The Politicization of Bureaucrats: Evidence from Brazil[*]

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Abstract

In developing countries incumbents commonly exercise political influence over bureaucrats through monitoring or patronage hiring. We investigate a new politicization channel: a phenomenon where bureaucrats join political parties while in office. First, with a regression discontinuity design and administrative data on the universe of Brazilian municipal bureaucrats, we identify an incumbency advantage in their politicization. Second, we find larger effects for a special set of bureaucrats: the ones that interviewed households for enrollment into *Bolsa Família* (BF). Third, we show that these effects are even stronger for interviewers highly exposed to voters, and in municipalities where BF was expanded. Our findings suggest a policy-driven logic for this politicization: voter-facing bureaucrats who deliver salient policies accumulate electoral capital which is converted into rents by joining the incumbent political networks.

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Bureaucracies largely determine both the quality of public services and citizens welfare in the developing world (Grossman and Slough, 2022). These in turn affect how voters evaluate government performance, and also the electoral prospects of incumbents. For this reason, bureaucrats commonly face the influence of politicians in power. Existing research has mainly studied two dimensions of bureaucratic control in low- and middle-income countries: (i) oversight, and how the monitoring of bureaucrats by elected officials affects performance (Dasgupta and Kapur, 2020; Gulzar and Pasquale, 2017; Raffler, 2021), corruption (Brierley, 2020), and elections (Martin and Raffler, 2021; Slough, 2021a,b); or (ii) appointments, which focuses on the consequences of patronage hiring to public good outcomes (Colonnelli, Prem, and Teso, 2020; Brollo, Forquesato, and Gozzi, 2017; Toral, 2023a,b).

Both these approaches, however, treat the politics of bureaucrats as given. On the one hand, the oversight literature frames them within the Weberian model as an ideologically neutral group. In this case, political influence is primarily exercised through "monitoring and the associated threat of sanctions" (Grossman and Slough, 2022). On the other, the patronage literature treats them as politicized agents with fixed pre-existing loyalties, and political influence on the bureaucracy is only exercised through selection. In doing so, both cases miss an important piece of the puzzle: whether and how bureaucrats acquire or shift political attachments while on the job.

We fill this gap by investigating the politicization[1] of more than 4 million bureaucrats with incumbent parties in 4,000+ Brazilian municipalities. We provide three main contributions. First, we use a regression discontinuity design (RDD) to identify a clear incumbency advantage in the politicization of municipal bureaucrats. With individual-level administrative data on the universe of formal municipal employees and party members, we build a proxy of politicization at the municipality-party level that measures the share of the local bureaucracy that joined a party in 2009-2012 (we call it *Membership*). The RDD compares the value of *Membership* for the party coalition that won the 2008 mayoral election in a close race – and thus became the incumbent

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[1]In this article we use the term politicization to express a specific type of political engagement: the bureaucrats' formal affiliation with a political party. In the Brazilian decentralized party system, recruitment is primarily a local affair, and party growth is largely the result of recruitment efforts by local leaderships rather than the voters' response to programmatic platforms – often implying an exchange of political support for rents. See details in page 12.

in 2009-2012 – to the coalition that lost. In short, incumbent parties enlisted roughly 25% more bureaucrats than the opposition.

Second, as we examine the political engagement of bureaucrats with incumbent parties, we are particularly interested on how it is influenced by the policy-driven interactions between bureaucrats and voters. As a result, we bring our empirical analysis to focus on a special set of public servants: those working on Brazil's *Bolsa Família* (BF). This is the largest cash transfer program in the world, with extensively debated implications to electoral politics (Bueno, 2021; Frey, 2019; Zucco Jr., 2013). In particular, we have access to untapped administrative data on 50,000+ municipal bureaucrats that personally interviewed roughly 20 million of poor households for admission into the program. Even though BF is a federal policy, municipal employees are responsible for the enrollment of beneficiaries in the program's registry, the *Cadastro Único* (CadUnico). In this context, the pattern of politicization of these interviewers is particularly interesting for two reasons: they are in a position to act as gatekeepers of a highly salient and popular social policy,[2] and have multiple daily interactions with a significant share of the electorate in their communities: the average interviewer saw at least 202 households in 2009-2012, roughly 4% of the local voters.

Not surprisingly, we find that the incumbency advantage in the politicization of interviewers is much higher than the one found for the rest of the bureaucracy, with incumbency effects of 103%. We also show that the differences in effects between these groups is not driven by differences between them in age, gender, education, occupation, hiring date, or wages; or by differential assignments of tasks within the bureaucracy.

Third, we propose and further investigate a policy-driven logic to interpret these patterns of politicization. The intuition is straightforward: voter-facing bureaucrats that deliver broad, popular, and salient policies accumulate electoral capital among poor voters, either due to good performance or political capture (Boas et al., 2021). This creates mutual incentives for the formation of political ties between incumbents and bureaucrats. From the incumbent's perspective, these

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[2]Page 8 has a detailed discussion on the ways in which interviewers can use their position to accumulate political capital through good performance or even program manipulation. Even though BF's design hinders targeting, manipulation, or capture, this is still possible (see examples in Brollo, Kaufmann, and La Ferrara (2019), Bueno (2021), and Frey (2021)).

bureaucrats are now valuable assets for political mobilization. From the bureaucrat's perspective, partisan engagement offers access to rents. Also, these incentives are particularly prominent for incumbent parties. Not only the public service performed by the bureaucrats is better associated with the current administration, but incumbents also have an upper hand in sharing the rents of office with their political supporters.

This mechanism is consistent with both the political context and the expansion of the BF program in Brazilian municipalities, both discussed in detail in pages 5 to 8. What is more, even though we do not directly measure the political capital potentially accumulated by each bureaucrat, we show a series of heterogeneity analyses that are also consistent with this logic.

We first examine the heterogeneity of the effects across municipalities, based on their potential for the expansion in CadUnico registration in 2009-2012. In 2009, an unilateral expansion in BF by the federal government increased the enrollment in CadUnico by nearly 7 million households. This further raised the program's salience in a country where voters have been shown to monitor and punish local politicians for performance (Feierherd, 2020; Klašnja and Titiunik, 2017), and created opportunities for political capture of the benefits (Bueno, 2021; Brollo, Kaufmann, and La Ferrara, 2019; Frey, 2021). Although it happened in 2009, this adjustment was not driven by post-treatment variables,[3] and generated a significant cross-municipal variation in enrollment. We show that the incumbency effects in the politicization of interviewers are significantly higher in municipalities with higher enrollment potential – a heterogeneity that is neither observed for the politicization of other bureaucrats (non-interviewers) nor for the rest of the voting population.

We also use CadUnico records to count the number of interviews by each bureaucrat in the period – a measure that closely reflects their policy-driven interactions with voters. Then, within the group of interviewers in each municipality, we show that the incumbency effects in politicization are highly concentrated on the ones that were more exposed to voters. What is more, the concentration of effects on highly active interviewers seems to be driven by interviews of house-

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[3]The new estimates of CadUnico-eligible families were the result of a methodological change in the formula used to determine local poverty levels. This variation is the same used by Gerard, Silva, and Naritomi (2021) as an identification strategy to study the causal effects of BF.

holds in the election year. In addition, using the demographic characteristics of interviewers, we also show that the ones that are more likely to join incumbent parties are the ones with limited career upside and less job stability, which is consistent with the policy-driven logic above.

We further explore the role of the partisanship of the incumbent on the findings. Voters most often associate BF's brand with the federal administration led by President Lula and the Worker's Party (PT), which created the policy in 2003, and expanded it in 2009. Nevertheless, we fail to find consistent evidence that the politicization effects were higher for local incumbents that had credible party ties with PT's national administration in the period. More importantly, our effects remain consistently strong even where mayors belong to parties that opposed PT at both the national and local levels. This is consistent with our conceptual framework where the politicization of bureaucrats is driven by their personalistic linkages with both voters and politicians, which transcend party brands, ideologies, and ownership over the credit claiming of certain policies.

Consistent with our theoretical argument above, at the end we also show that these party affiliation effects are not driven by bureaucrats trying to launch individual political careers.

Overall, our results uncover an uncharted dimension of incumbency advantage in developing democracies. In doing so, they present an alternative way used by incumbents to politicize an influential part of the bureaucracy beyond the well known practices of monitoring or patronage hiring. The logic here also applies beyond Brazil to any environment where bureaucrats are able to claim credit for providing services to voters; and where joining the incumbent's network is beneficial due to rent-extraction – all common features in the developing world (Cruz, Labonne, and Querubín, 2020; Larreguy, Montiel Olea, and Querubin, 2017).

Finally, the patterns here do not preclude the existence of patronage hiring for policy delivery positions – a strategy commonly used by Brazilian incumbents (Colonnelli, Prem, and Teso, 2020; Brollo, Forquesato, and Gozzi, 2017; Toral, 2023a,b). On the contrary, they can rather co-exist. We highlight that our analysis departs from this literature in a significant way: while they take the partisan attachments of (potential) bureaucrats as given – and examine their recruitment into public service – we take their public employment as given and focus on their ingress into parties.

BACKGROUND: CASH TRANSFERS AND LOCAL POLITICS IN BRAZIL

Brazil has a decentralized system of public spending where municipal administrations are the primary responsible for the implementation of several policies in health, education, and redistribution, mostly financed by intergovernmental transfers. In this context, local incumbents often target public resources to voters in exchange for political support (Hidalgo and Nichter, 2015; Nichter, 2018), and their performance in public office is key for the electoral success of their parties in higher elections (Feierherd, 2020; Klašnja and Titiunik, 2017; Novaes, 2018).

Local administrations also play a significant role in the implementation of *Bolsa Família* (BF) – the largest conditional cash transfers program in the world, and the best-known public policy in the country. In 2012, its benefits reached one fifth of all Brazilian households, providing an average increase of roughly 50% to the monthly income of its targeted population (Frey, 2019). Households can only gain access to BF benefits after enrolling in the program's registry – *Cadastro Único* (CadUnico) – in their respective municipalities. This registration consists of an interview where a city hall employee collects extensive information on the household's profile and living conditions, including the self-reported monthly income that is used to determine the eligibility to BF and other federal benefits.[4] Furthermore, BF also requires households to update their income in CadUnico every 24 months with a new interview with a local bureaucrat.

Municipalities are responsible for registering new users in CadUnico, verifying income claims, updating the information of existing beneficiaries, and monitoring their compliance with the rules on school attendance and health care visits. The actual approval of the benefit is done by the central government, based on both the CadUnico data and program quotas, as well as the actual monthly payment through a debit card. Thus, although the municipal bureaucracy does not directly intermediate the distribution of funds, they have a substantial influence on local enrollment levels, and effectively play the role of program gatekeepers.

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[4]As of 2012, all households that declared monthly per capita income below half the minimum wage (R$311/US$150 in 2012) were eligible to enroll in CadUnico. Monthly income below R$140 (US$67) granted eligibility to the conditional BF benefit, which was only given to households with children or expectant mothers, and on their compliance with the program rules on school attendance and regular doctor visits. Eligibility to BF's unconditional benefit was only based on income (a lower threshold of R$70/month in 2012).

Despite the divided responsibilities in program management, voters most often associate the successful BF's brand with the incumbent federal administration that created it, i.e., President Lula and the Worker's Party (PT) (Zucco Jr., 2013). Nevertheless, local politicians' control over CadUnico still give them leeway to claim credit for the benefits. Recent research has shown that incumbents allow ineligible households to misreport income in order to receive the funds (Frey, 2021); boost BF enrollment in election years (Bueno, 2021); or show lenience on the school attendance conditionalities (Brollo, Kaufmann, and La Ferrara, 2019).

The local press has also reported accounts of BF manipulation by local incumbents: politicians have illegally enrolled themselves in the program;[5] created false CadUnico entries to trigger irregular payments to supporters;[6] and offered the benefit in exchange for votes.[7] We emphasize that most, if not all of these capture strategies are better or exclusively executed with the involvement of the bureaucracy responsible for CadUnico registration.

Local officials might also selectively target eligible beneficiaries without manipulation of program rules, due to the excess demand for the benefit. BF has often had waiting lists in over-covered municipalities.[8] As a consequence, even eligible households could be excluded from the benefit if they were late to enroll. This is aggravated by the widespread lack of reliable enrollment information among the poor. Even though the knowledge about BF reaches nearly 100% of the Brazilian population, many eligible households did not know how to actually obtain it. A survey by the Ministry of Social Development in 2009 shows that 94% of the poor households without BF actually knew about the program, and 77% of them thought that they were eligible. However, only 52% of the latter ever enrolled in CadUnico (Frey, 2021). The same survey shows that the local bureaucracy played a key role in boosting enrollment: households that had direct contact with municipal employees were much more likely to have the benefit than the ones that learned about the program from other sources such as media or neighbors.


[5] O Globo (Oct, 2013). News in Portuguese: http://goo.gl/3RsfaW.

[6] Jusbrasil (2014). News in Portuguese: http://goo.gl/a40TYX.

[7] Portal Saiba Mais (2016). News in Portuguese: http://bit.ly/2JplVjh.

[8] This problem is emphasized by this official press release: http://bit.ly/2Jpk6TF. While the global program quota is binding, the municipal coverage targets are not. Even though the federal government is less likely to approve benefits in municipalities with high coverage, many had coverage above 100% of the targeted households in 2006-2012.

This potential for electoral capture is magnified during times of program expansion. Since its inception at the end of 2003, BF had two distinct periods of significant growth (Figure 1).

Figure 1: Expansion of *Bolsa Família* in 2004-2012
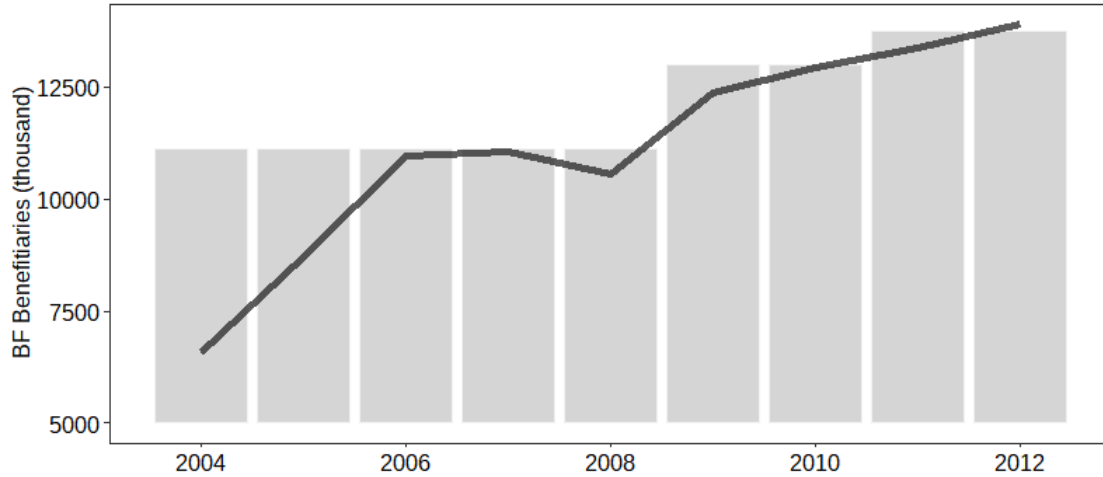
Line: number of beneficiaries at the end of each year. Bars: global program quotas.

In 2003-2006, BF replaced other government policies such as *Bolsa Escola*, and expanded the coverage from 6 to 11 million benefits - a target that was met in 2006. The program stagnated between 2006 and 2009, and millions of households that had entered CadUnico with eligible income could not access the funds. However, in 2009 the federal government changed the formula used to estimate the number of vulnerable families in the municipalities (Frey, 2021; Gerard, Silva, and Naritomi, 2021). This change increased the global coverage target of BF to 13 million households,[9] and had a highly heterogeneous impact on the potential program expansion across municipalities.

The Political Advantage of Bureaucrats. CadUnico interviewers play a critical role in periods of program expansion. From the perspective of voters, they are the *face* of the most prominent poverty alleviation policy in the country. They are primarily responsible for the search of vulnerable households without the benefit, and their enrollment in CadUnico. Once enrolled, households can receive several social programs, BF included. Interviewers must collect a wide range of demographic information on the beneficiary's household, and also the electoral numbers of the adults,

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[9]The global BF target was again increased in 2011 to 13.7 million beneficiaries, as the government updated the estimate of poor families using the 2010 census data.

which allows them to know in which polling station they vote. Furthermore, interviewers are encouraged to visit the respondent's residence in order to verify the accuracy of the information.

In this position, these bureaucrats have both the reach and the resources to accumulate political capital among the poor. We emphasize that we remain agnostic about the precise ways in which interviewers might use their position to do so. That said, evidence from both the related literature and the local press offer three plausible paths: first, it is possible that some of the interviewers abuse the program by taking advantage of the opportunities for selectively targeting of enrollment described above. This is consistent with both the well documented clientelistic behavior in Brazil (Boas et al., 2021; Gingerich, 2014; Hidalgo and Nichter, 2015; Nichter, 2018) and the qualitative evidence collected by the press.[10]

The voters' electoral response could also be driven by mechanisms other than a *quid-pro-quo*. For example, they might reward candidates due to norms of reciprocity (Finan and Schechter, 2012); or interpret policies as a signal of commitment to further redistribution (Gottlieb et al., 2019) or competence (Cruz and Schneider, 2017). Thus, it is not surprising that mayors actively attempt to claim credit for the arrival of BF in their constituencies (Bueno, 2021) .

Finally, these bureaucrats might simply take advantage of their newly acquired knowledge on the beneficiaries – their address, income, employment status – to target political campaigns and other types of vote buying offers. This was in fact a serious concern that led the federal government to publish a document with guidelines for CadUnico interviewers preceding the 2008 election (MDS, 2008), aimed to avoid the political use of the enrollment process.[11]

Whatever the foundations of their political capital, interviewers have the potential to influence a large share of the electorate. Our data suggests that the average bureaucrat interviewed around 336 households in 2009-2012 at least one time – roughly 4% of all voters in an average municipality.

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[10]See in Portuguese in https://bit.ly/3PDgWtu.

[11]For example, the rules prohibit interviewers from wearing clothes with electoral propaganda, or from using the CadUnico information to target campaigns.

Politicization of Bureaucrats: A Policy-driven Logic

This article identifies in Brazil an incumbency effect in the politicization of bureaucrats, particularly the ones tasked with the delivery of salient redistributive policies. Based on the context described above and the extensive empirical evidence shown later, we interpret these effects as a consequence of the mutual incentives for the formation of ties between incumbents and bureaucrats. One the one hand, office-seeking parties benefit from having bureaucrats yield their political capital in favor of their candidates. On the other, the bureaucrats themselves can monetize their political influence when they exchange it for access to the rents of office, which is often better obtained from incumbents. The arguments that support this logic are presented below.

Bureaucrats and Political Capital. Street-level public servants typically have some discretion over policy provision to the general population. Thus, they have the potential to become operatives for politicians seeking to capture the electorate (Boas et al., 2021). The literature has documented many forms of political capture in the developing world, such as credit claiming (Bueno, 2018, 2021; Cruz and Schneider, 2017), vote buying (Nichter, 2008), and turnout buying (Larreguy, Marshall, and Querubín, 2016); many of which are observed in Brazil. Most of these strategies are better or exclusively executed with the involvement of the bureaucracy. As detailed in page 8, our framework does not require to precisely establish the mechanism bureaucrats use to turn policies into political support, it just incorporates the fact that they are able to.

Bureaucrats can also help incumbent parties in ways that go beyond the illegal or unethical handling of public resources. The quality of goods and services also impacts the popular assessment of the incumbent administration, more so if voters are retrospective as they are shown to be in Brazil (Feierherd, 2020; Ferraz and Finan, 2011; Klašnja and Titiunik, 2017). Moreover, bureaucrats might simply use their frequent interactions with the population to expand their social network, which can also be converted into political capital (Cruz, Labonne, and Querubin, 2017).

Finally, it is easy to see that this logic is more relevant to voter-facing bureaucrats that are the gatekeepers of salient, broad, and relevant policies. In the Brazilian context described above, CadUnico interviewers are the ideal group to illustrate this argument, given both their high ex-

posure to voters and the massive popularity of the benefits that they help deliver.

Gains of Politicization for Bureaucrats. The straightforward consequence of the above argument is that bureaucrats with political capital become attractive assets for party networks. From the perspective of bureaucrats, partisan engagement is also attractive because it brings the possibility of accessing rents provided by incumbents. This practice has been widely documented in Brazil where politicized bureaucrats are more likely to keep their jobs, and also to have better wages (Brollo, Forquesato, and Gozzi, 2017; Colonnelli, Prem, and Teso, 2020).

The Incumbency Advantage in Politicization. Within this dynamic, why would bureaucrats prefer incumbent parties? First, these parties have often an advantage in clientelistic practices carried through public services (Hicken, 2011), and are better positioned to extend rents to politicized bureaucrats (Colonnelli, Prem, and Teso, 2020). Also, bureaucratic performance directly reflects on the incumbent's administration (Gehlbach and Simpser, 2015). Thus, voters might be unable to dissociate the roles of bureaucrats and incumbents in the provision of policies, especially in Brazil's decentralized system where the performance of mayors is very salient to voters (Feierherd, 2020; Ferraz and Finan, 2011; Klašnja and Titiunik, 2017).

We emphasize that the logic presented here applies to any environment where: (i) bureaucrats can accumulate political capital through the delivery of popular policies; (ii) patronage and rent-seeking are pervasive; and (iii) voters can at least partially observe the outcome of social policies, and thus reward parties and politicians for their performance in delivering them. These conditions are often observed beyond the case of Brazil in places such as Mexico (Larreguy, Marshall, and Querubín, 2016), Colombia (Rueda, 2016), or the Philippines (Cruz and Schneider, 2017).

In the sequence, we present the data and the empirical strategy used to identify this incumbency advantage in politicization. Before proceeding, we emphasize that this logic is not the only reason why bureaucrats join parties or become candidates in Brazil. We do not intend to provide an all encompassing explanation for the phenomena, but rather to highlight one that arises as most relevant given both the local context and the several patterns found in the data.

After presenting the main results, we further exploit a series of heterogeneity patterns both

within and across municipalities. That said, we highlight that the heterogeneity exercises – to different degrees – only have causal interpretations under assumptions that are in some cases much stronger than the ones required for the main RDD results.[12] Their value relies primarily on the fact that they are consistent both with each other and with our interpretation of the results.

Finally, both this framework and the empirical analyses do not focus on the problem of selection into the bureaucracy, which is widely studied by the literature. We take the employment of bureaucrats as given, and solely focus on the bureaucracy's decision to engage in partisan politics.

Data: Bureaucrats, CadUnico, and Party members

The analysis relies on several data sources. First, we observe the bureaucrats employed by municipal administrations using a matched employer-employee dataset from RAIS (*Relação Anual de Informações Sociais*). This administrative data is collected yearly by the Ministry of Labor, and contains individual information on the universe of formal workers in Brazil. It includes the employee's name, tax payer number (CPF), and both demographic and employment information on every individual. We focus on bureaucrats that were employed by municipalities in 2008 (election year), so as to avoid potential confounding coming from post-treatment patronage hiring.

Second, we have obtained from the Ministry of Social Development (MDS) the complete microdata of CadUnico for December 2012. This data contains individual information on more than 20 million households that are eligible to federal poverty alleviation benefits. Most importantly, it also contains the name and tax payer number (CPF) of the bureaucrat responsible for the most recent interview with the beneficiary, and the date of the interview. Nearly 17 million households had their last interview with a bureaucrat during the 2009-2012 mayoral tenure.[13] Remarkably, we are able to obtain the number of interviews conducted by each interviewer, which captures

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[12]For example, consider our within-municipality analysis by the level of exposure of interviewers to voters in page 22. We acknowledge that there are potential unobserved traits of interviewers – such as ambition – that could lead them to join parties and also to perform better on the job.

[13]The dataset only has the record of the household's most recent interview, as of Dec 2012. If a beneficiary first enrolled in CadUnico in 2007 but updated her income in 2011, for example, our data only contains the interviewer name for this last visit. This also means that the dataset has interview dates that go back to 2001, year of CadUnico's creation, for the households that never updated their information.

their exposure to the electorate.

Third, the MDS provides data on the municipal coverage, and on the local quotas for both CadUnico enrollment and the number of *Bolsa Família* (BF) benefits.[14] This allows us to observe different levels of program expansion across the country in the period of analysis (2009-2012).

Fourth, the Supreme Electoral Court (TSE) provides the names and registration dates of all party members in Brazil. While Brazilian parties are often seen as weak (Klašnja and Titiunik, 2017), party affiliation is among the highest across democracies at 10% of the adult population (2012). This apparent paradox can be explained by the dynamics of party growth in municipalities.

In this decentralized multiparty system, party growth is primarily a local affair. What is more, even though party affiliation is ultimately an individual decision, growth is largely the result of recruitment efforts by local leaderships: voters join parties mostly in response to the demands of local politicians, elites, or brokers for political support (Sells, 2020); rather than to respond to institutionalized programmatic appeals.[15] Accordingly, Figure 2 shows that party recruitment in Brazil is almost entirely done in the years before mayoral elections (e.g. 2003, 2007, 2011).

While party elites rely on large memberships to influence the conventions that determine both the coalition and candidate choices in mayoral races (Speck, Braga, and Costa, 2015), potential recruits expect to benefit from the spoils of office once their patrons are elected (Brollo, Forquesato, and Gozzi, 2017). In this context, party affiliation among public servants is a good proxy for the political engagement of the bureaucracy.

TSE also provides data on municipal elections, including results and demographic characteristics of candidates. Municipal elections happen simultaneously in all locations, every four years. We focus on the 2008 race, given that the 2009-2012 mayoral tenure was a period of significant expansion in BF, and it is the period for which our CadUnico data is available.

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[14]CadUnico coverage targets are always higher than BF's ones, as the registry is used for management of several other federal benefits.

[15]The Worker's Party (PT) provides the closest thing to an exception. Throughout this period is the most institutionalized and programmatic party in Brazil, with relative high levels of discipline.

Figure 2: Growth of Party Membership in Brazil
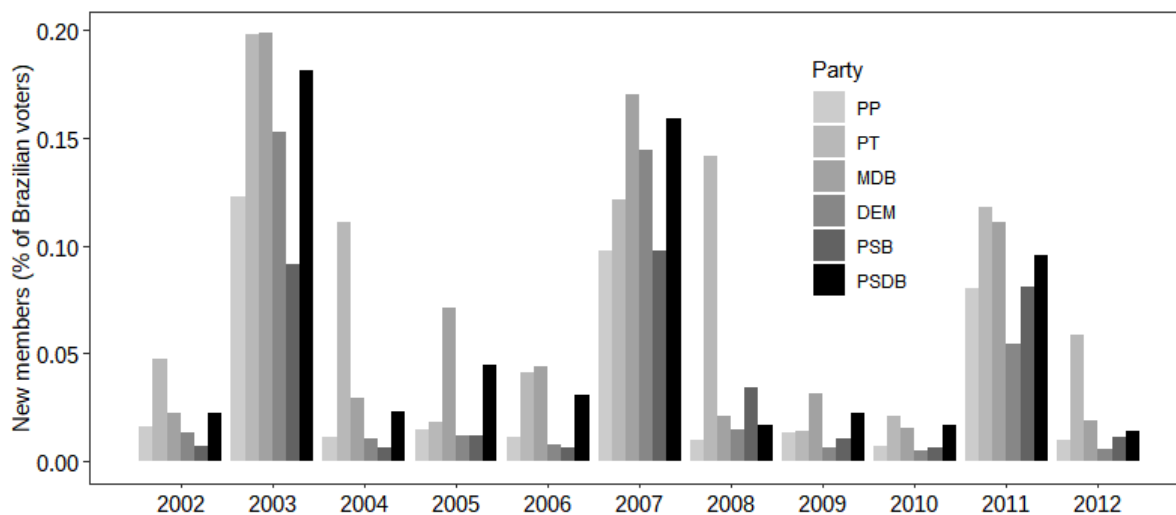
The bars show the percentage of voters that joined each party, each year. Municipal elections years are 2004/2008/2012.

The Combined Dataset

We merge these datasets in two stages to build the effective sample for the empirical analysis. First, we use the CPF to combine all CadUnico interviewers with the RAIS data, and observe which public servants – hired before the Oct, 2008 election –engaged in CadUnico registration. Out of the 52,889 unique interviewers in the MDS dataset, we could find 20,811 that were formally employed by municipal administrations in 2008. This is our sample of interviewers for the study, so as to avoid post-treatment bias coming from patronage hiring of interviewers in 2009-2012.[16]

Overall, these 20,000+ bureaucrats conducted interviews with at least 12 million households in 2009-2012, across 4,379 municipalities.[17]

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[16]The remaining interviewers could not be found in the 2008 RAIS for three reasons. First, some interviewers that were active in 2009-2012 were hired after the 2008 election. Second, many interviews were conducted by interns, given that municipalities struggled to cope with an excess demand for enrollment by the poor population and a shortage of public servants. Interns are not formal municipal employees, so we have no precise way to know their hire date and type of employment contract with the city. Finally, there is a chance that some interviewers could not be matched due to typos in the CPF contained in either of these databases.

[17]These are 79% of all municipalities in Brazil. This list includes only the ones that had (i) at least two candidates in 2008; (ii) a 2008 election that was not invalidated by the TSE (2% of the total elections were); and (iii) data on at least one CadUnico interviewer.

The next step is to merge the data on bureaucrats with the party membership rolls, by name.[18]
Table 1 shows the patterns of party affiliation in the data.

Table 1: Party Enrollment in 2009-2012: Interviewers, Other Bureaucrats, and Voters

	INTERVIEWERS		GENERAL BUREAUCRACY		POPULATION	
	Total (000s)	pct (%)	Total (000s)	pct (%)	Total (000s)	pct (%)
Old Partisans	4.5	21.8	771.3	17.6	11377.6	8.2
Switchers	0.6	2.9	75.6	1.7	340.7	0.2
New Partisans	0.9	4.5	115.2	2.6	1670.3	1.2
Non-Partisans	14.7	70.8	3428.6	78.1	124908.8	90.3

Total shows the number of thousand individuals in each category. *pct* shows the percentage share. *Old Partisans* are the ones that were party members in 2008, and remained in the same party in 2009-2012. *Switchers* are 2008 members that moved parties in 2009-2012. *New Partisans* are the ones that joined a party for the first time in 2009-2012. *Non-partisans* were never party members.

Overall, 25% of all CadUnico interviewers were already members of a party in 2008 (Old Partisans + Switchers), compared to 19% for other bureaucrats, and 8% for the population at large. During the period 2009-2012, 4.5% of all interviewers joined a party for the first time, compared to only 2.6% of bureaucrats, and 1.2% of voters. Finally, party switching was less common, and happened for 2.9% of interviewers and 1.7% of bureaucrats.

EMPIRICAL STRATEGY

In our empirical application, our measure of politicization is labeled *Membership*. This is the percentage of CadUnico interviewers that joined a coalition party during the 2009-2012 mayoral tenure, for the top 2 coalitions in the 2008 election. This variable only considers party affiliations that happened after the bureaucrat started conducting CadUnico interviews. We also calculate this measure for (i) other bureaucrats (non-interviewers); and (ii) the general population, both as

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[18]In Appendix A we provide further details on the process of merging these datasets by name.

a percentage of total individuals in each group.

We identify the incumbency advantage in politicization using a regression discontinuity design (RDD) in close mayoral elections. Within the same municipality, we compare the changes in *Membership* for the pre-electoral coalition that won the previous (2008) mayoral election – and became the incumbent administration – to the changes for the coalition that lost. The RDD provides a quasi-random assignment of the coalition in power in 2009-12. Given that the identification relies on the within-municipality comparison between winner and loser, the estimates are not biased by municipal characteristics that could potentially influence local party dynamics. Thus, for municipality i, coalition c, and outcome y_{ic}, we estimate:

$$y_{ic} = \beta_0 + \beta_1 t_{ic} + \beta_2 r_{ic} + \beta_3 t_{ic} r_{ic} + \epsilon_{ic} \tag{1}$$

where t_{ic} assumes one for the coalition that won the election, and zero otherwise. The treatment effect is given by β_1. The running variable r_{ic} is the difference in the vote percentage of the winning and losing mayoral candidates, and assumes negative values for the control group (loser coalitions). As usual in RD designs, observations are weighted by the triangular kernel, and the treatment effects are estimated using a sample that fall within an optimal bandwidth based on Calonico et al. (2019). We also show that several pre-election covariates that measure characteristics of parties and mayoral candidates are continuous at the cutoff (Table C.3, appendix).[19]

Results and Discussion

Table 2 shows the incumbency effect on the *Membership* variable. The first two columns focus on the politicization of bureaucrats, and column (3) shows the estimates for the general population. We report conventional point estimates for the coefficients, paired with bias-robust standard errors and 95% confidence intervals (Cattaneo, Idrobo, and Titiunik, 2020). In the appendix, we show that the results are robust to narrower bandwidths (Figure C.1), the choice of polynomial,

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[19]All variation here is within-municipality as every municipality has one treatment and one control observation.

or the inclusion of pre-treatment covariates, as well as fixed-effects by region and party (Table C.4). Figure 3 has the graphical illustration of the effects.

Table 2: RD Effects on Membership

	CadUnico Interviewers (1)	General Bureaucracy (2)	Voting Population (3)	Difference in Effects (1-2)	(1-3)
Incumbency Effect	1.708*	0.341*	0.069	1.367*	1.639*
	(0.743)	(0.110)	(0.068)	(0.668)	(0.677)
C.I. (95%)	[0.227,3.140]	[0.113,0.546]	[-0.064,0.201]	[0.122,2.859]	[0.417,3.209]
Baseline	1.551	1.417	0.878	-	-
Bandwidth	12.74	9.53	12.27	-	-
Municipalities	2393	1897	2324	-	-

+p<0.1, *p<0.05. Standard errors (parenthesis) and 95% confidence intervals are bias-robust. There are two observations per municipality: the outcomes for treatment and control. *Membership* is defined in the text. The baseline is the average outcome for the losing coalition, and the incumbency effect is the difference on the outcome between the winning and losing coalitions, both at the cutoff. The confidence intervals for the *differences* are obtained with 500 bootstrap draws.

The estimates show a consistent incumbency advantage in the politicization of bureaucrats: the incumbent's coalition enlists more bureaucrats for its parties than the opposition in 2009-2012 – interviewers or not. The magnitude of the effects is particularly high for CadUnico interviewers: while opposition parties enlist on average 1.55% of workers, an additional 1.71% becomes affiliated with a party in the winning coalition – a 103% effect. While the baseline is similar for the general bureaucracy (excluding interviewers) – 1.41% of workers join opposition parties – an additional 0.34% becomes affiliated with a party in the winning coalition – a lower 24% effect. This pattern is also exclusive to the bureaucracy, as we find no effect for the general population.

Table C.5 (appendix) also shows that the results are robust to defining the outcome as the membership in the party of the mayoral candidate only (instead of all coalition parties). In fact, nearly 70% of the effect for interviewers comes from enrollment in the party that leads the ticket.

Figure 3: RD Effects on *Membership*
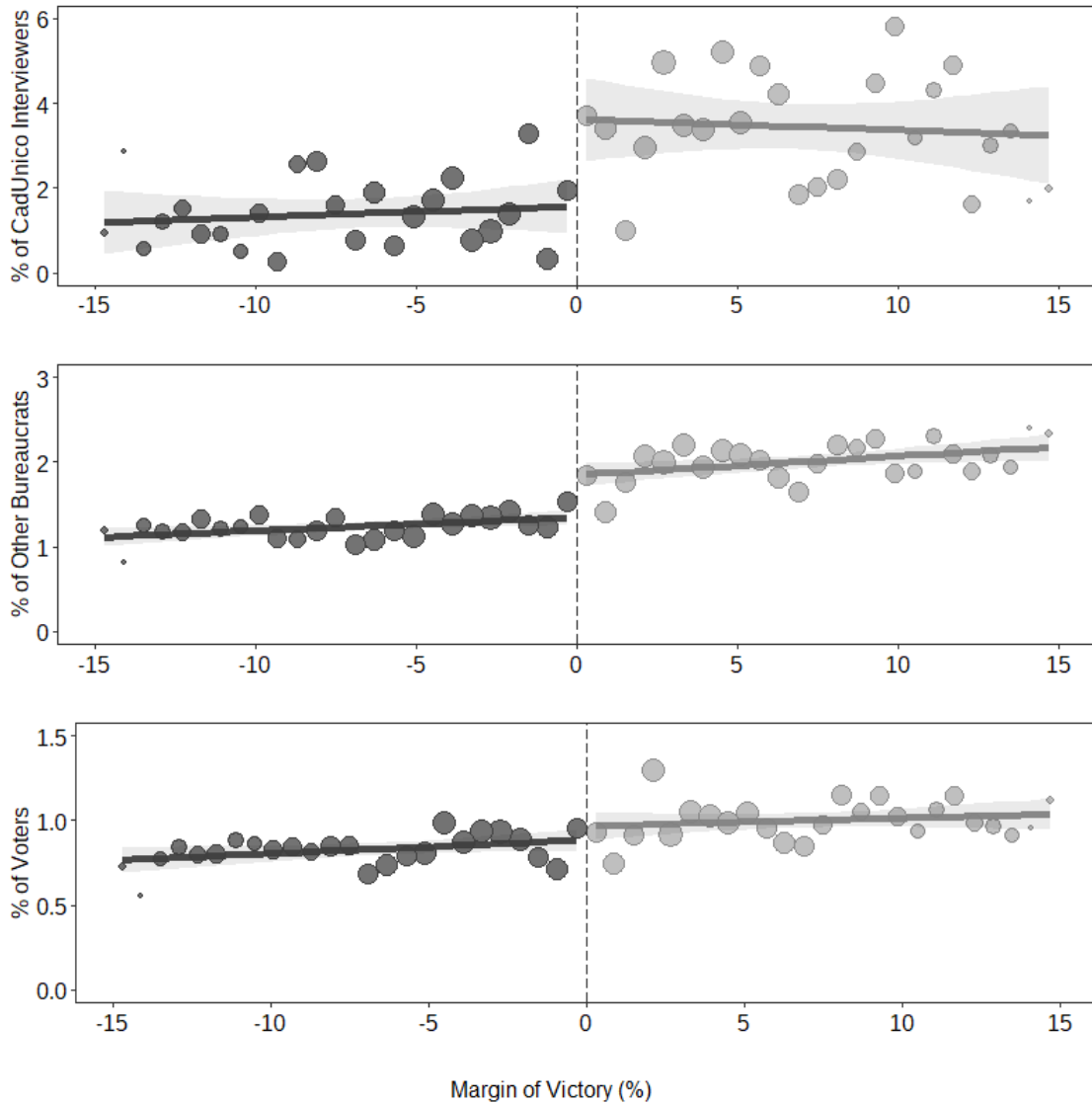
The treatment group (incumbents) is shown in lighter gray (right). The margin of victory comes from the 2008 election. The lines are the linear fit for the corresponding group, and the dots represent the average outcome for observations that fall within each one of the 25 bins. The size of the dots represent the number of observations in each bin.

We also emphasize that we focus on CadUnico interviewers in this article due to (i) the salience of the policy that they intermediate; (ii) the opportunities created by the program expansion in 2009-2012; (iii) and the rich performance data that is not available for other jobs, which allows us to conduct several additional empirical exercises. However, our argument is general enough

that it could apply to other groups of voter-facing bureaucrats. Even though these broader implications of our findings are topic for future research, in the appendix (Table C.8) we provide suggestive evidence that this is indeed the case. We estimate the effects for an alternative group of bureaucrats that includes low-level positions such as community health agents and social service agents (see the full list in the Table's footnote). We find that the incumbency advantage for this group, although lower than the one for CadUnico interviewers, is more than double the one for the rest of the bureaucracy, in line with our argument.

Finally, according to our conceptual framework, the incumbency advantage should be particularly present in settings where bureaucrats hold higher electoral capital, and patronage is more attractive. We attempt to capture variation in these dimensions with a series of heterogeneity analyses that are presented in the sequence.

Robustness of the Heterogeneity across Bureaucrats

Table 2 showed that the incumbency effects are stronger among CadUnico interviewers when compared to the rest of the bureaucracy. This is consistent with the fact that interviewers are much more likely to have personal contact with voters than the average bureaucrat; and also have some discretion to control the voters' access to a very salient policy benefit.

Nevertheless, this heterogeneity might be driven by the characteristics of the bureaucrats that perform each task, as opposed to their engagement with redistributive policies. In the appendix (Table C.1), we show that the profile of CadUnico interviewers indeed differs from the average bureaucrat's in many characteristics. Interviewers are more likely to be younger, female, and to be paid less than other public servants. They are also more likely than the rest of bureaucrats to have a job description that can be classified as *clerical*, such as administrative assistant, or to be trained social workers.[20] If any of these traits are predictive of some incumbency preference in political engagement, they could be the reason behind the difference in effects.

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[20]The designation of *Social Interviewer* did not become a formal occupation until a later period in Brazil. For 2001-2012, bureaucrats that engaged in the task were registered under 421 different formal occupations. The four more common were: administrative assistant (30%), social worker (9%), community health worker (7%), and mid-level manager (6%).

We attempt to alleviate this concern with two exercises. First, we estimate the effects on *Membership* for a subsample of the *other bureaucracy* that is comparable to CadUnico interviewers in many characteristics. We find one-to-one matches for our interviewers, among the remaining bureaucrats in the same municipality, on the basis of job description, gender, age, wages, start date, and education.[21] Table C.10 (Appendix) shows the balance pre- and post-matching.

Table 3: *Membership* Effects for the Matched Sample

	Interviewers (A)	Bureaucrats (B)	Difference (A-B)
Incumbency Effect	2.464*	0.480	1.984*
C.I. (95%)	[0.865,4.154]	[-1.030,1.945]	[0.128,3.912]
Municipalities	2141	2141	-
Optimal Bandwidth	12.72	12.72	-

+p<0.1, *p<0.05. 95% confidence intervals are bias-robust. The regressions include the pre-treatment covariates in Table C.3 (appendix). The *difference* C.I. is obtained with 500 bootstrap draws.

Table 3 shows that the politicization effects are slightly higher for both groups under this sample, even though they are much less precise for the rest of the bureaucracy. Nevertheless, it is easy to see that the incumbency effect remains higher for the group of interviewers, which suggests that the heterogeneity is not driven by pre-existing differences between the two groups.[22]

Second, the structure of the data allows us to conservatively observe which bureaucrats were already registering CadUnico beneficiaries before the 2008 election – a group that we call *senior interviewers*. CadUnico has the record of the bureaucrat for the **LAST** interview of each household in the registry, as of 2012. However, many households that entered the registry before 2008 never updated their data with a new interview in 2009-2012, despite the requirement for biannual interviews. Thus, we use such cases to find the date of the first interview on record for each bu-

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[21]For every interviewer we first find all exact matches based on gender and the occupation code. Among all the possible matches, we only keep ones with a similar salary (maximum R$100/month difference), and then select one bureaucrat for each interviewer based on the similarity in education, age, and start date; respectively. We are able to match 86% of the interviewers.

[22]As it is always the case in this type of analysis, we cannot examine all potential differences between the groups. The implied assumption is that unobserved characteristics of bureaucrats would have the same null impact on the heterogeneity as the extensive list of observed ones.

reaucrat. Albeit imperfect, this proxy for the first interview is conservative: the date is most likely underestimating the seniority of the bureaucrat as an interviewer, but never overestimating it.

Table 4 shows that the effects for *senior* and *junior* interviewers are very similar in magnitude.

Table 4: *Membership* Effects for Senior Interviewers

	Senior Interviewers (A)	Junior Interviewers (B)	Difference (A-B)
Incumbency Effect	1.995*	1.731	0.264
C.I. (95%)	[0.024,4.143]	[-0.409,3.704]	[-1.911,3.199]
Municipalities	2240	2240	-
Optimal Bandwidth	11.69	11.69	-

+p<0.1, *p<0.05. 95% confidence intervals are bias-robust. The regressions include the pre-treatment covariates in Table C.3 (appendix). The *difference* C.I. is obtained with 500 bootstrap draws.

More importantly, it shows that the estimated effect is high and statistically significant for the *senior interviewers*, which is the group that, **with certainty**, was not allocated to the task of CadUnico registration by the 2009-2012 administration. This allows us to be confident that our findings are not driven by the post-treatment allocation of tasks within the bureaucracy. [23]

Policy-based Heterogeneity: Across Municipalities

We now examine the heterogeneity of the results based on the potential for the expansion in CadUnico registration during the 2009-2012 mayoral tenure across municipalities. The intuition here is straightforward: the higher the potential for interactions between bureaucrats and voters, the higher their incentives for formal political engagement as party workers or candidates.

This exercise benefits from a 2009 unilateral change on the local quotas of CadUnico-eligible families in each municipality, done by the federal government (Gerard, Silva, and Naritomi, 2021). The change was driven by an adjustment in the formula used to estimate the number of poor families, and not by changes in the local population after 2008.[24] As a result, for each municipality we

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[23]Appendix B has a discussion on the allocation of bureaucrats to the task of CadUnico interviewer during 2009-2012, which focuses on the group of junior interviewers described above.

[24]The new enrollment targets were still based on demographic data from a 2006 survey (PNAD).

calculate the *Potential Enrollment* variable as follows: the difference between the new CadUnico target and the actual enrollment at the end of 2008, as a percentage of the population. This variable is a proxy for the additional number of households that need to be interviewed by bureaucrats in 2009-2012. The average increase in potential enrollment is 0.8% of local households, but the values range from -19% to +12% – the distribution of this measure in shown in Figure C.2 (appendix).[25]

The results are shown in Figure 4. Overall, politicization increases with potential CadUnico enrollment in the municipality: an increase of one-standard deviation in the potential enrollment (3.5pp) increases the membership effect by 1.4pp (or 84% from the 1.7pp avg. effect). Table C.6 (appendix) has the corresponding estimates, and also shows that this pattern is not observed for either the rest of the bureaucracy or the general population, as expected.

Figure 4: Marginal RD effects for *Membership* of Interviewers
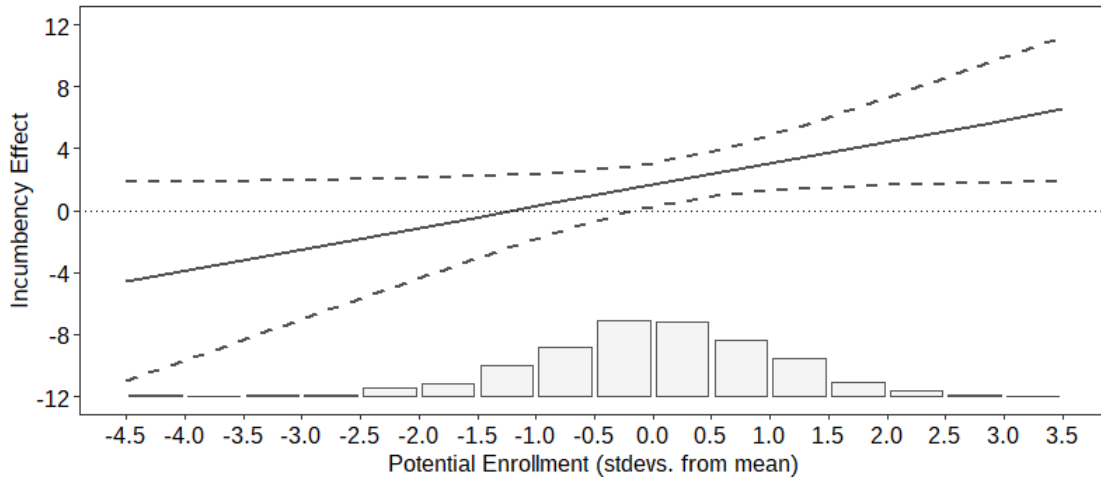
The line shows the marginal RD effect. The confidence level is 95%. The bars show the distribution of Potential Enrollment values. *Potential Enrollment* is shown as the number of standard deviations from the mean. The regression includes the pre-treatment covariates in Table C.3 (appendix).

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[25]Here we estimate heterogeneous treatment effects using the following equation: $y_{ic} = \gamma_0 + \gamma_1 t_{ic} + \gamma_2 r_{ic} + \gamma_3 t_{ic} r_{ic} + \left[\gamma_4 + \gamma_5 t_{ic} + \gamma_6 r_{ic} + \gamma_7 t_{ic} r_{ic} \right] p_i + \mu_{ic}$, where p_i is the potential enrollment for municipality i. The treatment effect is given by $\gamma_1 + \gamma_5 p_i$.

Policy-based Heterogeneity: Within Interviewers

We further examine the relationship between incumbency effects and the number of interviews conducted by each bureaucrat in 2009-2012 using the data described in page 12. We use the records of interviews conducted by each public employee to split the sample into interviewers with high- and low-exposure to voters in 2009-2012, the CadUnico expansion period.[26] The average interviewer in our data saw 203 households at least one time during the period. For the high-exposure group, the average number of recorded interviews was 419, nearly 20x the average of 23 for the low-exposure group. Table 5 shows the incumbency advantage for these two groups.

Table 5: *Membership*: Effects by the Number of Interviews

Interviewers with...	High-Exposure (A)	Low-Exposure (B)	Difference (A-B)
Considers all interviews in 2009-2012			
Incumbency Effect	3.106*	1.054	2.052
C.I. (95%)	[1.202,5.150]	[-0.865,2.872]	[-0.972,3.857]
Municipalities	2268	2268	-
Optimal Bandwidth	11.87	11.87	-
Considers interviews in 2012			
Incumbency Effect	3.306*	0.478	2.828*
C.I. (95%)	[1.095,5.668]	[-1.168,2.007]	[0.032,5.093]
Municipalities	2381	2381	-
Optimal Bandwidth	12.66	12.66	-

+$p<0.1$, *$p<0.05$. 95% confidence intervals are bias-robust. The regressions include the pre-treatment covariates in Table C.3 (appendix). The *difference* C.I. is obtained with 500 bootstrap draws.

The first panel counts all interviews in 2009-2012. We already see that the magnitude of the incumbency advantage is roughly 3x larger for interviewers that were more exposed to voters, but the difference is imprecise. The second panel focuses only on interviews conducted in 2012, the year of the subsequent mayoral election. Given the structure of the data (page 19), the 2012

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[26]The low-exposure group is composed by interviewers that conducted less interviews than the median value for each municipality in 2009-2012. The remaining are categorized as high-exposure.

count provides a more precise estimate of each bureaucrat's exposure to the voting population. Accordingly, the magnitude of the difference here remains high, and it is now more precise.

Nevertheless, this exercise has to be interpreted with caution. In isolation, it does not allow us to establish a causal link between CadUnico registration and politicization. There are many reasons why certain bureaucrats would conduct more interviews than others, and many might be correlated with their propensity to join a party. For example, this might be related to personal traits such as political ambition, or because they have been allocated to the task more often by their superiors. That said, the results here are only informative because they are highly consistent with all the other patterns in the data.

In addition, within the group of interviewers, we explore the effect heterogeneity based on their characteristics such as gender, wages, seniority, education, and previous party engagement.

Figure 5 shows that the differences between groups are not statistically significant (full estimates in Table C.9, appendix), the results taken together at least weakly suggest that the bureaucrats that are more likely to join incumbent parties are the ones with limited career upside and less job stability – consistent with the argument in page 9. They are the ones that are less educated, that have been in the bureaucracy for longer but are paid slightly less, that do not have job security under the civil service code,[27] and that have never been members of any party before.[28]
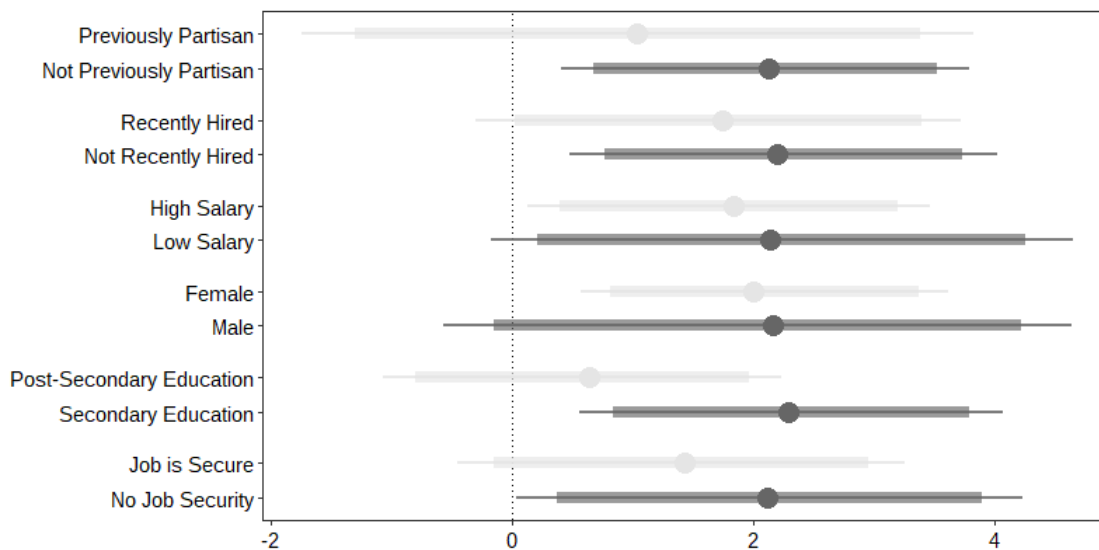
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[27]They are not *estatutários*, which have their jobs protected by law.
[28]This also shows that our effects are not driven by party switching.

Figure 5: *Membership*: Effects by the Characteristics of the Interviewers

The dots show the effect for each group. The thin (thick) bars show the 95% (90%) bias-robust CIs. Coefficients and optimal bandwidths are shown in Table C.9 (appendix). **Previously Partisan** includes all bureaucrats that were party members in 2008. The effect for this group comes from party switching in 2009-2012. **Low Salary** bureaucrats are the ones with wages below the median. **Recently Hired** bureaucrats were the ones hired in 2005-2008. Bureaucrats whose Job is Secure are the ones hired under the Brazilian civil service code.

Are the Politicization Patterns Exclusive to PT and its Allies?

In principle, our patronage-based framework presented in page 9 should apply to all parties and transcend ideologies, given that it is based on the construction of personalistic linkages between bureaucrats and voters, and also bureaucrats and politicians.

However, the question of whether certain parties have an advantage in capitalizing on these linkages is interesting, particularly in the case of a highly politicized program such as *Bolsa Família*. The flagship program in CadUnico is often associated with the federal administration of the Worker's Party (PT, 2003-2016) (page 6). If the results uncovered here are exclusive to mayors that can credibly establish ties with PT's national administration, it would suggest that these policy-based linkages that bureaucrats build with voters are not purely personalistic, but also depend on how voters associate the policy creation with certain party brands.

We examine this question by splitting the sample into two groups of municipalities: one where the party of the 2009-2012 mayor can be plausibly associated with PT (PT-linked candidates), and one where it cannot. We first define PT-linked candidates as the ones that belong to the party. We then compare the effects for municipalities where PT won to the ones where it lost. We then repeat the exercise using a broader definition of PT-linked candidates, which includes all parties that were closely allied with PT at the national level.[29] Table 7 has the results.

Table 6: *Membership* Effects and PT in the Local Administration

PT-linked candidate...	WON (A)	LOST (B)	Difference (A-B)
PT-linked candidates here include only the ones that actually belong to PT			
Incumbency Effect	5.181	3.208+	1.973
C.I. (95%)	[-1.859,12.686]	[-0.046,6.887]	[-9.520,4.063]
Municipalities	240	210	-
Optimal Bandwidth	12.74	12.74	-
PT-linked candidates here include the ones from a party allied to PT at the national level			
Incumbency Effect	2.690	2.757*	-0.067
C.I. (95%)	[-0.708,6.140]	[0.142,5.583]	[-3.010,4.553]
Municipalities	710	714	-
Optimal Bandwidth	12.74	12.74	-

+p<0.1, *p<0.05. 95% confidence intervals are bias-robust. The regressions include the pre-treatment covariates in Table C.3 (appendix). The *difference* C.I. is obtained with 500 bootstrap draws.

The first panel focuses on PT-only candidates, where they run against any other party. Here the incumbency effect in politicization is higher in magnitude where PT wins (vs. where it loses), but the difference is not statistically significant. The second panel has the expanded definition of PT-linked parties. The effects for both groups are now extremely similar. All-in, although the data suggests that PT mayors might be slightly better to capitalize on the BF expansion, the evidence is weak, and the pattern certainly is not extended to other parties in the federal coalition.

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[29]We use the parties that formally supported PT's presidential bid in 2010: PCdoB, PSB, PDT, PMDB, PR, PRB, PTN, PTC, and PSC.

More importantly, this exercise shows that the incumbency effects remain strong – and even more precise under very small samples – for the group of parties that are not linked to PT at the national level. Within our conceptual framework, this suggests that the policy-based personalistic links between voters, bureaucrats, and politicians transcends even the salient partisan-biased associated with the creation of *Bolsa Família*.

Does Politicization Really Pay-off for Interviewers?

The quasi-random variation in the coalition that wins the mayoral election allows us to identify differential growth patterns for incumbent and opposition parties. However, it does not allow us to precisely identify individual rewards for interviewers that joined one or another coalition. Nevertheless. in support of teh discussion in page 10, here we provide suggestive evidence that interviewers that joined incumbent parties in 2009-2012 had more professional upside within the bureaucracy than the ones that joined the opposition. Out of the 20811 interviewers in the RAIS sample, 782 joined one of the incumbent or opposition parties in 2009-2012. Among these, we use in this analysis the 732 that show up in the RAIS dataset in 2012, end of the mayoral tenure.[30] Table C.2 (appendix) shows that interviewers that joined incumbent and opposition parties were statistically indistinguishable in a series of observable characteristics measured in 2008.

Here, we focus on four outcomes: First, is the interviewer still a bureaucrat in 2012 (*Remains in Bureaucracy*). Given that we are interested in the their professional trajectory within the public sector, the next three outcomes are measured only for the group of interviewers that remained in the bureaucracy in 2012 (94% of the total). Here we measure (1) *Job Security*, which assumes 1 if the individual gained job security between 2012 and 2008, -1 if they lost, and 0 if there was no change; (2) *Wages*, as a change in the average annual salary between 2012 and 2008; and (ii) *Promotion*, which assumes 1 if the individual moved to a managerial position between 2012 and 2008, -1 if they moved out of one, and 0 if there was no change. Table 7 shows the results.

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[30]The other 50 interviewers left the formal labor force in the period, so we do not have access to 2012 outcomes for this group.

Table 7: *Membership* Effects and PT in the Local Administration

Sample:	All Interviewers	New to Parties	Old Party Members
For this variable the regressions include all interviewers			
Remains in Bureaucracy	0.050*	0.047+	0.051
	(0.024)	(0.027)	(0.046)
Observations	732	556	176
For these variables the regressions include only interviewers that remained in the bureaucracy in 2012			
Has Job Security	0.078*	0.073*	0.084
	(0.030)	(0.036)	(0.057)
Wages	0.026	0.154*	-0.315+
	(0.079)	(0.077)	(0.181)
Promotion	0.039	0.063+	-0.027
	(0.031)	(0.035)	(0.068)
Observations	688	526	162

+$p<0.1$, *$p<0.05$. Standard errors are clustered by municipality. Outcomes are described in the text.

For all interviewers, joining the incumbent coalition is associated with higher job security and permanence in the bureaucracy in 2012. While the results for *Promotion* and *Wages* are positive, they are of small magnitude and not statistically significant for the entire group. However, when we focus only on the interviewers that were never partisans before 2008 (the "not previously partisan" from Figure 5), we find that they experience upside in all dimensions when compared to the ones that were already partisans in 2008, and shifted alliances in 2009-2012. We suspect that the professional upside might have been limited for this latter group who was likely already embedded in patronage networks.

Are Partisan Bureaucrats using CadUnico to Launch Political Careers?

In this last exercise, we examine the merits of one slightly alternative version of our theory. It is possible that interviewers might use their electoral capital to launch their own personal political careers. In this case, the argument is that they join incumbent parties primarily to become council

candidates, and not only to become party activists and support incumbents.[31]

While we acknowledge that both motivations often co-exist in Brazil, where council candidates act as brokers for their mayoral candidates (Novaes, 2018), the results in Table 8 are not consistent with this narrative. Here the outcome variable is the percentage of interviewers that ran for council in 2012 by a coalition party, for the top 2 coalitions in the 2008 election (the same for other bureaucrats and the population). We find no evidence of a incumbency advantage in candidacy for either interviewers or bureaucrats. This suggests that the party membership patterns uncovered before are not driven by the prospects of political careers for these bureaucrats.

Table 8: RD Effects on Candidacy

	CadUnico Interviewers	Other Bureaucracy	Voting Population
Incumbency Effect	-0.327	-0.044	0.007
	(0.631)	(0.078)	(0.014)
C.I. (95%)	[-1.629,0.843]	[-0.205,0.101]	[-0.020,0.034]
Baseline	1.735	1.134	0.226
Bandwidth	8.58	8.34	9.57
Municipalities	1751	1715	1908

+p<0.1, *p<0.05. Standard errors (parenthesis) and 95% confidence intervals are bias-robust. The baseline is the average outcome for the losing coalition, and the incumbency effect is the difference on the outcome between the winning and losing coalitions, both at the cutoff.

CONCLUSION

With data from Brazilian municipalities, this article identifies an incumbency advantage in the politicization of bureaucrats, particularly the ones tasked with the delivery of salient policies to poor voters. The findings are consistent with a logic where policy-driven interactions with voters allow bureaucrats to accumulate political capital. This makes them attractive assets to political networks, which in turn offer rents in exchange for the bureaucrats' loyalty. To the extent that

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[31]Many bureaucrats in Brazil indeed attempt to become councilors (*vereador*). These are often well-paid, part-time positions that allow bureaucrats to keep their day jobs and collect both wages.

voters are more likely to associate these policies with the local administration, this mechanism is stronger for incumbent parties. These effects reveal an additional form of incumbency influence on the bureaucracy beyond the usually documented patronage hiring and oversight.

This article also suggests a few avenues for future research. First, while we isolate one mechanism that drives the political engagement of bureaucrats in the developing world, it is not all encompassing. We still know very little about how other factors, such as ability, might influence the bureaucracy's decision to join parties in developing contexts.

Second, the results here are also connected to a burgeoning literature that studies the profile of citizens that become politicians (Dal Bó and Finan, 2018; Gulzar, 2021). Only recently this literature has started to explore the particular dynamics of this choice in environments plagued by non-programmatic politics. For example, Cruz, Labonne, and Querubin (2017) show that centrally connected individuals within family networks are more likely to become candidates and perform better in elections in the Philippines. In Brazil, Boas et al. (2021) examine the case of bureaucrats responsible for enrolling small farmers in agricultural programs. Consistent with our own findings, they show that there is a strong correlation between their exposure to voters and their likelihood to enter local council elections. Future research would do well to explore additional ways in which aspiring candidates use their stock of social capital to leverage political careers.

Finally, what are the welfare consequences of the uncovered mechanism? When bureaucrats join parties, their career prospects become closely tied to the electoral future of these parties. On the one hand, this might create incentives for better performance, which has the potential to be welfare enhancing. On the other, this might further increase the incumbents' ability to control the electorate through capture with practices such as clientelism, which are typically seen as welfare reducing. The net effect is likely a function of the democratic institutions in each context, and although we are not able to empirically adjudicate between these two contrasting forces here, the topic warrants further investigation.

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The Politicization of Bureaucrats:

Evidence from Brazil

Appendix for Online Publication

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A   Merging Data by Name

The CadUnico and the RAIS datasets with interviewers and other bureaucrats are matched to the party membership rolls by both the municipality and full name of each individual. For that purpose, we ensure that each individual bureaucrat only appears in the data once, given that one cannot be a party member or a candidate in two municipalities at the same time.

That said, some CadUnico interviewers conducted interviews in more than one municipality during 2001-2012 (16% of the sample).[1] For each of these interviewers, we keep only the municipality where they had recorded interviewers in the pre-20008 period. If there is still more than one location, we keep the one where the interviewer did more interviews in 2009-2012.

We also exclude all repeated full names within the same municipality from all datasets, in order to avoid double matches. This represents only 1.4% of all party members, only 1 interviewer, and 0.5% of all other bureaucrats, which is not surprising. Full names in Brazil often include multiple surnames, and are composed by 3.2 different terms on average (statistic based on the unique full names of 12 million party members). Thus, even though our matching process might fail to account for the partisanship of interviewers that possess one of those names, the impact would be fairly small.

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[1]Some of these interviewers might have moved municipalities, some of them might have just joined CadUnico registration efforts in neighboring municipalities in order to provide training and expertise, for example.

B ALLOCATION OF TASKS WITHIN THE BUREAUCRACY

We argue in this article that the task of CadUnico registration allows bureaucrats to become valuable electoral assets for incumbent parties. It follows from this logic that, if the position itself is valuable to incumbents, then they might benefit from having bureaucrats that are known party loyalists as interviewers. In fact, this creates a trade-off for incumbents: while the appointment of loyalists might maximize the electoral capture of the policy, the appointment of non-partisans (or not yet-partisans) is an attractive way to growth the network of party activists.

This section shows that the two strategies co-exist.[2] In the body of the article we have already shown how incumbents recruit interviewers to grow their parties. Here, we show that they also allocate loyalists to the position. In Table B.1, we define the outcome variable as the percentage of interviewers that were already party members in 2008, for both winning and losing coalitions. The RD effect is again estimated with equation 1. the group of interest here are the bureaucrats that started doing CadUnico registration during the 2009-2012 administration (the junior interviewers – page 19).[3] Accordingly, column A shows that these junior interviewers were significantly more likely to be members, pre-2008, from a party in the winning coalition (vs. the losing coalition).

Table B.1: Party Loyalists are More Likely to Become Interviewers in 2009-2012

	Junior Interviewers (A)	Senior Interviewers (B)	Difference (A-B)
Incumbency Effect	6.416*	2.244	4.173
C.I. (95%)	[2.161,10.436]	[-2.999,7.140]	[-1.356,10.888]
Municipalities	2173	2172	-
Optimal Bandwidth	11.32	11.32	-

+p<0.1, *p<0.05. 95% confidence intervals are bias-robust. The regressions include the pre-treatment covariates in Table C.3 (appendix). The *difference* C.I. is obtained with 500 bootstrap draws.

We also highlight that it is unlikely, given the Brazilian context, that these bureaucrats started

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[2]It is beyond the scope of the present empirical strategy to precisely examine the conditions that determine the optimal choice for incumbents that face this trade-off.

[3]We again highlight that they were all hired in the pre-election period (2008 or before).

in the position of CadUnico interviewers in 2009-2012 as a result of a job promotion, or because they were being rewarded for their political loyalties. This is a low-level, low-skill position that pays less than other similar jobs in the bureaucracy (Table C.10). In other words, it is much more likely that these party loyalists started doing CadUnico registration to help the incumbent parties to capture electoral rewards from the policy.

The fact that these strategies co-exist also highlights the importance of our main results in the article. The more loyalists that incumbent parties have in the position of interviewers, the less room they have for non-partisans that could join their parties. Yet, as the article shows, the incumbency advantage in party recruiting is strong and robust.

Finally, column B shows a placebo test of this empirical exercise. Here we build the variable with the *senior interviewers*, the ones that were already doing CadUnico registration before 2008 (i.e. they did not start on the task in 2009-2012). This is a placebo test because the 2008 election – the one that assigned winning and losing coalitions for 2009-2012 – should have no impact on pre-2008 allocation of tasks within the bureaucracy. As expected, we find no effects.

C OTHER TABLES AND FIGURES

Table C.1: Summary Statistics: CadUnico Interviewers and Other Bureaucrats

| | CADUNICO INTERVIEWERS | | | | GENERAL BUREAUCRACY | | | |
| | NP | Partisans | | | NP | Partisans | | |
	(A1)	(A2)	(A3)	(A4)	(B1)	(B2)	(B3)	(B4)
Partisan in 2008	NO	YES	YES	NO	NO	YES	YES	NO
Joined in 2009-12	NO	NO	YES	YES	NO	NO	YES	YES
Number ('000)	14.7	4.5	0.6	0.9	3376.1	760.6	73.7	114.2
Share (pct)	70.8	21.8	2.9	4.5	78.1	17.6	1.7	2.6
Personal characteristics of employees (share of total for gender and education)								
Wages (median)	1138	1051	960	894	798	807	900	753
Age (median)	37	38	36	34	39	44	42	36
Start year	2001	2000	2002	2003	2000	1999	2001	2002
Bachelor's degree	0.31	0.24	0.20	0.21	0.30	0.21	0.21	0.22
Female	0.83	0.67	0.51	0.64	0.68	0.49	0.29	0.48
Type of occupation (share of total)								
Low-skill Clerical	0.32	0.34	0.33	0.35	0.16	0.19	0.21	0.19
Social Worker	0.12	0.05	0.03	0.06	0.01	0.00	0.00	0.00
High Management	0.10	0.08	0.07	0.07	0.15	0.10	0.08	0.10
Mid. Management	0.08	0.07	0.05	0.06	0.04	0.03	0.03	0.05
Low-skill Health	0.08	0.06	0.04	0.05	0.10	0.07	0.05	0.07
Teacher	0.06	0.10	0.12	0.10	0.06	0.09	0.14	0.08
Other	0.26	0.31	0.35	0.32	0.48	0.51	0.50	0.50

Median wage in R$/month. The Table presents the shares of individuals in the sample that have each of the listed characteristics, for each group (unless otherwise indicated). For both *Interviewers* and *Other Bureaucrats* the averages are presented for four different subgroups: (i) *Non-partisans (NP)*. Those who were not members of any party on or before 2012 (columns A1 and B1); (ii) *Old Partisans*. The ones that were party members in 2008, and remained in the same party in 2009-2012 (A2 and B2); (iii) *Switchers*. The 2008 members that moved parties in 2009-2012 (A3 and B3); and (iv) *New Partisans*. The ones that joined a party for the first time in 2009-2012 (A4 and B4).

Table C.2: Distribution of Interviews by Partisan Status of Interviewers

	NP	Partisans		
	(1)	(2)	(3)	(4)
Partisan in 2008	NO	YES	YES	NO
Joined in 2009-12	NO	NO	YES	YES
Number of Interviewers ('000)	14.7	4.5	0.6	0.9
Total Interviews 2009-2012	196.5	211.7	198.3	258.7
BF-eligible Interviews	146.7	163.1	157.6	194.3
Interviews in 2012	113.8	122.6	106.8	154.5
Interviews of New Entrants	36.1	38.0	32.0	52.7
Interviews at Income Threshold I	1.7	1.7	1.3	2.0
Interviews at Income Threshold II	9.7	9.8	8.6	11.9
Percentage shares of total interviews				
BF-eligible Interviews	74.7	77.1	79.5	75.1
Interviews in 2012	57.9	57.9	53.9	59.8
Interviews of New Entrants	18.4	17.9	16.1	20.4
Interviews at Income Threshold I	0.9	0.8	0.6	0.8
Interviews at Income Threshold II	4.9	4.6	4.4	4.6

The averages are presented for four different subgroups: (i) *Non-partisans (NP)*. Those who were not members of any party on or before 2012 (column 1); (ii) *Old Partisans*. The ones that were party members in 2008, and remained in the same party in 2009-2012 (2); (iii) *Switchers*. The 2008 members that moved parties in 2009-2012 (3); and (iv) *New Partisans*. The ones that joined a party for the first time in 2009-2012 (4).

BF-eligible interviews are the ones with households that declared income below the threshold for eligibility to start receiving *Bolsa Família* benefits (R\$140/month for most of the period). Interviews of *new entrants* are the ones with households that were registering with CadUnico for the first time, as opposed to updating their information. *Interviews at the income threshold* refer to the ones where the household's declared income was exactly the value that allows them to receive BF conditional benefits (I), or to receive the unconditional extra transfer (II – this income level is R\$70/month for most of the period).

Table C.3: Continuity of candidate and party/coalition covariates (pre-treatment)

	Coef.	S.E.	90% C.I.	Baseline	Band.	Munis.
Mayor, age	0.075	(0.741)	[-1.093,1.345]	48.758	9.97	1981
Mayor, gender	-0.016	(0.019)	[-0.047,0.016]	0.113	14.49	2609
Mayor, public servant	-0.005	(0.019)	[-0.036,0.025]	0.074	10.47	2052
Mayor, college	-0.017	(0.038)	[-0.082,0.043]	0.505	9.44	1883
Mayor, newcomer	0.002	(0.032)	[-0.048,0.056]	0.475	13.54	2508
Mayor, PT	0.021	(0.021)	[-0.013,0.057]	0.087	10.90	2110
Mayor, PT's federal ally	-0.006	(0.034)	[-0.062,0.051]	0.534	11.60	2223
Mayor, PT's coalition	-0.020	(0.031)	[-0.072,0.030]	0.358	12.93	2421
Coalition size	0.170	(0.156)	[-0.085,0.428]	4.665	13.58	2512
Partisans, population	2.883	(2.511)	[-1.323,6.937]	57.538	12.56	2372
Partisans, bureaucracy	0.590	(0.409)	[-0.068,1.277]	5.980	10.54	2058
Partisans, interviewers	0.026	(0.070)	[-0.091,0.140]	0.331	13.72	2529

+$p<0.1$, *$p<0.05$. Standard errors (parenthesis) and 90% confidence intervals are bias-robust. The baseline level is the average outcome for the losing coalition, and the *Coefficient* in the first columns is the difference on the outcome between the winning and losing coalitions, both at the discontinuity. Bandwidths are optimal.

Characteristics of mayoral candidates, for each coalition: age (in 2008); gender (1 when the candidate is female; 0 otherwise); job (1 when the candidate reports being a bureaucrat; 0 otherwise); college (1 when the candidate has some post secondary education; 0 otherwise); newcomer (1 when the candidate did not run in the 2004 mayoral or council elections; 0 otherwise).

Characteristics of the parties/coalitions of the mayoral candidates, for each coalition: PT (1 when the candidate belongs to the Worker's party PT; 0 otherwise); PT's federal ally (1 when the candidate belongs to one of the following parties: PT, PMDB, PDT, PCdoB, PSB, PR, PRB, PSC, PTC or PTN; 0 otherwise); PT's coalition (1 when the candidate's coalition includes PT; 0 otherwise); Coalition size (number of parties in the coalition); Partisans in the population (number of members of the coalition parties in 2008 among all voters, per 1000 voting population); Partisans in the bureaucracy (number of members of the coalition parties in 2008 among bureaucrats, per 1000 voting population); Partisans in the group of interviewers (number of members of the coalition parties in 2008 among bureaucrats that were already doing CadUnico interviews in 2008, per 1000 voting population).

Table C.4: RD Effects on Membership (Alternative specifications)

	CadUnico Interviewers (1)	General Bureaucracy (2)	Voting Population (3)
Quadratic Polynomial			
Incumbency Effect, pp	1.724*	0.412*	0.069
	(0.791)	(0.101)	(0.068)
C.I. (95%)	[0.134,3.235]	[0.199,0.594]	[-0.063,0.204]
Optimal Bandwidth	11.15	12.77	12.24
Number of Municipalities	2147	2402	2320
Linear Polynomial, includes covariates			
Incumbency Effect, pp	1.706*	0.310*	0.030
	(0.737)	(0.104)	(0.061)
C.I. (95%)	[0.241,3.130]	[0.094,0.504]	[-0.090,0.148]
Optimal Bandwidth	12.74	9.53	12.27
Number of Municipalities	2393	1897	2324
Linear Polynomial, includes covariates and region effects			
Incumbency Effect, pp	1.707*	0.313*	0.032
	(0.737)	(0.103)	(0.060)
C.I. (95%)	[0.241,3.131]	[0.101,0.503]	[-0.085,0.149]
Optimal Bandwidth	12.74	9.53	12.27
Number of Municipalities	2393	1897	2324
Linear Polynomial, includes covariates, region effects, and mayor's party effects			
Incumbency Effect, pp	1.766*	0.314*	0.039
	(0.737)	(0.102)	(0.060)
C.I. (95%)	[0.306,3.197]	[0.103,0.503]	[-0.078,0.155]
Optimal Bandwidth	12.74	9.53	12.27
Number of Municipalities	2393	1897	2324

+$p<0.1$, *$p<0.05$. Standard errors (parenthesis) and 95% confidence intervals are bias-robust. There are two observations per municipality: the outcomes for treatment and control. *Membership* is the percentage of new partisans in 2009-2012 among CadUnico interviewers (A1), other bureaucrats (A2); and the voting population (A3). The baseline is the average outcome for the losing coalition, and the incumbency effect is the difference on the outcome between the winning and losing coalitions, both at the cutoff.

Table C.5: RD Effects on Membership for the Mayor's Party Only

	CadUnico Interviewers (1)	General Bureaucracy (2)	Voting Population (3)
Incumbency Effect	1.170*	0.136*	0.061
	(0.528)	(0.059)	(0.059)
C.I. (95%)	[0.119,2.187]	[0.022,0.253]	[-0.055,0.177]
Baseline	0.548	0.145	0.423
Optimal Bandwidth	12.00	8.67	11.10
Number of Municipalities	2283	1771	2147

+p<0.1, *p<0.05. Standard errors (parenthesis) and 95% confidence intervals are bias-robust. There are two observations per municipality: the outcomes for treatment and control. *Membership* is the percentage of new partisans in 2009-2012 among CadUnico interviewers (A1), other bureaucrats (A2); and the voting population (A3). The baseline is the average outcome for the losing coalition at the cutoff.

Table C.6: Heterogeneity of the Incumbency Effects by Potential CadUnico Enrollment

	CadUnico Interviewers (1)	General Bureaucracy (2)	Voting Population (3)
Incumbency Effect (A)	1.725*	0.308*	0.039
	(0.693)	(0.101)	(0.056)
Potential Enrollment (B)	-0.856*	-0.069	0.001
	(0.388)	(0.062)	(0.036)
(A) x (B)	1.358*	0.078	-0.009
	(0.657)	(0.093)	(0.053)
Optimal Bandwidth	12.74	9.53	12.27
Municipalities	2393	1897	2324

+p<0.1, *p<0.05. Standard errors (parenthesis) are clustered by municipality. Bandwidths are optimal. The variables are described in the main text. The incumbency effect is the difference in the outcome between the winning and losing coalitions. The regressions also include party and region effects, and the covariates in Table C.3.

Table C.7: Balance of Characteristics of Bureaucrats and Interviewers

	FULL SAMPLE		MATCHED SAMPLE	
	Interviewers	Bureau - Inter	Interviewers	Bureau - Inter
Low-skill Clerical	0.409	-0.195*	0.418	-
High-skill SS	0.101	-0.093*	0.076	-
Health Workers and Teachers	0.306	0.048*	0.326	-
Low-skill General	0.069	0.166*	0.076	-
High Management	0.082	-0.011*	0.080	-
Other Occupation	0.033	0.085*	0.025	-
Gender	0.779	-0.143*	0.790	-
Age	36.765	3.632*	36.645	0.146
Education	7.304	-0.652*	7.224	-0.017
Years Employed	6.958	0.844*	6.843	-0.040
Wage	1102.7	133.9*	1027.1	-1.4
Observations	20815	4344383	17920	-

+p<0.1, *p<0.05. The first seven rows show the individual's occupation. In each sample, the first column shows the average for the group of interviewers, the second shows the difference in averages between other bureaucrats and interviewers. The matching is described in the text. For variables that were used for an exact match, differences are non-existent.

All measures, with the exception of *Age*, *Years Employed*, **Education**, and *Wage*, are binary variables. *Wage* is measured in R$/month. The *Job* variables assume value of 1 for individuals that have that type of occupation. *Gender*=1 for females. *Education*is a categorical variable that ranges from 1 (lowest education level) to 11 (highest). For perspective, level 7 means that the bureaucrat has completed secondary school. Level 8 means unfinished college education.

Table C.8: *Membership* Effects for other Voter-facing Bureaucrats

	General Bureaucracy (A)	Voter-facing Bureaucracy (B)	Difference (A-B)
Incumbency Effect	0.308*	0.796+	-0.488+
C.I. (95%)	[0.090,0.502]	[-0.100,1.741]	[-1.351,0.128]
Municipalities	1877	2070	-
Optimal Bandwidth	9.39	10.66	-

+p<0.1, *p<0.05. 95% confidence intervals are bias-robust. *Membership* is the percentage of new partisans in 2009-2012 in each group. The regressions also include the pre-treatment covariates in Table C.3 (appendix). The confidence interval for the *difference* is obtained with 500 bootstrap draws. The group of voter-facing bureaucrats includes the RAIS code 352210 (health agent), and all codes starting in 515, which include: community health agent, midwife, sanitation agent, nurse attendant, first responder helper (i.e. excludes doctors or nurses), lab and pharmacy helper, social service agent (i.e. excludes high-skill social workers), and education agent.

Table C.9: *Membership*: Effects by the Characteristics of Interviewers

	Group 1	Group 2	Difference (1-2)
Group 1: Interviewers WITHOUT Job security			
Incumbency Effect	2.177*	1.423	0.754
C.I. (95%)	[0.114,4.282]	[-0.455,3.245]	[-2.424,2.759]
Municipalities	2346	2346	-
Optimal Bandwidth	12.38	12.38	-
Group 1: Interviewers with AT MOST Secondary Education			
Incumbency Effect	2.318*	0.708	1.610
C.I. (95%)	[0.617,4.077]	[-1.010,2.328]	[-1.813,2.949]
Municipalities	2463	2463	-
Optimal Bandwidth	13.22	13.22	-
Group 1: Interviewers that are Male			
Incumbency Effect	2.109	1.964*	0.145
C.I. (95%)	[-0.643,4.611]	[0.540,3.574]	[-2.340,2.722]
Municipalities	2583	2583	-
Optimal Bandwidth	14.16	14.16	-
Group 1: Interviewers with wages ABOVE median			
Incumbency Effect	1.848*	2.114+	-0.266
C.I. (95%)	[0.152,3.485]	[-0.172,4.586]	[-3.815,1.204]
Municipalities	2310	2310	-
Optimal Bandwidth	12.18	12.18	-
Group 1: Interviewers that were NOT recently hired (i.e. hired in 2004 or before)			
Incumbency Effect	2.152*	1.775+	0.377
C.I. (95%)	[0.489,3.911]	[-0.264,3.753]	[-2.785,2.213]
Municipalities	2630	2630	-
Optimal Bandwidth	14.71	14.71	-
Group 1: Interviewers that were NEVER members of any party			
Incumbency Effect	2.032*	1.149	0.884
C.I. (95%)	[0.308,3.696]	[-1.367,3.691]	[-2.571,3.193]
Municipalities	2137	2137	-
Optimal Bandwidth	11.02	11.02	-

†p<0.1, *p<0.05. 95% confidence intervals are bias-robust. Group 1 for each exercise is defined in the title. Group 2 is always the complement of group 1. The regressions include the covariates in Table C.3 (appendix). The confidence intervals for the *differences* are obtained with 500 bootstrap draws.

Table C.10: Balance of Characteristics of Partisan Interviewers

	Opposition (Intercept) (1)	Incumbent - Opposition (2)	(S.E.) (3)
Salary	10.050	-0.798	(0.735)
Job Security	0.643	-0.025	(0.042)
Managerial Position	0.163	-0.027	(0.031)
Seniority	5.582	-0.677	(0.510)
Age	35.311	-1.141	(0.732)
Gender	0.607	0.035	(0.041)
Education	7.087	0.096	(0.115)
Education (2012)+	7.240	0.159	(0.113)

+p<0.1, *p<0.05. The regressions include 732 interviewers that joined a party in either the incumbent or opposition sides in 2009-2012, and for which we could find employment data in the 2012 RAIS database. The Table shows the intercept (column 1), slope (column 2), and SE of the slope (column 3) of a regression where each outcome in the rows is regressed on a dummy that assumes one if the interviewer joined the incumbent coalition, and zero otherwise.

All measures, with the exception of *Age*, *Years Employed*, **Education**, and *Wage*, are binary variables. *Salary* is measured in R\$100/month. The *Job* variables assume value of 1 for individuals that have that type of occupation. *Gender*=1 for females. *Education* is a categorical variable that ranges from 1 (lowest education level) to 11 (highest). For perspective, level 7 means that the bureaucrat has completed secondary school. Level 8 means unfinished college education.

Figure C.1: RD Effects for different bandwidths
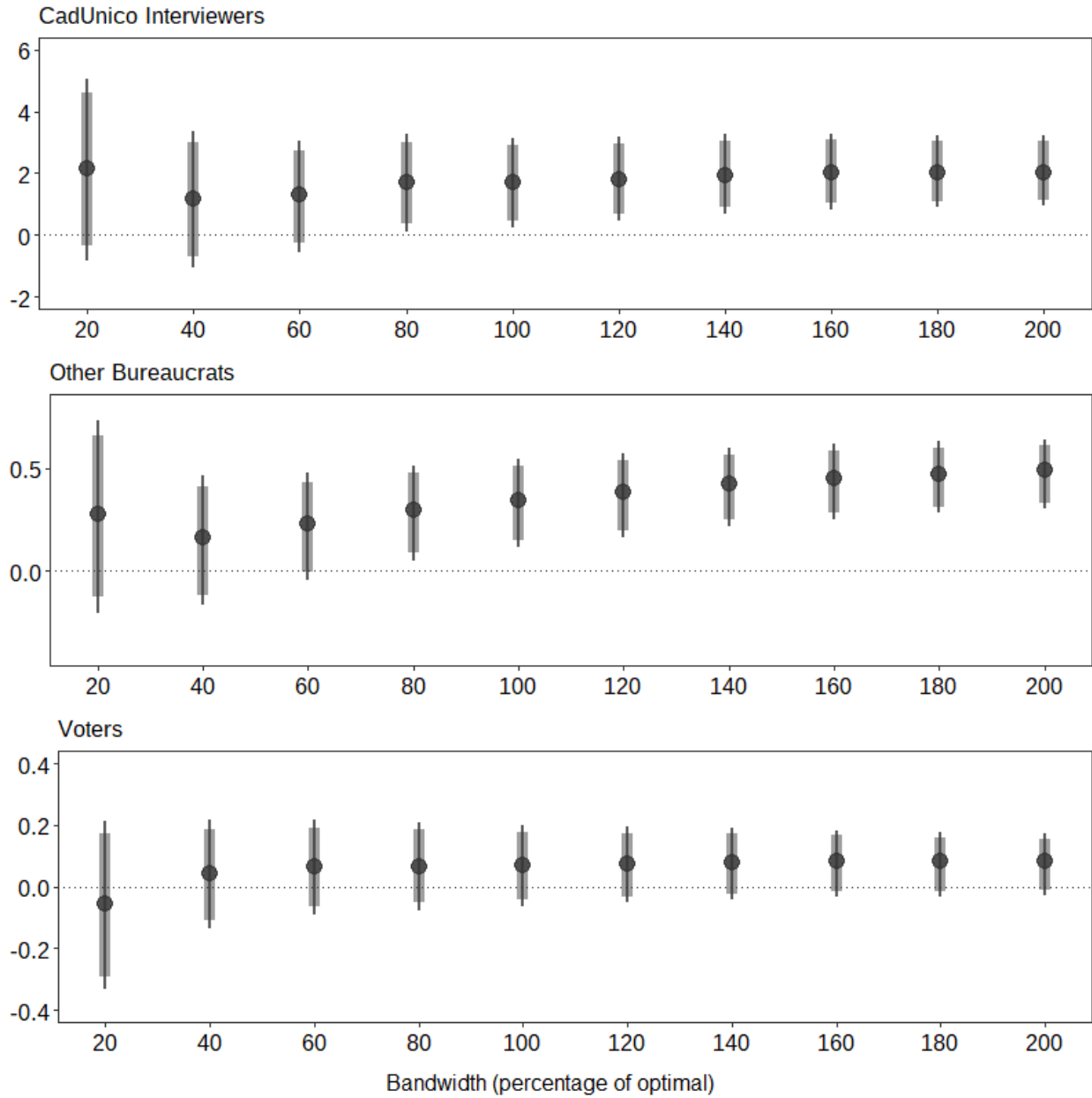
The dots shows the value of the RD coefficient for each variable, which are described in the main text. The thin bars show the 95% bias-robust confidence intervals; the thick bars show the 90% intervals. Optimal bandwidths for each variable are shown in Table C.4.

Figure C.2: Distribution of the Potential Enrollment Variable
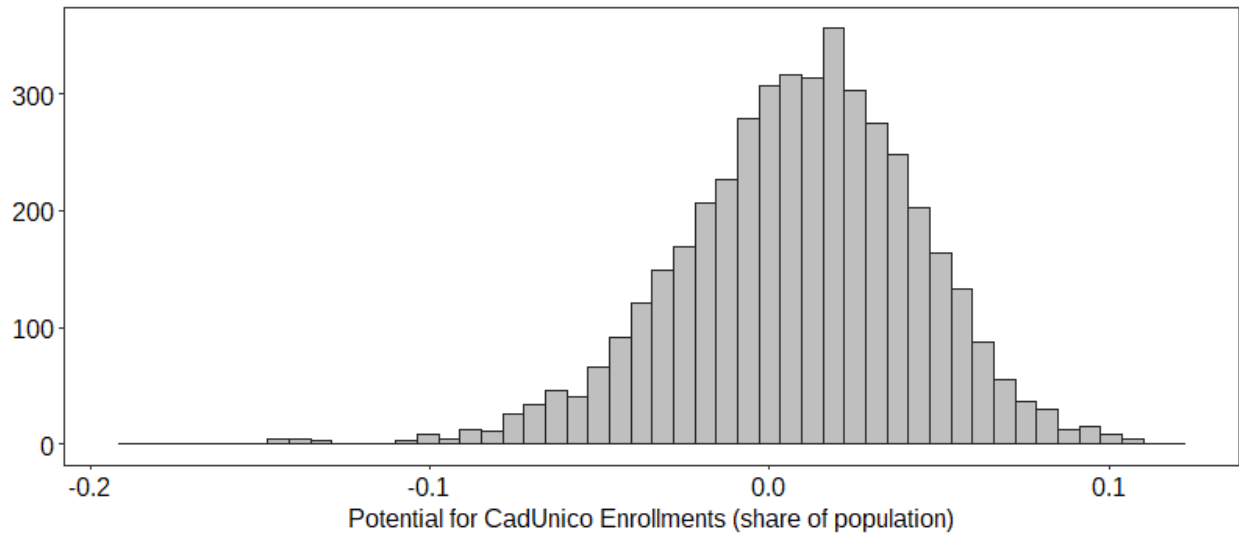
The x-axis shows the count of municipalities in each bin.