

How Valuable Is a Legislative Seat?

Incumbency Effects in the Argentine Chamber of Deputies*

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July 19th, 2019

In many developing countries, national legislative seats are considered less valuable than (sub-national) executive positions. Even then, ambitious politicians may find a legislative seat valuable for two reasons: (a) as a *window of opportunity* for jumping to an executive office; or (b) as a *consolation prize* when no better option is available. Using a regression discontinuity design adapted to a PR setting, we examine these possibilities in the Argentine Chamber of Deputies between 1983 and 2011. In line with the consolation prize story, we find that marginal candidates from the Peronist party – which often controls the provincial governorship – are more likely to be renominated and serve an additional term in the legislature, but not necessarily to jump to an executive office. The effect is stronger in small provinces.

Keywords: political careers – ambition – incumbency advantage – regression discontinuity – proportional representation – Argentina

Word count: 7,720

* We thank the Asociación Mexicana de Cultura, A.C. for financial support. Ernesto Calvo kindly shared his data on Argentine congressional candidates. Previous versions of this paper were presented at the 2016 MPSA Annual Meeting, the ITAM Political Science Research Seminar, the 2016 GEL-ALACIP meeting and the 2018 Latin America PolMeth Meeting. We thank Yann P. Kerevel, Robert Thompson, Stephen Meserve, Vidal Romero, Jeffrey Weldon, José Merino, Eric Magar, Eduardo Alemán, Jorge Gallego, Michelle Torres, Kaitlin Senk, Sofia Vera, Nelson Ruiz, Chris Tausanovitch and other participants at these venues, as well as Rocío Titiunik and nine anonymous reviewers for their helpful comments. Upon publication, replication data will be uploaded to the authors' websites. The usual disclaimer applies.

In developed democracies, national legislative seats are often considered part and parcel of a successful political career, as reflected by both the static ambition and the high reelection rates of such officeholders (Mayhew 1974; Fenno 1978; Cain, Ferejohn and Fiorina 1987; Shepsle and Weingast 1987; Kendall and Rekkas 2012; André, Depauw and Martin 2015; Fowler and Hall 2017; Fiva and Smith 2018). But in many developing countries – and in some developed democracies like Italy – such legislative positions are much less valuable, as documented by the fact that national legislators are constantly trying to “jump” to subnational executive offices, like governorships or mayoralties (Jones et al. 2002; Samuels 2003; Pereira and Rennó 2013; Micozzi 2014a; Chasquetti and Micozzi 2014; Lucardi and Micozzi 2016; Kerevel 2015).

Even when politicians are not very interested in developing a long-term legislative career, however, they may find a national legislative office valuable for two reasons. According to the *window of opportunity* story, ambitious politicians who do not intend to develop a long-term career in the national legislature may nonetheless seek a legislative position as a stepping stone in the path towards a more valuable office. That is, executive positions may be easier to reach for those who already hold a national legislative seat, perhaps because this allows politicians to build ties with voters or party leaders (Micozzi 2009; Chasquetti and Micozzi 2014). Alternatively, the *consolation prize* story posits that politicians may pursue a national legislative position because this represents the best of all *feasible* alternatives. Intuitively, competition for the most valued positions is harsher; politicians who try to attain any of such offices but fail – or who do not even try because they anticipate defeat – may well find that a seat in the national legislature is better than being left with nothing (Lodola 2009; Pereira and Rennó 2013; Lucardi and Micozzi 2016).

The case of Rosana Bertone, the governor of the Argentine province of Tierra del Fuego between 2015 and 2019,¹ illustrates both logics nicely. In 2001, just a 29-year-old provincial bureaucrat, she was elected to the Chamber of Deputies in a highly atypical election in which the most voted list won the two seats at stake with just 31.49 per cent of the vote. Had the second most

¹Bertone ran for a second term but was defeated in the first round of the 2019 election.

voted list obtained 441 additional votes (1.27 per cent), Bertone would have been left out of the Chamber. Four years later, she was promoted to the top of the party list, thus winning reelection easily, and she repeated in 2009. In 2011, while serving her third consecutive legislative term, she barely lost the gubernatorial election in the second round. Two years later she moved to the Senate, from where she finally jumped to the provincial governorship in 2015.

Bertone's story is of course exceptional; few Argentine politicians, and even fewer women – including former president Cristina Fernández de Kirchner and a handful of provincial governors – can show a comparable record. But if her success is out of the ordinary, her motivations seem completely unremarkable. As a young female bureaucrat with no previous political experience, in 2001 she probably could not aspire to anything better than the second position in the party list and hope that an exceptional result would place her in the Chamber of Deputies. Once there, she got reelected twice, but the fact that she first ran for provincial governor in 2011, sought a seat in the Senate after being defeated, and later exchanged it for the governor's mansion, strongly implies that she did not want to develop a long-term career in either Congressional chamber.

Taking inspiration from her story, in this paper we study systematically whether holding a legislative seat in the Argentine Chamber of Deputies can serve as a consolation prize, a window of opportunity, or both. We will never know whether the 441-vote difference in 2001 helped jumpstart Bertone's career. But we can examine whether candidates who, like her, barely managed to win a legislative seat became more likely to get reelected or develop a long-term political career than those who were left out by a handful of votes. Neither outcome is foreordained. Given the relatively limited resources provided by legislative offices in Argentina, a seat in the national legislature may provide little help for jumpstarting a long-term career even for ambitious politicians who try hard; for every Bertone, there may be several individuals who were left out of Congress by a whisker yet ended up developing a successful career afterwards. Holding a legislative seat may provide little help for obtaining reelection as a consolation prize, either. Romanian mayors (Klašnja 2015) and Indian, Japanese and Italian legislators (Uppal 2009; Ariga 2015; Golden and Picci 2015) have a

zero or even negative incumbency advantage, meaning that bare losers are equally or even more likely to gain a new term than bare winners.² Whether this holds in Argentina is thus an empirical question.

Empirically, we employ a regression discontinuity (RD) design adapted to a proportional representation (PR) setting with closed lists to examine whether candidates who barely entered into the Argentine Chamber of Deputies developed a longer career than those who were barely left out. For members of the *Partido Justicialista* (PJ), which has often coincided with the governor's party, the results are consistent with the consolation prize story: bare winners are 37-49 percentage points more likely to be renominated within the next four years than bare losers, 26-28 pp. more likely to hold a legislative position in the future, and up to 36 pp. more likely to serve in any kind of elected position afterwards. In contrast, the window of opportunity story receives little support: the effect on the probability of serving in an executive position in the future is also positive – a 13-14 pp. increase in small provinces – but we do not have enough power to estimate it accurately. In contrast, for the *Unión Cívica Radical* (UCR), estimated effects are both negative and large, though usually insignificant at conventional levels due to low power. We interpret this as resulting from a combination of two factors: internal party rules that place high hurdles for UCR incumbents who seek renomination (Caminotti, Rotman and Varetto 2011) and political dynamics that induce them to run for executive positions they are unlikely to win.

This work extends the existing literature in three ways. First, following recent interest in the long-term consequences of holding public office (Eggers and Hainmueller 2009; Querubín 2016; Fowler and Hall 2017), we examine the effect of winning a seat on a politician's long-term career. In line with the claim that a legislative position may not necessarily be perceived as a final destination, we also take into account the possibility that politicians may move between multiple

²Evidence from close mayoral races in Mexico (Lucardi and Rosas 2016; Klačnja and Titunik 2017), Colombia, Peru and Brazil (Klačnja and Titunik 2017; Novaes 2018; Feierherd forthcoming) shows that the *partisan* incumbency disadvantage is even stronger in magnitude (in Japan, it is essentially zero; see Ariga et al. 2016).

positions over time. Second, we estimate our effects by comparing marginal winners and losers. In contrast, most of the existing literature on political careers and legislative behavior in Latin America has focused on *elected* representatives, implicitly ignoring candidates who failed to obtain a seat (Morgenstern and Nacif 2002; Morgenstern 2004; Londregan 2000; Crisp and Desposato 2004; Crisp et al. 2004; Jones et al. 2002; Micozzi 2013, 2014a,b; Lucardi and Micozzi 2016; Langston 2010; Rosas and Langston 2011; Kerevel 2015; Samuels 2003; Desposato 2006; Pereira and Rennó 2013; Chasquetti and Micozzi 2014). Finally, we follow pioneering work on Sweden and Norway (Folke 2014; Fiva and Smith 2018; Fiva, Halse and Smith 2017; Kotakorpi, Poutvaara and Terviö 2017) and apply a RD to study incumbency effects in a PR setting with closed lists. As far as we know, ours is the first study to employ such a RD to estimate incumbency effects for legislative candidates in Latin America.

Theoretical framework

The value of a legislative seat: theoretical considerations. The value of a legislative seat can be studied along a variety of dimensions, including the (implicit) consumption value and ego rents derived from the office itself (Diermeier, Keane and Merlo 2005); the (in)direct financial and employment opportunities it provides (Eggers and Hainmueller 2009; Truex 2014); or the opportunities for corruption it opens (Querubín and Snyder 2013). While Argentine deputies certainly earn an above-average salary, due to data limitations – income information for individual Argentine politicians is either unavailable or unreliable – in this paper we examine how a legislative seat contributes to a politicians’ future career. Assuming that (some) politicians want to develop a long-term career, to what extent does a legislative seat contribute to that purpose?

To answer this question, we distinguish between the *motivations* of individual politicians and the *opportunities* they have to satisfy them. Schlesinger’s (1966) classic distinction between static and progressive ambition focuses on the first point. Statically ambitious politicians are broadly

satisfied with the office they occupy, and thus want to remain there: they do what they do in order to be reelected time and again. Their progressively ambitious peers, on the other hand, see their current office as a temporary position from which to move to a more valuable one afterwards. But there is also a third possibility: politicians who are progressively ambitious but seek to remain where they are because they have no chance of (successfully) running for a better position (Pereira and Rennó 2013; Lucardi and Micozzi 2016). In other words, they see their current office as a consolation prize: certainly better than nothing, but not what they would like to do until the end of their careers.

This third possibility underscores the fact that not all elected offices provide good opportunities for satisfying incumbents' aspirations. In many contexts, such incumbency effects are positive: current incumbents are better positioned than challengers for achieving what is generally considered desirable, be it reelection or jumping to another office. This typically reflects incumbents' advantages in terms of enacting legislation and claiming credit for public policy, but also in the most mundane matters of fundraising, advertising, access to staff and media coverage, all of which increases their name recognition *vis-à-vis* challengers (Fiorina 1977; Cover and Brumberg 1982; Shepsle and Weingast 1987; Holbrook and Tidmarch 1991; Prior 2006; Ban, Llaudet and Snyder 2016). But incumbency effects may also be nil or even negative, notably when voters perceive incumbents as overly corrupt and thus kick them out before they become too good at embezzlement (Klašnja 2015). The incumbency advantage may also vary by office: an incumbent may be advantaged when seeking reelection, but maybe not when running for an executive position.³

³We focus on the *personal* incumbency advantage, which captures an individual's capacity to leverage an elected position into another one. The *partisan* incumbency advantage, in contrast, captures the benefits that a party receives when one of its members controls a given office. The two need not go together: in the US the personal incumbency advantage is mostly positive (Lee 2008; Cattaneo, Frandsen and Titiunik 2015; Erikson and Titiunik 2015), but partisan advantages are either nil (Butler and Butler 2006) or negative (Folke and Snyder 2012; Erikson, Folke and Snyder 2015).

The value of a legislative seat in comparative perspective. Both ambition patterns and incumbency effects differ greatly between countries. In the United States, legislative seats are valuable in themselves, and thus legislators develop a pattern of static ambition: they want to get reelected time and again (Schlesinger 1966). Moreover, recent studies have credibly documented that incumbents running for reelection enjoy a substantial advantage over challengers (Butler and Butler 2006; Butler 2009; Lee 2008; Cattaneo, Frandsen and Titiunik 2015; Erikson and Titiunik 2015; Fowler and Hall 2017).⁴ In parliamentary democracies, a legislative career is indispensable for gaining a position in the cabinet, and thus legislators also develop a pattern of static ambition (André, Depauw and Martin 2015). They also enjoy a large electoral advantage, as documented in Canada (Kendall and Rekkas 2012), Spain (Llaudet 2014) or Norway (Fiva and Smith 2018; Fiva, Halse and Smith 2017). Interestingly, the European Parliament – farther away from home, far less prestigious, and less influential in policy-making – constitutes an exception to this pattern (Meserve, Pemstein and Bernhard 2009; Sieberer and Müller 2017).

In other latitudes, legislative seats offer few opportunities to influence public policy and comparatively limited resources for campaigning, and thus ambitious politicians are constantly trying to capture other, more valuable positions. Both in developing countries like India and in developed ones like Japan or Italy, incumbent legislators either enjoy few electoral advantages or are even disadvantaged when seeking reelection (Uppal 2009; Ariga 2015; Golden and Picci 2015). Similarly, Romanian mayors suffer a large incumbency penalty *vis-à-vis* challengers because voters perceive them as highly corrupt (Klašnja 2015). In Latin America, national legislators are often more interested in obtaining an executive seat at the subnational level – such as a governorship or a mayoralty – than in developing a long-term legislative career. In Jones et al.’s (2002) felicitous phrase, they are “professional politicians” but “amateur legislators:” they want to develop a long-term career in

⁴Caughey and Sekhon (2011) find that in the US House, near-winners are systematically different from near-losers, but this discrepancy may be attributed to chance (Eggers et al. 2015).

politics, though preferably not in the national legislature (see also Micozzi 2009; Samuels 2003; Pereira and Rennó 2013; Chasquetti and Micozzi 2014; Lucardi and Micozzi 2016).

But even if a legislative seat is considered less valuable than other offices, it may prove helpful – in terms of both material resources and name recognition – for moving elsewhere. At the very least, incumbent legislators may remain where they are until the opportunity to jump to a better position appears on the horizon. The case of Rosana Bertone presented above illustrates this point well. The fact that she tried to move from the Chamber to the governorship and then to the Senate – and from there to the governorship again – clearly shows that she was progressively ambitious; at the same time, it is worth remembering that she sought reelection to her legislative seat twice before first running for the governorship in 2011. In line with this claim, research on the US, Brazil, Mexico, Chile, Argentina, Uruguay and the European Parliament has shown that ambitious legislators who intend to run for a different position employ the opportunities provided by their office – submitting budget amendments and information requests, drafting geographically targeted bills, speaking in the plenary, communicating their expertise, or voting against the party line – to increase their visibility and popularity among prospective constituents (Treul 2009; Victor 2011; Ames 2001; Samuels 2003; Pereira and Rennó 2013; Kerevel 2015; Alemán, Micozzi and Ramírez *forthcoming*; Alemán, Slapin and Ramírez 2017; Micozzi 2009, 2013, 2014a,b; Micozzi and Rogers 2014; Chasquetti and Micozzi 2014; Fukumoto and Matsuo 2015; Meserve, Pemstein and Bernhard 2009; Pemstein, Meserve and Bernhard 2015; Sieberer and Müller 2017).

These considerations suggest the following implications. In a country like Argentina where progressive ambition is widely documented (Jones et al. 2002; Lodola 2009; Micozzi 2009, 2013, 2014a,b), the most interesting question is whether incumbent legislators can leverage their seat into a more valuable executive position in the future. This is the *window of opportunity* story that Rosana Bertone embodies so well. Of course, she may be a highly atypical case rather than a representative of a more general phenomenon. But even then, it may still be the case that legislative seats offer a *consolation prize* for progressively ambitious incumbents who have little chance of

capturing a more valuable position (Lucardi and Micozzi 2016). Unlike an (elected) executive position, a legislative seat does not offer control over a budget – the main source of patronage, name recognition and arguably corruption in Argentine politics. But it still offers some public visibility, the potential to negotiate with the (provincial or national) party leadership on a handful of crucial votes, as well as an attractive salary; it is certainly better than nothing. Thus, even if incumbent legislators are not more likely to capture an executive position than non-incumbents, they should be more likely to get renominated and serve another legislative term(s).

Heterogeneous effects. There are also reasons to believe that these effects may vary by district and/or party. On the one hand, a legislative seat should be more valuable in small districts. To the extent that name recognition is an important consideration when running for a district-wide seat – such as a governorship – this is a relevant issue. What legislators do to cultivate a personal reputation – drafting targeted bills, advertising the goods brokered for the district, etc – is more effective in small-scale constituencies, fostering higher degrees of “street credibility” (Crisp et al. 2004; Micozzi 2014b; Chasquetti and Micozzi 2014). Alternatively, incumbent legislators may leverage their position to develop a relationship with provincial party bosses, who play a crucial role in both nomination and election (De Luca, Jones and Tula 2002; Jones et al. 2002; Calvo and Murillo 2004; Lodola 2009; Cherny, Figueroa and Scherlis 2018). Even politicians attempting to jump from the legislature to an individual office such as a mayoralty may need the help of powerful copartisans if the latter control important resources or have a say over nomination procedures. In turn, provincial bosses may see an advantage in promoting politicians with whom they get along better or who do a better job once in Congress, but they may only find this out when an individual is effectively elected. But regardless of whether a legislator’s principals are voters or (provincial) party leaders, becoming known among them should be easier in small districts, and thus we should expect the incumbency effect to be stronger there.

Incumbency effects may also vary by party, a point that has been amply documented in Brazil (Klašnja and Titunik 2017; Feierherd forthcoming). Most obviously, some parties have stronger

political machines than others; in Argentina, both the governor's party and the *Partido Justicialista* or PJ – which often coincide – tend to be stronger in small districts (Calvo and Murillo 2004; Gibson 2005). In contrast, the *Unión Cívica Radical* or UCR, the other big national party, has often been weaker. At the same time, being a large national party forces the UCR to field candidates in most provincial elections even when it does not expect to win. To the extent that such candidates are disproportionately chosen among incumbent legislators, these individuals should be less likely to seek and/or obtain reelection even as a consolation prize. The party's internal rules further reinforce this point: in several provinces incumbent legislators must obtain the backing of a supermajority of partisan delegates to gain renomination, a requirement that is absent for their PJ counterparts (Caminotti, Rotman and Varetto 2011). Thus, regardless of whether a national legislative seat offers a window of opportunity or a consolation prize, we should observe a stronger effect for legislators from the governor's party or the PJ than among their UCR counterparts.

Research design and data

Case selection. We focus on the Argentine Chamber of Deputies, a well-documented case in which nonstatic ambition, multilevel careerism, and pursuit of subnational executive offices predominate. In contrast, their control over financial resources (Calvo and Murillo 2004; Gervasoni 2010; Bonvecchi and Lodola 2011) and party nominations (De Luca, Jones and Tula 2002; Lodola 2009; Cherny, Figueroa and Scherlis 2018) make governors – and mayors of large cities – crucial political players at the provincial level. Indeed, despite the absence of term limits, only 20 per cent of national deputies (three quarters of which are successful) seek a new mandate at the end of their term, almost the same proportion as those who run for governor, vice-governor or mayor (18 per cent; see Lucardi and Micozzi 2016). This has important implications for congressional performance, notably low degrees of policy specialization (Jones et al. 2002) and the extensive drafting of purely symbolic bills (Micozzi 2009).

Deputies are elected by proportional representation in 24 multi-member districts that are coterminous with the country's 23 provinces plus its capital city. They serve four-year terms, but the Chamber is renewed by halves every two years, with each district electing half of its representatives in each electoral turn.⁵ Seats are distributed using the d'Hondt formula, but only among lists that obtained at least 3 per cent of registered voters in the district. Except in Buenos Aires this matters little in practice because most magnitudes are relatively low and turnout is relatively high – 78% on average between 1983 and 2015.

Candidates are rank-ordered, and no preference votes are allowed. Thus, if a party receives s seats, the first s individuals in the list gain a seat. Legislators who resign, die or are expelled from the Chamber are replaced by the candidate occupying the $s + 1$ th position in the party list, and so on. Nominations are made by provincial party branches, with the governor (for the incumbent governor's party), provincial party elites (for opposition parties) and the president (for the national incumbent party), all playing a role in the process (De Luca, Jones and Tula 2002; Lodola 2009; Cherny, Figueroa and Scherlis 2018). Since 1993, one in every three candidates must be a woman (Franceschet and Piscopo 2008; Htun, Lacalle and Micozzi 2013; Barnes 2016), but other than that, provincial party organizations face few restrictions when making nomination decisions.

Data. We combined data from three main sources. Electoral returns, which we used to construct the running variable are from Tow (N.d.). We have assembled a dataset of political careers in Argentina that contains information on all individuals who ever served as (vice-) president, national minister, provincial (vice-) governor, national senator, national deputy, mayor, member of the 1994 constituent assembly or member of the supra-national Mercosur Parliament between 1983 and 2015 ($n \approx 11,000$), together with information on the date in which the individual entered and left the office. Finally, we data on candidates running for the Chamber of Deputies between 1983 and

⁵Actual district magnitudes range between 2 and 35, with a mean of 5.4 and a median of 3.

2015 ($n \approx 27,000$), including their party membership and position in the list.⁶ We merged these sources into a dataset of *candidates* running for legislative office between 1983 and 2011. For each candidate we recorded her gender, partisan affiliation, whether she belonged to the governor’s party and her position in the party list, plus her political experience both before and after the election.⁷ See Online Appendix A for a more detailed description of the data and merging process.

Regression discontinuity with closed-list PR. Our identification strategy hinges on comparing the future careers of candidates who obtained a seat in the Chamber of Deputies to those who failed to make it. Successful and unsuccessful candidates are not generally comparable, so we focus on *marginal* candidates: those who were the last to win a seat in a district, or the next in line to receive an additional seat. This approach has its limitations, as legislators at the top of the party list are probably of higher quality than those located at the bottom. Thus, by construction we cannot determine the effect of holding a legislative seat for higher-quality politicians, precisely those better positioned for taking advantage of it. That said, to the extent that marginal legislators are of lower average quality than non-marginal ones, any results that we find should be interpreted as a lower bound on the effect of holding a legislative seat on an individual’s career.

Specifically, we employ a regression discontinuity (RD) design, in which the treatment of interest – winning a legislative seat – is assigned according to the value of a known running variable: all observations for which the value of the running variable fall above a given cutoff are assigned to receive the treatment of interest, while those below the cutoff enter the control group. Throughout this paper we follow the continuity-based approach, where the identification assumption is that the running variable varies smoothly at the cutoff, while the probability of receiving treatment experiences a sharp “jump” at the discontinuity (Cattaneo, Titiunik and Vázquez-Bare 2017).

⁶We have full data for 1995-2015, as well as information on most major-party candidates – the ones we actually employ in the analysis – for 1983-1993. Note that we only consider a candidate’s partisan affiliation at the time of running; we ignore party splitting afterwards.

⁷When an individual ran multiple times, we recorded these values separately for each election.

In single-member district elections, there is one incumbent per district and the running variable is the margin of victory between the most voted candidate and the runner-up. PR systems feature multiple incumbents, so we exploit the fact that seats are assigned sequentially to compare the candidate that received the last seat that was allocated in a district to the candidate that was closest to win that seat, but failed. Calculating the running variable is thornier because the number of seats received by a party depends on the distribution of votes received by all other parties (Folke 2014; Kotakorpi, Poutvaara and Terviö 2017; Cox, Fiva and Smith forthcoming). That is, a party may win an additional seat because (a) its vote total increases; (b) the vote total of the party that received the last seat decreases; (c) the vote total of some other party (or parties) decreases; or (d) some combination of these possibilities. Thus, our running variable is the minimum percentage of votes that must have changed for a party to win or lose a seat.⁸ For every list in every election, we first identified the candidate that got the last seat received by the list, as well as the individual that would have received the next seat had the list won an additional one. *Vote change to last seat* takes positive values for the former set of candidates, and negative ones for the latter.

We outline the general procedure here and discuss the details for implementation – which closely follow the approach pioneered by Folke (2014) – in Appendix B. Consider the election that took place in Catamarca in 2013, when four lists competed for three seats. Panel (a) in Table 1 shows the vote total received by each list, and the quotients that result from dividing these totals by 1, 2 and 3, while panel (b) lists the corresponding candidate names. Following the d’Hondt allocation method, each of the three largest quotients was awarded a seat. As the most voted party, the UCR had the largest quotient (79,512); accordingly, the first seat went to Eduardo Brizuela del Moral, who headed the party list. The next largest quotient, 77,148, corresponds to the PJ; thus, Néstor N. Tomassi received the second seat to be distributed. The last seat went to the UCR, whose

⁸See Folke (2014); Fiva, Halse and Smith (2017) and Fiva and Smith (2018) for a similar approach. In contrast, the competitiveness measures proposed by Blais and Lago (2009) and Grofman and Selb (2009) focus on a single party’s vote total and normalize by the number of votes per seat (see Cox, Fiva and Smith forthcoming).

Table 1: Running variable example: Catamarca 2013

	UCR (Frente Cívico y Social)	PJ (FPV) (Governor's)	Frente Tercera Posición	Partido Obrero
(a) Quotients				
1	79,512.00	77,148.00	36,997.00	5,044.00
2	39,756.00	<u>38,574.00</u>	18,498.50	2,522.00
3	26,504.00	25,716.00	12,332.33	1,681.33
(b) Candidates				
1	E. Brizuela del Moral	Néstor N. Tomassi	<i>José L. Barrionuevo</i>	<i>Ariel A. López</i>
2	Myriam del V. Juárez	<u><i>Silvia L. Moreta</i></u>	Gladys del V. Moro	Sonia J. Sosa
3	<i>Úrsula Díaz</i>	Víctor O. Gutiérrez	Claudio D. Bustamante	María E. Moreno

Vote and seat distribution for the 2013 election in Catamarca. For each party, elected candidates and their quotients are shown in **bold**, while candidates next in line to receive a seat appear in *italics*. The empirical analysis is restricted to the two candidates closest to winning or losing a seat *in the district*; these are underlined.

quotient from dividing its vote share by two – 39,756 – was larger than that of the PJ's and the Frente Tercera Posición (FTP) – 38,547 and 36,997, respectively.

Now consider how the UCR could have won all three seats at stake. One possibility is to increase the party's vote total to 231,444, in which case it will triplicate the PJ's. Alternatively, the vote total of the PJ and the FTP may have decreased by 50,644 and 10,493 respectively, in which case the new distribution of votes would have been {79,512; 26,504; 26,504; 5,044}. Thus, for Úrsula Díaz, the third-placed candidate in the UCR's list, *vote change to last seat* takes the value of -30.77: in order to get elected, a minimum swing of 30.77 per cent of the vote ($\frac{50,644+10,493}{198,701} \approx 30.77$) should have changed in her favor. In contrast, for Silvia L. Moreta, who was located in the second place in the PJ's list, *vote change to last seat* is -1.19 per cent because an increase in the PJ's vote of just 2,365 votes (or a similar reduction in the UCR's vote total) would have given her a seat. Concomitantly, for the second-ranked candidate in the UCR's list, Myriam del Valle Juárez, *vote change to last seat* equals 1.19 per cent, while Néstor N. Tomassi, who headed the PJ's list, would have lost his seat only if his party's vote total had decrease by at least 40,152, or the FTP's support had increased by a similar amount. Thus, for him *vote change to last seat* equals 20.21.

Outcome variables. For every candidate i running in election year t , we evaluate the effect of winning a legislative seat on five measures of i 's future political career. *renomination* is a dummy indicating whether i ran again for legislative office at either $t + 2$ or $t + 4$, i.e. before the expiration of the term that began at t .⁹ *legislator (after)*, *executive (after)* and *any office (after)* are dummies that indicate whether i served, respectively, in a national legislative position (the national Congress, the 1994 constituent assembly, or the Mercosur Parliament);¹⁰ an executive position (president, vice-president, national minister, governor, vice-governor or mayor); or either of the two, at any moment in the future. *terms served (after)* is a count of the total number of executive and legislative terms that i served after t – i.e., excluding the term that began at t . While there is no accepted ranking of the relative desirability of different political positions, it is safe to assume that the top executive positions – (vice-)president, (vice-)governor and national minister – clearly come at the top, a seat in the Senate is more valuable than one in the Chamber of Deputies, and a seat in the Mercosur Parliament comes last. The relative value of a mayoralty depends in part on the size of the municipality in question, but the fact that so many legislators actively seek a mayoral position (Micozzi 2014b; Lucardi and Micozzi 2016) suggests that most ambitious individuals prefer to be mayors rather than national deputies.

Estimation. Following standard practice, we first identify a *reference party* and compare candidates from that party that barely won or barely failed to win a seat *in different elections*. We report results for three alternative reference parties: the incumbent *governor's* party; the *Partido Justicialista* (PJ); and the *Unión Cívica Radical* (UCR). The three, which often overlap, have captured the bulk of elected offices at both the national and subnational levels since 1983.

⁹Losing candidates often run again in midterm elections, as do a handful of sitting legislators.

¹⁰In practice, this means that an individual served as national senator or deputy: depending on the sample, between 43 and 67 *marginal* candidates would end up serving as legislators, but no more than 1-5 of them served in the 1994 constituent assembly or the Mercosur Parliament.

In the above example, the analysis would be restricted to Myriam del V. Juárez, who won the last seat to be distributed but could have lost it with a swing of just 1.19 per cent of valid votes, and Silvia L. Moreta, who would have captured the seat with such a vote change.¹¹ That is, when the reference party is the UCR, Juárez is included in the analysis as a candidate who barely won a seat, to be compared to other UCR candidates who barely lost *in different elections*; while if the reference party is the PJ (or the governor’s party), Moreta is included in the sample, to be compared with candidates from the same party who won a seat by a small margin in another election.

We report sharp RD (i.e., intent-to-treat or ITT estimates), which require fewer assumptions than fuzzy ones (Cattaneo, Idrobo and Titiunik [forthcoming](#)). Following these authors, we fit a separate local linear regression to the outcome variable among all observations located within certain distance to the cutoff, employing a triangular kernel that gives more weight to observations closer to the cutoff, and clustering the observations by province.¹² The RD effect is the difference between the predicted value of the polynomial approaching the cutoff from above and that approaching it from below. The procedure minimizes the root mean squared error (RMSE) of the estimates; since this quantity is a function of the outcome variable, the bandwidth (and hence the number of observations) may vary depending on the outcome of interest.¹³

Results

Balance checks. We begin by showing that marginal winners and losers are comparable across a range of pre-treatment characteristics. Figure [A8](#) in the Appendix shows that the density of the running variable does not change discontinuously at the cutoff in any sample, and the p -values

¹¹Note that these values are symmetric by construction (Folke [2014](#):1368).

¹²We employed the `rdrobust` software implemented in R (Calonico, Cattaneo and Titiunik [2015b](#)).

¹³The bandwidth is *not* the region where observations are comparable (see Cattaneo, Titiunik and Vázquez-Bare [2017](#)). The same logic applies to the clustering by province, which affects the variance and thus the RMSE (see Cattaneo, Idrobo and Titiunik [forthcoming](#), sec. 4.4.2).

of 0.40 or higher imply that we cannot reject the null hypothesis that they come from the same distribution. In addition, Table A3 indicates that for a series of pre-treatment covariates, including the lagged version of the outcome variables, a female dummy, and a candidate's position in the party list, there are few systematic differences between candidates who fell above or below the cutoff. Only 3 of the 60 point estimates reported in the table – all corresponding to the midterm election dummy for either the governor's or the PJ sample – are statistically significant at the 0.05 level. Given our small sample sizes, these null findings may reflect low statistical power rather than true null effects (see below). Two facts point against this interpretation, however. On the one hand, most p -values are quite large: two-thirds of them are above 0.40. On the other, Figures A9 to A12 show that with some specific exceptions – notably the probability that a UCR candidate has previous elective experience – few variables seem unbalanced at the cutoff.

Graphical evidence. Figures 1 and 2 below examine the distribution of the outcome variables across the range of the running variable. The bins are constructed using the Integrated Mean Squared Error (IMSE)-optimal evenly-spaced method using polynomial regression (ESPR) proposed by Calonico, Cattaneo and Titiunik (2015a), with the size and hence the number of bins calculated separately at either side of the cutoff. The lines indicate the fit of a second-order polynomial regression estimated separately at each side of the cutoff, using a uniform kernel.

Figure 1 shows that in the all-province sample, candidates belonging to the governor's party or the PJ who barely win at t have a (much) higher chance of being renominated within the next four years. Marginal PJ incumbents are also more likely to serve as national legislators and to serve more elective terms in total. For the UCR, in contrast, most effects appear to be negative. The relationship is starker in small provinces:¹⁴ the first two columns of Figure 2 suggest that for candidates from the governor's party or the PJ, barely winning a legislative seat at t does increase

¹⁴The small-province sample excludes observations from Córdoba, Santa Fe, and the province and City of Buenos Aires, which elect 132 of the country's 257 deputies, but relatively few marginal legislators.

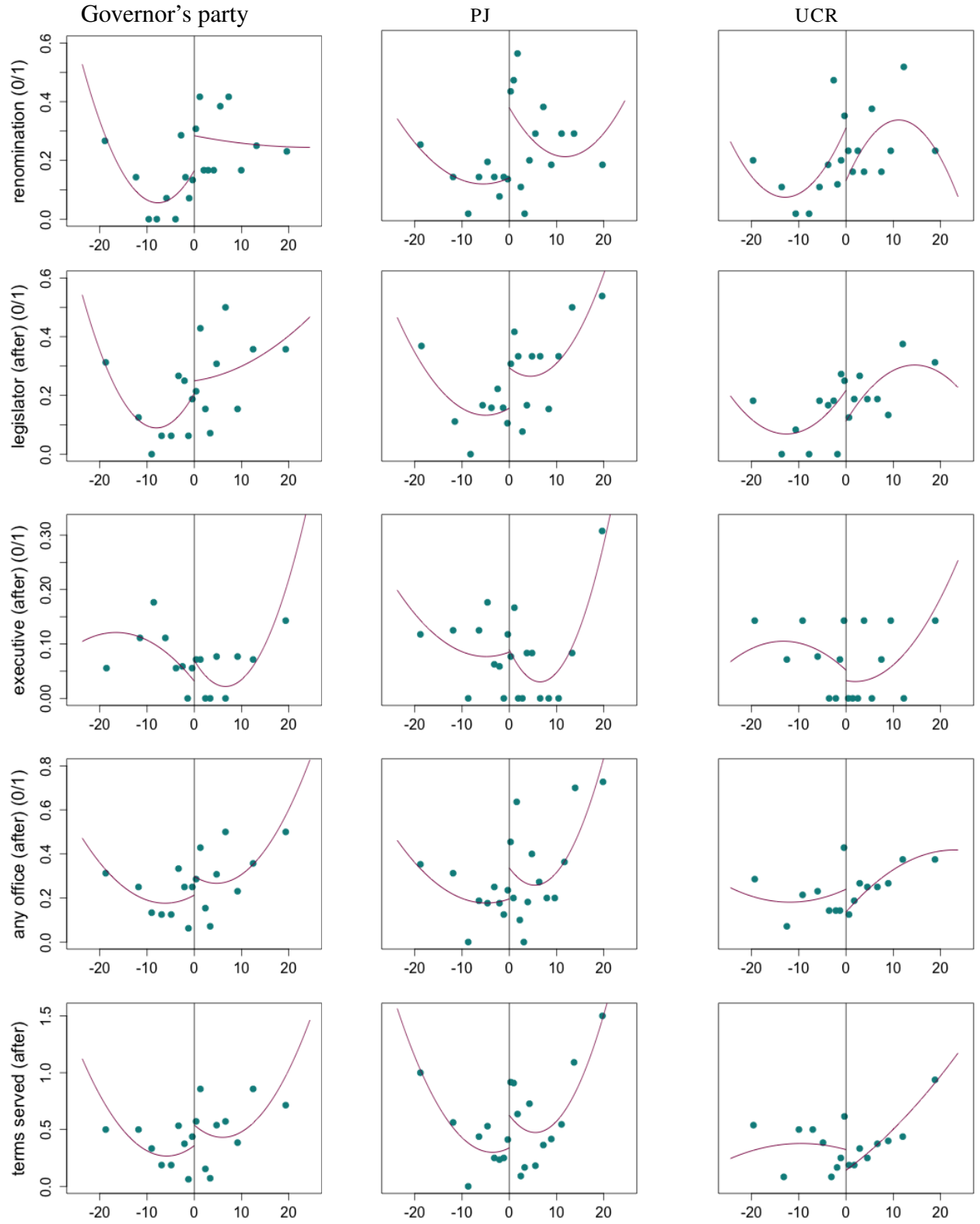


Figure 1: Mimicking variance RD plots with quantile-spaced bins (Calonico, Cattaneo and Titiunik 2015a) – All provinces. The lines indicate the fit of a second-order polynomial regression estimated separately at each side of the cutoff, using a uniform kernel.

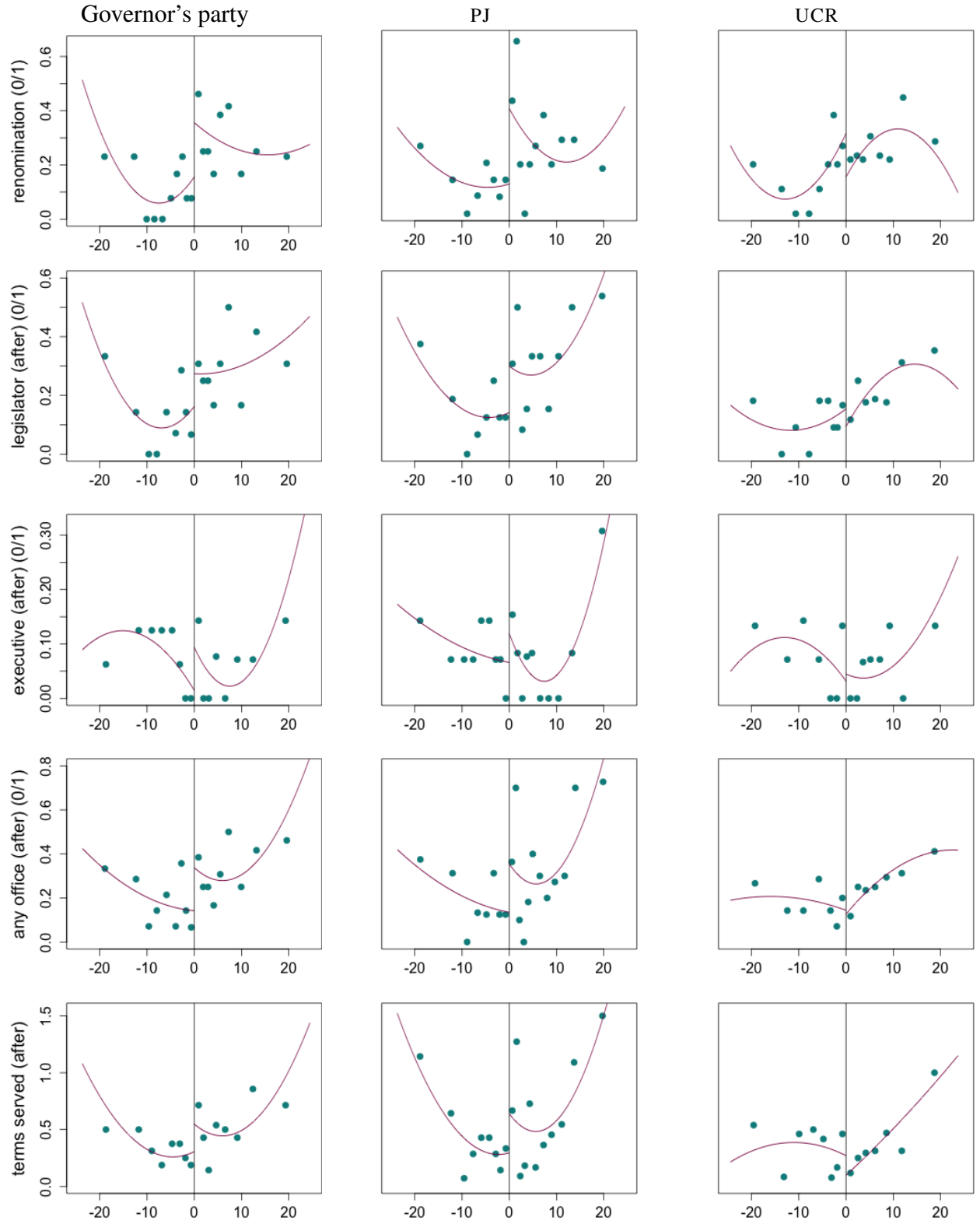


Figure 2: Mimicking variance RD plots with quantile-spaced bins (Calonico, Cattaneo and Titiunik 2015a) – Small provinces ($M \leq 5$) only. The lines indicate the fit of a second-order polynomial regression estimated separately at each side of the cutoff, using a uniform kernel.

the value of a politicians career at $t' > t$ for all outcomes, though it remains to be seen whether such differences are statistically significant. For the UCR, the effect is again negative for *renomination*, but appears to be zero for the remaining outcomes.

Main results. Table 2 presents the sharp RD estimates. Panel (a) reports the results for the all-province sample, while panel (b) restricts the analysis to small provinces. We find that marginal winners leverage their seat into a consolation prize in the future, especially in small provinces, though the effect is restricted to the PJ. In part, this reflects the fact that due to the limited number of observations – overall sample sizes are 265, 285 and 237 for the governor’s party, the PJ and the UCR, respectively – we can only detect relatively large effects. Indeed, the tests reported in Table A4 show that we have enough observations to detect an effect as large as a standard deviation of the outcome variable in the control group (SD_C) with 80% power, and effective power against such an effect is well above 0.80. We have too few observations to estimate half such an effect with the same power, however. In the PJ case, the absolute value of the estimated effects reported in Table 2 is above $\frac{SD_C}{2}$ for most outcomes, which means that nominal sample sizes are large enough to have 80% power against the effects we actually estimate. For the governor party’s and UCR samples, in contrast, the estimated effects are lower in size, and thus statistically insignificant estimates may be due to low power rather than to actual null effects.

The consolation prize story predicts that incumbent legislators should be more likely to seek reelection when they do not expect to capture another, more valuable position. Consistent with this claim, marginal PJ winners are between 37 and 49 percentage points more likely to be renominated than their marginal loser counterparts. The effect is also positive – though roughly half in size and only significant at the 0.10 level in the small-province sample – for the governor’s party. To put these numbers in perspective, Table A1b in the Appendix shows that less than a fifth of marginal candidates sought renomination within the next four years. These higher renomination rates translate into a positive effect on the probability that marginal winners will serve a new legislative term, though the effect sizes are cut by roughly two-thirds, and low power means that

Table 2: The effect of a legislative seat on a politician's career in Argentina, 1983-2011

	(a) All provinces					(b) Small provinces ($M \leq 5$)				
<i>renomination</i> (0/1)	est.	95% CI	<i>p</i> -val.	bwd.	N	est.	95% CI	<i>p</i> -val.	bwd.	N
Governor's	0.16	[-0.10:0.49]	0.19	7.36	88 80	0.26	[-0.06:0.66]	0.10	8.07	79 73
PJ	0.37	[0.17:0.67]	0.00	6.23	90 77	0.49	[0.18:0.97]	0.00	5.70	66 63
UCR	-0.13	[-0.45:0.18]	0.40	4.80	57 59	-0.07	[-0.54:0.39]	0.75	5.52	49 54
<i>legislator (after)</i> (0/1)										
Governor's	0.05	[-0.21:0.33]	0.67	8.81	100 89	0.19	[-0.03:0.51]	0.09	6.97	69 66
PJ	0.26	[0.02:0.58]	0.04	4.97	78 70	0.28	[-0.06:0.74]	0.10	6.10	68 65
UCR	-0.20	[-0.48:0.00]	0.05	4.29	54 53	-0.07	[-0.50:0.27]	0.56	5.47	48 53
<i>executive (after)</i> (0/1)										
Governor's	0.05	[-0.15:0.23]	0.69	4.80	73 62	0.14	[-0.08:0.41]	0.19	5.44	63 54
PJ	0.02	[-0.17:0.19]	0.91	6.78	93 81	0.13	[-0.05:0.38]	0.14	6.29	69 66
UCR	-0.17	[-0.42:0.03]	0.09	5.30	59 62	-0.17	[-0.49:0.07]	0.15	5.22	48 52
<i>any office (after)</i> (0/1)										
Governor's	0.12	[-0.17:0.51]	0.31	6.35	82 75	0.31	[0.04:0.70]	0.03	6.06	67 60
PJ	0.22	[-0.03:0.54]	0.08	5.28	82 73	0.36	[0.01:0.84]	0.04	5.87	67 65
UCR	-0.22	[-0.60:0.06]	0.11	6.08	63 68	-0.09	[-0.47:0.21]	0.45	6.31	54 59
<i>terms served (after)</i>										
Governor's	0.34	[-0.31:1.18]	0.25	6.53	83 76	0.48	[-0.31:1.52]	0.19	6.34	68 62
PJ	0.50	[-0.11:1.20]	0.11	6.46	92 80	0.66	[-0.22:1.77]	0.13	6.55	70 68
UCR	-0.41	[-1.00:-0.00]	0.05	4.56	56 58	-0.38	[-1.16:0.22]	0.18	5.92	52 58

Sharp RD estimates. The running variable is *vote change to last seat*. For each reference party, the sample is restricted to marginal candidates. We report conventional point estimates with robust CIs and *p*-values based on the MSE-optimal bandwidth proposed by Calonico, Cattaneo and Titiunik (2014). To calculate the estimates, we clustered observations by province and fitted a separate local linear regression at both sides of the threshold, with a triangular kernel. Reported number of observations corresponds to the *effective* sample size. In panel (a), overall sample size is $(142 + 123 = 265)$ for the governor's party, and $(149 + 136 = 285)$ and $(111 + 126 = 237)$ for the PJ and UCR, respectively. In panel (b), overall sample sizes are $(128 + 111 = 239)$, $(127 + 124 = 251)$ and $(100 + 116 = 216)$ for the governor's party, the PJ and the UCR, respectively.

in small provinces the estimates are only significant at the 0.10 level. Still, effect sizes are roughly comparable to the probability that a marginal legislator will serve an additional term, which hovers around 21-24 percentage points for the PJ and the governor's party (see Table A1b).

We find little support for the window-of-opportunity story, however. In the full sample, the effect of winning a seat on the probability of obtaining an executive position in the future is positive

but small – 5 pp. for the governor’s party, 2 pp. for the PJ – and far from being statistically significant. The estimates jump to a respectable 13-14 pp. in the small-province sample – doubling the probability that a marginal candidate will serve as an executive in the future (see Table A1b) – but neither effect is statistically significant due to low power. Indeed, Table A4 shows that in order to detect an effect as large as the one we report, the number of observations in the treated group should increase by 50-100%. To put it differently, it is not so much that we find evidence against the window-of-opportunity story (in small provinces), but rather that a positive effect, if it exists, is not large enough to be detected with the number of observations we have.

The last two sets of results confirm this. The estimates for *any office (after)* are generally larger in size and more reliable than those for serving as legislator or executive afterwards, especially in small provinces – a point that is also visible in Figure 2. This makes sense, as this variable combines both future legislators and executives, and the estimates are positive for both. On the other hand, estimates for the total number of (future) terms served show that, besides the term that begins at t , bare winners serve around half an additional legislative term in some other position, though the estimates are not statistically significant.

For the UCR, in contrast, all point estimates are negative, though only one – that for the number of future terms served in the all-province sample – is statistically significant at the 0.05 level.¹⁵ Indeed, Table A4 shows that the corresponding tests are underpowered, and the problem is especially marked in the small province sample, where actual sample sizes fall well below the values required to achieve 80% power against the estimates reported in Table 2.

Still, some effect sizes are quite large, especially in the full sample: –20 percentage points for the probability of serving as a legislator in the future, –17 pp. for the probability of gaining an executive seat, and 0.41 fewer terms served in the future. All three are statistically significant at the 0.10 level. This contradicts both the consolation prize and the window-of-opportunity stories. In contrast, the estimates for *renomination* are much closer to zero, suggesting that the effect is

¹⁵The p -value for *legislator (after)* is 0.05, but only due to rounding; note that the 95% CI does include zero.

not being driven by the fact that bare UCR winners are shunning executive positions in favor of a legislative career. Rather, the results indicate that UCR candidates who barely make it into Congress become less likely to develop *any* kind of political career afterwards. Our – admittedly speculative – interpretation is that UCR legislators are disadvantaged because they are less likely to count with the support of a copartisan governor than their Peronist counterparts (Calvo and Murillo 2004). This both makes them “natural” candidates for an executive position, discouraging the pursuit of reelection, but also makes them unlikely to win a different office. The point is not only that the governor’s party – generally the PJ – is advantaged in terms of material or institutional resources, but also that it has a larger and better pool of candidates from which to draw on. In contrast, opposition parties often have few good candidates, and thus must nominate them for valuable positions – such as the provincial governorship – that they are unlikely to win. Consistent with this story, Table A1b shows that 43% of marginal UCR candidates occupied the top position of the party list, three to four times more frequently than their peers from the governor’s party (9%) or the PJ (13%). Unlike their counterparts from other parties, top-ranked UCR politicians are far from sure of winning even a *legislative* seat. Marginal winners and losers who belong to the same party are comparable, but marginal winners and losers from different parties need not be, in a way consistent with the negative incumbency effects found for UCR politicians.

Additional results. The results reported in Appendix F further reinforce these points. Table A7 shows that disaggregating the *executive (after)* variable between mayors and non-mayors hardly changes the results for the governor’s party or the PJ, though the UCR results are mostly driven by executive positions other than mayor – a strong enough effect to be statistically significant at the 0.01 level. Alternatively, a position in the Senate – which we originally coded as a legislative one – is clearly more valuable than one in the Chamber. However, distinguishing between positions that are roughly equivalent to being serving as national deputy – member of the Mercosur Parliament or the 1994 constituent assembly – and those that can be considered more valuable – all executive positions plus national senator – does little to change the results. The small sample sizes mean that

these results are rarely statistically significant, but the point is that they are not obviously driven by our coding of elected offices.

The plausibility of the consolation prize story is further reinforced by the fact that the results are very similar if we restrict the sample to candidates who had no previous experience as executives or national legislators (Table A8),¹⁶ or who were running for the first time (Table A9). To the extent that these are less weighty politicians, the pull of reelection as a consolation prize should be comparatively stronger for them. Indeed, despite the considerable reduction in sample size, the point estimates are very similar in size, and those for first-time candidates remain statistically significant. Furthermore, the negative estimates for the UCR are substantially attenuated; those for inexperienced candidates even become positive, though far from significant.

Nineteen of Argentina's twenty-four provinces elect an odd number of deputies, and thus have different district magnitudes every two years (Lucardi 2019). This may induce ambitious politicians to strategically run in some election years in order to maximize their chances of success. Consider again the case of Catamarca. In the 2013 election summarized in Table 1, the two largest parties were separated by less than 2,500 votes, and thus there was a close competition for the third seat between the second-placed candidate in each list. But had district magnitude been 2 instead of 3 – as was the case in 2011 or 2015 – the second-placed candidates in either list would have stood little chance of being elected. To the extent that this promotes self-selection, we may end up comparing high-quality winners in elections held with magnitude 3 against low-quality losers in elections held under magnitude 2; it would be the quality of the candidates, rather than the fact of being elected, that makes the difference.¹⁷ Thus, Tables A10 and A11 look at elections held under small or large magnitudes, respectively, but only in provinces with an odd number of representatives. Interestingly, candidates elected in small-magnitude years are much more likely to be renominated – with a p -value of 0.06 despite the tiny sample size – but are comparatively unsuc-

¹⁶Though they may have served as provincial legislators or municipal councillors.

¹⁷We thank an anonymous reviewer for suggesting this possibility.

cessful in getting reelected or jumping to other positions. The negative effects for the UCR tend to be concentrated in these small-magnitude elections as well. In contrast, candidates from the governor's party or the PJ who are elected in large-magnitude years are a whopping 39-56 pp. more likely to capture any other office in the future, and serve roughly one full elective term afterwards – the latter effect being significant at the 0.10 level. These results are compatible both with the claim that there is strategic selection into large-magnitude elections, and with the possibility that marginal candidates elected in large-magnitude elections have an easier time getting elected again, though we do not want to make much of these tests because they are certainly underpowered. They do indicate, however, that our results are not being driven by a comparison between high-quality candidates running in large-magnitude elections and low-quality ones contesting low-magnitude races.

Tables A12 and A13 disaggregate candidates by gender. Again, the small samples render most estimates insignificant, and we do not want to read much into them. Still, it is worth noting that the positive effect of incumbency on *renomination* is much larger in magnitude – and generally significant – for women. This is consistent with a consolation prize story: since they tend to be disadvantaged in terms of access to executive positions (Franceschet and Piscopo 2014), women tend to invest somewhat more developing a legislative career (Lucardi and Micozzi 2016).

Robustness checks. Appendix G shows that these results are robust to a wide array of specification. First, Figures A13 to A15 show that the estimates reported in Table 2 are quite stable around the optimal bandwidth choice reported in Table 2. Second, Tables A14 and A15 report fuzzy RD estimates that account for the fact that despite substantial compliance (see Appendix C), a handful of bare winners did not assume office, but several bare losers did following the death or resignation of a colleague. But regardless of whether we weight these individuals equally or according to the time they effectively spent in office, the point estimates change little.

Third, and in line with the balance checks reported in Appendix D, Table A16 shows that controlling for gender, prior experience, election characteristics and position in the party list does

not change the results; if anything, the confidence intervals get smaller, as they should, which results in a handful of estimates becoming statistically significant. Interestingly, the estimates that do change are those for the UCR, which almost invariably become smaller in size and are no longer significant, suggesting that part of the explanation for the negative results in Table 2 has to do with the imbalanced candidate characteristics seen in Table A3 and Figures A9 through A12. That said, comparing Tables A4 and A5 suggests that adding controls provides little benefits – and even worsens the situation – in terms of statistical power, so we do not want to read much into this. Similarly, fitting a second-order polynomial instead of a local linear regression results in similar (Table A17) but underpowered estimates (Table A6). Lastly, employing a single-party version of the running variable – i.e., only taking into account how a party’s vote share should change for it to win or lose a seat (Cox, Fiva and Smith [forthcoming](#)) – also produces similar estimates, though the CIs are predictably wider (Table A18).

Conclusion

From the perspective of a progressively ambitious politician, how valuable is a seat in the Argentine Chamber of Deputies? We considered two possibilities: that a seat may provide a window of opportunity for jumpstarting a long-term career; or that it may provide a consolation prize when other possibilities are closed. We found little evidence of the former, but considerably support for the latter, though subject to two caveats: (a) the effect is driven by the PJ; and (b) several estimates are statistically insignificant due to low power. A potential explanation, which we leave for future research, is that Argentine deputies, in addition to being relatively well paid, may manage to obtain plum appointments in the private (or public) sector after their term is over, as in Britain or Russia (Eggers and Hainmueller 2009; Remington 2008). Indeed, term-limited governors and mayors often run for a legislative position at the end of their term, implying that they do see some value in holding a legislative office, at least when other alternatives are precluded. The fact that

the renomination effect is much stronger for women, for whom winning an executive position is harder, further reinforces the point.

That said, the fact that the analysis is limited to marginal candidates and the effect only appears for a subset of them call into question the external validity of the findings. If marginal candidates are systematically different from the rest, our results may not apply to the high-quality politicians who are generally placed at the top of party lists.¹⁸ Nonetheless, this does not seem to be an especially serious issue. Tables A8 and A9 show that the size of the effects is similar for unexperienced and/or first-time candidates, though the reduced sample size makes the estimates insignificant. Furthermore, most Argentine politicians seeking a seat in the Chamber of Deputies are not former (vice-) presidents, (vice-) governors, or mayors from important cities (see Table A1): they are closer to the marginal candidates studied in this paper than to the “big fish” that head the legislative lists of large parties. In any case, the advantage of holding a seat should be stronger for higher-quality legislators, and thus our estimates should be interpreted as a lower bound.

Our interpretation of the negative effects for the UCR is that the PJ controlled two thirds of provincial governorships during this period, which both boosted the electoral performance of its candidates and may have forced UCR politicians to run for offices they had little chance of winning. In addition, internal party rules mean that UCR legislators face a higher hurdle at obtaining renomination than their peers (Caminotti, Rotman and Varetto 2011). Nonetheless, other explanations are possible. UCR candidates benefitted disproportionately from national-level swings in some elections (1983, 1985, 1997 and 1999), raising the possibility that bare winners and losers in those years may not be comparable to the party’s bare losers and winners in other years. Alternatively, voter backlashes due to the party’s poor economic performance in 1989 and 2001 (Torre 2003; Calvo and Escolar 2005) may have hurt its candidates particularly badly. We are unable to adjudicate between these explanations, but they suggest interesting questions for further research.

¹⁸Of course, this is a feature of RD designs more generally.

In this study we presented an innovative approach to estimate the value of a legislative seat in environments where careerism is dynamic and multilevel. We hope this will help extend the use of RD techniques to PR systems, which account for roughly half of (democratic) national lower house elections since 1950 (Bormann and Golder 2013, Figure 3). Previous work has employed this approach to study the connection between partisanship and policy (Folke 2014) as well as the formation of political dynasties (Fiva and Smith 2018), but the methodology is useful for causally evaluating individual-level careers and behavior in environments where progressive ambition is the norm as well. In this paper we showed that a congressional seat in Argentina may not be the elixir of a political trajectory, but legislators' observed behavior suggests that they consider it a better option than being left with nothing. Further studies can determine whether similar results apply in countries like Brazil, Chile, Uruguay, Mexico or Colombia, focusing on marginal candidates rather than restricting the sample to elected legislators, as the literature on political careers in Latin America has implicitly done so far.

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Online Appendix

- (1) Section **A** describes our sources, explains how we merged our datasets, and presents the descriptive statistics.
- (2) Section **B** explains how we calculated the running variable in a PR setting and provides the corresponding R code.
- (3) Section **C** reports compliance with treatment assignment.
- (4) Section **D** presents the balance checks.
- (5) Section **E** reports power and sample size calculations.
- (6) Section **F** reports additional results with different outcome variables and alternative subsamples.
- (7) Section **G** reports the robustness checks.

A Data and descriptive statistics

Sources. We constructed our dataset from three sources:

- (1) Data on *electoral returns* come from Tow (N.d.). This data is aggregated by province-year-list.¹
- (2) We assembled a list of *candidates* running for national deputy between 1983 and 2015. For 1995-2015, we have complete data from the Ministry of the Interior.² Candidate data for 1983-1993 comes from photographs of party ballots collected by one of the authors (Micozzi 2009). This data is only available for major parties – the PJ and the UCR, plus a handful of relevant provincial parties –, but this makes little difference in practice because our analysis is restricted to large-party candidates, and party switching was uncommon before 2003.
- (3) A full list of *politicians* who served as (vice-)president, national minister, provincial (vice-)governor, national senator, national deputy, mayor, member of the 1994 constituent assembly or member of the supra-national Mercosur Parliament between 1983 and 2015 ($n \approx 11,000$).³ We assembled this data from different sources. The list of presidents and governors comes from rulers.org. The list of cabinet ministers who served under each president is from Wikipedia, where we also obtained the full names of all vice-presidents. The websites of the Senate⁴ and the Chamber of Deputies⁵ provide a list of all former office holders, coupled with

¹Sometimes two parties present the same list of candidates under different labels (these so-called “*listas espejo*” or “mirror lists.”) Since these are pooled together for seat allocation purposes, we add up their vote totals and treat them as a single list.

²We are grateful to Ernesto Calvo for generously sharing this data with us.

³Comprehensive data on provincial legislators or municipal councilors is not available.

⁴<http://www.senado.gov.ar/>.

⁵<https://www.hcdn.gob.ar/>.

the specific dates in which they assumed and left office.⁶ The list of members of the 1994 constituent assembly is available in the Senate’s website, whereas the website of the Mercosur Parliament⁷ lists both its current and former office holders since the body was established in 2007. To construct the full list of vice-governors and mayors, we used the photographs of party ballots assembled by Micozzi (2009).

Merging datasets. Merging the first two datasets was straightforward. Since the data on candidates includes their position in the list, we could easily determine which candidates were elected to the Chamber and which ones were next in line to receive a seat. We also compared the names of elected and actual deputies to identify individuals who were elected but did not assume office.

We merged the candidate and career data using name matching within the same province. While we would have preferred to use a unique identification number,⁸ we think that the potential for measurement error is relatively low. First, Argentinean surnames are pretty diverse; while some are obviously more common than others, most politicians have Spanish or Italian surnames inherited from ancestors that arrived in the late XIXth or early XXth century. The point is that there are no towns or cities where everybody has the same surname, and thus when matching within the same province it is unlikely that two individuals with the same (relatively rare) surname are unrelated. Second, while Argentines use a single surname – unlike other Latin American countries, where double surnames are common – most people have a first and middle name, and thus we could match on both of them. Sons often have the same first name as their father’s, but having both the first and middle name is rarer.⁹ Thus, whenever two individuals from the same

⁶In the case of the Chamber, we checked consistency with candidate names.

⁷<https://www.parlamentomercosur.org/>.

⁸All Argentines have a unique ID number, but these are not available for either candidates or elected officials.

⁹Daughters also use their father’s – rather than their mother’s – last name.

province provide an exact match in terms of first, middle and last name, we are pretty confident that she is the same person.¹⁰

We were more concerned about the same individual appearing under different names in different datasets, chiefly because the same individual could appear with her first name in one dataset but the first and middle names in another – or with the first name and the initial for the middle name versus the full first and middle names. To deal with this issue, we double-checked the list of names for each province. Whenever two different individuals had the same first and last name but the second name was missing from one of the records, we examined when they had ran for office and in what position they served, to see if they could conceivably be the same person. For example, if the individual in question had ran in consecutive elections under the same party label and/or had served in an elected position (e.g., as mayor) and subsequently sought a legislative office, we coded her as the same individual. When there was a long time window between her appearances (e.g., mayor in 1983-1987, but legislative candidate in 2005), we googled the name to see if it she was the same person, or if her age meant that she could conceivably had been a mayor two decades before, etc. Still, we may have missed some individuals; note, however, that measurement error is most likely to come from coding the same individual as different people – because the middle name is missing in one dataset – than from mistakenly identifying two different individuals as being the same person.

Coding gender. To determine a candidate's gender, we listed all unique first names and then coded them manually as male or female. Spanish first names are very good at discriminating gender, and when they are not we could use second names.¹¹ In the few cases in which the gender of the

¹⁰A few politicians began their careers in one province and continued it in another. Most of these began their career in a small province, achieved national prominence, and subsequently ran for a legislative seat in the city or the province of Buenos Aires. Since they are national figures, we are pretty sure to have identified most of them.

¹¹For example, “*Carlos María*” is a relatively common combination for *male* names; but unless accompanied by a unambiguously male name such as “*Carlos*,” “*María*” is a quintessentially female name.

candidate's name was unclear (e.g., because it was a rare first name of ambiguous gender, or if we only had the initial of the first name), we googled the person in question to determine if (s)he was male or female.

Descriptive statistics. Table A1 presents the descriptive statistics for the data, distinguishing between the full sample of candidates and that of marginal candidates. In all cases, we report separate values for the governor's party, the PJ, and the UCR.

Quantile-spaced plots. Figures 1 and 2 in the text show the distribution of the outcome variables using mimicking-variance RD plots with quantile-spaced bins. Figures A1 and A2 are similar, but employ evenly-spaced instead of quantile-spaced bins.

Table A1: Descriptive statistics

(a) Full sample(s)	Governor's party candidates (N = 3346)				PJ candidates (N = 3643)				UCR candidates (N = 3663)			
	mean	sd.	min	max	mean	sd.	min	max	mean	sd.	min	max
<i>renomination</i> (0/1)	0.15	0.36	0	1	0.14	0.35	0	1	0.12	0.32	0	1
<i>legislator (after)</i> (0/1)	0.14	0.35	0	1	0.14	0.35	0	1	0.09	0.29	0	1
<i>executive (after)</i> (0/1)	0.06	0.24	0	1	0.07	0.25	0	1	0.03	0.18	0	1
<i>any office (after)</i> (0/1)	0.18	0.38	0	1	0.18	0.38	0	1	0.11	0.32	0	1
<i>terms served (after)</i> (0/1)	0.31	0.83	0	7	0.34	0.9	0	8	0.19	0.63	0	8
<i>assumed office</i> (0/1)	0.34	0.48	0	1	0.33	0.47	0	1	0.24	0.42	0	1
<i>time served</i>	0.29	0.43	0	1	0.27	0.42	0	1	0.2	0.38	0	1
<i>vote change to last seat</i>	1.92	15.14	-40.19	46.5	1.12	14.92	-39.05	46.5	-3.26	15.08	-46.5	39.05
<i>bare winner</i> (0/1)	0.1	0.3	0	1	0.1	0.3	0	1	0.11	0.31	0	1
<i>bare loser</i> (0/1)	0.11	0.31	0	1	0.11	0.31	0	1	0.09	0.28	0	1
<i>legislator (before)</i> (0/1)	0.13	0.34	0	1	0.11	0.31	0	1	0.08	0.28	0	1
<i>executive (before)</i> (0/1)	0.1	0.3	0	1	0.08	0.27	0	1	0.06	0.23	0	1
<i>any office (before)</i> (0/1)	0.2	0.4	0	1	0.16	0.37	0	1	0.13	0.33	0	1
<i>terms served (before)</i>	0.35	0.83	0	6	0.28	0.77	0	6	0.21	0.65	0	5
<i>female</i> (0/1)	0.32	0.47	0	1	0.31	0.46	0	1	0.3	0.46	0	1
<i>president's party</i> (0/1)	0.65	0.48	0	1	0.71	0.45	0	1	0.26	0.44	0	1
<i>position in list</i>	8.96	10.07	1	52	9.12	10.19	1	59	9.52	10.9	1	73
<i>position in list: #1</i> (0/1)	0.11	0.32	0	1	0.11	0.31	0	1	0.11	0.31	0	1
<i>position in list: #2</i> (0/1)	0.11	0.32	0	1	0.11	0.31	0	1	0.11	0.31	0	1
<i>position in list: #3</i> (0/1)	0.11	0.32	0	1	0.11	0.31	0	1	0.11	0.31	0	1
<i>position in list: #4</i> (0/1)	0.11	0.32	0	1	0.11	0.31	0	1	0.11	0.31	0	1
<i>midterm election</i> (0/1)	0.5	0.5	0	1	0.45	0.5	0	1	0.45	0.5	0	1
<i>district magnitude</i>	11.78	12.49	2	35	12.58	14.09	2	70	12.98	14.53	2	70
<i>large magnitude</i> (0/1)	0.55	0.5	0	1	0.56	0.5	0	1	0.56	0.5	0	1
(b) Marginal candidates	(N = 265)				(N = 285)				(N = 237)			
<i>renomination</i> (0/1)	0.18	0.39	0	1	0.19	0.39	0	1	0.2	0.4	0	1
<i>legislator (after)</i> (0/1)	0.21	0.41	0	1	0.24	0.42	0	1	0.18	0.39	0	1
<i>executive (after)</i> (0/1)	0.07	0.25	0	1	0.08	0.27	0	1	0.07	0.25	0	1
<i>any office (after)</i> (0/1)	0.26	0.44	0	1	0.27	0.44	0	1	0.24	0.43	0	1
<i>terms served (after)</i> (0/1)	0.43	0.88	0	5	0.52	1.07	0	8	0.37	0.87	0	8
<i>assumed office</i> (0/1)	0.58	0.49	0	1	0.6	0.49	0	1	0.59	0.49	0	1
<i>time served</i>	0.51	0.47	0	1	0.51	0.46	0	1	0.53	0.47	0	1
<i>vote change to last seat</i>	-0.37	8.46	-23.71	24.48	-0.07	8.36	-23.71	24.48	0.48	8.78	-24.48	23.71
<i>base winner</i> (0/1)	0.54	0.5	0	1	0.52	0.5	0	1	0.47	0.5	0	1
<i>bare loser</i> (0/1)	0.46	0.5	0	1	0.48	0.5	0	1	0.53	0.5	0	1
<i>legislator (before)</i> (0/1)	0.19	0.39	0	1	0.17	0.38	0	1	0.23	0.42	0	1
<i>executive (before)</i> (0/1)	0.13	0.34	0	1	0.11	0.32	0	1	0.11	0.31	0	1
<i>any office (before)</i> (0/1)	0.3	0.46	0	1	0.25	0.43	0	1	0.31	0.46	0	1
<i>terms served (before)</i>	0.44	0.83	0	5	0.4	0.86	0	5	0.51	0.96	0	5
<i>female</i> (0/1)	0.41	0.49	0	1	0.35	0.48	0	1	0.21	0.41	0	1
<i>president's party</i> (0/1)	0.59	0.49	0	1	0.68	0.47	0	1	0.37	0.48	0	1
<i>position in list</i>	2.87	2.7	1	21	2.92	3.03	1	31	2.4	3.22	1	38
<i>position in list: #1</i> (0/1)	0.09	0.29	0	1	0.13	0.34	0	1	0.43	0.5	0	1
<i>position in list: #2</i> (0/1)	0.52	0.5	0	1	0.47	0.5	0	1	0.32	0.47	0	1
<i>position in list: #3</i> (0/1)	0.26	0.44	0	1	0.23	0.42	0	1	0.12	0.32	0	1
<i>position in list: #4</i> (0/1)	0.05	0.22	0	1	0.09	0.29	0	1	0.04	0.2	0	1
<i>midterm election</i> (0/1)	0.5	0.5	0	1	0.45	0.5	0	1	0.48	0.5	0	1
<i>district magnitude</i>	4.34	5.13	2	35	4.93	6.45	2	70	4.64	6.43	2	70
<i>large magnitude</i> (0/1)	0.5	0.5	0	1	0.51	0.5	0	1	0.47	0.5	0	1

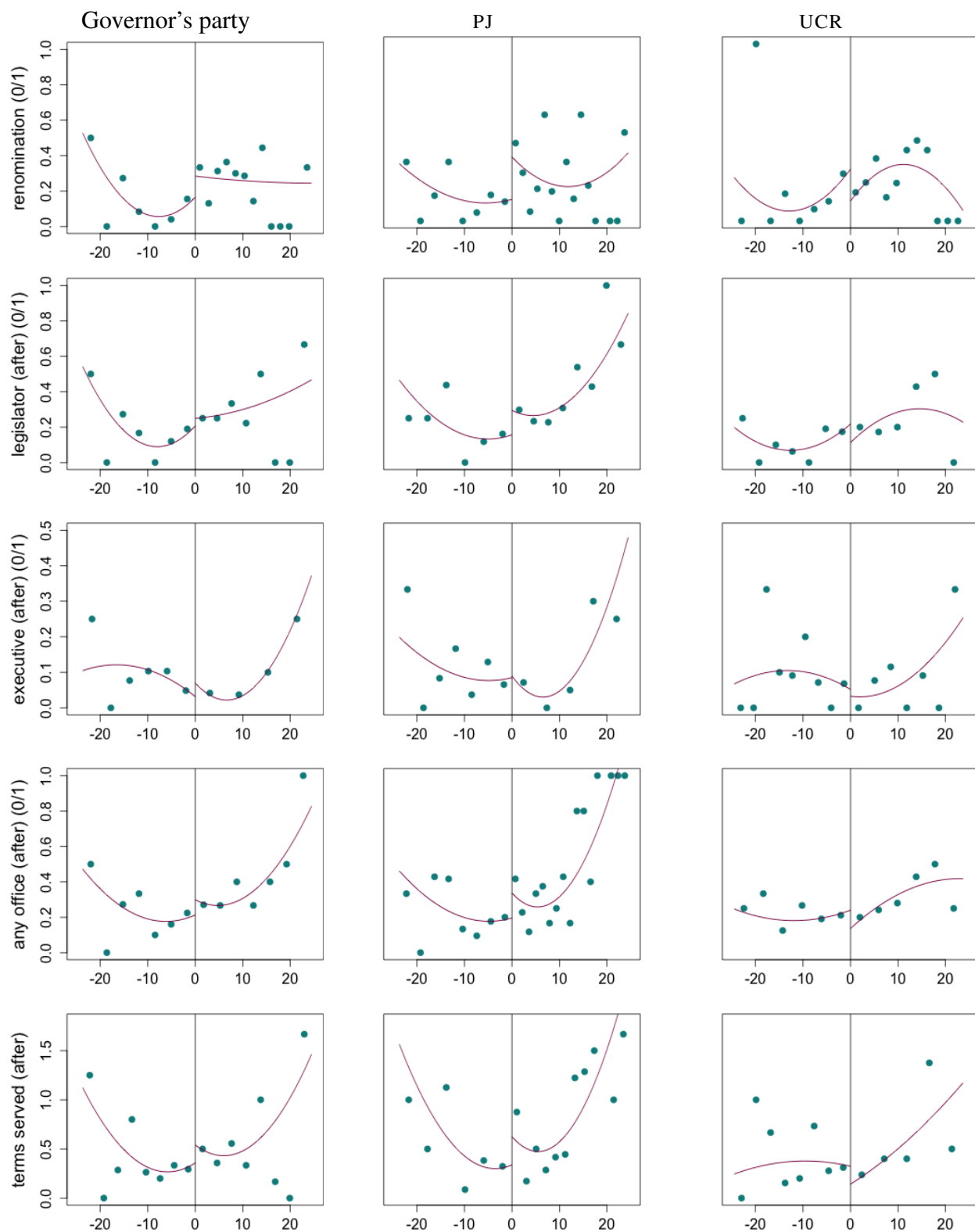


Figure A1: Mimicking variance RD plots with evenly-spaced bins (Calonico, Cattaneo and Titiunik 2015a) – All provinces. The lines indicate the fit of a second-order polynomial regression estimated separately at each side of the cutoff, using a uniform kernel.

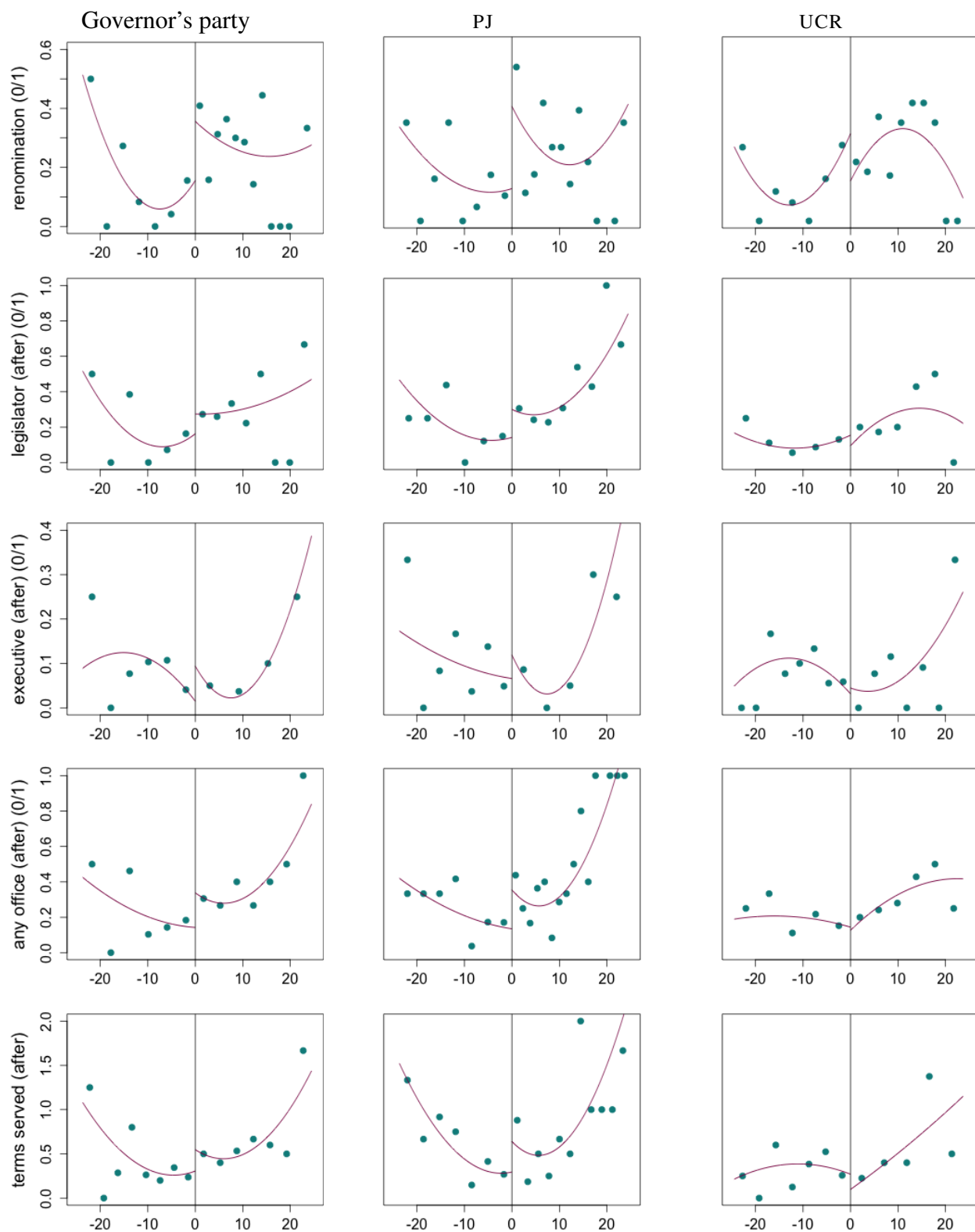


Figure A2: Mimicking variance RD plots with evenly-spaced bins (Calonico, Cattaneo and Titiunik 2015a) – Small provinces ($M \leq 5$) only. The lines indicate the fit of a second-order polynomial regression estimated separately at each side of the cutoff, using a uniform kernel.

B Calculating the running variable in a PR system with d'Hondt

Initial considerations. In a regression discontinuity (RD) design, the running variable (henceforth RV) is the variable that determines assignment to treatment status. Observations whose value of the RV is above a certain cutoff receive treatment (or a higher probability of receiving treatment), while observations below the cutoff do not (or have a lower probability of receiving treatment). When determining incumbency status in single-member-district (SMD) elections, in which district magnitude (M) equals one, the RV is typically a candidate's (or party's) margin of victory in the election: candidates (parties) whose margin of victory is above 0 get treated – become incumbents – while those with a negative margin enter the control group.

In closed-list PR systems like the one used in Argentina, calculating the running variable is complicated for two reasons.¹² First, in practice closed-list PR means $M > 1$, i.e. there are multiple incumbents, and the value of the RV may be different for each of them. Second, while in a SMD election only the winning candidate or party wins seats, in closed-list PR elections typically

¹²In a closed-list PR system, whenever a party wins an additional seat, the identity of the *individual* receiving that seat is perfectly determined by the ordering of the party list. Formally, if a party P that received $s \geq 0$ seats wins an additional one, this seat will correspond to the individual located in the $s + 1$ th position of party P 's list. In other words, an individual candidate can only receive a seat if his or her party wins an additional seat. In contrast, in an open-list PR system, a formula first determines how many seats correspond to each party, and then for every party P the most voted S_P individuals within each party receive a seat. Thus, an individual candidate may win an additional seat if either (a) he or she receives enough additional *personal* votes to surpass the previously most voted candidate in his or her party, even though the distribution of votes between parties remains unchanged; or (b) his or her party receives enough additional votes to win an additional seat, *even if all of those preference votes go to rival candidates within the same party* (see also Kotakorpi, Poutvaara and Terviö 2017). Of course, to the extent that one is interested in calculating the allocation of seats *between parties* rather than the incumbency status of individual candidates, the same considerations discussed here apply to open-list systems.

multiple parties receive seats, and thus one party may grab a seat from another without necessarily surpassing it in votes. For example, if $M = 6$ and the distribution of seats is 4-2-0, then the third-placed party may win additional votes to capture a seat from the first-placed one so that the new distribution of seats will be 3-2-1, yet the identity of the most voted party remains unchanged. In other words, in a closed-list PR system what matters is not which party receives the most votes, but which one is closest to winning – or losing – the last seat allocated in the district.¹³ This is problematic because the number of seats received by a party “is affected by the votes of *all* parties” (Folke 2014:1366; emphasis added). That is, party *A* may win (lose) an additional seat because its vote total increases (or decreases); but also if its vote total remains unchanged, provided that other parties’ vote totals vary.

To see this point, consider the following example, based on the vote distribution that was actually observed in the Argentine province of Catamarca in 2013:¹⁴

party	votes	$d_1 = 1$	$d_2 = 2$	$d_3 = 3$
Unión Cívica Radical (UCR)	79,512.00	79,512.00	39,756.00	26,504.00
Partido Justicialista (PJ)	77,148.00	77,148.00	38,574.00	25,716.00
Frente Tercera Posición	36,997.00	36,997.00	18,498.50	12,332.33
Partido Obrero	5,044.00	5,044.00	2,522.00	1,681.33

Highest-averages PR formulas distribute seats between parties by dividing each party’s vote total by a set of divisors d_1, d_2, \dots, d_M , where M is the total number of seats to be distributed, and then the M largest quotients are awarded a seat. In the case of the d’Hondt formula used in Argentina, the corresponding divisors are 1, 2, 3, \dots, M . In the previous example, $M = 3$, and thus $d_1 = 1$, $d_2 = 2$ and $d_3 = 3$. The largest quotient is 79,512, and therefore the first seat goes to the UCR; the

¹³In contrast, in a SMD election the winning candidate or party is necessarily the one that received the last seat to be distributed, while the runner-up is the next in line to receive an additional seat.

¹⁴This is the same example presented in Table 1 in the text.

second-largest is 77,148 and thus the second seat goes to the PJ. The next quotient is 39,756, and thus the UCR receives an additional seat. Now consider what should happen for the UCR to win all three seats at stake. One possibility is to increase its vote total to 231,444, in which case it will triplicate the PJ's total. Alternatively, the UCR may also win all seats if the vote totals of the PJ and the Frente Tercera Posición decreased by 50,644 and 10,493 respectively, in which case the new distribution of votes would be $\{79,512; 26,504; 26,504; 5,044\}$. This second scenario involves a far smaller vote change than the former, even though the UCR's vote total remains unchanged.

Following Folke (2014), our RV is *vote change to last seat*, defined as the minimum number of votes that must change for a party/list to win (or lose) an additional seat, normalized by the total number of valid votes cast.¹⁵ Formally, let v_p and s_p indicate the number of votes and seats received by party $p \in \{1, 2, 3, \dots, P\}$, respectively. Thus, $V = \sum_{p=1}^{p=P} v_p$ and $S = \sum_{p=1}^{p=P} s_p$ indicate the total number of (valid) votes and seats in the election. Let $f(\mathbf{V}_p, S)$ be a function determining how votes are translated into seats, so that $s_p = f(\mathbf{V}_p, S)$. $f(\mathbf{V}_p, S)$ may be, for example, the d'Hondt or the Sainte-Laguë formula. Define the distance between two vote vectors, $\mathbf{V}_p^0 = \{v_1^0, v_2^0, v_3^0, \dots, v_p^0\}$ and $\mathbf{V}_p^1 = \{v_1^1, v_2^1, v_3^1, \dots, v_p^1\}$, as the sum of their absolute vote differences, i.e.

$$d(\mathbf{V}_{pi}^0, \mathbf{V}_{pi}^1) = \sum_{p=1}^{p=P} |v_p^1 - v_p^0| \quad (1)$$

¹⁵In Cox, Fiva and Smith's (forthcoming) terminology, we employ a multi-party measure normalized by the total number of votes cast in the district. In contrast, Blais and Lago (2009) and Grofman and Selb (2009) propose single-party measures – they focus on the vote total of the party of interest, keeping all other parties' votes constant – and normalize by the number of votes per seat. Despite being more computationally intensive to calculate, multi-party measures are both more precise – they indicate the *exact* minimum number of votes that must change for a party to win (or lose) a seat – and thus always return values that can be smaller or equal, but never larger, than single-party measures (see for example the left column of Figure 4 in Cox, Fiva and Smith forthcoming).

The *minimal distance to a seat change* for party p , V_p^Δ , is thus defined as the minimum number of votes that must change for that party to win or lose an additional seat:

$$V_p^\Delta \equiv \operatorname{argmin}(d(\mathbf{V}_p^0, \mathbf{V}_p^1) \text{ s.t. } [f(\mathbf{V}_p^0, S) \neq f(\mathbf{V}_{pi}^1, S)] \wedge [s_p^0 \neq s_p^1])$$

(see Folke 2014:1365-8). Since vote totals differ across elections, this value is normalized by the total number of valid votes to express it as a share of percentage. Note that the change in votes for *all* parties is being considered; if a party loses n votes that go to another party, then the distance to seat change is $2n$ (Folke 2014:1368). This is consistent with standard practices in RD studies: if a party wins an election with 55% of the vote against another's 45%, the margin of victory is 10 percentage points, not 5.

*Calculating the minimal distance to a seat change.*¹⁶ In practice, calculating the minimal distance to a seat change is problematic because the number of possible vote combinations is too large. Thus, we again follow Folke (2014, online appendix) and first calculate the comparison numbers for every party contesting an election, greatly reducing the possible number of possible combinations that must be considered.

The *comparison number* for the *next* seat assigned to party p , $c_p(s_p)$, is

$$c_p(s_p) = \frac{v_p}{1 + s_p},$$

where s_p is the number of seats received by party p , and v_p indicates its vote total. In the example above, the comparison numbers for the next seat to be received by a party are highlighted in *red*:

$$\{26,504; 38,574; 36,997; 5,044\}$$

¹⁶This closely follows section 2 of Folke's (2014) online appendix (see <http://onlinelibrary.wiley.com/doi/10.1111/jeea.12103/abstract>).

Similarly, the comparison number for the *last* seat received by a party is defined as

$$c_p(s_p - 1) = \frac{v_p}{1 + (s_p - 1)} = \frac{v_p}{s_p}$$

These are highlighted in *blue*: 39,756 for the UCR and 77,148 for the PJ. Note that the comparison number for the next seat is undefined for parties that won all seats at stake, while the comparison number for the last seat is only defined for those parties that received at least one seat.

The comparison numbers can then be plotted along a common line, as in Figure A3:

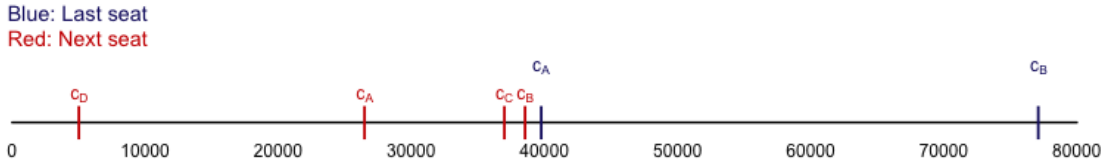


Figure A3: Comparison numbers for all parties participating in the 2013 election in Catamarca. Party labels: A: UCR; B: PJ; C: Frente Tercera Posición; D: Partido Obrero.

This underscores three things. First, the comparison numbers for the last seat received by any party are always larger than the comparison numbers for the next seat to be received by any party. Second, there is no fixed threshold that determines when a party will win or lose a seat; rather, a party wins an additional seat when its comparison number for the next seat becomes larger than the comparison number for the last seat received by another party, which makes intuitive sense as some party can only win a seat at the expense of another. To put it differently, for party *A* to win a seat at the expense of party *B*, it must be the case that

$$c_A(s_A) > c_B(s_B - 1)$$

Since we begin with a scenario in which the opposite is the case (i.e., $c_B(s_B - 1) > c_A(s_A)$), this means that either (a) the comparison number for the next seat to be received by party A must “move” to the comparison number for the last seat captured by party B, as in Figure A4:

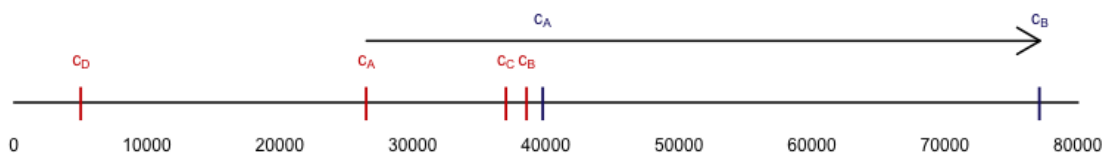


Figure A4: “Moving” the comparison number for the next seat for party A (UCR) to the comparison number for the last seat to be received by party B (PJ). Party labels: A: UCR; B: PJ; C: Frente Tercera Posición; D: Partido Obrero.

Otherwise, (b) the corresponding comparison number for party B must decrease to the corresponding value for party A, as indicated in Figure A5:

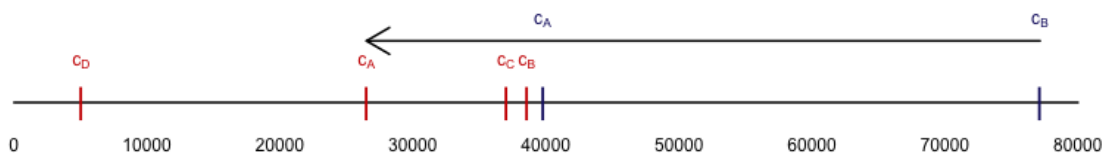


Figure A5: “Moving” the comparison number for the last seat for party B (PJ) to the comparison number for the last seat to be received by party A (UCR). Party labels: A: UCR; B: PJ; C: Frente Tercera Posición; D: Partido Obrero.

This is less straightforward than it looks at first sight, however, because a change in another party’s vote total may increase party A’s seat total with a smaller change in the distribution of votes. To see this, suppose there are *four* seats to be distributed instead of three. In that case, the fourth seat to be distributed would go to the PJ, which has the largest comparison number for the *next* seat (38,574). The UCR could grab this seat by increasing its vote total by 36,210, to 115,722. Alternatively, the PJ’s vote total may be reduced by 24,140 votes, to 53,008, in which case its comparison number for the next seat to be distributed would be 26,504, equal to the UCR’s. Yet this would not suffice, because in that case the party with the largest comparison number for the

next seat would be the Frente Tercera Posición, with 36,997. Thus, the vote total of the Frente Tercera Posición would have to decrease by 10,493, to 26,504, as seen in Figure A6:

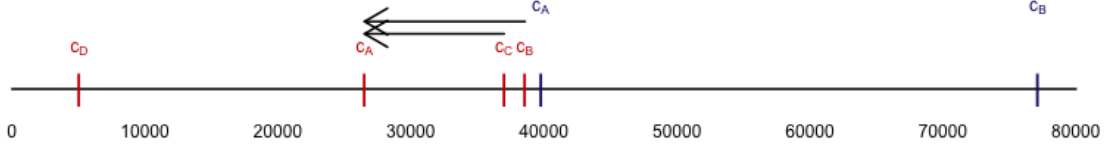


Figure A6: “Moving” the comparison number for the next seat for both parties *B* (PJ) and *C* (Frente Tercera Posición) so that party *A* (UCR) can receive the last seat at stake, assuming $M = 4$. Party labels: A: UCR; B: PJ; C: Frente Tercera Posición; D: Partido Obrero.

In sum, if it were the case that $M = 4$, the UCR could grab an additional seat if either (a) its vote total increased by 36,210, to 115,722; or (b) if the PJ’s and the Frente Tercera Posición’s vote totals decreased by 24,140 and 10,493, respectively. Since

$$36,210 > 24,140 + 10,493,$$

it turns out that reducing these two parties’ vote total is a “cheaper” way of increasing the UCR’s seat total than increasing the UCR’s own vote. Thus, the minimum value of *vote change to last seat*_{UCR} is $24,140 + 10,493 = 34,633$.

Calculating the minimum distance to an additional seat on the basis of comparison numbers. Folke (2014) explains the intuition behinds this comparison number calculation, but only considers a three-party example that leaves open the issue of how to calculate minimum distances in other cases. Furthermore, he does not take into account the role of electoral thresholds, i.e. the minimum number of votes that a party must obtain in order to qualify for a seat. In some circumstances, a party may receive enough votes to receive a seat according to the electoral formula, but be excluded from the seat allocation by virtue of not having reached the minimum legal threshold. When this is the case, just receiving enough votes to reach the threshold is both a necessary and sufficient

condition for a party to increase its seat share.¹⁷ Conversely, a party that barely surpassed the threshold and received at least one seat may lose it by simply falling below the threshold, even if other parties' vote totals remain unchanged.

Thus, for every party p in every district-level election e , we calculated the minimum number of votes that should have changed for that party to *win* an additional seat, $\text{argmin}(d(\mathbf{V}_{pe}^0, \mathbf{V}_{pe}^1) \text{ s.t. } [s_{pe}^0 < s_{pe}^1])$, according to the following algorithm:

- (1) If p received all seats at stake, set V_p to NA, as there is no way of increasing p 's seat total.
- (2) If p received enough votes to surpass the threshold, move to step (4). Otherwise, add as many votes as necessary for p to reach the threshold, V_{pe}^T .
- (3) Calculate new seat distribution, keeping all parties' vote total unchanged but increasing p 's vote total by V_{pe}^T . If this suffices for p to get a seat, then

$$\text{vote change to next seat}_{pe} = V_{pe}^T$$

Otherwise, move to step (4).

- (4) Identify all other parties that
 - (a) Surpassed the threshold; and either
 - (b) Received at least one seat; or
 - (c) Received no seats but have a comparison number for the *next* seat that is larger than $c_p(s_p)$.

¹⁷For example, in the 2003 election in the province of Buenos Aires, the alliance between the United Left and the Socialist Party obtained enough votes to receive two seats under the d'Hondt formula, but since it fell 21,533 votes below the threshold of 3% of registered voters, it received none. For that list, the minimum distance to a next seat is thus 21,533 votes.

We ignore other parties because changing their vote totals cannot possible minimize the quantity of interest.

- (5) Calculate the distance (in raw votes) between $c_p(s_p)$ and the comparison numbers for the last and next seats of all other parties identified above, making sure that

$$c_p(s_p) > c_{-p}(s_{-p}) \text{ and } c_p(s_p) > c_{-p}(s_{-p} - 1)$$

- (6) For parties that received seats, calculate how many votes they must lose in order to fall below the threshold, V_{-pe}^T . For any party $-p$, if

$$|V_{-pe}^T| < |c_p(s_p) - c_{-p}(s_{-p} - 1)|,$$

keep V_{-pe}^T ; otherwise, keep $c_p(s_p) - c_{-p}(s_{-p} - 1)$.

- (7) Calculate all possible vote distributions that result from
- (a) Keeping p 's vote total constant while decreasing all other parties' vote total by the amounts calculated above (either jointly or separately);
 - (b) Increasing p 's vote total by the amounts estimated above, while keeping all other parties' vote total constant or decreasing them by the amounts estimated above (either jointly or separately).
- (8) For each of these combinations, calculate the resulting seat distribution.
- (9) Calculate the total vote change implied by each combination.
- (10) Within the subset of combinations for which p 's seat total increases, select the one that minimizes the vote change involved; that value is *vote change to last seat* _{pe} .

This algorithm is implemented in R with the `addVotes()` function. See the code at the end of this section.

Calculating the minimum distance to lose a seat on the basis of comparison numbers. Similarly, for every party p in every district-level election e , we calculated the minimum number of votes that should have changed for that party to *lose* a seat, $\text{argmin}(d(\mathbf{V}_{pe}^0, \mathbf{V}_{pe}^1) \text{ s.t. } [s_{pe}^0 > s_{pe}^1])$, according to the following algorithm:

- (1) If p received no seats, set V_p to NA; there is no way it may lose any seat.
- (2) If p received at least one seat, *Case (A)*: suppose no party below the threshold receives enough additional votes to surpass it. Then
 - (a) Calculate the distance (in raw votes) between $c_p(s_p - 1)$ (i.e., the comparison number for the last seat received by p) and (a) the threshold for losing a seat; as well as (b) the comparison numbers for the last and next seats of all other parties that surpassed the threshold, making sure that

$$c_p(s_p - 1) < c_{-p}(s_{-p}) \text{ and } c_p(s_p - 1) < c_{-p}(s_{-p} - 1)$$

- (b) Calculate all possible vote distributions that result from either
 - (i) Keeping p 's vote total constant while increasing all other parties' vote total by the amounts calculated above (either jointly or separately); and
 - (ii) Decreasing p 's vote total by the amounts estimated above, while keeping all other parties' vote total constant or increasing them by the amounts calculated above (either jointly or separately).
- (c) For each of these combinations, calculate the resulting seat distribution.
- (d) Calculate the total vote change implied by each combination.

- (e) Select the subsets of combinations for which p 's seat total decreases, and select the one that minimizes the vote change involved; that value is *vote change to last seat_{pe}*.
- (3) *Case (B)*: Determine whether some party that fell below the threshold may win enough votes to surpass it and take one seat from the party of interest. Identify the set of parties for which the *cumulative* number of votes needed to pass the threshold is lower than *vote change to last seat_{pe}*, and re-run step (2) above.
- (4) Compare the number in steps (2) and (3) and keep whatever is smaller; this is the value is *vote change to last seat_{pe}*.

This algorithm is implemented in R with the `subVotes()` function. See the code at the end of this section.

dh(): *d'Hondt calculator for R.*

```
## d'Hondt calculator (with threshold)
dh <- function (votes, M, threshold=0){
  M2 <- unique (M)  ## M may be a vector of identical values
  votes2 <- ifelse (votes >= threshold, votes, NA)
  ## identify those parties that fell below the threshold;
  ## according to art. 4 of Decree-Law #22838, these do not participate in the distribution of seats
  votes2 <- matrix (rep (votes2, M2), ncol=M2) ## matrix of vote totals
  div <- matrix (rep (1:M2, length (votes)), ncol=M2, byrow=T)  ## matrix of divisors
  quotes <- as.data.frame (cbind (c (votes2/div)
                                   , rep (as.matrix (votes2/div)[,1], M2)
                                   , rep (1:length (votes), M2))) ## matrix with data on

  ## (a) quotients;
  ## (b) vote totals (we need this in case multiple quotas have the same size); and
  ## (c) party ids
  quotes <- quotes[order (quotes$V2, decreasing=T),] ## order by vote totals
  quotes <- quotes[order (quotes$V1, decreasing=T),] ## order by quota size
  row.names (quotes) <- 1:nrow (quotes) ## order by priority in receiving a seat
  quotes$seat <- with (quotes, ifelse (
    is.na (V2), NA, ifelse (as.numeric (row.names (quotes)) <= M2, 1, 0)))
  ## identifying the quotients that will receive seats;
  ## notice that the first conditional is for putting NAs where the original data had NAs
```

```

## identifying which quotients receive seats
if (max (which (quotes$V1==quotes[M2,]$V1 & quotes$V2==quotes[M2,]$V2)) > M2) {
  quotes [which (quotes$V1==quotes[M2,]$V1
    & quotes$V2==quotes[M2,]$V2),]$seat <- 1/length (which (quotes$V1==quotes[M2,]$V1
& quotes$V2==quotes[M2,]$V2))
}

## According to Decree-Law #22838, if two parties with the same number of votes
## have the same quotient for the last seat, that seat will be allocated by lottery.
## Rather than doing a lottery, we calculate the expected value:
## If two parties share the quotient for the last seat, AND
## it is not possible to give one full seat to each of them,
## the last seat is "equally" distributed between all competing parties.
## Although this is unlikely to happen in practice, it is an issue
## when we are calculating the number of votes that have to change for a party
## to acquire the last seat to be distributed.
seats <- as.vector (with (quotes, by (seat, V3, sum))[]) ## total number of seats by party ID
return (seats)
}

```

addVotes(): R function to calculate the minimum number of votes necessary to gain an additional seat.

```

addVotes <- function (data, obs, round.digits=3){
  ## creating the dataset
  elName <- as.character (data[data$id==obs,]$election)
  pName <- as.character (data[data$id==obs,]$party)
  base2 <- data[data$election==elName
    , c ("id" ## party-election ID
      , "M" ## district magnitude
      , "vp" ## votes received by a party
      , "vp.th" ## votes if every party reached the threshold
      , "th" ## threshold (# of votes)
      , "dTh" ## 1 if passed threshold, 0 if didn't
      , "distTh" ## th - vp
      , "incToTh" ## additional votes to reach threshold
      , "sp" ## seats effectively received
      , "cpNext" ## comp. number (next seat) (assuming threshold was reached)
      , "cpLast" ## comp. number (last seat)
      , "vpNew" ## NA's
      , "spNew" ## NA's
    )
  }
}

```

```

    )]
base2$party.int <- with (base2, ifelse (id==obs, 1, 0)) ## to identify the party of interest

##### (1) Did the party of interest receive all seats at stake in the election?
### If "YES", keep current distribution of votes and seats
if (with (base2[base2$party.int==1,], sp == M)){
  base2$vpchangeTotal <- NA ## there is no conceivable change in votes that
  ## will increase the number of seats received by the party of interest
  base2$vpNew <- base2$vp
  base2$spNew <- with (base2, dh (vpNew, M=M, threshold=th))
  return (base2)
}

### If "NO":
else {
  ##### (2) Does the party of interest receive an additional seat
  ## when surpassing the minimum threshold?
  ## (calculating the new distribution of seats assuming the party of interest
  ## receives just enough additional votes to surpass the threshold)
  base2$vpNew <- with (base2, ifelse (party.int==1, vp.th, vp))
  ## keep other parties' vote shares as they are
  base2$spNew <- with (base2, dh (vpNew, M=M, threshold=th))
  ## new distribution of seats

  ### If "YES", game ends; no further vote changes are necessary
  if (with (base2[base2$party.int==1,], spNew > sp)){
    base2$vpchangeTotal <- with (base2, ifelse (party.int==1, incToTh, 0))
    ## only required vote change is that which puts the party of interest at the threshold
    return (base2)
  }

  ### If "NO", further vote changes will be necessary
  else {
    ## We are only interested in parties that
    ## (a) surpassed the threshold and
    ## [(b) received at least one seat, or
    ## (c) have a comparison number for the next seat
    ## that is larger than that of the party of interest]
    base2$keep <- with (base2, ifelse (

```

```

vpNew >= th & (sp > 0 | cpNext >= base2[base2$party.int==1,]$cpNext)
, 1, 0))
## note that the cpNext condition implicitly includes the party of interest
base3 <- base2[base2$keep==1,]
base3 <- base3[order (base3$party.int, decreasing=T),]
## to put party of interest at the top

## We will consider possible decreases for other parties
## for all possible vote increases for the party of interest
base3$vpNew.int <- base3[base3$party.int==1,]$vp.th
base3$spNext.int <- base3[base3$party.int==1,]$sp + 1
base3$cpNext.int <- base3[base3$party.int==1,]$cpNext

# distance (in votes) between party of interest and
# quotient of next seat to be received by all other parties
base3$difNext.inc <- with (base3, ceiling (
  round ((cpNext - cpNext.int) * spNext.int, round.digits)))
base3$difNext.inc <- with (base3, ifelse (
  ((vpNew.int + difNext.inc)/spNext.int > cpNext)
  | (((vpNew.int + difNext.inc)/spNext.int == cpNext)
    & vpNew.int + difNext.inc > vpNew)
  , difNext.inc, difNext.inc+1)) ## if quotient is strictly larger OR
## quotient is equal but party of interest received larger number of votes
## --> no more changes; otherwise, one additional vote must change

# distance (in votes) between party of interest and
# quotient of all parties that received at least one seat
base3$difLast.inc <- with (base3, round (
  (cpLast - cpNext.int) * spNext.int))
base3$difLast.inc <- with (base3, ifelse (
  ((vpNew.int + difLast.inc)/spNext.int > cpLast)
  | (((vpNew.int + difLast.inc)/spNext.int == cpLast)
    & vpNew.int + difLast.inc > vpNew)
  , difLast.inc, difLast.inc+1)) ## if quotient is strictly larger OR
## quotient is equal but party of interest received larger number of seats
## --> no more changes; otherwise, one additional vote must change
base3$difLast.inc <- with (base3, ifelse (
  is.na (difLast.inc), -1000, difLast.inc))
## we will eventually ignore those parties that received no seats

```

```

## We now have to create several different matrices:
rows <- nrow (base3)*2-1
others <- nrow (base3)-1

# (a) Vote distributions for all possible increments in party of interest' vote total:
mVotes <- cbind (base3[base3$party.int==1,]$vpNew
                + unlist (c (0, base3[base3$party.int==0,c ("difNext.inc", "difLast.inc")]))
                , matrix (rep (base3[base3$party.int==0,]$vpNew, rows)
                          , ncol=others, byrow=T))

# (b) Number of seats received/to receive by each party:
mSeats <- matrix (rep (base3$sp, rows), ncol=others+1, byrow=T)
mSeats.p <- mSeats + 1 ## next seat

# (c) Number of votes a party must lose in order to fall below threshold:
mThresholds <- matrix (rep (base3[base3$party.int==0,]$distTh, rows), ncol=others, byrow=T)

# (d) Number of votes a party must LOSE in order to reach party of interest
# (quotient for NEXT seat)
mCpNext.tmp <- ceiling (round (
    (mVotes[, -1] / mSeats.p[, -1] - mVotes[, 1] / mSeats.p[, 1]) * mSeats.p[, -1]
    , round.digits)) ## use round () so that very low values
## (e.g., 100.0000001) are not rounded upwards by ceiling ()
mCpNext.tmp <- matrix (as.numeric (mCpNext.tmp > 0), nrow=rows) * mCpNext.tmp
## we are only interested in positive values (i.e., decreases, not increases)
mCpNext.tmp <- mCpNext.tmp + (1 - matrix (as.numeric (
    (mVotes[, 1] / mSeats.p[, 1] > (mVotes[, -1] - mCpNext.tmp) / mSeats.p[, -1])
    | (mVotes[, 1] / mSeats.p[, 1] == (mVotes[, -1] - mCpNext.tmp) / mSeats.p[, -1]
    & mVotes[, 1] > mVotes[, -1] - mCpNext.tmp)), nrow=rows))
## if quotient is strictly larger OR
## quotient is equal but party of interest received larger number of seats
## --> no changes; otherwise, add one additional vote

# if necessary vote change is smaller than the one required to fall below the threshold,
# use the last one:
mCpNext <- (mCpNext.tmp * matrix (as.numeric (mCpNext.tmp < mThresholds*(-1)), nrow=rows)
    # cases where decrease required by comparison number is smaller
    + mThresholds * (-1) * matrix (as.numeric (mCpNext.tmp > mThresholds*(-1))

```

```

      , nrow=rows))

# cases where decrease required to fall below threshold is smaller

# (e) Number of votes a party must LOSE in order to reach party of interest
# (quotient for LAST seat):
mCpLast.tmp <- ceiling (round (
  (mVotes[, -1] / mSeats[, -1] - mVotes[, 1] / mSeats.p[, 1]) * mSeats[, -1]
  , round.digits))
mCpLast.tmp <- ifelse (
  is.na (mCpLast.tmp), data[data$id==obs,]$registered, mCpLast.tmp)
## extremely large number of votes for parties that did not receive seats
mCpLast.tmp <- matrix (as.numeric (mCpLast.tmp > 0), nrow=rows) * mCpLast.tmp
## we are only interested in positive values (i.e., decreases, not increases)
mCpLast.tmp <- mCpLast.tmp + (1 - matrix (as.numeric (
  (mVotes[, 1] / mSeats.p[, 1] > (mVotes[, -1] - mCpLast.tmp) / mSeats[, -1])
  | (mVotes[, 1] / mSeats.p[, 1] == (mVotes[, -1] - mCpLast.tmp) / mSeats[, -1]
  & mVotes[, 1] > mVotes[, -1] - mCpLast.tmp)
), nrow=rows)) ## if quotient is strictly larger OR
## quotient is equal but party of interest received larger number of seats
## --> no changes; otherwise, add one additional vote

# adjusting for the threshold
mCpLast <- mCpLast.tmp * matrix (as.numeric (
  mCpLast.tmp < mThresholds*(-1)), nrow=rows)
+ mThresholds * (-1) * matrix (as.numeric (mCpLast.tmp > mThresholds*(-1)), nrow=rows)

## Calculating the distributions of vote totals under each possible scenario
chInt <- unlist (c (0, base3[base3$party.int==0, c ("difNext.inc", "difLast.inc")]))
## possible changes to the party of interest
mVotes2 <- cbind (mVotes[, 1], mVotes[, -1], mVotes[, -1])[chInt>=0,]
## we're only interested in cases where the vote total for the party of interest
## increases or remains the same
mChanges2 <- cbind (chInt, mCpNext, mCpLast)[chInt>=0,]

# constructing all possible combinations of parties winning/losing seats
mGrid.tmp <- expand.grid (rep (list (0:1), rows-1)) ## grid with all combinations
n <- nrow (mChanges2) ## we'll replicate the grid
## for every possible number of seats received by the party of interest
mGrid <- mGrid.tmp[rep (seq_len (nrow (mGrid.tmp)), n), ]

```



```

# constructing a matrix with the distribution of the new vote totals
newVotes <- mVotes2[rep (seq_len (n), each=2^(rows-1)),] +
  cbind (rep (0, nrow (mGrid)), mGrid * mChanges2[, -1][rep (seq_len (n)
, each=2^(rows-1)),] * (-1))

# calculating new vote totals by party
newVotes2 <- cbind (newVotes[,1]
, newVotes[,2:((rows+1)/2)] * matrix (as.numeric (
newVotes[,2:((rows+1)/2)] <= newVotes[,((rows+1)/2+1):rows])
, nrow=nrow (newVotes)) +
  newVotes[,((rows+1)/2+1):rows]
* matrix (as.numeric (
newVotes[,2:((rows+1)/2)] > newVotes[,((rows+1)/2+1):rows])
, nrow=nrow (newVotes)))

## Parties may appear twice, so we select the minimum value for each of them.
## This poses no problem, as every value for every party will appear once.
## We then select every unique combination of vote totals
row.names (newVotes2) <- row.names (newVotes)
## there are problem with the row.names when there are only two parties
newVotes2 <- unique (newVotes2) ## to ignore repeated combinations

# calculating all new possible vote distributions
newDeals <- t (apply (newVotes2
, MARGIN=1
, FUN=dh ## function to calculate seat distribution using d'Hondt
, M=unique (base3$M)
, threshold=unique (base3$th)))

# identifying the combination of interest and reporting the new vote and seat totals:
chGrid <- cbind (rowSums (
  cbind (1, mGrid)
  * mChanges2[rep (seq_len (n), each=2^(rows-1)),][row.names (newDeals),]), newDeals)
## indicating the total number of votes that would change
## with each alternative vote distribution:
chGrid <- chGrid[order (chGrid[,1]),]
## sorting according to minimum change in votes required
base3$vpNew <- unlist (
  newVotes2[row.names (newVotes2)==names (chGrid[,2])[chGrid[,2] >

```

```

base3[base3$party.int==1,]$sp[1,])

## adding data on parties that did not pass the threshold
## and calculating the new distribution of seats
base4 <- rbind.fill (base3, base2[base2$keep == 0,])
base4$vcchangeTotal <- with (base4, abs (vpNew - vp))
## number of votes that must change for the party of interest to gain one additional seat
base4$spNew <- with (base4, dh (vpNew, M=M, threshold=th))

#### Checking that there are no obvious mistakes
base4$check <- with (base4, ifelse (party.int==0, 0, ifelse (spNew <= sp, 1, 0)))
## a "1" would indicate the party of interest had not gained any additional seat(s)

return (base4)
}
}
}

```

subVotes(): R function to calculate the minimum number of votes necessary to lose the last seat received.

```

subVotes <- function (data, obs, round.digits=3){
  ## creating the dataset
  elName <- as.character (data[data$id==obs,]$election)
  pName <- as.character (data[data$id==obs,]$party)
  base2 <- data[data$election==elName
    , c ("id" ## party-election ID
      , "M" ## district magnitude
      , "vp" ## votes received by a party
      , "vp.th" ## votes if every party reached the threshold
      , "th" ## threshold (# of votes)
      , "dTh" ## 1 if passed threshold, 0 if didn't
      , "distTh" ## th - vp
      , "incToTh" ## additional votes to reach threshold
      , "sp" ## seats effectively received
      , "cpNext" ## comp. number (next seat) (assuming threshold was reached)
      , "cpLast" ## comp. number (last seat)
      , "vpNew" ## NA's
      , "spNew" ## NA's
    )]
}

```

```

base2$party.int <- with (base2, ifelse (id==obs, 1, 0))
## to identify the party of interest

##### (1) Did the party of interest receive no seats in the election?
### If "TRUE", keep current distribution of votes and seats
if (with (base2[base2$party.int==1,], sp == 0)){
  base2$vcchangeTotal <- NA ## the party of interest cannot lose a seat by definition
  base2$vpNew <- base2$vp
  base2$spNew <- with (base2, dh (vpNew, M=M, threshold=th))
  base2$vcchangeTotal <- NA
  base2$check <- NA
  return (base2)
}

### If "FALSE":
else {
  ##### (2) How many votes should the party lose to lose a seat to another party?
  ## Case (a): Suppose no party below the threshold receives additional votes to surpass it.
  ## Calculate how many votes must change for the party of interest to lose one seat
  base2$vpNew <- base2$vp
  base3 <- base2[base2$dTh==1,] ## only parties above threshold
  base3 <- base3[order (base3$party.int, decreasing=T),]
  ## so party of interest appears first

  ## We will consider possible vote increases for other parties
  ## for all possible vote decreases for the party of interest
  base3$vpNew.int <- base3[base3$party.int==1,]$vp.th
  base3$spLast.int <- base3[base3$party.int==1,]$sp
  base3$cpLast.int <- base3[base3$party.int==1,]$cpLast

  # distance (in votes) between last seat received by party of interest
  # and quotient of next seat to be received by all other parties
  base3$difNext.inc <- with (base3, ceiling (
    round ((cpNext - cpLast.int) * spLast.int, round.digits)))
  base3$difNext.inc <- with (base3, ifelse (
    (cpNext > (vpNew.int + difNext.inc)/spLast.int)
    | ((cpNext == (vpNew.int + difNext.inc)/spLast.int) & vp.th > vpNew.int + difNext.inc)
    , difNext.inc, difNext.inc-1)) ## if quotient is strictly larger OR
  ## quotient is equal but other party would receive more votes

```

```

## --> no more changes; otherwise, one additional vote must change

# distance (in votes) between party of interest and
# quotient of all parties that received at least one seat
base3$difLast.inc <- with (base3, round ((cpLast - cpLast.int) * spLast.int))
base3$difLast.inc <- with (base3, ifelse (
  (cpNext > (vpNew.int + difLast.inc)/spLast.int)
  | ((cpNext == (vpNew.int + difLast.inc)/spLast.int) & vp.th > vpNew.int + difLast.inc)
  , difLast.inc, difLast.inc-1)) ## if quotient is strictly larger OR
## quotient is equal but other party received more votes
## --> no more changes; otherwise, one additional vote must change
base3$difLast.inc <- with (base3, ifelse (
  is.na (difLast.inc) | difLast.inc > 0, 1000, difLast.inc))
## we will eventually remove these cases

## In order to perform the calculations, we have to create several different matrices:
rows <- nrow (base3)*2
others <- nrow (base3)-1

# (a) Vote distributions for all possible decreases in party of interest's vote total:
mVotes <- cbind (base3[base3$party.int==1,]$vp.th + unlist (
  c (0, base3[base3$party.int==1,]$distTh, base3[base3$party.int==0
    ,c ("difNext.inc", "difLast.inc"))))
  , matrix (rep (base3[base3$party.int==0,]$vp.th, rows), ncol=others, byrow=T))

# (b) Number of seats received/to receive by each party:
mSeats <- matrix (rep (base3$sp, rows), ncol=others+1, byrow=T)
mSeats.p <- cbind (mSeats[,1], mSeats[,-1] + 1)
## next seat for all other parties save the party of interest

# (c) Number of votes a party must WIN in order to reach party of interest
# (quotient for NEXT seat)
mCpNext.tmp <- ceiling (
  round ((mVotes[,1] / mSeats.p[,1] - mVotes[, -1] / mSeats.p[, -1]) * mSeats.p[, -1], round.digits))
## use round () so that very low values (e.g., 100.0000001) are not rounded upwards by ceiling ()
mCpNext.tmp <- matrix (
  as.numeric (mCpNext.tmp > 0), nrow=rows) * mCpNext.tmp
## we are only interested in increases, not decreases
mCpNext.tmp <- mCpNext.tmp + (1 - matrix (as.numeric (

```

```

      ((mVotes[, -1] + mCpNext.tmp) / mSeats.p[, -1] > mVotes[, 1] / mSeats.p[, 1])
      | ((mVotes[, -1] + mCpNext.tmp) / mSeats.p[, -1] == mVotes[, 1] / mSeats.p[, 1]
        & mVotes[, -1] + mCpNext.tmp > mVotes[, 1])
    ), nrow=rows)) ## if quotient is strictly larger OR
## quotient is equal but other party received more votes
## --> no changes; otherwise, add one additional vote

# (d) Number of votes a party must WIN in order to reach party of interest
# (quotient for LAST seat)
mCpLast.tmp <- ceiling (round (
  (mVotes[, 1] / mSeats.p[, 1] - mVotes[, -1] / mSeats.p[, -1]) * mSeats[, -1]
  , round.digits))
mCpLast.tmp <- ifelse (
  is.na (mCpLast.tmp), data[data$id==obs,]$registered, mCpLast.tmp)
## extremely large number of votes for parties that did not receive seats
mCpLast.tmp <- matrix (
  as.numeric (mCpLast.tmp > 0), nrow=rows) * mCpLast.tmp
## we are only interested in negative values (i.e., decreases, not increases)
mCpLast.tmp <- mCpLast.tmp + (1 - matrix (as.numeric (
  ((mVotes[, -1] + mCpLast.tmp) / mSeats[, -1] > mVotes[, 1] / mSeats[, 1])
  | ((mVotes[, -1] + mCpLast.tmp) / mSeats[, -1] == mVotes[, 1] / mSeats[, 1]
    & mVotes[, -1] + mCpLast.tmp > mVotes[, 1])
  ), nrow=rows))

## Now we calculate the distributions of vote totals under each possible scenario
chInt <- unlist (c (0
  , base3[base3$party.int==1,]$distTh
  , base3[base3$party.int==0, c ("difNext.inc", "difLast.inc")]))
## possible changes to the party of interest;
## the 0 is for no changes, the second value is for falling below the threshold,
## the other are votes it would lose against other parties
mVotes2 <- cbind (mVotes[, 1], mVotes[, -1], mVotes[, -1])[chInt<=0,]
## we're only interested in cases where the vote total for the party of interest
## decreases or remains the same
mChanges2 <- cbind (chInt, mCpNext.tmp, mCpLast.tmp)[chInt<=0,]

# constructing the grid of all possible combinations of parties winning/losing seats
mGrid.tmp <- expand.grid (rep (list (0:1), rows-1)) ## grid with all combinations
n <- nrow (mChanges2) ## we'll replicate the grids n times

```

```

mGrid <- mGrid.tmp[rep (seq_len (nrow (mGrid.tmp)), n), ]

# constructing a matrix with the distribution of the new vote totals
newVotes <- mVotes2[rep (seq_len (n), each=2^(rows-1)),] +
  cbind (rep (0, nrow (mGrid)), mGrid[,-1] *
    mChanges2[,-1][rep (seq_len (n), each=2^(rows-1)),])

# calculating new vote totals by party
newVotes2 <- cbind (newVotes[,1]
  , newVotes[,2:((rows+1)/2)] * matrix (as.numeric (
    newVotes[,2:((rows+1)/2)] > newVotes[,((rows+1)/2+1):rows])
  , nrow=nrow (newVotes)) +
  newVotes[,((rows+1)/2+1):rows] * matrix (as.numeric (
    newVotes[,2:((rows+1)/2)] <= newVotes[,((rows+1)/2+1):rows])
  , nrow=nrow (newVotes)))

## Parties may appear twice, so we select the minimum value for each of them. This isn't a problem,
## as there is a row in which a value for any given party will appear only once.
## We then select every unique combination of vote totals
row.names (newVotes2) <- row.names (newVotes)

## there are problem with the row.names when there are only two parties
newVotes2 <- unique (newVotes2)

# calculating all new possible vote distributions
newDeals <- t (apply (newVotes2
  , MARGIN=1
  , FUN=dh ## function to calculate seat distribution using d'Hondt
  , M=unique (base3$M)
  , threshold=unique (base3$th)))

newDeals[,1][is.na (newDeals[,1])] <- 0

## replace NAs with 0s, we'll need that when calculating the new seat allocation

# identifying the combination of interest and reporting the new vote and seat totals:
chGrid <- cbind (
  rowSums ((cbind (1, mGrid[,-1]) *
    abs (mChanges2[rep (seq_len (n), each=2^(rows-1)),]) [row.names (newDeals),])
  , newDeals)

## indicates the total number of votes that would change with each alternative vote distribution
chGrid <- chGrid[order (chGrid[,1]),] ## sort according to minimum change in votes required
base3$vpNew <- unlist (

```

```

newVotes2[row.names (newVotes2)==names (chGrid[,2])[chGrid[,2] <
                                                                    base3[base3$party.int==1,]$sp][1,])

## adding data on parties that did not pass the threshold
## and calculating the new seat distribution:
base4 <- rbind.fill (base3, base2[base2$dTh == 0,])
base4$vchangeTotal <- with (base4, abs (vpNew - vp))
## total number of votes that must change for the party of interest to gain one additional seat
base4$spNew <- with (base4, dh (vpNew, M=M, threshold=th))

## Checking that there are no obvious mistakes
base4$check <- with (base4, ifelse (
  is.na (spNew) & vchangeTotal == abs (distTh)
  , 0, ifelse (party.int==0, 0, ifelse (spNew >= sp, 1, 0))))
## a "1" would indicate the party of interest had not lost any additional seat(s)

## Case (b): Determine whether some party that fell below the threshold
## may win enough votes to take one seat from the party of interest.
## For that to be the case, the following conditions must be met:
# (i) all parties above the threshold must have received at least one seat;
# if some received none, then moving one party just above the threshold cannot improve things; and
# (ii) the vote change required to move the next party above the threshold
# must be lower than the number of votes that must change
# for the party of interest to lose one seat, given the current distribution of votes

### If "TRUE", finish
if ( (is.na (min.na (base2[base2$dTh==0,]$distTh)) ## (there is no party below the threshold)
    | min (base3$sp) == 0 ## (at least one party above threshold received no seats)
    | min (base3$sp) > 0 & min.na (base2[base2$dTh==0,]$distTh)
    > sum (with (base3, abs (vpNew - vp)))
    ## (the minimum number of votes required to move one party above the threshold
    ## is higher than the number of votes required for the party of interest to lose a seat)
) == TRUE
){
  return (base4)
}

### If "FALSE", it will be necessary to run the code again,

```

```

## but this time keeping all parties whose cumulative distance to the threshold
## is lower than the required vote change just estimated
else {
  # selecting the observations of interest: parties that are below the threshold,
  # and whose cumulative distance to it (in votes) is lower than
  # the total change in votes just calculated
  base2b <- base2[base2$dTh==0,]
  base2b <- base2b[order (base2b$vp, decreasing=T),]
  distTh.cum <- NA ## cumulative distance to the threshold
  for (p in 1:nrow (base2b)){
    distTh.cum[p] <- sum (base2b$distTh[1:p])
  }
  include01 <- ifelse (distTh.cum <= sum (with (base3, abs (vpNew - vp))), 1, 0)
  if ( sum (base3[base3$party.int==0,]$sp) + 1 >= nrow (base2b) ){
    include02 <- rep (1, nrow (base2b))
  } else {
    include02 <- c (rep (1, sum (base3[base3$party.int==0,]$sp) + 1)
                    , rep (0, nrow (base2b) - (sum (base3[base3$party.int==0,]$sp) + 1)))
  }
  include <- include01 * include02

  base3 <- rbind.fill (base3, base2b[include==1,]) ## keep all observations
  base3 <- base3[order (base3$party.int, decreasing=T),]
  ## so that party of interest appears first

  ## We will consider possible vote increases for other parties
  ## for all possible vote decreases for the party of interest
  base3$vpNew <- with (base3, ifelse (dTh == 1, vp, th))
  ## we are considering the possibility that at least one of these parties
  ## will move to the threshold
  base3$vpNew.int <- base3[base3$party.int==1,]$vp.th
  base3$spLast.int <- base3[base3$party.int==1,]$sp
  base3$cpLast.int <- base3[base3$party.int==1,]$cpLast

  # distance (in votes) between last seat received by party of interest
  # and quotient of next seat to be received by all other parties
  base3$difNext.inc <- with (
    base3, ceiling ( round ((cpNext - cpLast.int) * spLast.int, round.digits)))
  base3$difNext.inc <- with (base3, ifelse (

```



```

(cpNext > (vpNew.int + difNext.inc)/spLast.int)
| ((cpNext == (vpNew.int + difNext.inc)/spLast.int) & vp.th > vpNew.int + difNext.inc)
, difNext.inc, difNext.inc-1)) ## if quotient is strictly larger OR
## quotient is equal but other party would receive more votes
## --> no more changes; otherwise, one additional vote must change

# distance (in votes) between party of interest and quotient of all parties
# that received at least one seat
base3$difLast.inc <- with (base3, round ((cpLast - cpLast.int) * spLast.int))
base3$difLast.inc <- with (base3, ifelse (
  (cpNext > (vpNew.int + difLast.inc)/spLast.int)
  | ((cpNext == (vpNew.int + difLast.inc)/spLast.int) & vp.th > vpNew.int + difLast.inc)
  , difLast.inc, difLast.inc-1)) ## if quotient is strictly larger OR
## quotient is equal but other party received more votes
## --> no more changes; otherwise, one additional vote must change
base3$difLast.inc <- with (base3, ifelse (
  is.na (difLast.inc) | difLast.inc > 0, 1000, difLast.inc))
## we will eventually remove these cases

## In order to perform the calculations, we have to create several different matrices:
rows <- nrow (base3)*2
others <- nrow (base3)-1

# (a) Vote distributions for all possible decreases in party of interest' vote total:
mVotes <- cbind (base3[base3$party.int==1,]$vp.th + unlist (
  c (0
    , base3[base3$party.int==1,]$distTh
    , base3[base3$party.int==0,c ("difNext.inc", "difLast.inc")]))
  , matrix (rep (base3[base3$party.int==0,]$vp.th, rows)
    , ncol=others, byrow=T))

# (b) Number of seats received/to receive by each party:
mSeats <- matrix (rep (base3$sp, rows), ncol=others+1, byrow=T)
mSeats.p <- cbind (mSeats[,1], mSeats[,-1] + 1)
## next seat for all other parties save the party of interest

# (c) Number of votes a party must WIN in order to reach party of interest
# (quotient for NEXT seat)
mCpNext.tmp <- ceiling (round (

```

```

      (mVotes[,1] / mSeats.p[,1] - mVotes[, -1] / mSeats.p[, -1]) * mSeats.p[, -1], round.digits))
## use round () so very low values (e.g., 100.0000001) are not rounded upwards by ceiling ()
mCpNext.tmp <- matrix (as.numeric (mCpNext.tmp > 0), nrow=rows) * mCpNext.tmp
## we are only interested in increases, not decreases
mCpNext.tmp <- mCpNext.tmp + (1 - matrix (as.numeric (
  ((mVotes[, -1] + mCpNext.tmp) / mSeats.p[, -1] > mVotes[,1] / mSeats.p[,1])
  | ((mVotes[, -1] + mCpNext.tmp) / mSeats.p[, -1] == mVotes[,1] / mSeats.p[,1]
    & mVotes[, -1] + mCpNext.tmp > mVotes[,1])
), nrow=rows)) ## if quotient is strictly larger OR
## quotient is equal but other party received more votes
## --> no changes; otherwise, add one additional vote

# (d) Number of votes a party must WIN in order to reach party of interest
# (quotient for NEXT seat)
mCpLast.tmp <- ceiling (
  round ((mVotes[,1] / mSeats.p[,1] - mVotes[, -1] / mSeats.p[, -1]) * mSeats[, -1], round.digits))
mCpLast.tmp <- ifelse (
  is.na (mCpLast.tmp), data[data$id==obs,]$registered, mCpLast.tmp)
## extremely large number of votes for parties that did not receive seats
mCpLast.tmp <- matrix (as.numeric (mCpLast.tmp > 0), nrow=rows) * mCpLast.tmp
## we are only interested in positive values (i.e., decreases, not increases)
mCpLast.tmp <- mCpLast.tmp + (1 - matrix (as.numeric (
  ((mVotes[, -1] + mCpLast.tmp) / mSeats[, -1] > mVotes[,1] / mSeats[,1])
  | ((mVotes[, -1] + mCpLast.tmp) / mSeats[, -1] == mVotes[,1] / mSeats[,1]
    & mVotes[, -1] + mCpLast.tmp > mVotes[,1])
), nrow=rows))

## Now we calculate the distributions of vote totals under each possible scenario
chInt <- unlist (
  c (0
    , base3[base3$party.int==1,]$distTh
    , base3[base3$party.int==0, c ("difNext.inc", "difLast.inc")]))
## possible changes to the party of interest;
## the 0 is for no changes, the second value is for falling below the thresholds,
## the other are votes it would lose against other parties
mVotes2 <- cbind (mVotes[,1], mVotes[, -1], mVotes[, -1])[chInt<=0,]
## we're only interested in cases where the vote total for the party of interest
## decreases or remains the same
mChanges2 <- cbind (chInt, mCpNext.tmp, mCpLast.tmp)[chInt<=0,]

```

```

# constructing the grid of all possible combinations of parties winning/losing seats
mGrid.tmp <- expand.grid (rep (list (0:1), rows-1)) ## grid with all combinations
n <- nrow (mChanges2) ## we'll replicate the grids n times
mGrid <- mGrid.tmp[rep (seq_len (nrow (mGrid.tmp)), n), ]

# constructing a matrix with the distribution of the new vote totals
newVotes <- mVotes2[rep (seq_len (n), each=2^(rows-1)),] +
  cbind (rep (0, nrow (mGrid)), mGrid[,-1] *
    mChanges2[,-1][rep (seq_len (n), each=2^(rows-1)),])

# calculating new vote totals by party
newVotes2 <- cbind (newVotes[,1]
  , newVotes[,2:((rows+1)/2)] * matrix (as.numeric (
    newVotes[,2:((rows+1)/2)]
    > newVotes[,((rows+1)/2+1):rows])
  , nrow=nrow (newVotes)) +
  newVotes[,((rows+1)/2+1):rows] *
  matrix (as.numeric (newVotes[,2:((rows+1)/2)]
    <= newVotes[,((rows+1)/2+1):rows])
  , nrow=nrow (newVotes))

## Parties may appear twice, so we select the minimum value for each of them.
## This isn't a problem, as there is a row in which a value for any given party
## will appear only once. We then select every unique combination of vote totals
row.names (newVotes2) <- row.names (newVotes)
## there are problem with the row.names when there are only two parties
newVotes2 <- unique (newVotes2)

# calculating all new possible vote distributions
newDeals <- t (apply (newVotes2
  , MARGIN=1
  , FUN=dh ## function to calculate seat distribution using d'Hondt
  , M=unique (base3$M)
  , threshold=unique (base3$th)))
newDeals[,1][is.na (newDeals[,1])] <- 0
## replace NAs with 0s, we'll need that when calculating the new seat allocation

chGrid <- cbind (
  rowSums ((cbind (1, mGrid[,-1]) *

```

```

      abs (mChanges2[rep (seq_len (n), each=2^(rows-1)),])[row.names (newDeals),])
    , newDeals)
## total number of votes that would change with each alternative vote distribution
chGrid <- chGrid[order (chGrid[,1]),] ## sort according to minimum change in votes required
base3$vpNew <- unlist (
  newVotes2[row.names (newVotes2)==names (chGrid[,2])[chGrid[,2]
    < base3[base3$party.int==1,]$sp][1,])

## calculating the new distribution of seats
base4b <- rbind.fill (base3, base2b[include==0,]) ## adding the remaining observations
base4b$vpchangeTotal <- with (base4b, abs (vpNew - vp))
## total number of votes that must change for the party of interest to gain one additional seat
base4b$spNew <- with (base4b, dh (vpNew, M=M, threshold=th))

## We assumed that some parties passed the threshold,
## yet some of them may not have received seats nonetheless.
## We update the information accordingly:
base4b$vpNew <- with (base4b, ifelse (dTh == 0 & vpNew >= th & spNew == 0, vp, vpNew))
## If a party did not originally surpass the threshold, but received enough votes to reach it
## and nonetheless did not win any seats, keep its old vote distribution;
## otherwise, keep the new one
base4b$vpchangeTotal <- with (base4b, abs (vpNew - vp))
## total number of votes that must change for the party of interest to gain one additional seat

## If multiple parties receive enough additional seats to surpass the threshold AND win seats,
## it may nonetheless be the case that with a single party would have sufficed.
## Note that this can only happen if receiving enough votes to surpass the threshold
## suffices to change the seat distribution; otherwise, the previous code
## would have identified these parties and discarded those that
## would have required additional votes to get any seat.
if ( nrow (base4b[base4b$dTh==0 & base4b$vpchangeTotal!=0,])<=1){
  base4b <- base4b
} else {
  seatCh <- rep (base4b[base4b$party.in==1,]$sp
    , nrow (base4b[base4b$dTh==0 & base4b$vpchangeTotal!=0,]))
  ## we'll get the alternative seat distributions for the party of interest here
  for (i in 1:nrow (base4b[base4b$dTh==0 & base4b$vpchangeTotal!=0,])){
    seatCh[i] <- seatCh[i] - with (base4b[1:(nrow (base4b[base4b$dTh==1,])+i),]
      , dh (vpNew, M=M, threshold=th))[1]
  }
}

```

```

    }
    base4b[base4b$incToTh!=0,][min (which (seatCh > 0))+1):
      nrow (base4b[base4b$incToTh!=0,])$vpNew <- base4b[base4b$incToTh!=0
                                                ,][min (which (seatCh > 0))+1):
                                                nrow (base4b[base4b$incToTh!=0,])$vp

    ## we do not update the vote total for those parties that
    ## (a) would have received seats in case of passing the threshold; but
    ## (b) this would have been unnecessary for the party of interest to lose a seat
    base4b$vchangeTotal <- with (base4b, abs (vpNew - vp))
    ## total number of votes that must change for the party of interest to lose a seat
    base4b$spNew <- with (base4b, dh (vpNew, M=M, threshold=th))
  }

  ## Checking that there are no obvious mistakes
  base4b$check <- with (base4b, ifelse (
    is.na (spNew) & vchangeTotal == abs (distTh)
    , 0
    , ifelse (party.int==0, 0, ifelse (spNew >= sp, 1, 0))))
  ## a "1" would indicate the party of interest had not lost any additional seat(s)

  ## So, we have two datasets now:
  ## (a) one in which no party receives additional votes to ensure that it surpass the threshold;
  ## and (b) another in which at least one party does.
  ## The last step is to determine which one requires fewer vote changes
  ## in order to induce a seat change in the party of interest:
  if ( sum (base4b$vchangeTotal) <= sum (base4b$vchangeTotal) ){
    return (base4) ## if the original dataset involves fewer vote changes, return it
  }
  else {
    return (base4b)
  }
}
}
}

```

Reproducing the Catamarca 2013 example in R.

```

library (combinat)
library (plyr)
source ("function_dhcalc.R") ## d'Hondt calculator

```

```

source ("function_addVotes.R") ## function for calculating vote change for an additional seat
source ("function_subVotes.R") ## function for calculating vote change to lose a seat

## function for ignoring NA's while calculating maximum values
max.na <- function (x) {
  if (all (is.na (x))==TRUE){ return (NA)
  } else {return (max (x, na.rm=TRUE))}
}

## function for ignoring NA's while calculating minimum values
min.na <- function (x) {
  if (all (is.na (x))==TRUE){ return (NA)
  } else {return (min (x, na.rm=TRUE))}
}

(cat13 <- as.data.frame (cbind (
  c (1:4)
  , rep (3, 4)
  , c (79512, 77148, 36997, 5044)
  , c (79512, 77148, 36997, 8349)
  , rep (8349, 4)
  , c (1, 1, 1, 0)
  , c (-71164, -68800, -28649, 3305)
  , c (0, 0, 0, 3305)
  , c (2, 1, 0, 0)
  , c (26504, 38574, 36997, 8349)
  , c (39756, 77148, NA, NA)
  , rep (NA, 4)
  , rep (NA, 4)
  , rep (278298) ## registered voters
)))

colnames (cat13) <- c ("id", "M", "vp", "vp.th", "th", "dTh"
, "distTh", "incToTh", "sp", "cpNext", "cpLast", "vpNew", "spNew", "registered")
cat13$election <- factor ("CAT_2013")
cat13$party <- factor (c (
  "FRENTE CIVICO Y SOCIAL"
  , "FRENTE POR LA VICTORIA"
  , "FRENTE TERCERA POSICION"
  , "PARTIDO OBRERO"

```

```

))

cAdd <- lapply (cat13$id, FUN=addVotes, data=cat13)
## This creates a separate dataset for every observation.
## The "vchangeTotal" column indicates how many votes each party must win
## (if it is the party of interest) or lose (if it is another)
## for the party of interest to win an additional seat

cSub <- lapply (cat13$id, FUN=subVotes, data=cat13)
## This creates a separate dataset for every observation.
## The "vchangeTotal" column indicates how many votes each party must lose
## (if it is the party of interest) or win (if it is another)
## for the party of interest to lose its last seat

```

C Compliance with treatment assignment

While in principle all marginal candidates located above the cutoff should receive a seat while all those located below the cutoff should not, in practice this is not always the case. First, elected candidates do not always assume office, either because they resign in order to remain in a more valuable position, or because they are banned from assuming office for legal reasons.¹⁸ Candidates that resign before assuming office are more common, but they tend to be concentrated among those who lead their party's list, and thus rarely qualify as marginal legislators. Second, deputies who die, resign or are expelled from the Chamber are replaced by the individual who follows them in the party list, and thus candidates who fail to win a seat sometimes end up assuming office anyway. In our data, between 12 per cent and 25 per cent of marginal legislators who failed to win a seat eventually assumed office, though these numbers decrease to 6-15 per cent if we weight them legislators according to the time they spent in office. Nonetheless, as Table A2 and Figure A7 show, compliance rates are quite high: ending just above the cutoff is a very good predictor of whether (a) an individual will end up becoming a national deputy; as well as of (b) the proportion of a four-year term that she will effectively serve (which we call *time served*, which varies between 0 and 1), especially in small provinces.

¹⁸In our sample, only three marginally elected legislators failed to assume office at all. Antonio Erman González (La Rioja, 1989) resigned from his seat in order to assume as vice-president of the Central Bank; Leonel Galantini (Corrientes, 2009) opted to serve as mayor of Monte Caseros; and Antonio Domingo Bussi (Tucumán, 1999) was barred from assuming office due to his responsibility in crimes against humanity when serving as governor of Tucumán during the military dictatorship (see “Bussi no podrá ocupar su banca de diputado,” *La Nación*, 11 May 2000).

Table A2: Compliance with treatment assignment

	(a) All provinces					(b) Small provinces ($M \leq 5$)				
<i>assumed office</i> (0/1)	est.	95% CI	<i>p</i> -val.	bwd.	N	est.	95% CI	<i>p</i> -val.	bwd.	N
Governor's	0.61	[0.31:0.87]	0.00	6.88	83 78	0.93	[0.74:1.20]	0.00	4.88	59 51
PJ	0.65	[0.44:0.85]	0.00	5.68	88 75	0.92	[0.76:1.11]	0.00	4.86	56 58
UCR	0.67	[0.38:0.88]	0.00	6.04	63 68	0.86	[0.53:1.17]	0.00	6.23	52 58
<i>time served</i>										
Governor's	0.72	[0.44:1.00]	0.00	7.12	85 79	1.03	[0.99:1.14]	0.00	3.41	46 35
PJ	0.70	[0.46:0.92]	0.00	6.88	94 82	0.99	[0.92:1.10]	0.00	4.93	56 58
UCR	0.83	[0.70:0.94]	0.00	8.20	73 82	0.93	[0.80:1.06]	0.00	5.62	50 55

Sharp RD estimates. The running variable is *vote change to last seat*. For each reference party, the sample is restricted to marginal candidates. We report conventional point estimates with robust CIs and *p*-values based on the MSE-optimal bandwidth proposed by Calonico, Cattaneo and Titiunik (2014). To calculate the estimates, we clustered observations by province and fitted a separate local linear regression at both sides of the threshold, with a triangular kernel. Reported number of observations corresponds to the *effective* sample size. In panel (a), overall sample size is $(142 + 123 = 265)$ for the governor's party, and $(149 + 136 = 285)$ and $(111 + 126 = 237)$ for the PJ and UCR, respectively. In panel (b), overall sample sizes are $(128 + 111 = 239)$, $(127 + 124 = 251)$ and $(100 + 116 = 216)$ for the governor's party, the PJ and the UCR, respectively.

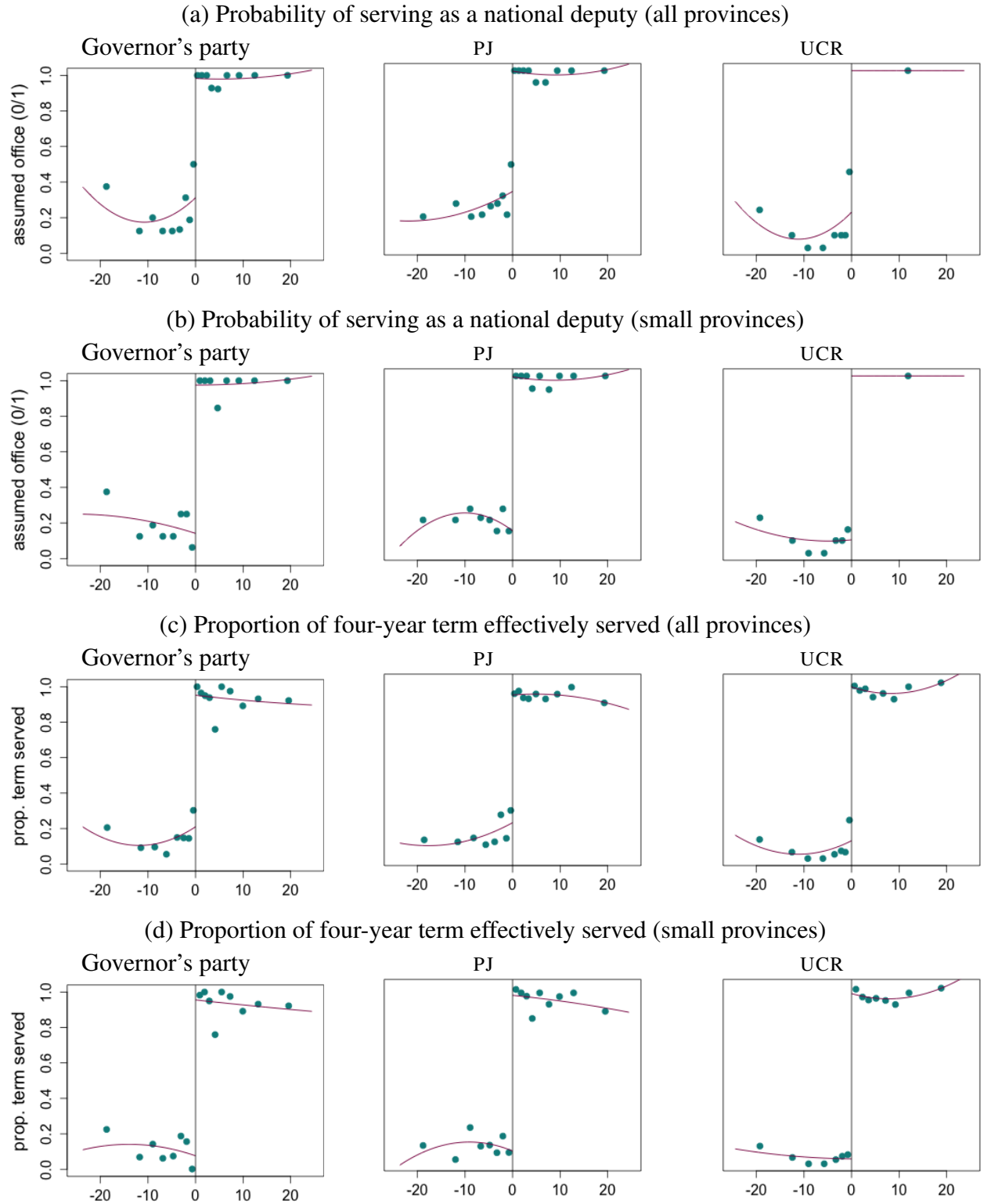


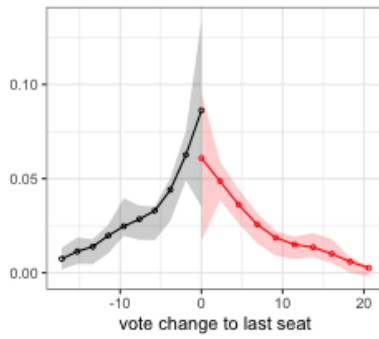
Figure A7: Compliance with treatment assignment. Mimicking variance RD plots with quantile-spaced bins (Calonico, Cattaneo and Titiunik 2015a). The lines indicate the fit of a second-order polynomial regression estimated separately at each side of the cutoff, using a uniform kernel.

D Balance checks

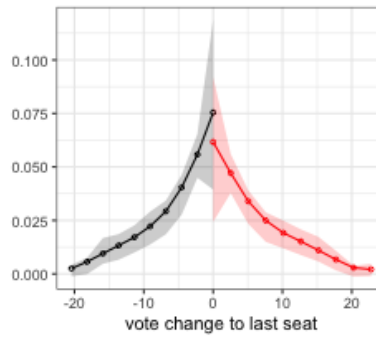
- (1) *Density test*. Figure A8 reports the density tests for the running variable at the threshold.
- (2) *Balance checks (1)*. The mimicking-variance quantile-spaced RD plots displayed in Figures A9 through A12 show the distribution of ten pre-treatment variables that should not vary discontinuously at the cutoff.
- (3) *Balance checks (2)*. Table A3 reports the corresponding RD estimates, employing the same specifications as in Table 2 in the text.

(a) All provinces

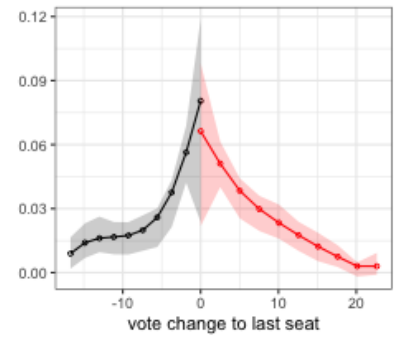
Governor's (p -val. = 0.40)



PJ (p -val. = 0.45)

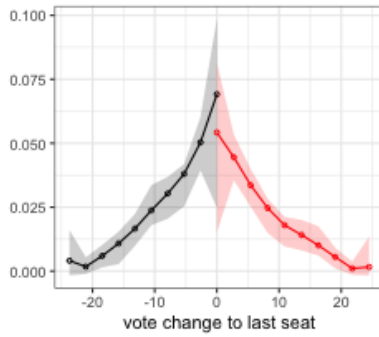


UCR (p -val. = 0.73)

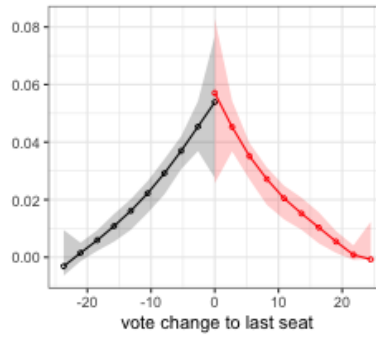


(b) Small provinces ($M \leq 5$)

Governor's (p -val. = 0.61)



PJ (p -val. = 0.92)



UCR (p -val. = 0.81)

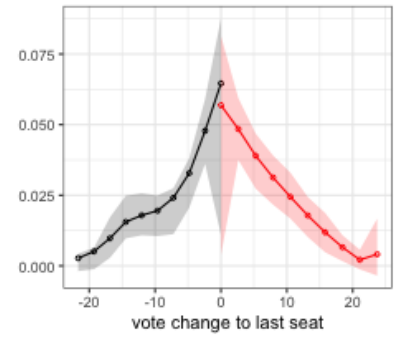


Figure A8: Cattaneo, Jansson and Ma's (2018) test of the density of the running variable at the threshold.

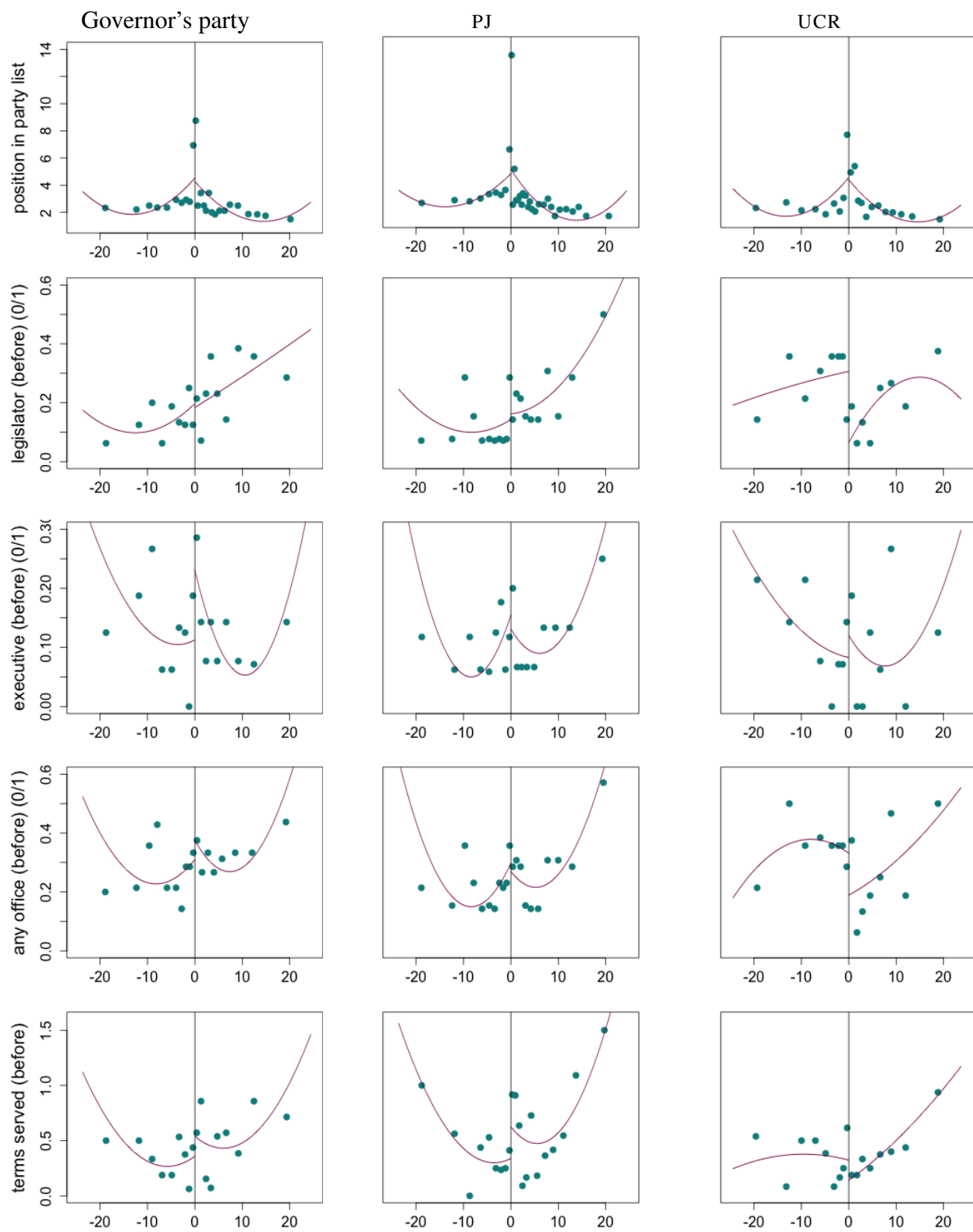


Figure A9: Balance checks – All provinces (1). Mimicking variance RD plots with quantile-spaced bins (Calonico, Cattaneo and Titiunik 2015a). The lines indicate the fit of a second-order polynomial regression estimated separately at each side of the cutoff, using a uniform kernel.

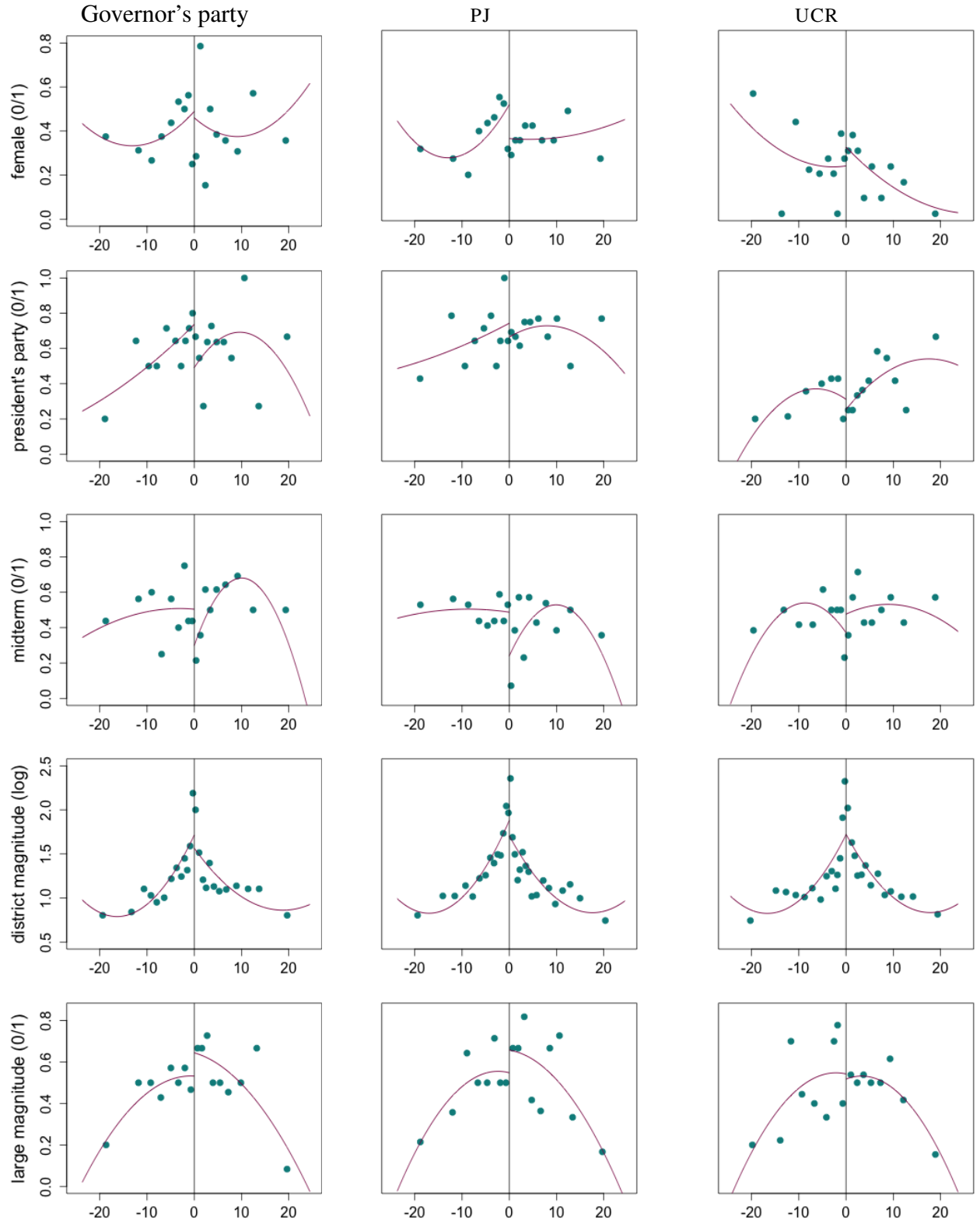


Figure A10: Balance checks – All provinces (2). Mimicking variance RD plots with quantile-spaced bins (Calonico, Cattaneo and Titiunik 2015a). The lines indicate the fit of a second-order polynomial regression estimated separately at each side of the cutoff, using a uniform kernel.

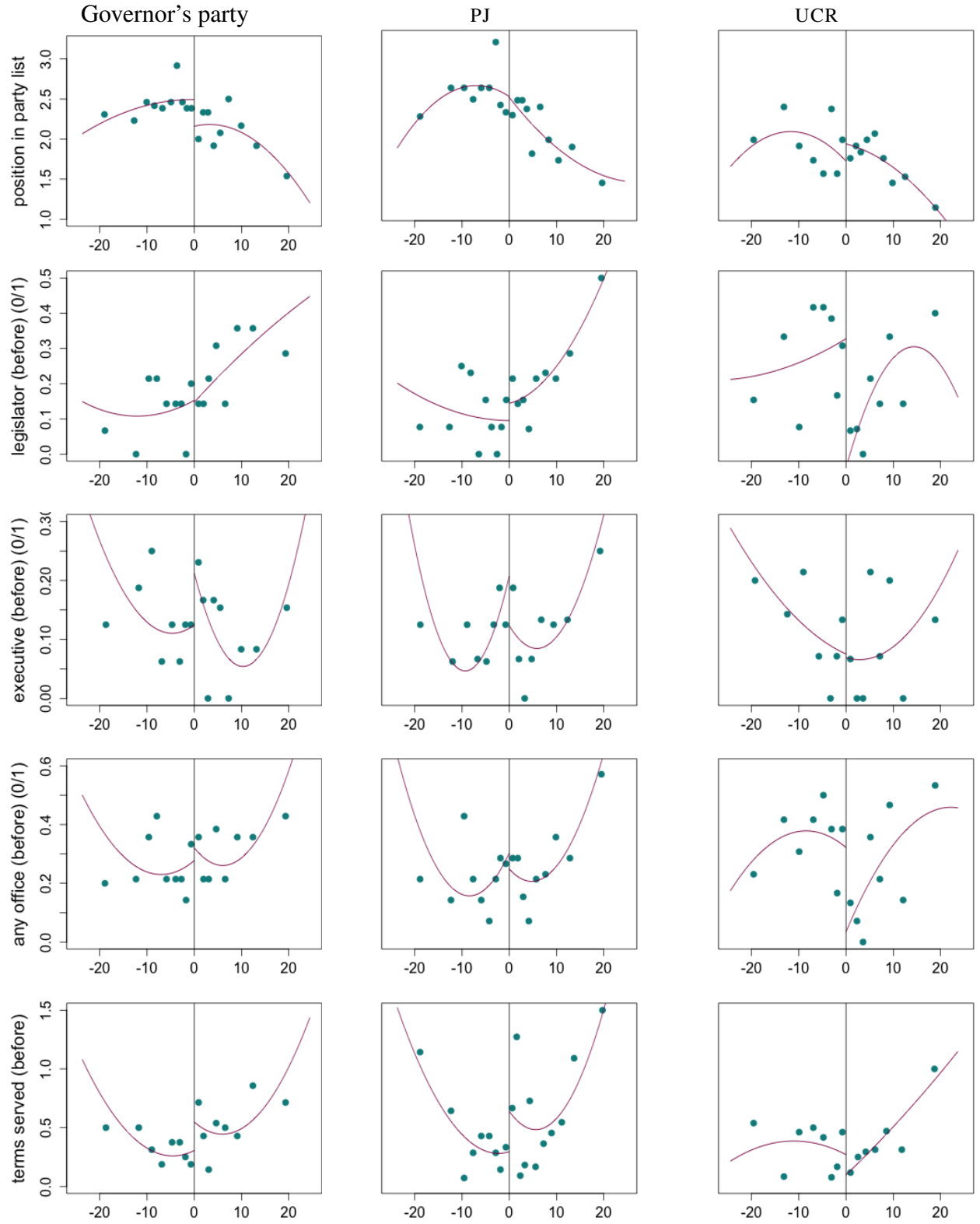


Figure A11: Balance checks – Small provinces ($M \leq 5$) (1). Mimicking variance RD plots with quantile-spaced bins (Calonico, Cattaneo and Titiunik 2015a). The lines indicate the fit of a second-order polynomial regression estimated separately at each side of the cutoff, using a uniform kernel.

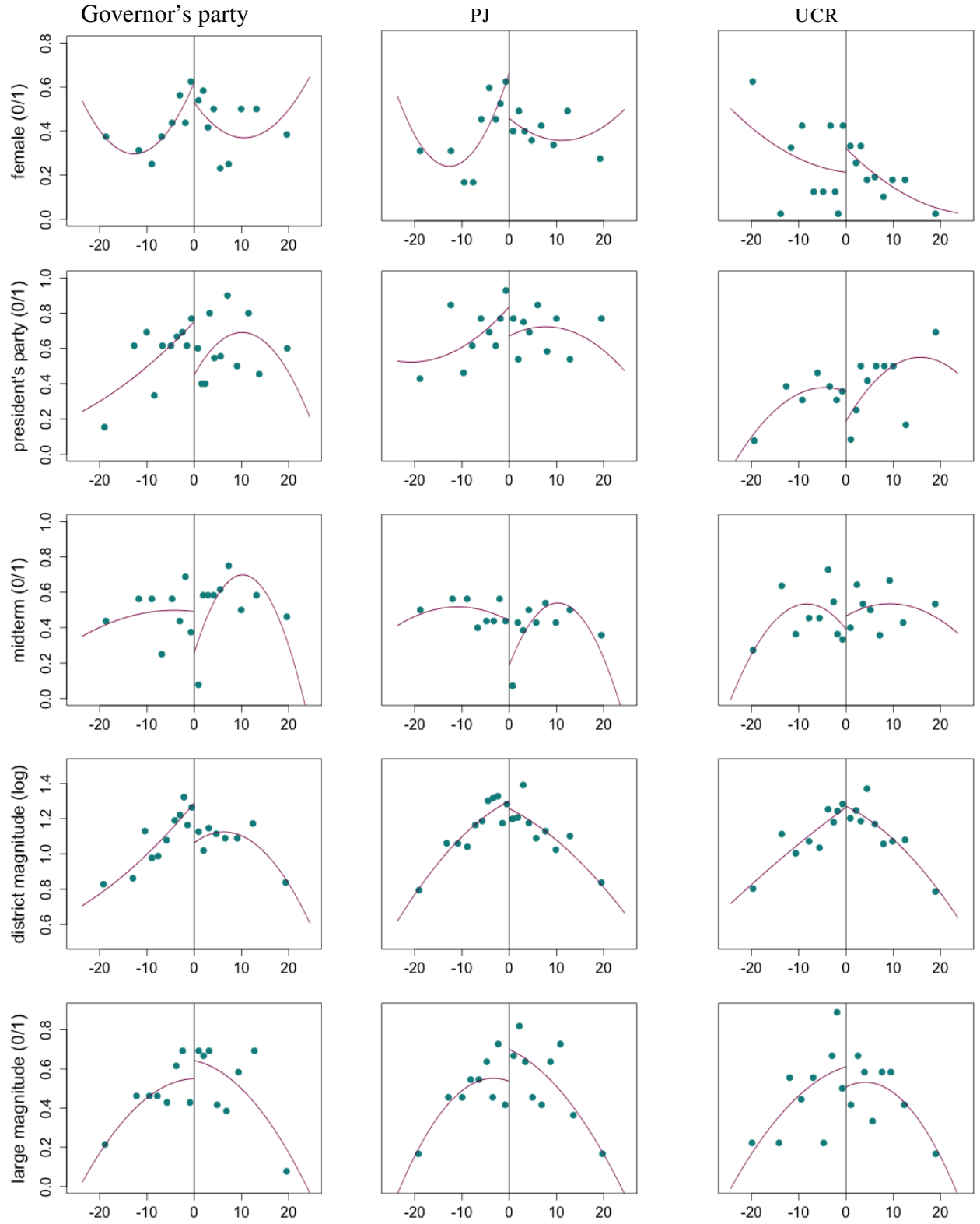


Figure A12: Balance checks – Small provinces ($M \leq 5$) (2). Mimicking variance RD plots with quantile-spaced bins (Calonico, Cattaneo and Titiunik 2015a). The lines indicate the fit of a second-order polynomial regression estimated separately at each side of the cutoff, using a uniform kernel.

Table A3: Balance checks

<i>position in list</i>	(a) All provinces					(b) Small provinces ($M \leq 5$)				
	est.	95% CI	<i>p</i> -val.	bwd.	N	est.	95% CI	<i>p</i> -val.	bwd.	N
Governor's	0.05	[-7.86:7.98]	0.99	5.81	81 70	-0.32	[-0.84:0.30]	0.35	5.79	67 57
PJ	1.38	[-5.68:9.69]	0.61	6.12	90 77	0.11	[-0.45:0.80]	0.59	5.60	63 63
UCR	-1.09	[-9.01:5.87]	0.68	6.08	63 68	-0.00	[-0.80:0.71]	0.90	6.67	55 61
<i>legislator (before) (0/1)</i>										
Governor's	-0.02	[-0.39:0.33]	0.88	6.66	83 76	0.03	[-0.34:0.42]	0.86	6.41	68 63
PJ	-0.00	[-0.41:0.34]	0.87	5.92	89 77	0.09	[-0.35:0.56]	0.64	6.01	67 65
UCR	-0.06	[-0.30:0.28]	0.94	5.95	63 68	-0.15	[-0.40:0.21]	0.53	5.64	50 55
<i>executive (before) (0/1)</i>										
Governor's	0.14	[-0.18:0.51]	0.35	4.63	71 61	0.10	[-0.35:0.57]	0.64	5.62	65 57
PJ	0.06	[-0.21:0.38]	0.55	4.84	78 69	0.02	[-0.36:0.49]	0.76	5.41	61 61
UCR	0.05	[-0.38:0.53]	0.74	5.31	59 62	-0.08	[-0.45:0.30]	0.70	5.00	47 49
<i>any office (before) (0/1)</i>										
Governor's	0.07	[-0.30:0.45]	0.69	5.24	75 66	0.05	[-0.56:0.69]	0.84	5.47	63 54
PJ	-0.00	[-0.41:0.38]	0.94	5.40	83 73	0.04	[-0.55:0.69]	0.82	5.27	60 61
UCR	0.02	[-0.38:0.53]	0.75	5.41	59 62	-0.20	[-0.57:0.24]	0.43	5.95	52 58
<i>terms served (before)</i>										
Governor's	0.22	[-0.31:0.82]	0.38	5.61	78 69	0.34	[-0.58:1.43]	0.40	5.97	67 60
PJ	0.18	[-0.40:0.86]	0.48	4.89	78 70	0.37	[-0.48:1.48]	0.31	4.99	56 59
UCR	-0.15	[-0.72:0.61]	0.87	5.45	59 63	-0.49	[-1.08:0.28]	0.24	6.46	55 61
<i>female (0/1)</i>										
Governor's	0.07	[-0.30:0.48]	0.65	5.49	77 67	-0.03	[-0.54:0.45]	0.86	6.11	68 60
PJ	-0.08	[-0.39:0.31]	0.82	5.96	89 77	-0.15	[-0.57:0.31]	0.57	6.57	70 68
UCR	0.06	[-0.31:0.37]	0.86	6.37	66 69	0.11	[-0.21:0.39]	0.55	6.42	55 60
<i>president's party (0/1)</i>										
Governor's	-0.28	[-0.66:0.04]	0.08	5.62	79 69	-0.33	[-0.77:0.07]	0.10	5.86	67 60
PJ	-0.09	[-0.38:0.18]	0.48	8.16	97 82	-0.18	[-0.53:0.13]	0.23	6.89	66 63
UCR	0.09	[-0.20:0.45]	0.44	4.50	48 52	-0.17	[-0.56:0.28]	0.51	4.25	38 39
<i>midterm election (0/1)</i>										
Governor's	-0.23	[-0.62:0.19]	0.30	5.81	81 71	-0.44	[-0.88:-0.09]	0.01	5.10	61 53
PJ	-0.39	[-0.73:-0.14]	0.00	4.98	78 71	-0.47	[-0.94:-0.14]	0.01	4.86	56 58
UCR	0.17	[-0.24:0.60]	0.40	4.71	56 59	0.12	[-0.51:0.75]	0.71	5.17	47 52
<i>district magnitude (log)</i>										
Governor's	-0.04	[-1.17:1.16]	0.99	5.94	81 72	-0.17	[-0.47:0.16]	0.34	7.04	71 66
PJ	-0.08	[-1.04:0.97]	0.94	6.53	92 80	0.01	[-0.27:0.31]	0.90	6.79	71 70
UCR	-0.12	[-1.26:0.93]	0.76	5.69	61 67	-0.06	[-0.41:0.23]	0.58	8.88	66 78
<i>large magnitude (0/1)</i>										
Governor's	0.20	[-0.16:0.62]	0.25	8.10	68 71	0.19	[-0.26:0.70]	0.37	8.00	59 65
PJ	0.16	[-0.28:0.59]	0.49	7.07	66 53	0.28	[-0.26:0.87]	0.29	6.90	53 50
UCR	-0.05	[-0.48:0.36]	0.78	10.16	56 75	-0.26	[-1.00:0.35]	0.35	6.88	40 49

Sharp RD estimates. The running variable is *vote change to last seat*. For each reference party, the sample is restricted to marginal candidates. We report conventional point estimates with robust CIs and *p*-values based on the MSE-optimal bandwidth proposed by Calonico, Cattaneo and Titiunik (2014). To calculate the estimates, we clustered observations by province and fitted a separate local linear regression at both sides of the threshold, with a triangular kernel. Reported number of observations corresponds to the *effective* sample size. See Table A1 for overall sample sizes.

E Power and sample size calculations

- (1) *Main results.* Table A4 presents power and sample size calculations for the specifications reported in Table 2. For every specification, we report power for three alternative hypotheses: (a) an effect as large as half a standard deviation of the outcome variable in the control group ($\frac{SD_C}{2}$); (b) an effect as large as the standard deviation of the outcome variable in the control group (SD_C); and (c) an effect as large in absolute value as the one reported in Table 2. For each of these alternative hypotheses, we also report the necessary sample sizes to achieve 80% power.¹⁹
- (2) *Including controls.* Table A5 reports the corresponding estimates for the models reported in Table A16, which replicates the specifications of Table 2 but adding a series of dummies to identify (a) female legislators; (b) whether the candidate had previously held any legislative or executive position; (c) midterm elections; (d) whether the election took place in a province with an even number of representatives and if not (e) whether the election took place in a large-magnitude year; and (f) whether the candidate occupied the first, second, third or fourth position in the party list (fifth or lower is the reference category).
- (3) *Second-order polynomial.* Table A6 reports the corresponding estimates for the models reported in Table A17, which replicates the results of Table 2 but using a second-order polynomial instead of a local linear regression.

¹⁹All calculations were performed using the `rdpower` and `rdsampsi` functions in the `rdpower` package in R (Cattaneo, Titiunik and Vázquez-Bare 2019).

Table A4: Power and sample size calculations (1): Main results

	(a) All provinces									(b) Small provinces ($M \leq 5$)								
	SD_C $\hat{\beta}$		power			sample size				SD_C $\hat{\beta}$		power			sample size			
			$\frac{SD_C}{2}$	SD_C	$ \hat{\beta} $	actual	$\frac{SD_C}{2}$	SD_C	$ \hat{\beta} $			$\frac{SD_C}{2}$	SD_C	$ \hat{\beta} $	actual	$\frac{SD_C}{2}$	SD_C	$ \hat{\beta} $
<i>renomination (0/1)</i>																		
Governor's	0.32	0.16	0.33	0.86	0.33	88	103	27	101	0.31	0.26	0.23	0.67	0.51	79	175	44	66
						80	63	16	62						73	86	22	32
PJ	0.33	0.37	0.43	0.95	0.98	90	72	18	14	0.32	0.49	0.21	0.63	0.93	66	174	44	20
						77	48	13	10						63	118	30	13
UCR	0.37	-0.13	0.37	0.90	0.22	57	64	16	120	0.36	-0.07	0.19	0.57	0.07	49	134	34	848
						59	81	21	151						54	196	50	1235
<i>legislator (after) (0/1)</i>																		
Governor's	0.36	0.05	0.46	0.96	0.09	100	59	15	654	0.34	0.19	0.41	0.94	0.51	69	75	20	58
						89	53	14	594						66	51	13	39
PJ	0.37	0.26	0.45	0.96	0.73	78	69	18	35	0.37	0.28	0.24	0.72	0.49	68	148	37	64
						70	44	11	23						65	89	23	39
UCR	0.34	-0.20	0.50	0.98	0.62	54	54	14	41	0.31	-0.07	0.21	0.62	0.08	48	142	36	631
						53	45	12	34						53	153	39	682
<i>executive (after) (0/1)</i>																		
Governor's	0.27	0.05	0.51	0.98	0.12	73	50	13	334	0.27	0.14	0.33	0.85	0.36	63	130	33	115
						62	48	13	323						54	37	10	33
PJ	0.28	0.02	0.59	0.99	0.06	93	43	11	3369	0.28	0.13	0.45	0.95	0.40	69	87	23	100
						81	37	10	2876						66	27	7	31
UCR	0.27	-0.17	0.40	0.93	0.55	59	27	7	18	0.27	-0.17	0.27	0.77	0.40	48	47	12	29
						62	105	27	71						52	162	41	100
<i>any office (after) (0/1)</i>																		
Governor's	0.40	0.12	0.38	0.91	0.17	82	66	17	174	0.39	0.31	0.38	0.91	0.73	67	94	24	39
						75	73	19	194						60	46	12	19
PJ	0.40	0.22	0.50	0.98	0.56	82	63	16	54	0.39	0.36	0.26	0.75	0.66	67	139	35	43
						73	36	10	31						65	82	21	25
UCR	0.41	-0.22	0.40	0.93	0.46	63	51	13	43	0.39	-0.09	0.35	0.89	0.12	54	72	19	302
						68	80	21	68						59	80	20	334
<i>terms served (after)</i>																		
Governor's	0.84	0.34	0.35	0.88	0.25	83	87	23	131	0.86	0.48	0.26	0.75	0.30	68	134	34	110
						76	67	17	99						62	87	22	72
PJ	1.08	0.50	0.62	1.00	0.55	92	47	12	55	1.14	0.66	0.35	0.89	0.45	70	88	22	65
						80	28	8	33						68	64	17	47
UCR	0.82	-0.41	0.62	1.00	0.64	56	29	8	28	0.84	-0.38	0.40	0.92	0.34	52	37	10	45
						58	45	12	44						58	95	24	114

For each sample, the first two columns indicate the standard deviation of the outcome variable in the control group (SD_C) and the point estimate reported in Table 2 ($\hat{\beta}$). The “power” columns report the actual power in the data against three alternative effect sizes: (a) half a standard deviation of the outcome variable in the control group ($\frac{SD_C}{2}$); (b) the standard deviation of the outcome variable in the control group (SD_C); and (c) the absolute value of $\hat{\beta}$. The “sample size” columns list both the effective sample sizes reported in Table 2, and the sample sizes needed to achieve 80% power for each of these hypotheses, in all cases distinguishing between observations at the left of the threshold (top) and the right (bottom).

Table A5: Power and sample size calculations (2): Including controls

	(a) All provinces										(b) Small provinces ($M \leq 5$)									
	power					sample size					power					sample size				
	SD_C	$\hat{\beta}$	$\frac{SD_C}{2}$	SD_C	$ \hat{\beta} $	actual	$\frac{SD_C}{2}$	SD_C	$ \hat{\beta} $		SD_C	$\hat{\beta}$	$\frac{SD_C}{2}$	SD_C	$ \hat{\beta} $	actual	$\frac{SD_C}{2}$	SD_C	$ \hat{\beta} $	
<i>renomination (0/1)</i>																				
Governor's	0.32	0.16	0.31	0.84	0.31	88	96	25	100		0.31	0.21	0.25	0.74	0.42	91	150	38	82	
						80	79	20	81							78	75	19	41	
PJ	0.33	0.41	0.29	0.80	0.94	78	109	28	18		0.32	0.54	0.21	0.64	0.97	56	151	38	14	
						65	84	21	14							55	133	34	13	
UCR	0.37	-0.03	0.36	0.89	0.06	51	76	20	3297		0.36	0.04	0.18	0.54	0.06	44	204	52	4557	
						55	74	19	3184							49	156	39	3466	
<i>legislator (after) (0/1)</i>																				
Governor's	0.36	0.06	0.52	0.98	0.10	99	53	14	523		0.34	0.14	0.49	0.97	0.37	80	56	15	78	
						89	43	11	430							74	46	12	65	
PJ	0.37	0.28	0.41	0.93	0.75	75	69	18	30		0.37	0.30	0.23	0.68	0.53	63	143	36	52	
						65	58	15	26							62	113	29	41	
UCR	0.34	-0.15	0.34	0.88	0.28	53	85	22	108		0.31	-0.09	0.19	0.57	0.10	47	175	44	491	
						59	72	18	93							54	157	40	440	
<i>executive (after) (0/1)</i>																				
Governor's	0.27	0.05	0.59	0.99	0.14	72	41	11	265		0.27	0.14	0.32	0.84	0.35	62	124	31	109	
						62	38	10	248							54	49	13	43	
PJ	0.28	0.03	0.51	0.98	0.07	89	56	15	1248		0.28	0.17	0.35	0.88	0.45	62	113	29	82	
						73	40	10	879							59	43	11	32	
UCR	0.27	-0.23	0.29	0.80	0.64	50	36	10	14		0.27	-0.24	0.24	0.70	0.61	42	61	16	19	
						55	158	40	58							46	183	46	58	
<i>any office (after) (0/1)</i>																				
Governor's	0.40	0.13	0.42	0.94	0.20	82	62	16	156		0.39	0.32	0.38	0.91	0.77	66	88	23	34	
						72	63	16	157							57	51	13	19	
PJ	0.40	0.24	0.42	0.94	0.54	82	73	19	53		0.39	0.39	0.23	0.68	0.67	63	153	39	40	
						67	51	13	38							59	105	27	28	
UCR	0.41	-0.17	0.40	0.92	0.29	62	65	17	93		0.39	-0.06	0.27	0.77	0.07	53	107	27	1098	
						72	67	17	96							64	101	26	1026	
<i>terms served (after)</i>																				
Governor's	0.84	0.35	0.36	0.89	0.26	83	91	23	131		0.86	0.46	0.26	0.75	0.29	68	138	35	120	
						75	58	15	84							60	79	20	69	
PJ	1.08	0.62	0.46	0.96	0.57	84	72	19	55		1.14	0.77	0.27	0.76	0.44	63	128	32	70	
						69	39	10	30							61	84	22	46	
UCR	0.82	-0.27	0.56	0.99	0.29	61	40	10	92		0.84	-0.26	0.44	0.95	0.20	53	45	12	117	
						70	45	12	104							64	72	18	185	

For each sample, the first two columns indicate the standard deviation of the outcome variable in the control group (SD_C) and the point estimate reported in Table A16 ($\hat{\beta}$). The “power” columns report the actual power in the data against three alternative effect sizes: (a) half a standard deviation of the outcome variable in the control group ($\frac{SD_C}{2}$); (b) the standard deviation of the outcome variable in the control group (SD_C); and (c) the absolute value of $\hat{\beta}$. The “sample size” columns list both the effective sample sizes reported in Table A16, and the sample sizes needed to achieve 80% power for each of these hypotheses, in all cases distinguishing between observations at the left of the threshold (top) and the right (bottom).

Table A6: Power and sample size calculations (3): Second-order polynomial

	(a) All provinces									(b) Small provinces ($M \leq 5$)								
	power					sample size				power					sample size			
	SD_C	$\hat{\beta}$	$\frac{SD_C}{2}$	SD_C	$ \hat{\beta} $	actual	$\frac{SD_C}{2}$	SD_C	$ \hat{\beta} $	SD_C	$\hat{\beta}$	$\frac{SD_C}{2}$	SD_C	$ \hat{\beta} $	actual	$\frac{SD_C}{2}$	SD_C	$ \hat{\beta} $
<i>renomination (0/1)</i>																		
Governor's	0.32	0.27	0.20	0.60	0.46	83	156	40	55	0.31	0.55	0.11	0.30	0.71	68	441	111	37
						76	155	39	55						62	293	74	24
PJ	0.33	0.40	0.38	0.92	0.98	115	80	20	14	0.32	0.57	0.18	0.54	0.95	88	214	54	18
						102	57	15	10						84	141	36	12
UCR	0.37	-0.16	0.30	0.81	0.22	73	79	20	112	0.36	-0.10	0.12	0.32	0.07	62	264	67	919
						82	107	28	152						72	416	104	1445
<i>legislator (after) (0/1)</i>																		
Governor's	0.36	0.19	0.37	0.90	0.40	91	68	18	63	0.34	0.33	0.25	0.73	0.70	75	132	33	36
						83	75	19	70						70	97	25	27
PJ	0.37	0.27	0.43	0.95	0.75	111	73	19	33	0.37	0.31	0.22	0.67	0.52	100	168	43	60
						99	47	12	22						96	96	24	35
UCR	0.34	-0.24	0.51	0.98	0.78	63	54	14	29	0.31	-0.21	0.12	0.35	0.19	55	259	65	144
						68	44	12	23						61	341	86	190
<i>executive (after) (0/1)</i>																		
Governor's	0.27	0.03	0.45	0.96	0.06	85	55	14	1422	0.27	0.16	0.25	0.72	0.34	74	171	43	116
						78	57	15	1487						68	62	16	42
PJ*	0.28	0.01	0.55	0.99	0.05	111	45	12		0.28	0.16	0.36	0.90	0.45	80	118	30	90
						96	42	11							76	29	8	23
UCR	0.27	-0.17	0.34	0.87	0.51	79	40	11	25	0.27	-0.18	0.24	0.70	0.37	67	68	17	40
						89	118	30	73						79	180	46	104
<i>any office (after) (0/1)</i>																		
Governor's	0.40	0.19	0.26	0.75	0.24	85	100	25	109	0.39	0.48	0.16	0.50	0.66	68	252	64	43
						79	116	30	127						63	147	37	26
PJ	0.40	0.25	0.40	0.93	0.56	104	84	22	54	0.39	0.46	0.17	0.52	0.65	80	254	64	47
						89	47	12	31						75	124	32	23
UCR	0.41	-0.36	0.30	0.81	0.71	67	69	18	22	0.39	-0.25	0.16	0.49	0.24	55	174	44	104
						71	119	30	39						61	227	57	136
<i>terms served (after)</i>																		
Governor's	0.84	0.42	0.31	0.83	0.31	113	98	25	98	0.86	0.60	0.21	0.63	0.36	97	164	42	86
						92	80	21	80						79	122	31	65
PJ	1.08	0.53	0.50	0.97	0.48	105	61	16	63	1.14	0.78	0.29	0.81	0.49	94	110	28	58
						91	39	10	41						90	81	21	43
UCR	0.82	-0.53	0.56	0.99	0.79	64	28	8	16	0.84	-0.76	0.17	0.52	0.44	55	90	23	28
						69	58	15	35						60	280	71	88

(*) The minimum sample sizes required to achieve 80% power under the hypothesis $|\hat{\beta}| = 0.01$ could not be estimated. For each sample, the first two columns indicate the standard deviation of the outcome variable in the control group (SD_C) and the point estimate reported in Table A17 ($\hat{\beta}$). The “power” columns report the actual power in the data against three alternative effect sizes: (a) half a standard deviation of the outcome variable in the control group ($\frac{SD_C}{2}$); (b) the standard deviation of the outcome variable in the control group (SD_C); and (c) the absolute value of $\hat{\beta}$. The “sample size” columns list both the effective sample sizes reported in Table A17, and the sample sizes needed to achieve 80% power for each of these hypotheses, in all cases distinguishing between observations at the left of the threshold (top) and the right (bottom).

F Additional results

(1) *Alternative measures of career success.* Table A7 replicates the specifications of Table 2 for a set of four alternative outcomes:

- (a) *mayor (after) (0/1)*: 1 if an individual served as mayor after being elected to the Chamber, and 0 otherwise.
- (b) *executive other than mayor (after) (0/1)*: 1 if an individual served in an executive position other than mayor – (vice-)president, (vice-)governor or national minister – after being elected to the Chamber, and 0 otherwise.
- (c) *equivalent position (after) (0/1)*: 1 if an individual served in a position “equivalent” to that of national deputy – defined as national deputy, member of the Mercosur Parliament, or member of the 1994 constituent assembly – after being elected to the Chamber, and 0 otherwise.
- (d) *better position (after) (0/1)*: 1 if an individual served in a position that can be considered as more valuable than national deputy – defined as (sub)national executive or national senator – after being elected to the Chamber, and 0 otherwise.

(2) *Heterogeneous effects.* The next six tables replicate the results of Table 2, but restricting the sample in the following ways:

- (a) Table A8: only candidates who had never held an executive or a national legislative position.²⁰
- (b) Table A9: only candidates who had never run for national deputy before, though they may have been elected to other offices.

²⁰We do not have data on provincial legislators or municipal councillors.

- (c) Tables A10 and A11: small (respectively, large) magnitude elections in the 19 provinces with an odd number of representatives.²¹
- (d) Tables A12 and A13: female and male candidates, respectively.

²¹Catamarca, Chubut, Formosa, La Pampa, La Rioja, Neuquén, Río Negro, San Luis, Santa Cruz and Tierra del Fuego (2 deputies in small-magnitude years and 3 in large-magnitude ones); Chaco, Corrientes, Misiones, Salta and Santiago del Estero (3 and 4, respectively); Entre Ríos and Tucumán (4 and 5); Santa Fe (9 and 10); and the City of Buenos Aires (12 and 13).

Table A7: Additional results (1): Alternative measures of career success

	(a) All provinces					(b) Small provinces ($M \leq 5$)				
<i>mayor (after)</i> (0/1)	est.	95% CI	<i>p</i> -val.	bwd.	N	est.	95% CI	<i>p</i> -val.	bwd.	N
Governor's	0.03	[-0.16:0.21]	0.78	4.83	73 62	0.13	[-0.09:0.39]	0.21	4.73	58 50
PJ	0.02	[-0.11:0.19]	0.63	7.82	102 87	0.07	[-0.09:0.26]	0.34	8.34	84 80
UCR	-0.16	[-0.40:0.05]	0.12	5.26	59 62	-0.16	[-0.47:0.10]	0.21	5.05	47 49
<i>executive other than mayor (after)</i> (0/1)										
Governor's	0.06	[-0.14:0.25]	0.56	4.51	68 58	0.17	[-0.07:0.44]	0.15	5.02	60 51
PJ	0.01	[-0.17:0.19]	0.94	6.69	92 80	0.13	[-0.06:0.37]	0.17	6.21	68 65
UCR	-0.22	[-0.47:-0.04]	0.02	5.19	59 62	-0.28	[-0.60:-0.04]	0.03	5.07	47 50
<i>equivalent position (after)</i> (0/1)										
Governor's	0.05	[-0.21:0.32]	0.67	9.13	105 90	0.17	[-0.06:0.46]	0.14	7.83	76 71
PJ	0.26	[0.04:0.58]	0.03	4.92	78 70	0.28	[-0.04:0.74]	0.08	6.03	67 65
UCR	-0.17	[-0.45:0.02]	0.08	4.49	55 56	-0.06	[-0.46:0.27]	0.61	5.72	50 57
<i>better position (after)</i> (0/1)										
Governor's	0.12	[-0.17:0.51]	0.31	6.35	82 75	0.31	[0.04:0.70]	0.03	6.06	67 60
PJ	0.22	[-0.03:0.54]	0.08	5.28	82 73	0.36	[0.01:0.84]	0.04	5.87	67 65
UCR	-0.22	[-0.60:0.06]	0.11	6.08	63 68	-0.09	[-0.47:0.21]	0.45	6.31	54 59

Sharp RD estimates. The running variable is *vote change to last seat*. Executive positions other than mayor include (vice-)president, (vice-)governor and national minister. “Equivalent positions” (to national deputy) include national deputy, member of the Mercosur Parliament, and member of the 1994 constituent assembly. “More valuable positions” (than national deputy) include all executive positions plus national senator. For each reference party, the sample is restricted to marginal candidates. We report conventional point estimates with robust CIs and *p*-values based on the MSE-optimal bandwidth proposed by Calonico, Cattaneo and Titiunik (2014). To calculate the estimates, we clustered observations by province and fitted a separate local linear regression at both sides of the threshold, with a triangular kernel. Reported number of observations corresponds to the *effective* sample size. In panel (a), overall sample size is $(142 + 123 = 265)$ for the governor's party, and $(149 + 136 = 285)$ and $(111 + 126 = 237)$ for the PJ and UCR, respectively. In panel (b), overall sample sizes are $(128 + 111 = 239)$, $(127 + 124 = 251)$ and $(100 + 116 = 216)$ for the governor's party, the PJ and the UCR, respectively.

Table A8: Additional results (2): Candidates with no previous executive or national legislative experience

	(a) All provinces					(b) Small provinces ($M \leq 5$)				
<i>renomination</i> (0/1)	est.	95% CI	<i>p</i> -val.	bwd.	N	est.	95% CI	<i>p</i> -val.	bwd.	N
Governor's	0.39	[-0.05:0.99]	0.08	4.43	49 40	0.49	[0.03:1.16]	0.04	3.93	38 31
PJ	0.39	[0.06:0.82]	0.02	5.34	65 56	0.47	[-0.12:1.21]	0.11	5.15	46 48
UCR	-0.14	[-0.58:0.29]	0.52	5.07	38 50	0.03	[-0.56:0.65]	0.87	4.86	31 44
<i>legislator (after)</i> (0/1)										
Governor's	0.23	[-0.07:0.69]	0.11	4.80	55 42	0.19	[-0.16:0.73]	0.21	5.44	48 38
PJ	0.29	[-0.05:0.73]	0.09	5.19	63 56	0.22	[-0.22:0.77]	0.28	8.22	68 64
UCR	-0.13	[-0.51:0.15]	0.29	4.34	36 45	0.14	[-0.20:0.45]	0.45	4.46	29 42
<i>executive (after)</i> (0/1)										
Governor's	0.05	[-0.06:0.18]	0.31	5.69	59 46	0.07	[-0.09:0.27]	0.32	5.72	50 40
PJ	0.02	[-0.13:0.16]	0.84	6.09	71 59	0.13	[-0.05:0.34]	0.15	6.36	55 54
UCR	-0.01	[-0.05:0.02]	0.36	5.74	39 54	0.00	[-0.01:0.01]	0.79	2.61	21 26
<i>any office (after)</i> (0/1)										
Governor's	0.23	[-0.06:0.68]	0.10	4.95	55 43	0.18	[-0.15:0.71]	0.20	5.67	50 40
PJ	0.21	[-0.11:0.62]	0.17	6.10	71 59	0.22	[-0.23:0.76]	0.29	8.28	68 64
UCR	-0.12	[-0.48:0.17]	0.36	4.75	37 48	0.14	[-0.18:0.47]	0.37	4.74	30 44
<i>terms served (after)</i>										
Governor's	0.38	[-0.43:1.47]	0.28	6.39	61 51	0.17	[-0.72:1.32]	0.56	6.99	53 47
PJ	0.54	[-0.26:1.45]	0.17	6.95	74 64	0.60	[-0.71:2.07]	0.34	7.08	60 56
UCR	-0.13	[-0.50:0.17]	0.34	3.65	31 40	0.12	[-0.23:0.47]	0.51	4.35	29 41

Sharp RD estimates. The running variable is *vote change to last seat*. For each reference party, the sample is restricted to marginal candidates with no prior executive or national legislative experience. We report conventional point estimates with robust CIs and *p*-values based on the MSE-optimal bandwidth proposed by Calonico, Cattaneo and Titiunik (2014). To calculate the estimates, we clustered observations by province and fitted a separate local linear regression at both sides of the threshold, with a triangular kernel. Reported number of observations corresponds to the *effective* sample size. In panel (a), overall sample size is $(104 + 82 = 186)$ for the governor's party, and $(116 + 98 = 214)$ and $(72 + 92 = 164)$ for the PJ and UCR, respectively. In panel (b), overall sample sizes are $(95 + 76 = 171)$, $(99 + 90 = 189)$ and $(65 + 88 = 153)$ for the governor's party, the PJ and the UCR, respectively.

Table A9: Additional results (3): Candidates running for the first time

	(a) All provinces					(b) Small provinces ($M \leq 5$)				
<i>renomination</i> (0/1)	est.	95% CI	<i>p</i> -val.	bwd.	N	est.	95% CI	<i>p</i> -val.	bwd.	N
Governor's	0.12	[-0.21:0.48]	0.43	9.81	85 62	0.26	[-0.14:0.80]	0.17	7.19	55 47
PJ	0.42	[0.17:0.78]	0.00	5.78	71 53	0.41	[-0.01:0.98]	0.05	7.95	64 55
UCR	-0.15	[-0.55:0.23]	0.43	5.78	36 46	-0.13	[-0.74:0.44]	0.62	5.37	27 38
<i>legislator (after)</i> (0/1)										
Governor's	0.06	[-0.20:0.40]	0.51	7.81	69 58	0.05	[-0.30:0.52]	0.61	7.61	58 48
PJ	0.34	[0.07:0.72]	0.02	4.65	63 47	0.31	[-0.12:0.91]	0.14	5.59	49 45
UCR	-0.07	[-0.48:0.25]	0.53	5.32	35 44	-0.04	[-0.60:0.43]	0.75	4.95	26 37
<i>executive (after)</i> (0/1)										
Governor's	0.06	[-0.15:0.27]	0.58	6.48	64 53	0.19	[-0.10:0.53]	0.18	5.42	48 38
PJ	0.04	[-0.16:0.25]	0.65	7.93	81 63	0.19	[-0.07:0.53]	0.13	6.55	56 49
UCR	-0.18	[-0.49:0.06]	0.13	5.44	35 44	-0.17	[-0.61:0.19]	0.30	5.03	26 37
<i>any office (after)</i> (0/1)										
Governor's	0.20	[-0.09:0.65]	0.14	5.48	58 47	0.36	[0.06:0.88]	0.03	4.97	47 36
PJ	0.30	[0.03:0.68]	0.03	4.96	63 49	0.43	[0.01:1.04]	0.05	5.37	48 44
UCR	-0.12	[-0.61:0.27]	0.45	6.47	38 49	-0.02	[-0.55:0.43]	0.81	5.60	28 38
<i>terms served (after)</i>										
Governor's	0.47	[-0.30:1.54]	0.19	6.11	63 50	0.46	[-0.51:1.75]	0.28	5.90	52 41
PJ	0.70	[0.04:1.59]	0.04	6.28	73 55	0.82	[-0.18:2.19]	0.10	7.33	61 53
UCR	-0.22	[-0.95:0.36]	0.37	6.15	37 46	-0.28	[-1.49:0.71]	0.48	6.06	29 40

Sharp RD estimates. The running variable is *vote change to last seat*. For each reference party, the sample is restricted to marginal candidates who were seeking a position as national deputy for the first time since 1983. We report conventional point estimates with robust CIs and *p*-values based on the MSE-optimal bandwidth proposed by Calonico, Cattaneo and Titiunik (2014). To calculate the estimates, we clustered observations by province and fitted a separate local linear regression at both sides of the threshold, with a triangular kernel. Reported number of observations corresponds to the *effective* sample size. In panel (a), overall sample size is $(112 + 83 = 195)$ for the governor's party, and $(121 + 96 = 217)$ and $(66 + 85 = 151)$ for the PJ and UCR, respectively. In panel (b), overall sample sizes are $(102 + 74 = 176)$, $(103 + 88 = 191)$ and $(58 + 79 = 137)$ for the governor's party, the PJ and the UCR, respectively.

Table A10: Additional results (4): Small-magnitude elections

	(a) All provinces					(b) Small provinces ($M \leq 5$)				
<i>renomination</i> (0/1)	est.	95% CI	<i>p</i> -val.	bwd.	N	est.	95% CI	<i>p</i> -val.	bwd.	N
Governor's	0.28	[-0.43:0.88]	0.50	10.32	43 31	0.33	[-0.44:1.09]	0.41	9.28	35 28
PJ	0.47	[-0.22:1.37]	0.16	6.76	29 20	0.63	[-0.04:1.61]	0.06	5.40	19 14
UCR	0.03	[-0.78:0.70]	0.92	6.38	22 24	-0.17	[-1.16:0.66]	0.60	7.07	19 25
<i>legislator (after)</i> (0/1)										
Governor's	-0.01	[-0.64:0.52]	0.84	10.26	43 31	0.05	[-0.71:0.72]	0.99	10.10	39 29
PJ	0.16	[-0.53:1.04]	0.52	7.33	30 22	0.11	[-0.60:0.97]	0.65	10.20	34 28
UCR	-0.26	[-1.05:0.27]	0.24	4.55	16 18	-0.49	[-1.59:0.34]	0.21	5.28	14 18
<i>executive (after)</i> (0/1)										
Governor's	0.14	[-0.18:0.49]	0.37	6.61	29 25	0.17	[-0.29:0.70]	0.42	6.55	25 23
PJ	0.03	[-0.53:0.57]	0.94	7.52	30 23	0.23	[-0.27:0.85]	0.31	6.96	24 19
UCR	-0.26	[-0.92:0.24]	0.25	5.36	17 20	-0.48	[-1.58:0.37]	0.22	5.19	14 18
<i>any office (after)</i> (0/1)										
Governor's	0.06	[-0.51:0.75]	0.71	8.11	33 29	0.16	[-0.53:1.08]	0.50	7.11	25 25
PJ	-0.08	[-0.74:0.56]	0.79	10.65	41 31	0.10	[-0.64:0.93]	0.73	10.55	35 28
UCR	-0.20	[-0.86:0.23]	0.26	6.00	20 24	-0.22	[-0.95:0.39]	0.41	8.04	20 26
<i>terms served (after)</i>										
Governor's	0.15	[-1.25:1.67]	0.78	8.27	34 29	0.19	[-1.90:2.28]	0.86	7.84	28 27
PJ	0.19	[-1.70:2.13]	0.83	7.83	32 24	0.49	[-1.73:2.98]	0.60	7.57	25 21
UCR	-0.40	[-1.94:0.73]	0.37	7.60	23 27	-1.06	[-3.81:0.98]	0.25	6.10	17 22

Sharp RD estimates. The running variable is *vote change to last seat*. For each reference party, the sample is restricted to (a) marginal candidates in (b) small-magnitude elections in (c) provinces with an odd number of representatives. We report conventional point estimates with robust CIs and *p*-values based on the MSE-optimal bandwidth proposed by Calonico, Cattaneo and Titiunik (2014). To calculate the estimates, we clustered observations by province and fitted a separate local linear regression at both sides of the threshold, with a triangular kernel. Reported number of observations corresponds to the *effective* sample size. In panel (a), overall sample size is $(89 + 67 = 156)$ for the governor's party, and $(94 + 80 = 174)$ and $(71 + 79 = 150)$ for the PJ and UCR, respectively. In panel (b), overall sample sizes are $(78 + 58 = 136)$, $(78 + 69 = 147)$ and $(61 + 71 = 132)$ for the governor's party, the PJ and the UCR, respectively.

Table A11: Additional results (5): Large-magnitude elections

	(a) All provinces					(b) Small provinces ($M \leq 5$)				
<i>renomination</i> (0/1)	est.	95% CI	<i>p</i> -val.	bwd.	N	est.	95% CI	<i>p</i> -val.	bwd.	N
Governor's	0.34	[0.03:0.79]	0.03	4.65	28 30	0.36	[-0.02:0.93]	0.06	5.23	27 29
PJ	0.29	[-0.16:0.86]	0.18	7.47	37 33	0.42	[-0.05:1.04]	0.08	7.25	31 31
UCR	-0.05	[-0.87:0.91]	0.97	5.60	21 25	0.56	[-0.11:1.55]	0.09	3.42	18 15
<i>legislator (after)</i> (0/1)										
Governor's	0.31	[0.06:0.69]	0.02	3.48	22 26	0.33	[-0.00:0.83]	0.05	4.26	20 26
PJ	0.17	[-0.27:0.71]	0.38	6.60	33 32	0.24	[-0.23:0.85]	0.26	6.44	27 31
UCR	-0.06	[-0.93:0.70]	0.78	5.07	21 24	0.11	[-0.50:0.70]	0.74	3.79	19 15
<i>executive (after)</i> (0/1)										
Governor's	0.14	[-0.19:0.56]	0.34	5.03	29 31	0.18	[-0.25:0.71]	0.34	5.27	27 29
PJ	0.09	[-0.24:0.51]	0.48	6.80	34 32	0.03	[-0.35:0.52]	0.70	7.36	31 32
UCR	-0.13	[-0.37:0.04]	0.13	6.41	22 26	-0.17	[-0.64:0.23]	0.35	5.51	20 23
<i>any office (after)</i> (0/1)										
Governor's	0.45	[0.12:0.95]	0.01	3.05	17 24	0.56	[0.25:1.09]	0.00	2.99	14 21
PJ	0.39	[0.04:0.90]	0.03	5.78	33 30	0.44	[0.04:1.02]	0.03	6.01	27 31
UCR	-0.18	[-1.08:0.60]	0.57	5.23	21 24	-0.03	[-0.79:0.77]	0.98	4.09	19 15
<i>terms served (after)</i>										
Governor's	0.76	[-0.03:1.89]	0.06	4.96	28 31	1.00	[-0.19:2.69]	0.09	3.80	19 25
PJ	0.85	[-0.17:2.29]	0.09	5.73	33 30	1.09	[-0.03:2.74]	0.06	5.47	25 29
UCR	-0.03	[-1.15:1.06]	0.93	4.73	21 23	0.04	[-0.78:0.93]	0.87	3.70	19 15

Sharp RD estimates. The running variable is *vote change to last seat*. For each reference party, the sample is restricted to (a) marginal candidates in (b) large-magnitude elections in (c) provinces with an odd number of representatives. We report conventional point estimates with robust CIs and *p*-values based on the MSE-optimal bandwidth proposed by Calonico, Cattaneo and Titiunik (2014). To calculate the estimates, we clustered observations by province and fitted a separate local linear regression at both sides of the threshold, with a triangular kernel. Reported number of observations corresponds to the *effective* sample size. In panel (a), overall sample size is $(81 + 73 = 154)$ for the governor's party, and $(92 + 87 = 179)$ and $(65 + 73 = 138)$ for the PJ and UCR, respectively. In panel (b), overall sample sizes are $(71 + 63 = 134)$, $(75 + 77 = 152)$ and $(57 + 65 = 122)$ for the governor's party, the PJ and the UCR, respectively.

Table A12: Additional results (6): Female candidates only

	(a) All provinces					(b) Small provinces ($M \leq 5$)				
<i>renomination</i> (0/1)	est.	95% CI	<i>p</i> -val.	bwd.	N	est.	95% CI	<i>p</i> -val.	bwd.	N
Governor's	0.44	[-0.33:1.28]	0.25	4.56	33 27	0.75	[0.10:1.61]	0.03	3.84	26 21
PJ	0.56	[0.02:1.20]	0.04	7.44	42 30	0.83	[0.17:1.69]	0.02	4.64	29 22
UCR	0.17	[-1.07:1.42]	0.78	4.64	12 15	1.31	[-0.03:3.41]	0.05	2.17	4 7
<i>legislator (after)</i> (0/1)										
Governor's	0.30	[-0.18:0.88]	0.20	5.39	34 28	0.36	[-0.32:1.17]	0.26	4.65	30 25
PJ	0.40	[-0.22:1.14]	0.19	5.67	40 26	0.60	[-0.24:1.62]	0.14	4.71	29 22
UCR	0.04	[-0.88:0.73]	0.86	4.83	12 15	0.14	[-0.65:0.65]	1.00	3.96	9 11
<i>executive (after)</i> (0/1)										
Governor's	0.03	[-0.03:0.02]	0.60	3.32	24 20	0.10	[-0.09:0.18]	0.50	4.08	27 22
PJ	0.10	[-0.08:0.33]	0.23	7.31	42 30	0.13	[-0.10:0.42]	0.22	7.13	36 28
UCR	0.00	[-0.08:0.04]	0.48	4.39	12 14	0.00	[-0.09:0.10]	0.90	5.00	9 12
<i>any office (after)</i> (0/1)										
Governor's	0.29	[-0.36:0.90]	0.40	4.42	32 26	0.35	[-0.45:1.18]	0.38	4.37	29 22
PJ	0.40	[-0.24:1.15]	0.20	5.53	38 26	0.60	[-0.24:1.62]	0.14	4.71	29 22
UCR	0.01	[-1.03:0.67]	0.68	4.04	12 14	0.12	[-0.78:0.54]	0.73	3.71	8 11
<i>terms served (after)</i>										
Governor's	0.53	[-0.56:1.57]	0.35	7.03	39 33	0.56	[-0.79:1.83]	0.44	6.39	35 29
PJ	0.71	[-0.66:2.36]	0.27	7.72	42 31	1.15	[-0.82:3.51]	0.22	5.66	34 25
UCR	0.19	[-1.26:1.14]	0.92	4.03	12 14	0.17	[-0.49:0.70]	0.73	5.47	9 13

Sharp RD estimates. The running variable is *vote change to last seat*. For each reference party, the sample is restricted to female marginal candidates. We report conventional point estimates with robust CIs and *p*-values based on the MSE-optimal bandwidth proposed by Calonico, Cattaneo and Titiunik (2014). To calculate the estimates, we clustered observations by province and fitted a separate local linear regression at both sides of the threshold, with a triangular kernel. Reported number of observations corresponds to the *effective* sample size. In panel (a), overall sample size is $(57 + 51 = 108)$ for the governor's party, and $(54 + 47 = 101)$ and $(27 + 23 = 50)$ for the PJ and UCR, respectively. In panel (b), overall sample sizes are $(54 + 48 = 102)$, $(48 + 46 = 94)$ and $(24 + 20 = 44)$ for the governor's party, the PJ and the UCR, respectively.

Table A13: Additional results (7): Male candidates only

	(a) All provinces					(b) Small provinces ($M \leq 5$)				
<i>renomination</i> (0/1)	est.	95% CI	<i>p</i> -val.	bwd.	N	est.	95% CI	<i>p</i> -val.	bwd.	N
Governor's	0.07	[-0.23:0.49]	0.47	5.41	42 38	0.29	[-0.03:0.80]	0.07	3.45	22 18
PJ	0.29	[0.07:0.61]	0.01	7.12	55 53	0.37	[-0.00:0.91]	0.05	5.89	32 40
UCR	-0.22	[-0.61:0.16]	0.26	5.13	46 46	-0.26	[-0.84:0.27]	0.31	5.31	39 39
<i>legislator (after)</i> (0/1)										
Governor's	0.12	[-0.24:0.61]	0.40	4.47	35 32	0.30	[-0.16:0.90]	0.17	3.04	18 17
PJ	0.26	[-0.04:0.64]	0.09	4.52	41 41	0.25	[-0.20:0.75]	0.25	4.31	24 30
UCR	-0.23	[-0.57:0.02]	0.07	4.69	44 44	-0.12	[-0.60:0.27]	0.45	5.55	40 41
<i>executive (after)</i> (0/1)										
Governor's	0.02	[-0.22:0.26]	0.85	6.82	44 44	0.14	[-0.26:0.64]	0.42	5.73	32 31
PJ	-0.03	[-0.25:0.20]	0.81	7.59	57 56	0.12	[-0.23:0.54]	0.44	6.20	33 40
UCR	-0.22	[-0.54:0.03]	0.08	5.11	46 46	-0.21	[-0.61:0.12]	0.18	5.22	39 39
<i>any office (after)</i> (0/1)										
Governor's	0.08	[-0.35:0.70]	0.52	5.15	41 37	0.51	[0.01:1.20]	0.05	2.90	18 17
PJ	0.20	[-0.10:0.58]	0.16	4.71	43 45	0.41	[-0.11:1.03]	0.11	3.98	23 28
UCR	-0.30	[-0.71:-0.00]	0.05	6.33	51 52	-0.11	[-0.53:0.21]	0.40	7.97	48 55
<i>terms served (after)</i>										
Governor's	0.25	[-0.58:1.41]	0.42	6.13	44 42	0.98	[-0.32:2.69]	0.12	3.67	22 20
PJ	0.43	[-0.22:1.21]	0.17	5.93	48 51	0.68	[-0.47:2.00]	0.22	4.75	27 34
UCR	-0.57	[-1.28:-0.05]	0.03	4.95	45 44	-0.70	[-1.91:0.28]	0.14	4.50	35 35

Sharp RD estimates. The running variable is *vote change to last seat*. For each reference party, the sample is restricted to male marginal candidates. We report conventional point estimates with robust CIs and *p*-values based on the MSE-optimal bandwidth proposed by Calonico, Cattaneo and Titiunik (2014). To calculate the estimates, we clustered observations by province and fitted a separate local linear regression at both sides of the threshold, with a triangular kernel. Reported number of observations corresponds to the *effective* sample size. In panel (a), overall sample size is $(85 + 72 = 157)$ for the governor's party, and $(95 + 89 = 184)$ and $(84 + 103 = 187)$ for the PJ and UCR, respectively. In panel (b), overall sample sizes are $(74 + 63 = 137)$, $(79 + 78 = 157)$ and $(76 + 96 = 172)$ for the governor's party, the PJ and the UCR, respectively.

G Robustness checks

- (1) *Sensitivity to bandwidth choice.* Figures A13 to A15 show that the findings reported in Table 2 are not overly sensitive to bandwidth choice; except for very small bandwidths – with the accompanying reduction in the number of observations – the results remain broadly similar.
- (2) *Fuzzy RD estimates.* Since compliance is imperfect (see Appendix C), Tables A14 and A15 report fuzzy RD estimates in which crossing the cutoff is used as an instrument for either (a) the probability that a candidate will effectively *assume office*; or (b) the proportion of the four-year mandate effectively served (*time served*).

In order to interpret these estimates causally, the exclusion restriction must hold: surpassing the threshold (and hence being elected) should affect the outcome only through its effect on *assumed office* or *time served*. This assumption is likely violated in this case because marginal winners who do not assume office or serve less than a full term may do so because they have managed to obtain a better office. Imagine a marginal winner who assumes office, runs for an executive position two years later, wins, and resigns from her legislative seat. This individual gets a value of 0.5 for *time served* because she resigned midway through her mandate. Yet she resigned precisely because she got a better job: it was the fact of winning a legislative seat (and using it for campaigning) that allowed her to obtain a better position, not having served halfway through her mandate only. To put it differently, the most successful politicians should have a value of *time served* of 0.5 because they manage to leave the Chamber for a better position after only two years in office, while some of the most unsuccessful marginal winners will get a value of 1.0 because they have no choice but to finish their mandate.

- (3) *Including controls.* Table A16 replicates the specifications of Table 2 but adding a series of dummies identifying (a) female legislators; (b) whether the candidate had previously held any legislative or executive position; (c) midterm elections; (d) whether the election took place in a

province with an even number of representatives and if not (e) whether the election took place in a large-magnitude year; and (f) whether the candidate occupied the first, second, third or fourth position in the party list (fifth or lower is the reference category).

- (4) *Second-order polynomial*. Table A17 replicates the results of Table 2 but using a second-order polynomial instead of a local linear regression. Results change little, though the confidence intervals become wider due to the paucity of data with which to fit a second-order polynomial.
- (5) *Single-party running variable*. When constructing the running variable, the fact that a party's probability of winning a seat depends on the vote shares of all other parties raises the concern that observations belonging to different parties may not be independent. Thus, Table A18 replicates the specifications of Table 2 but measuring the running variable for party i as the proportion of party i 's votes that must change for that party to win or lose a seat; that is, the vote total of parties other than i is kept fixed.²²

²²In any case, note that both versions of the running variable are highly correlated and take identical values for a majority of observations (see also Cox, Fiva and Smith [forthcoming](#)).

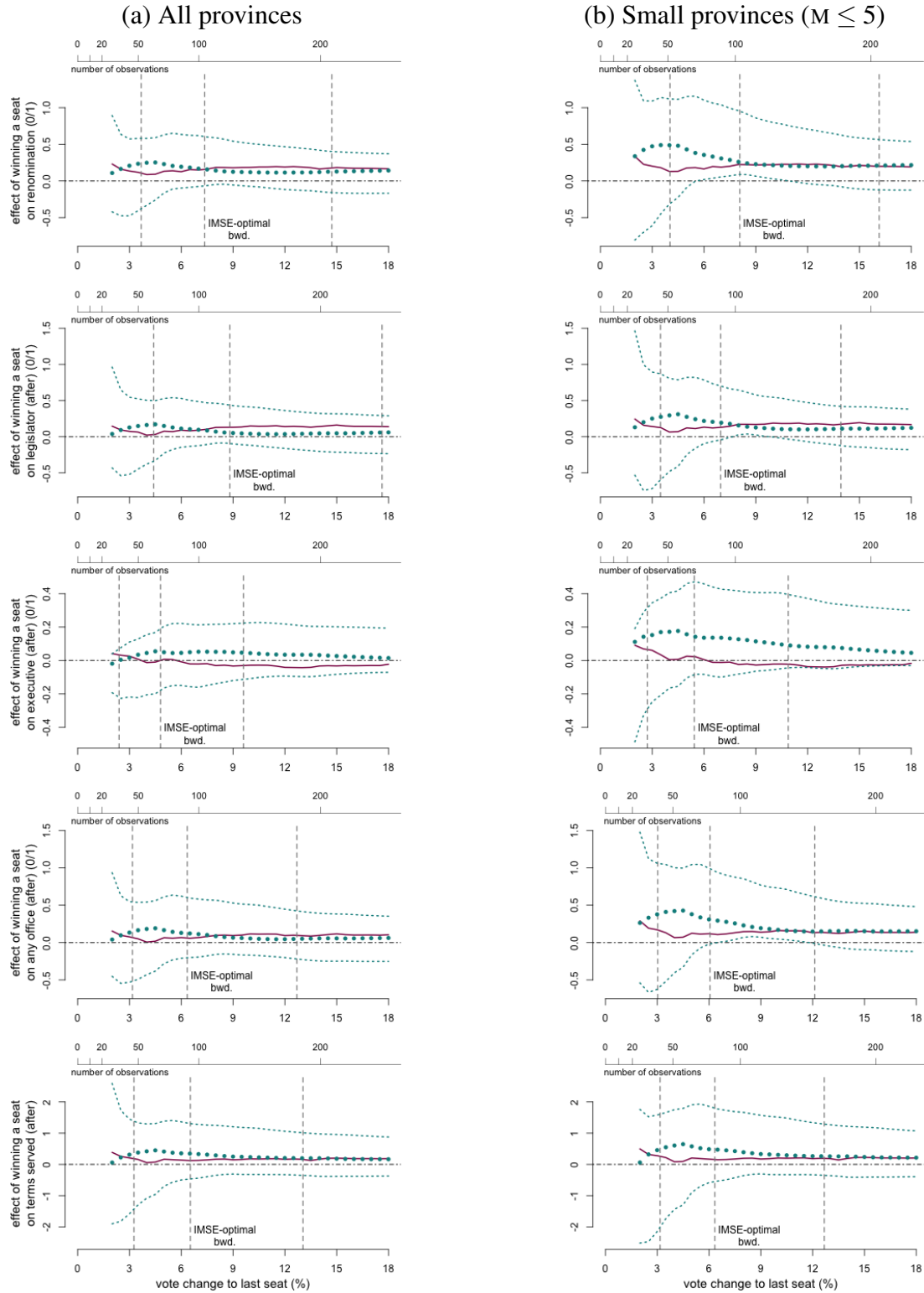


Figure A13: Sensitivity to alternative bandwidths (1): Governor's party sample. The solid line indicates the raw difference in means between observations above and below the threshold, while the dots report conventional sharp RD estimates akin to those of Table 2, but using different bandwidths. The dotted lines correspond to 95% robust confidence intervals. Left, middle and right vertical lines drawn at half, actual, and twice the IMSE-optimal bandwidths reported in Table 2, respectively.

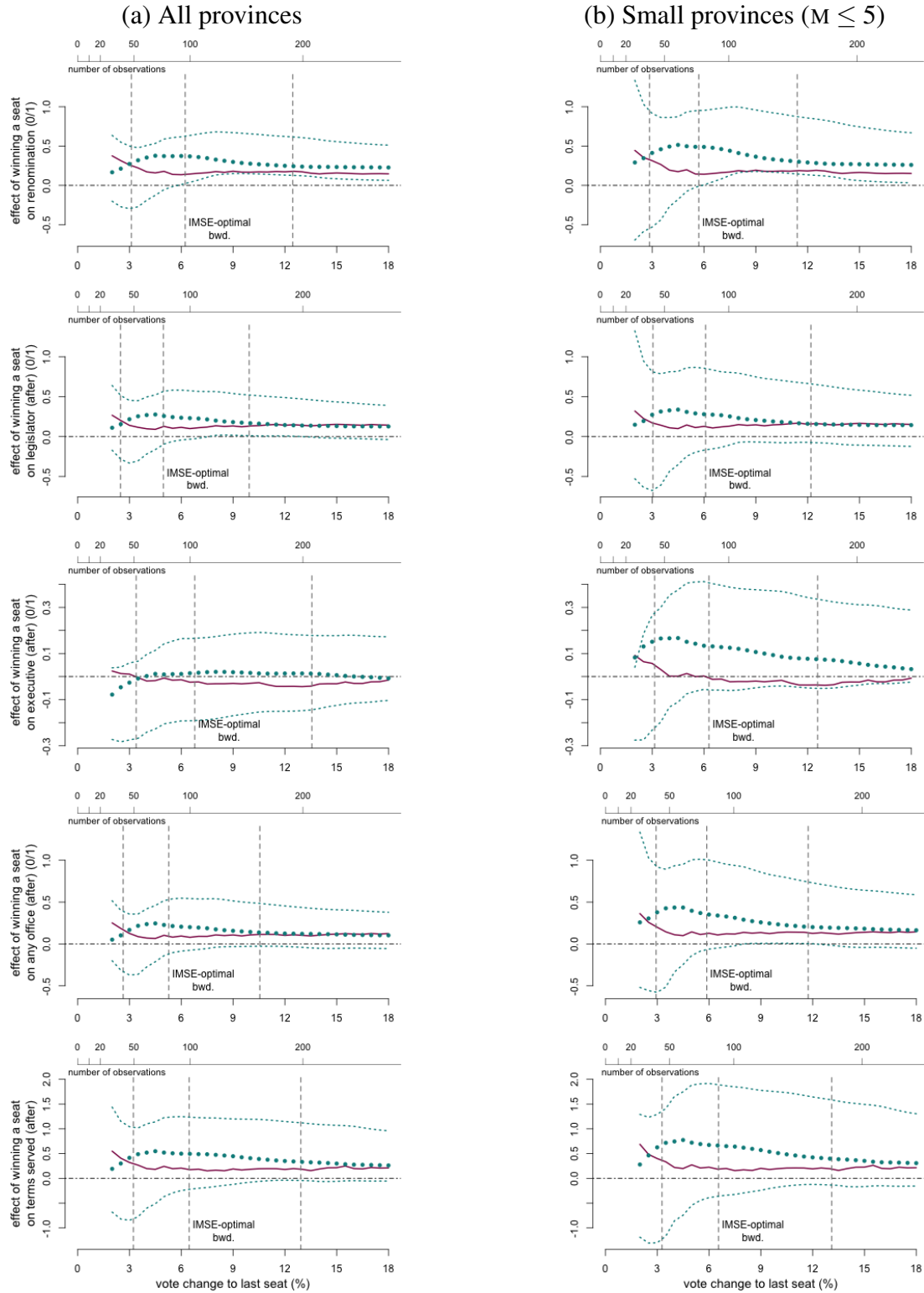


Figure A14: Sensitivity to alternative bandwidths (2): PJ sample. The solid line indicates the raw difference in means between observations above and below the threshold, while the dots report conventional sharp RD estimates akin to those of Table 2, but using different bandwidths. The dotted lines correspond to 95% robust confidence intervals. Left, middle and right vertical lines drawn at half, actual, and twice the IMSE-optimal bandwidths reported in Table 2, respectively.

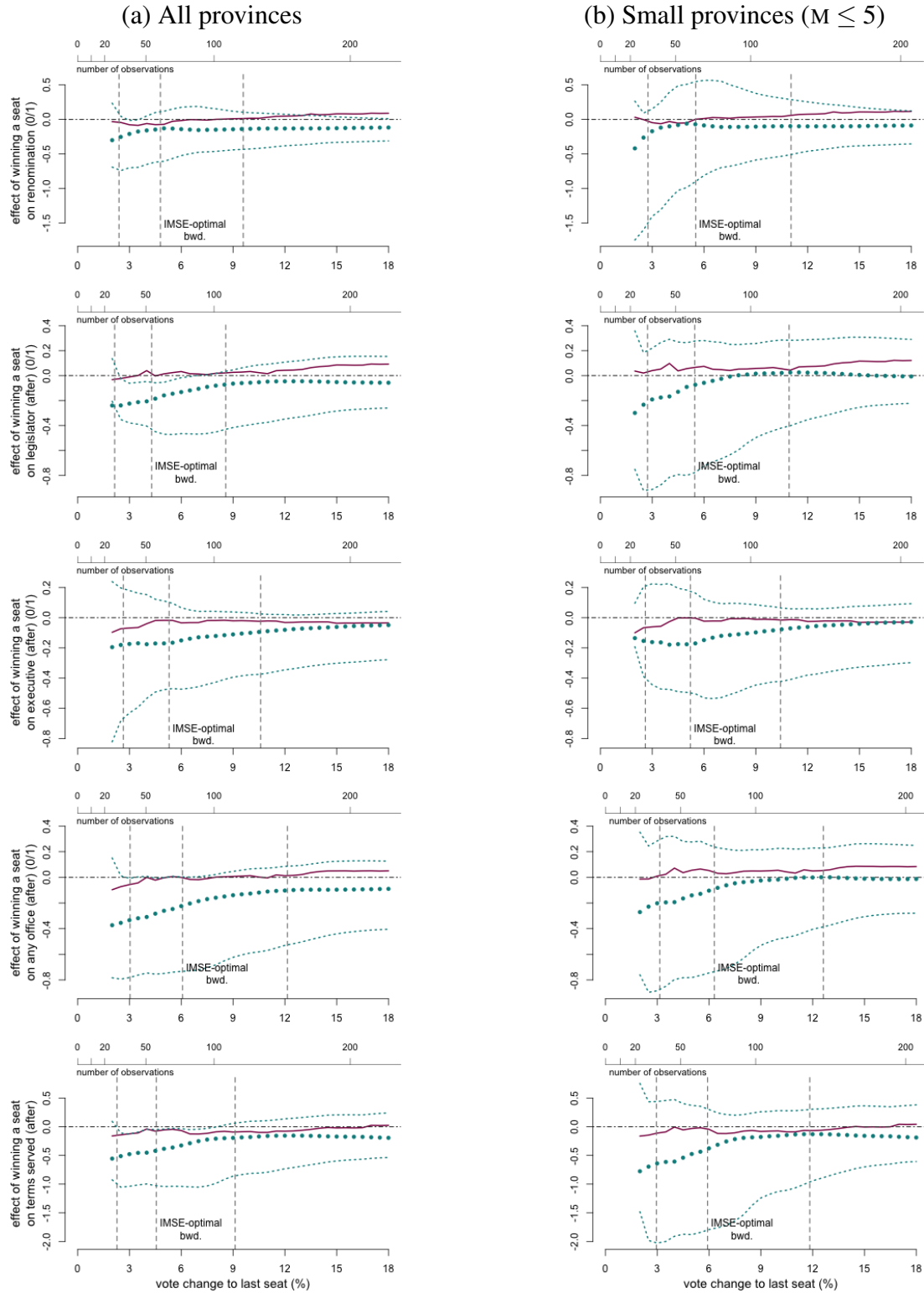


Figure A15: Sensitivity to alternative bandwidths (3): UCR sample. The solid line indicates the raw difference in means between observations above and below the threshold, while the dots report conventional sharp RD estimates akin to those of Table 2, but using different bandwidths. The dotted lines correspond to 95% robust confidence intervals. Left, middle and right vertical lines drawn at half, actual, and twice the IMSE-optimal bandwidths reported in Table 2, respectively.

Table A14: Robustness (1): Fuzzy RD with *assumed office (0/1)* as treatment

	(a) All provinces					(b) Small provinces ($M \leq 5$)				
<i>renomination (0/1)</i>	est.	95% CI	<i>p</i> -val.	bwd.	N	est.	95% CI	<i>p</i> -val.	bwd.	N
Governor's	0.21	[-0.22:0.71]	0.31	8.47	96 86	0.53	[0.05:1.16]	0.03	4.32	52 45
PJ	0.58	[0.21:1.11]	0.00	5.97	89 77	0.56	[-0.01:1.09]	0.05	4.34	51 51
UCR	-0.21	[-0.76:0.30]	0.39	4.80	57 59	-0.08	[-0.65:0.47]	0.75	5.52	49 54
<i>legislator (after) (0/1)</i>										
Governor's	0.15	[-0.23:0.62]	0.37	7.17	85 80	0.30	[0.01:0.72]	0.04	5.00	60 51
PJ	0.39	[0.02:0.88]	0.04	5.12	81 73	0.37	[-0.17:0.96]	0.17	4.33	51 51
UCR	-0.32	[-0.84:0.01]	0.06	4.29	54 53	-0.09	[-0.58:0.31]	0.55	5.47	48 53
<i>executive (after) (0/1)</i>										
Governor's	0.08	[-0.22:0.38]	0.62	5.30	76 66	0.19	[-0.09:0.48]	0.19	3.98	49 44
PJ	0.01	[-0.29:0.28]	0.96	4.89	78 70	0.17	[-0.06:0.43]	0.14	4.79	56 57
UCR	-0.26	[-0.66:0.03]	0.07	5.30	59 62	-0.20	[-0.59:0.10]	0.16	5.22	48 52
<i>any office (after) (0/1)</i>										
Governor's	0.18	[-0.30:0.77]	0.39	7.25	86 80	0.44	[0.06:0.97]	0.03	4.75	58 50
PJ	0.34	[-0.06:0.85]	0.09	5.18	81 73	0.48	[-0.07:1.13]	0.08	4.22	49 51
UCR	-0.33	[-0.94:0.09]	0.11	6.08	63 68	-0.11	[-0.54:0.24]	0.44	6.31	54 59
<i>terms served (after)</i>										
Governor's	0.49	[-0.54:1.79]	0.30	7.74	90 82	0.68	[-0.44:1.91]	0.22	4.68	58 49
PJ	0.78	[-0.28:1.95]	0.14	5.47	84 73	0.84	[-0.42:2.18]	0.18	4.35	51 51
UCR	-0.66	[-1.61:-0.06]	0.03	4.56	56 58	-0.45	[-1.35:0.25]	0.18	5.92	52 58

Fuzzy RD estimates. The running and treatment variables are *vote change to last seat* and *assumed office*, respectively. For each reference party, the sample is restricted to marginal candidates. We report conventional point estimates with robust CIs and *p*-values based on the MSE-optimal bandwidth proposed by Calonico, Cattaneo and Titiunik (2014). To calculate the estimates, we clustered observations by province and fitted a separate local linear regression at both sides of the threshold, with a triangular kernel. Reported number of observations corresponds to the *effective* sample size. In panel (a), overall sample size is $(142 + 123 = 265)$ for the governor's party, and $(149 + 136 = 285)$ and $(111 + 126 = 237)$ for the PJ and UCR, respectively. In panel (b), overall sample sizes are $(128 + 111 = 239)$, $(127 + 124 = 251)$ and $(100 + 116 = 216)$ for the governor's party, the PJ and the UCR, respectively.

Table A15: Robustness (2): Fuzzy RD with *time served* as treatment

	(a) All provinces					(b) Small provinces ($M \leq 5$)				
<i>renomination</i> (0/1)	est.	95% CI	<i>p</i> -val.	bwd.	N	est.	95% CI	<i>p</i> -val.	bwd.	N
Governor's	0.20	[-0.17:0.63]	0.25	7.92	91 83	0.44	[0.08:0.94]	0.02	4.86	59 51
PJ	0.51	[0.20:0.96]	0.00	6.97	94 82	0.50	[0.18:1.00]	0.01	6.91	72 70
UCR	-0.18	[-0.47:0.08]	0.16	7.31	69 76	-0.08	[-0.62:0.46]	0.78	5.49	49 53
<i>legislator (after)</i> (0/1)										
Governor's	0.15	[-0.15:0.56]	0.26	6.25	82 72	0.21	[0.01:0.57]	0.04	6.69	69 64
PJ	0.34	[0.02:0.78]	0.04	5.65	86 75	0.23	[-0.11:0.67]	0.16	8.82	87 83
UCR	-0.16	[-0.52:0.09]	0.17	5.96	63 68	-0.08	[-0.55:0.29]	0.54	5.49	49 53
<i>executive (after)</i> (0/1)										
Governor's	0.06	[-0.16:0.31]	0.54	6.08	82 72	0.15	[-0.06:0.40]	0.15	5.00	60 51
PJ	0.02	[-0.24:0.27]	0.90	6.49	92 80	0.15	[-0.06:0.39]	0.15	4.98	56 59
UCR	-0.17	[-0.46:0.03]	0.09	6.62	66 71	-0.18	[-0.52:0.08]	0.15	5.47	48 53
<i>any office (after)</i> (0/1)										
Governor's	0.16	[-0.24:0.68]	0.35	6.95	83 78	0.33	[0.06:0.78]	0.02	5.83	67 59
PJ	0.29	[-0.05:0.75]	0.09	6.17	90 77	0.30	[-0.03:0.74]	0.07	8.55	85 81
UCR	-0.20	[-0.65:0.13]	0.18	7.56	69 77	-0.14	[-0.62:0.23]	0.37	5.33	48 52
<i>terms served (after)</i>										
Governor's	0.46	[-0.44:1.63]	0.26	7.03	85 78	0.52	[-0.34:1.58]	0.21	5.42	62 54
PJ	0.70	[-0.18:1.76]	0.11	6.60	92 80	0.71	[-0.28:1.84]	0.15	5.66	66 63
UCR	-0.42	[-1.15:0.05]	0.07	5.75	61 67	-0.50	[-1.50:0.24]	0.16	5.11	47 52

Fuzzy RD estimates. The running and treatment variables are *vote change to last seat* and *time served*, respectively. For each reference party, the sample is restricted to marginal candidates. We report conventional point estimates with robust CIs and *p*-values based on the MSE-optimal bandwidth proposed by Calonico, Cattaneo and Titiunik (2014). To calculate the estimates, we clustered observations by province and fitted a separate local linear regression at both sides of the threshold, with a triangular kernel. Reported number of observations corresponds to the *effective* sample size. In panel (a), overall sample size is $(142 + 123 = 265)$ for the governor's party, and $(149 + 136 = 285)$ and $(111 + 126 = 237)$ for the PJ and UCR, respectively. In panel (b), overall sample sizes are $(128 + 111 = 239)$, $(127 + 124 = 251)$ and $(100 + 116 = 216)$ for the governor's party, the PJ and the UCR, respectively.

Table A16: Robustness (3): Adding controls

	(a) All provinces					(b) Small provinces ($M \leq 5$)				
<i>renomination</i> (0/1)	est.	95% CI	<i>p</i> -val.	bwd.	N	est.	95% CI	<i>p</i> -val.	bwd.	N
Governor's	0.16	[-0.09:0.49]	0.18	7.29	86 80	0.21	[-0.12:0.59]	0.19	9.22	91 78
PJ	0.42	[0.17:0.78]	0.00	5.19	75 65	0.54	[0.20:1.10]	0.00	5.36	56 55
UCR	-0.04	[-0.34:0.29]	0.87	4.94	50 55	0.04	[-0.40:0.53]	0.79	5.49	44 49
<i>legislator (after)</i> (0/1)										
Governor's	0.06	[-0.20:0.33]	0.65	8.62	99 89	0.14	[-0.12:0.43]	0.26	8.32	81 74
PJ	0.28	[0.05:0.61]	0.02	5.19	75 65	0.31	[-0.05:0.81]	0.08	6.39	63 62
UCR	-0.15	[-0.51:0.12]	0.23	5.59	54 59	-0.09	[-0.54:0.27]	0.52	6.21	47 54
<i>executive (after)</i> (0/1)										
Governor's	0.06	[-0.14:0.23]	0.66	4.68	72 61	0.14	[-0.09:0.41]	0.20	5.40	62 54
PJ	0.04	[-0.16:0.25]	0.67	7.10	89 73	0.17	[-0.04:0.47]	0.10	5.99	62 59
UCR	-0.23	[-0.59:0.03]	0.08	4.82	50 55	-0.24	[-0.69:0.09]	0.13	5.01	42 46
<i>any office (after)</i> (0/1)										
Governor's	0.14	[-0.15:0.52]	0.28	5.84	81 72	0.32	[0.05:0.73]	0.03	5.72	66 57
PJ	0.24	[0.00:0.57]	0.05	5.68	82 67	0.39	[0.03:0.93]	0.04	6.21	63 59
UCR	-0.18	[-0.61:0.15]	0.24	7.47	61 70	-0.06	[-0.42:0.27]	0.67	7.95	53 64
<i>terms served (after)</i>										
Governor's	0.35	[-0.30:1.19]	0.24	6.21	82 72	0.46	[-0.33:1.51]	0.21	6.28	68 60
PJ	0.62	[-0.09:1.57]	0.08	6.05	83 69	0.77	[-0.26:2.18]	0.12	6.35	63 62
UCR	-0.27	[-0.88:0.22]	0.24	7.25	60 69	-0.26	[-0.98:0.40]	0.41	7.96	53 64

Sharp RD estimates. The running variable is *vote change to last seat*. Specifications replicate those of Table 2, but adding dummies for (a) female; (b) previous legislative or executive experience; (c) midterm elections; (d) provinces with an even number of representatives and if not, (e) whether the election took place in a large-magnitude year; and (f) first, second, third or fourth position in the party list. For each reference party, the sample is restricted to marginal candidates. We report conventional point estimates with robust CIs and *p*-values based on the MSE-optimal bandwidth proposed by Calonico, Cattaneo and Titiunik (2014). To calculate the estimates, we clustered observations by province and fitted a separate local linear regression at both sides of the threshold, with a triangular kernel. Reported number of observations corresponds to the *effective* sample size. In panel (a), overall sample size is $(142 + 123 = 265)$ for the governor's party, and $(149 + 136 = 285)$ and $(111 + 126 = 237)$ for the PJ and UCR, respectively. In panel (b), overall sample sizes are $(128 + 111 = 239)$, $(127 + 124 = 251)$ and $(100 + 116 = 216)$ for the governor's party, the PJ and the UCR, respectively.

Table A17: Robustness (4): Second-order polynomial instead of local linear regression

	(a) All provinces					(b) Small provinces ($M \leq 5$)				
<i>renomination</i> (0/1)	est.	95% CI	<i>p</i> -val.	bwd.	N	est.	95% CI	<i>p</i> -val.	bwd.	N
Governor's	0.27	[-0.11:0.69]	0.15	6.53	83 76	0.55	[-0.00:1.21]	0.05	6.31	68 62
PJ	0.40	[0.16:0.71]	0.00	9.84	115 102	0.57	[0.18:1.05]	0.01	8.91	88 84
UCR	-0.16	[-0.52:0.20]	0.38	8.16	73 82	-0.10	[-0.77:0.56]	0.76	8.19	62 72
<i>legislator (after)</i> (0/1)										
Governor's	0.19	[-0.08:0.52]	0.16	7.87	91 83	0.33	[0.01:0.74]	0.04	7.66	75 70
PJ	0.27	[0.01:0.58]	0.04	9.25	111 99	0.31	[-0.07:0.77]	0.10	10.97	100 96
UCR	-0.24	[-0.50:-0.02]	0.03	6.17	63 68	-0.21	[-0.81:0.29]	0.35	6.49	55 61
<i>executive (after)</i> (0/1)										
Governor's	0.03	[-0.19:0.21]	0.90	7.02	85 78	0.16	[-0.13:0.45]	0.28	7.36	74 68
PJ	0.01	[-0.19:0.18]	0.96	8.94	111 96	0.16	[-0.08:0.40]	0.20	7.86	80 76
UCR	-0.17	[-0.43:0.06]	0.13	9.54	79 89	-0.18	[-0.50:0.11]	0.21	9.18	67 79
<i>any office (after)</i> (0/1)										
Governor's	0.19	[-0.21:0.64]	0.32	7.14	85 79	0.48	[-0.05:1.07]	0.07	6.38	68 63
PJ	0.25	[-0.07:0.59]	0.12	8.04	104 89	0.46	[-0.04:1.05]	0.07	7.83	80 75
UCR	-0.36	[-0.80:-0.01]	0.05	6.76	67 71	-0.25	[-0.85:0.26]	0.29	6.51	55 61
<i>terms served (after)</i>										
Governor's	0.42	[-0.30:1.30]	0.22	10.26	113 92	0.60	[-0.34:1.74]	0.19	9.87	97 79
PJ	0.53	[-0.27:1.26]	0.20	8.17	105 91	0.78	[-0.31:1.92]	0.16	9.93	94 90
UCR	-0.53	[-1.14:-0.07]	0.03	6.29	64 69	-0.76	[-2.05:0.27]	0.13	6.43	55 60

Sharp RD estimates. The running variable is *vote change to last seat*. For each reference party, the sample is restricted to marginal candidates. We report conventional point estimates with robust CIs and *p*-values based on the MSE-optimal bandwidth proposed by Calonico, Cattaneo and Titiunik (2014). To calculate the estimates, we clustered observations by province and fitted a separate second-order polynomial at both sides of the threshold, with a triangular kernel. Reported number of observations corresponds to the *effective* sample size. In panel (a), overall sample size is $(142 + 123 = 265)$ for the governor's party, and $(149 + 136 = 285)$ and $(111 + 126 = 237)$ for the PJ and UCR, respectively. In panel (b), overall sample sizes are $(128 + 111 = 239)$, $(127 + 124 = 251)$ and $(100 + 116 = 216)$ for the governor's party, the PJ and the UCR, respectively.

Table A18: Robustness (5): Alternative running variable

	(a) All provinces					(b) Small provinces ($M \leq 5$)				
<i>renomination</i> (0/1)	est.	95% CI	<i>p</i> -val.	bwd.	N	est.	95% CI	<i>p</i> -val.	bwd.	N
Governor's	0.24	[-0.20:0.68]	0.29	8.03	56 59	0.38	[-0.09:0.89]	0.11	8.26	50 54
PJ	0.27	[-0.01:0.60]	0.06	11.74	77 94	0.35	[-0.10:0.85]	0.12	8.75	56 67
UCR	-0.11	[-0.44:0.23]	0.55	5.72	55 63	-0.05	[-0.57:0.49]	0.88	5.71	45 54
<i>legislator (after)</i> (0/1)										
Governor's	0.07	[-0.35:0.45]	0.82	9.92	63 65	0.22	[-0.16:0.64]	0.25	9.64	55 58
PJ	0.16	[-0.08:0.47]	0.16	10.75	72 87	0.20	[-0.27:0.65]	0.41	8.61	56 67
UCR	-0.17	[-0.55:0.09]	0.16	4.99	53 55	0.00	[-0.51:0.44]	0.88	5.51	44 50
<i>executive (after)</i> (0/1)										
Governor's	0.11	[-0.07:0.34]	0.21	8.61	58 62	0.18	[-0.03:0.45]	0.08	8.74	51 55
PJ	0.02	[-0.15:0.22]	0.71	10.38	71 86	0.13	[-0.06:0.38]	0.15	9.74	58 75
UCR	-0.19	[-0.52:0.07]	0.13	6.21	57 64	-0.14	[-0.49:0.13]	0.26	6.79	52 57
<i>any office (after)</i> (0/1)										
Governor's	0.12	[-0.34:0.57]	0.61	9.54	61 65	0.38	[0.07:0.75]	0.02	7.96	49 52
PJ	0.14	[-0.20:0.47]	0.42	8.74	67 77	0.30	[-0.12:0.74]	0.15	7.74	52 58
UCR	-0.30	[-0.82:0.07]	0.10	5.10	53 57	-0.04	[-0.57:0.42]	0.78	5.76	45 55
<i>terms served (after)</i>										
Governor's	0.25	[-0.44:1.05]	0.43	10.45	64 66	0.51	[-0.12:1.32]	0.10	9.28	53 58
PJ	0.39	[-0.31:1.10]	0.27	8.61	67 77	0.56	[-0.33:1.54]	0.20	8.12	55 63
UCR	-0.54	[-1.29:-0.00]	0.05	5.25	53 58	-0.18	[-1.16:0.74]	0.66	6.66	51 57

Sharp RD estimates. The running variable is *party vote change to last seat*, defined as the % of a party's vote that should have changed for that party to win or lose a seat. For each reference party, the sample is restricted to marginal candidates. We report conventional point estimates with robust CIs and *p*-values based on the MSE-optimal bandwidth proposed by Calonico, Cattaneo and Titiunik (2014). To calculate the estimates, we clustered observations by province and fitted a separate second-order polynomial at both sides of the threshold, with a triangular kernel. Reported number of observations corresponds to the *effective* sample size. In panel (a), overall sample size is $(142 + 123 = 265)$ for the governor's party, and $(149 + 136 = 285)$ and $(111 + 126 = 237)$ for the PJ and UCR, respectively. In panel (b), overall sample sizes are $(128 + 111 = 239)$, $(127 + 124 = 251)$ and $(100 + 116 = 216)$ for the governor's party, the PJ and the UCR, respectively.