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

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Abstract

What explains the perpetuation of political dynasties in democracies? A handful of recent investigations using data from the United States and other candidate-centered electoral environments have pointed to a causal effect of incumbency on dynasty formation. However, dynasties exist in party-centered environments as well—and, importantly, the causal mechanisms underlying their formation may differ. In this study, we investigate the relationship between the incumbency advantage and dynasties in the closed-list proportional representation electoral system of Norway using candidate-level data from 1945-2013. A regression discontinuity design reveals that the incumbency advantage exists even in this party-centered environment. However, although we document a share of dynasties (7 percent) that is comparable to the United States, we find no evidence that either incumbency or length of tenure are important to their formation. This finding suggests some form of internal party organizational network as a mechanism underlying dynastic politics that operates beyond the incumbency advantage.

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1 Introduction

What explains the persistence of elite family dynasties in democracies? Dynasties are, of course, common in *non-democratic* regimes such as monarchies and personal dictatorships (e.g., Brownlee, 2007; Monday, 2011), and practically all countries in existence today were at one point in history governed by a hereditary leadership.[1] Democratization and economic development might be expected to diminish the relevance of dynastic family ties in political selection—and yet, throughout the democratized world, and even in advanced industrialized democracies, political dynasties continue to feature prominently among candidates, legislators, presidents, and prime ministers.[2] Recent notable examples include the Clinton and Bush dynasties in the United States, the Trudeau dynasty in Canada, the Nehru/Gandhi dynasty in India, the Park dynasty in South Korea, and the Abe dynasty in Japan.

A growing body of research attempts to explain the mechanisms behind this phenomenon. One explanation points to the dominance and resource advantages of elites in political life more generally (e.g., Pareto, 1901; Mosca, 1939; Hess, 1966).[3] Once in power, elites have an incentive, and often the means, to maintain their positions of power. The advantages enjoyed by elites are easily transferred to their children, either directly, or by virtue of increased opportunities for education and career advancement. This type of elite dominance theory is likely to have the most power in explaining dynasties in developing democracies, where politicians tend to enjoy much higher standards of living than their constituents, and parties are often weak or personalized. Indeed, a high proportion of dynasties has been documented in the national politics of developing democracies like the

[1] In non-democratic contexts, Brownlee (2007) argues that dynastic leadership succession is possible if the party system or selection mechanisms are weak, and the existing power distribution in the broader elite is sustained.

[2] We define a "dynastic" candidate as any candidate for national office who is related by blood or marriage to a politician who had previously served in the national legislature or executive (cabinet) (Smith, 2012). If a dynastic candidate is elected, he or she creates a "democratic dynasty," which we define as any family that has supplied two or more members to national-level office.

[3] Hess (1966, p. 3) notes that members of the most prominent dynasties in the United States appear to represent the "best butter" of American society: "old stock, Anglo-Saxon, Protestant, professional, Eastern seaboard, well to do."

Philippines (Querubin, 2016), India (Chhibber, 2013; Chandra, 2016), and Bangladesh (Amundsen, 2016).

A second explanation points to the electoral benefits of a dynastic background, suggesting that dynastic ties may function as an electoral advantage in a way that is similar to the well-known incumbency advantage. The incumbency advantage includes the direct advantages of being in office (such as increased name recognition and on-the-job experience), as well as the deterrence of high-quality challengers—though these components are often a challenge to disentangle (e.g., Gelman and King, 1990; Cox and Katz, 1996; Levitt and Wolfram, 1997; Carson, Engstrom and Roberts, 2007; Hirano and Snyder, 2009). It is not difficult to imagine how a dynastic candidate, particularly one who immediately succeeds his or her family member as a candidate in the same district, might "inherit" part of a predecessor's incumbency advantage. The advantage in candidate selection and election enjoyed by a dynastic candidate can thus be thought of as an *inherited incumbency advantage* (Smith, 2012).

Most recent studies of the incumbency advantage aim to estimate the *causal effect* of incumbency on future election outcomes through the use of regression discontinuity (RD) designs applied to close elections, where the "treatment" of winning office can be considered "as good as random" (e.g., Lee, 2008; Fowler and Hall, 2014; Erikson and Titiunik, 2015). In candidate-centered electoral systems—i.e., where votes are cast for individual candidates rather than party lists—the incumbency advantage is substantial. In the single-member district (SMD) context of U.S. state-level legislative elections, for example, Fowler and Hall (2014) find that incumbency increases a candidate's probability of victory by 53 percentage points.[4]

[4]This estimate refers to the candidate's *personal* incumbency advantage, not *any* candidate's advantage from being a member of the incumbent *party*. Lee (2008) was the first to use an RD design to study the *overall* incumbency advantage, estimating a 45-percentage-point increase in the probability of election, or roughly 8 percentage-point vote share advantage. Fowler and Hall (2014) exploit close elections in conjunction with term limits to disentangle the sources of the incumbency advantage, estimating the personal incumbency advantage in terms of vote share to be 9 percentage points, while the partisan incumbency advantage is indistinguishable from zero. Using a different approach, Erikson and Titiunik (2015) estimate the personal incumbency advantage in terms of vote share to be 8 percentage points. Hence, it appears that the electoral advantages from holding office are primarily personal in candidate-centered systems.

Dal Bó, Dal Bó and Snyder (2009) similarly use this approach to evaluate the causal effect of incumbency on the creation of a political dynasty in the context of U.S. congressional elections. Although holding office does not have an effect on the innate personal characteristics of a politician's child or other relative, it most certainly increases the connections, familiarity with politics, and name recognition that can be taken advantage of by such potential successors. Similar to affiliation with a party label, family names can function as "brands" which convey information to voters at a low cost, helping to cue the established reputation of the family (Downs, 1957; Feinstein, 2010), and can be especially valuable when party labels are a weak source of information. In the language of the RD-based literature on the incumbency advantage, we can think of the inherited incumbency advantage as the causal effect of holding office on the future political success of a family member.

If personal reputation is important to garnering votes, candidates whose relatives have previously served in public office can capitalize on the name recognition and established support inherited from those relatives. Indeed, existing studies of dynasties in developed democracies as diverse as the U.S. (e.g., Clubok, Wilensky and Berghorn, 1969; Laband and Lentz, 1985; Dal Bó, Dal Bó and Snyder, 2009; Feinstein, 2010), Japan (e.g., Ishibashi and Reed, 1992; Asako et al., 2015), and Ireland (Smith and Martin, 2016) have explained the persistence of dynasties by emphasizing the importance of name recognition in elections. In the U.S. case, Dal Bó, Dal Bó and Snyder (2009) estimate that for first-term legislators who just narrowly win their *first re-election*, the probability of having a family member serve in the future increases by roughly 6 percentage points, on average, and up to 14 percentage points in the South. In the Philippines, where SMD elections are also used, Querubin (2016) finds that candidates who narrowly win their *first election* are 12 percentage points more likely to have a relative serve in office than runners-up. In other words, dynasty formation appears to become more likely the longer a (potential) founding member holds office, suggesting a "power-treatment" effect acting on the ability

of elite families to self-perpetuate.[5]

These studies provide compelling evidence that incumbency, or length of tenure more generally, is an important causal mechanism underlying the creation of democratic dynasties in candidate-centered environments. However, dynasties also exist in party-centered environments—viz. closed-list proportional representation (PR) systems—where votes are cast not for candidates but for parties, and thus where the name recognition of individual candidates does not carry the same sort of electoral importance as it does in candidate-centered environments. In such contexts, it is less clear how incumbency might relate to the probability of forming a dynasty.

In this study, we investigate the relationship between incumbency and political dynasties in the party-centered environment of closed-list PR elections in Norway. In the process, we first extend the incumbency advantage literature from a candidate-centered environment, where it has been extensively studied, to a party-centered environment, where surprisingly little scholarship exists.[6] Because Norway's closed-list system excludes preferential voting for candidates, voters' decisions are, in theory, based more on evaluations of parties and those parties' policy programs than on the characteristics of candidates on the parties' lists (Carey and Shugart, 1995).[7] Moreover, a candidate's rank position on the list, and thus how likely he or she is to win a seat, is determined by the party, not voters. How strongly does the winning of office in a party-centered system affect the probability that a candidate will continue to run (and win) in the future? As far

[5]Exploiting a natural experiment in the Argentine Congress, Rossi (2015) also finds evidence that longer tenures increases dynastic success. Recent work by Van Coppenolle (2014), however, finds no effect of first-term incumbent re-election on the probability of forming a dynasty using data from historical SMD elections in 19th-century United Kingdom, which suggests that the "power-treatment" effect may not operate in the same way across different contexts.

[6]Kotakorpi, Poutvaara and Terviö (2013) find that incumbency yields an 18-percentage-point increase in the probability of an individual winning a seat in the next election in Finland, which uses an *open*-list PR system with a mandatory candidate preference vote. They find a considerably smaller effect (3 percentage points) in local elections, in line with other studies of the incumbency advantage in the Nordic countries with preference voting (Lundqvist, 2013; Hyytinen et al., 2014). In Ireland, which uses the single transferable vote (STV) system that is sometimes considered "proportional," Redmond and Regan (2015) also estimate an 18-percentage-point increase in the probability of incumbents winning in the next election. Golden and Picci (2015) analyze incumbency effects for two parties under open-list PR in Italy (1948-1992), finding that incumbents are more likely to be *re-selected*, but not *re-elected*.

[7]This does not mean that voters do not recognize or care about candidates, particularly those at the top of their preferred party's list (cf., Bengtsson et al., 2013, pp. 88-89).

as we are aware, we are the first to investigate the incumbency advantage in a closed-list PR setting.[8]

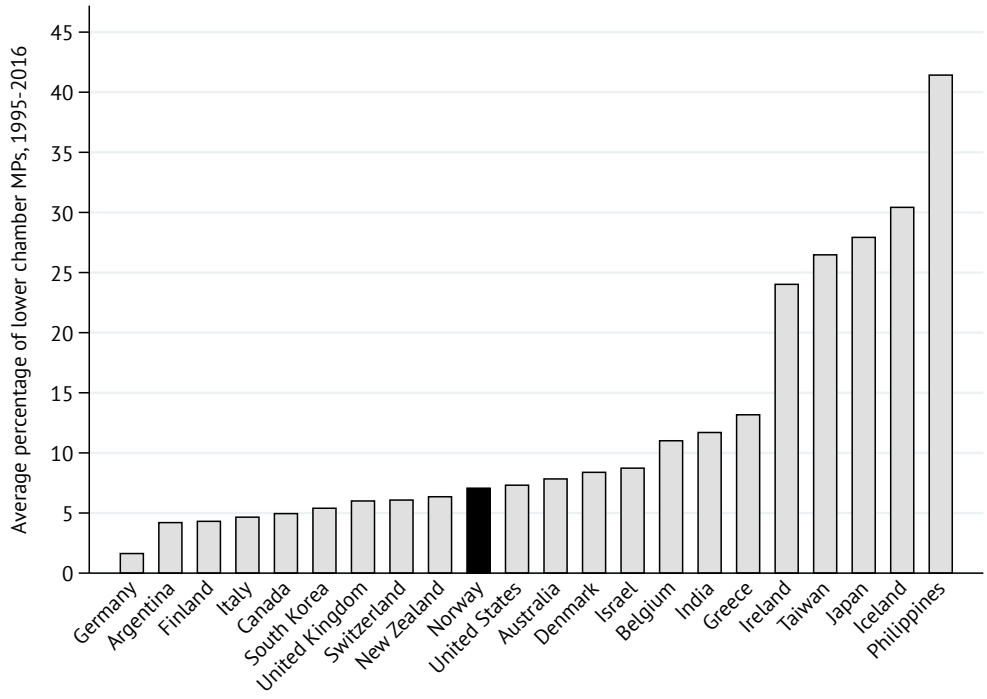

Figure 1: Political dynasties in democracies around the world.

Note: Bar values represent the average percentage of MPs in each country (lower chamber only) elected between 1995 and 2016 (unless otherwise noted in sources) who were related to a previously elected national-level politician. Data for the Philippines are based on a proxy measure matching names. All other data are based on verified biographical information. Sources: Philippines: Querubin (2016); Taiwan (2001-2012 only): Batto (2015); India (2004-2009 only): Chandra (2016); Greece (2000-2012 only): Patrikios and Chatzikonstantinou (2014); Denmark (2011 only): *Ekstra Bladet* online newspaper (http://ekstrabladet.dk/nyheder/politik/article4077214.ece); United Kingdom: Van Coppenolle (2014); Argentina (1995 only): Rossi (2015); all other country data were collected and coded by the authors.

We then test whether there is an *inherited* incumbency advantage under Norway's party-centered PR system. As noted, RD designs have previously been used to identify a causal effect of incumbency on dynasty formation in the candidate-centered SMD contexts of the U.S. and the Philippines. Norway's closed-list PR system is theoretically more party-centered, yet members of dynasties have accounted for roughly 7 percent of Norwegian members of parliament (MPs) in recent decades—a proportion that is comparable to

[8]Using *parties* as the unit of analysis (rather than candidates, as we do), Liang (2013) finds a considerable incumbency advantage in Swedish local elections decided by closed-list PR.

the U.S. (Figure 1)—and have occupied several high-profile positions. For example, former Prime Minister Jens Stoltenberg (2005-2013) is the son of former Minister of Defense (1979-81) and Minister of Foreign Affairs (1987-1989; 1990-1993) Thorvald Stoltenberg. And the Stoltenbergs are not alone: of the fourteen Norwegian prime ministers to serve since 1945, four had dynastic links former politicians, and five had family members who followed them into politics. Does the emergence of dynasties in a party-centered environment like Norway operate in the same fashion as it does in more candidate-centered environments? In other words, is there a causal effect of incumbency on whether a family member will run for and win office in the future, as appears to be the case in the U.S. and other candidate-centered contexts?

To investigate these questions, we use an original data set that includes all candidates to the Norwegian parliament (Storting) from 1945-2013. We evaluate both the incumbency advantage and the inherited incumbency advantage with an RD design adapted for use in PR list systems (Folke, 2014), which takes advantage of the fact that candidates who marginally win or lose a seat can be considered more or less equivalent in all other respects apart from the "treatment" of winning office. As noted, related RD designs have previously been used to investigate the inherited incumbency advantage in SMD elections, but ours is the first study to evaluate the phenomenon under closed-list PR.[9]

We document a strong incumbency advantage for Norwegian MPs, despite the party-centered nature of elections. However, we find no evidence of an inherited incumbency advantage—our estimates indicate that marginally unsuccessful candidates are just as likely as marginally successful candidates to have relatives run and win office in the future. In comparison to the RD results from other contexts, these findings point toward important country-level or institutional differences in the underlying mechanisms in the formation of dynasties, which may in part help to explain the observed variation in the

[9]One shortcoming of the data set used by Dal Bó, Dal Bó and Snyder (2009) is that it lacks information on candidates who never won, so the RD design must be applied to marginal winners and losers in the candidates' first *re-election* attempts. Querubin (2016) relies on unverified matches based on family names in order to analyze unelected candidates. Our data set improves on these issues, as we include verified family ties for narrowly defeated candidates. We additionally use the matching-on-names proxy method as a robustness check.

overall prevalence of dynasties across democracies. Since election prospects in party-centered systems like Norway depend on party list placement, our findings indicate some form of advantage to both incumbents and potential dynastic candidates that operates through better connections with the local party organization, rather than just better name recognition among voters.

2 Institutional setting and data

Our data set includes all candidates who ran in the 18 Storting elections held between 1945 and 2013. Unlike the other four Nordic countries (Denmark, Finland, Iceland, Sweden), Norway's PR electoral system is entirely closed-list—parties provide a ranked list of candidates in each district, and voters cast their ballot for the party list as a whole. Seats are allocated to parties in multi-member districts, and then allocated to candidates in order of their rank on the party list.[10] The candidate selection process within parties is regulated by law. Candidates and their rank positions are determined by local nominating conventions attended by dues-paying party delegates in each district. The re-nomination of former candidates, including incumbents, is not automatic (Valen, Narud and Skare, 2002).

The Norwegian party system is well represented by a left-right dimension (Strøm and Leipart, 1993; Narud and Strøm, 2011). The main cleavage runs between the left-leaning social democratic and the right-leaning conservative camps. The Labor Party (DNA) is the dominant party within the left-leaning bloc, which also consists of the

[10]In the 1921 to 1949 period, 150 MPs were elected in 29 districts using the D'Hondt seat allocation method. In 1953, the Modified Sainte-Laguë seat allocation method replaced D'Hondt. Both seat allocation methods are within the class of highest average methods, but Modified Sainte-Laguë mechanically produces a more proportional outcome (Fiva and Folke, 2016). The 1953 reform also abolished a separation of urban and rural districts, which reduced the number of districts from 29 to 20. Two electoral districts merged before the 1973 election. Since 1973, districts follow county (*fylke*) borders. Adjustment seats were introduced in 1989 to further increase proportionality. Assembly size has been increased four times since 1921: in 1973 (155 seats), in 1985 (157 seats), in 1989 (165 seats), and in 2005 (169 seats). District magnitude ranges from 4 to 15 seats, with an average of about 8. For an overview of the history of the Norwegian election system, see Aardal (2002).

Communist Party (NKP), and the Socialist Peoples' Party/Socialist Left Party (SV).[11] The right-leaning bloc consists of the Center Party (SP; formerly the Farmer's Party), the Christian Peoples' Party (KrF), the Liberal Party (V), the Conservative Party (H), and the Progress Party (FrP; founded in 1973). We classify these eight parties as the *main parties*.[12] Party identification among voters has historically been high, at roughly 70 percent in the early postwar period, but has gradually dipped since the 1980s to around 50 percent (Bengtsson et al., 2013, p. 71).

2.1 Candidates and family ties

Our candidate-level data come from *Norges Offisielle Statistikk* (Official Statistics of Norway), which publishes electoral lists for all parties in each election year. In addition to party names, the electoral lists include each candidate's name, rank position, occupation, and hometown. The total number of observations in the data set is 49,480. Since 1961, full names (first and last) of candidates are given. In the 1945 to 1957 period, full names are given only for female candidates, while first initials and last names are given for male candidates. We manually supplemented male first names for the 1945 to 1957 period using biographical information from the *Archive of Politicians* provided by *The Norwegian Social Science Data Service*, later electoral lists, and other sources, and standardized the format and spelling of individuals' names across observations.[13] We classified candidates' gender based on first names.

The number of candidates running in each election increased from about 1,500 to 4,000 during the postwar period. Most of the increase came from minor parties with slim chances of winning representation.[14] If we exclude these minor parties, the increase in

[11]The Socialist Peoples' Party participated in elections from 1961-1969. In 1973, they competed as the *Socialist Electoral League* together with the Communist Party. The Socialist Left Party was founded in 1975, and the Socialist Electoral League was dissolved.

[12]Online Appendix Figure A.1 shows the development over time in party seat shares.

[13]This was done to avoid misidentification of dynasties based on the same individual running in multiple years with slight variations in his or her name. In the case that two or more individuals shared a commonly held name (e.g., Hans Hansen), we distinguished individuals with numerals following the first name (e.g., Hans1 Hansen, Hans2 Hansen, and so on).

[14]Many candidates from minor parties run on their party list in multiple districts in the same year,

the number of candidates running per election is more modest, from about 1,500 to 2,000 (Online Appendix Figure A.2). We restrict our empirical analyses to the main parties, and supplement the individual-level candidate data with election statistics from Statistics Norway.[15] Party vote counts at the district level allow us to measure how close individual candidates from these main parties were to winning (losing) a seat, given the number of votes and seats won by each party and each candidate's rank on the party list.

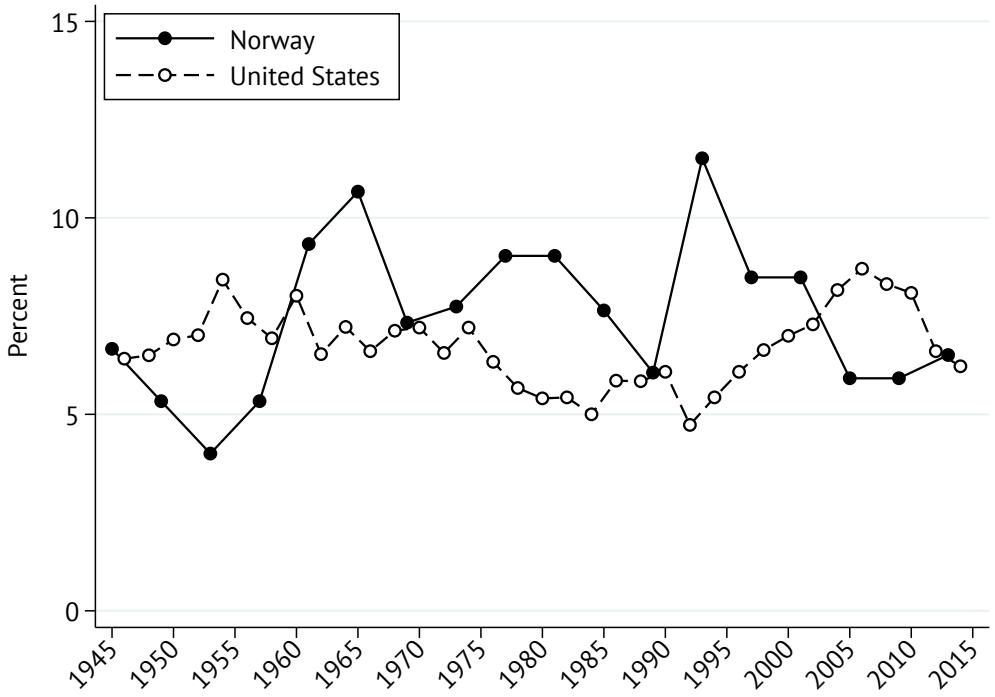

Figure 2: Political dynasties in Norway and the United States, 1945-2015.

Note: Trend line represents the proportion of all elected MPs in each year who were related to a previously-elected MP or cabinet minister, and includes relationships to MPs and cabinet ministers who served prior to 1945. For comparison, we also plot the trend line for the U.S. House of Representatives. Data for the U.S. are compiled from ICPSR Study 7803 and replication data for Dal Bó, Dal Bó and Snyder (2009), and updated for recent years using the online Biographical Directory of the United States Congress (http://bioguide.congress.gov/biosearch/biosearch).

The *Archive of Politicians* contains detailed biographical information for all cabinet ministers, MPs, permanent deputy MPs (who serve in the event that an MP is promoted

which inflates the number of candidate observations. This practice is uncommon in the main parties.

[15]Over the 1945-2013 period, the main parties won 2,776 seats (8.5 percent of candidates were successful), while the remaining lists won a total of 63 seats (0.4 percent of candidates were successful); 57 of the 63 seats won by non-main parties were won on joint lists with the main parties.

to cabinet or leaves office), and deputy MPs serving at least 100 days during a term.[16] Importantly for our purposes, this data set also includes information on family ties between politicians. Figure 2 shows the proportion of Norwegian MPs after each election who were related to a previously elected MP or cabinet minister. For comparison, the figure also plots the proportion in the U.S. House of Representatives over the same time period. In both countries, the proportion of dynasties in the legislature has remained relatively stable—between roughly 5 and 10 percent of members. For our analysis, we focus on the predecessors of the Norwegian MPs and construct a variable, *Family member winning future seat*, which is a dummy variable equal to one if the candidate has a relative who becomes an MP or cabinet minister in the future. For elected candidates, this variable accurately captures dynastic ties.

For unsuccessful candidates, we lack systematic biographical data unless the candidate served as a deputy, or won a seat in a different election. Luckily, the Norwegian system of designating the runners-up (in terms of list position) as deputies to serve in the event of an MP resignation means that we were able to obtain information on family ties for many marginally unsuccessful candidates. We searched the Internet for biographical information for all remaining unelected candidates who were next in line to win a seat, and included this information in the *Family member winning future seat* variable. We searched particularly carefully for family ties when candidates shared a last name with a future MP from the same party. This approach delivered several additional cases of family ties.[17]

[16]The biographical data are also available online on the Storting webpage: https://www.stortinget.no/no/Representanter-og-komiteer/Representantene/Biografier/. These biographical data go as far back as 1814, the first Storting election, but are most complete for MPs elected since 1945.

[17]We are confident in the quality of these verified family ties. As a robustness check (included in the Online Appendix), we also employ an alternative approach using matching on last names within parties and districts as a proxy for the family ties of unelected candidates. The results are unaffected by the use of this alternative measure.

2.2 OLS estimation using elected MPs

Before proceeding to our main analysis using the RD design, we first explore the overall relationship between political power and dynasty formation (*Family member winning future seat*) using the sample of MPs elected between 1945-1997 with a simple OLS regression analysis. We stop at 1997 in order to give sufficient time for posterior relatives to appear in the data.[18] In addition to total length of tenure in office before leaving office (*Terms served*), we also explore the correlation with having ever been ranked at the top of the party list (*First-ranked*) and having ever served in cabinet (*Cabinet experience*). The results are presented in Table 1. Because these power-related variables may be correlated with each other as well as dynasty formation, we first test them separately, then all together. In the final specification in column (5), we include fixed effects for the first year in which the MP was elected, party, and district.

Columns (1), (2), and (3) of Table 1 show that *Terms served*, *First-ranked*, and *Cabinet experience* all correlate positively with future dynastic succession. The estimate in Column (1) indicates that each additional term served is associated with a 1-percentage-point increase in the probability of forming a dynasty. In Column (2) we see that, while about 6 percent of MPs who were at any time ranked at the top of their party list during their tenure were followed into national-level politics by a family member, this is true for just 2 percent of MPs who were never list leaders. Similarly, the estimate in Column (3) reveals that only 4 percent of MPs with no cabinet experience had a relative follow them into office, compared to 11 percent of MPs with cabinet experience.

In the joint specification, Column (4), there is no longer any statistically significant association between seniority (*Terms served*) and having a future relative in parliament or cabinet, and the point estimate is small. The estimates for *First-ranked* and *Cabinet experience* are, however, still substantial in the joint specification. These correlations suggest that cabinet promotion and being list leader may be particularly important for form-

[18]The proportion of MPs with a future relative in office drops off dramatically after 1997 (Figure A.3 in the Online Appendix), which suggests that, compared to earlier years, there has not yet been sufficient time for posterior relatives to appear in the data.

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

	(1)	(2)	(3)	(4)	(5)
Terms served	0.011			0.006	0.006
	(0.005)			(0.005)	(0.006)
First-ranked		0.037		0.028	0.030
		(0.013)		(0.013)	(0.016)
Cabinet experience			0.070	0.054	0.043
			(0.030)	(0.031)	(0.031)
Constant	0.015	0.023	0.036	0.005	
	(0.014)	(0.008)	(0.007)	(0.015)	
N	869	869	869	869	869
R^2	0.007	0.008	0.013	0.019	0.098
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. Sample restricted to MPs who served from 1945-1997. Column 5 includes fixed effects for the first year in which the MP was ever elected, party, and district.

ing a dynasty in Norway's party-centered environment, but beg the question of whether incumbency or length of tenure in office matter at all, in contrast to previous findings in candidate-centered environments. To pin down the causal effect of incumbency on dynasty formation we rely on a RD design, to which we now turn.

3 Estimation sample and empirical strategy

In our main empirical analysis, we use an RD design to answer two questions. First, how does the probability of winning a seat in subsequent elections depend on a candidate's seat status in the current election? We refer to this as the *incumbency advantage*. Second, how does tenure in office affect the probability of having a family member serve as an MP (or cabinet minister) in the future? We refer to this as the *inherited incumbency advantage*.

Our data sample for the RD estimation is based on candidates (not only elected MPs)

running in the 1953-1981 period for one of the eight main parties (13,306 candidate-year observations).[19] We limit the sample to candidates running in this period for two reasons. First, as with the OLS analysis, we need a sufficiently large period *after* candidates have run in order for family members to potentially appear in the data. Second, we want to avoid complicating the analysis with the 1953 electoral reform where the Modified Sainte-Laguë seat allocation method replaced D'Hondt, the 1989 electoral reform that introduced adjustment seats, and the 1985 election, in which parties were allowed to join forces in electoral cartels (*listeforbund*).[20]

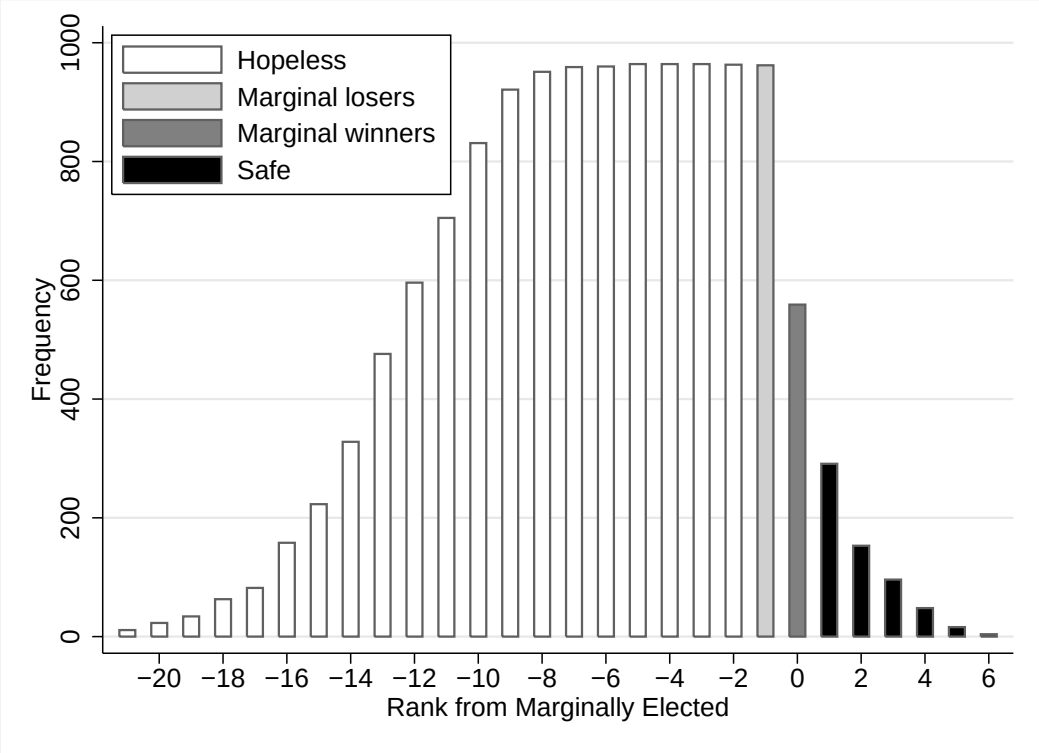

Figure 3: Frequency of observations as a function of rank distance to marginally elected.
Note: Sample consists of all candidates from the main parties. Unit of observation is candidate-year (N=13,282).

Candidates can be broadly classified as belonging to one of three categories: 1) candidates with a safe position on the list, 2) candidates with some chance of winning

[19]In 1973, four FrP candidates ran simultaneously in two districts. We keep only the observation in which they got closest to winning (or actually won) a seat.

[20]Voters would cast their votes for individual party lists, but the allocation of seats was based on the total sum of votes cast for the participating parties. This arrangement makes it difficult to pin down exactly which candidates on party lists were "marginal."

representation, and 3) candidates with virtually no chance of winning. For purposes of implementing our RD design, only the second group is relevant. To pin down this subsample, we start by identifying candidates, for each party, who are either next in line to win a seat (*marginal losers*), or first in line to lose a seat (*marginal winners*). Figure 3 gives the frequency of observations as a function of rank distance to the marginally elected. In our sample, 11 percent of candidates are *marginal* (grey bars in Figure 3, 1,521 observations).[21] We consider the 84 percent of candidates who are more than one rank position away from winning a seat to be *hopeless* candidates (white bars in Figure 3). The remaining 5 percent of candidates have safe positions on the lists; they finish more than one rank position away from losing their seats (black bars in Figure 3).

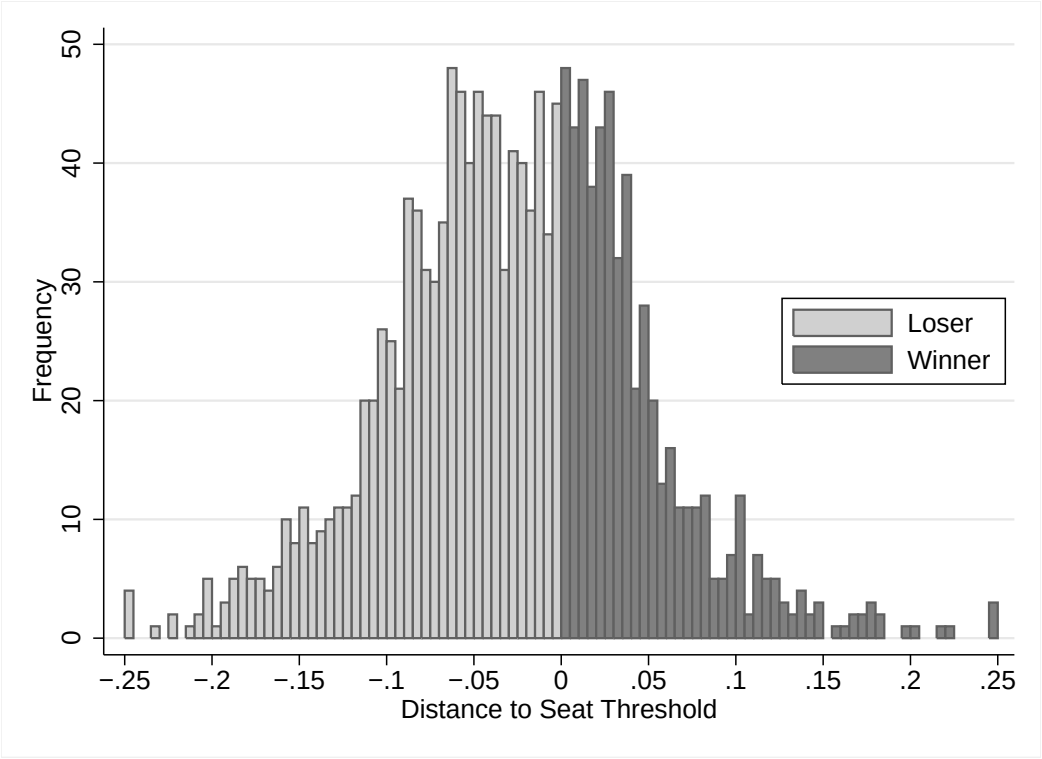

Figure 4: Distance to seat threshold for marginal candidates.

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.

[21] Overall, there are more marginal losers than marginal winners since the typical electoral district will have several parties running that do not win any seats (i.e., these parties do not have any candidate "next in line to lose a seat").

In two-party SMD elections, it is straightforward to measure electoral closeness, since a predefined threshold (50 percent of the total vote count) decides the winner. In multi-member PR elections, this is more complicated, since the number of seats a party wins depends on the vote counts of *all* parties. In this case, there is no predefined threshold for a given party to win an additional seat. As a measure of electoral closeness, Folke (2014) proposes to measure the distance to a seat threshold as the minimum total vote change across all parties that would be required for a party to experience a seat change.[22] To measure how close a marginal candidate was from winning (losing) a seat, we implement Folke's distance measure, and refer to this as the *Win Margin* in the following.

Figure 4 gives the frequency of observations for the sub-sample of marginal candidates. 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 SMD settings (Caughey and Sekhon, 2011; Eggers et al., 2015).[23] This is not surprising, since parties/candidates cannot predict *ex ante* where the seat thresholds are going to be in multi-member PR elections (Fiva, Folke and Sørensen, forthcoming).

Our baseline empirical specification is a local linear regression of the form:

$$Y_i = \beta_0 + \beta_1 Seat_i + \beta_2 Win\ Margin_i + \beta_3 Win\ Margin_i * Seat_i + \xi_i, \tag{1}$$

where $Seat_i$ is a dummy equal to one if candidate i wins a seat in parliament in the current election. Equation (1) allows the slope of the regression line to differ on either side of the cut-off by including interaction terms between *Win Margin* and *Seat*. ξ_i is an error term.[24]

Y_i represents one of four outcome variables: 1) a dummy variable equal to one if candidate i runs in the subsequent election; 2) a dummy variable equal to one if candidate

[22]This measure has also been applied by Fiva, Folke and Sørensen (forthcoming) to study the impact of representation on fiscal policies in Norwegian local governments, and by Cox, Fiva and Smith (2016) to study electoral competitiveness before and after Norway's switch to PR in 1919.

[23]Online Appendix Figure A.4 shows McCrary density plots.

[24]We cluster standard errors at the candidate level.

i wins a seat in the subsequent election; 3) the total number of Storting terms served by candidate i; or 4) a dummy variable equal to one if candidate i has a family member who ever wins a seat in the future. In the first two cases, β_1 estimates the average *incumbency advantage* in a "sharp" RD framework.

In our analysis of the *inherited incumbency advantage*, we consider the third case, where *terms served* is the outcome variable, as the first-stage equation. This equation estimates how the total number of terms served (i.e., tenure in office) changes with seat status in the current election. In the fourth case, where *family member winning future seat* is the outcome variable, β_1 is a reduced form estimate which pins down how the probability of having a family member serving in the future depends on a candidate's seat status in the current election. The *local average treatment effect* of serving one additional term can be recovered by dividing this estimate by the discontinuity jump from the first-stage equation, i.e., using a "fuzzy" RD framework (Lee and Lemieux, 2010).

The RD design is expected to deliver "as good as random" variation in seat status when we are sufficiently close to the threshold for a seat change. Hence, it is unnecessary to include covariates capturing candidate characteristics in Equation (1) for identification. In practice, however, it is useful to include them in our analysis, because doing so can reduce the sampling variability in the RD estimator (Lee and Lemieux, 2010). We can also use pre-determined candidate characteristics, like party affiliation, gender, and occupation, to assess the validity of the RD design. There should be no discontinuities in variables that are determined prior to the treatment. The same logic applies to candidates' seat status in preceding elections. To test the validity of our research design, we add covariates successively to the analysis, and also relate current win margins to candidates' seat status in previous election periods ($t-1$, $t-2$, $t-3$, or $t-4$).

4 Results

We first present graphical evidence of the incumbency advantage and inherited incumbency advantage using a common bandwidth of 5 percentage points for *Win Margin*. In our statistical analysis, we choose the optimal estimation window (bandwidth) around the cut-off suggested by the algorithm developed by Calonico, Cattaneo and Titiunik (2014). As a robustness check, we also plot the RD estimates as functions of the bandwidth chosen.

4.1 Graphical analysis

Figure 5 gives the RD plots based on candidates' contemporaneous (election t) win margin. In the top-left panel, the outcome variable is a dummy equal to one if the candidate *runs* in the subsequent election $(t+1)$. In the top-right panel, the outcome variable is a dummy equal to one if the candidate *wins a seat* in the subsequent election $(t+1)$. In the bottom-left panel, the outcome variable is the number of *terms served* by the candidate. Finally, in the bottom-right panel, the outcome variable is a dummy equal to one if a *family member wins a seat* in any future election. We plot local averages of the outcome variables calculated within bins of half a percentage point (scatterpoints), and separate regression lines on each side of the discontinuity. The vertical line represents a zero win margin, and indicates the transition from candidates who marginally lost to those who marginally won.

Visual inspection of the data provides clear evidence of an incumbency advantage. In the top-left panel of Figure 5, we see that winning a seat in the current election increases a candidate's probability of running again in the next election. Moreover, the top-right panel of Figure 5 indicates that the probability of becoming an MP in the next election roughly doubles for candidates just narrowly winning a seat in the current election. Note that this calculation includes all candidates who ran at election t (i.e., it

is not conditional on running at $t+1$).[25] In Online Appendix Figure A.5, we document that the incumbency advantage persists for one subsequent election, but then appears to fade out.[26] The existence of an incumbency advantage implies that winning a seat in the current election increases the number of expected terms served by more than one term. In the bottom-left panel of Figure 5, we find that this is indeed the case. The total number of terms served appears to jump from about 1.1 to 2.8 at the cut-off.

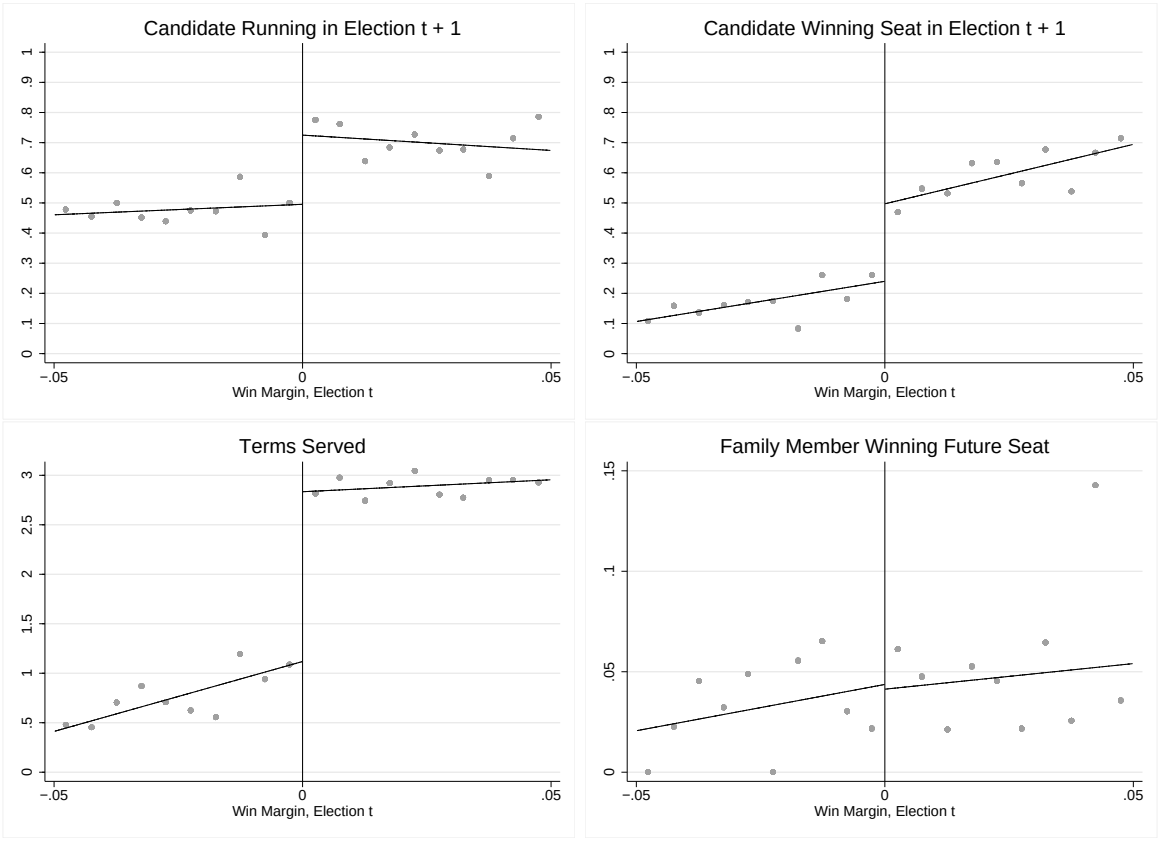

Figure 5: RD plots of incumbency advantage and inherited incumbency advantage.

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 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.

[25] While the RD 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, Forthcoming). We do not attempt to address this selection issue here.

[26] As expected, we do not find any systematic pattern between current win margin and candidates' seat status in previous elections (cf. Online Appendix Figure A.6). The jumps at the cut-off in Online Appendix Figure A.6 are small relative to the bin-by-bin variation away from the cut-offs, suggesting that these differences are due to noise.

When it comes to the inherited incumbency advantage, however, the raw data provide no clear evidence that winning a seat has a causal effect on the future political careers of a politician's family members. It appears from the bottom-right panel of Figure 5 that the probability of having a family member winning a seat in the future is about 0.04 for both marginal losers and marginal winners close to the cut-off.

4.2 Statistical analysis

In Table 2, we give the regression results using the optimal bandwidth suggested by the Calonico, Cattaneo and Titiunik (2014) algorithm. The optimal bandwidth varies from 4.8 to 6.5 percentage points, depending on the outcome variable analyzed. The first column provides the baseline results based on Equation (1). In Columns (2)-(5), we sequentially add fixed effects for year, party, district, and list rank to the model specifications. Finally, the specification in Column (6) adds a set of control variables for occupation and gender.

Consistent with the graphical evidence, the econometric estimation finds evidence of a substantial incumbency advantage. In the baseline specification, the probability of winning a seat in the subsequent election increases by about 23 percentage points (Panel B, Column 1) for a marginally elected candidate. This effect, surprisingly, is larger than what has been found in the open-list PR and PR-STV cases of Finland and Ireland, respectively (Kotakorpi, Poutvaara and Terviö, 2013; Redmond and Regan, 2015), but about half the size of the personal incumbency effect found in the U.S. (Fowler and Hall, 2014). The incumbency advantage estimate is statistically significant at the one percent level, and is insensitive to the inclusion of controls (cf. Columns 2-6).[27]

Golden and Picci (2015) find that successful candidates in postwar Italian open-list

[27]For example, Column 6 reports the results with the inclusion of controls for occupation and gender. Even though there are strong trends in candidates' occupations over time (cf. Online Appendix Figure A.7), occupation is well balanced around the threshold for a seat change (cf. Online Appendix Figure A.8). None of the jumps at the cut-off in Online Appendix Figure A.8 are statistically significant at the five percent level. There is an increase over time in female candidates, from less than 20 percent in the 1950s to nearly 40 percent by the 1980s, but there is no imbalance around the cut-off.

Table 2: RD estimates of incumbency advantage and inherited incumbency advantage.

Panel A: Candidate running in next election

	(1)	(2)	(3)	(4)	(5)	(6)
RD estimate	0.225	0.231	0.242	0.234	0.238	0.236
	(0.066)	(0.066)	(0.065)	(0.065)	(0.066)	(0.066)
R^2	0.055	0.066	0.100	0.127	0.139	0.150
N	758	758	758	758	758	758
Bandwidth	0.048	0.048	0.048	0.048	0.048	0.048

Panel B: Candidate winning seat in next election

	(1)	(2)	(3)	(4)	(5)	(6)
RD estimate	0.247	0.250	0.277	0.270	0.273	0.267
	(0.065)	(0.065)	(0.064)	(0.065)	(0.065)	(0.065)
R^2	0.190	0.197	0.252	0.279	0.290	0.296
N	758	758	758	758	758	758
Bandwidth	0.048	0.048	0.048	0.048	0.048	0.048

Panel C: Number of terms served

	(1)	(2)	(3)	(4)	(5)	(6)
RD estimate	1.739	1.738	1.821	1.770	1.761	1.768
	(0.201)	(0.198)	(0.194)	(0.193)	(0.189)	(0.187)
R^2	0.386	0.397	0.434	0.476	0.495	0.508
N	804	804	804	804	804	804
Bandwidth	0.051	0.051	0.051	0.051	0.051	0.051

Panel D: Family member winning future seat

	(1)	(2)	(3)	(4)	(5)	(6)
RD estimate	-0.005	-0.007	-0.017	-0.015	-0.017	-0.018
	(0.024)	(0.024)	(0.022)	(0.020)	(0.020)	(0.020)
R^2	0.005	0.011	0.051	0.095	0.102	0.127
N	975	975	975	975	975	975
Bandwidth	0.062	0.062	0.062	0.062	0.062	0.062
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: The reported RD estimates correspond to β_1 from Equation (1). Bandwidths are chosen by the Calonico, Cattaneo and Titiunik (2014) method, as obtained by the *rdrobust* module in STATA. 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.

PR elections enjoyed an increased probability of being *re-selected* by their party. The results from Panel A in Table 2, show that this is likely to be an important component of the incumbency advantage in Norway, as well. For a marginally elected candidate in the current election, the probability of being on the ballot four years later increases by about 20 percentage points (Panel A, Column 1). Again, the RD estimate is statistically significant at the one percent level. The RD estimates in Panel A are, however, consistently smaller than in Panel B, suggesting that the "re-selection" mechanism is not driving the incumbency advantage in its entirety.

In Panel C, we provide the results for the number of terms served, which can be considered our first-stage equation. We find that a narrowly won seat increases the number of terms served by 1.7. There is no weak instrument problem—the first-stage *F-statistic* is large (> 65) in all specifications.[28]

In Panel D, we provide results for the inherited incumbency advantage. The estimated effects of marginally winning a seat on the probability of having a family member winning a seat in the future are close to zero, and not statistically significant at conventional levels in any specification. Based on the specification with a full set of controls (Panel D, Column 6), the 95% confidence interval ranges from -0.058 to 0.021. Recall that the analyses in Panel D provide reduced form estimates of how the probability of having a family member winning a seat in the future depends on a candidate's seat status in the current election. To get the local average treatment effect of *serving one more term* we must divide the point estimate by about 1.7 (cf. Panel C). If we implement a fuzzy RD using a bandwidth of 0.065 in both the first and the second stage, the 95% confidence interval for *terms served* ranges from -0.035 to 0.013. Hence, our results imply that the "power-treatment" effect of incumbency on the probability of forming a dynasty, if it exists at all, is *at most* around 1 percentage point in Norway's party-centered

[28]This is similar to the first stage of Willumsen (2011). He finds an increase of about 1.5 terms using his alternative RD design on Storting elections in the 1977 to 2001 period. Note that, unlike Willumsen, we do not include any time served as a deputy MP in our measure of terms served. If we alternatively use "ever winning a seat" as an outcome variable, the jump at the cut-off is estimated to be 0.46 (SE of 0.05).

environment.

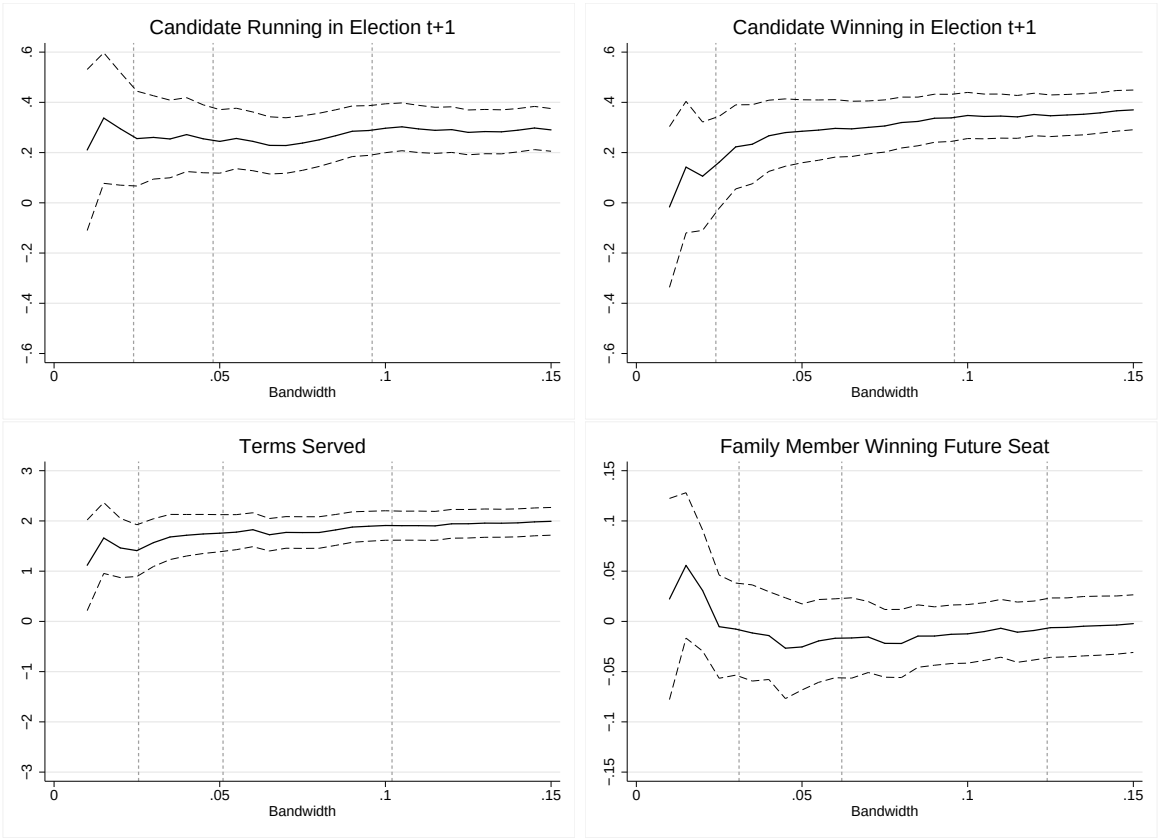

Figure 6: Robustness of RD results to alternative bandwidths.

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 middle vertical lines in each panel mark the optimal bandwidth chosen by the Calonico, Cattaneo and Titiunik (2014) method, as obtained by the *rdrobust* module in STATA. These correspond to specification (6) in Table 2. The left-most (right-most) vertical lines mark half (twice) the optimal bandwidth from the Calonico, Cattaneo and Titiunik (2014) method.

Figure 6 displays point estimates and corresponding 95% confidence intervals when varying the bandwidth around the seat threshold from 1 to 15 percentage points using the specification with the full set of controls (Column (6) in Table 2). The middle dashed vertical line gives the optimal bandwidth based on the algorithm by Calonico, Cattaneo and Titiunik (2014), which we employ in our specifications. For a bandwidth of about half the optimal bandwidth (left-most dashed vertical line) and onwards, the incumbency advantage estimates are always statistically significant, and relatively insensitive to the bandwidth chosen. The estimated inherited incumbency advantage is close to zero and

never statistically significant.[29]

4.3 Summary

In sum, our results reveal the existence of a significant incumbency advantage for Norwegian MPs. However, although we document a considerably large fraction of dynasties in parliament—in fact, a proportion comparable to that in the United States—we do not find any clear evidence of an inherited incumbency advantage. In other words, we find no causal effect of incumbency on the probability that a family member will enjoy a future career in politics. Many of the founding members of Norwegian dynasties appear to be high-ranking members of their parties with experience in cabinet. However, in contrast to the findings reported for candidate-centered contexts, it appears that many "failed" candidates also have relatives who go on to get elected in the future, as shown in Figure 5. Since list rank, and thus one's probability of getting elected, depends on the decisions of the party's local nominating conventions, a candidate who narrowly misses out on getting elected might still have close enough ties to party activists to result in his or her relatives' being better placed in future nomination decisions. The fact that candidate selection is by law decentralized to local party organizations may contribute to this network effect (Smith, 2012).

[29] As an additional robustness check, we replaced our verified measure of dynastic ties with a proxy measure that uses common last names of candidates running in the same district or party over time, as in several recent studies on dynasties, including Querubin (2016) and Geys (forthcoming). While this approach may help to uncover some family relations between pairs of unsuccessful candidates, a potential problem is that the measure is noisy, resulting in imprecise estimates in the RD analysis. In the case of Norway, the proxy does a reasonably good job of identifying verified dynasties, and allows us to identify some likely ties between unelected pairs of candidates. For common last names like Hansen, the name-matching approach overestimates dynastic links (Online Appendix Figure A.9), so we exclude individuals with the hundred most common last names. We test the effect of incumbency on whether a *family member runs* and whether a *family member wins a seat* in any future election in the same electoral district for the same party. The RD estimates based on this proxy measure again provide no clear evidence that incumbency has a causal effect on the future political careers of family members (Table A.2.1 and Figure A.10 in Online Appendix give the results).

5 Conclusion

Political dynasties are a common phenomenon in many democracies, but the exact mechanisms involved in their perpetuation differ depending on the institutional context. Past research on candidate-centered systems has found that incumbency and length of tenure in office have an important causal effect on the formation of new dynasties. That is, for a candidate who is more or less equal in other respects (quality, experience, etc.) to another candidate, simply getting into power or returned to power for more than one term can have a significant impact on the future political prospects of that candidate's family members. A key explanation is that incumbency serves as a "power treatment" that increases name recognition among voters, as well as generating connections to financial donors and other important actors.

However, in the party-centered context of Norway, incumbency alone cannot explain the formation of dynasties, nor can length of time spent in office. Our results indicate that Norwegian MPs do enjoy a "power-treatment" effect for themselves (the incumbency advantage). The implication is that once a candidate is elected, he or she tends to get re-nominated to list positions that are high enough (lower numerically) to secure a seat again in the next election. However, we find no evidence that this effect is relevant for their family members (the inherited incumbency advantage). Many founding members of dynasties occupy privileged positions in their parties that make it difficult to disentangle the treatment of incumbency from other intangibles that make them and their family members attractive to party members and leaders. However, as our RD results indicate, even the family members of losing candidates may sometimes possess the right connections to jumpstart their political careers. This may be because candidate selection is decentralized to local actors, a hypothesis that should be explored further in future research.

Our null finding for the inherited incumbency advantage in the party-centered context of Norway is both theoretically and empirically important for our understanding of

dynasties in comparative perspective. Compared to the larger and statistically significant effects that have been estimated in candidate-centered contexts like the U.S. (6 percentage points) and the Philippines (12 percentage points), the null finding from Norway suggests that incumbency plays a smaller explanatory role in the mechanisms underlying dynastic politics in countries with strong party organizations and party-centered voting, in line with the comparative theory laid out by Smith (2012). This suggests the need for more comparative investigations across different institutional contexts, as well as in other closed-list PR cases such as Israel, where there is an even higher proportion of dynasties than in Norway (Figure 1).

Our findings are also relevant to recent research estimating the *economic* returns to office using RD designs. The seminal contribution was made by Eggers and Hainmueller (2009), who find that holding office increases the future financial capital of British MPs. Similarly, Willumsen (2011) finds strong positive income effects in the long term for Norwegian candidates who narrowly win a seat in parliament. Thus, in the Norwegian setting, it appears that narrowly elected candidates *themselves* tend to benefit both politically (the incumbency advantage we have identified), and economically in the long term. However, while it is possible that winning office will create some economic gains for politicians' family members (cf. Folke, Persson and Rickne, forthcoming), our study provides no support for the hypothesis that incumbency is the key to inheriting *political* success in the party-centered context of Norwegian elections.

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Online Appendix

A.1 Supporting figures to main analysis

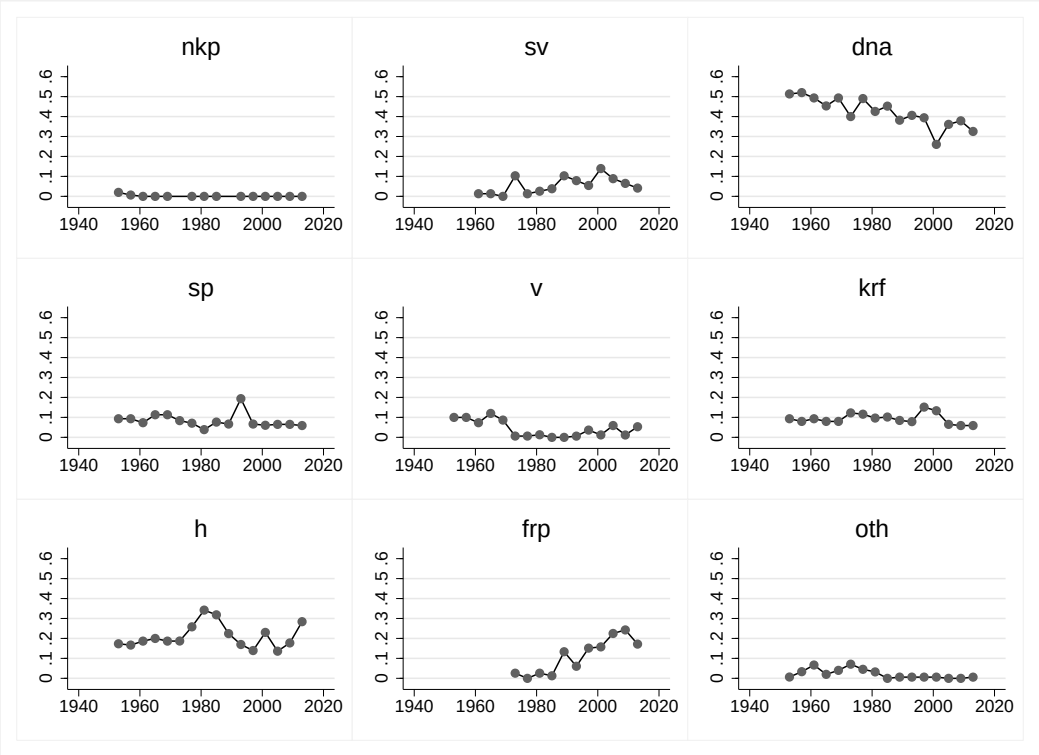

Figure A.1: Parties' seat shares by election year.

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).

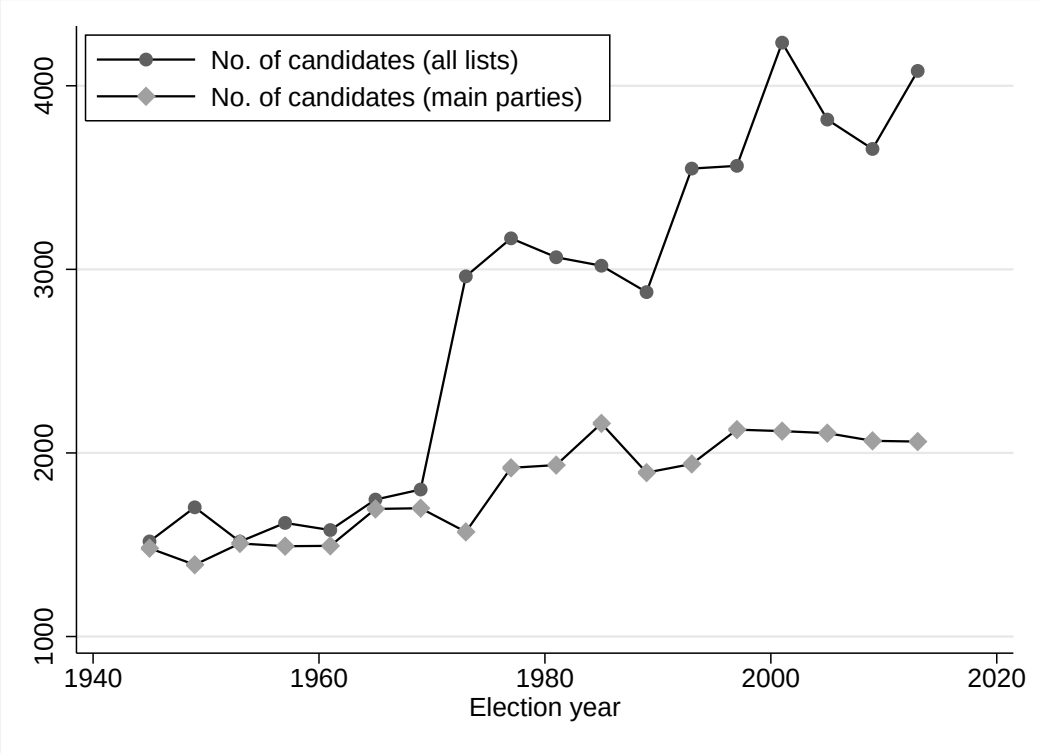

Figure A.2: Number of candidates by election year.

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.

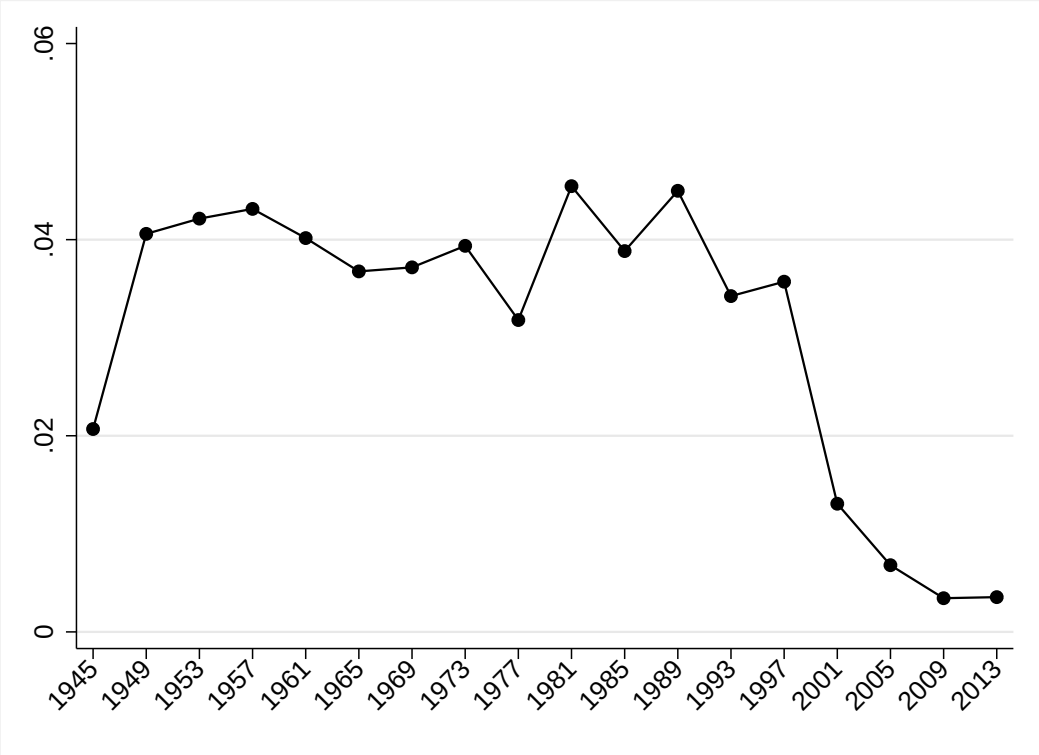

Figure A.3: Fraction of MPs succeeded by family member, 1945-2013.

Note: Trend represents the proportion of all marginal and safe candidates (i.e., elected MPs) in each year who were related to a future elected MP or cabinet minister.

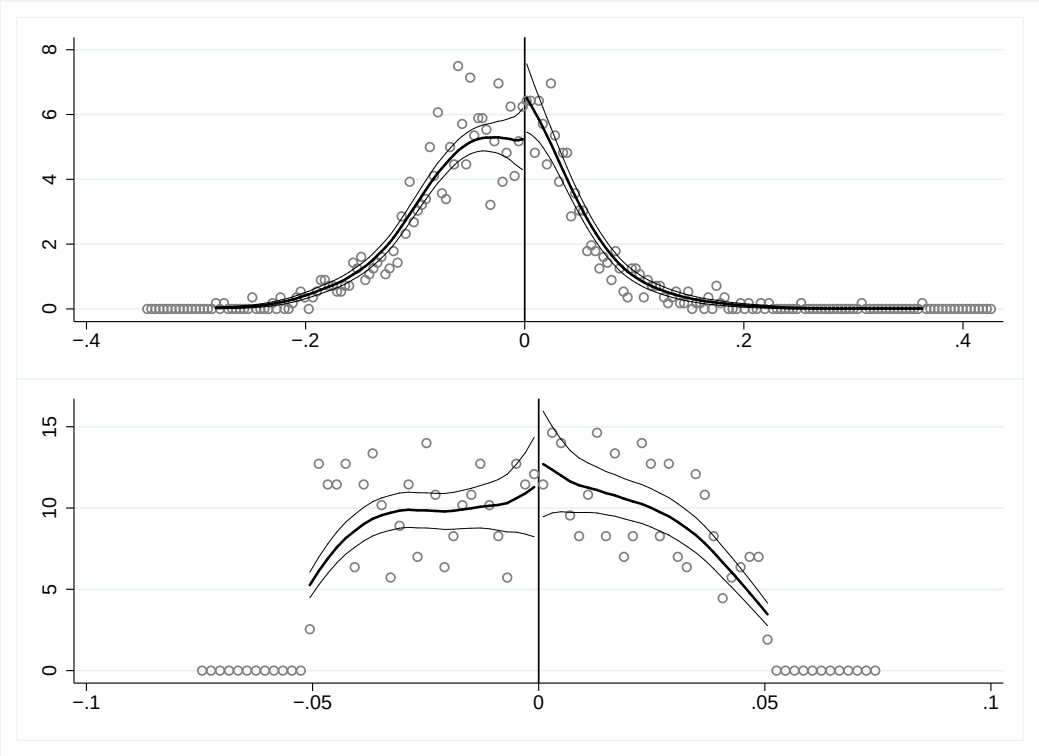

Figure A.4: McCrary density test.

Note: Sample is restricted to all marginal candidates in the top panel (N=1,521). In the bottom panel the sample is restricted to candidates who are less than five percentage points away from the seat threshold (N=792).

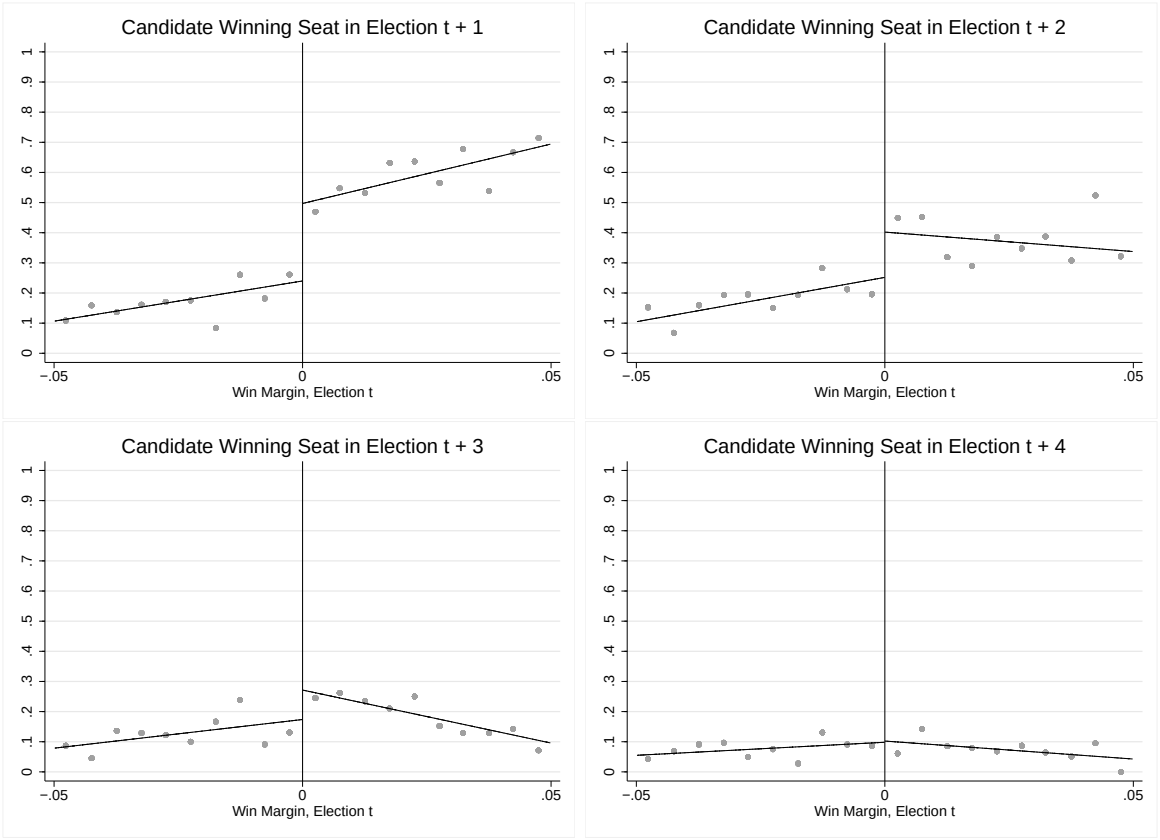

Figure A.5: Effect of incumbency on downstream elections.

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.

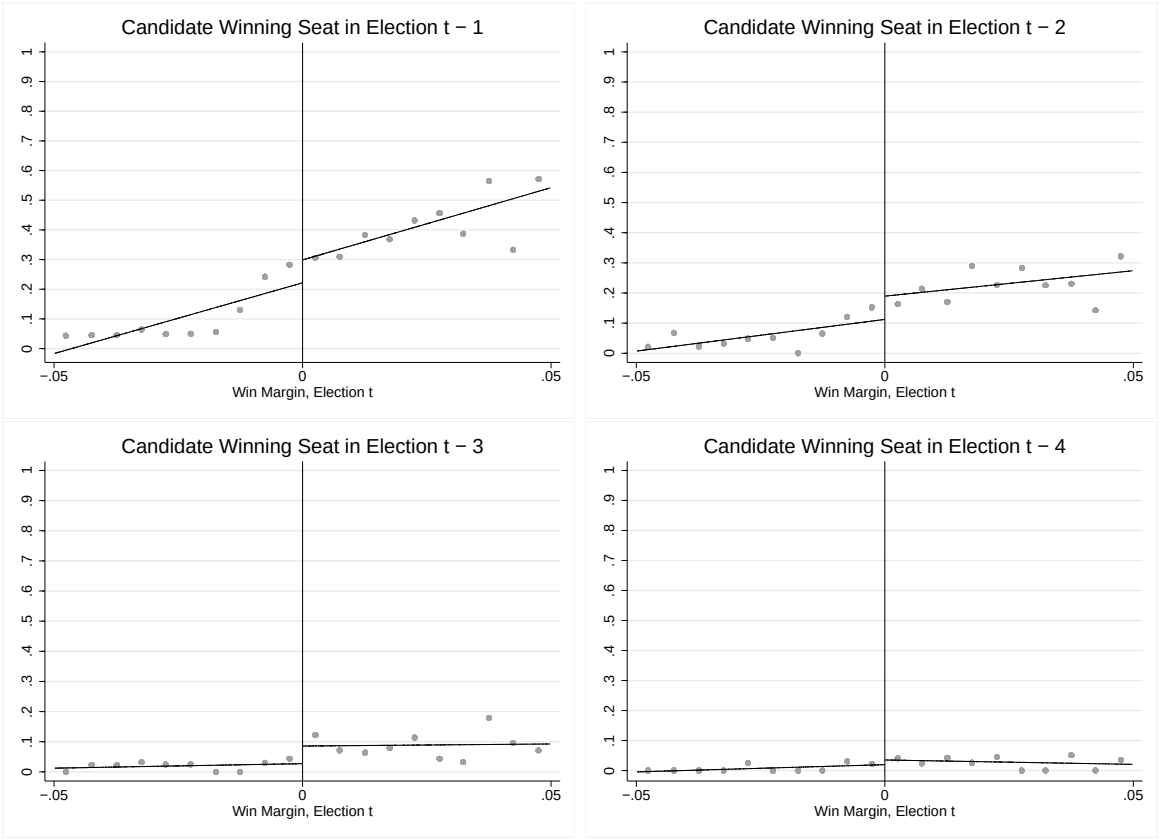

Figure A.6: Falsification exercise: effect of incumbency on previous elections.

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.

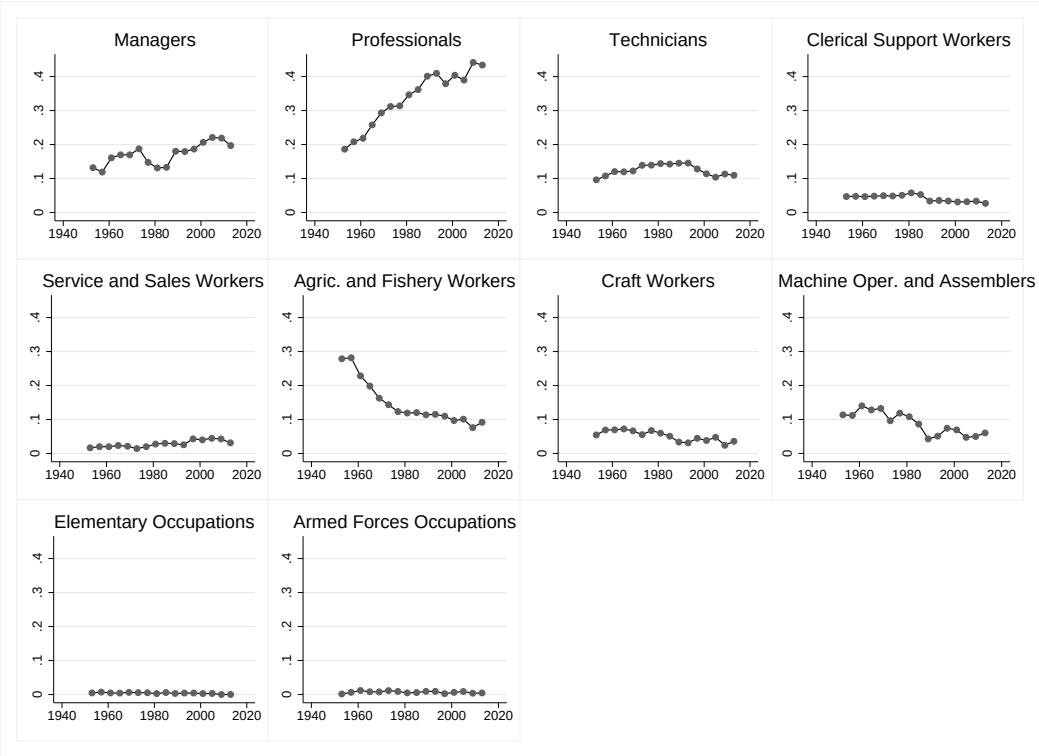

Figure A.7: Candidate occupations over time.

Note: Some candidates list more than one occupation; we use both occupations to create the occupation dummies. Candidates with no listed occupation are excluded.

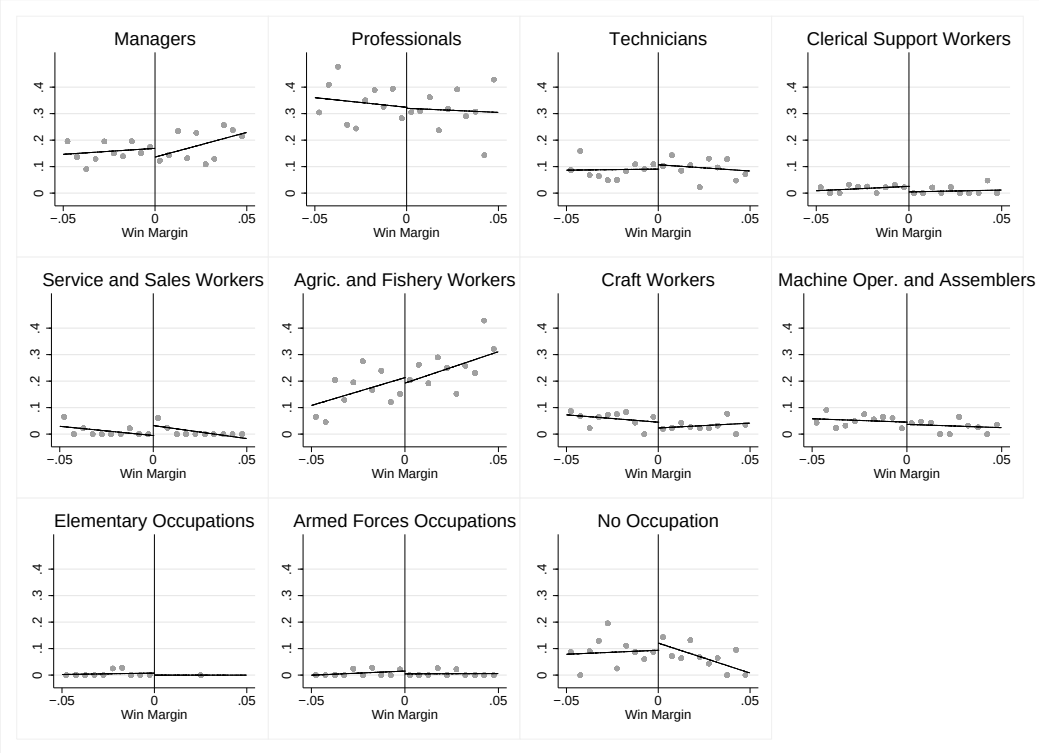

Figure A.8: Balance on pre-treatment variables: candidate occupations.

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.

A.2 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) and Geys (forthcoming). 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 A.9 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 A.2.1 provides the corresponding regression results. The estimates reported

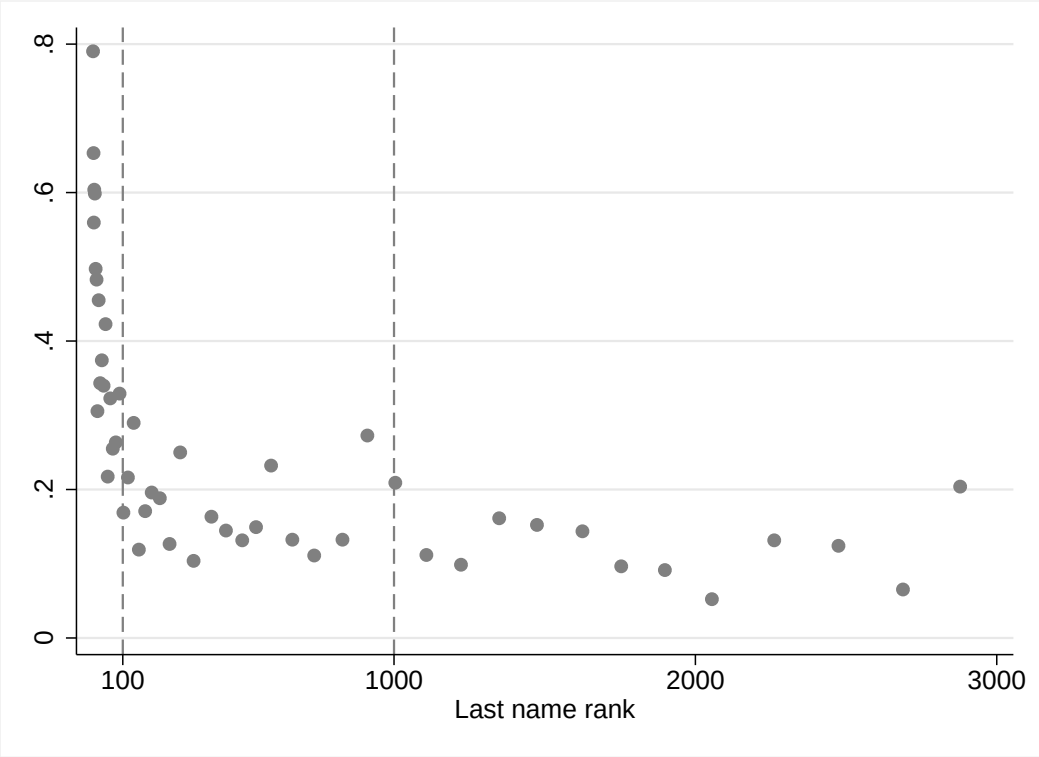

Figure A.9: Probability of (proxy) family member running, by common surnames.

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.

in Column 1 correspond to the jumps at the cut-off from Figure A.10. 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 results are similar if we exclude candidates with any of the thousand most common names in Norway (results omitted for brevity). 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 A.10 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 A.2.1 provides the corresponding regression results.

Table A.2.1: RD estimates using proxy family ties.

Panel A: Family member running (proxy)

	(1)	(2)	(3)	(4)	(5)	(6)
RD estimate	0.047	0.047	0.029	0.052	0.053	0.049
	(0.051)	(0.052)	(0.052)	(0.054)	(0.055)	(0.056)
R^2	0.007	0.026	0.091	0.170	0.175	0.220
N	554	554	554	554	554	554
Bandwidth	0.041	0.041	0.041	0.041	0.041	0.041

Panel B: Family member winning future seat (proxy)

	(1)	(2)	(3)	(4)	(5)	(6)
RD estimate	0.016	0.017	0.013	0.013	0.014	0.016
	(0.014)	(0.014)	(0.012)	(0.014)	(0.015)	(0.015)
R^2	0.002	0.004	0.023	0.070	0.084	0.118
N	613	613	613	613	613	613
Bandwidth	0.046	0.046	0.046	0.046	0.046	0.044
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 (N=646). 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.

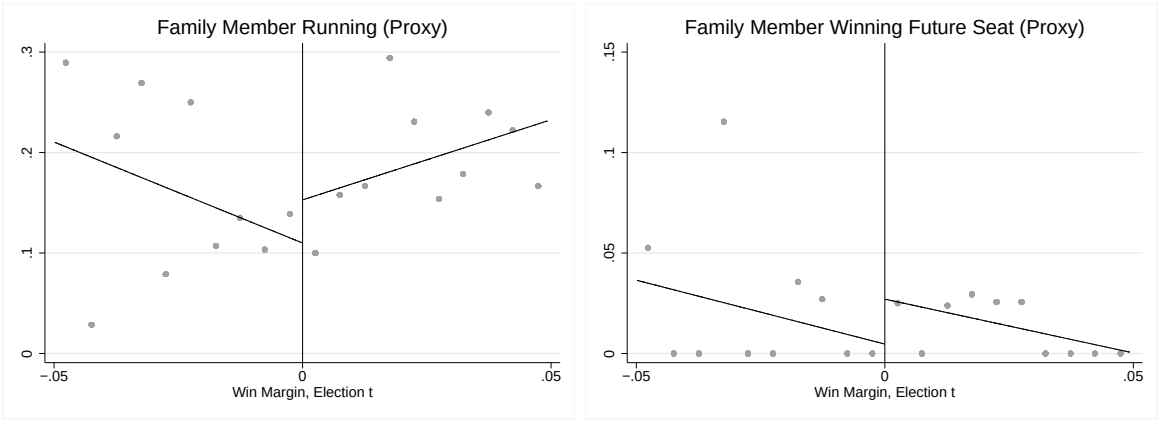

Figure A.10: RD plots using proxy family ties.

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=645). 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.