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**Incumbency Effects under Proportional Representation:
Leaders and Backbenchers in the Postwar Italian Chamber of Deputies**

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Abstract [98 words]

We study incumbency effects for individual legislators from two political parties (Christian Democracy and the Italian Socialist Party) in Italy's lower house of representatives over ten legislatures (1948–1992) elected using open-list proportional representation. Our analysis finds no reelection advantage for the average incumbent legislator. Only a tiny elite in each party successfully creates an incumbency advantage. We find incumbents advantaged for reselection by their political party. We interpret reselection advantage as a party loyalty premium. Our study depicts a political environment monopolized by party leaders who reward party loyalty but hamper legislators in appealing directly to voters.

Keywords: incumbency advantage; legislatures; political parties; regression discontinuity design; proportional representation; Italy

Introduction

The systematic study of electoral advantages accruing to incumbent office-holders comes out of decades of research into the United States Congress. This legislature exhibits an unusually high rate of reelection. Reasons put forth for the ability of U.S. office-holders to secure reelection include two. First, incumbents use the privileges of office to direct government resources to their constituencies. These resources include pork, patronage, and individual services. Legislators are highly effective in credit-claiming for the proliferation of these resources. They have generally been successful in constructing a substantially-sized “personal vote” that guarantees ongoing electoral success (Cain, Ferejohn, and Fiorina 1987). Second, in part because of the effectiveness of credit-claiming, name recognition among incumbents is greater than for challengers. These factors combine to discourage entry by high-quality challengers.

In single-member electoral districts, credit-claiming is straightforward. Each district has a single legislator, who has no legislative competitors seeking credit for activities in the district. Every bridge, every street improvement, every government installation and job, and every bureaucratic obstacle overcome is directly traceable to the incumbent legislator.¹ Multimember districts present a challenge to individual office-holders, simply because there are so many of them in each electoral constituency. Credit-claiming is accordingly more complicated. Proportional representation also gives political parties more power in candidate selection. The power of the parties comes from the ordering of the electoral lists. Although PR exhibits numerous minor variations, it is common for each political party to select as many candidates as seats in each electoral district and to present voters with an ordered list of candidates. Because the party organization orders the list, it is taken as representing the party’s statement of the political priority it assigns to candidates. Incumbents are therefore dependent on their parties for

reselection, a feature that imposes a loyalty premium. This in turn reduces potential incumbency advantage.

Thus, the PR setting simultaneously reduces the ability of incumbents to credit-claim with voters and increases the ability of political party leaders to ensure the loyalty of backbenchers. In addition, compared with single member districts, the larger size of PR districts makes it more difficult for candidates to achieve independent name recognition among voters. Even in the United States, most voters are not able to name their congressional representative. Name recognition is obviously more difficult when party lists have 10, 20, or even 40 candidates on them. In such a setting, voters tend to use the party's ordering of the names as guidance, which reinforces party control over incumbency advantage. Where legislators must curry favor with their party leadership in order to obtain a high position on the party list, the incumbency effect mainly accrues to the party.

These considerations lead us to expect that only party *leaders* will experience incumbency advantage in multimember PR. To the best of our knowledge, however, this has not been documented empirically with appropriate data and systematic statistical analysis. We adapt the standard regression discontinuity design used to assess incumbency advantage in single-member electoral districts to a setting of open-list multimember proportional representation: the Italian lower house of representatives over forty-five years following the end of World War II. We study incumbency advantage in re-election and in reselection for two political parties: Christian Democracy (*Democrazia Cristiana*, DC) and the Italian Socialist Party (*Partito Socialista Italiano*, PSI) to assess the nature and extent of incumbency advantage under multimember proportional representation.

Our analyses produce results in line with the expectation that incumbency advantage accrues to only a shallow party elite in multimember PR. There is no advantage for the average DC or Socialist legislator in being re-elected in post-war Italy. Only a small elite in each party are successful in credit claiming and creating an incumbency advantage. Instead, we find that Christian Democrats who serve as members of parliament experience a large advantage in being *reselected* by their party for a spot on the list; Socialists too experience a modest but imprecisely estimated reselection advantage. We interpret the reselection advantage as the premium accruing to legislators who exhibit party loyalty and discipline.

The absence of an incumbency advantage in the next election illustrates the difficulties ordinary legislators face in credit claiming before voters in multimember electoral districts (Lancaster 1986). Underscoring this, we show that the average Italian member of parliament in the two parties that we study did not receive more votes when more public spending and political patronage were directed to his electoral district. Because of difficulties in creating an incumbency advantage in multimember districts, fully a third of deputies elected between 1948 and 1992 to either party that we study served only a single term. More than half served no more than two terms. Only a tiny number, estimated to be less than five percent, retained their parliamentary seats for more than five terms and were effective in credit claiming to voters.

The inability to successfully claim credit limits the political autonomy of legislators. Without an independent base of electoral support, individual legislators are dependent on their political party for their careers. Correspondingly, candidate selection is generally centralized within political parties in PR systems, especially as district magnitude increases (Lundell 2004; Katz 2001; cf. Shomer 2012). Incumbents must display party loyalty in order to have the

opportunity to run again. The decisive channel advantaging incumbents lies within the political party rather than before the voters.

Our article is organized into five sections. In the first, we summarize findings from prior literature regarding incumbency disadvantage under differing electoral institutions. In a second section, we describe features of the postwar Italian context and of our data. Next we explain how we adjust a regression discontinuity design to a multimember setting. We then report the results of regression discontinuity analyses of reselection and reelection effects of incumbency. Section four follows up with analyses of how a small number of Italian legislators created an incumbency advantage even under PR. A final section concludes.

Incumbency Advantage and Disadvantage in Rich and Poor Nations

Legislators in 25 stable democratic countries experience better than even odds in retaining their seats in the next election (Matland and Studlar 2004, table 1, p. 93). Using quasi-experimental regression discontinuity research designs, a spate of recent studies confirms an incumbency advantage for the political party holding the legislative seat in the U.S. (Butler 2009; Lee 2008; although see objections by Caughey and Sekkon 2011 and Erikson and Titiunik 2013), as well as in Canada (Kendall and Rekkas 2012), the United Kingdom (Eggers and Stirling 2013), Australia (Horiuchi and Leigh 2009), and Spain (Llaudet 2013), and at the state or local level in Germany (Freier 2011), Denmark (Dahlgaard 2013), and the United States (Trounstine 2011; Uppal 2010).

In less developed countries, conversely, studies employing the same research design find that national and local-level incumbents face electoral disadvantages. This proves true in India (Linden 2004; Uppal 2009), Guatemala (Morales Carrera 2013), Brazil (Titiunik 2011; De Magalhães 2012; Klašnja and Titunik 2013; Gehrke Ryff Moreira 2012), Zambia (Macdonald

2013), and throughout sub-Saharan Africa (Bleck and van de Walle n.d.). The pattern of results identified thus far has given rise to an emerging consensus that legislative incumbents are advantaged in wealthy countries and disadvantaged in less developed nations.

All studies thus far conducted using regression discontinuity methods have investigated incumbency effects under simple plurality electoral rules and none under proportional representation.² This may be because it is not obvious how to adapt the now-canonical regression discontinuity research design to proportional representation. In PR, multiple representatives are elected from the same district on the basis of proportions of votes received by the parties with which they are affiliated. In two-party plurality electoral systems, an RD design leverages the assumption that differences between parties that receive slightly less or slightly more than 50 percent of the vote are essentially random. The assumption of the random selection of cases means that results of the analysis can be interpreted as causal. Adapting this framework to multiparty single-member electoral contests, such as those for Brazilian mayors, is achieved by estimating discontinuities between the vote share of the winning party and the runner-up, and is conceptually identical to two party settings. In PR electoral systems, however, the percentage of votes needed to win a seat varies by party and by constituency rather than remaining close to 50 percent. It is correspondingly less obvious how to design an “as-if” random sample of winners and losers.

This introduces a comparative puzzle. Is the pattern that has been identified thus far with RD methods in the wealthy countries — a pattern characterized consistently by substantial incumbency advantage in attaining reelection — truly general? Or is it a product of the electoral institutions that happen to obtain where it has been easiest to work using regression discontinuity research designs: namely, countries with single-member district electoral systems? The most

natural interpretation is the latter. In single member districts, incumbents easily credit claim for government allocations to their districts and thereby create an incumbency advantage. In multimember PR, ordinary legislators are unable to credit claim sufficiently to gain reelection because voters cannot ascribe government outcomes to individual representatives. In this article, we show that this is the case in postwar Italy.

Although the average legislator in a PR system may not enjoy an incumbency advantage, not all party members are equal. Individual legislators may sometimes be successful in credit-claiming, achieving name recognition, and in creating a personal incumbency advantage. These persons rise to leadership positions. Party leaders control institutional resources that include ordering the electoral lists. The size of this elite and the markers that distinguish it within the party will differ by party and national setting, but its members will typically be those who serve in government as ministers and undersecretaries. These offices provide direct access to pork and patronage goods, which offer opportunities to gain name recognition by voters. We are theoretically agnostic about the causal origins of these more long-serving representatives. Nor do we have any theoretical guidance about the length of their tenure. Using standard statistical techniques of analysis, we also study the elites of the two parties that are in our sample.

The Context and Data

Our data span forty-five years, 10 legislative periods, and the more than 12,500 lower house candidates affiliated with two of Italy's political parties: ruling Christian Democracy (*Democrazia Cristiana*, DC) and its longstanding ally, the Italian Socialist Party (*Partito Socialista Italiano*, PSI). During the period we study (1948-92), Italy used an open-list system of multimember proportional representation constituencies to the legislature. (The electoral system was subsequently modified, making it unsuitable for analysis for our purposes.) We study Italy

because of the availability of data. We know of no other established democratic system with open-list PR with data that is readily available on all candidates to the national legislature (even for only two political parties).

The period we study is one of legislative bicameralism, with the two houses of parliament enjoying equal powers. Italy's 630-member lower house, the Chamber of Deputies, used open-list PR in 32 constituencies, each of which elected an average of 20 deputies. (One of these elected only a single legislator, making it effectively a plurality election.) The legislature was dominated by the DC, which served in every government over the entire period, usually in alliance with a series of small coalition partners. Of these, the PSI was the most important. Alternation of executive power was impossible due to the alignment of the country's major opposition, the Italian Communist Party (*Partito Comunista Italiano*, PCI), during the Cold War.

The parliamentary dataset that we build on (Golden 2007) is large and rich, permitting quantitative analysis to complement the existing, mainly qualitative literature that has studied the postwar Italian legislature. The dataset contains information on the characteristics and careers of more than 12,000 postwar Italian legislators as well as the number of votes received by each of the 12,500 candidates who ran on the party lists compiled by the DC and the PSI.³ Our analysis does not include Italy's other political parties, some of which were members of the governing coalition, because we do not have information on the number of individual votes received by all of their candidates, only information on votes of winning candidates. For this reason, we also exclude the country's major opposition party, the PCI, from analysis. Investigating only the DC and the PSI allows us to study 48 percent of all legislators who sat in the Chamber of Deputies between 1948 and 1992. The other Italian political parties were, in the period under consideration, even more centralized in candidate selection than the PSI and the DC. As a result,

we expect that our results would also characterize other parties, but we do not have the data to show this. Because of an absence of complete data on Senators, we confine our analysis to candidates for the Chamber of Deputies. We use the term “legislator” to refer to deputies as well as to losing Chamber candidates.

Our study spans the ten legislatures of Italy’s so-called “First Republic,” the period prior to the judicial investigations that in 1993-94 implicated more than a third of the members of parliament in criminal malfeasance and brought down the postwar party system. During the years that we study, electors could vote for a party and also optionally use up to three (in larger electoral districts, four) preference votes for any of the individuals whose names appeared on the party list. (Split ticket voting was therefore infeasible.) We omit from analysis the 1992 elections for the Eleventh Legislature because the number of preference votes that each elector could use was reduced to one. In the elections that we study, the average DC (PSI) deputy won with approximately 48,500 (24,500) preference votes. (The average electoral district was home to 1,227,000 registered voters.) The maximum ever received by any DC (PSI) candidate was received by Prime Minister Giulio Andreotti (Prime Minister Bettino Craxi), who amassed 367,235 (165,676) individual votes. Since candidates were permitted to run in up to three electoral districts, it is often assumed that this frequently occurred. The dataset shows that only 37 candidates ever ran in two districts and another 10 ran in three. In nine of these combined 47 cases the individual did not win the seat despite standing in multiple districts. The few candidates who ran in multiple districts therefore do not significantly affect the analysis.⁴

Deputies who went on to enter government as ministers did so on the basis of many more preference votes than backbenchers. The average DC (PSI) minister was elected with just under 66,000 (35,000) preference votes, which is more than 50 percent more individual votes than the

average backbencher in his respective party. Thus, rising to higher office involved amassing a large individual following. We discuss how this occurred below.

Regression Discontinuity Estimates of Reelection and Reselection

We want to know whether Italian legislators enjoyed an incumbency advantage, as is true for their counterparts in countries such as the United States and Canada. In RD analyses of single-member districts, strategic withdrawal of seated legislators is ignored because the unit of analysis is the party. In our setup (described below), where the only reasonable unit of analysis is the individual legislator, we examine reselection and reelection separately. We first assess whether seated Christian Democratic or Socialist Party legislators enjoyed any advantage in being reselected for the party list for the next term and we then assess whether, once reselected, they enjoyed any advantage in being reelected. The latter is what is labelled, strictly speaking, incumbency advantage. If incumbents experience disadvantages in being selected to appear on the party list for the next election, then estimates of incumbency advantage in reelection will be biased.

Adapting Regression Discontinuity to PR

The now-standard way to estimate incumbency advantage is with a regression discontinuity design. This design was developed for use in single-member electoral districts (Lee 2008). Even using other analytic techniques, prior attempts to characterize and estimate the size of incumbency effects under proportional representation are rare (for instance Ames 1995; Crisp and Desposato 2004). There are some studies of multimember electoral districts, such as the U.S. state legislatures (Cox and Morgenstern 1995; Hirano and Snyder 2009), and some studies of multiparty single-member districts, such as the British House of Commons (Katz and King

1999), but the techniques of analysis appropriate in these settings do not extend seamlessly to multiparty, multimember PR settings. Scholars have shied away from investigating incumbency in PR in part because of the conceptual problems of doing so and in part because of the difficulties in obtaining the necessary data for non-U.S. settings.

In regression discontinuity analyses set in single member simple plurality systems, the incumbency advantage is defined for the party, which is assumed to contest the district.⁵ This allows the analyst to work with a full matrix, rather than having to drop observations where an individual legislator did not run again. Dropping observations generates biased estimates of any incumbency advantage, since incumbents might not run in situations where they foresaw electoral defeat. This is known as strategic withdrawal. To correct the results of statistical analysis for strategic withdrawal, it is simply ignored by shifting the unit of analysis to the political party.

Our analysis adapts the RD design to the PR context to study the advantage *individual* incumbents enjoy in being reelected and in retaining their seats. In open-list PR, we believe that it is relevant to estimate incumbency effects for the individual within each party rather than for the political party, as is done for single member districts. With large district magnitudes such as the Italian, multiple parties enjoy incumbency status in each district. In our dataset, for instance, every electoral district in every legislative period elected representatives from more than one party except for the country's sole single-member district. Given this, it does not make sense to assess incumbency effects at the party level. Parties that hold seats in a district almost always retain seats and they find it easy to maintain incumbency status within electoral districts.

We instead estimate the advantage that individual legislators experience thanks to incumbency. This effectively ascertains whether the elected are successful in creating a personal

vote — and thereby an advantage when they run again — that differentiates them from non-incumbents (cf. Carey and Shugart 1995). Our analysis considers individual candidates who run for the first time, who may win a seat, and who then may or not be relisted at time $t+1$. The incumbency effect that we estimate first is for the first term served.⁶ This is conceptually more similar than party incumbency would be to what is estimated in RD studies set in single member plurality systems.

In a standard RD design that is set in a plurality electoral contest, the size of the incumbency effect is estimated by observing the (positive) difference in the fraction of votes received by candidates who barely won in the previous election and candidates who barely lost. If an incumbency advantage is present, a positive discontinuity in the percentages of votes around the 50 percent mark exists.⁷ In the United States, Lee estimates that for congressional elections between 1946 and 1998, Democratic Party candidates are 45 percentage points more likely to win in a district where the party already holds the seat (2008, p. 686).

In an SMD system, electoral success is operationalized as receiving more than 50 percent of the vote and the percentage of votes received is a straightforward and obvious measure of success. In a PR system, the analogue to the 50 percent mark is, for each party within each district and in each election, the minimum number of preference votes that elects a candidate. This varies by electoral constituency. Each constituency elects anywhere from one to many legislators.⁸ It also varies by party, the number of whose list votes allows varying numbers of legislators to be seated from each constituency. We operationalize the minimum number of preference votes needed to win a seat for each party/district/election as the average of two figures: the number of preference votes received by the most-voted unsuccessful candidate (the most-voted loser) and the number of preference votes received by the same party's least-voted

elected candidate (the least-voted winner). We take this as an approximation of the minimum number of preference votes needed for a candidate within that party/district to be elected.⁹ We define the variable *successratio* as the ratio of the number of preference votes received by each candidate and the minimum number of votes required to be elected, as just defined. *Successratio* is smaller (bigger) than 1 for unelected (elected) candidates.¹⁰

We distinguish and analyze incumbency effects for reselection and then for reelection. Incumbents might enjoy a higher probability of being relisted by their party compared to candidates who ran and lost. This is a reselection effect. A second type of incumbency advantage could affect the probability that a candidate retains the seat, assuming the candidate is reselected for the ballot. The latter corresponds to the standard incumbency phenomenon.

Regression Discontinuity Results for Reselection

The data depicted in Figure 1 provide graphical results of the RD analysis of Italian data for the two parties that we study. Figure 1A shows the graphs of reselection effects; that is, the estimated increase in the probability of relisting conferred by incumbency for the DC and for the PSI. We indicate by t the first time a candidate runs and by $t+1$ the subsequent election. Our estimates cover candidates who have served at most one term and extend to candidates who compete again in any (not necessarily the same) electoral district. The relevant observations for this exercise are 4,605 (4,915) individuals for the DC (PSI).¹¹ The horizontal axis depicts *successratio_t*, which is our measure of the outcome for first-time candidates. Those to the right of the discontinuity where *successratio_t*=1 were elected; the others lost. Some of those individuals were then relisted at $t+1$ and some were not. For bins 0.05 wide of the variable *successratio_t* we compute the fraction of candidates relisted at $t+1$. They are represented on the vertical axis of Figure 1A, together with fifth-order polynomials fitted separately for winning and for losing

candidates at time t . Candidates who perform poorly the first time they run are also likely to be of relatively low quality. For this reason, independently of any reselection effect that may exist, we expect them to have a lower probability of being reselected by the party at $t+1$. However, close to the discontinuity where $successratio_t=1$, candidates are almost indistinguishable. We interpret the difference in probabilities at the cutpoint as the causal effect of a reselection advantage, or the advantage that holding office provides for being reselected by the party.

Figure 1 about here

Figure 1 shows that the estimated reselection effect appears to be sizeable for first-term Christian Democrats and modest or perhaps absent for first-term Socialists. The first column of Table 1 presents results using two different methods of analysis of the reselection effect. Since relisting is represented by a discrete binary variable, a Probit model provides a simple and natural way to estimate the probability of relisting, conditional on powers (in our case, up to the fifth order) of the *successratio* variable at time t . The problem is also amenable to non-parametric estimation; we use the robust interval estimator proposed by Calonico, Cattaneo and Titiunik (forthcoming-a and forthcoming-b), which we refer to as CCT. The first column of Table 1 indicates that both methods deliver almost identical estimates of the reselection effect; we comment on those obtained using the Probit model. For DC incumbents, we estimate that reselection success at $t+1$ almost doubles over non-incumbents, increasing from 58.2 to 88.7 percent. This is a probability increase of 30.5 percent, and is a very large effect. For the PSI, the increase in probability is estimated to be modest, moving from 21.6 percent to 24.2 percent, or a probability increase of 3.6 percent. The result is not statistically significant.

Table 1 about here

These RD results can be compared with the raw probability that a first-term incumbent is reselected, which is 55 percent for Christian Democratic and 44 percent for Socialist deputies. This contrasts sharply with the raw probability that a losing candidate is selected for the list in a future election, which is 5 percent for Christian Democrats and 3 percent for Socialists. Both parties list many candidates with little chance of winning, and those who fail to win also lose the opportunity to run again. These average differences are not amenable to a causal interpretation because the two groups are not comparable; our analysis indicates that, at least for DC, the difference does not disappear at the cutpoint, where a causal interpretation is legitimate.

We now replicate the reselection analysis for periods after $t+1$ to assess how barely winning at time t influences the probability of being relisted at $t+j$. We define a binary outcome, 1, if the politician is reselected in the j th election after the election in which he is first elected and 0 otherwise, where $j = \text{third, fourth, fifth, etc.}$ There are a small number of 1s as j grows. We report results for future periods in Table 2, both using a Probit estimator and the CCT non-parametric estimator.

Table 2 about here

Results in Table 2 show that for DC incumbents, barely winning an election increases the chances of being reselected in the next and subsequent elections for as many as three, possibly four, elections in the future. Having been selected and having won once, even by a little, continues to provide DC incumbents with an advantage in being reselected in future periods. For Socialists, on the other hand, we find no clear effect in any future period.

Regression Discontinuity Results for Reelection

We turn now to incumbency effects strictly speaking — that is, for reelection. We consider all candidates who, after running a first time at time t , are relisted at $t+1$. There are 847 observations

for the DC and 564 for the PSI that fit this definition. In the graphs presented in Figure 1B, each point represents values of $successratio_t$ (horizontal axis) and $successratio_{t+1}$ (vertical axis). Ideally, each point falls into one of four quadrants centered at (1,1). Those in the first quadrant correspond to candidates who win both times. The second quadrant contains candidates who won at t but lost at $t+1$. Candidates in the third quadrant lost both times. Candidates in the fourth quadrant lost the first time but then won on their second attempt.

The candidates close to but on different sides of the vertical discontinuity line are not likely to be entirely comparable, however, because near-losers at time t may experience keener competition than near-winners to be listed by the party for the next election. As a result, near-losers who are relisted at time $t+1$ are likely to be of higher quality than relisted near-winners. The average higher quality of relisted near-losers than relisted near-winners is likely to result in more preference votes at $t+1$ for the former than the latter. Ignoring this would underestimate the incumbency effect.

Our solution is to estimate an upper bound for incumbency effects corrected for the presence of any reselection effect by considering the scenario that would produce the largest positive bias in such an estimate. This corresponds to a situation where the party, when deciding whom to relist at $t+1$, is able to forecast accurately the number of preference votes that potential candidates receive and therefore relists only candidates who lost at time t and who will receive the most votes at $t+1$.

To make the two groups on each side of the discontinuity comparable, we exclude an appropriate number of the *worst* performers from the sample of winners at time t . In Figure 1B, these observations are indicated by diamonds. To determine which observations to exclude, we draw on our estimate of the reselection effect. We estimated that, at the cutpoint, the probability

of being relisted is 0.582 for first-time losers and 0.887 for first-time winners. The ratio between these two figures is 0.656. We conclude that a fraction equal to one minus that number ($=0.344$, or 34.4 percent) would not have been relisted had they been near-losers. The scenario that generates the highest possible estimate of the upper bound for the incumbency effect is obtained by excluding 34.4 percent of the worst performers from the pool of near-winners at time t . We operationalize this by defining bins of the variable $successratio_t$ of width equal to 0.2, and within each bin we drop as close to 34.4 percent of incumbents as mathematically possible. We discard the same fraction of observations in all bins, not only those close to the discontinuity.¹²

We proceed similarly for the PSI and compute the fraction of worst performers to be dropped from the analysis, by using the point estimate of the reselection effect. We discard about five percent of the observations ($1-0.6931/0.7292 = 0.0495$) within each bin, defined as above. Figure 1B presents the analysis graphically. In both panels, the worst performers are indicated with diamonds, and the line to the left of the vertical line is a fifth-order polynomial fitted on losers at time t . To the right of the vertical line, we fit a fifth-order polynomial both on all observations (the lower line) and on only those observations that we retain (the higher line). Visual inspection indicates that an incumbency effect is not present for the DC even when we discard the worst performers who won at time t . For the PSI, a modest effect appears.

We report results in the second column of Table 1. Confirming visual inspection, we find no incumbency effect for the DC. The result closest to detecting a (modest) effect is delivered by the non-parametric CCT estimator, with a point estimate of 0.16 and a p -value equal to 13.0 percent. For the PSI, the parametric estimate with a fifth-order polynomial delivers a statistically significant point estimate of 0.49. The CCT estimate is more modest, equal to 0.43, and marginally significant at conventional levels ($p = 0.092$). Thus, even when using the setup most

likely to detect an incumbency effect, we find none for the DC and only a small one for the PSI. Serving one term in the legislature does not offer incumbents from these parties much if any of an advantage in securing reelection. Serving one term confers a substantial reelection advantage to DC incumbents and a modest one to PSI legislators, but having been reelected, incumbents enjoy only a small if any advantage in then getting reelected.

Our RD design should not be susceptible to the problem of sorting close to the cut-off line, as discussed in Caughey and Sekhon (2011) in the context of simple plurality electoral rules. For this phenomenon to be an issue, “First, one candidate [...] must have very precise information about the vote margin [...]. Second, the relevant campaign must have access to superior resources and make maximal use of them only when the outcome is on the line” (p. 398). Neither of these conditions is likely to be met in the present context, where a candidate, given a total number of party votes (which determines the number of party winners in a given district), competes for preference votes against a pool of other candidates from the same party. In this situation, information about the vote margin is necessarily imprecise. Even a political machine such as the DC, which may have been able to forecast with some accuracy the number of list votes it would receive in a district, would not have been able to forecast accurately the number and distribution of preference votes among its many candidates. An individual candidate who may have thought that his election was close had no way to forecast the number of preference votes other candidates from his own party would receive. Typically, each candidate would have had difficulty in identifying even his most direct competitor for a seat.

Because our dataset lacks descriptive information on candidates who were never elected, we cannot accurately analyze the continuity of relevant covariates close to the discontinuity. For instance, we cannot assess whether the elected and never-elected differ systematically in their

prior political experience because we have no relevant information on those who were never elected.¹³ However, we are able to test for the presence of a disproportionate number of incumbents among near-winners (Eggers et al. 2015). For both parties, for a wide choice of window sizes around the discontinuity, we do not find any significant imbalance in this respect.

Party Elites and Backbenchers

Thus far, we have seen that incumbent legislators in the DC and the PSI enjoyed advantages in being reelected to run again. Yet they did not experience advantages in getting reelected. What interfered with their abilities to convert reselection into a reelection advantage?

Only a small number of deputies were successful in remaining in office over multiple terms; these men constructed large personal votes. To document this, we begin with the descriptive context. Table 3 reports a frequency distribution of tenure for postwar DC and PSI legislators. More than half of the DC and PSI deputies ever elected to the Chamber in the decades we study serve no more than two terms. Comparing this with what is known about the United States Congress, Italian deputies stay in parliament significantly fewer terms. Between 1947 and 1993, U.S. congressional representatives serve an average of five terms (Diermeier, Keane, and Merlo 2005, p. 367 n.51) compared with an average of 2.7 terms over the almost identical period for the Italian deputies in our dataset (slightly higher, 2.8, for the DC, and 2.4 for the PSI).¹⁴

Table 3 about here

There were exceptions in the DC and to a lesser extent in the PSI. A small number of Christian Democratic and Socialist deputies became almost permanent parliamentary residents. Roughly 40 Christian Democrats (less than 4 percent of the 998 individual Christian Democrats

who held seats in the Chamber over the 11 legislative periods of the First Republic) served seven or more terms.¹⁵

Since long-lived legislators are so few in number, it is difficult to analyze them statistically. As far as we can tell, nothing distinguishes them at the outset of their parliamentary careers: they do not enter the Chamber with more preference votes, or from particular electoral districts or regions, or with any other specific characteristics that the available data allow us to identify. We do find, however, that successful deputies exhibit three important differences from other deputies: they create larger personal followings; they are more likely to enter government as ministers or undersecretaries; and they are more adept at politically leveraging the allocation of government resources to their districts, in a manner arguably similar to how state legislators in the United States used patronage appointments in the pre-civil service era to improve their reelection chances (Folke, Hirano, and Synder 2011). We detail these observations below.

Multivariate Regression Results for Reselection

We statistically investigate the party elite in two steps that parallel our analysis of incumbency. We study reselection and then the reelection of elite deputies. We begin with a Probit analysis of reselection, where the observations include all DC and PSI deputies, in contrast with the restricted sample of near-winners and near-losers used in RD analysis. In the Probit, each party's decision to reselect an incumbent to run in the next period is explained statistically by a series of electoral district and individual characteristics. District characteristics include the difference between the party's district-level electoral performance and its national average, since it could be that the party rewards deputies (with a higher probability of being retained as candidates) in districts where the party performed well. To operationalize this, we define *DDC_dif* (*DPSI_dif*) as the difference in the percentage change of DC (PSI) votes over the previous election in the

district compared to the same difference computed nationally. A positive value indicates that the DC (PSI) did relatively better in the district compared with the party's national average. We also include legislature fixed effects (not reported) to control for any time-idiosyncratic effects on the probability of retaining sitting deputies as candidates.

We include a set of variables measuring deputy characteristics that could influence their being retained as future candidates. Theoretically, the most important is the size of the deputy's personal vote, measured by the national ranking of the legislator within her party based on the number of preference votes received. We use the national rather than the district ranking because competition for influence within a party occurs across the whole country. Ascending to government office entails national competition; we have already reported that ministers receive substantially more preference votes than backbenchers. Likewise, access to patronage goods is provided in Rome rather than in each district. We therefore measure intraparty competition as a national rather than local or regional level variable. We expect the sign of the estimated coefficient on this variable to be negative (because the ranking equals one for the candidate receiving the highest number of preference votes nationally out of all candidates running in the same party in any given election). Deputies with larger personal followings should be more likely to be reselected.

Also theoretically relevant are dummy indicators for whether the deputy is a minister or an undersecretary. Inasmuch as a ministerial position allows a representative to reap any unusual incumbency benefit, the estimated coefficients on these variables should be positive. We also include a variable (*malfeasant*) that captures whether a deputy was formally placed under judicial investigation during the previous legislature for suspected criminal malfeasance.¹⁶ In our dataset, this is true for about 8 percent of Christian Democrats and 13 percent of Socialist

deputies. We anticipate one of two possible contrasting effects of this variable. On the one hand, suspicion of criminal malfeasance represents a proxy for whether the deputy is likely to have been using illegal kickbacks to enlarge his campaign funds, which could favor relisting. On the other hand, the party could decide to keep suspected corrupt politicians off the list because of the electoral liability that they represent.

We include some standard demographic variables: age, age squared, to capture any possible maximum after which age becomes an obstacle to additional parliamentary service, educational attainment, which is an imperfect proxy for quality, gender, to capture possible disadvantages experienced by female deputies, and whether the deputy ever served as a member of his party's executive body or central committee.¹⁷ As an additional proxy for individual quality we include *successratio* for the first time that the politician ran for election, regardless of whether he was elected or not. This is because high quality politicians are likely to perform well early in their careers.

Unlike other characteristics of individual deputies, sex, education, party office and first electoral success are constant rather than varying over time. We expect that better educated, better early performers, male, and politically better connected deputies will be more likely to be allowed to re compete for a seat.

Finally, we include dummy variables for the number of prior terms served. These indicate that a given deputy had already served two, three, etc. terms, including the term she is currently serving. (We do not include a measure for having served one term because it would equal 1 for all observations, since we only analyze incumbents.) The dummy variables allow us to test whether parties retired deputies after some number of terms in office.¹⁸

We estimate separate models of candidate reselection for DC and PSI incumbents over elections for the Second through the Tenth Legislatures (omitting the First because there were no incumbents running). For the PSI, estimates start with the Fourth Legislature, when the party entered government, because we expect deputies to amass personal followings when their party is in the governing coalition and not when it is part of the opposition. Results appear in Table 4.

Table 4 about here

We begin with the variables for prior terms served. Results indicate that the probability of being retained as a candidate is negatively influenced by the number of terms already served, as shown by the negative signs on the estimated coefficients for the dummy variables on the number of terms served. The DC penalizes incumbents who have served more than two terms. Only the very small number of DC deputies who serve at least nine terms escape the negative effects of tenure on their chances of being reselected.¹⁹ The evidence is thus that even long-serving legislators are objectively uncertain about whether they will be reselected by the party. Senior deputies faced ongoing career uncertainty and competitive pressures while holding office.

Who were the individuals who survived politically? For the DC, we detect a statistically significant and important effect of the lagged variable capturing the incumbent's national ranking. Legislators who received a large number of preference votes in the prior election had a greater chance of being reselected. Although it is not statistically significant, a similar effect is found for the PSI. Serving as a minister or undersecretary for the Christian Democratic party also has a large effect. DC members of government experience an 8 percent increase in the probability of being relisted and undersecretaries an increase of 5 percent, holding other variables at their average values. Deputies suspected of criminal activities, who are therefore likely to have amassed larger personal campaign funds, are more likely to be relisted by the DC

and the PSI. However, for neither party do these latter results reach conventionally defined levels of statistical significance.

We do not observe any significant influence of relative party performance in the district (the *DDC_dif* and *DPSI_dif* variables). Results reported in Table 4 also show that older deputies enjoy reselection advantages. However, the negative estimated coefficient on age squared captures the fact that after a certain age, no additional political advantage occurs. The age and age squared measures are jointly statistically significant in models for DC, and the estimated coefficients imply that age becomes a political disadvantage at 36. For the PSI, neither of the age variables is statistically significant.

The models that we estimate also include measures of the deputy's educational attainment, gender, and membership in the party's executive or central committee. Also, as a proxy for personal quality, we include *FirstSuccessratio*, which is the value of *Successratio* for a candidate the first time he ran. As the results reported in Table 4 show, these variables do not exhibit statistically significant effects on candidate reselection. The estimated coefficient of the variable that, together with *education*, is expected to proxy quality, *FirstSuccessratio*, has the expected positive sign, but is not statistically significant.

Multivariate Regression Results for Reelection

The average DC and PSI deputy serves only one or two terms in office, after which his political party is not likely to reselect him to run again. However, deputies who are able to create larger personal votes are more successful in securing reselection and then reelection. These individuals used access to the spoils of office to enlarge their clienteles.

We document this with a multivariate regression analysis of the determinants of preference votes. We define as “elite” the 50 elected deputies in each legislature who are reelected to run again and who receive the most individual preference votes within their party in the subsequent election. We conduct the analysis this way because the small number of observations for deputies who serve more than seven terms (40 Christian Democrats and five Socialists) prohibits statistical analysis to identify any distinguishing characteristics. Our setup analyzes the determinants of successful vote getting by a pool of potential elite deputies that is larger than the actual number of interest, which is very small. It does not allow us to hone in on the specific characteristics of deputies who serve eight or nine terms rather than four or five. Those characteristics are unobservable, given existing data. Our way of analyzing the data does not allow us to identify the specific characteristics of successful compared with unsuccessful deputies. Because all the deputies we study were reelected, they are by definition all relatively successful.

We estimate the number of preference votes received by incumbent deputies in legislature t at the next election, $t+1$, as a function of prior electoral success, ministerial rank, whether the individual was investigated for malfeasance, his education and party office, and the allocation of public capital investments and disability pensions to his district. All but the last two variables were included in the analyses reported in Table 4, and we refer readers to that discussion for explanations. Our estimations include measures of whether a deputy is a member of government, either as a minister or an undersecretary, because we expect that holding such a position will positively influence the ability to increase the number of preference votes received independently of having steered more investments or disability pensions to the constituency. For instance, it may be that a sitting minister steers other types of resources on which we do not have data to his

district. We include a measure of district magnitude since the total number of voters mechanically influences the maximum number of preference votes a deputy receives.

We also include measures of distributive allocations to electoral districts because a large literature (reviewed in Golden and Min 2013) suggests that vote-getting is enhanced by such allocations. Because of their availability, we use data on two types of allocations: disability pensions and infrastructure investments. Disability pensions can be directed to individual voters, whereas infrastructure investments are geographically localized club goods. However, infrastructure investments are also targetable to identifiable client groups when they favor specific construction firms, perhaps with links to the governing parties.

Public investments comprised a substantial portion of total public expenditures during the years we study, as much as 21 percent of total public outlays in 1961. Over the forty-odd years for which we have data, on average public works absorbed 15 percent of annual total public expenditures, corresponding to 2.5 percent of national net product. Hence, the discretionary expenditures that we analyze were substantively large. The number of disability pensions was also large. On average, in any single year seven percent of the Italian population received disability pensions over the period we study, with a peak above 13 percent in the Sixth and Seventh Legislatures.²⁰

Our data on public investments refers to annual flows to Italy's electoral districts of capital expenditures (in constant millions of 1990 *lire*) for public construction, summed over the life of each legislature. Our data on disability pensions is the annual average stock in the district during the legislative period. Each is measured in relation to the size of the district's electorate. Expenditure data is available only from the Second Legislature onwards. We estimate models separately for the DC and the PSI. The models for the PSI begin in 1964, with the Fourth

Legislature, when the party first entered government. We do not believe that Socialist legislators would have been able to steer significant government resources to districts where they had large numbers of voters until entering the governing coalition.

In Table 5, we report estimations of the determinants of preference votes in the next election for all DC (PSI) deputies who ran again as well as for smaller sets of more successful deputies. Column 2 (5) of Table 5 reports coefficients for estimations using only the top 50 deputies in the DC (PSI), operationalized as the number of preference votes received at the end of the legislative session. Regardless of the sample analyzed, we find that the number of preference votes deputies who run again receive at time $t+1$ is positively and significantly associated with the number they received at time t . We interpret this to mean that successful legislators in these two parties construct individual followings that display a high level of persistence. We also find that Christian Democrats who served in government as ministers amassed more preference votes at the next election, suggesting they leveraged their access to governmental office to enlarge their clienteles.

Table 5 about here

Elite deputies are distinguished by their abilities to use allocations to their districts to their political advantage. Top ranking deputies are better than average deputies in transforming public expenditures into preference votes. Table 5 shows that the estimated coefficients for the top 50 vote-getters in each party are noticeably higher than those for all deputies. The number of preference votes received by elite deputies is positively and significantly related to the number of disability pensions steered to the district for both PSI and DC incumbents. This is particularly telling since disability pensions are a highly targetable good, whose recipient is a single individual who is typically aware of any partisan backing that may have encouraged or allowed a

medical practitioner to illegitimately secure a disability pension on his behalf. Lastly, we do not find any significant role for *malfeasant*, suggesting that suspected criminal incumbents did not successfully leverage illegal kickbacks to enlarge their vote followings.

Interpretation and Conclusion

Using a regression discontinuity design adapted to open-list PR, we examined candidates to two political parties in postwar Italy. We found a strong reselection effect for the country's dominant party, the DC, and a modest reselection effect for the smaller PSI. In both parties, near winners were more likely than near losers to secure a spot on the list for the subsequent election. Having secured a spot, however, we do not find any effect for reelection. First-term Christian Democratic deputies have no advantage in getting reelected whereas Socialist deputies have a small advantage. The entire advantage that a near-winner experiences lies with the greater probability of being relisted for the subsequent election.

These findings suggest that ordinary legislators were at the mercy of their party leadership for renomination. This accords with the standard interpretation of PR systems as those in which political parties control candidate selection. As a result, only a handful of elite deputies retained their seats after a few terms in office. Multivariate regression analysis of reselection of all DC and PSI deputies showed that elite deputies were those who created personal followings, exhibited in the large numbers of individual preference votes received.

This study is one of the first to unpack the concept of incumbency advantage in a multiparty and multimember political setting governed by open list proportional representation. Most of what we understand about how politicians manipulate the institutional and political environment to improve their chances of reelection comes from studies of the United States. There, it seems that both major parties and all legislators benefitted from the growing

incumbency advantage that occurred over the course of the twentieth century. The postwar Italian context, by contrast, is one in which only a small elite group enjoys a substantial and ongoing incumbency advantage. One interpretation of this is that in party organizations in which top leaders exercise control of candidate selection and political recruitment, these leaders erect high barriers to entry by their co-partisans in efforts to secure their control over the rents of office. Most backbenchers and even many ministers were churned out of the legislature at a relatively young age.

A question that arises from our findings concerns their generalizability. Prior research in other stable, wealthy democratic countries — most notably the United States — identifies significant electoral advantages for legislative incumbents. We do not find a similar pattern in postwar Italy. Our results support the speculation that a small powerful elite in each party manipulated reselection to fend off competitors for power within the party. We believe it is likely that environments where candidate selection is controlled by party leadership are also environments where these same elites use this control to protect themselves against others in their own party. The Italian pattern of candidate selection is probably typical: in most wealthy countries, parliamentary parties exercise far more control over the process than occurs in a system, such as that in the United States, that is characterized by separation of powers. Only future research can tell us if this pattern extends to other systems with strong central control over candidate selection. If so, this finding would upend the current distinction between wealthy democracies that offer incumbents electoral advantages and poorer countries where instead politicians experience only short legislative careers.

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References

- Ames, Barry. 1995. "Electoral Strategy under Open-List Proportional Representation." *American Journal of Political Science* 39(2): 406-33.
- Bearman, Peter S. and Parigi, Paolo. 2008. "Spaghetti Politics: Local Electoral Systems and Alliance Structure in Italy, 1984-2001." *Social Forces* 87(2): 623-49.
- Bleck, Jaimie and van de Walle, Nicolas. N.d. "Understanding Incumbency Advantage in Sub Saharan Africa." Unpublished paper.
- Butler, Daniel Mark. 2009. "A Regression Discontinuity Design Analysis of the Incumbency Advantage and Tenure in the U.S. House." *Electoral Studies* 28 (1): 123-28.
- Cain, Bruce and Ferejohn, John, and Fiorina, Morris. 1987. *The Personal Vote: Constituency Service and Electoral Independence*. Cambridge: Harvard University Press.
- Calonico, Sebastián, Cattaneo, Matías D., and Titiunik, Rocío. Forthcoming-a. "Robust Nonparametric Confidence Intervals for Regression-Discontinuity Designs." *Econometrica*.
- Calonico, Sebastián, Cattaneo, Matías D., and Titiunik, Rocío. Forthcoming-b. "Robust Data-Driven Inference in the Regression-Discontinuity Design." *The Stata Journal*.
- Carey, John M. and Shugart, Matthew Sobert. 1995. "Incentives to Cultivate a Personal Vote: A Rank Ordering of Electoral Formulas." *Electoral Studies* 14(4): 417-39.

- Caughey, Devin and Sekkon, Jasjeet S. 2011. "Elections and the Regression Discontinuity Design: Lessons from Close U.S. House Races, 1942-2008." *Political Analysis* 19(4): 385-408.
- Chang, Eric, Golden, Miriam, and Hill, Seth J. 2010. "Legislative Malfeasance and Political Accountability." *World Politics* 62(2): 177-220.
- Cox, Gary W. and Morgenstern, Scott. 1995. "The Incumbency Advantage in Multimember Districts: Evidence from the U.S. States." *Legislative Studies Quarterly* 20(3): 329-49.
- Crisp, Brian F. and Desposato, Scott W. 2004. "Constituency Building in Multimember Districts: Collusion or Conflict?" *Journal of Politics* 66(1): 136-56.
- Dahlgaard, Jens Olav. 2013. "You Just Made It: Individual Incumbency Advantage under Proportional Representation." Unpublished paper.
- De Magalhães, Leandro. 2012. "Incumbency Effects in Brazilian Mayoral Elections: A Regression Discontinuity Design." Working Paper No. 12/284, Centre for Market and Public Organisation, University of Bristol.
- Diermeier, Daniel, Keane, Michael, and Merlo, Antonio. 2005. "A Political Economy Model of Congressional Careers." *American Economic Review* 95(1): 347-73.
- Dunning, Thad. 2012. *Natural Experiments in the Social Sciences: A Design-Based Approach*. New York: Cambridge University Press.
- Eggers, Andrew and Spirling, Arthur. 2013. "Incumbency Advantage (and Disadvantage) in U.K. Parliamentary Elections, 1832-2001." Unpublished paper.
- Eggers, Andrew, Folke, Olle, Fowler, Anthony, Hainmueller, Jens, Hall, Andrew B., and Snyder, James M., Jr. 2015. "On the Validity of the Regression Discontinuity Design for

- Estimating Electoral Effects: New Evidence from Over 40,000 Close Races.” *American Journal of Political Science* 50(1): 259-74.
- Erikson, Robert and Titiunik, Rocío. 2013. “Using Regression Discontinuity to Uncover the Personal Incumbency Advantage.” Unpublished paper.
- Folke, Olle, Hirano, Shigeo, and Snyder, James M., Jr. 2012. “Patronage and Elections in U.S. States,” *American Political Science Review* 105(3): 567-85.
- Fowler, Anthony and Hall, Andrew B. 2012. “Disentangling the Personal and Partisan Incumbency Advantages: Evidence from a Structural Regression Discontinuity Design.” Unpublished paper.
- Freier, Ronny. 2011. “Incumbency as the Major Advantage: The Electoral Advantage for Parties of Incumbent Mayors.” Deutsches Institut für Wirtschaftsforschung Discussion Paper #1147, Berlin.
- Gehrke Ryff Moreira, Manoel. 2012. “Are Incumbents Advantaged? Evidence from Brazilian Municipalities.” Unpublished paper.
- Golden, Miriam A. 2007. “Datasets on Charges of Malfeasance, Preference Votes, Government Portfolios, and Characteristics of Legislators, Chamber of Deputies, Republic of Italy, Legislatures I-XI (1948-1994): Combined Data Set,” <http://hdl.handle.net/1902.1/10546> UNF:3:Ya6mG11twwDX1Ldw0T/O8w== Miriam A. Golden [Distributor] V1 [Version]. Available via Dataverse.
- Golden, Miriam A. and Min, Brian. 2013. “Distributive Politics Around the World,” *Annual Review of Political Science* 16: 73-99.
- Golden, Miriam and Picci, Lucio. 2008. “Pork Barrel Politics in Postwar Italy, 1953-1994.” *American Journal of Political Science* 52(2): 268-89.

- Hainmueller, Jens and Kern, Holger Lutz. 2008. "Incumbency as a Source of Spillover Effects in Mixed Electoral Systems: Evidence from a Regression Discontinuity Design." *Electoral Studies* 27(2): 213-27.
- Hirano, Shigeo and Snyder, James M., Jr. 2009. "Using Multimember District Elections to Estimate the Sources of the Incumbency Advantage," *American Journal of Political Science* 53(2): 292-306.
- Horiuchi, Yusaku and Leigh, Andrew. 2009. "Estimating Incumbency Advantage: Evidence from Multiple National Experiments." Unpublished paper.
- Imbens, Guido W. and Lemieux, Thomas. 2008. "Regression Discontinuity Designs: A Guide to Practice." *Journal of Econometrics* 142(2): 615-35.
- Katz, Jonathan N. and King, Gary. 1999. "A Statistical Model for Multiparty Electoral Data." *American Political Science Review* 93(1): 15-32.
- Katz, Richard S. 1986. "Intraparty Preference Voting." In *Electoral Laws and Their Political Consequences*, ed. Bernard Grofman and Arend Lijphart. New York: Agathon Press.
- Katz, Richard S. 2001. "The Problem of Candidate Selection and Models of Party Democracy," *Party Politics* 7(3): 277-96.
- Katz, Richard S. and Bardi, Luciano. 1980. "Preference Voting and Turnover in Italian Parliamentary Elections." *American Journal of Political Science* 24(1): 97-114.
- Kendall, Chad and Rekkas, Marie. 2012. "Incumbency Advantage in the Canadian Parliament." *Canadian Journal of Economics* 45(4): 1560-85.
- Klašnja, Marko and Titunik, Rocío. 2013. "Incumbency Disadvantage in Weak Party Systems; Evidence from Brazil." Unpublished paper.

- Lancaster, Thomas D. 1986. "Electoral Structures and Pork Barrel Politics." *International Political Science Review* 7(1): 67-81.
- Lee, David S. 2008. "Randomized Experiments from Non-Random Selection in U.S. House Elections." *Journal of Econometrics* 142(2): 675-97.
- Lee, David S. and Lemieux, Thomas. 2010. "Regression Discontinuity Designs in Economics." *Journal of Economic Literature* 48(2): 281-355.
- Linden, Leigh L. 2004. "Are Incumbents Really Advantaged? The Preference for Non-Incumbents in Indian National Elections." Unpublished paper.
- Llaudet, Elena. 2013. "Parties' Strategic Behavior as a Source of Incumbency Advantage: An Analysis of Spanish Senatorial Elections from 1977 to 2008." Unpublished paper.
- Lundell, Krister. 2004. "Determinants of Candidate Selection: The Degree of Centralization in Comparative Perspective." *Party Politics* 10(1): 25-47.
- Macdonald, Bobbie N.J. 2013. "Incumbency Disadvantages in African Politics? Regression Discontinuity Evidence from Zambian Elections." Unpublished paper.
- Matland, Richard E. and Studlar, Donley T. 2004. "Determinants of Legislative Turnover: A Cross-National Analysis." *British Journal of Political Science* 34(1): 87-108.
- Merlo, Antonio, Galasso, Vincenzo, Landi, Massimiliano, and Mattozzi, Andrea. 2009. "The Labor Market of Italian Politicians." Penn Institute for Economic Research Working Paper 09-024.
- Morales Carrera, Iván Javier. 2013. "Efecto Incumbente en Elecciones Municipales: Un Análisis de Regresión Discontinua para Guatemala." Unpublished M.A. thesis, Institute of Economics, Pontificia Universidad Católica de Chile.

- Roodman, David. 2006. "How to Do xtabond2: An Introduction to 'Difference' and 'System' GMM in Stata." Center for Global Development Working Paper 103.
- Shomer, Yael. 2014. "What Affects Candidate Selection Processes? A Cross-National Examination." *Party Politics* 20(4): 533-46.
- Titunik, Rocío. 2011. "Incumbency Advantage in Brazil: Evidence from Municipal Mayor Elections." Unpublished paper.
- Trounstine, Jessica. 2011. "Evidence of a Local Incumbency Advantage." *Legislative Studies Quarterly* 36(2): 255-80.
- Uppal, Yogesh. 2009. "The (Dis)advantaged Incumbents: Estimating Incumbency Effects in Indian State Legislatures." *Public Choice* 138(1): 9-27.
- Uppal, Yogesh. 2010. "Estimating Incumbency Effects in U.S. State Legislatures: A Quasi-Experimental Study." *Economics & Politics* 22(2): 180-99.

Tables and Figures

Table 1. Estimates of Reselection and Incumbency Effects

<i>Party</i>	Increase in the Probability of Reselection		Increase in the Probability of Reselection	
	<u>Method</u>	<u>Estimated effect</u>	<u>Method</u>	<u>Estimated effect</u>
DC			<i>No reselection correction</i>	
			OLS	-0.1953 (0.099) n = 847
			CCT	0.0074 (0.943) n=847
			<i>With reselection correction</i>	
	Probit	0.3053 (0.000) n = 4605	OLS	-0.0084 (0.947) n = 654
	CCT	0.2862 (0.000) n = 4605	CCT	0.1583 (0.130) n = 654
PSI			<i>No reselection correction</i>	
			OLS	0.3979 (0.116) n=565
			CCT	0.3267 (0.161) n=565
			<i>With reselection correction</i>	
	Probit	0.0361 (0.651) n = 4915	OLS	0.4900 (0.068) n=561
	CCT	0.0224 (0.783) n= 4915	CCT	0.4282 (0.092) n=561

Notes: The Probit and the OLS models fit fifth order polynomials. Reported *p*-values are based on robust estimators. The non-parametric CCT estimator is the robust interval estimator proposed by Calonico, Cattaneo and Titiunik (forthcoming-a and forthcoming-b). *P*-values in parentheses. In Column 2, “Reselection correction” omits from the analysis the 34.4 percent (4.95 percent) worst DC (PSI) performers at time *t*.

Table 2. Incumbency Effects on Reselection Probabilities in Future Elections

$t+j$		DC		PSI	
		coefficient	p -value	coefficient	p -value
$j=2$	Probit	0.2283	0.000	0.0126	0.875
	CCT	0.3002	0.000	0.1913	0.007
$j=3$	Probit	0.1718	0.001	-0.6583	0.339
	CCT	0.2196	0.000	0.0410	0.508
$j=4$	Probit	0.0721	0.054	-0.1211	0.090
	CCT	0.0529	0.128	-0.0175	0.768
$j=5$	Probit	0.0262	0.352	0.0856	0.128
	CCT	0.0240	0.328	0.0516	0.225

Note: The Probit model fits fifth order polynomials. Reported p -values are based on robust estimators. The non-parametric CCT estimator is the robust interval estimator proposed by Calonico, Cattaneo and Titiunik (forthcoming-a and forthcoming-b). Observations are 4,605 for the DC and 4,915 for PSI.

Table 3. Frequency Distribution of the Total Numbers of Terms Served in Parliament by DC and PSI Deputies (1948-1992)

Terms	DC			PSI		
	Frequency	Percentage	Cumulative percentage	Frequency	Percentage	Cumulative percentage
1	313	31.36	31.39	119	36.39	36.39
2	221	22.14	53.46	88	26.91	63.30
3	151	15.13	68.61	56	17.13	80.43
4	147	14.73	83.35	32	9.79	90.21
5	74	7.41	90.77	17	5.20	95.41
6	52	5.21	95.99	10	3.06	98.47
7	19	1.90	97.89	3	0.92	99.39
8	11	1.10	99.00	1	0.31	99.69
9	5	0.50	99.50	0	0.00	99.69
10	5	0.50	100	1	0.31	100
Total	998	100		327	100	

Table 4. Probit Estimations of Determinants of Reselection, DC and PSI Deputies

	DC	PSI
DDC_dif	-0.007 (0.017)	
DPSI_dif		0.022 (0.073)
National ranking	-0.001*** (0.000)	-0.001 (0.002)
Minister	0.350** (0.140)	(omitted)
Undersecretary	0.221** (0.100)	0.282 (0.271)
Malfeasant	0.087 (0.150)	0.167 (0.342)
Age	0.069 (0.049)	0.046 (0.053)
Age squared	-0.001** (0.000)	-0.001 (0.001)
Sex	-0.149 (0.185)	-0.361 (0.572)
Education	0.012 (0.029)	0.131* (0.073)
Party office	-0.020 (0.016)	-0.030 (0.045)
First successratio	0.002 (0.012)	0.219 (0.156)
2 terms	-0.238 (0.183)	-0.173 (0.297)
3 terms	-0.527*** (0.194)	-0.569 (0.381)
4 terms	-0.671*** (0.201)	-0.089 (0.437)
5 terms	-0.631*** (0.222)	-1.153** (0.470)
6 terms	-0.798*** (0.244)	1.705* (0.973)
7 terms	-0.439 (0.339)	-1.146 (0.925)
8 terms	-0.628* (0.349)	(omitted)
9 terms	0.084 (0.660)	(omitted)
10 terms	-0.066 (0.818)	(omitted)
N	1563	251
Pseudo-R ²	0.145	0.260

Notes: Observations are deputies. Legislative dummies and constant not reported. Robust standard errors in parentheses. PSI estimates start with the Fourth Legislature. *** p<0.01; **p<0.05; *p<0.10.

Table 5. Multiple Regression Estimations of Determinants of the (Logged) Number of Preference Votes, DC and PSI Deputies

	1 All DC deputies	2 Top 50 DC deputies	3 All PSI deputies	4 Top 50 PSI deputies
Pref votes (lagged)	0.844*** (0.025)	0.775*** (0.081)	0.876*** (0.038)	0.953*** (0.074)
Minister	0.170*** (0.037)	0.135*** (0.045)	0.041 (0.078)	0.016 (0.091)
Undersecretary	0.093*** (0.023)	0.036 (0.045)	0.016 (0.067)	0.023 (0.091)
Malfeasant	0.003 (0.024)	-0.041 (0.063)	-0.046 (0.054)	-0.014 (0.068)
District magnitude	0.030* (0.017)	-0.018 (0.043)	-0.024 (0.047)	-0.057 (0.070)
Education	0.013* (0.007)	0.003 (0.014)	0.018 (0.016)	0.022 (0.026)
Party office	0.006** (0.003)	0.011 (0.007)	0.005 (0.008)	0.021** (0.010)
Investments	0.054* (0.028)	0.145** (0.058)	-0.007 (0.073)	-0.001 (0.104)
Disability pensions	0.018 (0.070)	0.345** (0.170)	0.400*** (0.137)	0.667*** (0.185)
N	1305	282	298	159
R ²	0.728	0.491	0.800	0.725

Notes: OLS estimates. Dependent variables are logs of the number of preference votes received by each party's sitting deputies (or the party's top 50 recipients of preference votes) in the election at the end of the legislature. Independent variables all measured in the legislative period prior to that election. Legislative dummies and constant not reported. Robust standard errors in parentheses. PSI estimates start with the Fourth Legislature. *** p<0.01; **p<0.05; *p<0.10.

Figure 1A. Graphical Results of Regression Discontinuity for Reselection Effect

DC

PSI

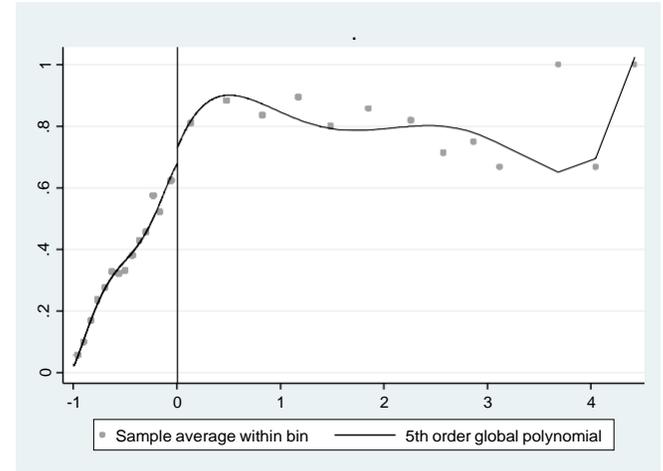
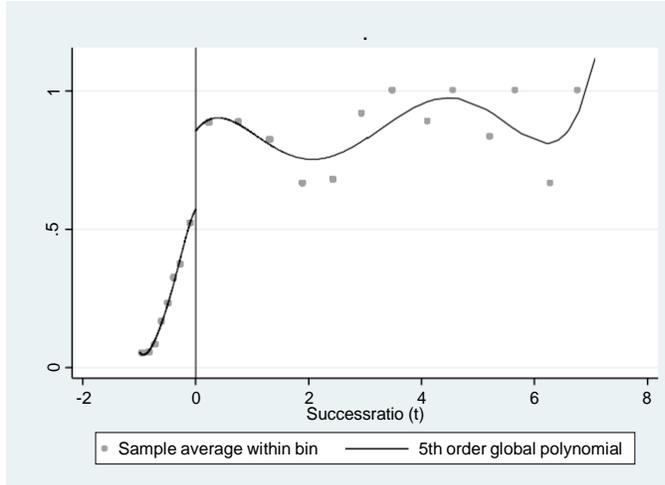
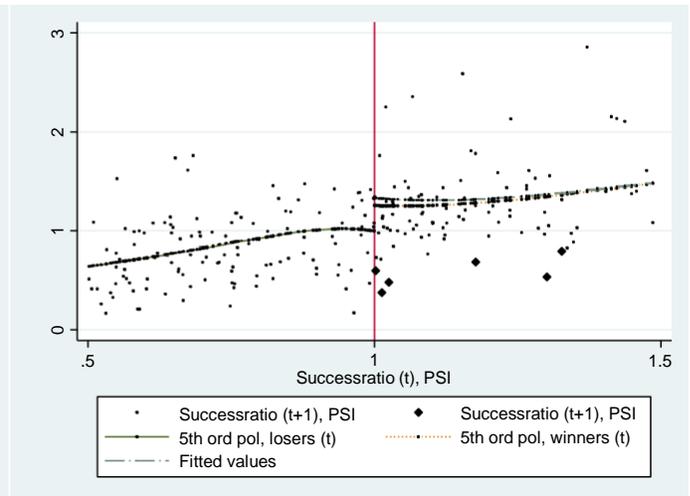
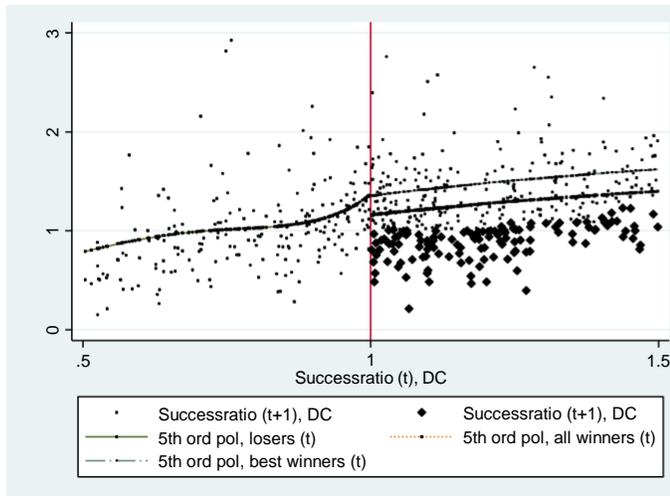


Figure 1B. Graphical Results of Regression Discontinuity for Incumbency Effect (Upper Bound)

DC

PSI



Notes: *Successratio* is equal to the number of preference votes received by the candidate divided by the average of (1) the number of preference votes received by the most voted non-elected candidate and (2) the least voted elected candidate, both in the same party and electoral district. The reselection effect is the increase in the probability of being relisted by the political party due to incumbency. The incumbency effect is the increase in *Successratio* following incumbency. The diamond-shaped observations shown Figure 1B, left panel, are discarded to compute an upper-bound of the incumbency effect.

Endnotes

¹ In federal political systems, the relevant legislator may be at the state level, and some credit may be shared with local politicians (e.g. mayors).

² We know of only one other article that implements an RD analysis to study incumbency advantages of elected officials under proportional representation. After completing the most recent version of the present article, we became aware of Dahlgaard 2013. The article (publicly available, but labeled “Do not cite or circulate”) implements a method essentially identical to ours in the context of Danish municipal elections.

³ The dataset does not report the candidate’s position on the party list. As a result, we cannot analyze the interaction between list placement and votes received. Prior research (Katz and Bardi 1980) finds that placement was electorally important only for the individual given the list’s topmost position (*capolista*).

⁴ In cases where an individual was elected having stood in multiple districts, we assign him to the district whose seat he selected and we cumulate his preference votes from the other districts in which he ran.

⁵ Erikson and Titiunik 2013 and Fowler and Hall 2012 analyze the relationship between party and personal incumbency effects.

⁶ Because legislators serve so few terms on average, estimating first-term incumbency effects gives us the largest number of observations.

⁷ For general treatments, see Imbens and Lemieux 2008, Lee and Lemieux 2010, and Dunning 2012, ch. 3.

⁸ In our dataset, the largest constituency elected 44 deputies.

⁹ Adapting the RD design to the present context requires defining the unobservable minimum number of preference votes needed to be elected. From the perspective of the most-voted loser, this minimum corresponds to the number of preference votes obtained by the least-voted winner plus one. On the other hand, for the least-voted winner, the minimum number of votes needed to be elected corresponds to the number of preference votes obtained by the most-voted loser plus one. Averaging these two quantities is a neutral way to identify the cut point for the RD design.

¹⁰ A bottom-ranked winning DC or PSI candidate could be elected with as few as 5,471 preference votes (a Socialist from the constituency of Cremona-Mantova in the Second Legislature) or as many as 77,086 preference votes (a Christian Democrat elected from the constituency surrounding Naples in the Eighth Legislature). The measure *successratio* standardizes the number of votes required to win a seat despite the large variations that characterize district magnitude and the numbers of candidates elected for each party in each district.

¹¹ Deputies who served at the end of World War II in the *Costituente* legislature that drafted the Constitution of the Italian Republic are excluded from the regression discontinuity analysis, since the purpose of that assembly should not be expected to have produced incumbency effects.

¹² We estimate reselection effects at the discontinuity. Away from the discontinuity, the effect is likely to have a different size. Assuming the same size of the reselection effect for all values of $successratio_t > 1$ is inconsequential, however, since we are interested in estimating the upper bound of the incumbency effect precisely *at* the discontinuity.

¹³ Information on potential covariates is drawn from the parliamentary records, which do not include the never-elected.

¹⁴ Italian political parties had an incentive to exclude a deputy after two terms of legislative service because the deputy was then eligible for a full government pension and could work for his party for free. An analysis of occupations of a representative sample of deputies leaving the Chamber between 1947 and 2007 reports that 54 percent take permanent jobs within their party organizations (Merlo et al. 2009, p. 42). Other deputies losing seats in the Chamber moved into one of the many public jobs that existed (on the plethora of these, see Bearman and Parigi 2008).

¹⁵ This is distinctly at odds with the widespread impression (at least in Italy) that the Italian parliament comprised a permanent political elite in office for the entire postwar era.

¹⁶ The measure excludes charges such as libel and slander that a politician naturally risks incurring during his professional life.

¹⁷ A theoretically more precise formulation would study whether movement into party office at time t favored relisting at $t+1$, but the data available report only whether an individual ever held higher party office. Information on the exact period is not included.

¹⁸ Our dataset is missing information on party experience and education for about 3 percent of DC legislators and 18 percent of PSI legislators.

¹⁹ Obviously, the negative effect is after controlling for other factors that play in favour of reselection and that correlate positively with tenure, such as the number of preference votes received and serving in government.

²⁰ These proportions are large, suggesting that disability pensions were used to soak up unemployment in a context in which unemployment benefits were almost nonexistent.