Political Dynasties and the Incumbency Advantage in Party-Centered Environments*

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Abstract

A handful of recent studies have investigated the causal effect of incumbency on dynasty formation in candidate-centered electoral contexts. We use candidate-level data and a regression discontinuity design to estimate the incumbency advantage and its relation to dynasty formation in the party-centered, closed-list proportional representation setting of Norway. The results indicate that the incumbency advantage exists even in this party-centered environment; however, in contrast to recent findings for the United States and the Philippines, we find no evidence that incumbency is important to the formation of dynasties. This finding underscores the need for more research into the role of internal party organizational networks in the perpetuation of political dynasties.

Keywords: incumbency advantage, dynasties, regression discontinuity design, Norway

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Appendix A: Supplemental Information

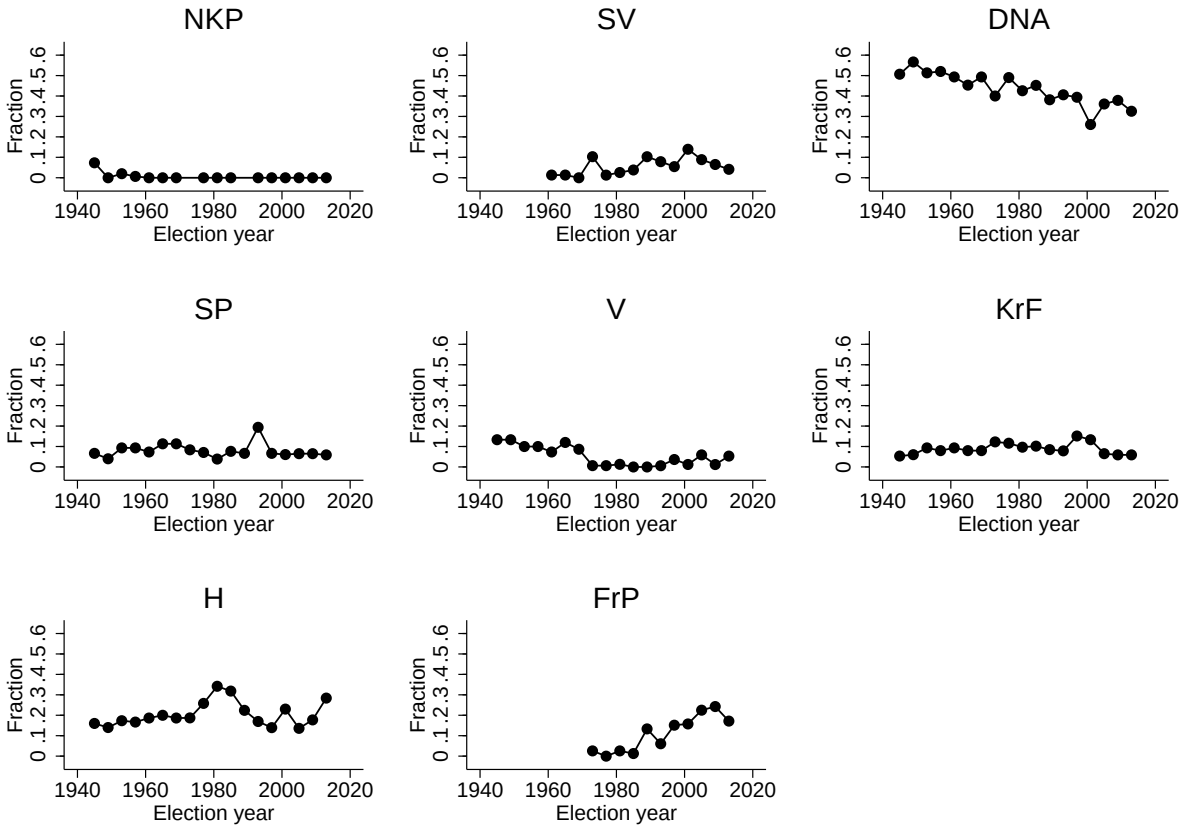

Figure A.1: Parties' seat shares by election year.

Note: Figure shows the main parties' seat shares by election year. The main parties are: the Labor Party (DNA), the Communist Party (NKP), the Socialist Peoples' Party/Socialist Left Party (SV), the Center Party (SP), the Christian Peoples' Party (KrF), the Liberal Party (V), the Conservative Party (H), and the Progress Party (FrP).

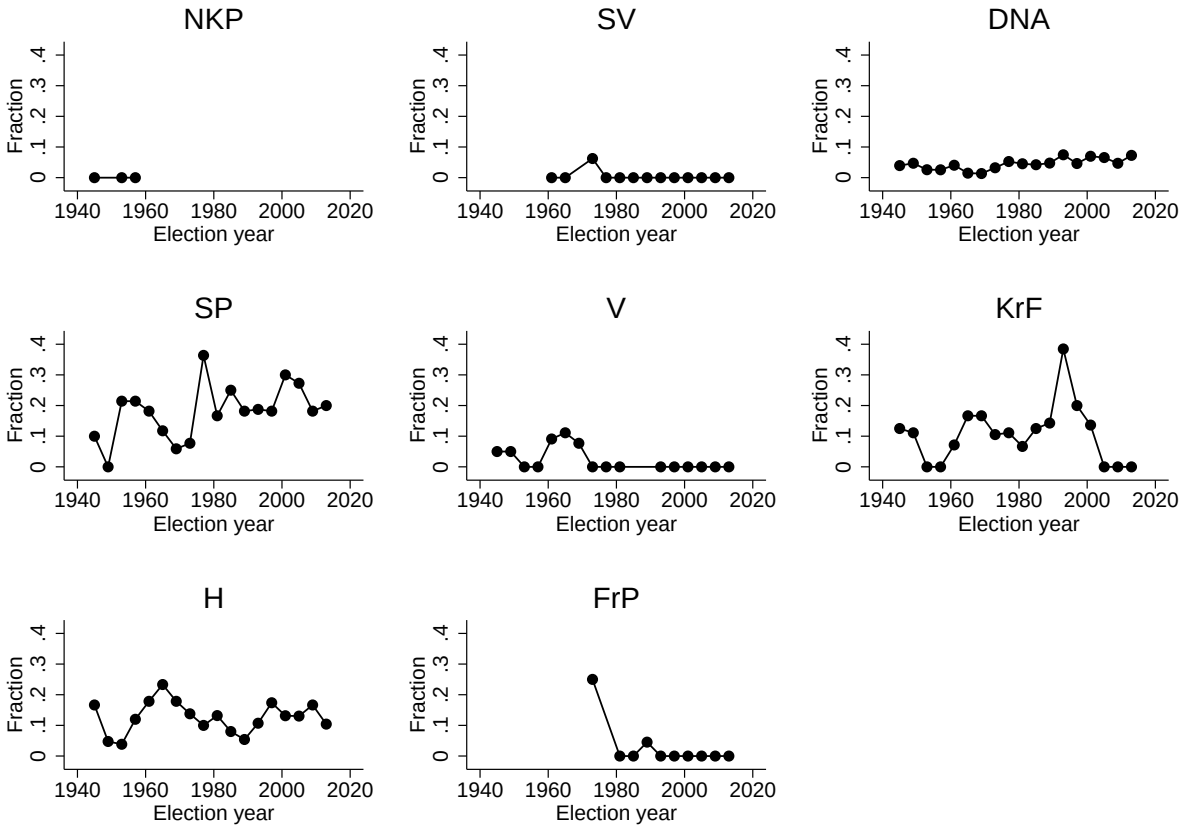

Figure A.2: Political dynasties 1945-2013 by party

Note: Figure shows the fraction of legislators who were related to a previously-elected legislator or cabinet minister (including relationships to those who served prior to 1945) by party. The main parties are: the Labor Party (DNA), the Communist Party (NKP), the Socialist Peoples' Party/Socialist Left Party (SV), the Center Party (SP), the Christian Peoples' Party (KrF), the Liberal Party (V), the Conservative Party (H), and the Progress Party (FrP).

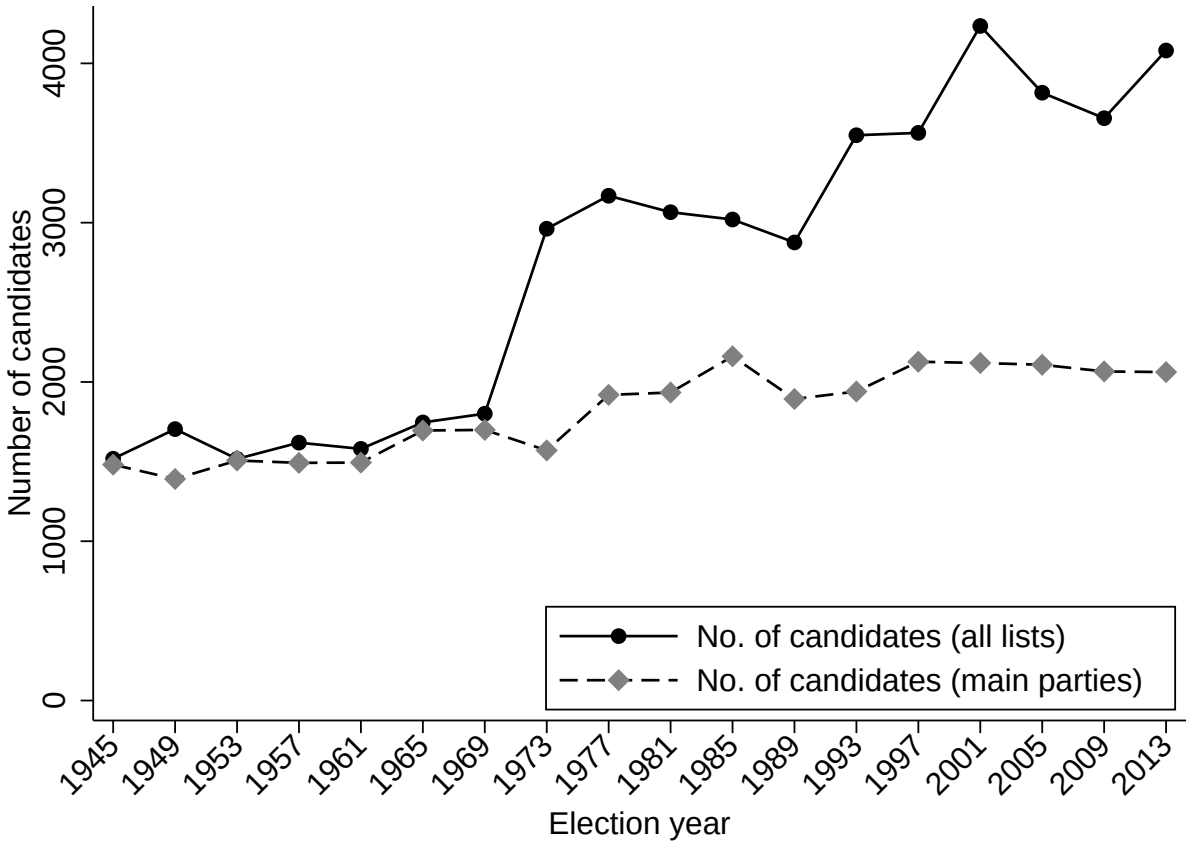

Figure A.3: Number of candidates by election year.

Note: Figure shows the number of candidates running in each election year. The Labor Party (DNA), the Communist Party (NKP), the Socialist Peoples' Party/Socialist Left Party (SV), the Center Party (SP), the Christian Peoples' Party (KrF), the Liberal Party (V), the Conservative Party (H), and the Progress Party (FrP) constitute the main parties. The number of candidates for all parties is inflated because some minor parties run the same candidates in multiple districts in the same year.

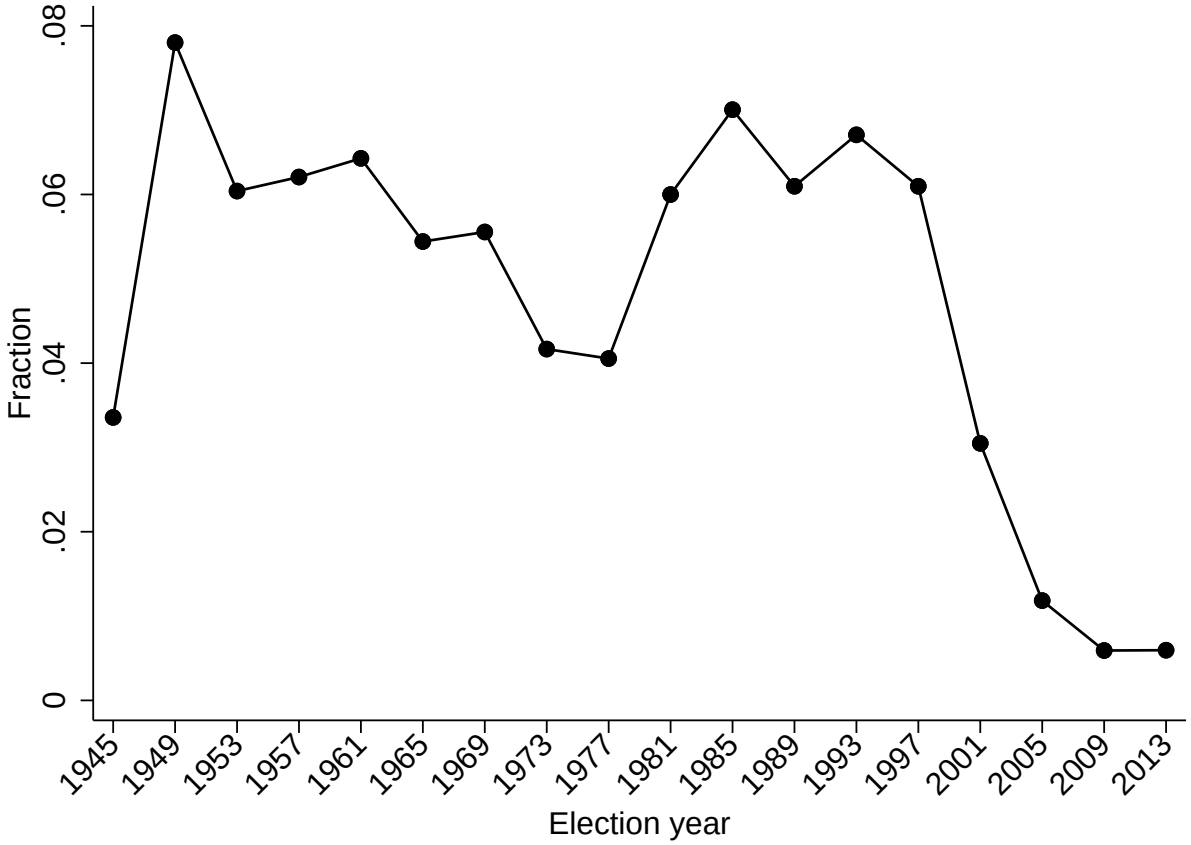

Figure A.4: Fraction of MPs succeeded by family member, 1945-2013.

Note: Trend represents the proportion of all elected MPs in each year who were related to a future elected MP or cabinet minister.

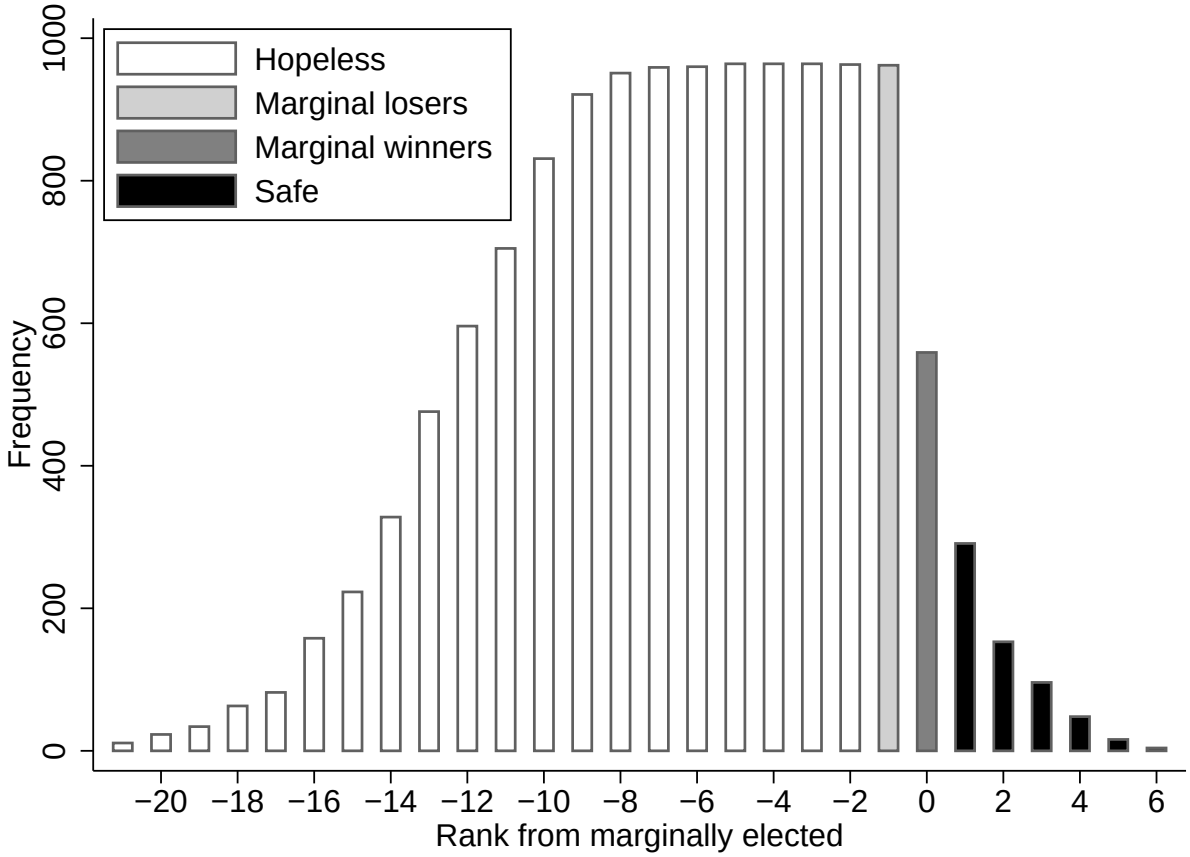

Figure A.5: Frequency of observations as a function of rank distance to marginally elected.

Note: Sample consists of all candidates from the main parties. Unit of observation is candidate-year (N=13,305).

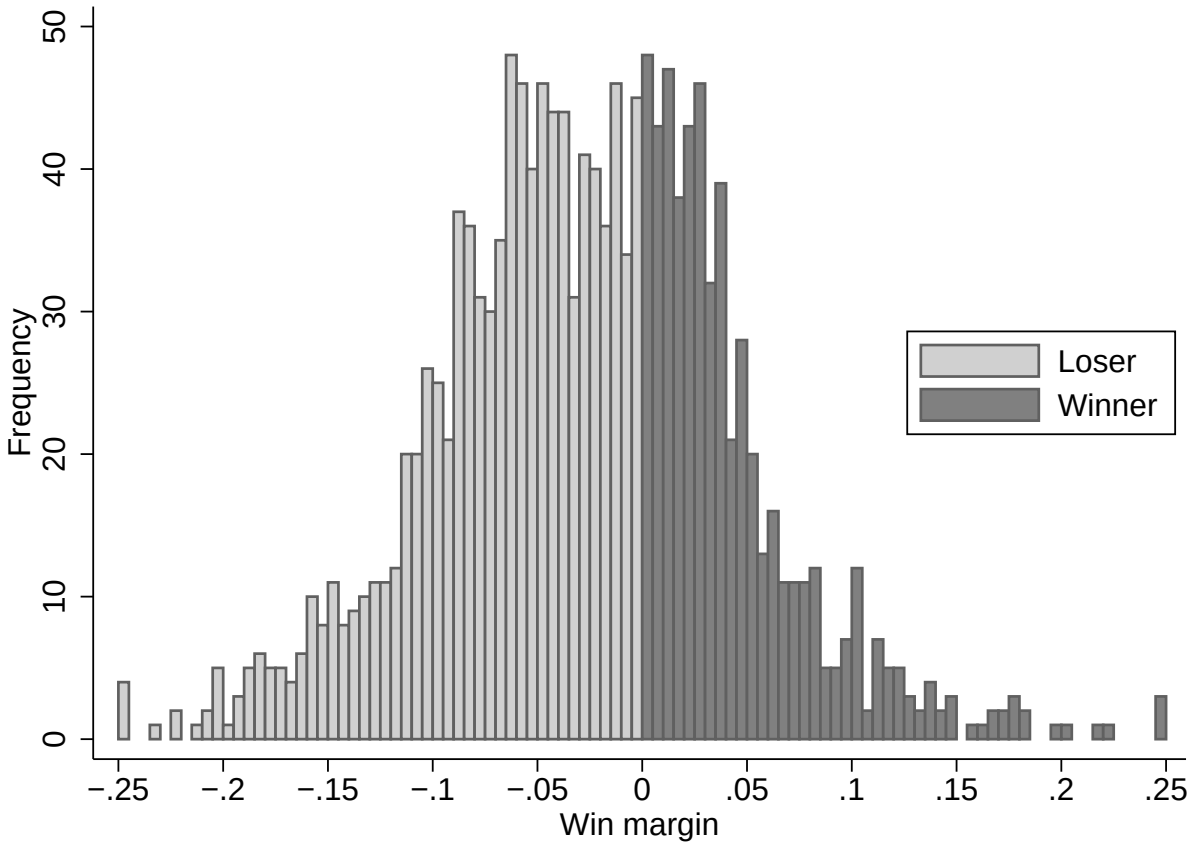

Figure A.6: Distance to seat threshold [win margin] for marginal candidates.

Note: Each bin represents an interval of half a percentage point. Sample consists of candidates that are either next in line to win a seat (marginal losers), or first in line to lose a seat (marginal winners), for the main parties (N=1,521). Unit of observation is candidate-year. Figure is truncated at −0.25 and +0.25.

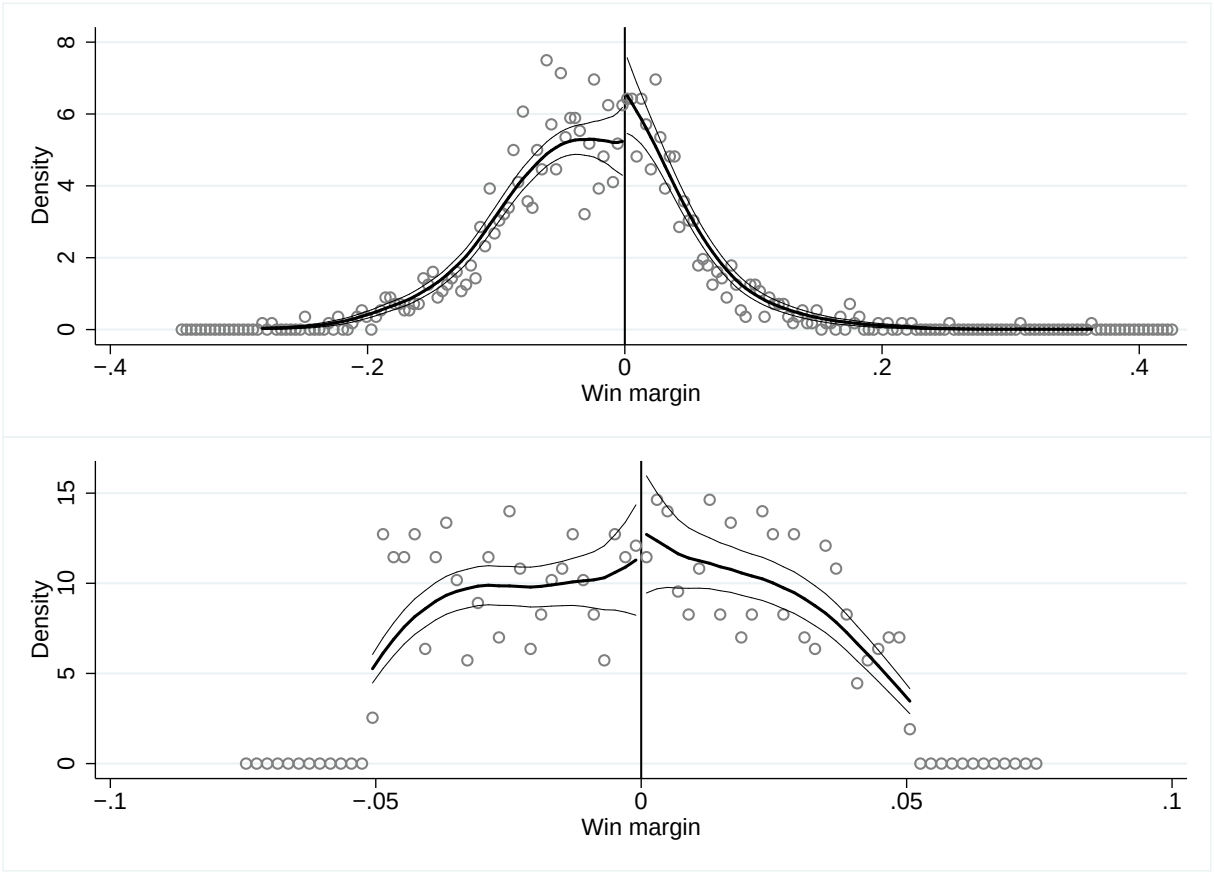

Figure A.7: McCrary density plots.

Note: McCrary (2008) density plots have become the standard method to check for sorting in RD settings. The top panel provides a density plot when the sample is restricted to all marginal candidates (N=1,521). The bottom panel provides a density plot for the sample restricted to marginal candidates who are less than five percentage points away from the seat threshold (N=792). In both cases, there is no evidence of any sorting around the threshold for a seat change, a potential problem with the "as good as random" assumption of RD designs in single-member district contexts (Caughey and Sekhon, 2011; Eggers et al., 2015).

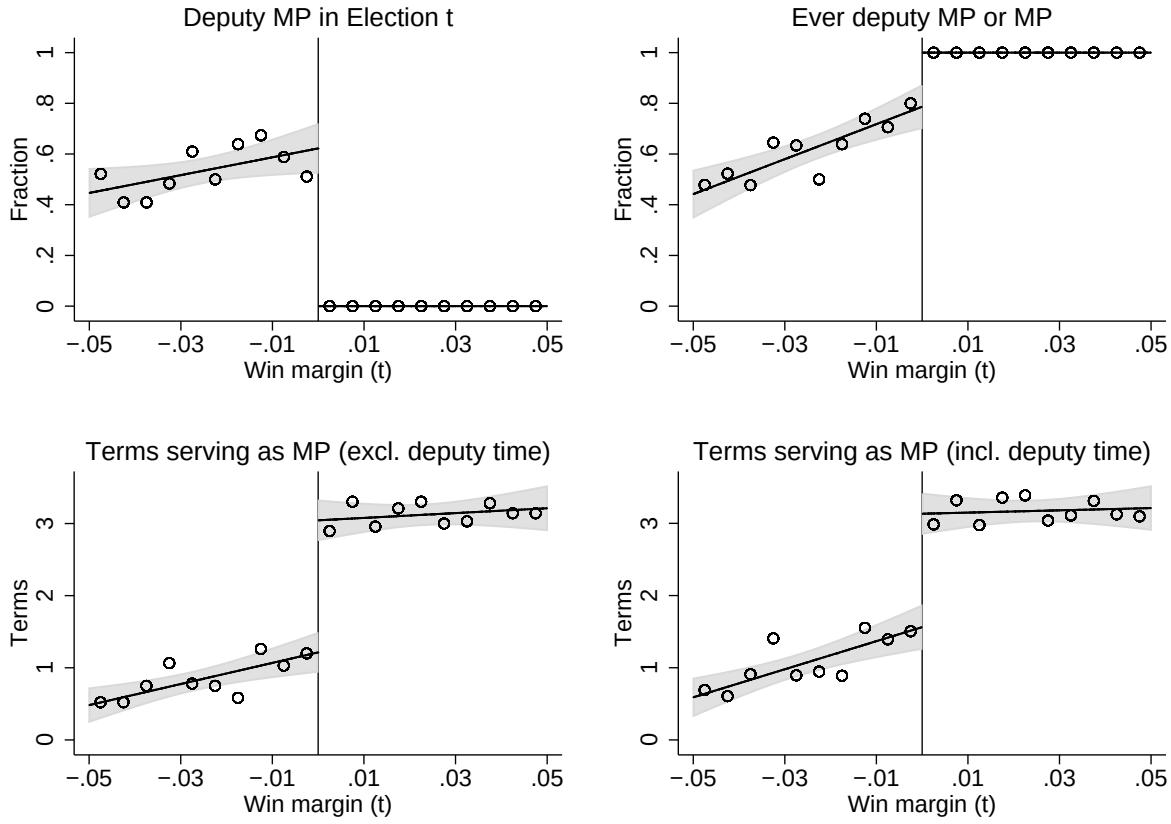

Figure A.8: Some marginal losers will serve as deputies and thus receive (partial) treatment office.

Note: Sample restricted to candidates from the main parties who are less than 5 percentage points away from the seat threshold (N=792). Each bin represents an interval of half a percentage point. Separate linear regression lines are estimated to the left and right of the discontinuity using the underlying data, not the binned scatterpoints. Shaded areas represent 95% confidence intervals.

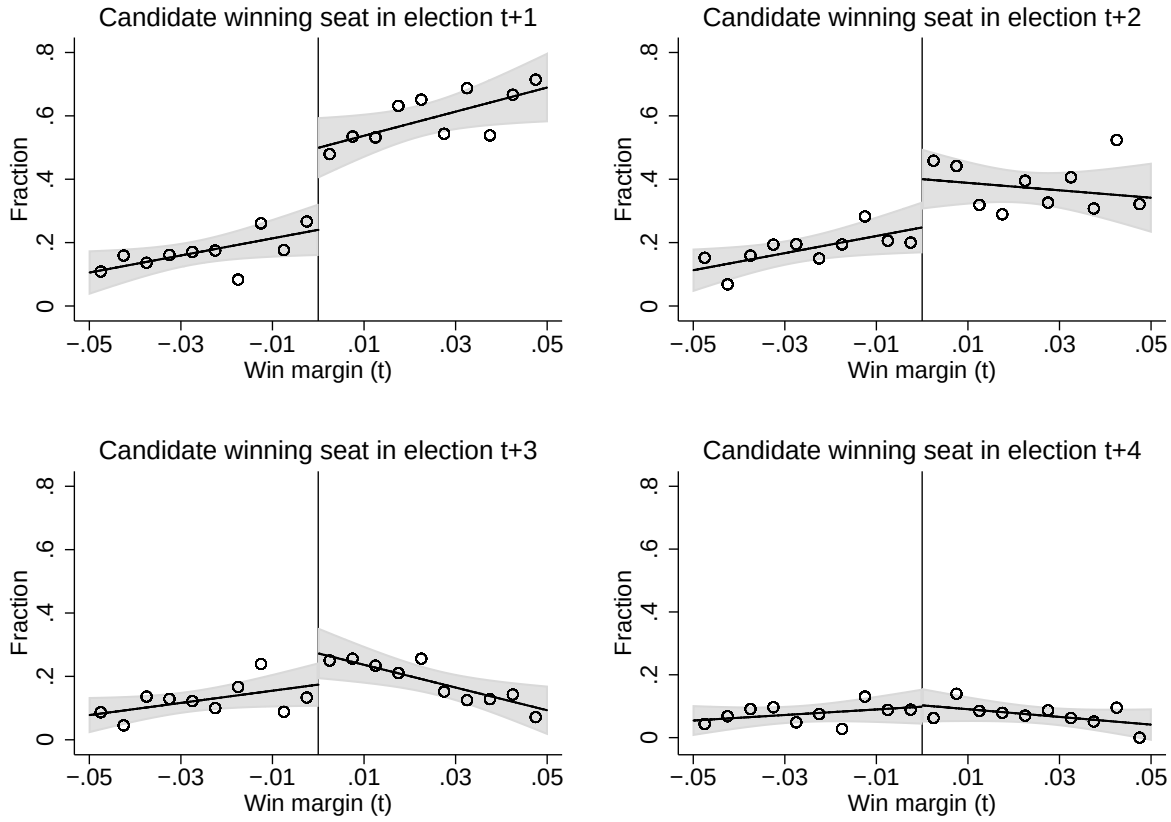

Figure A.9: Effect of incumbency on downstream elections.

Note: Sample restricted to candidates from the main parties who are less than five percentage points away from the seat threshold (N=792). Each bin is for an interval of half a percentage point. Separate linear regression lines are estimated to the left and right of the discontinuity using the underlying data, not the binned scatterpoints. Shaded areas represent 95% confidence intervals.

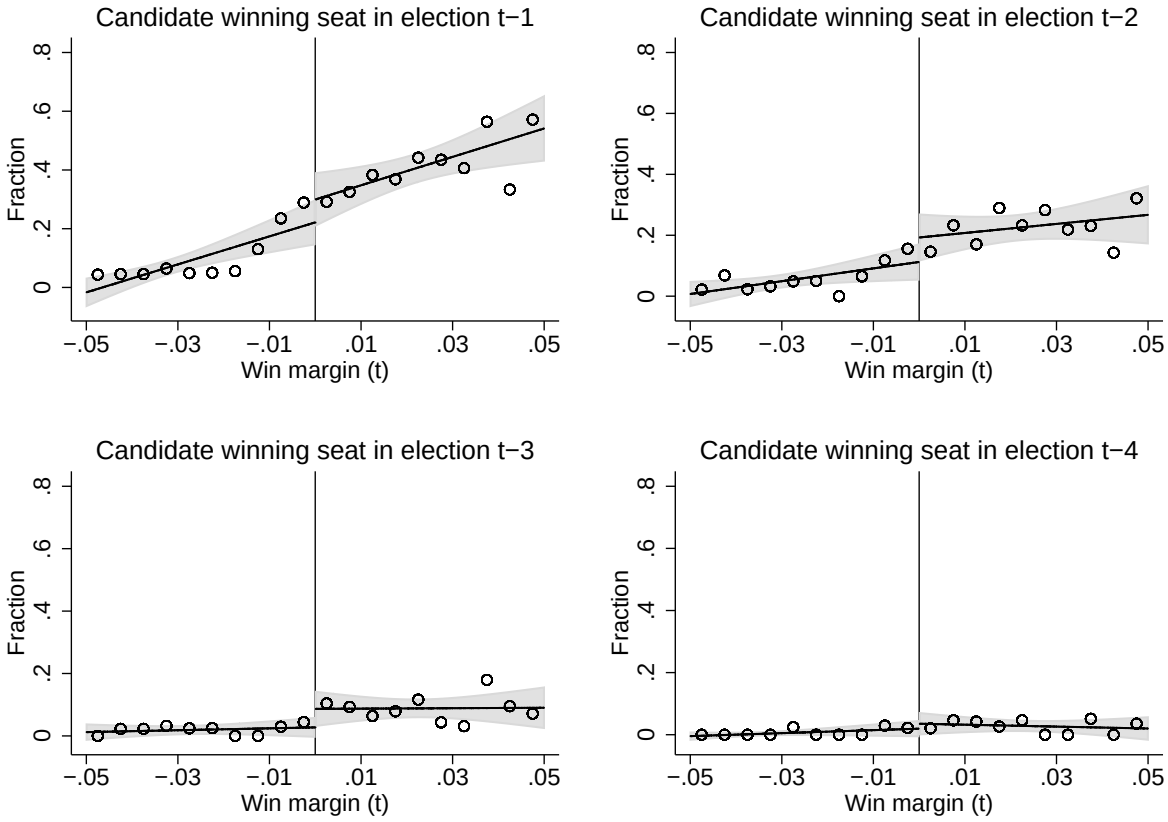

Figure A.10: Falsification exercise: effect of incumbency on previous elections.

Note: Sample restricted to candidates from the main parties who are less than five percentage points away from the seat threshold (N=792). Each bin is for an interval of half a percentage point. Separate linear regression lines are estimated to the left and right of the discontinuity using the underlying data, not the binned scatterpoints. Shaded areas represent 95% confidence intervals.

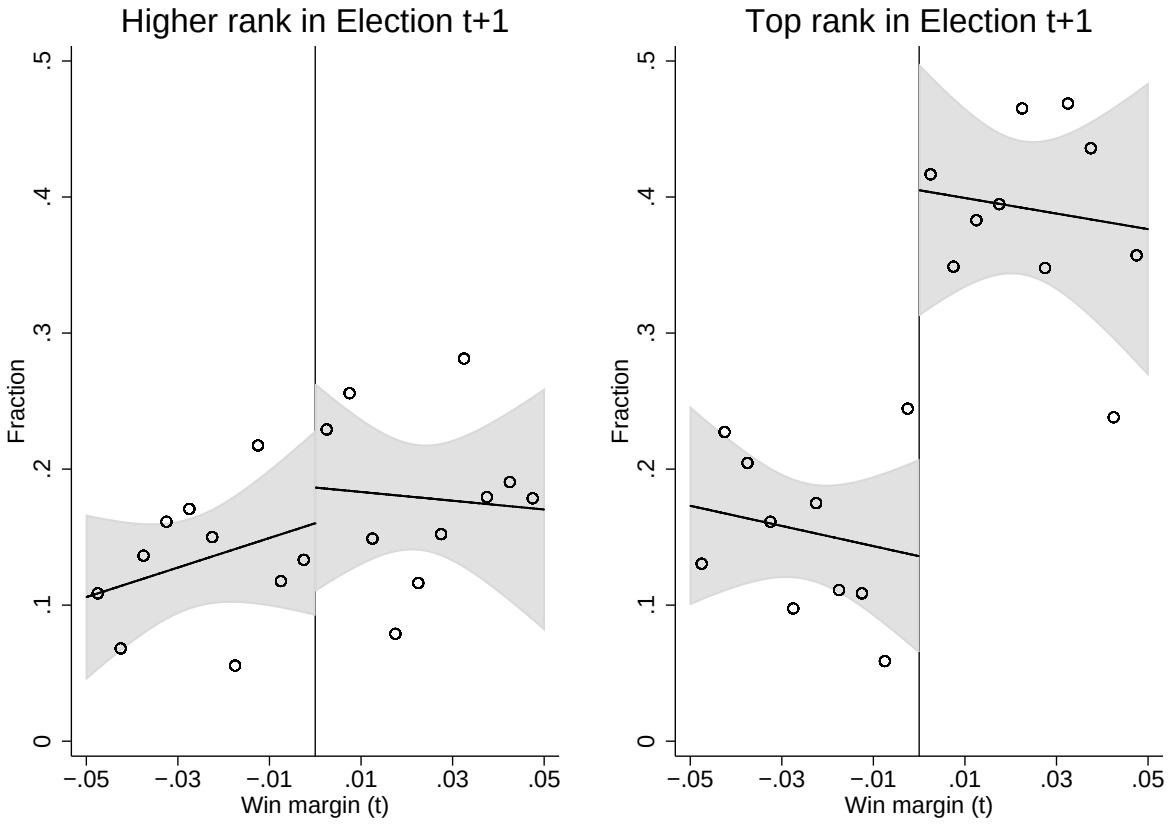

Figure A.11: RD plots for being re-nominated in higher or top rank.

Note: Sample restricted to candidates from the main parties who are less than 5 percentage points away from the seat threshold (N=792). Each bin represents an interval of half a percentage point. Separate linear regression lines are estimated to the left and right of the discontinuity using the underlying data, not the binned scatterpoints. Shaded areas represent 95% confidence intervals.

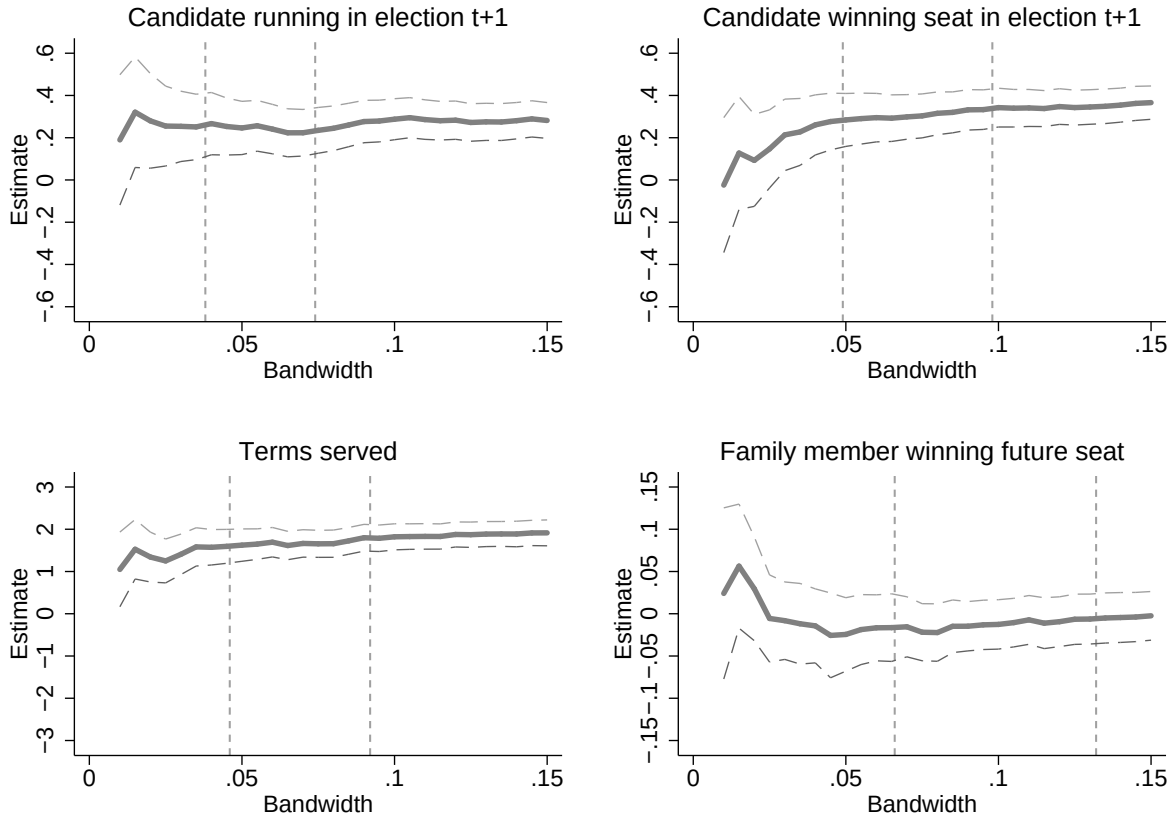

Figure A.12: Robustness of RD results to alternative bandwidths.

Note: Graphs display the RD estimates and 95% confidence intervals as a function of the bandwidth chosen for various outcome variables (given in the title of each panel). The left-most vertical lines in each panel mark the optimal bandwidth chosen by the Calonico et al. (2017) method, as obtained by the *rdrobust* module in STATA. These correspond to specification (6) in Table 1. The right-most vertical lines mark twice the optimal bandwidth from the Calonico et al. (2017) method.

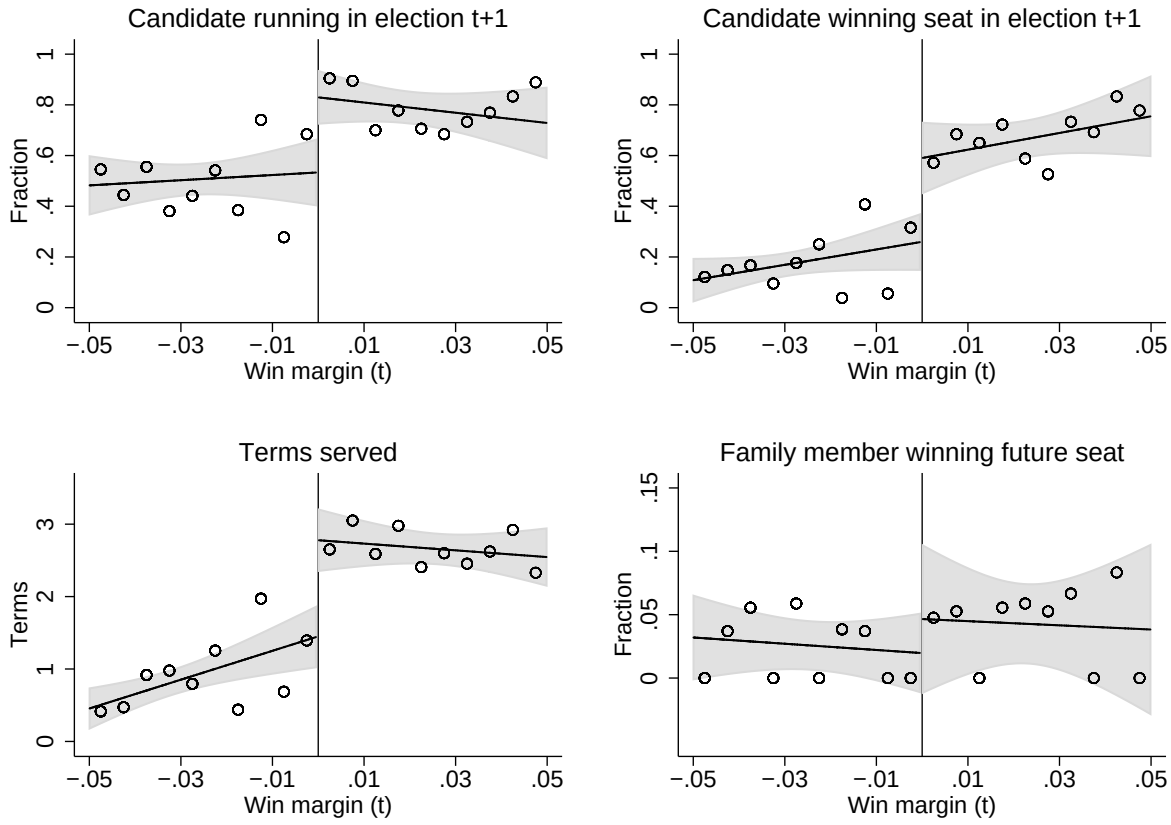

Figure A.13: RD plots of incumbency advantage and inherited incumbency advantage (sample: never previously marginal or elected).

Note: Sample restricted to candidates that previously have been running as hopeless candidates (see Figure A.5), or not at all, and that are less than 5 percentage points away from the seat threshold in the current election (N=393). Each bin represents an interval of half a percentage point. Separate linear regression lines are estimated to the left and right of the discontinuity using the underlying data, not the binned scatterpoints. Shaded areas represent 95% confidence intervals.

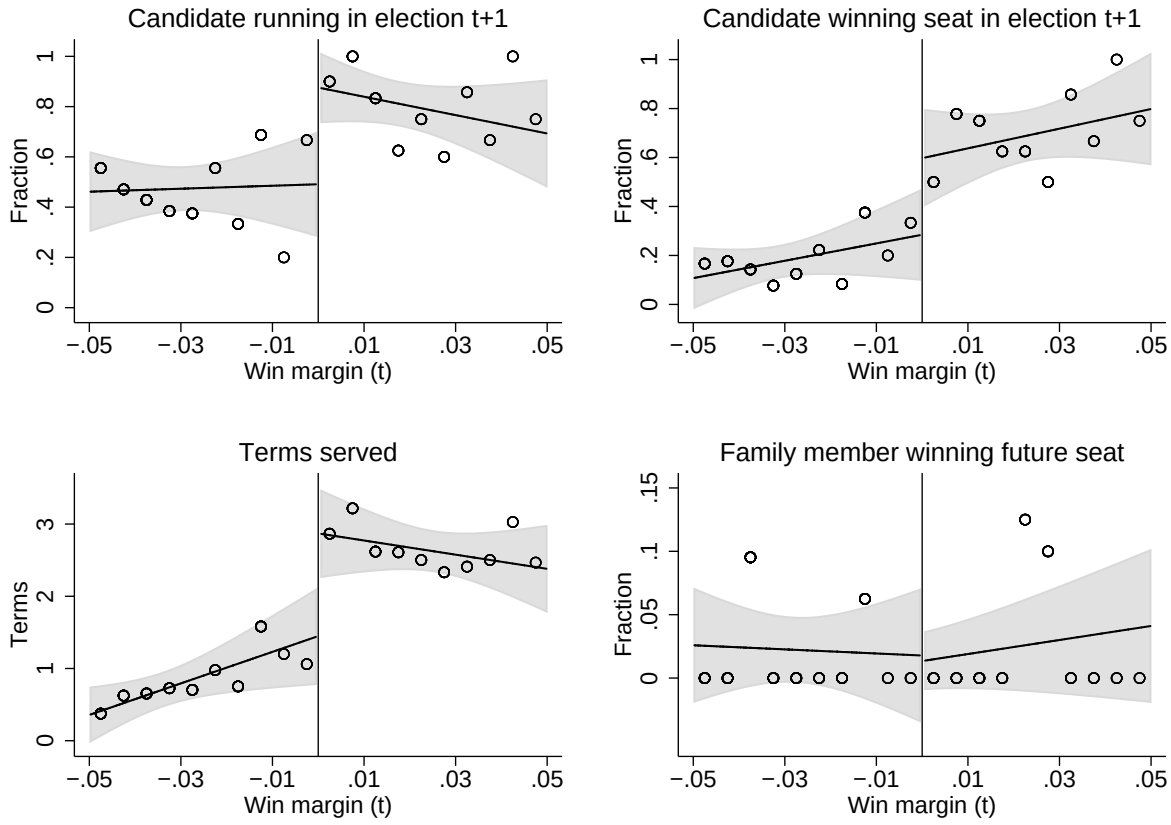

Figure A.14: RD plots of incumbency advantage and inherited incumbency advantage (sample: first-time candidacies only).

Note: Sample restricted to first-time candidates from the main parties who are less than 5 percentage points away from the seat threshold (N=212). Each bin represents an interval of half a percentage point. Separate linear regression lines are estimated to the left and right of the discontinuity using the underlying data, not the binned scatterpoints. Shaded areas represent 95% confidence intervals.

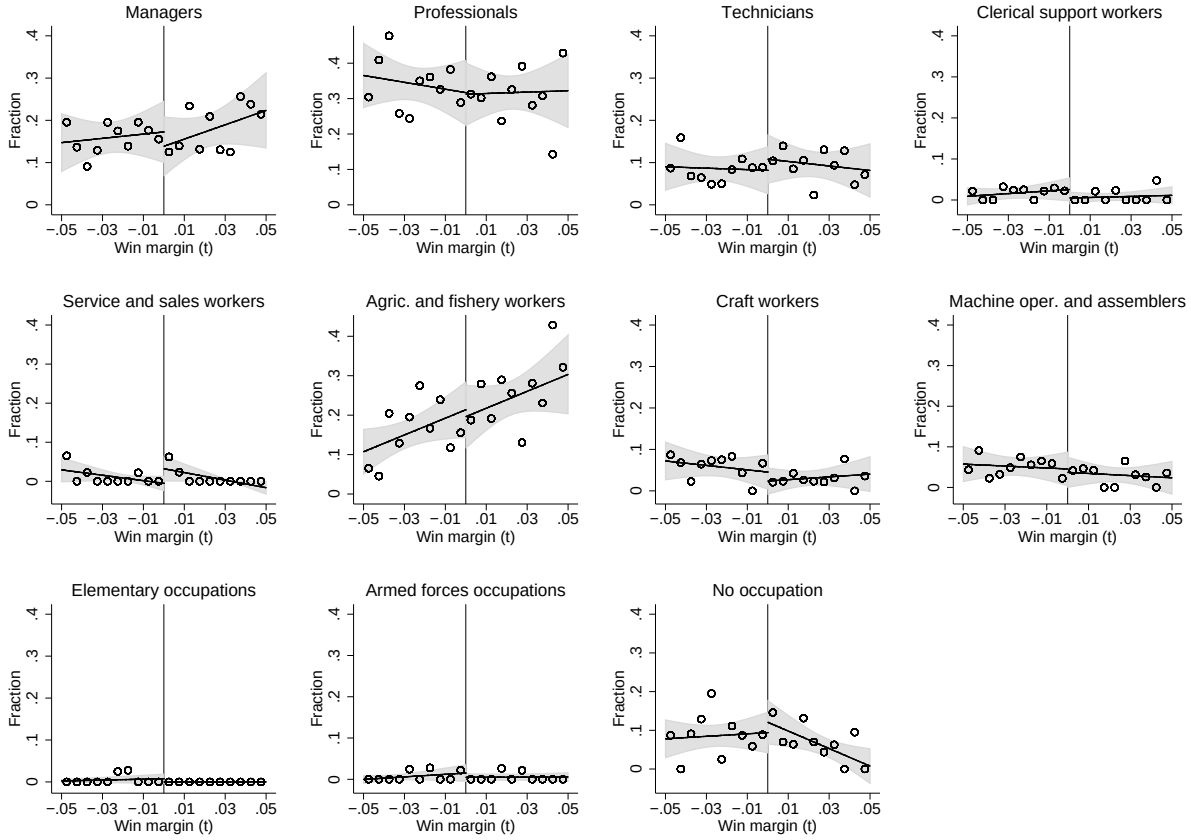

Figure A.15: Balance on pre-treatment variables: candidate occupations.

Note: Sample restricted to candidates from the main parties who are less than five percentage points away from the seat threshold (N=792). Each bin is for an interval of half a percentage point. Separate regression lines are estimated to the left and right of the discontinuity using the underlying data, not the binned scatterpoints. The figure is based on candidates' occupations in the first election they participated. Some candidates list more than one occupation; we use both occupations to create the occupation dummies. Shaded areas represent 95% confidence intervals.

Table A.1: OLS regression estimates of terms served, first-ranked, and cabinet experience.

	(1)	(2)	(3)	(4)	(5)
Terms served	0.011			0.006	0.007
	(0.006)			(0.006)	(0.007)
First-ranked		0.044		0.034	0.040
		(0.015)		(0.015)	(0.019)
Cabinet experience			0.081	0.065	0.053
			(0.036)	(0.038)	(0.037)
Constant	0.015	0.021	0.038	0.002	
	(0.018)	(0.009)	(0.008)	(0.018)	
N	714	714	714	714	714
R^2	0.008	0.010	0.015	0.024	0.117
First Year FE	No	No	No	No	Yes
Party FE	No	No	No	No	Yes
District FE	No	No	No	No	Yes

Note: Dependent variable is a dummy for whether the MP was followed into office by a family member. *Terms served* is the total number of terms served by an MP before his or her exit from politics. *First-ranked* is a dummy variable for whether the MP was ever at the top of the party list. *Cabinet experience* is a dummy variable for whether the MP was ever appointed to cabinet. Sample restricted to final observation of MPs who served from 1945-1997. Column 5 includes fixed effects for the first year in which the MP was elected, party, and district.

Table A.2: Descriptive statistics for OLS sample

Variable	**Mean**	**Std. Dev.**	**Min.**	**Max.**
Precede an MP	0.048	0.213	0	1
Succeed an MP	0.073	0.26	0	1
Ever first-ranked	0.602	0.49	0	1
Terms served	2.873	1.654	0.112	9.757
Cabinet experience	0.118	0.322	0	1
First year elected	1958.195	17.487	1915	1997
Party: DNA	0.424	0.494	0	1
FrP	0.029	0.169	0	1
H	0.216	0.412	0	1
KrF	0.097	0.296	0	1
NKP	0.017	0.129	0	1
SP	0.099	0.299	0	1
SV	0.04	0.195	0	1
V	0.078	0.269	0	1
N		714		

Table A.3: Descriptive statistics for RD sample

Variable	**Mean**	**Std. Dev.**	**Min.**	**Max.**
First year running	1960.105	11.707	1924	1981
Last year running	1974.352	12.16	1953	2013
Rank	2.166	1.454	1	8
Ever first-ranked	0.442	0.497	0	1
Margin	-0.026	0.072	-0.28	0.364
Seat	0.368	0.482	0	1
Deputy	0.367	0.482	0	1
Seat in next election	0.300	0.459	0	1
Run in next election	0.575	0.495	0	1
Higher rank in next election	0.144	0.351	0	1
Top rank in next election	0.228	0.42	0	1
Terms served	1.660	1.847	0	8.085
Precede an MP	0.030	0.169	0	1
Succeed an MP	0.045	0.208	0	1
Female	0.143	0.351	0	1
Occupation: Managers	0.174	0.379	0	1
Professionals	0.286	0.452	0	1
Technicians	0.104	0.305	0	1
Clerical support workers	0.022	0.146	0	1
Service and sales workers	0.012	0.108	0	1
Agric. and fishery workers	0.175	0.38	0	1
Craft workers	0.047	0.211	0	1
Machine oper. and assemblers	0.061	0.24	0	1
Elementary occupations	0.004	0.063	0	1
Armed forces occupations	0.005	0.072	0	1
No occupation	0.089	0.285	0	1
Party: DNA	0.206	0.405	0	1
FrP	0.041	0.199	0	1
H	0.186	0.389	0	1
KrF	0.144	0.351	0	1
NKP	0.086	0.281	0	1
SP	0.126	0.331	0	1
SV	0.082	0.275	0	1
V	0.128	0.334	0	1
N		1521		

Table A.4: Fuzzy RD estimates

Family member winning future seat

	(1)	(2)	(3)	(4)	(5)	(6)
Terms served	-0.003	-0.004	-0.010	-0.009	-0.010	-0.009
	(0.016)	(0.016)	(0.014)	(0.013)	(0.012)	(0.013)
R^2	0.001	0.006	0.036	0.082	0.087	0.119
N	983	983	983	983	983	983
BW	0.066	0.066	0.066	0.066	0.066	0.066
Year FE	No	Yes	Yes	Yes	Yes	Yes
Party FE	No	No	Yes	Yes	Yes	Yes
District FE	No	No	No	Yes	Yes	Yes
Rank FE	No	No	No	No	Yes	Yes
Controls	No	No	No	No	No	Yes

Note: Reported are fuzzy RD estimates where we instrument 'terms served' with seat status in the current election. We include linear control functions on each side of the cut-off, as in Equation (1). In Column 6, we include ten dummies for candidates' occupations in their first election, as well as a dummy for gender. All specifications include separate linear control functions on each side of the discontinuity. Standard errors clustered at the candidate level are in parentheses.

Appendix B: Using common names to proxy for dynasties

In the main analysis, we use verified family ties to identify dynasties and potential dynasties in our data. A possible shortcoming is that an RD analysis based on verified family ties may overestimate the inherited incumbency advantage, which we happen to find is near zero. Although we are confident about the accuracy of these measures, an alternative approach is to quantify dynastic links based on a proxy measure using common surnames of candidates running in the same district or party over time, as has been done in several recent studies on dynasties, including Querubin (2016). While this approach may help to uncover some family relations between pairs of unsuccessful candidates, a potential problem is that the proxy measure is noisy, resulting in imprecise estimates in the RD analysis.

In the case of Norway, the proxy approach does a reasonably good job of identifying verified dynasties in the data set, and allows us to identify likely family ties between candidates who were never elected. However, Figure B.1 shows that for common last names, like Hansen, Johansen, and Olsen (each of which identifies about 1 percent of the Norwegian population), the name-matching approach overestimates dynastic links. We therefore exclude individuals with the hundred most common last names in Norway in 2013 from our baseline analyses of the inherited incumbency advantage. The correlation between the proxy measure and verified ties is 0.30 if no observations are excluded, 0.37 if the top 100 names are excluded, 0.47 if the top 1,000 names are excluded, and 0.48 if the top 3,388 names (i.e., all last names with at least 200 people with that name in Norway) are excluded. Marriages and family members running in different districts or from different parties explain why many verified ties are not captured by the proxy. Our proxy measure may thus be more at risk of underestimating dynasties than overestimating dynasties, but may get closer to the types of family ties most associated with a dynastic advantage (name recognition within districts and parties).

Table B.1 provides the corresponding regression results. The estimates reported in Column 1 correspond to the jumps at the cut-off from Figure B.2. In Panel A, we see that

the probability of having a family member running in a future election is estimated to increase with about four percentage points if a candidate wins a seat in the contemporaneous election. Relative to the baseline probability of about 0.15, this effect is non-trivial, but it is not statistically significant at conventional levels.

The estimated effects on the probability of having a family member *winning* a seat in a future election (Panel B) have the expected positive sign. However, the effects are quite modest, around a single percentage-point increase, and not statistically significant at conventional levels. The implication of this exercise is that, in the case of Norway, there appears to be a significant number of active political families within parties who regularly supply candidates to the parties' lists. Many of the later members of these families will run, and potentially earn prime spots on the list, even if their predecessors did not themselves win a seat.

The plots in Figure B.2 are of the same general format as in the main RD plots above. Again, we have candidates' contemporaneous (election t) win margin on the x-axis. In the left panel, the outcome variable is a dummy equal to one if a *family member runs* in any future election in the same electoral district for the same party. In the right panel, the outcome variable is a dummy equal to one if a *family member wins a seat* in any future election in the same electoral district for the same party. Again, the RD plots based on these proxy family ties provide no clear evidence that incumbency has a causal effect on the future political careers of family members. Table B.1 provides the corresponding regression results.

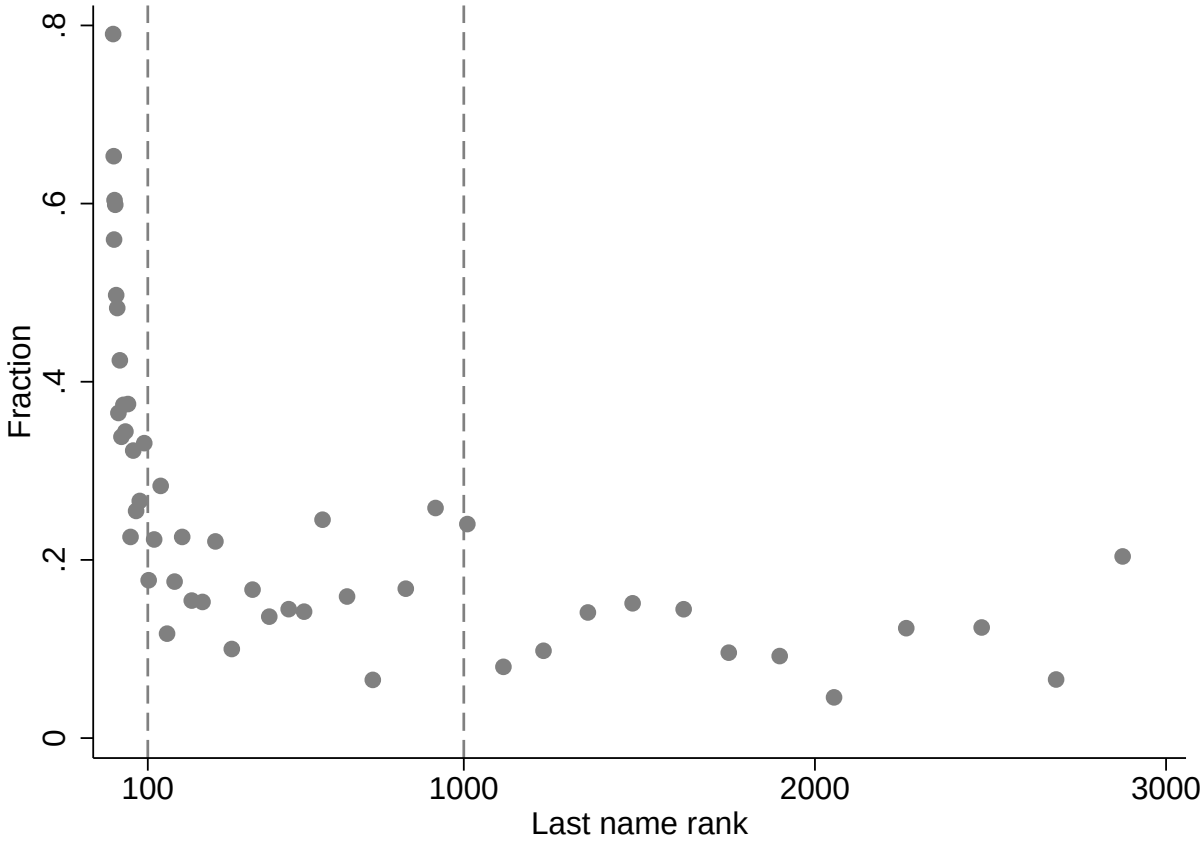

Figure B.1: Probability of (proxy) family member running, by common surnames.

Note: Figure shows the relation between the probability of a family member running in the future (using the proxy based on shared last name, party, and district) and the ranking of prevalence of last names in Norway as of 2013. The last name rank is from Statistics Norway (`https://www.ssb.no/a/navn/alf/etter100.html`). Each bin includes about 150 candidate-level observations. The correlation between the proxy measure and verified ties is 0.30 if no observations are excluded, 0.37 if the top 100 names are excluded, 0.47 if the top 1,000 names are excluded, and 0.48 if the top 3,388 names (i.e., all last names with at least 200 people with that name in Norway) are excluded. Marriages and family members running in different districts or from different parties explain why many verified ties are not captured by the proxy.

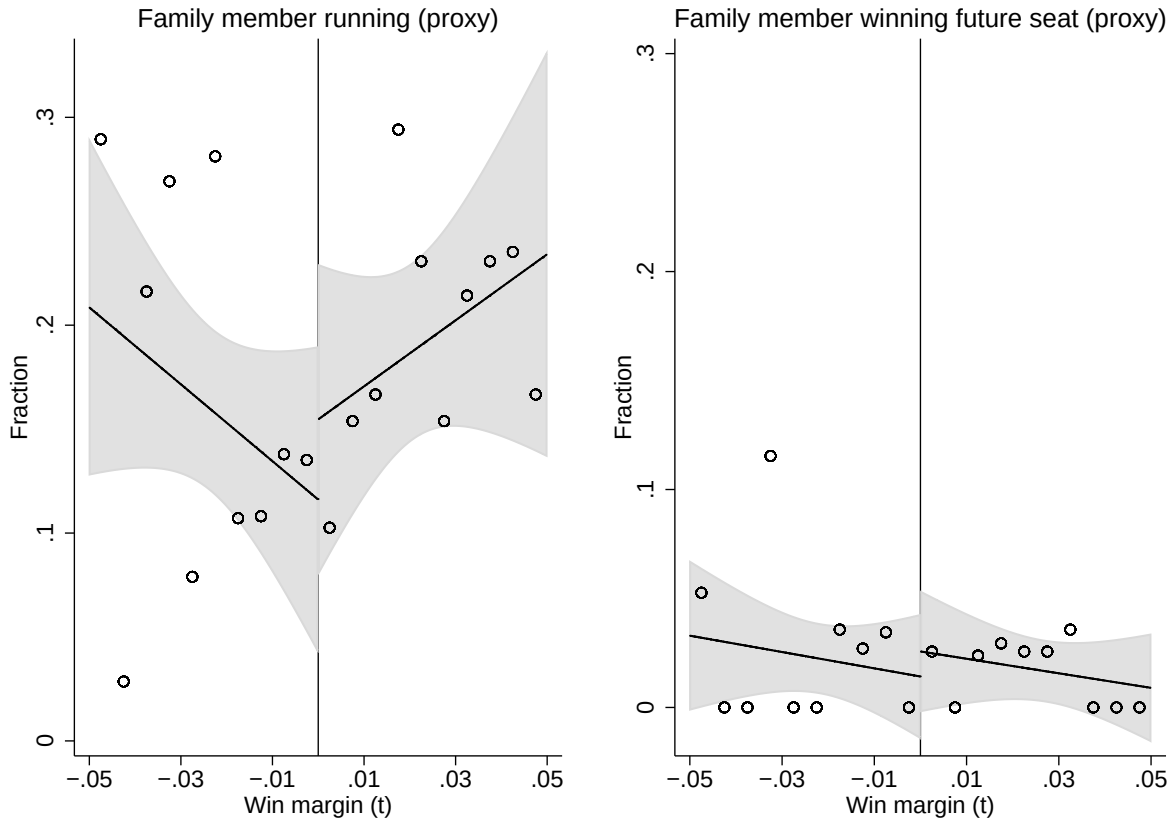

Figure B.2: RD plots using proxy family ties.

Note: Sample restricted to candidates from the main parties who are less than five percentage points away from the seat threshold. In the left panel, the outcome variable is a dummy equal to one if a *family member runs* in any future election in the same electoral district for the same party. In the right panel, the outcome variable is a dummy equal to one if a *family member wins a seat* in any future election in the same electoral district for the same party. Candidates with one of the top hundred most common family names in Norway are excluded (N=664). Each bin is for an interval of half a percentage point. Separate linear regression lines are estimated to the left and right of the discontinuity using the underlying data, not the binned scatterpoints.

Table B.1: RD estimates using proxy family ties.

Panel A: Family member running (proxy)

	(1)	(2)	(3)	(4)	(5)	(6)
RD estimate	0.040	0.042	0.023	0.038	0.038	0.039
	(0.053)	(0.053)	(0.054)	(0.056)	(0.057)	(0.058)
R^2	0.009	0.030	0.086	0.173	0.179	0.211
N	550	550	550	550	550	550
Bandwidth	0.040	0.040	0.040	0.040	0.040	0.040

Panel B: Family member winning future seat (proxy)

	(1)	(2)	(3)	(4)	(5)	(6)
RD estimate	0.011	0.013	0.008	0.005	0.004	0.008
	(0.018)	(0.018)	(0.018)	(0.020)	(0.021)	(0.021)
R^2	0.002	0.007	0.029	0.058	0.066	0.094
N	664	664	664	664	664	664
Bandwidth	0.050	0.050	0.050	0.050	0.050	0.050
Year FE	No	Yes	Yes	Yes	Yes	Yes
Party FE	No	No	Yes	Yes	Yes	Yes
District FE	No	No	No	Yes	Yes	Yes
Rank FE	No	No	No	No	Yes	Yes
Controls	No	No	No	No	No	Yes

Note: Sample restricted to candidates from the main parties who are less than five percentage points away from the seat threshold. Candidates with one of the top hundred most common family names in Norway are excluded. The reported RD estimates corresponds to β_1 from Equation (1). In Column 6, we include ten dummies for candidates' occupations in their first election, as well as a dummy for gender. All specifications include separate linear control functions on each side of the discontinuity. Standard errors clustered at the candidate level are in parentheses.

Appendix C: The incumbency advantage conditional on running

While the regression discontinuity design makes it straightforward to estimate the effect of winning *unconditional on running*, estimating the conditional effect requires addressing selection into future candidacy (Anagol and Fujiwara, 2016). A naïve, yet common approach[23], would be to simply condition on *running again* in our baseline analysis. We refrain from doing so to avoid introducing posttreatment bias. Instead, we estimate bounds on the incumbency effect conditional on candidacy, following Anagol and Fujiwara (2016). Their method is adopted from Lee (2009) and is also applied by Song (2017).

Using the potential outcome notation of Anagol and Fujiwara (2016), we let S denote whether the candidate won a seat in election held at time t, and R_0 and R_1 are binary indicators for the candidate running in election held at time $t+1$ when $S=0$ or $S=1$, respectively. We only observe a given candidate's decision to run as either a marginal winner or a marginal loser (only $R = SR_1 + (1-S)R_0$ is observed).

Similarly, let W_0 and W_1 denote winning the election at $t+1$ had the candidate chosen to run (only $W = R[SR_1 + (1-S)R_0]$ is observed). There are four types of candidates in our sample: (i) "always-takers,"those who always run again ii) "never-takers," those who never run again iii) "compliers," those who would choose to run again if they won a seat, but not if they didn't, and (iv) "defiers," candidates who would run again after losing a seat, but would not run again if they won a seat. Anagol and Fujiwara (2016) assumes that there are no "defiers" (i.e., $R_1 \geq R_0$ for all candidates). Under the non-defiers assumption, we can write the conditional effect of winning as follows[24]:

[23]Acharya et al. (2016) estimate that as many as two-thirds of empirical papers in political science that make causal claims condition on posttreatment variables.

[24]See Anagol and Fujiwara (2016) for proof. S, R_0, R_1, W_0, and W_1 can be thought of as functions of the candidate and the RD design running variable ($WinMargin$ in Equation (1)), and their limits at the cutoff ($WinMargin = 0$) can be estimated. For simplicity, we use x to denote the running variable in Equation (A.1)

$$E[W_1 - W_0|x = 0, R_1 = 1] = \frac{1}{E(R_1|x = 0)}$$
$$\cdot [(E(W_1R_1 - W_0R_0|x = 0) - Prob(R_1 > R_0|x = 0) \cdot E(W_0|x = 0, R_1 > R_0)] \quad (A.1)$$

The object of interest, the effect of winning conditional on being an always-taker or complier, is at the left-hand side of Equation (A.1). On the right-hand side, outside the brackets, we have the inverse of $lim_{x\downarrow 0}E[R|x]$. The first term inside the brackets is the RD effect on winning. The second term is the RD effect on running multiplied with an unobserved term. The unobserved term, $E(W_0|x = 0, R_1 > R_0)$, represents the probability of winning at $t + 1$ for "compliant" bare losers.

To get an estimate of the upper bound on the incumbency effect conditional on candidacy, we assume that losers that choose not to run (i.e. "compliers") would never win if they (counterfactually) had run at $t+1$. Using the estimates reported in column (1) of Table 1, the upper bound is 33 percentage points. To get an estimate of the lower bound on the incumbency effect conditional on candidacy, we assume that losers that choose not to run would *win at the same rate as incumbents* if they (counterfactually) had run at $t + 1$. This yields a lower bound of 10 percentage points.[25]

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[25] If we make the extreme (and implausible) assumption that losers that do not run would *always win*, we get a lower bound of -0.01.