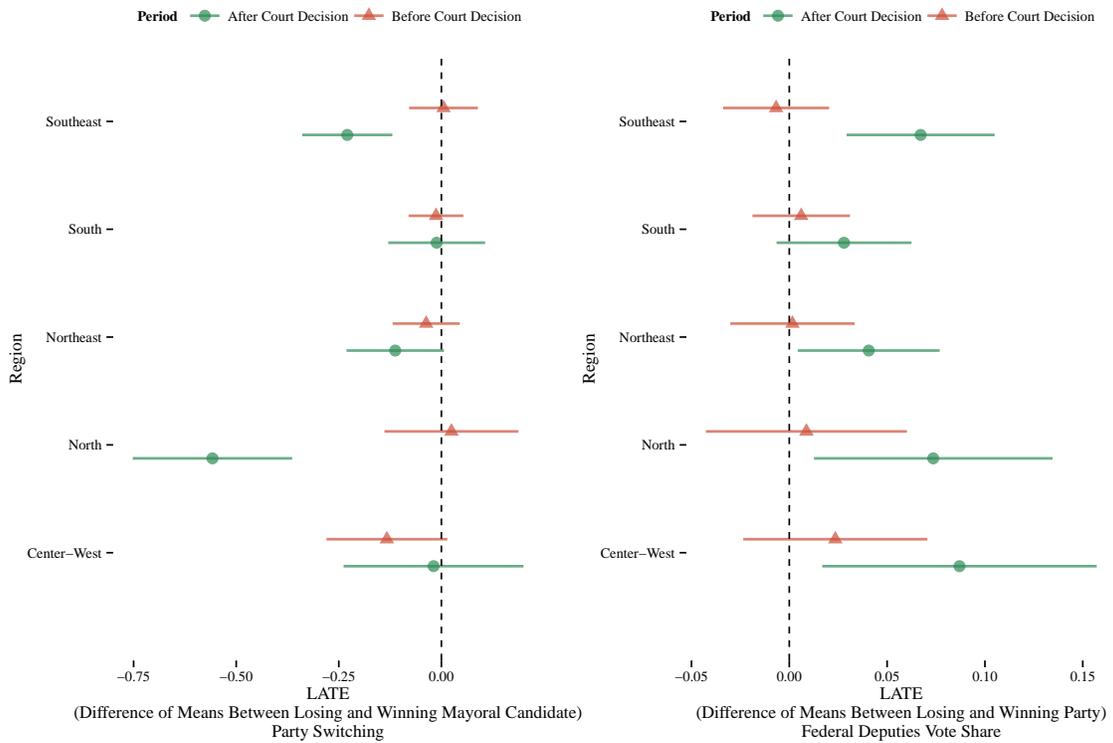
This demand-side explanation of clientelism is incomplete because it does not explain how parties could mobilize voters in ways other than the contingent exchange of goods for votes. Since programmatic linkages are non-mediated party–voter connections, any explanation of why rising economic standards should cause a decline in clientelism should also explain how parties are able to eliminate the middle man, and why brokers do not fight against party adaptation that reduces brokerage gains. For example, some parties face electoral costs in sustaining clientelism as an electoral tactic (Weitz-Shapiro, 2012), but one needs to understand how parties may respond to such costs. A modular party organization does not guarantee that party leaders will have leverage to adapt the party to other modes of mobilization, such as programmatic linkages to voters even if such voters become richer, and willing to break away from their patron–client relationships. If voters lack alternatives, they might still be willing to (weakly) support whoever is offering material gifts.

Therefore, although it is likely that clientelism is more effective in poorer regions, there is no reason to believe parties can mobilize voters around party platforms in richer places. Raw data does show that the poorest regions show higher mayoral candidates' party switching rates. The northern and northeastern regions of the country had much higher party switching rates before the court decision than other regions, and also greater drops after the court decision. The south and southeast, the two richest regions, have the lowest rates, and show smaller drops.

However, the LATE results present a less clear picture of the relationship between poverty and party modularity. Two regions stand out: the north and southeast, which have very different poverty patterns. These tests indicate that clientelism is stronger in, but not restricted to poor regions. Income and clientelism are likely intertwined, but more research on the demand and supply side of clientelism is needed to understand how these two factors interact with each other.



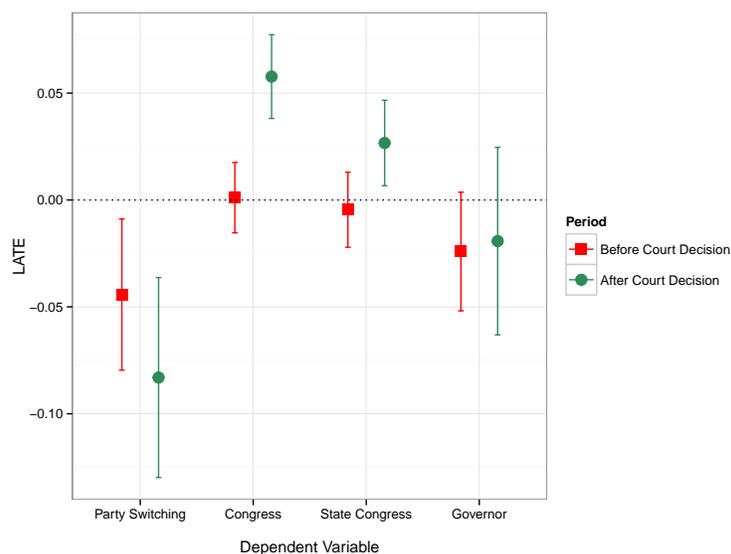
**Figure 14:** Party Switching Rates, Before and After the Court Decision, by Region



**Figure 15:** Relationship Between Party Switching Rates and Congressional Performance, Before and After the Court Decision, by Region

## Robustness Check: Non-Parametric Estimations Using Local Polynomials

The selection of regression discontinuity bandwidths and the choice of the order of polynomials used in some of the estimations may lead to incorrect estimations of confidence intervals (Calonico, Cattaneo and Titiunik, 2014, 1). Calonico, Cattaneo and Titiunik (2014) devise a theoretically grounded strategy to estimate confidence intervals. I include those estimations as a robustness check.<sup>50</sup> The estimations, which include polynomials and large bandwidths, are substantively indistinguishable from the difference-of-means approach used throughout the article.



**Figure 16: Non-parametric estimations using local polynomials:** Late point estimates and bars indicate non-parametric confidence intervals estimated using `rdrobust` R package

<sup>50</sup>I performed estimations using `rdrobust` R package.

**Table 14:** Non-parametric estimations using local polynomials

<i>Dependent Variable</i>	Before	After
Congress	0.001 (0.008) bw = 0.269	0.058 (0.01) bw = 0.326
Governor	-0.024 (0.014) bw = 0.324	-0.019 (0.022) bw = 0.251
Party Switching	-0.044 (0.018) bw = 0.274	-0.083 (0.024) bw = 0.245
State Congress	-0.005 (0.009) bw = 0.252	0.027 (0.01) bw = 0.316

*Notes:* The table shows LATE estimations for four different dependent variables. LATE was calculated using the `rdrobust` package for R, which uses the recommended implementation devised in Calonico, Cattaneo and Titiunik (2014). Robust standard errors in parentheses. *bw* denotes the optimal bandwidth, in terms of vote percentage. All estimations use a second degree polynomial.