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 Senate[4] and the Chamber of Deputies[5] provide a list of all former office holders, coupled with

[1] Sometimes 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.

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

[3] Comprehensive 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 Parliament[7] 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 Argentineans 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

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

[7] `https://www.parlamentomercosur.org/`.

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

[9] Daughters 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

[10] A 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.

[11] For 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

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

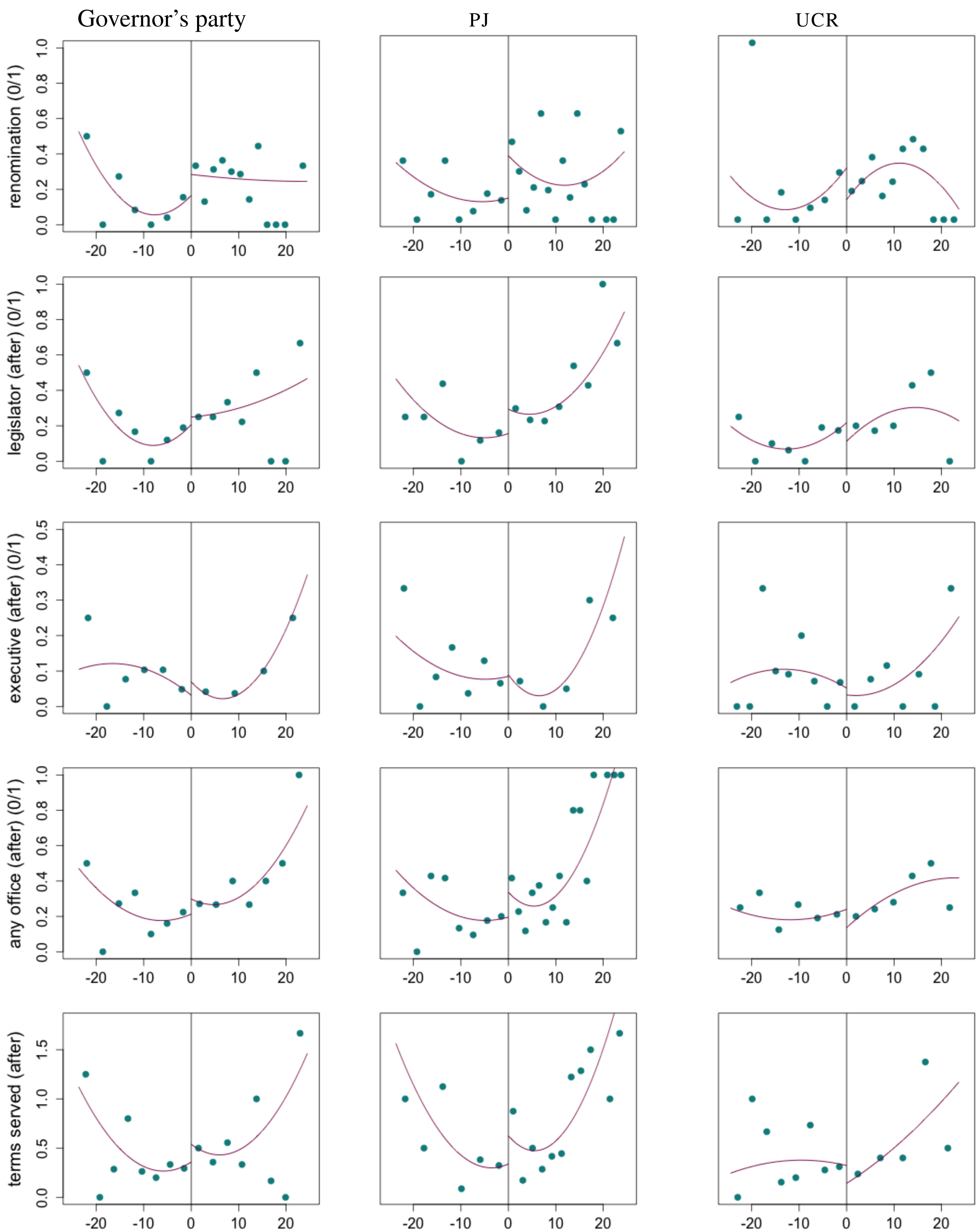


Figure A1: Mimicking variance RD plots with evenly-spaced bins (Calonico, Cattaneo and Titiunik 2015*a*) – All provinces. The lines indicate the fit of a second-order polynomial regression estimated separately at each side of the cutoff, using a uniform kernel.

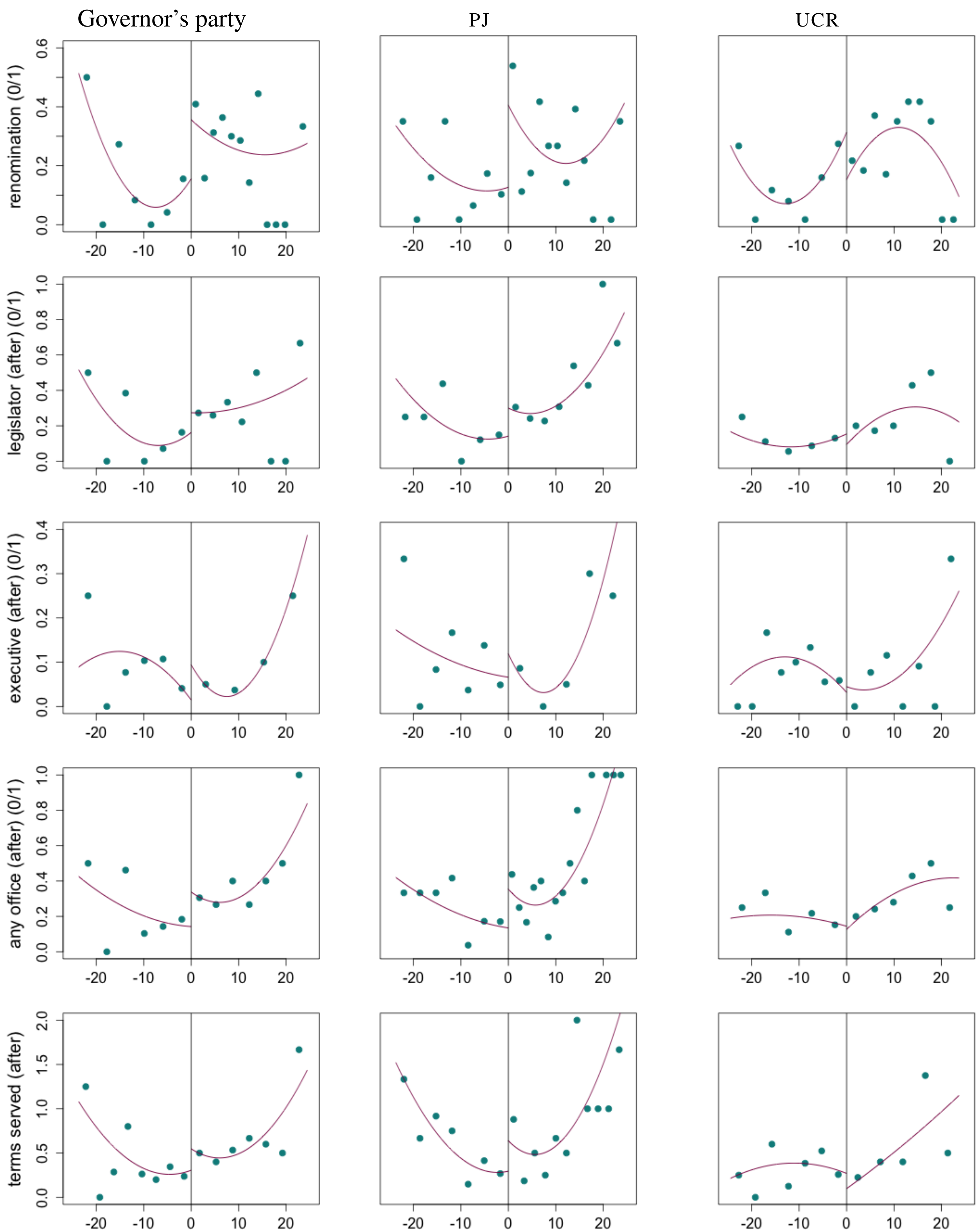


Figure A2: Mimicking variance RD plots with evenly-spaced bins (Calonico, Cattaneo and Titiunik 2015*a*) – Small provinces ($M \leq 5$) only. The lines indicate the fit of a second-order polynomial regression estimated separately at each side of the cutoff, using a uniform kernel.

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

[12]In 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 $d_1, d_2, \ldots, d_M$, 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, $\ldots, M$. 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

[13]In 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.

[14]This 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 $p \in \{1,2,3,\ldots,P\}$, 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, $\mathbf{V}_p^0 = \{v_1^0, v_2^0, v_3^0, \ldots, v_p^0\}$ and $\mathbf{V}_p^1 = \{v_1^1, v_2^1, v_3^1, \ldots, v_p^1\}$, as the sum of their absolute vote differences, i.e.

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

[15] In 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:

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

(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*:

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

[16]This 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:

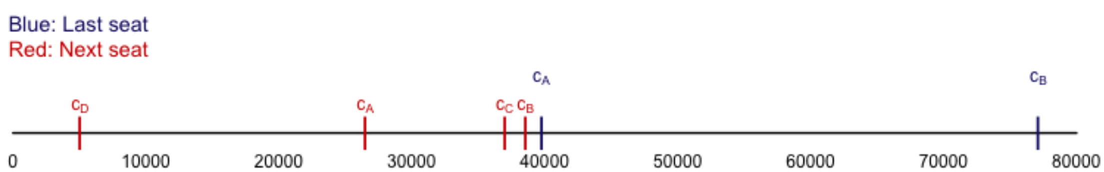


Figure A3: Comparison numbers for all parties participating in the 2013 election in Catamarca. Party labels: A: UCR; B: PJ; C: Frente Tercera Posición; D: Partido Obrero.

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 the the case that

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

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:

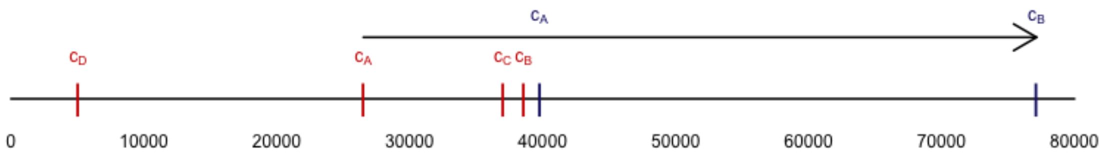


Figure A4: "Moving" the comparison number for the next seat for party A (UCR) to the comparison number for the last seat to be received by party B (PJ). Party labels: A: UCR; B: PJ; C: Frente Tercera Posición; D: Partido Obrero.

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

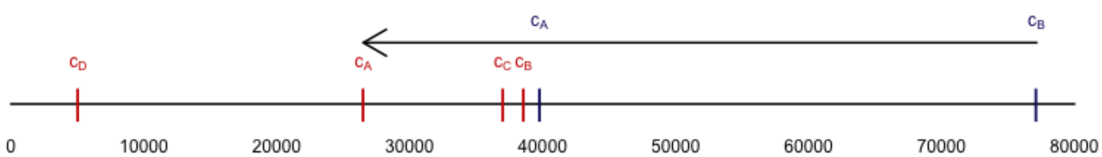


Figure A5: "Moving" the comparison number for the last seat for party B (PJ) to the comparison number for the last seat to be received by party A (UCR). Party labels: A: UCR; B: PJ; C: Frente Tercera Posición; D: Partido Obrero.

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:

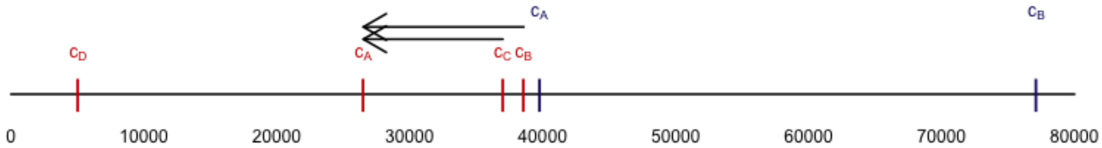


Figure A6: "Moving" the comparison number for the next seat for both parties B (PJ) and C (Frente Tercera Posición) so that party A (UCR) can receive the last seat at stake, assuming $M = 4$. Party labels: A: UCR; B: PJ; C: Frente Tercera Posición; D: Partido Obrero.

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

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

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*$_{\text{UCR}}$ 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, $\text{argmin}(d(\mathbf{V}^0_{pe}, \mathbf{V}^1_{pe})$ s.t. $[s^0_{pe} < s^1_{pe})$, 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^T_{pe}.

(3) Calculate new seat distribution, keeping all parties' vote total unchanged but increasing p's vote total by V^T_{pe}. If this suffices for p to get a seat, then

$$\textit{vote change to next seat}_{pe} = V^T_{pe}$$

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 $c_p(s_p)$.

[17] For 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

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

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

$$|V^T_{-pe}| < |c_p(s_p) \quad > c_{-p}(s_{-p}-1)|,$$

keep V^T_{-pe}; 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, $\text{argmin}(d(\mathbf{V}^0_{pe}, \mathbf{V}^1_{pe})$ s.t. $[s^0_{pe} > s^1_{pe})$, 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

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

   (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
  quots <- 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
  quots <- quots[order (quots$V2, decreasing=T),] ## order by vote totals
  quots <- quots[order (quots$V1, decreasing=T),] ## order by quota size
  row.names (quots) <- 1:nrow (quots) ## order by priority in receiving a seat
  quots$seat <- with (quots, ifelse (
    is.na (V2), NA, ifelse (as.numeric (row.names (quots)) <= 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 (quots$V1==quots[M2,]$V1 & quots$V2==quots[M2,]$V2)) > M2) {
    quots [which (quots$V1==quots[M2,]$V1
     & quots$V2==quots[M2,]$V2),]$seat <- 1/length (which (quots$V1==quots[M2,]$V1
& quots$V2==quots[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 (quots, 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$party.int==1,], sp == M)){
  base2$vchangeTotal <- 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$party.int==1,], spNew > sp)){
    base2$vchangeTotal <- 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$keep == 0,])
      base4$vchangeTotal <- 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$party.int==1,], sp == 0)){
  base2$vchangeTotal <- NA ## the party of interest cannot lose a seat by definition
  base2$vpNew <- base2$vp
  base2$spNew <- with (base2, dh (vpNew, M=M, threshold=th))
  base2$vchangeTotal <- 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$vchangeTotal <- with (base4b, abs (vpNew - vp))
## total number of votes that must change for the party of interest to gain one additional seat
base4b$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$vpNew <- with (base4b, ifelse (dTh == 0 & vpNew >= th & spNew == 0, vp, vpNew))
## If a party did not originally surpass the threshold, but received enough votes to reach it
## and nonetheless did not win any seats, keep its old vote distribution;
## otherwise, keep the new one
base4b$vchangeTotal <- 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$dTh==0 & base4b$vchangeTotal!=0,])<=1){
  base4b <- base4b
} else {
  seatCh <- rep (base4b[base4b$party.in==1,]$sp
                 , nrow (base4b[base4b$dTh==0 & base4b$vchangeTotal!=0,]))
  ## we’ll get the alternative seat distributions for the party of interest here
  for (i in 1:nrow (base4b[base4b$dTh==0 & base4b$vchangeTotal!=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 (base4$vchangeTotal) <= sum (base4b$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.

[18] In 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 (Corrienes, 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)				
assumed office (0/1)	est.	95% CI	*p*-val.	bwd.	N	est.	95% CI	*p*-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
time served										
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.

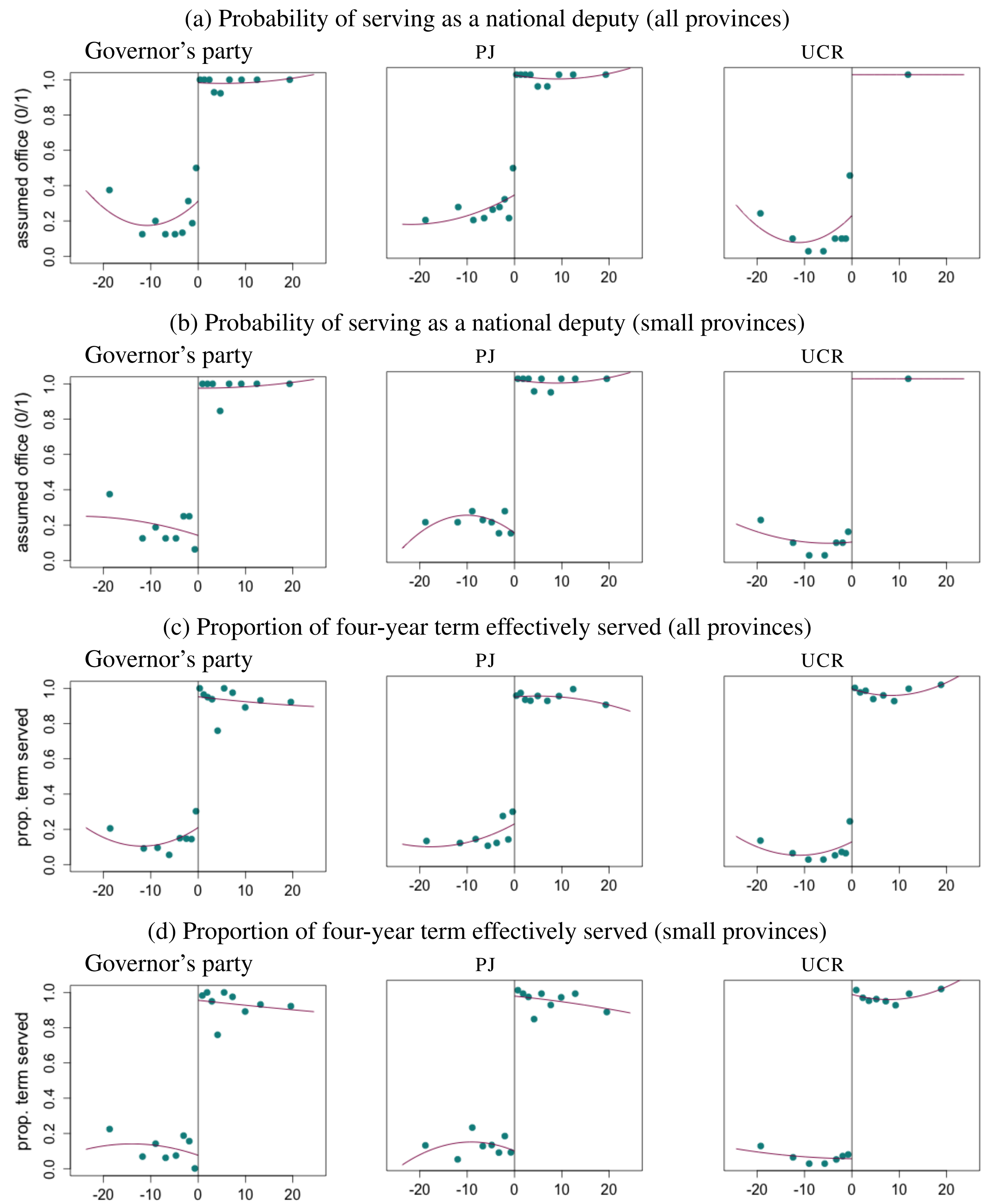


Figure A7: Compliance with treatment assignment. Mimicking variance RD plots with quantile-spaced bins (Calonico, Cattaneo and Titiunik 2015*a*). The lines indicate the fit of a second-order polynomial regression estimated separately at each side of the cutoff, using a uniform kernel.

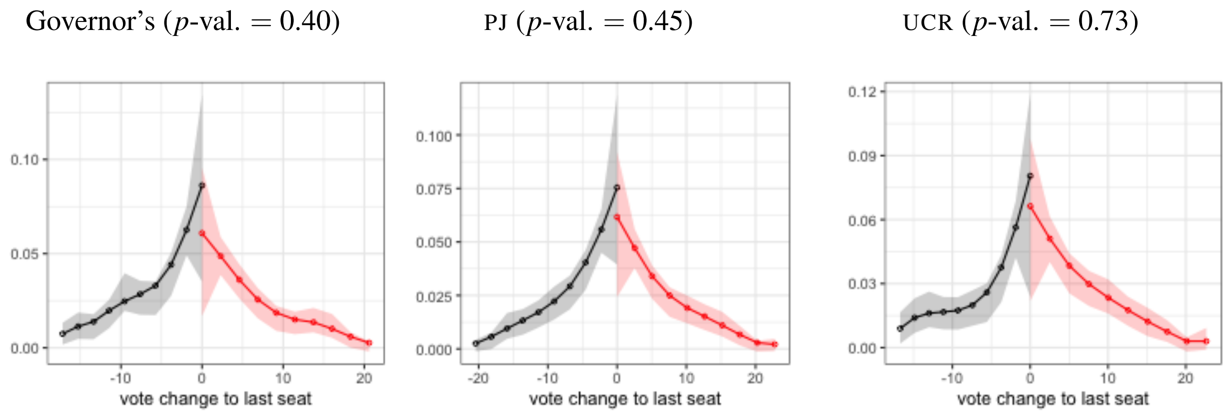
D Balance checks

(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



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

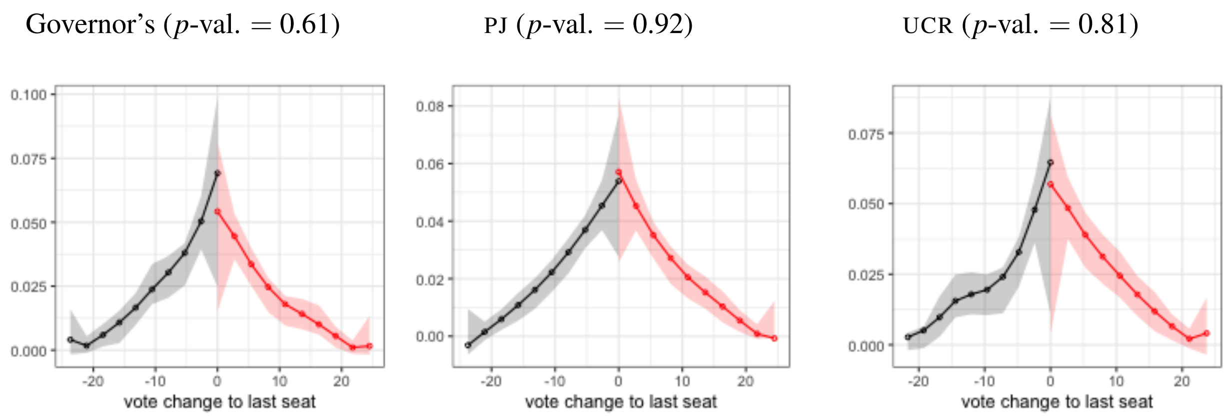


Figure A8: Cattaneo, Jansson and Ma's (2018) test of the density of the running variable at the threshold.

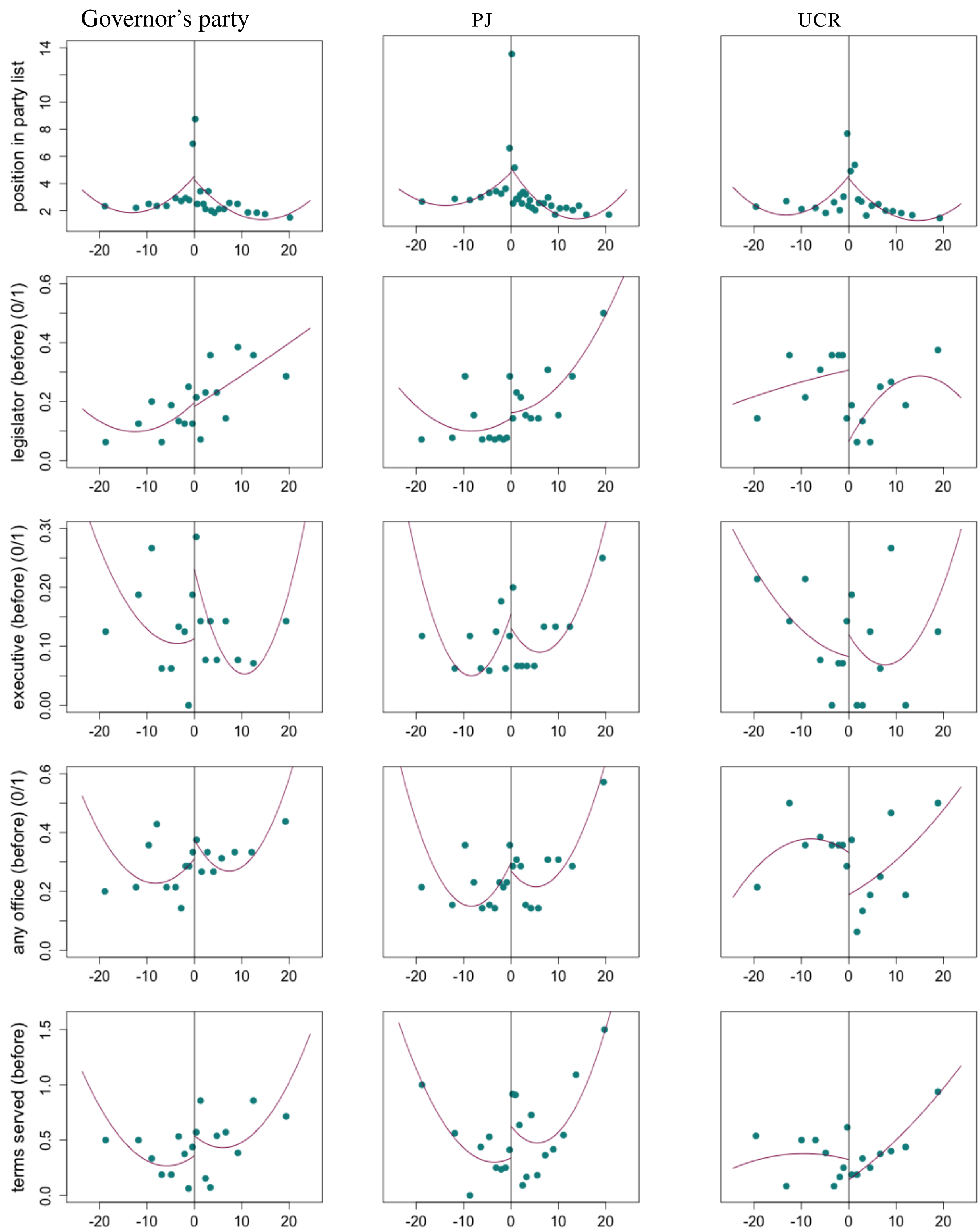


Figure A9: Balance checks – All provinces (1). Mimicking variance RD plots with quantile-spaced bins (Calonico, Cattaneo and Titiunik 2015*a*). The lines indicate the fit of a second-order polynomial regression estimated separately at each side of the cutoff, using a uniform kernel.

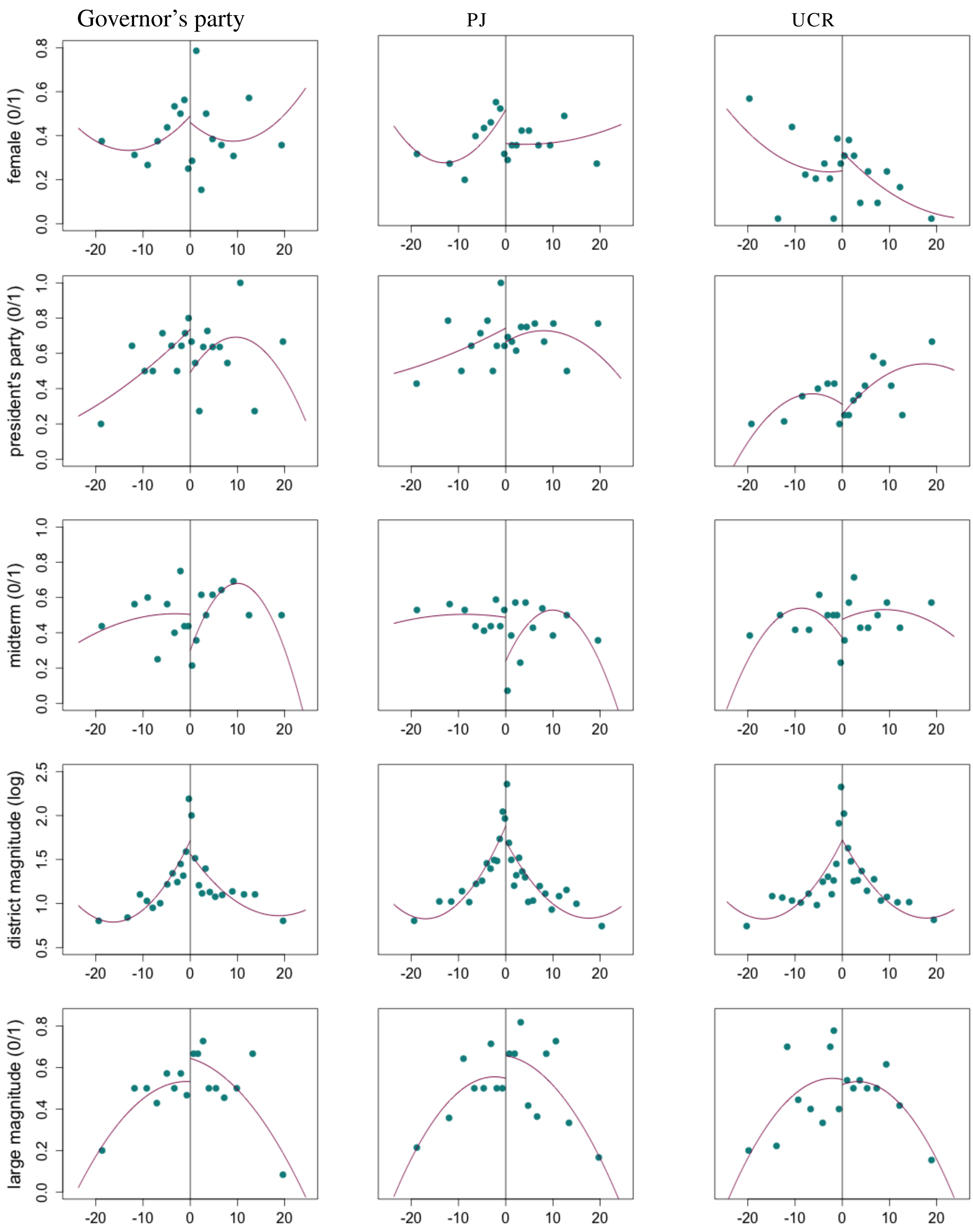


Figure A10: Balance checks – All provinces (2). Mimicking variance RD plots with quantile-spaced bins (Calonico, Cattaneo and Titiunik 2015*a*). The lines indicate the fit of a second-order polynomial regression estimated separately at each side of the cutoff, using a uniform kernel.

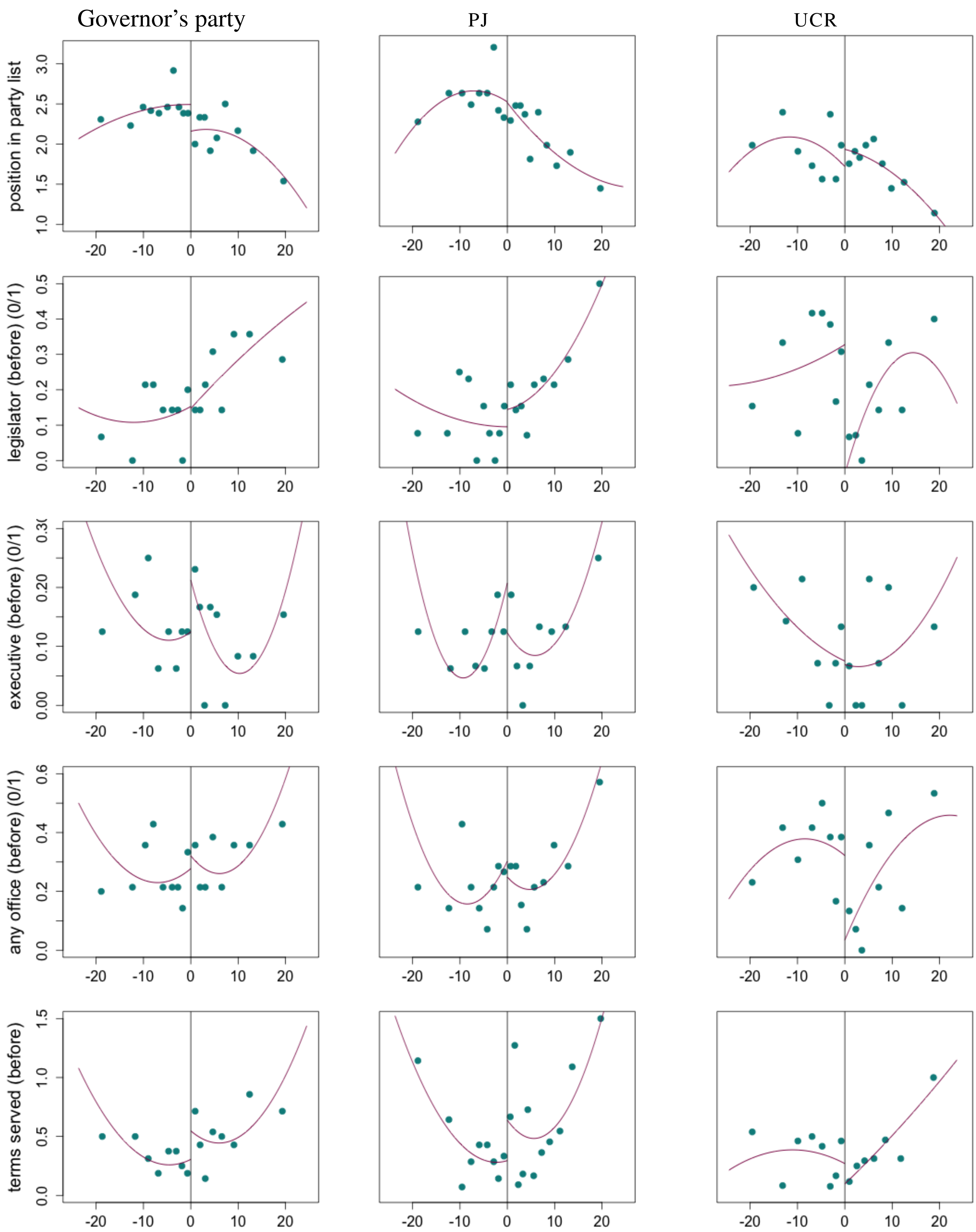


Figure A11: Balance checks – Small provinces (M $\leq$ 5) (1). Mimicking variance RD plots with quantile-spaced bins (Calonico, Cattaneo and Titiunik 2015*a*). The lines indicate the fit of a second-order polynomial regression estimated separately at each side of the cutoff, using a uniform kernel.

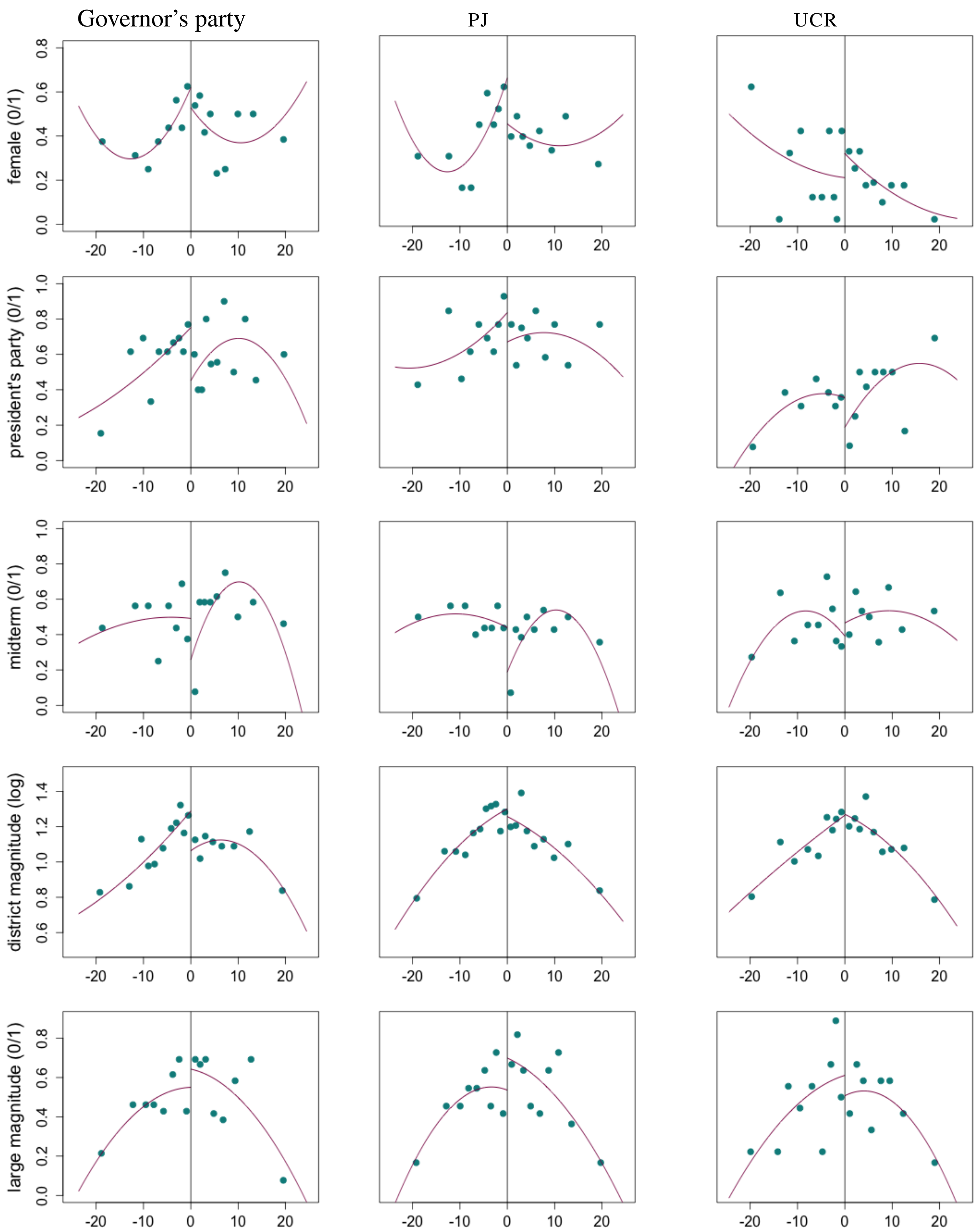


Figure A12: Balance checks – Small provinces (M ≤ 5) (2). Mimicking variance RD plots with quantile-spaced bins (Calonico, Cattaneo and Titiunik 2015*a*). The lines indicate the fit of a second-order polynomial regression estimated separately at each side of the cutoff, using a uniform kernel.

Table A3: Balance checks

	(a) All provinces					(b) Small provinces ($M \leq 5$)				
position in list	est.	95% CI	p-val.	bwd.	N	est.	95% CI	p-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
legislator (before) (0/1)										
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
executive (before) (0/1)										
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
any office (before) (0/1)										
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
terms served (before)										
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
female (0/1)										
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
president's party (0/1)										
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
midterm election (0/1)										
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
district magnitude (log)										
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
large magnitude (0/1)										
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 ($\frac{\text{SD}_C}{2}$); (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.

[19]All 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 ($M \leq 5$)								
			power			sample size						power			sample size			
	SD_C	$\hat{\beta}$	$\frac{SD_C}{2}$	SD_C	$\lvert\hat{\beta}\rvert$	actual	$\frac{SD_C}{2}$	SD_C	$\lvert\hat{\beta}\rvert$	SD_C	$\hat{\beta}$	$\frac{SD_C}{2}$	SD_C	$\lvert\hat{\beta}\rvert$	actual	$\frac{SD_C}{2}$	SD_C	$\lvert\hat{\beta}\rvert$
renomination (0/1)																		
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
legislator (after) (0/1)																		
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
executive (after) (0/1)																		
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
any office (after) (0/1)																		
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
terms served (after)																		
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	$\hat{\beta}$	$\frac{\text{SD}_C}{2}$	SD_C	$\lvert\hat{\beta}\rvert$	actual	$\frac{\text{SD}_C}{2}$	SD_C	$\lvert\hat{\beta}\rvert$	SD_C	$\hat{\beta}$	$\frac{\text{SD}_C}{2}$	SD_C	$\lvert\hat{\beta}\rvert$	actual	$\frac{\text{SD}_C}{2}$	SD_C	$\lvert\hat{\beta}\rvert$
renomination (0/1)																		
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
legislator (after) (0/1)																		
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
executive (after) (0/1)																		
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
any office (after) (0/1)																		
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
terms served (after)																		
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 ($\frac{\text{SD}_C}{2}$); (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	$\hat{\beta}$	$\frac{\text{SD}_C}{2}$	SD_C	$\lvert\hat{\beta}\rvert$	actual	$\frac{\text{SD}_C}{2}$	SD_C	$\lvert\hat{\beta}\rvert$	SD_C	$\hat{\beta}$	$\frac{\text{SD}_C}{2}$	SD_C	$\lvert\hat{\beta}\rvert$	actual	$\frac{\text{SD}_C}{2}$	SD_C	$\lvert\hat{\beta}\rvert$
renomination (0/1)																		
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
legislator (after) (0/1)																		
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
executive (after) (0/1)																		
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
any office (after) (0/1)																		
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
terms served (after)																		
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 $\lvert\hat{\beta}\rvert = 0.01$ 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 ($\frac{\text{SD}_C}{2}$); (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.

[20] We 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.

[21] Catamarca, 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)				
mayor (after) (0/1)	est.	95% CI	*p*-val.	bwd.	N	est.	95% CI	*p*-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
executive other than mayor (after) (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
equivalent position (after) (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
better position (after) (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)				
renomination (0/1)	est.	95% CI	*p*-val.	bwd.	N	est.	95% CI	*p*-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
legislator (after) (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
executive (after) (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
any office (after) (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
terms served (after)										
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)				
renomination (0/1)	est.	95% CI	*p*-val.	bwd.	N	est.	95% CI	*p*-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
legislator (after) (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
executive (after) (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
any office (after) (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
terms served (after)										
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)				
renomination (0/1)	est.	95% CI	*p*-val.	bwd.	N	est.	95% CI	*p*-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
legislator (after) (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
executive (after) (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
any office (after) (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
terms served (after)										
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)				
renomination (0/1)	est.	95% CI	*p*-val.	bwd.	N	est.	95% CI	*p*-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
legislator (after) (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
executive (after) (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
any office (after) (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
terms served (after)										
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)				
renomination (0/1)	est.	95% CI	*p*-val.	bwd.	N	est.	95% CI	*p*-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
legislator (after) (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
executive (after) (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
any office (after) (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
terms served (after)										
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)				
renomination (0/1)	est.	95% CI	*p*-val.	bwd.	N	est.	95% CI	*p*-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
legislator (after) (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
executive (after) (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
any office (after) (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
terms served (after)										
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]

[22] In 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).

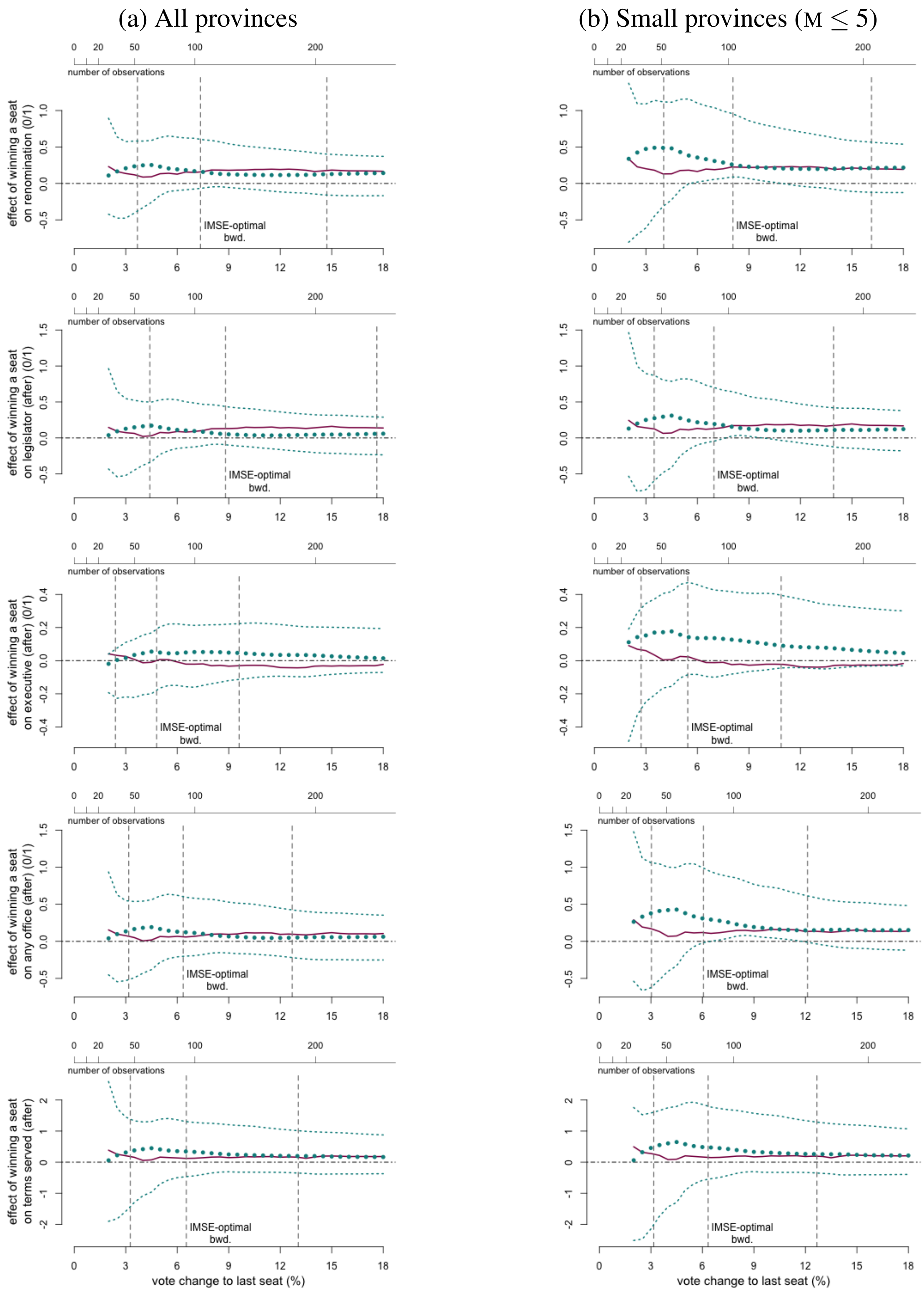


Figure A13: Sensitivity to alternative bandwidths (1): Governor's party sample. The solid line indicates the raw difference in means between observations above and below the threshold, while the dots report conventional sharp RD estimates akin to those of Table 2, but using different bandwidths. The 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.

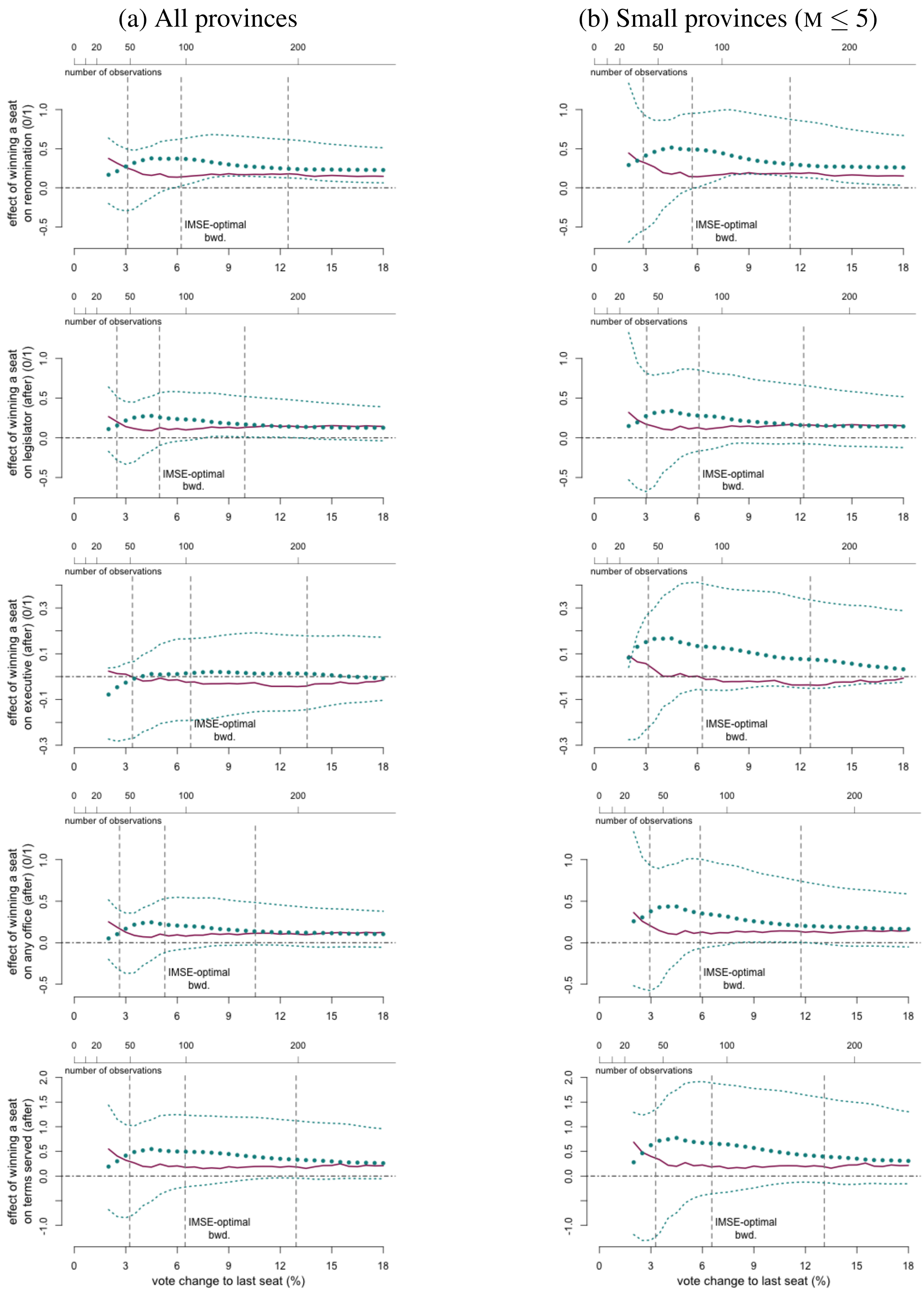


Figure A14: Sensitivity to alternative bandwidths (2): PJ sample. The solid line indicates the raw difference in means between observations above and below the threshold, while the dots report conventional sharp RD estimates akin to those of Table 2, but using different bandwidths. The dotted lines correspond 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.

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

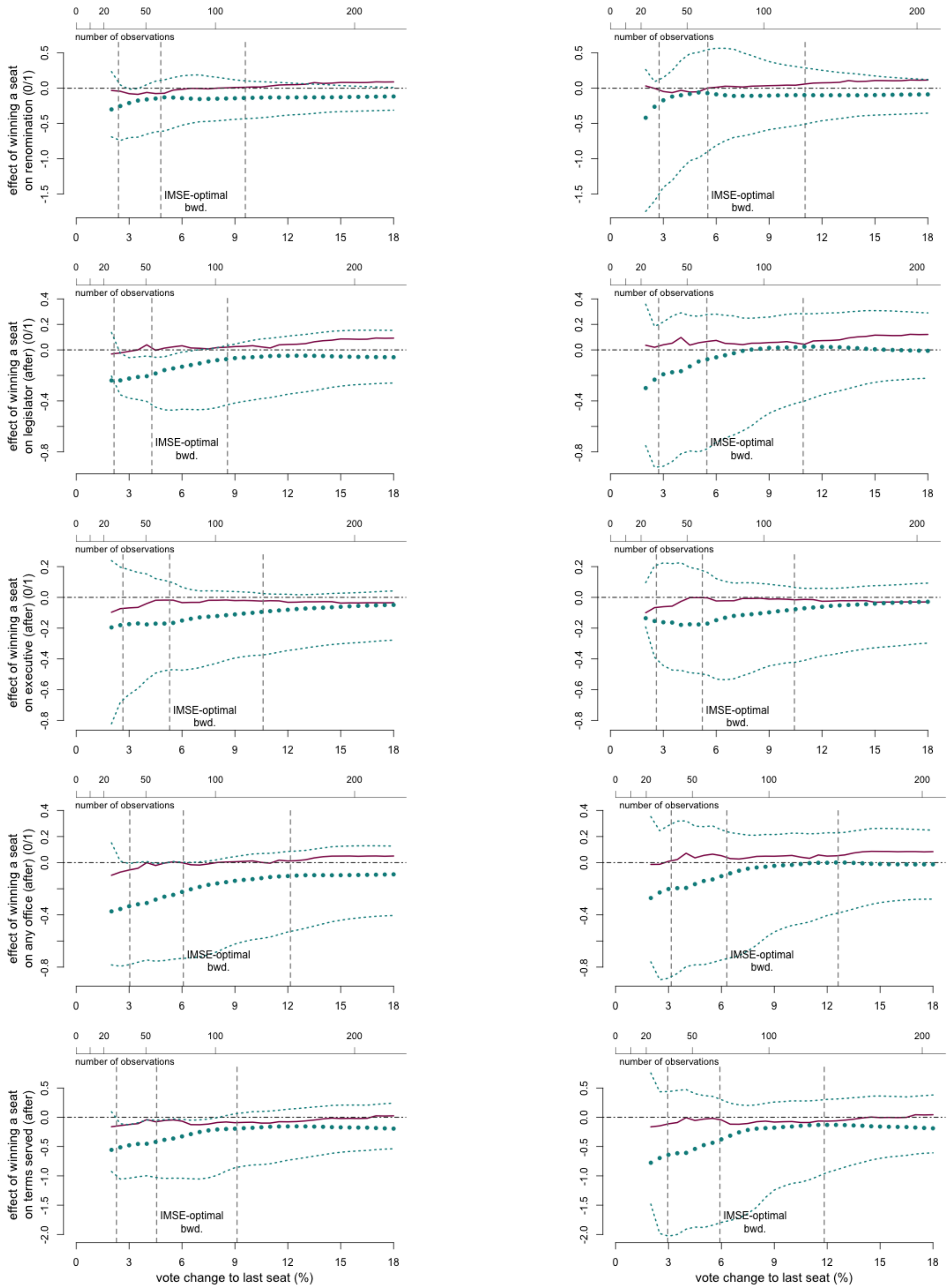


Figure A15: Sensitivity to alternative bandwidths (3): UCR sample. The solid line indicates the raw difference in means between observations above and below the threshold, while the dots report conventional sharp RD estimates akin to those of Table 2, but using different bandwidths. The dotted lines 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 ($M \leq 5$)				
renomination (0/1)	est.	95% CI	*p*-val.	bwd.	N	est.	95% CI	*p*-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
legislator (after) (0/1)										
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
executive (after) (0/1)										
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
any office (after) (0/1)										
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
terms served (after)										
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 ($M \leq 5$)				
renomination (0/1)	est.	95% CI	*p*-val.	bwd.	N	est.	95% CI	*p*-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
legislator (after) (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
executive (after) (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
any office (after) (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
terms served (after)										
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)				
renomination (0/1)	est.	95% CI	*p*-val.	bwd.	N	est.	95% CI	*p*-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
legislator (after) (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
executive (after) (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
any office (after) (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
terms served (after)										
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)				
renomination (0/1)	est.	95% CI	*p*-val.	bwd.	N	est.	95% CI	*p*-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
legislator (after) (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
executive (after) (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
any office (after) (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
terms served (after)										
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)				
renomination (0/1)	est.	95% CI	*p*-val.	bwd.	N	est.	95% CI	*p*-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
legislator (after) (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
executive (after) (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
any office (after) (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
terms served (after)										
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.