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Bittersweet Fruits of Incumbency
Evidence from India

August 16, 2018

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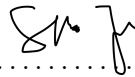
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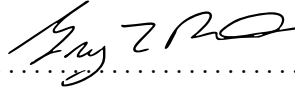
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Abstract

Casual effects of incumbency (holding public office) have enjoyed extensive academic attention since the 1970s. Regression discontinuity (RD) designs that allow for quasi-random assignment of incumbency status have gained popularity in the past decade and replaced older estimation strategies that were provably biased. However, selection bias induced by candidate attrition threatens the internal validity of such designs. I study incumbency effects in elections to the Lok Sabha, the lower house of the Indian parliament, using RD designs and find that candidates who barely win (and become incumbents) are 10.4 percentage points more likely to contest the subsequent election compared to candidates who barely lose (and become non-incumbents), an increase of 32.68%. In fact, this incumbency advantage has increased to 14.4 percentage points post-1991. Furthermore, I find systematic differences between non-incumbents who rerun and those who do not: non-incumbents that are more experienced and represent larger parties, with presumably higher chances of winning, are more likely to contest again. As much fewer non-incumbents contest the next election and candidate attrition is non-random, it follows that the casual effect of incumbency on any outcome of interest (that is unobserved for non-contestants) in the next election is biased. Finally, I find an upper bound on the incumbency effect on the probability of victory in the subsequent election and show the absence of any incumbency advantage in elections to the Lok Sabha.

Keywords: *Incumbency Effect, Cost of Ruling, India, Regression Discontinuity.*

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Dedicated to my first teacher of politics, my late grandfather. . .

“It is in the nature of democracies, perhaps, that while visionaries are sometimes necessary to make them, once made they can be managed by mediocrities.”

Ramachandra Guha

India After Gandhi: The History of the World’s Largest Democracy (2007)

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Abbreviations

BJP	B haratiya J anta P arty
CER	C overage E rror R ate
ENOP	E ffective N umber O f P arties
IMSE	I ntegrated M ean S quared E rror
INC	I ndian N ational C ongress
MSE	M ean S quared E rror
RD	R egression D iscontinuity
SC	S cheduled C aste
ST	S cheduled T ribe
UT	U nion T erritory

Chapter 1

Preliminaries

1.1 The Indian Political System

India gained independence from Britain on August 15, 1947 and the Indian constitution was adopted 29 months later, on January 26, 1950. Today, India is a federal union of thirty-six states and union territories ruled by a central (union) government.

However, the the Indian union differs substantially from other federal structures. Firstly, state governments are not completely autonomous. Functions of the State are divided into three lists — the union list, the state list and the concurrent list. While the state governments enjoy complete autonomy over items in the state list, they cannot rule over items in the union list and the union government can overrule state governments on items in the concurrent list. Secondly, Indian federalism is asymmetric in that certain states enjoy special privileges¹. Thirdly, the union government reserves the power to dissolve state legislatures (and disband state governments) in exceptional circumstances² [Dua 1979; Tillin 2006].

¹States like Assam, Sikkim and Jammu & Kashmir enjoy greater autonomy in some aspects than other states. For example, only residents of Jammu & Kashmir are allowed to purchase immovable property in the state.

²Under Article 356 of the Indian constitution, the union government can take direct control of a state if the respective state government is unable to function according to constitutional provisions (common reasons include the breakdown of an incumbent coalition, its failure to win a vote of confidence or a hung assembly).

1.1.1 Institutional Background

The union legislature (parliament) comprises of an upper house (Rajya Sabha) and a lower house (Lok Sabha). Most state legislatures are unicameral and comprise of a single lower house (Vidhan Sabha) while some larger states have bicameral legislatures including an upper house (Vidhan Parishad).

This study focuses on the elections to the Lok Sabha. All Indian citizens above the age of eighteen vote to elect 543 members, while 2 are nominated by the President from the Anglo-Indian community for a total of 545 members of the Lok Sabha. Some Lok Sabha constituencies can only be contested by members of historically disadvantaged groups designated as either Scheduled Castes (SCs) or Scheduled Tribes (STs)³. The tenure of the Lok Sabha is 5 years but as in other parliamentary systems, election timing is endogenous and elections may be called earlier.

The Prime Minister is the leader of the party or coalition enjoying majority support in the Lok Sabha and wields real political power while the President is a nominal figurehead elected through an indirect election, by members of state and union legislatures.

An independent Delimitation Commission draws constituency boundaries for the Lok Sabha. Boundaries have been redefined thrice since they were originally set for the General Election to the 1st Lok Sabha in 1951-1952: in 1963, 1973 and 2008. Under a 1976 constitutional amendment, constituency boundaries were frozen until after the 2001 census to ensure that states family planning efforts did not jeopardize their representation in the Lok Sabha. The 2008 delimitation relied on 2001 census figures under the provisions of Delimitation Act 2002, which also amended the constitution to delay the next delimitation of constituencies until the first census after 2026⁴ [ECI 2018a].

³In the 16th Lok Sabha, 84 constituencies are reserved for SCs and 47 are reserved for STs. While the candidates can only be from historically disadvantaged groups, the electorate includes all voters in the constituency.

⁴Fertility rates across states have sharply diverged since the beginning of family planning efforts in 1970s. Southern states including Kerala (1.63), Tamil Nadu (1.67), Karnataka (1.84) & Andhra Pradesh (1.8) have fertility rates well below the replacement level of 2.1. However, fertility rates in the northern states of Rajasthan (2.34), Uttar Pradesh (2.64), Bihar (3.34) & Madhya Pradesh (2.24) still hover above it. Even though fertility rates are falling across all states, the seat share of southern states in the Lok Sabha will likely decrease in the next delimitation, effectively punishing these states for their superior family planning efforts. The government may have delayed it until 2031 (the first census after 2026), but a complete re-imagination of the institution of the Lok Sabha will be inevitable in the wake of Southern protests.

An independent Election Commission of India (ECI), a constitutional body, organizes and oversees the elections to state and union legislatures. Due to the massive size of the electorate, elections to the Lok Sabha are conducted in multiple phases and Electronic Voting Machines (EVMs) now employed. The most recent General Election, to the 16th Lok Sabha, was also the longest and lasted more than a month. Of the 814.5 million total eligible voters, 66.38% voted in nine phases at 930,000 polling booths manned by over 16.5 million ECI officials and civilian employees [MEA 2014].

Elections to each Lok Sabha constituency employ a plurality voting mechanism. Voters cast a single non-transferable vote in favor of any candidate contesting from their constituency (or the NOTA option discussed below). Within each constituency, the candidate polling the most votes wins the election.

In September 2013, the Supreme Court ruled that voters have the right to register a “none of the above” vote, noting their disapproval of all candidates in the fray. Since the ruling, the Election Commission has offered a “none of the above” (NOTA) option on the EVMs for all elections⁵. Over 6 such million NOTA votes (1.1%) were polled in the 2014 General Election.

The Representation of the People Act (1951) guarantees every Indian citizen — as long as they are older than 25⁶ — the right to contest elections to the Lok Sabha, amongst other elected bodies. Individuals can freely contest elections as independents, and so can free associations of like-minded individuals, which compete as unregistered parties.

However, to enjoy the provisions (mostly tax benefits for both parties and their donors) for political parties under the 1951 act, all such associations must register with the ECI to become registered parties. The Election Commission then recognizes some registered parties as *national* and *state* parties. Such recognition grants privileges like exclusive election symbols and free broadcast time on publicly run radio stations (*Akashvani*) and television channels (*Doordarshan*) during General Elections.

⁵However, NOTA votes are considered invalid votes and do not affect the outcome of the election. This is in sharp contrast to practice in other democracies (Greece, Ukraine, Colombia, Bangladesh, Bulgaria) that provide voters with a NOTA option.

⁶Although all adult Indian citizens (over 18) can vote, the minimum age of candidacy is 25 years for the Lok Sabha and 30 years for the Rajya Sabha even though the average age of the Indian population is 27.6 years. Unsurprisingly, the 16th Lok Sabha has two members below the age of 30.

Recognition as a state party (of a specific state) is granted through a complex criteria that incorporates both vote share and seat share [PIB 2014]. At its simplest, any party that either wins at least 3% of seats or polls at least 8% of votes in the state in either a General Election or a Vidhan Sabha election is recognized as a state party (the full criteria is outlined in Section B.1 of Appendix B).

Similarly, a party is recognized as a national party if it wins at least 2% of seats in the Lok Sabha (currently 11 seats) in 3 states (each) or polls at least 6% of votes in 4 states in either a General Election (and wins at least 4 seats in each state) or a Vidhan Sabha election. A party with state recognition in 4 states also qualifies for national recognition.

National parties are distinctly larger and better funded than state parties & unrecognized parties (see Table 1.1). Currently, the Election Commission recognizes 7 national parties and 49 state parties [ECI 2016]. The Indian National Congress (INC) & the Bharatiya Janta Party (BJP) are the most important national parties and lead the two largest political coalitions.

<i>Name</i>	Political Party	<i>Abbr.</i>	Income (million ₹)	
			<i>2015-16</i>	<i>2016-17</i>
<i>All India Trinamool Congress</i>		AITC	345.78	63.9
<i>Bharatiya Janta Party</i>		BJP	5708.6	—
<i>Bahujan Samaj Party</i>		BSP	473.85	1735.8
<i>Communist Party of India (Marxist)</i>		CPM	1074.8	1002.56
<i>Indian National Congress</i>		INC	2615.6	—
<i>Nationalist Congress Party</i>		NCP	91.37	172.35
<i>All India Anna Dravida Munnetra Kazhagam</i>		AIADMK	548.38	488.8
<i>Samajwadi Party</i>		SP	793.3	827.6
<i>Shiromani Akali Dal</i>		SAD	68.49	218.9
<i>Shiv Sena</i>		SHS	92.6	318.2
<i>Telugu Desam Party</i>		TDP	159.78	729.2

*INC and BJP have not submitted audits for 2016-17. Source: ECI.

TABLE 1.1: Income of popular National (*top*) and State (*bottom*) Parties in 2015-2017.

Almost all political parties in India exhibit centralized decision-making structures. Contrary to expectation, larger national parties are the most centralized with most important decisions taken by the party president’s coterie — colloquially referred to as the “high command”. Although various state units of these national parties are granted nominal independence, the “high command” wields real power not only in national elections

but also in state elections. The following conversation on the Karnataka Vidhan Sabha Election illustrates this point.

Abhishek Manu Singhvi (Spokesperson, INC): BJP has gained in Karnataka as an anti-incumbent force. Let's wait until all the elections results are in, I am confident that the Congress will form the government again.

Prannoy Roy (Journalist, NDTV): If you do win, have you decided who your Chief Minister is going to be?

(Singhvi responds)

Roy: I am so glad you did not use the word "high command"!

Singhvi: No look, if it's going to be the incumbent Chief Minister, it is always subject to [the wishes of] the Congress members of the new Vidhan Sabha under the observation of a "high command" observer...

Various institutional factors have precipitated this concentration of political power at the top of the party hierarchy. Since the 52nd constitutional amendment in 1985, MPs risk expulsion from the house if they defy the party whip during a house vote [Khanna and Shah 2012]. This severely impedes an MP's ability to represent their constituents, as their constituents' interests are not often aligned with the interests of the party "high command". Consequently, it is much harder for incumbent MPs to build a personal vote and they must rely on patronage of the party leaders for renomination in the subsequent election.

Furthermore, there are no primary elections to decide party nominees for Lok Sabha constituencies, which further reduces incentives to build a personal vote. In fact, a candidate's chances of winning a party nomination for a Lok Sabha seat are largely determined by their relationship with the "high command". Unsurprisingly, the Indian political economy continues to be fueled by patronage to this day.

1.1.2 Political History

Elections to the Lok Sabha were dominated by the INC, India's oldest political party, until 1989. The Congress led India to Independence, and its leader Jawaharlal Nehru

became India's first Prime Minister. The party subsequently held power for 42 years until 1989 with a brief recess of 3 years⁷.

Multi-party democracy flourished in India as soon as the Congress, marred by allegations of corruption in military procurement, lost the General Election to the 9th Lok Sabha in 1989. For 25 years, no party was able to muster an outright majority in Lok Sabha, until the BJP did it in 2014, winning 282 of 543 seats in the 16th Lok Sabha.

After the 1989 General Elections, as the political environment became much more competitive, the average number of candidates in each constituency swelled. The ECI increased the election deposits and nomination requirements in 1996⁸ [ECI 2018b]. Throughout the 1990s, the number of nationally competitive political parties also increased significantly as smaller state and regional parties looked for larger roles in national politics (see Figure 1.1). The control of the Lok Sabha began to shift between coalitions and no one party could expect to win.

The last decade of the 20th century also witnessed the resurgence of the Hindu right-wing and communal (most notably Hindu-Muslim) conflicts became powerful drivers of national political discourse. In the eye of this communal storm was a 16th century mosque in Ayodha, Uttar Pradesh built on orders of then Mughal emperor Babur and hence called Babri Masjid, *Mosque of Babar*. Some claimed that the site of the mosque was the birthplace of Lord Rama and a temple that had originally existed on the site was razed to build the mosque. Political parties representing the Hindu right (lead by the BJP) grabbed this opportunity and their leaders led a nationwide agitation against the mosque, which culminated in a political rally next to it in December 1992. Amidst the sloganeering, the crowd of 150,000 turned violent, entered the complex armed with pick-axes & demolished the mosque [Chhibber and Misra 1993].

The demolition of the Babri Masjid led to widespread riots throughout the country and 1993 bomb blasts in Mumbai. Over 2,000 people were killed in the aftermath [Bacchetta

⁷Ahuja and Paul [1992] note that the November 1989 General Elections in India put an end to what was widely accepted as the unavoidable and permanent monopoly of power by a single party in power.

⁸Prior to 1996, the deposit for elections to the Lok Sabha was ₹250 for SC/ST candidates and ₹500 for all others. Over the past two decades, the ECI has steadily increased the deposit in order to deter frivolous candidates. In the 2014 General Election, the deposit amount was ₹12,500 for SC/ST candidates and ₹25,000 for all others.

⁹The effective number of parties is computed as $\frac{1}{\sum_{i=1}^n p_i^2}$ where n is the number of parties with at least one vote and p_i is a party's proportion of all votes [Laakso and Taagepera 1979].

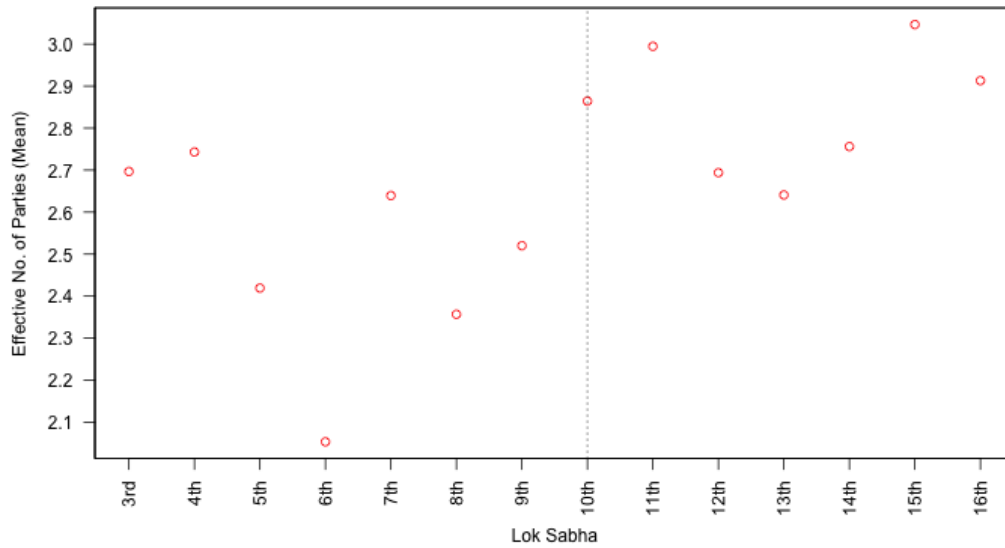


FIGURE 1.1: Effective Number of Parties⁹ in General Elections

2000]. The Ayodhya dispute continues to shape the political narrative in explicit terms — the BJP committed to constructing a temple devoted to Lord Rama on the disputed site in its electoral manifesto in 2014. The site currently remains locked, on orders of the Supreme Court, while the court prepares to deliver its judgement later this year.

Through this bloody decade, multiple coalition governments were formed, some led by non-Congress Prime Ministers. The political instability at the union level only ended with BJP Prime Minister Atal Bihari Vajpayee's term (1999-2004), who became the first non-Congress Prime Minister to finish a term in office. However, his coalition, the National Democratic Alliance (NDA) was defeated in the 2004 General Elections by the United Progressive Alliance (UPA) headed by the Congress. The UPA maintained its majority in the 2009 General Elections, but allegations of corruption in telecom spectrum allocation along with a slowing economy precipitated a handsome victory for the NDA, led by Narendra Modi, in 2014.

1.1.3 Incumbency Effects in Political Discourse

As the tumultuous 1990s changed politics in India forever, incumbents now found it harder to retain their seats in subsequent elections. Political discourse preceding elections soon became dominated by analyses of the impact of *anti*-incumbency, a loose term used by politicians, political analysts and the media¹⁰ alike to refer to prevailing voter sentiments against the incumbent government. Consider the following observation by the *New York Times* following the 2004 General Election to the 14th Lok Sabha:

The Bharatiya Janata Party had constructed an American-style presidential campaign around Mr. Vajpayee's perceived popularity, adopting a slogan of "India Shining" and producing campaign materials focused almost exclusively on him. But their strategy ran aground on the realities of the Indian parliamentary system, in which voters turned on incumbent legislators who they felt had done little to deliver. Indian voters are known for their anti-incumbent attitudes, and the majority of sitting legislators were rejected in the three-week election. Among those who lost their seats were several high-profile cabinet ministers, including Yashwant Sinha, the foreign minister, and Murli Manohar Joshi, the minister of human resources and development.

Today, every election in India — both at the union and at the state level — is analyzed through this lens. The voters' appraisal of incumbents (& the incumbent government) and the ensuing voter sentiment (positive or negative) is considered the best predictor of the subsequent election. Much anecdotal evidence suggests a disadvantage to incumbency in subsequent elections [Uppal 2009]. In the past month alone, there have been numerous such instances of politicians alluding to an incumbency disadvantage:

- July 29, 2018: A *Times of India* report quoted BJP leaders citing an anti-incumbency factor against their current MPs in Karnataka as reason behind the party deciding "to field new faces in the 2019 General Election" [ToI 2018].

¹⁰Recent examples include the TIME Magazine, which noted that Narendra Modi's 2014 victory was "fueled by a strong anti-incumbency sentiment across the country".

- July 28, 2018: The Chief Minister (CM) of Mizoram Lal Thanhawla said "till now there is no anti-incumbency." His party (Congress) has 32 of 40 seats in the Mizoram Vidhan Sabha and he has been elected to the office of CM five times. Polls are due in November 2018 [ET 2018].
- July 14, 2018: The CM of Chhattisgarh Raman Singh said "the BJP is in power since December 2003 and there is still no anti-incumbency". He is the longest serving BJP CM (over 14 years). The state heads to polls in late 2018 [FE 2018].

However, from these statements (or many others like these), it is not immediately clear what the term *anti-incumbency* constitutes. There are multiple ways of interpreting it, which immediately affect our understanding of any empirical evidence. In the following chapters, I consider the two most well-known and extensively studied interpretations.

- Is *anti-incumbency* the loss in popular support of individual incumbent Members of Parliament (MPs), perhaps mediated by their party/coalition affiliation? If yes, then *anti-incumbency* would refer to a causal negative impact of incumbency (at the individual level) on the probability of winning in subsequent elections, or an *incumbency disadvantage*.
- Is *anti-incumbency* the loss in popular support of a ruling (incumbent) government in subsequent elections? If yes, then academics have long known that on average, parties in power (or ruling parties) lose vote share in subsequent elections. The literature on vote and popularity functions terms this loss in popularity amongst voters a *cost of ruling*.

The final section of this chapter surveys relevant prior work associated with both these interpretations, and introduces theoretical prerequisites to the studies presented in later chapters.

1.2 Related Literature

1.2.1 Incumbency Effects

The effects of incumbency (or holding public office) on outcomes in subsequent elections were first studied in developed democracies. Alford and Hibbing [1981] note that much of the early interest was prompted by a documented decline in marginal state legislative districts and thereby the number of close elections in the United States. It has since been the subject of much academic attention and has been extensively analyzed. Current research points to a significant advantage enjoyed by incumbent candidates in elections in developed democracies.

This advantage is believed to stem from a variety of factors, including the incumbent's ability to use office to cultivate a personal vote & deter high-quality challengers, recognition of the incumbent's name by voters and pro-incumbent redistricting [Gelman and King 1990; Ansolabehere and Snyder Jr 2002; Cattaneo et al. 2015, and references therein].

In the United States, incumbents enjoy an advantage in elections to all political offices. Incumbents accrue a vote-share advantage of 5.3 percentage points in elections to state legislatures and are 30 percentage points more likely to win in the next election than non-incumbents. In elections to the U.S. House of Representatives, this incumbency advantage grows to 8 percentage points and to about 9 percentage points in elections to the U.S. Senate [Gelman and Huang 2008; Uppal 2010; Cattaneo et al. 2015].

Incumbent MPs in the Westminster systems of Britain (0.5-1.8 percentage point increase in vote-share) and Canada (2.46-4.2 percentage point increase in vote-share) also enjoy a similar if not as significant an advantage in subsequent elections [Ansolabehere and Gerber 1997; Kendall and Rekkas 2012].

Incumbents are slightly advantaged even in mixed member proportional (MMP) electoral systems — that combine single-member districts (SMD) with proportional representation (PR) — found in Germany¹¹ (1.4-1.7 percentage point increase in vote-share),

¹¹The vote-share listed is the PR vote-share.

Japan¹² (0.6 percentage point increase in vote-share) and New Zealand¹³ (up to 12 percentage point increase in probability of victory) [Hainmueller and Kern 2008; Freier 2015; Ariga et al. 2016; Karp 2009].

With academic interest in the study of developing democracies spawning a field of its own, the effect of incumbency also has been studied in these new contexts, which are likely to be very different from those in developed democracies.

Contrary to a demonstrated incumbency advantage in developed democracies, incumbents in developing democracies routinely face a disadvantage that may lower probability of their victory in the next elections.

India was one of the first developing democracies to be studied in this context. Linden [2004] estimates an incumbency disadvantage of 14 percentage points in the probability of victory in General Elections post-1991. Uppal [2009] finds an incumbency disadvantage of 15 percentage points in the probability of victory in subsequent elections to state Vidhan Sabhas before 1991. Post-1991, as elections have become more competitive in India, this disadvantage has also grown to 22 percentage points.

Incumbency disadvantage has also been documented in Brazilian provincial elections (25-34 percentage point decrease in probability of victory), in Romanian municipal elections (11 percentage point decrease in probability of victory), in Zambian¹⁴ local elections (7.5 percentage point decrease in vote-share) and in elections to the National Assembly of South Korea¹⁵ (3-7 percentage point decrease in vote-share) [Klašnja and Titunik 2013; Klašnja 2015; Macdonald 2014; Roh 2017].

Furthermore, frequent turnover in presidential elections across many other Latin American countries and low re-election rates of political parties in much of Eastern Europe have been observed. Incumbents have also widely failed to seal re-election in the Pacific nations of Papua New Guinea, Vanuatu and the Solomon Islands [Molina 2001; Pop-Eleches 2010; Roberts 2008; Fraenkel 2004; Trease 2005].

¹²The vote-share listed is the SMD vote-share.

¹³The small incumbency advantage varies by party, and is highest for the Labour Party.

¹⁴Incumbents face a 19.6 percentage point decrease in the probability of victory relative to non-incumbents.

¹⁵Serving a term in office reduces the probability of victory by around 20-30 percentage points

Despite this growing evidence of incumbency disadvantages around the world, the study of causal mechanisms has focused largely on incumbency advantages. Nevertheless, the range of mechanisms proposed in explanation of incumbency advantages relate closely to possible dynamics at play in incumbency disadvantages [Macdonald 2014; Klačnja and Titunik 2013].

Models of political accountability highlight the role of incumbent signaling and information manipulation, where incumbents use benefits of public office to strategically manipulate their own efforts and voter information in order to signal desirability to voters [Besley 2006; Ashworth 2005; Serra and Moon 1994].

Similar to incumbency advantages that may arise through a deterrence effect (in which high-quality challengers strategically choose to run in constituencies where an incumbent candidate is not running for re-election), incumbency disadvantages can arise through a *reverse-deterrence* effect — if opposition parties strategically nominate their strongest candidates to run against incumbents in competitive constituencies [Aidt et al. 2011].

Incumbency disadvantages in many low or middle income countries have also been attributed to poor economic conditions and weak management of the economy by incumbents [Macdonald 2014; Uppal 2009; Lewis-Beck and Stegmaier 2008; Molina 2001]. Furthermore, poorer and less educated voters (that form a significant portion of the electorate in these countries) are more easily manipulated and intimidated by political elites [Crook et al. 1998; Bardhan and Mookherjee 2006]. High levels of political corruption and rent-seeking may also result in persistent incumbency disadvantages, inevitably leading to a *pessimistic politics trap* in which voters come to expect little from incumbents who in turn perform poorly [Svolik 2013; Myerson 2006; Macdonald 2014]. Incumbents may extract increasing rents over time through institutional learning and political networking, causing voters to prefer inexperienced challengers over entrenched rent-seeking incumbents [Klačnja 2016]. Incumbency disadvantages may also be amplified if weak political parties are unable to deter legislators from such rent-seeking behavior [Klačnja and Titunik 2013].

1.2.2 Cost of Ruling

Consider election $t + 1$ where the incumbent ruling coalition receives vote share v_{t+1} and let v_t be the vote share of the same parties in election t . The incumbent government's gain is $\Delta v = v_{t+1} - v_t$. Empirical studies of vote and popularity functions have consistently shown that on average Δv is negative i.e. ruling parties lose vote share in subsequent elections. This erosion of popular support is termed the cost of ruling.

The existence of such a cost imposed on ruling parties is well-known in developed democracies. In fact, Paldam and Nannestad [2003] note that few facts are so robust – and so little discussed — in political economy as the one that it costs votes to rule.

The cost of ruling presents an apparent paradox within any rational voter paradigm. The luck and ability of ruling coalition may vary, but — by definition — the average government must rule exactly as a rational voter expects and so voters should vote as before. Consequently, election outcomes could vary but should have no systematic component i.e. there should be no cost of ruling per se. It then seems irrational that voters punish the average government by voting against it in the next election. [Paldam and Skott 1995; Paldam and Nannestad 2003].

Although the cost of ruling is well-known, its causal mechanism is poorly understood. A range of mechanisms have been proposed in explanation of this apparent paradox.

If the electorate is considered a large collection of interest groups, any party (or parties) must forge a majority coalition of these groups in order to form government. Notice that it is easier for opposition parties (than ruling parties) to forge such a coalition because they can be inconsistent in their promises to various interest groups¹⁶. When the opposition parties gain power in t , they have to make actual choices and decisions ought to be more consistent than electoral promises. Thus, the true preferences of the (now) ruling parties are gradually revealed over their tenure and they must disappoint at least some interest groups in their initial coalition. These groups may then turn to the opposition (that is building an alternative coalition for $t + 1$) and vote against the ruling parties. Within this framework, the cost of ruling measures the amount of inconsistency in promises that the average opposition can get away with. Alternatively, it measures

¹⁶Ruling parties do not have this luxury (for the subsequent election) because their true preferences are revealed when they take decisions in power.

the proportion of voters that are too easily deceived by such promises. However, there is no empirical evidence to suggest such a consistent proportion of gullible voters across countries (and over time) that would result in a robust generalizable cost of ruling [Mueller 1970; Paldam and Nannestad 2003].

In a simplistic single-issue model of voting with two parties L and R , the median voter theorem guarantees that L and R try to attract the median voter with policy preference m . However, no one would vote if the policy platforms of L and R were identical to m and so parties ought to maintain a visibility gap g [Hotelling 1990; Downs 1957]. It follows that L converges to $m - \frac{g}{2}$ while R converges to $m + \frac{g}{2}$. This divides the electorate into three parts: leftists who prefer $[-\infty, m - \frac{g}{2}]$, centrists who prefer $[m - \frac{g}{2}, m + \frac{g}{2}]$ and rightists who prefer $[m + \frac{g}{2}, \infty]$. Leftists and rightists have no option but to vote for L and R respectively, but they never get their preferred policies. If their preferred parties win, all they get is a shift $\frac{g}{2}$ (from m) towards their policy preference. Hence, these voters only vote if g is large enough. On the other hand, centrist voters want a mix of the policy platforms of L and R . If L and R alternate in power, the centrists get their preferred policy platform. Paldam and Skott [1995] solve this model and calculate the number of swing centrists who optimize the policy outcome by switching between the parties at each election. They show that a third of centrists switch under conventional rationality assumptions. These voters switch away from the incumbent party and impose a cost of ruling.

The theory of loss aversion yields yet another potential causal mechanism of the cost of ruling. Consider the effect of a symmetrical increase and decrease in any macroeconomic variable on popular support of the ruling parties. Loss aversion (of the electorate) implies that the effect of the increase is smaller than the one of the decrease [Kahneman 1994]. Price and Sanders [1994] & Nannestad and Paldam [1997] find that the effect of a negative change is about three times that of a positive change. When an average government rules as expected, some macroeconomic variables improve and some deteriorate. In the vote function (of the electorate), the macroeconomic variables that improved should have the same average weight in the function as the variables that deteriorated. If the vote function was symmetric (for both positive and negative changes), the ruling parties would receive exactly the same vote as last time, but due to loss aversion on part of the electorate, the incumbent government loses votes in the subsequent election [Paldam and Nannestad 2003].

Chapter 2

Data & Methodology

2.1 Data

The studies detailed in the following chapters employ a candidate-level dataset of elections to the Lok Sabha collated by Jensenius and Verniers [2017] through the Election Commission of India¹⁷. The data include demographic and electoral data for all candidates from the 3rd to the 16th Lok Sabha (1962-2014)². Individual candidates are matched and assigned unique identifiers, to enable tracking across elections. These matches are performed within states using demographics (name, gender, category), party and constituency. The data are supplemented by computing candidate characteristics like electoral & political experience, and merging information on ruling/opposition parties & coalitions.

The data span all 28 states and 7 union territories of the Indian union³. They include 80,432 candidate-level observations of 68,225 unique candidates from 7,473 election races. Of 543 elected constituencies in the 16th Lok Sabha, 80 lie in the most populous state of Uttar Pradesh while some states (e.g. Sikkim, Nagaland, Mizoram) and most union territories (except Delhi) make up only 1 constituency.

¹⁷The data are hosted online by the Trivedi Centre for Political Data and can be accessed here. The Election Commission of India also hosts the same candidate-level data on its website, albeit in PDFs.

²The data also include by-polls conducted after the General Elections. Thus, the actual range extends beyond 2014 due to by-polls for vacant seats in the 16th Lok Sabha.

³India's 29th state, Telangana, was carved out of Andhra Pradesh in June 2014, after the General Election to the 16th Lok Sabha. The Lok Sabha constituencies that now lie in Telangana are included in the data as part of undivided Andhra Pradesh.

As Uppal [2009] notes, many candidates in Indian elections are so-called *non-serious* candidates and receive very few votes. He cites the example of a constituency named Modakurichi in the southern state of Tamil Nadu where 1,033 candidates contested the election to the Vidhan Sabha in 1996. Of these 1,033 candidates, 1,030 won a combined vote share of 5.81%.

In fact, such scenes were also observed in the 1996 General Elections to the 11th Lok Sabha. Of 480 candidates who contested in Nalgonda (erstwhile Andhra Pradesh), 477 forfeited their election deposit (by failing to secure more than a sixth of total valid votes polled). Similarly, in Belgaum (Karnataka), 454 of 456 candidates forfeited their deposit. These frivolous candidates are excluded from the following studies by dropping observations of candidates who secure less than 1% of vote share.

The margin of victory for winning candidates is calculated as the winners vote share less the vote share of the second place candidate. However, in plurality voting systems like India's, the margin of victory is not well-defined for losing candidates. Therefore, for losing candidates, the margin of victory is calculated by subtracting the winners vote share from the losing candidates voter share.

Gelman and King [1990]; Cox and Morgenstern [1993]; Uppal [2009] note the biasing effects of constituencies in which the margin of victory is large (also termed *uncontested* constituencies). In order to decrease these biasing effects, the data is limited to observations of candidates with absolute margin of victory up to 60%.

This restricted dataset, used for all experiments described later, contains 31,611 candidate-level observations of 24,618 unique candidates from 7,400 election races. Summary statistics are presented in Table 2.1.

⁵A candidate forfeits their election deposit if they fail to secure more than a sixth of total valid votes polled.

	<i>N</i>		
<i>Observations</i>	31611		
<i>Distinct Candidates</i>	24618		
<i>Distinct Parties</i>	445		
<i>Elections</i>	7400		
<i>States & Union Territories</i>	35		
<i>Lok Sabhas</i>	14		
	<i>Mean</i>	<i>Max</i>	<i>Min</i>
<i>Candidates (per election)</i>	4.272	480	2
<i>Candidates (per Lok Sabha)</i>	2257.929	2911	1530
<i>Candidates (per state/UT)</i>	903.171	6124	24
<i>Contesting Parties (per Lok Sabha)</i>	72.357	151	25
<i>Contesting Parties (per state/UT)</i>	38.971	117	6
<i>Elections (per state/UT)</i>	211.429	1168	8
<i>Voters (per election)</i>	544952.245	1620444	11807
<i>ENOP</i>	2.669	6.25	1
<i>Vote Share</i>	22.952	78.58	1
<i>Margin of Victory</i>	-20.273	59.98	-60
<i>Margin of Victory (Winners)</i>	15.207	59.98	0.01
<i>Margin of Victory (Losers)</i>	-31.136	-0.01	-60
<i>Electoral Experience</i>	0.466	13	0
<i>Political Experience</i>	0.259	10	0
	<i>Proportion</i>		
<i>Female Candidates</i>	5.74%		
<i>SC Candidates</i>	15.64%		
<i>ST Candidates</i>	8.58%		
<i>Independent Candidates</i>	20.57%		
<i>Candidates from national parties</i>	38.76%		
<i>Candidates from state parties</i>	40.67%		
<i>Candidates who lost deposit</i>	47.55%		

TABLE 2.1: Summary Statistics

2.2 Methodology

If election t refers to one General Election, corresponding to the t^{th} Lok Sabha, then election $t + 1$ refers to the subsequent General Election to the $(t + 1)^{\text{th}}$ Lok Sabha. The unit of observation is a candidate in an election to a Lok Sabha constituency. If j indexes constituencies, the set of all candidates in election t to constituency j is $C_t(j)$. Suppose candidate $i \in C_t(j)$ secures vote share $V_{t,ji}$. The previously defined margin of victory $M_{t,ji}$ is then given by

$$M_{t,ji} = \begin{cases} V_{t,ji} - \max_{i' \in C_t(j) \setminus \{i\}} V_{t,ji'} & \text{if } \arg \max_{i' \in C_t(j)} V_{t,ji'} = i \\ V_{t,ji} - \max_{i' \in C_t(j)} V_{t,ji'} & \text{otherwise} \end{cases}$$

For winning candidates, the subtrahend in the margin is the vote share of the second place candidate. Analogously, for losing candidates, the subtrahend is the vote share of the winning candidate. Consequently, the margin of victory is positive for winners and negative for losers.

The indicator function $I\{\phi\}$ for a boolean expression ϕ is defined conventionally

$$I\{\phi\} = \begin{cases} 1 & \phi \text{ is true} \\ 0 & \text{otherwise} \end{cases}$$

Similarly, the conventional triangular kernel K is used.

$$K(u) = I\{|u| < 1\} \cdot (1 - |u|)$$

2.2.1 Estimation Strategy

Plurality voting in Lok Sabha elections guarantees that each candidate wins (and thus becomes an incumbent for the subsequent election) if the candidate garners enough votes for their margin of victory to be greater than zero.

Thus, assignment to incumbency status (in $t + 1$) is discontinuous at zero: candidates with $M_{t,ji} > 0$ win and those with $M_{t,ji} < 0$ lose. Due to this discontinuity, Lee

[2001] & Linden [2004] note that it is possible to infer any causal effect of incumbency by comparing candidates that are just barely elected (*bare winners*) to those that just barely lose (*bare losers*) as long as all other candidate characteristics that could influence the probability of being incumbent (winning in t) vary, on average, continuously at zero.

Alternatively stated, the identifying assumption is that *bare winners* and *bare losers* in t are similar in all observable and unobservable candidate characteristics that influence the probability of victory in t . This allows the result of election t to be a quasi-random assignment of incumbency status amongst *bare winners* and *losers*. The control (non-incumbent) and treatment (incumbent) groups formed post election t are then compared to estimate the causal effect of incumbency on outcomes in $t + 1$. This comparison is performed through regression discontinuity (RD) designs.

The RD designs employed in later studies approximate the regression function of the outcome of interest given the margin near the cutoff $M_{t,ji} = 0$ for control (non-incumbent) and treated (incumbent) groups separately, and compute the estimated effect as the difference of the values of the regression functions at $M_{t,ji} = 0$ for each group.

In order to avoid making assumptions about the functional form of the relationship between the outcome and $M_{t,ji}$, these approximations are performed using nonparametric local linear regression i.e. by computing weighted linear regressions above and below $M_{t,ji} = 0$ with weights defined by a kernel on $M_{t,ji}$.

As Calonico et al. [2014] note, nonparametric methods have gained immense popularity in recent literature. Several kernel-based estimators are now available, all of which require a choice of *bandwidth* B for estimation. $-B$ can be thought of as the margin value that separates bare losers from other losers. Similarly, B separates bare winners from other winners.

Various methods of computing optimal values of B have also been proposed. Most of these methods balance squared-bias and variance of the regression estimators, and have been criticized for resulting in bandwidth choices that are too large to ensure the validity of the distributional approximations of the estimators. Calonico et al. [2014] show that these methods lead to systemically-biased RD estimates and propose new CER-optimal bandwidth estimators that are used in the following studies.

Formally, the causal impact of incumbency status on outcome of interest O is given by

$$\delta_O = \overline{O_+} - \overline{O_-}$$

where $\overline{O_+}$ and $\overline{O_-}$ are outcome estimates for bare winners and bare losers (candidates barely on either side of $M_{t,ji} = 0$) respectively.

If $O_{t+1,ji}$ is the outcome of interest for candidate i in constituency j in election $t + 1$, then δ_O is the discontinuity in $E[O_{t+1,ji}|M_{t,ij}]$ at $M_{t,ij} = 0$. To estimate it, $(\overline{O_+}, \overline{O_-})$ is chosen to minimize

$$(\overline{O_+}, \overline{O_-}, \overline{\beta_+}, \overline{\beta_-}) = \arg \min_{O_+, O_-, \beta_+, \beta_-} \sum_{t, j, i} \left[O_{t+1,ji} - I\{M_{t,ji} > 0\} \cdot (\beta_+ \cdot M_{t,ji} + O_+) \right. \quad (2.1)$$

$$\left. - (1 - I\{M_{t,ji} > 0\}) \cdot (\beta_- \cdot M_{t,ji} + O_-) \right]^2 \cdot K \left(\frac{M_{t,ji}}{B} \right) \quad (2.2)$$

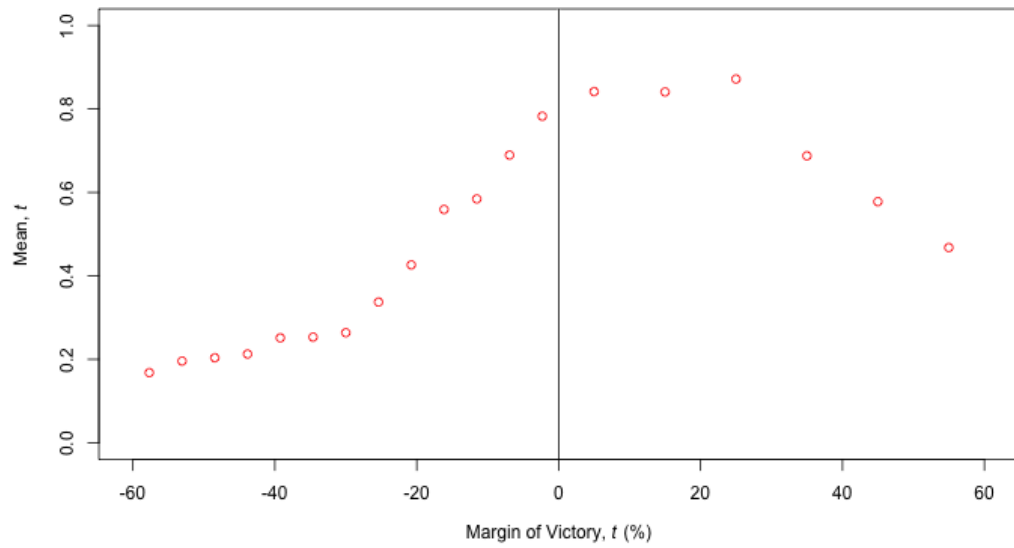
In practice, we need not control for observable candidate characteristics if the corresponding characteristic curves are smooth at $M_{t,ji} = 0$. The validity of the identifying assumption of this estimation strategy — similarity of bare winners and bare losers — is tested in the following section.

2.2.2 Smoothness of Candidate Characteristics

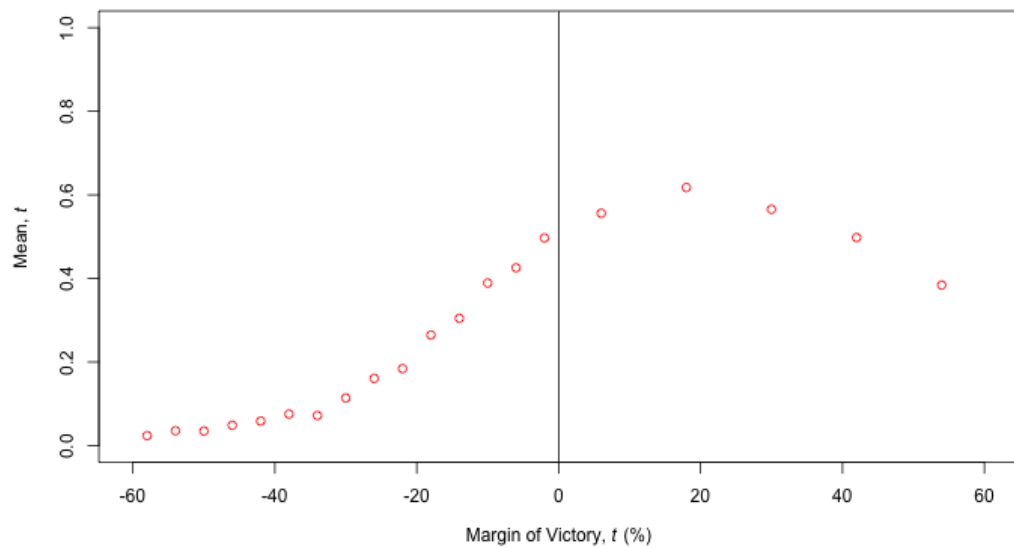
I begin by testing the identifying assumption of smoothness of candidate characteristics around $M_{t,ji} = 0$. Restricting characteristics to only those that could potentially affect a candidate's probability of victory, we consider electoral experience, political experience, gender and category¹⁸. Variation in these characteristics as a function of $M_{t,ji}$ is presented in Figure 2.1 (using IMSE-optimal evenly spaced bins).

Electoral and political experience are expected to be highly correlated. Therefore, their graphs look similar and no sorting — systematic difference between bare losers and bare winners — is observed. More importantly, curves for both characteristics appear continuous at $M_{t,ji} = 0$, where incumbency changes discontinuously. Interestingly, the

¹⁸Electoral experience is the number of elections contested; political experience is the number of elections won; categories include Scheduled Castes & Scheduled Tribes.

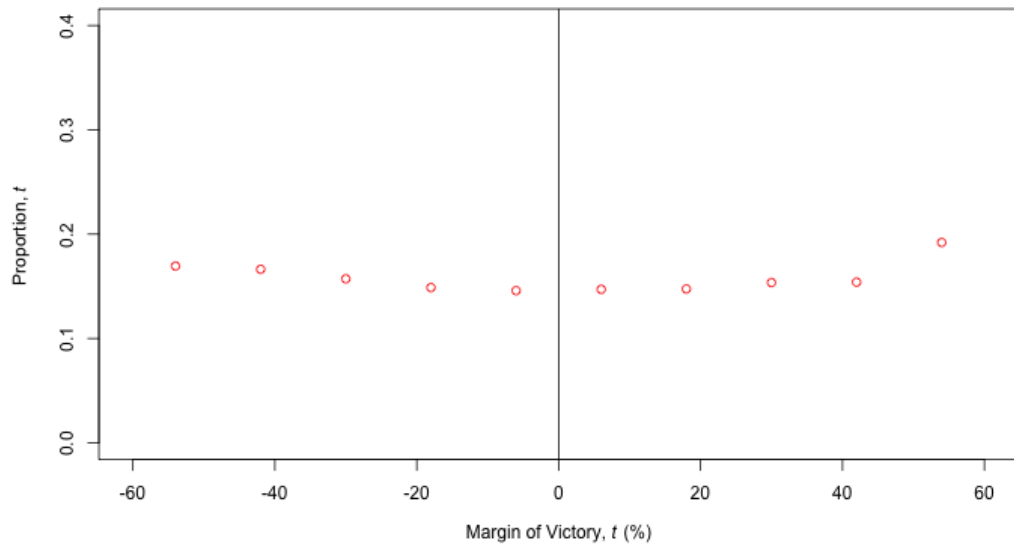


(a) Electoral Experience

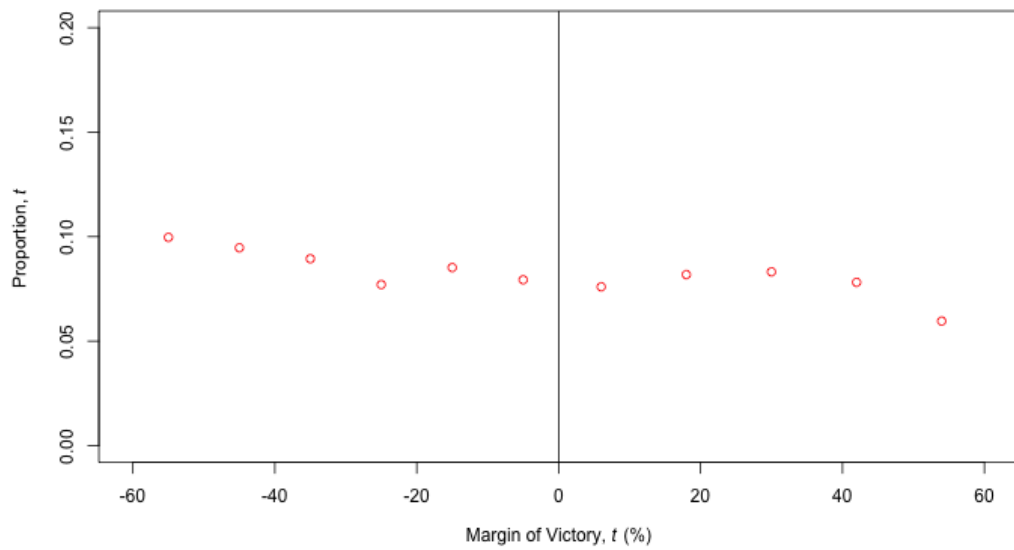


(b) Political Experience

FIGURE 2.1: Candidate Characteristics — Experience



(c) Category (*Proportion of Candidates from Scheduled Caste*)



(d) Category (*Proportion of Candidates from Scheduled Tribes*)

FIGURE 2.1: Candidate Characteristics — Category

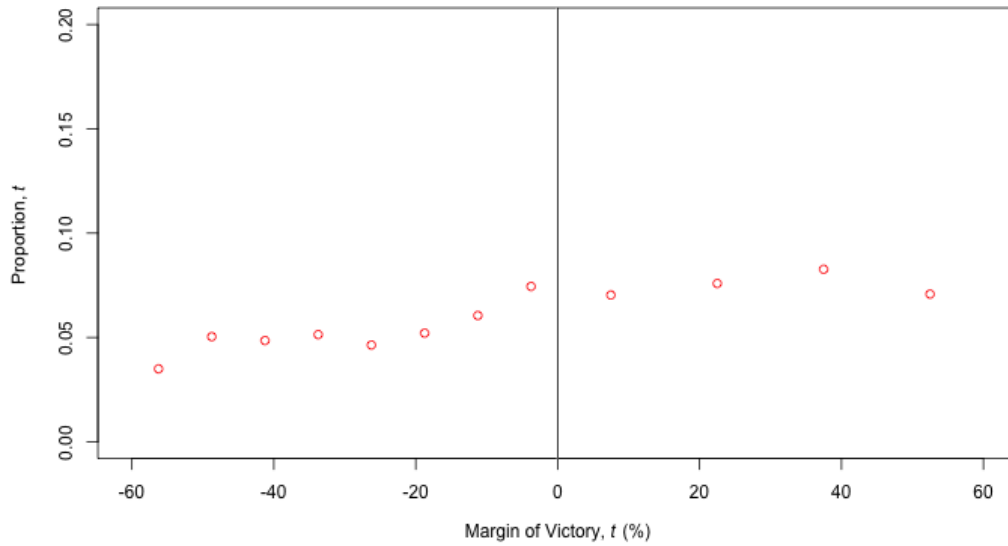
(e) Gender (*Proportion of Female Candidates*)

FIGURE 2.1: Candidate Characteristics — Gender

curves resemble *sickles*¹⁹ with the mean experience (both of elections and of office) of a candidate falling for $M_{t,ji} > 20\%$.

Counterintuitively, candidates who win with wider margins are less experienced on average than candidates who lose narrowly. This suggests a strong influence of *wave* elections, or elections in which voters are driven by a signal exogenous to individual candidate characteristics. The history of Indian politics offers some clear examples to this effect.

Months after the assassination of Prime Minister Indira Gandhi of the Indian National Congress, her party won 414 of 533 seats²⁰ in the 1984 General Elections. The INC was led by Gandhi's son, Rajiv, who went on to become the 6th Prime Minister. Rajiv Gandhi himself was assassinated during the 1991 General Elections. The performance of the INC greatly varied between constituencies that went to election before and after his assassination. The wave helped the party greatly improve its overall performance

¹⁹Parties like the Communist Party of India & Communist Party of India (Marxist) use the canonical sickle in their election symbols. However, my choice of red color in the plots is pure coincidence.

²⁰Elections in Punjab and Assam were delayed until 1985 due to militancy.

despite the disappointing results in elections before the assassination. Furthermore, it resulted in the formation of a minority government led by the INC [Blakeslee 2018].

The curves for gender and both SC & ST categories also appear continuous at $M_{t,ji} = 0$ and do not seem to vary much with $M_{t,ji}$. Again, no sorting is observed. While reservation of constituencies for candidates from Scheduled Castes and Scheduled Tribes has improved their representation in the Lok Sabha, the proportion of female candidates has been abysmally low in Indian elections. In India’s entire democratic history, one (of 14) Prime Ministers and one (of 14) Presidents have been women. Only 16 women have served as state Chief Ministers and only 13 (of 29) states have ever elected one.

Multiple union governments have tried and failed to enact legislation to reserve a third of all Lok Sabha seats for women [Randall 2006]. The bill was first tabled in the Lok Sabha in 1996 as the 81st Constitutional Amendment and then reintroduced multiple times in 1998, 2000, 2003 and 2008. However, the Lok Sabha never voted on the bill. Vehement opposition to the bill has always prevented any reasoned debate and has inevitably lead to adjournment of the lower house. The Rajya Sabha did pass the legislation 186-1 in 2010 as the 108th Constitutional Amendment but it was never introduced in the Lok Sabha again. The bill lapsed after the dissolution of the 15th Lok Sabha in 2014. Although women are extremely underrepresented in Indian politics, there is no evidence to suggest that their gender impacts their incumbency status (i.e. chances of victory) in the Lok Sabha.

Candidate Characteristic	B	Estimate at $M_{t,ji} = 0$		
		<i>Non-Inc.</i>	<i>Inc.</i>	δ_C
<i>Electoral Experience</i>	7.554	0.798	0.862	0.064 (0.453)
<i>Political Experience</i>	7.974	0.502	0.549	0.047 (0.455)
<i>Female (Prop. of Candidates)</i>	8.595	0.076	0.066	-0.01 (0.501)
<i>Scheduled Castes (Prop. of Candidates)</i>	7.617	0.129	0.129	-0.001 (0.972)
<i>Scheduled Tribes (Prop. of Candidates)</i>	7.141	0.088	0.089	0.002 (0.922)

TABLE 2.2: Candidate Characteristics

Supporting the preliminary visual evidence, formal RD estimates at $M_{t,ji} = 0$ for these candidate characteristics are presented in Table 2.2 (estimates using different kernels

are found in Section A.1 of Appendix A). Using a CER-optimal bandwidth estimator, I find no evidence of a discontinuity at $M_{t,ji} = 0$ in any characteristic curve. The discontinuity estimates δ_C for experience curves vary between 4.7-6.4 percentage points and the estimates for gender and category curves are close to 0 percentage points. None of these are statistically significant at any conventional confidence level. Barring the effect of unobserved or unobservable candidate characteristics²¹ (that are bound to correlate with at least some of those considered here), bare losers and bare winners appear similar on all observable characteristics. This provides strong evidence in support of the identifying assumption of the estimation strategy employed in later sections.

²¹These may include extrinsic or mutable characteristics like campaign expenditure, candidate education level, criminal history etc.

Chapter 3

Incumbency Effects

A normative expectation is that candidates who win election t (and become incumbents in $t + 1$) are different from candidates who lose (and become non-incumbents in $t + 1$). Candidates may differ on certain characteristics, as discussed in previous sections. These are then observed and acted upon by voters. It is thus a reasonable expectation that differences in candidates characteristics will also translate to differences in candidate outcomes.

The experimental design introduced earlier allows for quasi-random assignment of incumbency based on candidate outcomes in election t but any causal effect of said incumbency must be estimated using candidate outcomes in election $t + 1$.

Recall (from Section 2.2.1) that $(\overline{O}_+, \overline{O}_-)$ is chosen to minimize

$$\begin{aligned} (\overline{O}_+, \overline{O}_-, \overline{\beta}_+, \overline{\beta}_-) = \arg \min_{O_+, O_-, \beta_+, \beta_-} \sum_{t,j,i} & \left[O_{t+1,ji} - I\{M_{t,ji} > 0\} \cdot (\beta_+ \cdot M_{t,ji} + O_+) \right. \\ & \left. - (1 - I\{M_{t,ji} > 0\}) \cdot (\beta_- \cdot M_{t,ji} + O_-) \right]^2 \cdot K \left(\frac{M_{t,ji}}{B} \right) \end{aligned} \quad (3.1)$$
$$(3.2)$$

And $O_{t+1,ji}$ is the outcome of interest in period $t + 1$. However, the estimate $\delta_O = \overline{O}_+ - \overline{O}_-$ of these causal effects may be severely biased if the probability of running in election $t + 1$ differs for treatment (incumbents) and control (non-incumbents) groups. In particular, if outcomes of interest in election $t + 1$ are not observed for all candidates (because they simply do not contest) or observed with varying probability across the treatment and control groups, then selection bias due to candidate attrition could

threaten the validity of the estimated causal effect of incumbency on these outcomes. It is then imperative to begin the analysis by examining this probability²².

3.1 Probability of Rerunning

Suppose for a candidate i in election t , the outcome of interest is denoted by $R_{t+1,i}$.

$$R_{t+1,i} = \begin{cases} 1 & \text{if } i \text{ contests in election } t+1 \\ 0 & \text{otherwise} \end{cases}$$

Notice that the probability of running in election $t+1$ (conditional on $M_{t,ji}$) is exactly the conditional expectation $\mathbf{E}[R_{t+1,i}|M_{t,ji}]$. In particular, the causal effect of incumbency on $R_{t+1,i}$ is equal to the discontinuity in $\mathbf{E}[R_{t+1,i}|M_{t,ji}]$ at $M_{t,ji} = 0$.

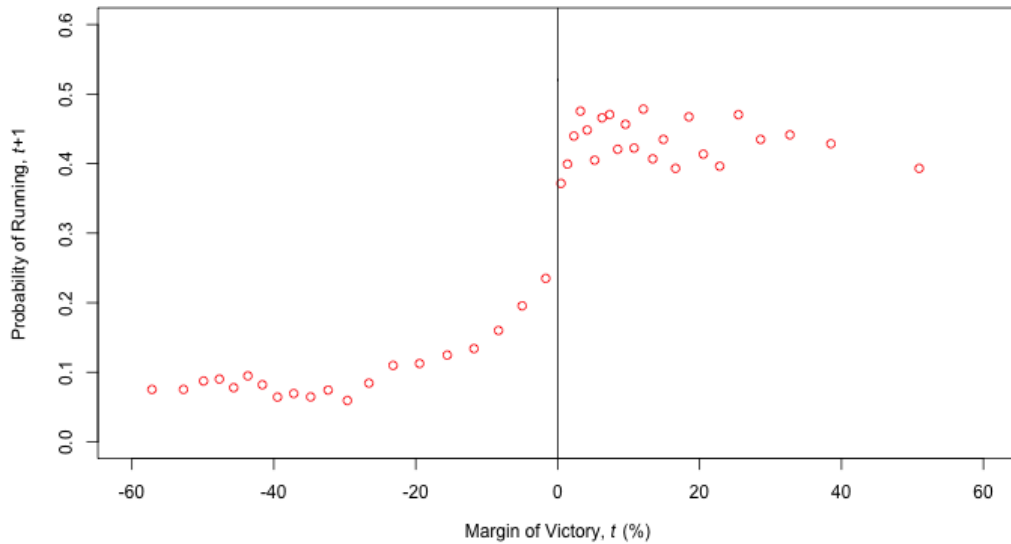


FIGURE 3.1: $\mathbf{E}[R_{t+1,i}|M_{t,ji}]$ for all candidates.

The absence of a discontinuity would imply the absence of any causal effect. However, Figure 3.1 provides preliminary evidence to the contrary. In particular, the plot suggests

²²Note that the estimates of the probability of rerunning using an RD design do not suffer from the same biases, as the outcome in $t+1$ (whether they contested or not) is observed for all candidates in t .

a large discontinuous change in $\mathbf{E}[R_{t+1,i}|M_{t,ji}]$ due to a change in incumbency status, which happens at $M_{t,ji} = 0$.

	B	Probability of Running in $t + 1$			
		<i>Non-Inc.</i>	<i>Inc.</i>	δ_R	%
<i>All</i>	7.813	0.318	0.421	0.104** (0.024)	32.684%**
<i>National Parties</i>	10.792	0.369	0.527	0.157*** (0.001)	42.54%***
<i>Other Parties</i>	8.044	0.195	0.241	0.046 (0.504)	23.884%
<i>Ruling Parties</i>	8.513	0.270	0.366	0.096** (0.04)	35.42%**
<i>Opposition Parties</i>	5.955	0.490	0.512	0.023 (0.721)	4.632%
<i>Pre-1991</i>	10.702	0.317	0.377	0.061 (0.272)	19.134%
<i>Post-1991</i>	8.663	0.323	0.466	0.144*** (0.003)	44.454%***

TABLE 3.1: Probability of Running in $t + 1$ at $M_{t,ji} = 0$, $\mathbf{E}[R_{t+1,i}|M_{t,ji}]$.

Table 3.1 presents RD estimates of the probability of running in $t + 1$ at this discontinuity (estimates using different kernels are found in Section A.1 of Appendix A). The estimates at $M_{t,ji} = 0$ for both non-incumbents and incumbents are listed, along with the difference δ_R due to incumbency (p -values are in parentheses). The incumbency advantage is calculated as the percentage change from the non-incumbent estimate.

While the probability of running in the next election for all candidates who barely lose in election t is 0.318, similar candidates who barely win in election t (and become incumbents) run in election $t + 1$ with probability 0.421. This almost 32.68% increase (10.4 percentage points) in the probability of running in the next election is a statistically significant causal effect of incumbency.

Incumbents may be expected to be more likely to rerun, compared to non-incumbents, due to the benefits of public office that are unavailable to non-incumbents (see Section 1.2.1).

In particular, incumbents can channel national public spending — or redistributive

“pork” — to their constituents in exchange for political loyalty²³. This increase in perceived electability may force the MP’s party to renominate the incumbent in $t + 1$, instead of other contenders from the incumbent’s constituency. Similarly, incumbents may acquire a renomination advantage through the mobilization of campaign funds for the party, since potential campaign contributors often face strong incentives to align themselves with current incumbent before the subsequent election [Gordon and Landa 2009].

Incumbent MPs from parties in the ruling coalition (ruling incumbents) are likely to enjoy some added benefits of office unavailable to incumbents from parties in the opposition (opposing incumbents). Ruling incumbents are far more likely to be able to successfully lobby with the government than opposing incumbents. Such lobbying may result in more redistributive “pork” for the incumbent’s constituency through welfare schemes and/or other beneficial policies, boosting the incumbent’s popularity amongst constituents. Ruling incumbents who are in government i.e. those with ministerial portfolios can directly increase allocation of state resources to their constituents in exchange for political loyalty and better chances of renomination²⁴.

If they are still unable to win their party’s nomination, incumbent MPs who are deemed popular amongst their constituents are more likely to be poached and renominated by other parties. Even unpopular incumbents with slim chances of winning in $t + 1$ can utilize the time in office to make strategic contacts in other parties who may then renominate them²⁵.

²³The fate of the MP Local Area Development (MPLAD) Scheme, introduced in 1993, illustrates this point. Under the MPLAD Scheme, an MP is allowed to sanction developmental projects amounting up to 5 crore (\$730,000) per year in their constituency. Before the scope of such projects was restricted to just public works with few exceptions, some MPs contributed MPLAD funds to popular local trusts and societies (that affect voting behavior of entire communities), ostensibly to secure their support in the next election. Even today, MPs can sanction public works strategically with an objective to maximize their popularity, instead of the public good.

²⁴During the two terms of Railway Minister Mamata Banerjee, the Indian Railways added numerous passenger trains and increased stops on existing trains passing through her home state of West Bengal in general and her constituency of Kolkata in particular. Banerjee’s critics argue that her populist measures severely hurt the public exchequer and turned the Indian Railways’ profits into losses. However, her constituents were much kinder to her — she ended her second term to become the Chief Minister of West Bengal (now called Bangla) in 2011.

²⁵Of the party candidates (in t) who rerun in $t + 1$, 23.74% run from a different party. Incumbents (54%) dominate these party-switchers. Given that there are three non-incumbents to every incumbent on average, incumbents seem much more likely to be lured by other parties.

An incumbent's renomination chances are also likely to be affected by party characteristics like size & resources. Larger, richer national parties contest more constituencies per election and are more likely to be able to fund repeated elections, when compared to state parties and unrecognized parties.

Past academic work on incumbency effects in India also provides evidence that the magnitude of these effects has only increased post-1991, with the steady increase in political competition after the end of Congress dominance at the union level [Linden 2004; Uppal 2009].

It is then expected that the casual impact of incumbency on $R_{t+1,i}$ will be mediated by party resources, time period of observation and whether the candidate's party is in power. The following subsections examine these moderators in detail.

3.1.1 Variation in Party Resources

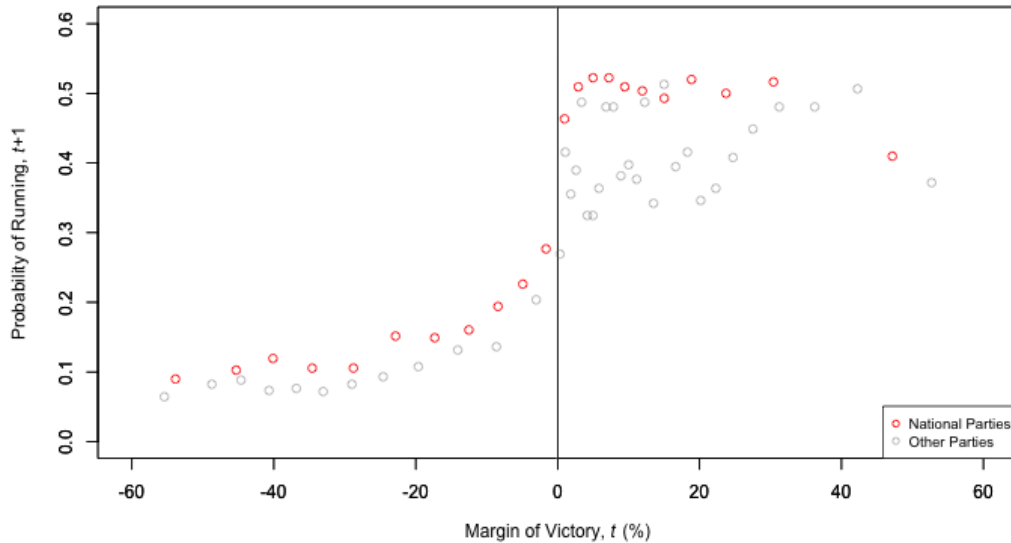


FIGURE 3.2: Variation in $\mathbf{E}[R_{t+1,i}|M_{t,ji}]$ for all candidates by party type.

Not all bare incumbents enjoy the same increase in the probability of running in $t + 1$. Table 3.1 highlights sharp differences between candidates of national parties and those of other parties. For candidates of national parties, rewards of winning in t translate into a 42.54% (15.7 percentage points) higher probability of running in $t + 1$. On the

other hand, for candidates of other parties, the corresponding increase is smaller than average (4.6 percentage points) and statistically insignificant.

In fact, bare losers from national parties (0.369) are much more likely to run in the next election, compared to bare losers from other parties (0.195). Similarly, bare winners from national parties (0.527) are also much more likely to run in the next election than bare winners from other parties (0.241).

Figure 3.2 further illustrates this difference. It is clear that for $M_{t,ji} < 30$, the probability of running in $t + 1$ is much higher for candidates of national parties than for candidates of other parties. The difference between corresponding probabilities for candidates who win handsomely in t i.e. with $M_{t,ji} > 30$ is less clear.

These differences are partly due to the fact that other parties include many unrecognized parties with paltry resources that are disbanded after a couple of General Elections. It is also true that smaller state parties and unrecognized parties – with fewer resources (and wide variation from election to election) – contest fewer constituencies. Consequently, candidates in t representing smaller parties are less likely (in general) to be renominated in $t + 1$ than candidates representing national parties.

Due to smaller candidate pools, leaders of state and unrecognized parties are able to accurately compare candidate quality around $M_{t,ji} = 0$ (i.e. bare winners and bare losers in t) while considering renomination in $t + 1$. This ensures that the outcome of election t is considered in context with other comparable candidate characteristics, decreasing the incumbency advantage. On the other hand, leaders of national parties find it difficult to accurately compare bare winners and bare losers in t due to the much larger candidate pools. This forces them to rely on the outcome of election t as a (noisy) signal of candidate quality and increases the incumbency advantage (in terms of renomination) in $t + 1$.

National party candidates are also more likely to have been ministers in previous governments. Prior ministerial experience — not accounted for here — may also increase probability of renomination in $t + 1$. Sustained funding of national parties also ensures that they only relinquish a previously contested constituency for politically strategic reasons. Consequently, local candidates can rely on the support of national parties through

multiple elections. Loyal incumbents seem to be rewarded handsomely with respect to renomination in $t + 1$.

3.1.2 Variation in Benefits of Office

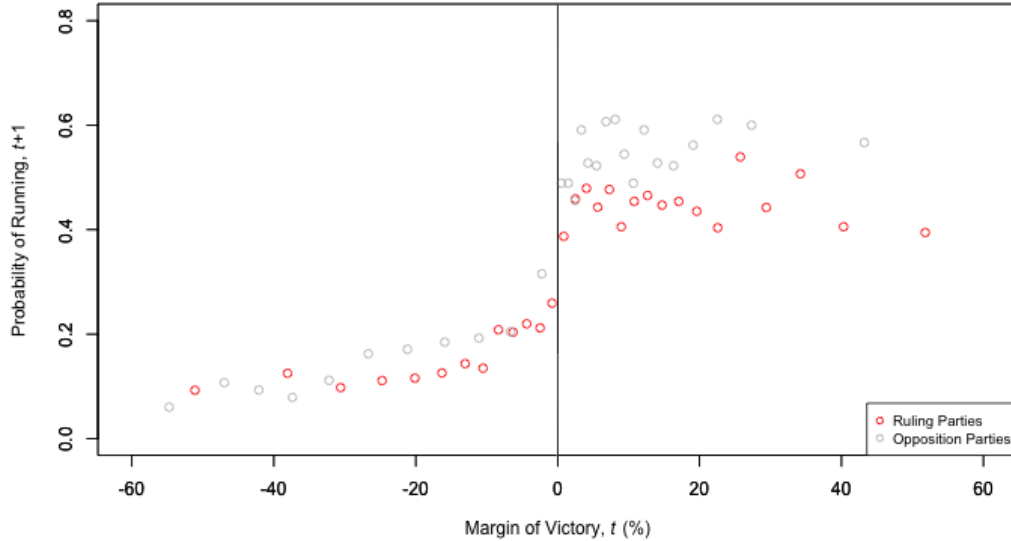


FIGURE 3.3: Variation in $\mathbf{E}[R_{t+1,i}|M_{t,ji}]$ for all candidates by coalition type.

Differences in $\mathbf{E}[R_{t+1,i}|M_{t,ji}]$ also exist between candidates of parties that form the ruling coalition after election t and those of parties that form the opposition. Although the size of the discontinuity for candidates of ruling parties is slightly smaller than average (9.6 percentage points), the 35.42% advantage is higher. The corresponding increase for candidates of parties that form the opposition is much lower than average (2.3 percentage points) and statistically insignificant.

The probability of running in election $t + 1$ at $M_{t,ji} = 0$ for candidates of ruling parties (0.27, 0.366) is also much lower than the corresponding probability for candidates of opposition parties (0.49, 0.512). Ruling parties seem to punish bare winners and losers in election t by nominating them at a much lower rate than comfortable winners. However, opposition parties seem to repose their trust in bare losers and bare winners in t alike. In fact, bare winners from opposition parties are more likely to be renominated in $t + 1$ than not.

This suggests that renomination in $t+1$ (of a candidate in t) is mediated by their party's overall performance in t . If a party fares well and forms part of a coalition government, its losing candidates in t are less likely to be renominated in $t+1$ than losing candidates of parties that form the opposition after t .

Ruling parties and opposition parties approach election $t+1$ in fundamentally different ways. Due to an expected decrease in popular support associated with the cost of ruling, parties in government seek to make up for the seats they are likely to lose in $t+1$ by winning seats that they lost in t . In particular, this cost of ruling further lowers the probability of victory of candidates that lost in t , if nominated for election $t+1$. As no such cost is imposed on the opposition parties, their candidates who lost in t are more likely to be renominated in $t+1$ than similar candidates from ruling parties.

Both ruling and opposition parties also expect an incumbency disadvantage in the probability of winning in $t+1$ for candidates who won in t . For parties in power, the cost of ruling and the incumbency disadvantage both lower the probability of victory of their incumbents in $t+1$. However, for opposition parties, while the incumbency disadvantage worsens their incumbents' chances, the the cost of ruling (imposed on parties in government) may improve their incumbents' chances in $t+1$. Furthermore, opposition parties have fewer incumbents (than ruling parties) and the fact that these opposition MPs won (in t) even when their respective parties did not fare well in aggregate suggests that they are likely to be stronger than opposition candidates who lost or did not run in t . Consequently, incumbents from opposition parties are more likely to be renominated in $t+1$ than incumbents from ruling parties.

This cost of ruling may also improve the chances of bare losers in t from opposition parties, if renominated in $t+1$. As opposition incumbents who barely won in t face a disadvantage in $t+1$, opposition parties are likely to discount the outcome of election t while comparing bare winners and bare losers for renomination in $t+1$, yielding no significant discontinuity in $\mathbf{E}[R_{t+1,i}|M_{t,ji}]$. On the other hand, as the chances of bare losers (in t) from ruling parties in $t+1$ are worsened by the cost of ruling, a significant discontinuity exists.

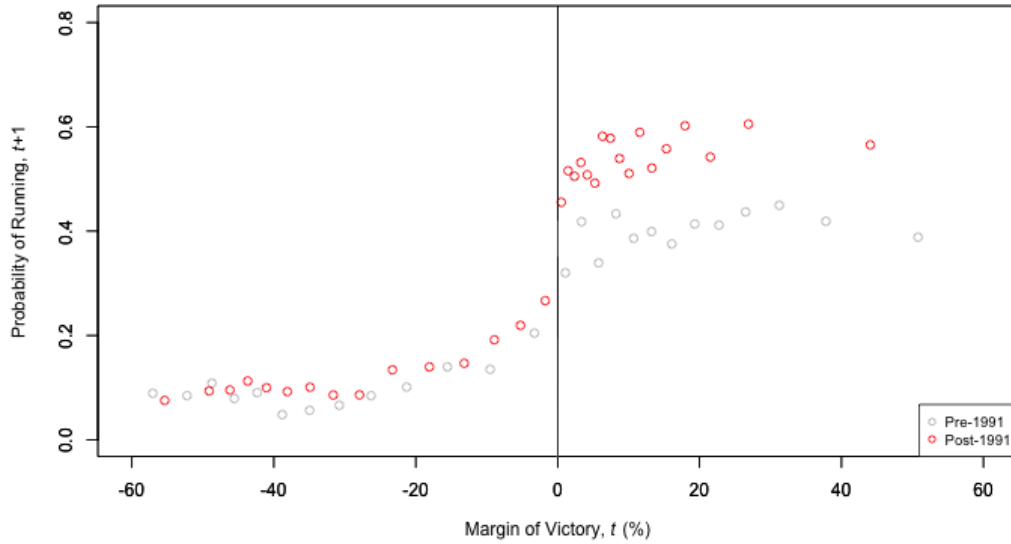


FIGURE 3.4: Variation in $\mathbf{E}[R_{t+1,i}|M_{t,ji}]$ for all candidates over time.

3.1.3 Variation in Time Period

From Table 3.1 & Figure 3.4, it is clear that the incumbency advantage to renomination in $t + 1$ has increased significantly after 1991. Prior to 1991, incumbents enjoyed a statistically insignificant advantage (6.1 percentage points). However, since 1991, this advantage has swelled to 14.4 percentage points and incumbents are 44.45% more likely to be renominated than non-incumbents.

Recall that the Indian National Congress (INC) lost power for only 5 years during 1962-1991. Due to minute political competition and no real alternatives, the Congress was not subjected to significant anti-incumbent sentiment or cost of ruling in this period. Moreover, candidate pools were much smaller and the INC, as the dominant political force, attracted high quality candidates. In particular, this ensured that the number of bare winners and bare losers was limited and candidate quality on either side of $M_{t,ji} = 0$ was comparable. Consequently, the Congress “high command” could discount the outcome of election t while comparing candidate quality around $M_{t,ji} = 0$ for renomination in $t + 1$. Similarly, other political parties in this period also had small candidate pools with few marginal outcomes, yielding no significant discontinuity in aggregate.

As political competition grew fiercely in the 1990s and beyond, the candidate pools for all parties exploded. Due to India's robust economic growth in this period, political parties were able to raise much higher funds than they could previously. Both state and national parties expanded their footprint and contested more constituencies. In particular, this slightly increased the probability of renomination in $t + 1$ of all candidates (in t) post-1991, compared to the pre-1991 period.

Marginal election outcomes also became more frequent, as the effective number of parties in each race increased. With many candidates to consider, it became considerably harder for party leaders to compare candidate quality around $M_{t,ji} = 0$ for renomination in $t + 1$. They became increasingly reliant on the outcome of election t as a (noisy) signal of candidate quality, providing incumbents with a significant renomination advantage compared to non-incumbents.

3.2 Biasing Effects of Candidate Attrition

The preceding section provides strong evidence of a causal effect of incumbency. Incumbents who barely won are much more likely to contest the subsequent election than non-incumbents who barely lost. In fact, only 11% of bare losers ($M_{t,ji} > -5\%$) run in $t + 1$ compared to 54% of bare winners ($M_{t,ji} < 5\%$). This attrition (from our study) of non-incumbents ensures that other outcomes of interest (like vote share in and result of election $t + 1$) are not observed for them. As a result, any casual estimate of an incumbency effect on an outcome that is unobserved for a large proportion of non-incumbents is severely biased.

Previous studies of incumbency effects in India have noted the possibility of a selection bias if bare losers and bare winners are not equally likely to contest in the next election. Linden [2004] estimates a 27 percentage point incumbency disadvantage (in the probability of victory in $t + 1$) in the Lok Sabha during the decade 1991-1999 and finds no statistically significant difference between the probability of rerunning for bare incumbents and for bare non-incumbents within this period. However, in the period 1951-1967, Linden [2004] finds a 17.4 percentage point increase in the probability of running in $t + 1$ for incumbents and a 15.7 percentage point incumbency advantage in the probability of victory in $t + 1$. He further notes that the incumbency advantage in the probability of rerunning may be a substantial contributor to the corresponding advantage in the probability of victory.

Uppal [2009] estimates incumbency effects in elections to the Vidhan Sabha and finds that bare incumbents are about 14 percentage points more likely to rerun in the subsequent election than bare non-incumbents before 1991. This incumbency advantage reduces to 10 percentage points after 1991. To overcome the possible selection bias caused by differences in the probability of rerunning, he computes incumbency advantage in the next election conditional on rerunning. However, this strategy seems dubious because it amounts to conditioning on a post-treatment covariate (i.e. the decision to rerun in $t + 1$ is taken after treatment in election t and covaries with the result of $t + 1$) [Montgomery et al. 2016].

Uppal [2009] then supports this strategy by showing that in Vidhan Sabha elections, bare non-incumbents who do not rerun are not systematically different from bare incumbents

who do rerun. Although this provides some evidence against the existence of selection bias (by showing that candidate attrition is random), it fails to address the bias due to post-treatment conditioning.

Candidate Characteristics	Differences		
	Before 1991	After 1991	Overall
<i>Electoral Experience</i>	0.518*** (0)	0.788*** (0)	0.695*** (0)
<i>Political Experience</i>	0.274*** (0)	0.584*** (0)	0.471*** (0)
<i>National Parties (Prop. of Candidates)</i>	-0.008 (0.762)	0.073** (0.028)	0.044** (0.036)
<i>State Parties (Prop. of Candidates)</i>	-0.029 (0.385)	-0.066** (0.019)	-0.063** (0.031)
<i>Ruling Parties (Prop. of Candidates)</i>	-0.041* (0.072)	0.018 (0.47)	-0.013 (0.593)
<i>Opposition Parties (Prop. of Candidates)</i>	0.065*** (0)	0.024 (0.382)	0.06*** (0.001)
<i>Female (Prop. of Candidates)</i>	0.025 (0.177)	-0.019 (0.365)	-0.005 (0.997)
<i>Scheduled Caste (Prop. of Candidates)</i>	0.022 (0.533)	-0.05** (0.033)	-0.025 (0.175)
<i>Scheduled Tribe (Prop. of Candidates)</i>	0.006 (0.961)	0.019 (0.215)	0.013 (0.28)
<i>Independent (Prop. of Candidates)</i>	-0.009 (0.724)	-0.002 (0.941)	0 (0.56)

TABLE 3.2: Bare Non-Inc. in t (Δ between contestants & non-contestants in $t + 1$)

However, the same is not true in elections to the Lok Sabha. Table 3.2 presents results of a regression a rerunning dummy on candidate characteristics, $M_{t,ji}$ and state-time fixed effects for bare non-incumbents ($M_{t,ji} > -5\%$). In particular, I find that bare non-incumbents who do rerun differ significantly from bare losers who do not rerun on many candidate characteristics.

Bare non-incumbents who do rerun are significantly more experienced both in electoral (number of elections fought) and political terms (number of terms served). While the difference in electoral experience increased from 0.518 to 0.788 in the period after 1991, the difference in political experience more than doubled from 0.274 to 0.584.

Sharp differences between bare non-incumbents from national and state parties have also emerged post-1991. As expected (see Section 3.1.1), national party candidates are

overrepresented in the non-incumbents who do rerun by 7.3 percentage points, while state party candidates are underrepresented in the same group by 6.6 percentage points.

Similarly, significant differences between bare non-incumbents from ruling and opposition parties were present prior to 1991. Candidates from ruling party were underrepresented in the non-incumbents who do rerun by 4.1 percentage points, while candidates from opposition parties were overrepresented in the same group by 6.5 percentage points (see Section 3.1.2 for probable causal mechanisms).

Bare incumbents who do rerun are also significantly different from bare incumbents who do not rerun. However, given that bare incumbents are much more likely to contest the next election than bare non-incumbents, these differences are not the primary source of the pertinent selection bias and are thus relegated to the appendix (see Section B.2 of Appendix B).

3.3 Probability of Victory

The previous section highlights the challenges in estimating the incumbency effect on the probability of victory in the next election due to multiple biases.

While an unbiased estimate of the effect of incumbency on simply the probability of victory cannot be computed due to selection bias, the effect on the probability of victory conditional on rerunning can also not be computed as it amounts to conditioning on a post-treatment covariate.

Unfortunately, it is also not possible to assuage this selection bias using a two-stage Heckman correction due to unobservable determinants of rerunning and winning. Even if the probability of rerunning for those who do not rerun is imputed using such a two-stage method, the probability of victory in the subsequent election must also be imputed using similar methods. The latter would result in violation of the joint normality assumption that Heckman correction hinges on [Goldberger 1983].

3.3.1 Bounding the Probability of Victory

However, it is possible to compute the effect of incumbency on the probability of rerunning & winning, if the decision to rerun is considered endogenous. More specifically, the outcome of interest is

$$RW_{t+1,i} = \begin{cases} 1 & \text{if } i \text{ wins election } t+1 \\ 0 & \text{if } i \text{ does not rerun in or loses election } t+1 \end{cases}$$

Notice that the probability of rerunning in & winning election $t+1$ (conditional on $M_{t,ji}$) is exactly the conditional expectation $\mathbf{E}[RW_{t+1,i}|M_{t,ji}]$. In particular, the causal effect of incumbency on $RW_{t+1,i}$ is equal to the discontinuity in $\mathbf{E}[RW_{t+1,i}|M_{t,ji}]$ at $M_{t,ji} = 0$.

As many more non-incumbents than incumbents are likely to not contest the next election (and thus have $RW_{t+1,i} = 0$), the incumbency effect on $RW_{t+1,i}$ bounds the incumbency effect on the probability of victory (in $t+1$) from above. By construction of $RW_{t+1,i}$, candidates who do not contest in $t+1$ automatically lose. It follows that

more non-incumbents have $RW_{t+1,i} = 0$ than incumbents, resulting in the desired upper bound.

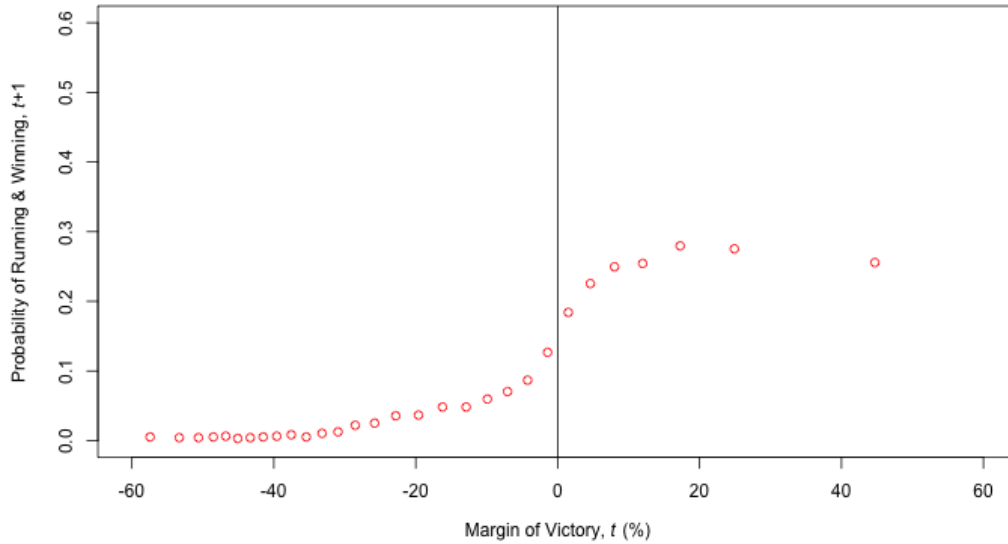


FIGURE 3.5: $\mathbf{E}[RW_{t+1,i}|M_{t,ji}]$ for all candidates.

	B	Probability of Run. & Win. in $t + 1$			
		<i>Non-Inc.</i>	<i>Inc.</i>	δ_{RW}	%
<i>All</i>	6.654	0.149	0.164	0.014 (0.541)	9.696%
<i>National Parties</i>	6.727	0.162	0.183	0.02 (0.519)	12.312%
<i>Other Parties</i>	7.081	0.122	0.125	0.003 (0.936)	2.334%
<i>Ruling Parties</i>	10.045	0.119	0.136	0.018 (0.537)	14.898%
<i>Opposition Parties</i>	6.563	0.189	0.186	-0.004 (0.944)	-1.905%
<i>Pre-1991</i>	8.780	0.123	0.150	0.027 (0.405)	21.988%
<i>Post-1991</i>	6.060	0.167	0.179	0.012 (0.718)	7.163%

TABLE 3.3: Probability of Running & Winning in $t + 1$ at $M_{t,ji} = 0$, $\mathbf{E}[RW_{t+1,i}|M_{t,ji}]$.

Figure 3.5 plots $\mathbf{E}[RW_{t+1,i}|M_{t,ji}]$ and provides preliminary evidence of (almost) no incumbency advantage or disadvantage in the probability of running & winning. Table 3.3 presents RD estimates of the causal effect of incumbency on $RW_{t+1,i}$ (estimates using

different kernels are found in Section A.1 of Appendix A). While none of the estimates δ_{RW} are statistically significant, they are small and mostly positive (ranging from -0.4 to 2.7 percentage points). As the upper bound is barely positive in almost all cases, the causal effect of incumbency on the probability of victory in the subsequent election is very likely to be negative. At the very least, this rules out any incumbency advantage to winning the next election.

While Lok Sabha incumbents enjoy an advantage in the probability of rerunning, they accrue no such advantage in the probability of victory in the subsequent election.

Appendix A

Robustness Tests

A.1 Varying Kernels

Table 2.2, Table 3.1 & Table 3.3 employ triangular kernels to guarantee sharp weighting of observations in the vicinity of $M_{t,ji} = 0$. Results of the same nonparametric RD designs are estimated using uniform and parabolic (epanechnikov) kernels below.

The uniform kernel is defined as $K(u) = I\{|u| < 1\} \cdot \frac{1}{2}$ while the parabolic (epanechnikov) kernel is defined as $K(u) = I\{|u| < 1\} \cdot \frac{3}{4}(1 - u^2)$.

A.1.1 Uniform Kernel

Candidate Characteristic	B	Estimate at $M_{t,ji} = 0$		
		<i>Non-Inc.</i>	<i>Inc.</i>	δ_C
<i>Electoral Experience</i>	6.085	0.814	0.846	0.032 (0.714)
<i>Political Experience</i>	6.597	0.511	0.519	0.008 (0.903)
<i>Female (Prop. of Candidates)</i>	6.383	0.071	0.065	-0.006 (0.692)
<i>Scheduled Castes (Prop. of Candidates)</i>	6.966	0.134	0.138	0.003 (0.865)
<i>Scheduled Tribes (Prop. of Candidates)</i>	4.751	0.085	0.088	0.003 (0.863)

TABLE A.1: Table 2.2 (using a uniform kernel)

	B	Probability of Running in $t + 1$			
		<i>Non-Inc.</i>	<i>Inc.</i>	δ_R	%
<i>All</i>	6.757	0.263	0.380	0.117*** (0.009)	44.456%***
<i>National Parties</i>	9.660	0.340	0.515	0.175*** (0)	51.385%***
<i>Other Parties</i>	6.626	0.164	0.208	0.045 (0.514)	27.327%
<i>Ruling Parties</i>	7.997	0.283	0.390	0.107** (0.02)	37.864%**
<i>Opposition Parties</i>	8.137	0.389	0.447	0.058 (0.342)	14.951%
<i>Pre-1991</i>	10.450	0.261	0.335	0.074 (0.153)	28.512%
<i>Post-1991</i>	7.978	0.299	0.453	0.153*** (0.002)	51.262%***

TABLE A.2: Table 3.1 (using a uniform kernel)

	B	Probability of Run. & Win. in $t + 1$			
		<i>Non-Inc.</i>	<i>Inc.</i>	δ_{RW}	%
<i>All</i>	5.457	0.150	0.170	0.02 (0.397)	13.501%
<i>National Parties</i>	5.250	0.159	0.182	0.023 (0.475)	14.332%
<i>Other Parties</i>	5.244	0.119	0.125	0.006 (0.88)	4.809%
<i>Ruling Parties</i>	8.085	0.116	0.133	0.017 (0.567)	14.58%
<i>Opposition Parties</i>	6.741	0.179	0.195	0.016 (0.723)	8.943%
<i>Pre-1991</i>	8.802	0.120	0.160	0.039 (0.178)	32.685%
<i>Post-1991</i>	5.295	0.167	0.189	0.021 (0.506)	12.869%

TABLE A.3: Table 3.3 (using a uniform kernel)

A.1.2 Parabolic (Epanechnikov) Kernel

Candidate Characteristic	B	Estimate at $M_{t,ji} = 0$		
		<i>Non-Inc.</i>	<i>Inc.</i>	δ_C
<i>Electoral Experience</i>	6.986	0.805	0.856	0.051 (0.556)
<i>Political Experience</i>	7.520	0.508	0.544	0.036 (0.563)
<i>Female (Prop. of Candidates)</i>	7.917	0.073	0.065	-0.008 (0.602)
<i>Scheduled Castes (Prop. of Candidates)</i>	7.164	0.129	0.130	0 (0.99)
<i>Scheduled Tribes (Prop. of Candidates)</i>	6.628	0.087	0.089	0.002 (0.902)

TABLE A.4: Table 2.2 (using a parabolic kernel)

	B	Probability of Running in $t + 1$			
		<i>Non-Inc.</i>	<i>Inc.</i>	δ_R	%
<i>All</i>	7.532	0.302	0.412	0.11** (0.017)	36.408%**
<i>National Parties</i>	11.582	0.347	0.517	0.169*** (0)	48.775%***
<i>Other Parties</i>	7.760	0.181	0.231	0.05 (0.475)	27.307%
<i>Ruling Parties</i>	8.743	0.266	0.374	0.107** (0.019)	40.263%**
<i>Opposition Parties</i>	5.821	0.470	0.501	0.031 (0.632)	6.494%
<i>Pre-1991</i>	10.336	0.293	0.356	0.063 (0.24)	21.471%
<i>Post-1991</i>	8.831	0.309	0.463	0.154*** (0.002)	49.715%***

TABLE A.5: Table 3.1 (using a parabolic kernel)

	<i>B</i>	Probability of Run. & Win. in $t + 1$			
		<i>Non-Inc.</i>	<i>Inc.</i>	δ_{RW}	%
<i>All</i>	6.352	0.150	0.165	0.015 (0.519)	10.174%
<i>National Parties</i>	6.548	0.162	0.183	0.02 (0.502)	12.618%
<i>Other Parties</i>	6.373	0.122	0.128	0.006 (0.871)	4.809%
<i>Ruling Parties</i>	9.521	0.119	0.138	0.019 (0.498)	16.4%
<i>Opposition Parties</i>	6.024	0.188	0.180	-0.008 (0.884)	-4.041%
<i>Pre-1991</i>	8.849	0.122	0.154	0.032 (0.302)	26.322%
<i>Post-1991</i>	5.584	0.166	0.180	0.015 (0.662)	8.8%

TABLE A.6: Table 3.3 (using a parabolic kernel)

Appendix B

Additional Information

B.1 State Parties

A party is recognized as a state party (of a specific state) if and only if it fulfills any of the following criteria:

- If it wins at least 3% of constituencies in the state in either a General Election or a Vidhan Sabha election in the state.
- If it wins at least 4% of constituencies in the state in a General Election²⁶.
- If it polls at least 6% of votes in the state in either a General Election or a Vidhan Sabha election, in addition to winning 1 Lok Sabha or 2 Vidhan Sabha constituencies respectively.
- If it polls at least 8% of votes in the state in either a General Election or a Vidhan Sabha election.

B.2 Bare Incumbents in t

²⁶The Election Commission uses the phrase "1 for every 25" constituencies, which in practice refers to the floor function.

Candidate Characteristics	Differences		
	Before 1991	After 1991	Overall
<i>Electoral Experience</i>	0.328*** (0)	0.702*** (0)	0.578*** (0)
<i>Political Experience</i>	0.261*** (0)	0.38*** (0)	0.343*** (0)
<i>National Parties (Prop. of Candidates)</i>	0.007 (0.426)	0.159*** (0)	0.108*** (0)
<i>State Parties (Prop. of Candidates)</i>	0.018 (0.103)	-0.113*** (0)	-0.071** (0.045)
<i>Ruling Parties (Prop. of Candidates)</i>	-0.173*** (0)	0.068** (0.023)	-0.021 (0.371)
<i>Opposition Parties (Prop. of Candidates)</i>	0.096*** (0)	-0.008 (0.895)	0.038*** (0.002)
<i>Female (Prop. of Candidates)</i>	-0.024 (0.372)	-0.052*** (0.002)	-0.042*** (0.006)
<i>Scheduled Caste (Prop. of Candidates)</i>	0.002 (0.887)	-0.001 (0.759)	-0.001 (0.899)
<i>Scheduled Tribe (Prop. of Candidates)</i>	-0.023 (0.267)	0.003 (0.748)	-0.007 (0.787)
<i>Independent (Prop. of Candidates)</i>	-0.007 (0.366)	-0.015** (0.033)	-0.013** (0.014)

TABLE B.1: Bare Inc. in t (Δ between contestants & non-contestants in $t + 1$)

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