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VOTES, PARTIES, AND SEATS

A Quantitative Analysis of Indian Parliamentary Elections, 1962–2014

Vani Kant Borooah

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In memory of my father, Dev Kant Borooah (1914–1996): scholar, poet, politician.

Preface

My life changed irrevocably at the age of two when my father was elected as the Member for Nowgong to India's Lower House of Parliament (the *Lok Sabha*) in the Indian General Election of 1951, and we moved from, what was then, the sleepy backwater of the state of Assam to the hurly-burly of metropolitan life in India's capital, New Delhi. In those years of living in New Delhi, discussion of electoral politics and parliamentary affairs was very much the staple of conversation within the home, and I grew up with an easy familiarity with terms like 'whipping members into lobbies', 'lame-duck sessions', 'waving order papers', and—indignity of indignities—'naming by the Speaker'. Parliament and elections were, so to speak, 'in my blood'. Years later, after I moved to England and became an academic economist, when politics ceased to be part of life's quotidian rhythm, my interest in parliamentary elections did not wane. This book is the product of that undimmed interest.

The foundations of this book lie in a set of data which records the details of the election result for each candidate, for all the constituencies, in every *Lok Sabha* General Election from 1962 to 2014. The edifice built upon this foundation, and discussed in this book, is the result of interrogating these data. The central purpose of this interrogation was to give shape to the notion of 'electoral efficiency' by which is meant the capacity of a party to convert votes into parliamentary seats. Parliamentary elections in India—and also elections to its state assemblies—are conducted under the First-Past-The-Post (FPTP) system: a single representative for each of 543 constituencies is elected—on the basis of obtaining the largest

number of votes of all the candidates contesting that constituency—as a member of the *Lok Sabha* for that constituency.

The disjoint, under the FPTP electoral system, between the votes obtained by a party and the seats won by it frequently causes surprise, sometimes bordering on consternation. Most recently, in the UK General Election of May 2015, the Scottish National Party won 56 seats in the House of Commons on the back of just under 1.5 million votes, while in the same election, the UK Independence Party received nearly 4 million votes and were rewarded with just one seat. Unlike a proportional electoral system, in which a party's share of the total vote is a good predictor of its share of parliamentary seats, the relation between a party's votes and its seats in an FPTP system works in mysterious ways. The primary purpose of this book, as captured in its title, is to throw light on this relationship for Indian parliamentary elections.

Given that India's two main political parties—the Indian National Congress (INC) and the Bharatiya Janata Party (BJP)—receive, between them, over half the national parliamentary vote, the analysis in this book is restricted to a comparison of the relative electoral efficiencies of these two parties. This leads to a further constraint. The BJP made its electoral debut in the 1984 *Lok Sabha* elections, winning just two seats, but really got into its stride in the 1989 *Lok Sabha* elections when it won 85 seats. Consequently, a great deal, but not all, of the analysis in this book is a comparison of the INC and the BJP and, consequently, restricted to the eight *Lok Sabha* elections of 1989, 1991, 1996, 1998, 1999, 2004, 2009, and 2014.

The tenor of this book, consistent with my métier as an academic economist, is analytical, based upon a rigorous examination of the data. In the process, I have drawn heavily upon the methodology of economics and statistics to shed light on electoral outcomes in India. Chapter 3 uses systems estimation techniques to predict the probabilities of the INC and BJP winning elections—and Chap. 5 uses systems estimation techniques to predict the vote shares of the INC and the BJP—in constituencies contested by both parties; Chap. 4 uses Bayesian methods to analyse the issue of anti-incumbency; Chap. 6 refines the concept of the 'Cubic Law of Elections' to develop the concept of the 'amplification coefficient' which amplifies votes into seats; and Chap. 7 measures vote concentration and vote inequality with particular reference to the decomposition of inequality and carries out two significant simulations with regard to the inter-constituency distribution of the INC and BJP vote.

In writing this book, my primary debt of gratitude is to Dr. Surjit Bhalla and to Dr. Kai Gehring for providing me with the data upon which the analysis in this book is based. Thanks are also due to Ulka Athale-Smit for research assistance and to Vidya Borooah for commenting on parts of the manuscript. Needless to say, I am solely responsible for this book's shortcomings.

I am grateful to my publisher Rachel Sangster for encouraging me to write this book, to Gemma Leigh for her editorial work, to Jayashree Ramamoorthy for overseeing the book's production and to an anonymous referee whose comments greatly improved the book's presentation and contents.

Vani K. Borooah
Belfast
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CHAPTER 1

Introduction

Abstract Borooah reviews the major developments in Indian politics from independence in 1947 till the latest Parliamentary General Election of 2014. He discusses the three pillars of India's identity—democracy, unity, and secularism—and shows the influence of democracy on India's unity and on the concept of secularism that it has adopted.

In his celebrated speech, delivered to India's Constituent Assembly on the eve of 15 August 1947, to herald India's independence from British rule, Jawaharlal Nehru, India's first Prime Minister, famously asked if the newly independent nation was 'brave enough and wise enough to grasp this opportunity and accept the challenge of the future'. If one conceives of India, as many Indians would, in terms of a trinity of attributes—democratic in government, secular in outlook, and united by geography and a sense of nationhood—then, in terms of the first of these, it would appear to have succeeded handsomely.

Since the Parliamentary General Election of 1951, which elected the first cohort of members to its lower house of Parliament (the *Lok Sabha*), India has proceeded to elect, in unbroken sequence, another 15 such cohorts so that the most recent *Lok Sabha* elections of 2014 gave to the country a government drawn from members to form the 16th *Lok Sabha*. Given the fractured and fraught experiences with democracy of India's immediate neighbours (Pakistan, Bangladesh, Sri Lanka, Nepal, and Myanmar) and of a substantial number of countries which gained independence from

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colonial rule, it is indeed remarkable that independent India has known no other form of governmental authority save through elections.

Elections (which represent 'formal democracy') are a necessary, but not a sufficient, condition for 'substantive democracy'. In a 'substantive democracy', citizens not only vote, but also, having elected their representatives, continue to have a sense of involvement in public affairs engendered by a sense that their views are heeded by those they have chosen to represent them (Huber et al. 1997). By corollary, substantive democracy requires one to listen to opposing points of view and to respond to these in measured tones. The shrillness of public discourse in India, both within Parliament and outside it, may give the impression that substantive democracy, as opposed to its formal counterpart, is still a distant goal for the country. And yet, as Corbridge et al. (2013) note, India has progressed a long way along the road to becoming a genuine democracy: people participate in politics, are more conscious of their rights, and are aided in this by a plethora of rights-based bodies and movements (Cornwall and Nyamu-Musembi 2004).

India's real achievement in promoting substantive democracy has been at the level of the village. The Constitution (73rd Amendment) Act of 1993 made it mandatory for all villages to have a village council (*Gram Sabha*) consisting of all registered voters on the electoral roll of that village. The *Gram Sabha* was to be entrusted with the power of supervising the functioning of the elected village *panchayat* and to approve the panchayat's development plan for the village and the associated budget. Consequently, in addition to voting, electors in villages had another form of political participation: they could attend *Gram Sabha* meetings and participate in its discussions. The 73rd Amendment Act stipulated that one-third of seats in the village *panchayat* should be reserved for women and disadvantaged groups like the Scheduled Castes and Scheduled Tribes.[1]

In delivering India's 'democratic achievement', Nehru's role in establishing the primacy of Parliament cannot be exaggerated. Even as stern a critic of Nehru as Anderson (2012) admitted that:

> Nehru's greatness, it is generally felt, was to rule as a democrat in a non-Western world teeming with dictators. Preceptor to his nation, he set an example from which those who came after him could not long depart. Tutored by him, Indian democracy found its feet, and has lasted ever since. That by conviction Nehru was a liberal democrat is clear. Nor was this a

> merely theoretical attachment to principles of parliamentary government. As Prime Minister, he took his duties in the *Lok Sabha* with a conscientious punctilio that put many Western rulers to shame, regularly speaking and debating in the chamber, and never resorted to rigging national elections or suppressing a wide range of opinion. So much is incontestable. (p. 26)

It is, of course, true that Nehru burnished his credentials as a democrat at a period when the party he headed—the Indian National Congress (INC)—dominated India's political landscape. In the *Lok Sabha* elections of 1951, the INC received 45 percent of the vote and won 75 percent of the seats to the 1st *Lok Sabha* (364 seats out of a total of 489). Its closest rivals in that General Election were Independent candidates and the Socialist Party who took, respectively, 37 and 12 seats on the back of, respectively, 16 and 12 percent of the total vote. The Communist Party of India received only 3.3 percent of the vote, but managed to win 16 seats.

The dominance of the INC was unchanged in subsequent General Elections. In the General Election of 1957, the INC received 45 percent of the national vote to take 75 percent of the available *Lok Sabha* seats (371 seats out of the total of 494); in the 1962 General Election, the INC received 48 percent of the vote and won 361, out of an available 494, seats (75 percent), while in the 1967 General Election, which was the first after Nehru's death in 1964, the INC received 41 percent of the vote to win 283 out of a total of 520 seats (54 percent). The dominance of the INC in Indian parliamentary elections survived the 1971 General Election—when on the back of nearly 44 percent of the national vote, it won 352 seats in a House of 546—before coming to a juddering halt in 1977.

The *Lok Sabha* elections of 1977 were held after the longest period between two successive elections in India, the last elections being held six years earlier in 1971. It offered voters an opportunity to express their views on (Jawaharlal Nehru's daughter) Indira Gandhi's imposition of a state of Emergency in India in 1975.[2] This was triggered by the Allahabad High Court setting aside Mrs Gandhi's election as the member for Rae Bareli, in the state of Uttar Pradesh, in the *Lok Sabha* election of 1971 because it found that as Prime Minister, she had illegally used the machinery of government for electoral purposes. Instead of stepping aside in favour of a caretaker Prime Minister, pending the outcome of her appeal to the Supreme Court, Mrs Gandhi imposed an 'Emergency'. It lasted 21 months, from June 1975 till March 1977, and during this

period 'elections were suspended, political and civil organisations were disbanded, and the media was gagged' (Corbridge et al. 2013).

The electorate's verdict in the *Lok Sabha* elections of 1977 could not have been clearer: the vote share of the INC fell from 44 percent in the 1971 General Election to 35 percent in 1977 with a corresponding fall from 352 to 154 in the number of *Lok Sabha* seats held by the party. Mrs Gandhi lost her Rae Bareilly seat, and at the age of 81, Morarji Desai became India's fourth Prime Minister.[3]

Prior to the *Lok Sabha* election of 1977, the main opposition to the INC came from Independent candidates, the communists, and a party, espousing economic liberalism (the *Swatantra* Party), which had come to prominence in the *Lok Sabha* election of 1962 winning 18 seats with nearly 8 percent of the national vote. After the 1977 *Lok Sabha* election, however, a new form of opposition emerged in the shape of a coalition of parties, of various ideologies, which came together solely for the purpose of winning elections by fielding common candidates. This amalgam was called the *Janata* Party, and it formed the post-1977 government with Desai as Prime Minister, but with Charan Singh, leader of the *Bharatiya Lok Dal* (BLD)—one of the *Janata Party*'s most powerful constituents—and Home Minister and also Deputy Prime Minister to Desai, waiting in the wings to take over.

If proof was ever needed of the futility of relying for stable government on a coalition of partners, united by nothing except electoral convenience, and led by persons of overweening political ambition, then the Janata Party government of 1977 provided it in abundance. Within two years, the BLD, by threatening to withdraw its support from the government, made Desai's position untenable; his resignation in July 1979 was quickly followed by Charan Singh taking over as Prime Minister. Singh's support, however, quickly haemorrhaged away, and he lasted just three weeks. Fresh elections were scheduled for 1980. The INC, under Mrs Gandhi, returned in triumph winning that election and (under the leadership of her son Rajiv Gandhi, who succeeded her as Prime Minister, after her assassination in October 1984) winning the next election, in December 1984, as well.

The *Lok Sabha* elections of 1989 were significant for three reasons.

1. They marked the emergence of the *Bharatiya Janata Party* (BJP) as a serious political force when it won 85 *Lok Sabha* seats in that election;

it, thereby, redeemed itself after the indignity of winning just two seats in its electoral debut in the previous *Lok Sabha* elections of 1984.
2. The 1989 election and the 1998 *Lok Sabha* elections bookended a period of parliamentary instability during which in a span of 10 years, India voted in five *Lok Sabha* elections: 1989, 1991, 1996, 1998, and 1999.[4]
3. In the decade after the 1989 *Lok Sabha* elections, India experienced—what Jaffrelot (2003) termed—a 'silent revolution' as lower-status groups increasingly captured political office and used political power to alter the balance of power between the upper and the lower castes. Each of these aspects is discussed, in turn, below.

1.1 The Rise of the BJP

The rise of the BJP was significant in two respects: (i) it offered voters, in the form of Hindu nationalism, an alternative to the 'secular' model propagated by Nehru and which was the bedrock of the INC's ideology[5] and (ii) for the first time, there was the prospect of two-party democracy in India. After two short-lived attempts to be a party of government (following the *Lok Sabha* elections of 1996, a BJP-led government lasted 13 days, and following the 1998 *Lok Sabha* elections, a BJP-led government lasted just over a year), the BJP, as the senior partner in a coalition of other parties, was at last able to offer the country stable government in 1999 when Prime Minister Vajpayee's government saw out the full five years of the 13th *Lok Sabha* and the *Lok Sabha* elections in 2014 ushered in a BJP majority government with Narendra Modi as Prime Minister.

1.2 Political Instability during the 1990s

In terms of government, the outcome of the 1989 election was that the INC, even though it was the largest single party, went into opposition and a minority 'National Front' government, with V.P. Singh as Prime Minister, was formed with support from the Leftist Parties and the BJP. Subsequent infighting within the parties comprising the 'National Front', in conjunction with the BJP withdrawing its support over the Ayodhya temple issue, resulted in the government resigning after losing a vote of confidence in November 1990. The new government was another minority government, with Chandra Shekhar as Prime Minister, this time supported by the INC. However, within the next few months, the INC withdrew its

support—on the charge that the government was 'spying' on the INC's leader, Rajiv Gandhi—paving the way for the dissolution of the 9th *Lok Sabha* and the start of the General Election campaign of 1991.

After the 1991 elections, the INC, with 244 seats, formed the government (with Narasimha Rao as Prime Minister after the INC's dynastic heir, Rajiv Gandhi, was assassinated in May 1991) with the BJP, on 120 seats, as the main opposition. This government lasted its parliamentary term, and the 1996 General Election followed five years later.

The INC made a poor fist of it in the 1996 elections: even though it won a larger share of the vote than the BJP (28.8 percent compared to 20.3 percent), it ended up winning fewer seats (140 compared to the BJP's 161). With the BJP, as the largest single party, unable to form a government—Atal Bihari Vajpayee lasted just 13 days as Prime Minister—and the INC, as the next largest party, refusing even to try, the outcome was a minority government. This was formed as a coalition of several smaller parties and labelled the 'United Front' with Deve Gowda as Prime Minister.

The United Front excluded both the BJP and the INC but was supported by the latter. In April 1997, the INC withdrew its support to the United Front, which was increasingly beset by internal wrangling between its constituent parties, but agreed to support another United Front coalition (which included Lalu Prasad Yadav's *Rashtriya Janata Dal* and Mulayam Singh Yadav's *Samajwadi Party* as constituents) with Inder Gujral as Prime Minister. Eleven months later, after Gujral had refused to accede to the INC's demand to drop three ministers from the Dravida Munnetra Kazhagam (DMK) party from his government, the INC withdrew its support, and this government also collapsed: the 11th *Lok Sabha* was dissolved, and in February 1998, a fresh set of parliamentary elections were held to elect the 12th *Lok Sabha*.[6]

The 1998 elections continued the low fortunes of the INC: it obtained the same share of the national vote as the BJP (26 percent) but ended up with fewer seats (141 compared to the BJP's 182). The outcome of the election was a coalition government, headed by the BJP with Atal Bihari Vajpayee as Prime Minister. By the end of the year, this coalition also collapsed as one of its partners—the All India Anna Dravida Munnetra Kazhagam (AIADMK) with 18 seats—withdrew its support. This led to the General Election of September 1999 to elect the 13th *Lok Sabha*.[7]

Since the *Lok Sabha* elections of 1999, India has enjoyed stable government with each government completing its five-year term. The 1999 election resulted in a coalition government, labelled the National Democratic

Alliance (NDA), with the BJP's Atal Bihari Vajpayee as Prime Minister. The *Lok Sabha* elections of 2004 and 2009 resulted in an INC-led coalition of centre-left parties, labelled the United Progressive Alliance (UPA): respectively, UPA-I and UPA-II. After the *Lok Sabha* elections of 2014, Narendra Modi became Prime Minister as head of a BJP majority government.

1.3 The Rise of the Lower Castes

Foremost amongst these lower caste groups who achieved political prominence in the 1990s were the 'Other Backward Classes' (Jaffrelot 2003). These were castes that were not 'forward castes'—in the sense of belonging to the Brahmin, Kshatriya, or Vaishya *varnas*—but who were not, unlike the Scheduled Castes, considered 'untouchable'. Originally, they were mobilised by the upper caste INC, but they now mobilised themselves *against* the INC. In the context of Indian politics, the 'Other Backward Classes' is a useful electoral category encapsulating the lower castes *above the pollution line* who try, by voting along caste lines, to carve political space for themselves.[8]

The catalyst for this 'silent revolution' was the Mandal Commission's Report of 1980 which 'recommended that, in addition to the 23 percent of government jobs reserved for the Scheduled Castes (SC) and Scheduled Tribes (ST), a *further* 27 percent should be reserved for the (OBC). In 1990, V.P. Singh's government announced plans to implement this recommendation triggering a wave of 'anti-Mandal' rioting in India. In 1992, India's Supreme Court, in *Sawhney Vs. The Union of India*, upheld jobs reservation for the Other Backward Classes but ruled that: (i) reservation was not to extend to more than 50 percent of the population and (ii) that groups within the (OBC) category who were manifestly not disadvantaged (the 'creamy layer') were to be excluded from reservation'.

The implementation of the Mandal Commission's Report cemented social identity into the basic structure of Indian politics by establishing, for nearly half of India's population, a clear association between social status (based on caste) and economic status (based on education and employment). To belong to a 'reserved category'—the Scheduled Castes, the Scheduled Tribes, and the Other Backward Classes—meant access to education and jobs on terms which were more favourable than those available to persons who did not belong to these categories. It was, therefore, important to preserve, and be aware of, one's caste identity because thanks

to 'reservation'—the scope of which was greatly extended by the Mandal Commission—it was the proverbial goose that laid golden eggs. Any political party that even remotely suggested that the policy on 'reservation' should be diluted or phased out—for example, on the grounds that it was unfair to persons in the non-reserved categories or that it might impact adversely on quality—would, in effect, be committing electoral suicide.[9]

Nonetheless, a conversation that Indians need to have amongst themselves—but, given the emotive nature of the topic, probably will not have—is about the costs and benefits of reservation in a post-Mandal society in which the reserved category is defined so widely. There can be little doubt that but for reservation, many students, currently in institutions of higher education for which entry is highly competitive, would not be there (Vishnu 2015).[10] It is perfectly reasonable to ask whether the presence of the 'less qualified' dilutes the quality of education offered by such institutions with the result that they turn out, for example, doctors and engineers who have been subjected to less than rigorous intellectual scrutiny. To ask such a question is *not* to suggest that they *should not* be admitted. There may well be compelling social arguments, including the need to blunt discrimination against persons from the backward castes, why reservation should be continued. These reasons should, however, be spelled out and set alongside the costs, if any, of reservation. The 'golden eggs' argument on its own is a poor reason for continuing with reservation in its present form.

1.4 Democracy and Secularism

Another aspect that impacts on electoral outcomes in India is its attitude towards religions, enshrined in its commitment to being a secular nation. Secularism in India, however, means something very different from that in France which, too, prides itself on being secular. The French attitude to secularism, enshrined in its principle of *laïcité*, actively prevents religious interference in state affairs. This dates back to the French Revolution of 1789 and is traditionally understood as a way of controlling the Catholic Church (Hussey 2014). In India, however, secularism, *in operational terms*, requires avoiding doing or saying anything which might 'hurt a community's religious sentiments'.[11] So, in France, for example, pupils and staff are forbidden, since February 2004, to conspicuously wear any religious symbols at school, in particular, headscarves by Muslims. From April 2007, these rules were also applied to public employees, and from

April 2011, the *niqab* was banned in public places. All these laws were based on the principle of secularism (*laïcité*).

In India, on the other hand, the wearing of religious symbols is not only permitted, but also anyone who objected to, or took action to prevent, such practices, by 'hurting the (relevant) community's religious sentiments', would be viewed as non-secular or, to use a term popular in India, 'communal'. In France, the right of the magazine *Charlie Hebdo* to publish anti-Islamic cartoons is regarded as a triumph of secularism; in India, the ban on Salman Rushdie's *Satanic Verses*, because it would, or might, offend Muslim sentiments, is also a victory for secularism. On the French view of secularism, the sacred is trumped by the profane; from the Indian perspective, the sacred invariably trumps the profane.

There can be little doubt that some actions taken in France, on the principle of *laïcité*, are insensitive to cultural differences and may even appear provocative. The decision of some schools not to offer their Muslim and Jewish pupils any dietary alternative when pork is the main item on the schools' menu is a good example of cultural insensitivity.[12] It is safe to say that on an Indian view of secularism, a similar situation would not arise.

In India, however, problems arise when what practitioners of a religion find hurtful is taken to unreasonable, indeed unacceptable, extremes. The reluctance to employ persons from the lower castes to cook school meals, in order not to offend upper-caste sensibilities that food touched by lower caste hands is rendered unclean, is an example of such pathology. On the French principle of *laïcité* upper caste children would have to eat food cooked by lower caste persons or else go hungry. The Indian attitude is to tiptoe around the problem and, with much handwringing, attempt to square the circle by expressing sympathy for both points of view.

A consequence of secularism in India is that each religion has an incentive to preserve its identity in undiluted form—immune to any proposals for reform—because such proposals, by 'hurting its sentiments', would fall foul of the secular principle. The upshot is that the same heightened sense of identity that reservation policies provide the backward caste groups is provided by secularism to religious groups.

Arguably, Muslims in France and India have, in different ways, been most affected by each country's particular concept of secularism. In France, Muslims, more than other religious groups, have been subject to the full rigour of *laïcité* in terms of how they lead their public and personal lives. In India, the policy towards Muslims has been one of non-interference, most particularly with respect to Muslim personal law.

As regards the latter, a Muslim man in India can divorce his wife by simply saying *talaq* (divorce) thrice and the All India Muslim Personal Law Board declared in September 2015 that there was no scope of change in the triple *talaq* system.[13] Notwithstanding court judgements to the contrary, Muslim husbands who divorce their wives are not required to pay them alimony. This is due to the (INC inspired) Muslim Women (Protection of Rights on Divorce) Act, 1986 which gave Muslim women the right to maintenance for only three months after divorce after which the onus of their maintenance was on their relatives.[14] Yet, no attempt is made to establish basic rights for Muslim women, in the form of protection from arbitrary divorce or maintenance payments in the event of divorce, because it would be tantamount to attacking 'Muslim identity' and, therefore, fall foul of the secularism principle. This is notwithstanding the fact that Article 44 of the Indian Constitution specifically requires the state to secure for its citizens a uniform civil code throughout the territory of India.

The failure to bring Muslims into mainstream life in India has, in fact, failed Muslims. The Sachar Committee (2006), in its report to the government of India, quantified and highlighted the backwardness of Indian Muslims. This report drew attention to a number of areas of disadvantage: *inter alia*, the existence of Muslim ghettos stemming from their concern with physical security; low levels of education engendered by the poor quality of education provided by schools in Muslim areas; pessimism that education would lead to employment, difficulty in getting credit from banks; and the poor quality of public services in Muslim areas. In consequence, as the Sachar Committee reported: one in four of 6- to 14-year old Muslims had never attended school; less than 4 percent of India's graduates were Muslim, notwithstanding that Muslims comprised 13 percent of India's population; and only 13 percent of Muslims were engaged in regular jobs, with Muslims holding less than 3 percent of jobs in India's bureaucracy.[15]

One of the reasons for protecting Muslim identity in India is because it is acknowledged that Muslims—who, according to the 2011 Census, comprise 14 percent of the population, with about 170 million adherents—play a crucial role in determining electoral outcomes in India. On one estimate, Muslim voters play a decisive role in determining the outcomes in about 100 (of the total of 543) constituency elections.[16] At the same time, there are a large number of parties, national and regional, competing for the Muslim vote: *inter alia*, the INC, the *Rashtriya Janata*

Dal, the *Samajwadi Party*, the *Aam Aadmi Party*, the *All India Majlis-e-Ittehadul Muslimeen*, and the *All India United Democratic Front*, with the latter two being explicitly Muslim parties. Paralleling the earlier discussion on reservations, any political party in India that suggested measures that might, even remotely, be construed as an attack on Muslim identity would have to suffer the consequences of losing the Muslim vote.

1.5 Democracy and National Unity

The last point of note is that there is the feeling that is generated in most Indians that by voting in elections which are regular and frequent, and in large part acknowledged to be free and fair, they are collectively involved in a national project of some importance. The turnout in Indian elections is high: 67 percent of voters exercised their franchise in the 2014 *Lok Sabha* elections and the average turnout, over the 14 *Lok Sabha* elections between 1962 and 2014, was 59 percent. The next chapter discusses the myriad reasons that bring voters to the polling booth—party loyalty, the desire to reward or punish candidates, and the prospect of material gain—but, in general, as Banerjee (2014) argues, 'for many Indian voters, voting is not just a means to elect a government…rather the very act of voting is seen by them as meaningful, as an end in itself, that expresses the virtues of citizenship, accountability, and civility that they wish to see in ordinary life, but rarely can' (p. 3).

Needless to say, an appreciation of possessing the right to elect one's government is not spread evenly across the country. If one views India, as Rudolph and Rudolph (2002) do, as a multinational federation, rather than as a nation state, with more in common with the European Union than with the USA, then it is not surprising that at various times, some parts of the country have been excluded from the democratic process: elections in Assam and Punjab could not be held during the 1984 *Lok Sabha* elections (but were held in 1985); elections in Assam could not be held during the 1989 *Lok Sabha* elections because electoral rolls were incomplete; elections in Punjab could not be held during the 1991 *Lok Sabha* elections (but were held in 1992); and the 1991 *Lok Sabha* elections in Jammu and Kashmir were boycotted in all its constituencies.[17]

Some commentators, most recently Anderson (2012), have seized upon these aberrations—and on the civil unrest that engendered them and upon the raft of legislation enacted to suppress such unrest—to draw attention to the deficiencies of Indian democracy. It is undoubtedly true

that many of these legislative measures, listed in Anderson (2012),[18] suborn the democracy that they purport to defend. Of these, none is more odious than the Armed Forces (Special Powers) Act (1958)—which continues to be in effect in Jammu and Kashmir and in India's north-eastern states—under which members of the armed forces can act as though they were in a situation of war: able to stop, search, arrest, and kill without judicial accountability.

That said, the other side of the ledger is that since independence in 1947, India has elected 16 successive Parliaments under the aegis of nearly 10,000 constituency elections. It has never known military rule nor have Indian political leaders, even in the darkest days of the Emergency of 1975–77, ever harboured presidential ambitions. In terms of geography, it has known serious unrest in only four regions: Jammu and Kashmir, Punjab, the northeast, and the swathe of districts running from Jharkhand to Andhra Pradesh which have come under the influence of Maoist guerrillas. Some of these conflicts were in the past (Punjab), and in others (in the northeast and in Jammu and Kashmir), efforts at a negotiated settlement are under way. Balancing the books, it would take an extraordinary degree of pessimism to envisage a dystopian future for Indian democracy.

Notes

1. In response to the burden of social stigma and economic backwardness borne by persons belonging to India's 'untouchable castes', the Constitution of India allows for special provisions for their members. These are mainly in the form of reserved seats in the national Parliament, state legislatures, municipality boards, and village councils (*panchayats*); job reservations in the public sector; and reserved places in public higher educational institutions. Articles 341 and 342 include a list of castes entitled to such benefits, and all those groups included in this list—and subsequent modifications to this list—are referred to as the 'Scheduled Castes'. Similarly, Articles 341 and 342 also include a list of *tribes* entitled to similar benefits, and all those groups included in this list—and subsequent modifications to this list—are referred to as the 'Scheduled Tribes'.
2. After Lal Bahadur Shastri's untimely death, she was India's third Prime Minister. This count excludes Gulzarilal Nanda, who was interim Prime Minister twice: first, from 27 May to 9 June 1964, after Nehru's death and Shastri's appointment, and then, from 11 to 24 January 1966, after Shastri's death and Mrs Gandhi's appointment.
3. See the previous note on Gulzarilal Nanda.

4. If both the 9th and the 10th *Lok Sabha* had lasted their parliamentary terms of five years, there would have been three fewer elections: in 1989, 1994, and 1999.
5. The 42nd Amendment (1976) to the Indian Constitution, passed under Mrs Gandhi's government, declared India to be a secular country.
6. The DMK was allegedly criticised by the Jain Commission's inquiry into Rajiv Gandhi's assassination in 1991 though since the Jain Commission's report was never made public, the allegation could not be substantiated.
7. Its demands were that: a former naval chief, who had been sacked, should be reinstated; the Defence Minister George Fernandes should be relieved of his portfolio; and a Joint Parliamentary Committee probe should be ordered (*Frontline*, 24 April—7 May 1999, http://www.frontline.in/static/html/fl1609/16090160.htm, accessed 26 November 2015).
8. It is a political cliché in India to view a person's caste as an important determinant of the party he/she will vote for. In her eponymous book, Chandra (2004) asks why ethnic parties succeed. The *Bahujan Samaj Party* (BSP) is the main Indian political party which espouses the cause of the Scheduled Castes—who comprise 17 percent of India's population—against that of the upper castes. It employs the same methods of caste mobilisation in every state—all of which have the same electoral system—but meets with different degrees of success in different states. In one, Uttar Pradesh, it has formed governments; in a second group of states, it obtains moderate levels of support, but not enough to form a government; in a third group of states, it draws a blank. Chandra's answer is that the elites amongst the Scheduled Castes weigh the advantages, in terms of access to the state patronage system, of voting for their 'own' party, the BSP, against voting for another party. If the BSP falls short in this calculation, then it fails to attract votes from even its own ethnic group, the Scheduled Castes. The conclusion of her analysis is that the caste basis for voting cannot be taken for granted—it depends upon the circumstances.
9. As happened with the BJP when, on the eve of the 2015 Bihar Assembly elections, one of its senior leaders asked for a rethink on the policy on reservation: he suggested that a 'non-political committee' be set up to examine who needs the benefit of reservation and for how long (NDTV, 22 September 2015, http://www.ndtv.com/india-news/rss-chief-mohan-bhagwats-statement-on-reservation-sparks-debate-1220171, accessed 26 November 2015)
10. For example, Vishnu (2015) reports that in the academic year 2014–15 the elite Indian Institutes of Technology admitted 2,029 students from the Scheduled Castes and 856 students from the Scheduled Tribes of whom only 432 and 80, respectively, would have secured admission in an open competition based on examination performance.

11. There are convoluted attempts to define the Indian concept of secularism. Bhargava (2010), for example, defines a secular state as 'not anti-religious but existing and surviving only when religion is no longer hegemonic…it allows freedom of religion but is itself free from religion'. It is difficult to see how such a platitudinous definition distinguishes the Indian version of secularism from the French type.
12. *The Guardian*, 13 October 2015, 'Pork or Nothing: How School Dinners are Dividing France', http://www.theguardian.com/world/2015/oct/13/pork-school-dinners-france-secularism-children-religious-intolerance, accessed 30 November 2015.
13. *First Post*, http://www.firstpost.com/india/no-scope-of-change-in-triple-talaq-system-says-all-india-muslim-personal-law-board-2419482.html, accessed 27 November 2015.
14. *The Hindu*, http://www.thehindu.com/thehindu/2003/08/10/stories/2003081000221500.htm, accessed 27 November 2015.
15. In 1865, Napoleon III gave Algerian Muslims the right to be governed, in non-criminal cases, by Islamic law rather than the French Civil Code with the result that Muslims 'had no control or stake in the country in which they lived' (Hussey 2014).
16. Deutsche Welle, 10 April 2014, http://www.dw.com/en/muslims-to-play-key-role-in-indian-elections/a-17558549, accessed 28 November 2015.
17. Srinagar, Ladakh, Baramulla, Anantnag, Jammu, and Udampur
18. The Preventive Detention Act (1950), Armed Forces (Special Powers) Act (1958), Unlawful Activities (Prevention) Act (1967), Prevention of Insults to National Honour Act (1971), Maintenance of Internal Security Act (1971), National Security Act (1980), Terrorism and Disruptive Activities (Prevention) Act (1985), Prevention of Terrorism Act (2002), and the Unlawful Activities (Prevention) Amendment Act (2004).

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CHAPTER 2

The Anatomy of Indian Parliamentary Elections

Abstract Borooah discusses the twin pillars of India's electoral system: the Election Commission of India (ECI) which oversees and regulates the electoral activities of political parties; and the plethora of political parties which, through their candidates, seek the mandate of voters and, by doing so, subject themselves to the regulatory supervision of the ECI. He then examines features of the system of elections to India's lower house of parliament with respect to the size of the electorate, the percentage of voters that turned out to cast their vote, and the candidates that offer themselves to the voters' judgement. Lastly, he examines the electoral performance of candidates who had criminal charges against them.

2.1 Introduction

In elections to India's lower house of parliament (the *Lok Sabha*), a single representative for each of 543 constituencies is elected—on the basis of obtaining the largest number of votes of all the candidates contesting that constituency—as the Member for that constituency. This system of election is known as the First-Past-The-Post (FPTP) system. In this chapter, we examine features of the system of elections to India's lower house of parliament (hereafter, the *Lok Sabha*) with respect to the size of the electorate, the percentage of voters that turned out to cast their vote, and the candidates that offer themselves to the voters' judgement. Using recently available data, we examine the consequences of voters being able, under

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a 2013 ruling by India's Supreme Court, to reject all available choices by availing of the option of voting for a fictional candidate, 'None of the Above' (NOTA). We also examine the electoral performance of candidates who (following a 2003 Supreme Court ruling, requiring *all* candidates to reveal, six months before they filed their candidacy papers, whether there were outstanding criminal charges against them) had criminal charges against them.

Before doing so, we discuss in the next two sections the twin pillars of India's electoral system: the Election Commission of India (ECI) which oversees and regulates the electoral activities of political parties with the power to proscribe any activity (or activities) it feels inappropriate to the electoral process; and the plethora of political parties which, through their candidates, seek the mandate of voters and, by doing so, subject themselves to the regulatory supervision of the ECI.

2.2 The Election Commission of India

The ECI is a body mandated under Article 324(2) of the Indian Constitution and currently comprises a Chief Election Commissioner and two Election Commissioners.[1] Its constitutional role is the 'superintendence, direction, and control of elections'. Under the Representation of the People Acts of 1950 and 1951, the ECI appoints the Chief Electoral Officer in each state or Union Territory (UT), the District Election Officer for each district, and the Returning Officer for each *Lok Sabha* or Assembly constituency where the latter is responsible for the conduct of elections in that constituency. The ECI in consultation with the state or UT government appoints an Electoral Registration Officer who is responsible for the preparation of the electoral rolls for each constituency in that state or UT. The District Election Officer then appoints the Presiding Officer for a particular polling station who, with the assistance of Polling Officers, is responsible for voting at that station. In addition, the ECI may appoint 'observers' to a particular constituency—either with respect to the general conduct of that election or, more specifically, with respect to election expenditures—who then report directly to the ECI.[2]

The ECI has progressively tightened its views on permissible campaigning practices through its *Model Code of Conduct* (MCC).[3] At the start of an election period, this Code with the MCC sets out an elaborate set of parameters within which elections should be conducted. In general, the MCC places strictures on the conduct of the election campaign by requiring that:

1. 'No party or candidate shall include in any activity which may aggravate existing differences or create mutual hatred or cause tension between different castes and communities, religious or linguistic'.
2. 'Criticism of other political parties, when made, shall be confined to their policies and programme, past record and work. Parties and Candidates shall refrain from criticism of all aspects of private life, not connected with the public activities of the leaders or workers of other parties. Criticism of other parties or their workers based on unverified allegations or distortion shall be avoided'.
3. 'There shall be no appeal to caste or communal feelings for securing votes. Mosques, Churches, Temples or other places of worship shall not be used as forum for election propaganda'.
4. 'All parties and candidates shall avoid scrupulously all activities which are "corrupt practices" and offences under the election law such as bribing of voters, intimidation of voters, impersonation of voters, canvassing within 100 meters of polling stations, holding public meetings during the period of 48 hours ending with the hour fixed for the close of the poll, and the transport and conveyance of voters to and from polling station'.
5. 'The right of every individual for peaceful and undisturbed home life shall be respected, however much the political parties or candidates may resent his political opinions or activities. Organizing demonstrations or picketing before the houses of individuals by way of protesting against their opinions or activities shall not be resorted to under any circumstances'.
6. 'No political party or candidate shall permit its or his followers to make use of any individual's land, building, compound wall etc. without his permission for erecting flag-staffs, suspending banners, pasting notices, writing slogans etc.'.
7. 'Political parties and candidates shall ensure that their supporters do not create obstructions in or break up meetings and processions organized by other parties. Workers or sympathisers of one political party shall not create disturbances at public meetings organized by another political party by putting questions orally or in writing or by distributing leaflets of their own party. Processions shall not be taken out by one party along places at which meetings are held by another party. Posters issued by one party shall not be removed by workers of another party'.

As Singh (2012) points out, the MCC was first developed in the 1960s in the state of Kerala following a broad consensus amongst politicians about the need for ethical ballast to the electoral vessel. Despite the fact that it has no statutory basis, the MCC has progressed from a voluntary agreement between political parties to a set of prescriptive rules, codified and implemented by the ECI with the acquiescence (however, grudgingly given) of all the political parties involved.

In 2013, the Supreme Court directed the ECI to frame guidelines with regard to the contents of election manifestos in consultation with all the recognised political parties. Broadly, the ECI expects that manifestos will not seek to beguile voters by containing promises which cannot be met and, indeed, which the party concerned has no intention of meeting. In particular, the ECI expects that "manifestos also reflect the rationale for the promises and broadly indicate the ways and means to meet the financial requirements for it".

The MCC also constrains the ruling party, in particular, its government's ministers, from using public resources—cars, planes, helicopters, and government personnel—for campaign purposes or to seek to influence voters by announcing new grants (e.g., increases in pensions) and new projects (like roads, hospitals, and schools), or to make strategic appointments (like university vice chancellors or chairpersons of public bodies). Such constraints that the ECI places on the pre-election behaviour of the ruling party—and, in respect of bribing and intimidating voters, also on other parties—blunts the use of 'vote banks' for electoral purposes.

In the Indian context, Srinivas (1955) coined the term 'vote banks' to mean the exchange of benefits and favours to groups of citizens in return for their political support. Vote banks had three essential features: political parties which, at the time Srinivas was writing, was essentially the INC; a village 'middleman', usually a high caste landowner who was a party member and who had an agency over groups of voters; and voter groups. There was then a patron-client relationship between party and 'middleman', and the middleman and voters, based on a system of reciprocal favours.

Favours to voters took essentially two forms: the provision of local public goods targeted at particular groups, say a paved road or a school in a locality in which people from a group were concentrated; the provision of private benefits to targeted groups of (usually poor) voters, often in the form of cash payments or gifts in kind like cycles, sewing machines, and so on; and illegally supplying below poverty line (BPL) cards to voters

who do not qualify for these (Breeding, 2011). This raises the interesting question, addressed by Schedler and Schaffer (2007), of how one should distinguish between favours granted through the public purse ('local' public goods) and payments in cash and in kind. Indeed, even when direct payments are made, they should not necessarily be viewed as purely commercial transactions; instead, they may reflect a sociocultural relationship between the patron and client, embodying 'obligation and reciprocity' and an egalitarian transfer of resources from rich to poor (Srinivas, 1955).

However, the efficacy of vote banks as an electoral instrument has been severely blunted by the MCC in respect of its strictures on bribing and intimidating voters. An important consequence of the MCC has, therefore, been that the reliance of parties in India on vote banks to deliver electoral approval is based more on hope than on expectation since falling foul of the ECI's strictures risks severe penalties including disqualification.[4] Today in India, not least because of the efforts of the ECI, as Breeding (2011) observes, 'vote banks are social displays of wealth on the part of political parties to attract primarily low-income citizens; they are gestures, historical remnants of a system in which the rules governing the game have changed' (p. 77).[5]

2.3 India's Political Parties

Any political party wishing to contest an election in India for a seat in a state Legislative Assembly or to the *Lok Sabha* must first register with the ECI with the advantage of registering being that the (registered) party gets preference in the matter of allotment of free symbols vis-à-vis purely independent candidates. The ECI then classifies registered parties as 'recognised' or 'unrecognised' parties with recognition being awarded as a 'national' or as a 'state' party.

In order to be recognised as a 'national' party, a party must fulfil *any* of the following conditions:[6]

1. It wins 11 *Lok Sabha* seats from at least three different states.
2. At a *Lok Sabha* General Election, it polls 6 percent of votes in four states and also wins four *Lok Sabha* seats.
3. It is recognised as a 'state party' in at least four states.

In order to be recognised as a 'state' party, a party must fulfil *any* of the following conditions:

1. It should win at least 3 percent of the total number of seats or a minimum of three seats in the Legislative Assembly.
2. It should win at least one seat in the *Lok Sabha* for every 25 seats (or fraction thereof) from that state.
3. It should obtain at least 6 percent of the total valid votes polled during the General Election to a *Lok Sabha* or the state Legislative Assembly and should, in addition, win at least one *Lok Sabha*, and two Legislative Assembly seats in that election.
4. Even if it fails to win a seat to the *Lok Sabha* or to the state Legislative Assembly, the party will still be recognised as a state party if it secures 8 percent or more of the votes in that state.

As of 12 February 2014, there were, on the above criteria, six recognised *national* parties in India: the Bharatiya Janata Party (BJP), the Indian National Congress (INC), the Communist Party of India (CPI), the Communist Party of India (Marxist) (CPM), the Bahujan Samaj Party (BSP), and the Nationalist Congress Party (NCP). In addition, there were 47 recognised *state* parties and 1563 'unrecognised' parties. [7]

Table 2.1 shows the composition of the 16th Lok Sabha (i.e., formed after the May 2014 General Election). This shows that the status of a party—as a recognised national or state party—had little bearing on the number of seats it held in the 16th Lok Sabha—after the BJP and INC, the next six parties with the largest number of seats were all state parties with a national party (the CPM) only appearing in seventh place.

In every *Lok Sabha* election since 1989, the majority of votes cast accrued to the collective of the INC and the BJP. In the *Lok Sabha* elections of 2014, the two parties collectively received 51 percent of the vote with the BJP winning 282 seats with 31.3 percent of the national vote and the INC winning 44 seats with 19.5 percent of the national vote. The All India Anna Dravida Munnetra Kazhagam came third in terms of seats, winning 37 seats with just 3.3 percent of the national vote.

2.4 Electorates and Turnout

Compared to the UK, the size of the Indian electorate is enormous. In the 2015 UK General Election, the average size of the electorate in a parliamentary constituency was just over 71,000. In the 2014 *Lok Sab*ha elections, the average electorate size was 1.53 million. Only one Indian parliamentary constituency, the Laccadive Islands, with an electorate of

Table 2.1 Composition of the 16th *Lok Sabha*, by political party

Bharatiya Janata Party*	BJP	282
Indian National Congress*	INC	44
All India Anna Dravida Munnetra Kazhagam**	AIADMK	37
All India Trinamool Congress**	AITC	34
Biju Janata Dal**	BJD	20
Shiv Sena**	SHS	18
Telugu Desam Party**	TDP	16
Telangana Rashtra Samithi**	TRS	11
Communist Party of India (Marxist)*	CPM	9
YSR Congress Party**	YSRCP	9
Lok Janshakti Party**	LJP	6
Nationalist Congress Party*	NCP	6
Samajwadi Party**	SP	5
Aam Aadmi Party**	AAP	4
Shiromani Akal Dal**	SAD	4
Independent	IND	3
Rashtriya Janata Dal**	RJD	4
All India United Democratic Front**	AIUDF	3
Jammu and Kashmir Peoples Democratic Party**	JKPDP	3
Rashtriya Lok Samta Party**	RLSP	3
Apna Dal	AD	2
Indian National Lok Dal**	INLD	2
Indian Union Muslim League**	IUML	2
Janata Dal (Secular)**	JD(S)	2
Janata Dal (United)**	JD(U)	2
Jharkhand Mukti Morcha**	JMM	2
All India Majlis-e-Ittehadul Muslimeen**	AIMIM	1
All India Namathu Rajiyam (NR) Congress**	AINRC	1
Communist Party of India*	CPI	1
Kerala Congress (Mani)**	KC(M)	1
Naga People's Front**	NPF	1
National People's Party**	NPP	1
Pattali Makkal Katchi**	PMK	1
Revolutionary Socialist Party**	RSP	1
Sikkim Democratic Front**	SDF	1
Swabhimani Paksha	SWP	1
Total		543

Source: Own calculations from *Lok Sabha* election data

*National party

**State party

just under 50,000, was smaller than the UK's largest constituency—the Isle of Wight with an electorate of 108,000. Malkajgiri in Andhra Pradesh had an electorate of over 3 million, and nine constituencies had electorates between 2 million and 3 million.[8] The turnout in Indian elections is also high: 67 percent of voters exercised their franchise in the 2014 *Lok Sabha* elections—compared to 66 percent in the 2015 UK General Election—and the average turnout, over the 14 *Lok Sabha* elections between 1962 and 2014, was 58.6 percent.[9] In 2014, the turnout of voters was greater than 80 percent in 69 constituencies, and it fell below 50 percent in only 11 constituencies.

Table 2.2 shows, for each *Lok Sabha* election between 1962 and 2014, the average size of the electorate, the percentage of voters who voters in these constituencies, and also inter-constituency inequality in the distribution of these sizes and turnouts. Inequality is measured by the Gini coefficient which is one of the most commonly used inequality measures. If N represents the total number of constituencies and E_i *and* E_j are the electorate sizes in constituencies i and j, the Gini coefficient is defined as:

Table 2.2 Average constituency size and turnout and inequality in the distribution of Inter-constituency size and turnout: 1962–2014

Year	*Constituency size*	*Gini coefficient on size*	*Turnout (%)*	*Gini coefficient on turnout*
1962	437,876	0.062	53.3	0.132
1967	483,755	0.070	58.1	0.115
1971	529,322	0.074	53.3	0.124
1977	595,591	0.075	58.6	0.098
1980	676,505	0.071	55.4	0.105
1984	740,013	0.078	62.3	0.093
1989	945,145	0.078	59.9	0.109
1991	959,427	0.078	54.5	0.132
1996	1,091,293	0.104	57.1	0.128
1998	1,114,900	0.096	61.4	0.084
1999	1,139,641	0.097	59.6	0.097
2004	1,236,590	0.118	59.1	0.115
2009	1,320,415	0.096	59.4	0.134
2014	1,536,144	0.092	67.3	0.089

Source: Own calculations from *Lok Sabha* election data

$$G = \frac{1}{2N^2\mu}\sum_{i=1}^{N}\sum_{j=1}^{N}\left|E_i - E_j\right| \quad 2.1$$

In other words, the Gini coefficient is computed as half the mean of the difference in sizes between pairs of constituencies, divided by the average constituency size (μ). So, in 2014, with a mean constituency size of 1,536,144 and a Gini value of 0.092, the *difference* in electorate sizes between two constituencies *chosen at random* would have been 18.4 percent of 1,536,144 or just under 283,000.

Table 2.2 shows that between 1962 and 2014, the average size of the electorate increased by a factor of 3.5: from 437,876 in 1962 to 1,536,144 in 2014. Over the same period, inequality in electoral size increased slightly: in 1962, the largest 10 percent of constituencies had an average electorate (493,266) that was 1.25 times the average electorate of the smallest 10 percent of constituencies (393,246); by 2014, this markup had increased to 1.44 (1,808,886 versus 1,258,59).

In order to examine changes in turnout, we can split the elections into two periods: 1962 to 1984 (when the BJP made its first electoral foray, winning just two seats in the 8th *Lok Sabha*); and 1989 (when the BJP secured 85 seats in the 9th *Lok Sabha*) to 2014 (when the BJP secured 282 seats in the 16th *Lok Sabha*). The average turnout increased from 57 percent in the earlier period to 60 percent in the later period, and the turnout in constituencies in the highest and lowest deciles of turnout increased from 71.2 percent and 42.3 percent, respectively, in 1962–84 to 76.3 percent and 44.5 percent, respectively, in 1989–2014.

Table 2.3 shows the average turnout for the 2014 *Lok Sabha* elections by the major states of India. This table shows that the highest turnout was in West Bengal (82.2 percent) and the lowest in Jammu and Kashmir (50.6 percent) with several states recording a voter turnout in excess of 70 percent.

Considerations of voter turnout at elections raise the question of why people bother to vote. Traditional theories of voting are based on an individualistic model of voting. On this view of voting, it is not clear why a rational individual, on a purely cost-benefit basis, would bother to vote: the chances of an individual vote influencing the electoral outcome are infinitesimally small while the costs of voting—taking time off work, standing in a long queue—are real and not insubstantial (Downs, 1957). However, given the far from negligible turnout witnessed in elections in

Table 2.3 Average turnout by major Indian states in the 2014 *Lok Sabha* elections

State	*Turnout*
Andhra Pradesh	75.6
Assam	79.8
Bihar	56.5
Chhattisgarh	69.5
Gujarat	63.6
Haryana	71.5
Himachal Pradesh	64.4
Jammu and Kashmir	50.6
Jharkhand	63.9
Karnataka	67.7
Kerala	74.0
Madhya Pradesh	61.7
Maharashtra	60.5
Orissa	73.9
Punjab	70.7
Rajasthan	63.0
Tamil Nadu	74.0
Uttarakhand	60.7
Uttar Pradesh	58.6
West Bengal	82.2

Source: Own calculations from *Lok Sabha* election data

India and, indeed, throughout the world, it is clear that people do take the trouble to vote.

One reason why people vote is because of 'group identity' voting which has been analysed, for elections in Israel, by Hillman et al. (2014). In the Indian context, the existence of vote banks goes some way towards explaining why large numbers of people in India turn out to vote. Downs' (1957) argument was based on the belief that the *costs* of voting—gathering information about parties and candidates, registration, and time spent to/from/at the polling station—were specific to the voter and were likely to exceed the *benefits* from voting. The latter are in the form of collective goods, and their benefit to a specific voter is likely to be zero.[10]Besley et al. (2012) suggest that in the context of Indian villages, residents in the *Gram Pradhan*'s village had greater access to public goods than residents in other villages. However, in the context of 'vote banks', many of the benefits of voting may be private benefits paid to groups of voters for their electoral support and may be quite substantial.

The existence and implementation of the MCC, discussed earlier, are likely to have diminished the importance of an exchange of favours, between electors and candidates, that characterised traditional vote banks. However, in addition to opportunistic electoral politics, based on reciprocal favours, there are several, more general, explanations for this paradox of (not) voting. As Geys (2006) observes, the instrumental theory of voting holds that an action has value only if it affects the outcome. Sen (1977) argued that if 'outcome' was narrowly defined as serving one's own interest, to the exclusion of any other's, then a person acting in such a manner might be 'rational' but he would also be a fool.

Indeed, Sen (1977) argued that people act out of a myriad motives, many of which are unconnected with self-interest. One of these is 'sympathy'; another is 'commitment'. Even if it is argued that 'sympathy' is just an economic externality, Sen (1977) argues that commitment involves a counter-preferential choice, destroying the crucial assumption that the chosen alternative must be better than the others—'it drives a wedge between personal choice and personal welfare' (p. 329). Consequently, the high turnout in elections 'may be guided not so much by maximisation of expected utility, but by something much simpler, viz., just a desire to record one's true preference' (p. 333).

The concept of 'expressive voting' elaborates upon, and extends, the view of people voting to record their preferences. In terms of 'expressive voting', people vote not for instrumental reasons—that is to effect change—but rather to express an opinion or a point of view, regardless of whether that turns out to be the winning opinion. This view has been articulated by, *inter alia*, Brennan and Lomasky (1993), Hillman (2010), and Hamlin and Jennings (2011).

All this is not to say that expressive voting cannot be self-interested or not result in change. As regards the first point, Hillman (2010) argues that expressive utility, along with material utility, comprises total utility. A person's voting decision may be based simultaneously on maximising material utility (a high-income person votes against higher tax and more generous welfare payments) and on maximising expressive utility (a high-income person affirms his identity). As regards the second point, if a sufficient number of people express the same opinion, then social and political change—sometimes dramatic—inevitably follows. The 2014 Indian election results, which led to a landslide victory for the BJP under Narendra Modi, can be interpreted as an expression of the electorate's distaste for the ineffectual, dynastic government led by the INC. As Banerjee (2014)

argues, 'for many Indian voters…voting is not just a means to elect a government. Rather, the very act of voting is seen by them as meaningful, as an end in itself, which expresses the virtues of citizenship, accountability and civility that they wish to see in ordinary life, but rarely can' (p. 3).

2.5 Independent Candidates and 'None of the Above'

Lok Sabha elections attract a large number of candidates to most constituencies, but the record must surely be held by Nalgonda in Andhra Pradesh and by Belgaum in Karnataka which, in 1996, fielded, respectively, 480 and 456 candidates. Apart from this bounty of candidates in Nalgonda and Belgaum, 1996 was a bumper year for contesting *Lok Sabha* elections: *inter alia*, the constituency of East Delhi was contested by 122 candidates; Allahabad by 73; Nagpur by 60; Muzaffarpur (Bihar) by 67; Pune by 44; and so on. Table 2.4 shows the average number of candidates in a constituency for each of the *Lok Sab*ha elections between 1962 and 2014. The numbers in this table point to a secular increase in the number of candidates from around five per constituency for the four elections between

Table 2.4 Average number of candidates in a constituency: 1962–2014

Year	*Average number of candidates in a constituency*	*Average number of independent candidates in a constituency*	*Average number of party candidates in a constituency*
1962	4.1	1.0	3.1
1967	4.6	1.7	2.9
1971	5.4	2.2	3.2
1977	4.5	2.3	2.2
1980	8.8	5.3	3.4
1984	10.2	7.2	3.0
1989	11.7	7.0	4.7
1991	16.4	10.4	6.0
1996	25.7	19.5	6.2
1998	8.7	3.5	5.2
1999	8.6	3.6	5.0
2004	10	4.4	5.6
2009	14.9	7.1	7.8
2014	16.2	6.0	10.2

Source: Own calculations from *Lok Sabha* election data

1962 and 1977 rising to about 14 per constituency for the three elections of 2004, 2009, and 2014.

As Table 2.4 shows, this increase is partly due to the increase in the number of independent candidates in a constituency (up from an average of one per constituency in 1962 to six per constituency in 2014) but it is partly also due to the increase in the number of political parties (up from an average of three per constituency in 1962 to 10 per constituency in 2014). In 1962, of an average of four candidates per constituency, one was an independent and three were party candidates; in 2014, of an average of 16 candidates per constituency, six were independents and ten were party candidates. What is undoubtedly true is that the ratio of independent to party candidates has shifted in favour of the former: in 1962, there were three party candidates for every independent candidate, but in the elections between 1984 and 1996, party candidates were outnumbered by independents, and in 2004 and 2009, there was approximately one independent candidate for every party candidate.

One possibility for the rise in independent candidates is not that they expect to win, but that they want to undermine the vote of a party candidate. In a closely fought election (discussed in the next chapter), the presence of independent candidates can erode support sufficiently to have an appreciable impact on the outcome.[11] Another reason for the rise in the number of independent candidates could be pique at being denied a party nomination. Since being a *Lok Sabha* member is a rewarding job—offering, *inter alia*, a good salary, generous pension benefits, government-provided housing in the capital, and free travel across India—there is considerable competition to be adopted as a major party's candidate for a constituency ('getting a ticket', as it is termed in India). Alas, many are called, but few are chosen. Some of those not chosen seek to exact revenge by standing against the official candidate who deprived them (unfairly, in their eyes) of their opportunity.

Table 2.5 shows, for the 2014 *Lok Sabha* elections, the average number of candidates in a constituency in the 20 major Indian states. The smallest number of candidates in a constituency were in the three eastern states of Orissa (10.3 candidates), West Bengal (12.2 candidates), and Assam (12.6 candidates) and in the northern state of Himachal Pradesh (10.5 candidates). These states had also the smallest number of independent candidates per constituency: 1.5 in Orissa, 2 in West Bengal, 2.8 in Himachal Pradesh, and 4.2 in Assam. At the other extreme, the newer states of Chhattisgarh and Jharkhand had a large number of candidates per constit-

Table 2.5 Average number of candidates in a constituency by major Indian states in the 2014 *Lok Sabha* elections

State	*Total candidates*	*Independent candidates*	*Party candidates*
Andhra	15.2	5.5	9.7
Assam	12.6	4.2	8.4
Bihar	16.2	4.2	12.0
Chhattisgarh	20.2	9.6	10.5
Gujarat	13.8	6.1	7.8
Haryana	24	12.1	11.9
Himachal Pradesh	10.5	2.8	7.8
Jammu and Kashmir	13.8	5.5	8.3
Jharkhand	18.1	5.5	12.6
Karnataka	16.5	7	9.5
Kerala	14.5	6.1	8.4
Madhya Pradesh	14.0	4.3	9.7
Maharashtra	19.7	9.3	10.4
Orissa	10.3	1.5	8.8
Punjab	20.5	9.1	11.4
Rajasthan	13.8	4.7	9.1
Tamil Nadu	22.7	13.3	9.4
Uttarakhand	15.8	5.4	10.4
Uttar Pradesh	17.1	4.7	12.4
West Bengal	12.2	2.0	10.3

Source: Own calculations from *Lok Sabha* election data

uency (20.2 in Chhattisgarh and 18.1 in Jharkhand), and they were joined in this plethora of candidates by Tamil Nadu (22.7 candidates per constituency), Punjab (20.5 candidates per constituency), and Maharashtra (19.7 candidates per constituency).

Although there has been a rise in the number of independent candidates over time, this has not been matched by the number of independent members of the *Lok Sabha*. Figure 2.1 shows that the number of independent members in the *Lok Sabha* fell from 35 in 1967 to just three—one from Assam (Kokrajhar) and two from Kerala (Chalakudy and Idukki, respectively)—in 2014.

Between them, independent candidates received a total of nearly 17 million votes in the 2014 *Lok Sabha* elections which represented 3 percent of the total of nearly 554 million votes cast in that election. Figure 2.2, which charts the share of independent candidates in the total of votes cast, shows that notwithstanding the increase in the number of independent

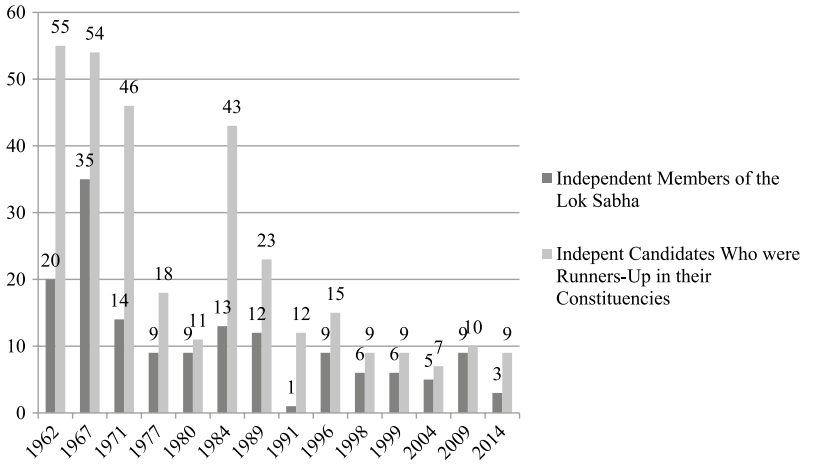

Fig. 2.1 Independent members of the *Lok Sabha*, 1962–2014 (*Source:* Own calculations from *Lok Sabha* election data)

candidates between 1962 and 2014 (noted in Table 2.4), the proportion of the total votes going to independent candidates has seen a secular decline from 13 percent in the *Lok Sabha* elections of 1962 to 3 percent in the *Lok Sabha* elections of 2014.

2.5.1 None of the Above

Voting for independent candidates, arguably, expresses dissatisfaction with political parties in effectively representing voters' needs. A rejection of all candidates in a constituency, on the other hand, is an unambiguous rejection of the entire political system, party and non-party, in that constituency. In September 2013, the Supreme Court of India upheld the right of voters to reject all candidates contesting elections and directed the ECI to provide voters with the option of casting their vote for a phantom candidate: NOTA. Following this directive, the *Lok Sabha* election of May 2014 was the first parliamentary election to incorporate the NOTA option.[12]

In this election, NOTA received just over a total of 6 million votes—that is, 11 million less than the 17 million received by the collective of independent candidates—and the three constituencies with the largest

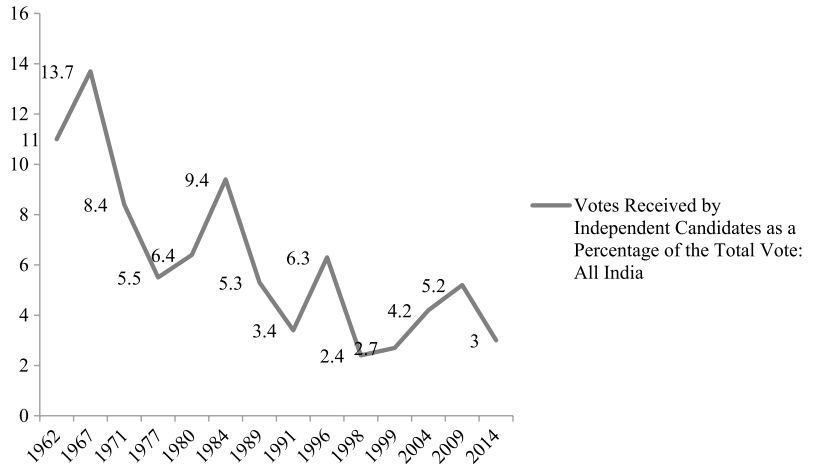

Fig. 2.2 Share of votes received by independent candidates in the total vote: 1962–2014 (*Source:* Own calculations from *Lok Sabha* election data)

number of NOTA votes were: the Nilgiris (Tamil Nadu) with 46,559 votes comprising 5 percent of the total votes cast in the constituency; Nabarangpur (Orissa) with 44,408 votes comprising 4.3 percent of the total votes cast in the constituency; and Bastar (Chhattisgarh) with 38,772 votes comprising 5 percent of the total votes cast in the constituency.

The state with the largest number of NOTA votes was Uttar Pradesh (592,211 votes), followed by Tamil Nadu (582,062 votes), Bihar (581,011 votes), and West Bengal (568,276 votes). These four states, collectively, accounted for 39 percent of the total of NOTA votes.

2.6 Candidates with Criminal Histories or Who Face Criminal Charges

In a landmark judgement in 2002, the Indian Supreme Court mandated that prior to an election, all candidates running for public office should file affidavits with the ECI in which they would report criminal histories or pending criminal charges for any offense punishable with imprisonment of two years or more; these affidavits were to be lodged six months before the individual filed his/her candidacy papers.[13] Since these rulings, there

have been three *Lok Sabha* elections—2004, 2009, and 2014: information on the 'criminal status' of all the candidates in the 2004 and 2009 *Lok Sabha* elections was collected by Golden (2014) and made available through the Inter-University Consortium for Political and Social Research (ICPSR) at the University of Michigan; and information on the criminal status of candidates in the 2014 *Lok Sabha* elections was available from the Association for Democratic Reforms (2014).[14]

Figure 2.3 shows that in the 2004 election, 8.7 percent of the candidates (475 out of 5435) reported a criminal charge (hereafter, 'CC candidates'); in the 2009 election, 11 percent were CC candidates (893 out of 8070); and in the 2014 election, 17 percent were CC candidates (1401 out of 8180). Consequently, there would appear to be strong evidence that the proportion of CC candidates in the total of candidates for *Lok Sabha* elections is on the rise.

The proportion of CC candidates was, however, unevenly distributed over the states. Table 2.6 shows the proportion of CC candidates, in the total number of candidates, for every state in India. The outlier states in this table were Bihar and Jharkhand—remembering that Jharkhand was

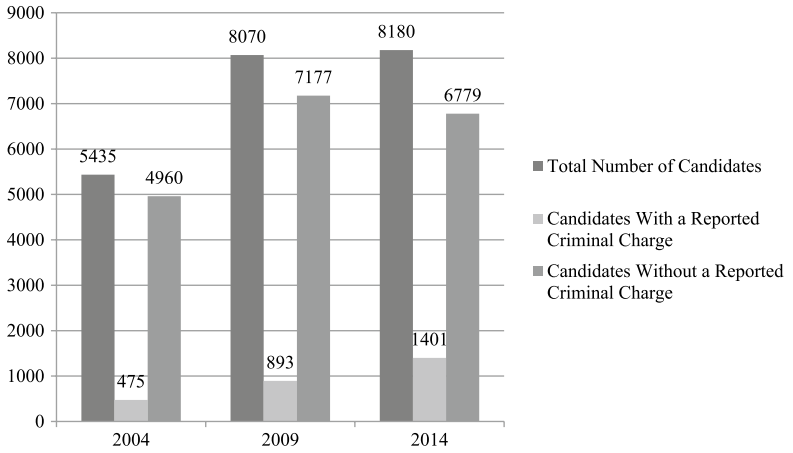

Fig. 2.3 The criminal charge status of candidates in the 2004 and 2009 *Lok Sabha* elections (*Source:* Own calculations from Golden (2014) for the 2004 and 2009 elections and Association for Democratic Reforms (2014) for the 2014 election)

carved out of erstwhile Bihar in 2004—where, respectively, 20 and 23 percent of candidates reported a criminal charge against them.[15]

The fact that persons with reported criminal charges were candidates for *Lok Sabha* elections begs the question of how they fared in these elections. Of the 543 *Lok Sabha* members elected in 2004 (to the 14th *Lok Sabha*) and in 2009 (to the 15th *Lok Sabha*), respectively, 128 and 129 members—or 24 percent of the total—had reported criminal charges (hereafter, CC members). Since, as Fig. 2.2 showed, there were a total 475 CC candidates in the *Lok Sabha* elections of 2004, and 893 CC candidates in the *Lok Sabha* elections of 2009, respectively, 27 and 14 percent of such candidates were elected to the 14th and 15th *Lok Sabha*. After the May 2014 *Lok Sabha* election, there were 1401 CC candidates of whom 185 (13 percent) were elected to the 16th *Lok Sabha*. Conversely, the proportions of non-CC candidates elected were: 8.3 percent to the 14th *Lok Sabha*, 5.8 percent to the 15th *Lok Sabha*, and 5.3 percent to the 16th *Lok Sabha*.

Table 2.7 shows the interstate distribution of CC members of the 14th and 15th *Lok Sabha* (i.e., after the 2004 and 2009 elections). The five states that stand out in this table are: Uttar Pradesh (27 out of 80 were CC members in the 15th *Lok Sabha*), Bihar (18 out of 40 were CC members in the 15th *Lok Sabha*), Maharashtra (12 out of 48 were CC members in the 15th *Lok Sabha*), Andhra Pradesh (9 out of 42 were CC members in the 15th *Lok Sabha*), and Tamil Nadu (9 out of 39 were CC members in the 15th *Lok Sabha*). In sum, these five states supplied 75 of the total of 129 CC members (58 percent) in the 15th *Lok Sabha*.

Tables 2.8, 2.9, and 2.10 show the party affiliations of CC members for, respectively, the 14th, 15th, and 16th *Lok Sabha*. Of the 128 CC members in the 14th Lok Sabha, 52 (41 percent) were supplied by the two main parties, the BJP (28 CC members) and the INC (24 CC members). The 15th Lok Sabha saw these parties increase their supply of CC members: now 71 of the total of 129 CC members (55 percent) belonged to the BJP (36 CC members) or the INC (35 CC members). Not to be underestimated either is the contribution of the smaller parties in supplying CC members. One in three of the 36 *Samajwadi Party* (SP) members in the 14th *Lok Sabha* reported a criminal charge while 8 of the 12 *Shiv Sen*a members were CC members. In the *15th Lok Sabha*, 8 of the 20 *Janata Dal (United)* members, 6 of the 21 *Bahujan Samaj Party* members, and 8 of the 23 *SP* members reported a criminal charge. The 16th

Table 2.6 The distribution of candidates with reported criminal charges by state, 2004 and 2009 *Lok Sabha* elections

State	*Total candidates*	*Candidates with a charge*	*Percentage of total candidates with a criminal charge*
Andaman and Nicobar Islands	23	5	21.7
Andhra Pradesh	848	52	6.1
Arunachal Pradesh	21	1	4.8
Assam	274	13	4.7
Bihar	1134	230	20.3
Chandigarh	31	0	0
Chhattisgarh	280	9	3.2
Dadra and Nagar Haveli	15	5	33.3
Daman and Diu	10	3	33.3
Delhi	289	21	7.3
Goa	34	5	14.7
Gujarat	521	76	14.6
Haryana	370	21	5.7
Himachal Pradesh	54	0	0
Jammu and Kashmir	164	7	4.3
Jharkhand	431	101	23.4
Karnataka	599	34	5.7
Kerala	394	56	14.2
Laccadive Islands	8	1	12.5
Madhya Pradesh	723	45	6.2
Maharashtra	1231	97	7.9
Manipur	28	0	0
Meghalaya	16	1	6.3
Mizoram	7	0	0
Nagaland	8	0	0
Orissa	257	33	12.8
Pondicherry	49	7	14.3
Punjab	360	29	8.1
Rajasthan	531	36	6.8
Sikkim	11	1	9.1
Tamil Nadu	1394	87	6.2
Tripura	31	2	6.5
Uttar Pradesh	2506	312	12.5
Uttarakhand	130	7	5.4
West Bengal	723	71	9.8
Total	13,505	1368	10.1

Source: Own calculations from Golden (2014)

Table 2.7 The distribution of *Lok Sabha* members with reported criminal charges, by state: 2004 and 2009 *Lok Sabha* elections

State	*Total members 2004 & 2009*	*CC members 2004*	*CC members 2009*
Andaman and Nicobar Islands	1	0	1
Andhra Pradesh	42	6	9
Arunachal Pradesh	2	0	0
Assam	14	0	2
Bihar	40	15	18
Chandigarh	1	0	0
Chhattisgarh	11	2	2
Dadra and Nagar Haveli	1	0	1
Daman and Diu	1	1	0
Delhi	7	2	0
Goa	2	1	0
Gujarat	26	7	7
Haryana	10	1	1
Himachal Pradesh	4	0	0
Jammu and Kashmir	6	0	1
Jharkhand	14	7	7
Karnataka	28	6	6
Kerala	20	7	7
Laccadive Islands	1	0	0
Madhya Pradesh	29	6	5
Maharashtra	48	20	12
Manipur	2	0	0
Meghalaya	2	0	0
Mizoram	1	0	0
Nagaland	1	0	0
Orissa	21	3	5
Pondicherry	1	0	0
Punjab	13	5	2
Rajasthan	25	3	1
Sikkim	1	0	0
Tamil Nadu	39	8	9
Tripura	2	0	0
Uttar Pradesh	80	24	27
Uttarakhand	5	0	1
West Bengal	42	4	5
Total	543	128	129

Source: Own calculations from Golden (2014)

Table 2.8 Party affiliation of members to the 14th *Lok Sabha* with reported criminal charges

Party	*Total number of members*	*Number of CC members*
Indian National Congress (INC)	145	24
Bharatiya Janata Party (BJP)	138	28
Communist Party of India (Marxist) (CPM)	43	7
Samajwadi Party (SP)	36	12
Rashtriya Janata Dal (RJD)	24	11
Bahujan Samaj Party (BSP)	19	8
Dravida Munnetra Kazhagam (DMK)	16	5
Shiv Sena (SHS)	12	8
Biju Janata Dal (BJD)	11	1
Communist Party of India (CPI)	10	2
Nationalist Congress Party (NCP)	9	5
Janata Dal (United) (JD(U))	8	2
Shiromani Akali Dal (SAD)	8	4
Jharkhand Mukti Morcha (JMM)	5	5
Lok Janshakti Party (LJNSP)	4	1
Marumalarchi Dravida Munnetra Kazhagam (MDMK)	4	1
All India Forward Bloc (AIFB)	3	1
Janata Dal (Secular) (JD(S))	3	1
All India Majlis-e-Ittehadul Muslimeen (AIMIM)	1	1
Kerala Congress (KEC)	1	1
Total[a]	500	128

Source: Own calculations from Golden (2014)

[a]Total refers to only those parties with at least one CC member

Lok Sabha saw the number of CC members rise to 187 which comprised 34 percent of the total strength of the House.[16]

The election of candidates with reported criminal charges to the *Lok Sabha* raises the further question of how they performed as legislators. This issue has been examined, with respect to the 14th *Lok Sabha*, by Gehring et al. (2015). Their first conclusion was that compared to non-CC members of the *Lok Sabha*, the attendance record of CC members was about 5 percent *lower*. There was, however, no difference in the amount of 'parliamentary activity'—raising questions and participating in debates—between CC and non-CC members of the 14th *Lok Sabha*.

The Indian government operates a Member of Parliament Local Area Development (MPLAD) Scheme under which members of the *Lok Sabha*

Table 2.9 Party affiliation of members to the 15th *Lok Sabha* with reported criminal charges

Party	*Total number of members*	*Number of CC members*
Indian National Congress INC	206	35
Bharatiya Janata Party BJP	116	36
Samajwadi Party SP	23	8
Bahujan Samaj Party BSP	21	6
Janata Dal (United) JD(U)	20	8
All India Trinamool Congress AITC	19	2
Dravida Munnetra Kazhagam (DMK)	18	4
Communist Party of India (Marxist) (CPM)	16	2
Biju Janata Dal BJD	14	4
Shiv Sena SHS	11	2
All India Anna Dravida Munnetra Kazhagam (AIADMK)	9	3
Independent IND	9	1
Nationalist Congress Party NCP	9	2
Telugu Desam Party (TDP)	6	2
Rashtriya Lok Dal (RLD)	5	2
Rashtriya Janata Dal (RJD)	4	3
Shiromani Akali Dal (SAD)	4	1
Janata Dal (Secular) (JD(S))	3	1
All India Forward Bloc (AIFB)	2	1
Jharkhand Mukti Morcha (JMM)	2	2
Telangana Rashtra Samithi (TRS)	2	1
All India Majlis-e-Ittehadul Muslimeen (AIMIM)	1	1
Marumalarchi Dravida Munnetra Kazhagam (MDMK)	1	1
Viduthalai Chiruthaigal Katch (VCK)	1	1
Total[a]	522	129

Source: Own calculations from Golden (2014)

[a]Total refers to only those parties with at least one CC member

can suggest—up to an amount of ₹5 crore (£0.5 million) per year—to the Collector of the district, in which their constituencies lie, public works that might benefit their constituents.[17] Gehring et al. (2015) analysed the utilisation of the MPLAD Scheme by individual members of the *Lok Sabha* and found that CC members had a utilisation rate of monies under MPLAD Scheme that was 7 percent lower than that of non-CC mem-

Table 2.10 Party affiliation of members to the 16th *Lok Sabha* with reported criminal charges

Party	*Total number of members*	*Number of CC members*
Bharatiya Janata Party (BJP)	282	98
Indian National Congress (INC)	44	8
All India Anna Dravida Munnetra Kazhagam (AIADMK)	37	6
All India Trinamool Congress (AITC)	34	7
Biju Janata Dal (BJD)	20	3
Shiv Sena (SHS)	18	15
Telugu Desam Party (TDP)	16	6
Telangana Rashtra Samithi (TRS)	11	5
Communist Party of India (Marxist) (CPI (M))	9	5
YSR Congress Party (YSRCP)	9	5
Lok Janshakti Party (LJSP)	6	4
Nationalist Congress Party (NCP)	6	5
Rashtriya Janata Dal (RJD)	4	4
Jammu and Kashmir Peoples Democratic Party (JKPDP)	3	1
Janata Dal (United) (JDU)	2	1
Independents	3	2
Others	39	12
Total	543	187

Source: Own calculations from Association for Democratic Reform (2014)

bers. The overall conclusion must be that although CC candidates have a better chance of being elected than non-CC candidates (13 percent to 5 percent for the 16th Lok Sabha), once elected, they do not serve their constituents, both for reasons of attendance and for reason of constituency improvement, as conscientiously as do non-CC members of the *Lok Sabha*.

2.7 Concluding Remarks

This chapter set out some of the salient features of the Indian electoral landscape beginning with the regulator, in the form of the ECI, and proceeding to the candidates, both party and non-party. The importance of the ECI in administering, managing, and controlling elections in India cannot be underestimated. For example, purely in terms of administra-

tion and management, elections in May 2014 to the 16th *Lok Sabha* were organised in nine phases beginning on 7 April 2014 and concluding on 12 May 2014 with the results being declared on 16 May 2014. Nearly 815 million persons were eligible to vote, of whom nearly 550 million voted, using 930,000 voting centres deploying 1.4 million Electronic Voting Machines (EVM). All this required the ECI to engage 2 million workers to oversee the electoral process.

Mozaffar and Schedler (2002) argue that 'good elections are impossible without effective electoral governance', and it is precisely such governance that the ECI seeks to provide. So much so that, Rudolf and Rudolf (2002) place the ECI alongside the Supreme Court and the Presidency as an enforcer of rules that 'safeguard the legitimacy of the political system' and suggest that the cabinet and parliament have ceded pride of place to these three regulatory institutions.

While many of the duties of the ECI are technical and administrative, the MCC provides a moral compass for the conduct of electoral politics in India. In so doing, the ECI has mutated from a referee enforcing rules, agreed to by others, to a regulatory body which makes rules which others have to obey (Singh, 2012). In assuming this role, it has been aided by the Supreme Court ruling that under Article 324(2) of the Constitution, the ECI has 'a reservoir of powers where the law was silent' (Singh, 2012).

Some find the authoritarian nature of the ECI's mode of operation to be troubling. For example, Chaterjee (2006) feels that by riding roughshod over local culture and practices, the ECI has gone too far in the direction of sanitising and cleaning politics. Yet others feel that at critical moments, the ECI has proved toothless. After his alleged 'hate speech' in the Pilibhit constituency in March 2009, the ECI advised the BJP not to adopt Varun Gandhi as its parliamentary candidate in that constituency for the *Lok Sabha* elections of 2009; this advice was ignored and Mr Gandhi went on to become the *Lok Sabha* member for Pilibhit. More generally, the ECI has proved impotent in arresting an unsavoury trend in Indian politics where candidates with reported criminal charges are elected to legislative office: as the previous section noted, one in three of members to the 16th *Lok Sabha* reported criminal charges against him/her. Unfortunately, there is nothing in the MCC to prevent this trend from continuing.

Notes

1. Article 342(2) states that the Election Commission shall consist of the Chief Election Commissioner and such number of other Election Commissioners, if any, as the President may from time to time fix and the appointment of the Chief Election Commissioner and other Election Commissioners shall, subject to the provisions of any law made in that behalf by Parliament, be made by the President.
2. See McMillan (2012) for a detailed account of the formation of the ECI.
3. See http://eci.nic.in/eci_main/MCC-ENGLISH_28022014.pdf, accessed 5 November 2015.
4. As a consequence of employing over 2 million workers during elections, the ECI's observers are ubiquitous and, since they are drawn from the ranks of those in civilian employment, cannot be easily identified. In addition, the Indian media seizes upon any infractions of the MCC and affords them considerable publicity.
5. Indeed, it is a moot point whether the fact that 'vote buying' is virtually unknown in Western countries is due more to the difficulty of doing so than to any innate moral superiority. Wang and Kurzman (2007) detail the planning, organisation, and sheer expenditure required for a widespread vote buying in the 1993 elections in Taiwan. Vote buying required an extensive network of brokers who would each control small groups of voters. In order to be effective, such a network was predicated on: detailed local knowledge; relationships of trust between party brokers and voters; a large budget; and legal circumspection in conjunction with, possibly, judicial protection. To compound these problems, 45 percent of voters did not deliver on their promises to vote appropriately.
6. Press Information Bureau, Election Commission of India, http://pib.nic.in/newsite/PrintRelease.aspx?relid=104537, retrieved 6 November 2015.
7. Press Information Bureau, Election Commission of India, http://pib.nic.in/newsite/PrintRelease.aspx?relid=104537, retrieved 6 November 2015.
8. Chevella (erstwhile Andhra Pradesh, now Telengana), North West Delhi, West Delhi, Bangalore North, Bangalore Rural, Indore (Madhya Pradesh), Thane (Maharashtra), Ghaziabad (Uttar Pradesh), and Unnao (Uttar Pradesh)
9. Though turnout in the UK General Elections exceeded 80 percent in the 1950 and 1951 elections and remained above 70 percent for all elections between 1945 and 1997.
10. Though turnout in the UK General Elections exceeded 80 percent in the 1950 and 1951 elections and remained above 70 percent for all elections between 1945 and 1997.
11. This point is developed by Praveen Chakravarty, 'Independent Candidates: party-poopers in disguise', *Business Standard*, 28 November

2013, http://www.business-standard.com/article/opinion/praveen-chakravarty-independent-candidates-party-poopers-in-disguise-113112800936_1.html, accessed on 29 September 2015.

12. Before NOTA, voters wishing to reject all the candidates were required to enter their names in a register and cast their vote on a separate paper ballot.
13. *Union of India* versus *Association for Democratic Reforms*. In a subsequent judgement in 2003—*Union of India* versus *People's Union for Civil Liberties*—the Supreme Court mandated the compulsory declaration of candidates' financial assets. Details in Sen (2012).
14. The difference between the two sources was that while the Golden (2014) data was available for individual candidates, the Association for Democratic Reforms (2014) data was available only in aggregated form and only for winners.
15. For reasons set out in the previous note, we were unable to present state-wise information for the *Lok Sabha* elections of 2014.
16. It should be cautioned that the numbers from Golden (2014) and the Association for Democratic Reforms (2014) are not entirely consistent. For example, according to Golden (2014), there were 129 CC members in the 15th *Lok Sabha* while the Association for Democratic Reforms (2014) put this figure at 158.
17. See Ministry of Statistics and Programme Implementation, Government of India, http://mplads.nic.in/, accessed 7 November 2015. This facility is also available to members of the Upper House, the *Rajya Sabha*.

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CHAPTER 3

Estimating the Likelihood of Winning Parliamentary Constituencies

Abstract Borooah compares the two major protagonists in Indian elections—the Bharatiya Janata Party (BJP) and the Indian National Congress (INC)—with respect to their respective probabilities of winning constituency battles. He provides estimates of such probabilities and shows how these differ between the BJP and the INC both with respect to marginal constituencies and with respect to all constituencies where the BJP and the INC went 'head-to-head'. Lastly, he considers the electoral performances of the INC and the BJP separately for the Hindi-speaking and the non-Hindi-speaking major Indian states.

3.1 Introduction

In this chapter, we begin a comparison between the two major protagonists in Indian elections—the Bharatiya Janata Party (BJP) and the Indian National Congress (INC). The comparison relates to the relative efficiency of the two parties in winning constituency battles and in converting votes into seats. This chapter places emphasis on the *probability of winning elections*. It provides estimates of such probabilities and shows how these differ between the BJP and the INC. In so doing, the first port of call is the 'marginal constituency': a constituency where the margin of victory between the winner and the runner-up is so small that the result could have been reversed with a small shift in votes from the winner to the loser. In the context of such constituencies, we first estimate the separate

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likelihoods of INC and BJP candidates winning marginal seats, in post-1984 *Lok Sabha* elections, after controlling for factors, like, *inter alia*, incumbency and turnout.

We next consider, in this chapter, *all* constituencies in which the INC and the BJP went 'head-to-head' in the sense that both fielded candidates in those constituencies. In estimating the likelihoods of the INC and the BJP winning 'head-to-head', we used the econometric estimation method of bivariate probit which allowed the testing of inter-party differences.

Lastly, the chapter considers the electoral performances of the INC and the BJP separately for the Hindi-speaking and the non-Hindi-speaking major Indian states. The seven Hindi-speaking states—Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Rajasthan, Uttarakhand, and Uttar Pradesh—provide 204 seats of the total of 543 *Lok Sabha* seats, and these are of particular importance to the BJP because a large part of its contested constituencies are from these states: in the *Lok Sabha* elections of 2014, 192 of its contested 428 constituencies were from these states.

3.2 Marginal Constituencies

A *marginal constituency* is one where the difference in votes received between the winning party and the runner-up is so narrow that the result could have been reversed with a small shift of votes away from the winner. In this book, we adopt—admittedly on arbitrary but, it is to be hoped, not unreasonable criteria—two definitions of a marginal constituency: (i) the difference in vote shares between the winner and the runner-up was 10 percentage points or less so that under this definition, a shift of 5 percent of the constituency vote away from the winner to the runner-up would have reversed the result; and (ii) the difference in vote shares between the winner and the runner-up was 5 percentage points or less so that under this definition, a shift of 2.5 percent of the constituency vote away from the winner to the runner-up would have reversed the result.

Notwithstanding the fact that elections to the *Lok Sabha* often have clear winners and losers, many elections in several constituencies are closely contested. In 2014, when the BJP won a handsome parliamentary majority with 282 seats, there were 190 constituencies (35 percent of the total of 540 constituencies) in which difference in vote shares between the winning and the losing party was 10 percentage points or less and 96 constituencies (18 percent of the total of 540 constituencies) in which difference in vote shares between the winning and the losing party was 5

percentage points or less. The corresponding figures for the INC "landslide" election of 1984 were 154 constituencies at the 10-point level and 80 constituencies at the 5-point level: respectively, 29 and 15 percent of the total of 537 constituencies. Table 3.1 shows the number of marginal constituencies for each of the elections between 1962 and 2014.

The important point that emerges from Table 3.1 is the growing presence of marginal constituencies in the total of constituencies. In 1971, when the INC won 352 seats, one in four constituencies was a '10-point' marginal and '5-point' marginal comprised 12 percent of total constituencies. By 1984, when the INC won 414 seats, '10-point' marginal and '5-point' marginal comprised, respectively, 28 and 15 percent of total constituencies, and in the elections since 1998, marginal seats have come to dominate reaching an apotheosis in 2009 of 63 percent of all constituencies decided on a margin of 10 percent or less and 36 percent of all constituencies decided on a margin of 5 percent or less. This would suggest that targeting key groups of voters is (or should be) an increasingly important part of the electoral strategy in India since small swings in support can, more than ever before, make the difference between forming a government or sitting in opposition.

Table 3.1 Number of marginal constituencies in *Lok Sabha* elections: 1962–2014

Year	*Total number of constituencies*	*Number of marginal constituencies at ≤ 10 points difference*	*Number of marginal constituencies at ≤ 5 points difference*
1962	490	206	105
1967	518	221	111
1971	518	126	62
1977	542	93	49
1980	529	165	90
1984	541	154	80
1989	528	207	107
1991	537	252	131
1996	543	289	152
1998	543	327	193
1999	543	323	190
2004	543	275	151
2009	543	343	198
2014	543	190	96

Source: Own calculations from *Lok Sabha* election data

Table 3.2 shows the distribution of marginal constituencies, across the major Indian states, for the 2014 *Lok Sabha* elections. Of the 178 marginal constituencies (at a 10 points difference) in the major Indian states, 113 (63 percent) were located in the six states of Andhra Pradesh, Bihar, Karnataka, Kerala, Uttar Pradesh, and West Bengal. In Kerala, 80 percent of constituencies were 'marginal'; in Andhra Pradesh and Karnataka, nearly two in three constituencies were 'marginal'; and in Bihar and West Bengal, nearly one in two constituencies were 'marginal'.

Table 3.2 Marginal constituencies by major Indian states in the 2014 *Lok Sabha* elections

State	*Total number of constituencies*	*Number of marginal constituencies at ≤ 10 points difference*	*Number of marginal constituencies at ≤ 5 points difference*
Andhra Pradesh	42	26	15
Assam	14	6	4
Bihar	40	18	9
Chhattisgarh	11	4	4
Gujarat	26	2	0
Haryana	10	3	1
Himachal Pradesh	4	1	0
Jammu and Kashmir	6	3	1
Jharkhand	14	7	4
Karnataka	28	17	8
Kerala	20	16	13
Madhya Pradesh	29	5	2
Maharashtra	48	8	4
Orissa	21	7	5
Punjab	13	9	6
Rajasthan	25	5	2
Tamil Nadu	39	5	1
Uttarakhand	5	0	0
Uttar Pradesh	80	19	7
West Bengal	42	17	4
Total	517	178	90

Source: Own calculations from *Lok Sabha* election data

3.3 The Likelihood of Winning Marginal Seats

An important consideration, an important question in Indian politics—and, indeed in electoral politics in general—is the relative strength of the factors which determine whether or not parties win marginal seats. Using econometric techniques, we attempt to tease out, for India's two leading political parties, the INC and the BJP, answers to this pressing, and complex, question.

In order to do so, we estimated for the INC—across the 14 elections between 1962 and 2014—a logit equation on data for '10-point' *marginal constituencies*, in the 20 major Indian states (listed in Table 3.2), in which the INC was either the winner or the runner-up. These, collectively, yielded a total of 1989 constituency observations. A similar equation was estimated for the BJP on data for '10-point' marginal constituencies, in the 20 major Indian states in which the BJP was either the winner or runner-up. Since the BJP only made its electoral debut in the 1984 *Lok Sabha* elections, the data related to the nine elections between 1984 and 2014. These, collectively, yielded a total of 1009 constituency observations.[1, 2]

In a logit model, the dependent variable, y, takes the value 1 if the condition is present (a party wins the election from constituency i: $y_i = 1$) and the value 0 if the condition is absent (a party loses the election from constituency i: $y_i = 0$). Suppose there are N constituencies which the party contests, so that $y_i = 1$ for some constituencies and $y_i = 0$ for the others. If $\Pr[y_i = 1]$ and $\Pr[y_i = 0]$ represent, respectively, the probabilities of the party winning from constituency i, $i = 1 \ldots N$, the logit formulation expresses the log of the odds ratio (OR) as a linear function of K variables (indexed $k = 1 \ldots K$) which take values, $X_{i1}, X_{i2} \ldots X_{iK}$ in constituency i, $i = 1 \ldots N$:

$$\log\left(\frac{\Pr[y_i = 1]}{1 - \Pr[y_i = 1]}\right) = \sum_{k=1}^{K} \beta_k X_{ik} + u_i = Z_i \tag{3.1}$$

Where, β_k is the coefficient associated with variable k, $k = 1 \ldots K$.

From Eq. 2.1, it follows that:

$$\Pr[y_i = 1] = \frac{e^{z_i}}{1 + e^{z_i}} \tag{3.2}$$

where, the term 'e', in the above equation, represents the exponential term.

The explanatory power of the logit equations is shown in terms of the 'Pseudo-R^2'. The 'Pseudo-R^2' is a popular measure of the model's performance in binary models and compares the maximised log-likelihood value of the full model (log L) to that obtained when all the coefficients, expect the intercept term, are set to 0 (log L_0) and is defined as 1-(log L/log L_0). The measure has an intuitive appeal in that it is bounded by 0 (all the slope coefficients are 0) and 1 (perfect fit).[3]

The dependent variable in the logit equations estimated in this section took the value 1 for a (marginal) constituency if the party (INC or BJP) was the *winner* in that constituency and the value 0 if the party (INC or BJP) was the *runner-up* in that constituency.[4] In some of these contests in marginal constituencies the INC and the BJP went head-to-head (meaning, one was the winner and the other the runner-up), but in other contests, the INC and the BJP went head-to-head with other opponents.[5]

There were seven variables which were hypothesised to play a significant role in determining the outcome (winner or runner-up) in a marginal constituency:

1. The share of the total votes received by the party in that constituency;
2. Whether the party held the constituency in the previous election (i.e., it was the 'incumbent' party);[6]
3. The percentage of the electorate voting in that election ('turnout');
4. The number of independent candidates in the election;
5. The number of 'other' (i.e., third, fourth, etc.) party candidates in the election;
6. The year of the election; and
7. The state in which the constituency was located.

In order to allow for non-linear effects, the squared value of 'vote share', 'turnout', 'the number of independent candidates', and the number of 'other' parties was also included in the equations. The logit estimates for the INC and the BJP equations are shown in Tables 3.3 and 3.4, respectively. The coefficient estimates shown in the second column of Tables 3.3 and 3.4 are the estimates of the coefficients β_k in Eq. 3.1. The third column shows the standard errors associated with these estimates. Dividing the estimates by their corresponding standard errors yields the z-value shown in the fourth column. The value in the fifth column shows the probability of observing the z-value under the null hypothesis that

Table 3.3 Logit estimates for the probability of the INC winning marginal constituencies

1	*2*	*3*	*4*	*5*
Variable	*Estimated coefficients*	*Standard error*	*z-value*	*p-value [Pr>|z|]*
INC vote share	–0.572	0.078	–7.33	0.00
INC vote share squared	0.009	0.001	9.34	0.00
INC incumbent	0.351	0.113	3.10	0.00
Turnout	–0.150	0.039	–3.88	0.00
Turnout squared	0.001	0.000	3.43	0.00
Number of independents	0.056	0.023	2.42	0.02
Number of independents squared	–0.001	0.001	–1.90	0.06
Number of 'other' parties	0.526	0.095	5.53	0.00
Number of 'other' parties squared	–0.029	0.006	–4.51	0.00
Year [Reference: 1967]				
1971	–0.600	0.305	–1.97	0.05
1977	–1.415	0.334	–4.24	0.00
1980	–0.077	0.269	–0.29	0.77
1984	–0.798	0.282	–2.83	0.01
1989	–1.645	0.269	–6.11	0.00
1991	–1.412	0.289	–4.88	0.00
1996	–1.285	0.298	–4.31	0.00
1998	–0.992	0.276	–3.59	0.00
1999	–1.813	0.266	–6.83	0.00
2004	–1.308	0.272	–4.81	0.00
2009	–0.674	0.298	–2.26	0.02
2014	–1.794	0.407	–4.41	0.00
State [Reference: Andhra Pradesh]				
Assam	1.087	0.347	3.13	0.00
Bihar	0.078	0.299	0.26	0.79
Chhattisgarh	–2.214	0.813	–2.72	0.01
Gujarat	–1.086	0.271	–4.00	0.00
Haryana	0.644	0.375	1.72	0.09
Himachal Pradesh	–0.880	0.522	–1.69	0.09
Jammu and Kashmir	0.857	0.637	1.34	0.18
Jharkhand	–0.828	0.832	–0.99	0.32
Karnataka	–0.006	0.241	–0.02	0.98
Kerala	–0.336	0.246	–1.37	0.17
Madhya Pradesh	–0.810	0.256	–3.16	0.00
Maharashtra	–0.261	0.240	–1.09	0.28

(*continued*)

Table 3.3 (continued)

1	*2*	*3*	*4*	*5*
Variable	*Estimated coefficients*	*Standard error*	*z-value*	*p-value [Pr>|z|]*
Orissa	−0.025	0.298	−0.09	0.93
Punjab	−0.448	0.315	−1.42	0.16
Rajasthan	−0.898	0.285	−3.15	0.00
Tamil Nadu	−1.117	0.359	−3.12	0.00
Uttarakhand	−0.266	0.929	−0.29	0.77
Uttar Pradesh	0.432	0.270	1.60	0.11
West Bengal	−1.305	0.267	−4.88	0.00
Intercept	11.198	1.919	5.84	0.00

Source: Own calculations from *Lok Sabha* election data

Notes: (i) The equation was estimated on data for 1989 constituencies for major Indian states, as listed, for all *Lok Sabha* elections between 1967 and 2014
(ii) Pseudo $R^2 = 0.1844$; likelihood ratio test: $\chi^2(40) = 508.49$

the coefficient was 0. At 5 and 10 percent levels of significance, this null hypothesis was 'rejected' for, respectively, $p < 0.05$ and $p < 0.1$.

Following the advice contained in Long and Freese (2014), the results from the estimated equations in Tables 3.3 and 3.4 are presented, for subsequent analysis, in the form of the *predicted probabilities* or, equivalently, *predicted likelihoods* (the terms 'probability' and 'likelihood' are, hereafter, used interchangeably) computed from the estimated logit coefficients, from which these probabilities are derived, and not in terms of the estimates themselves. In other words, the subsequent analysis uses the expression in Eq. 3.2 to compute the outcome probabilities where these are derived from the coefficient estimates of Eq. 3.1. This is because the logit estimates themselves do not have a natural interpretation—they exist mainly as a basis for computing more meaningful statistics, and in this case, these are the predicted probabilities of winning under a variety of configurations.

It should be emphasised that these predicted probabilities will, in general, differ from the sample proportions. This is because the predicted probabilities are computed after controlling (or adjusting) for the effects of the conditioning variables (noted above) while the sample proportions represent raw, unadjusted data. Since a property of the logit model is that

Table 3.4 Logit estimates for the probability of the BJP winning marginal constituencies

1	*2*	*3*	*4*	*5*
Variable	*Estimated logit coefficients*	*Standard error*	*z-value*	*p-value*
INC vote share	−0.195	0.109	−1.80	0.07
INC vote share squared	0.005	0.001	3.48	0.00
INC incumbent	−0.192	0.155	−1.23	0.22
Turnout	0.127	0.075	1.70	0.09
Turnout squared	−0.001	0.001	−1.90	0.06
Number of independents	−0.025	0.014	−1.87	0.06
Number of independents squared	0.000	0.000	0.40	0.69
Number of 'other' parties	0.223	0.129	1.73	0.08
Number of 'other' parties squared	−0.007	0.008	−0.95	0.34
Year [Reference: 1989]				
1991	0.037	0.441	0.08	0.93
1996	0.728	0.464	1.57	0.12
1998	−0.136	0.433	−0.31	0.75
1999	−0.141	0.431	−0.33	0.74
2004	0.076	0.436	0.17	0.86
2009	−0.027	0.440	−0.06	0.95
2014	0.728	0.547	1.33	0.18
State [Reference: Andhra Pradesh]				
Assam	1.491	0.709	2.10	0.04
Bihar	1.311	0.646	2.03	0.04
Chhattisgarh	1.485	1.050	1.41	0.16
Gujarat	−0.403	0.656	−0.61	0.54
Haryana	1.246	0.866	1.44	0.15
Himachal Pradesh	−0.666	0.815	−0.82	0.41
Jammu and Kashmir	0.192	1.201	0.16	0.87
Jharkhand	1.279	0.819	1.56	0.12
Karnataka	0.750	0.624	1.20	0.23
Kerala		–		
Madhya Pradesh	0.384	0.627	0.61	0.54
Maharashtra	0.250	0.627	0.40	0.69
Orissa	0.336	0.808	0.42	0.68
Punjab	−0.233	0.954	−0.24	0.81
Rajasthan	−0.273	0.646	−0.42	0.67
Tamil Nadu	−0.685	0.944	−0.73	0.47
Uttarakhand	−0.901	1.127	−0.80	0.42

(*continued*)

Table 3.4 (continued)

1	*2*	*3*	*4*	*5*
Variable	*Estimated logit coefficients*	*Standard error*	*z-value*	*p-value*
Uttar Pradesh	1.764	0.634	2.78	0.01
West Bengal	0.450	1.064	0.42	0.67
Intercept	–4.599	2.842	–1.62	0.11

Source: Own calculations from *Lok Sabha* election data

Notes: (i) The equation was estimated on data for 1009 constituencies for major Indian states, as listed, for all *Lok Sabha* elections between 1989 and 2014
(ii) Pseudo $R^2 = 0.1836$; likelihood ratio test: $\chi^2(34) = 253.58$

it passes through the sample mean, the *overall* predicted probability, from the logit model, of winning a marginal constituency will be the same as the overall sample proportion of marginal constituencies in which the party was victorious. However, while the estimated model passes through the overall sample mean, it does not pass through the means of the different sample subgroups. This is illustrated in Table 3.5 which compares, for each year and in aggregate, the predicted probabilities and the sample averages. The two quantities differ for each election (though they follow each other closely over the elections) but are the same when aggregated over all the elections.

The general methodology for computing the predicted probabilities was to calculate, for each of the observations (1989 for the INC; 1009 for the BJP), the probability of winning the election under a *hypothetical* situation (Scenario 1) in which *some* of the independent variables took specified values (e.g., the variable 'year' was set to 1967), the values of the other independent variables (turnout, etc.) being *as observed*. This then yielded 69.2 percent as the predicted probability of winning a marginal constituency in 1967.

In order to obtain the predicted probability of winning in 1971, the variable 'year' was set to 1971, the values of the other independent variables being as observed. This then yielded Scenario 2. The difference in the average probability of winning between the scenarios could then be ascribed to the change in the value of the independent variable(s), in this case between the years 1967 and 1971.

3.3.1 *Election-on-Election Changes in the Probability of Winning Marginal Constituencies*

Table 3.5 showed that the predicted probability of the BJP winning a marginal constituency was, except for the 2009 election, always greater than that of the INC. So, there is *prima facie* evidence, that with respect to marginal constituencies at least, the BJP is a more electorally efficient party than the INC; however, we postpone, till the next section, a detailed examination of this hypothesis. The other question raised by the results of Table 3.5 is whether the year-on-year likelihoods of winning marginal constituencies significantly different from each other.

Table 3.6 shows the results from testing the significance of election-on-election changes in the likelihood of the INC and the BJP winning marginal constituencies. This table shows that for the INC, the change in the likelihood of winning marginal constituencies was significantly different from 0 (hereafter, simply "significant") between: the 1967 and 1971 elections (went down), the 1971 and 1977 elections (went down), the 1977 and 1980 elections (went up), the 1980 and 1984 elections (went down), the 1984 and 1989 elections (went down), the 1998 and 1999 elections (went down), the 1999 and 2004 elections (went up), the 2004 and 2009 elections (went up), and the 2009 and 2014 elections (went down).

For the BJP, the year-on-year changes were significantly different from 0 between: the 1991 and 1996 elections (went up), the 1996 and 1998 elections (went down), and the 2009 and 2014 elections (went up). Overall, in terms of contesting marginal constituencies, the two good elections for the INC since 1989 have been 2004 and 2009 after both of which the INC's predicted probability of winning marginal constituencies rose. For the BJP, on the other hand, 1996 was a good election in terms of contesting marginal constituencies and, of course, so was the most recent election of 2014.

3.3.2 *Incumbency Effects*

Table 3.7 shows that the average likelihood of the INC winning marginal constituencies was 53.5 percent if it was the incumbent party and 46.7 percent if it was the non-incumbent, and this difference was significantly different from 0. For the BJP, on the other hand, the likelihood of winning marginal constituencies was 54.5 percent if it was the incumbent party and 58.2 percent if it was the non-incumbent, but this difference

Table 3.5 INC and BJP predicted probabilities of winning marginal constituencies

	INC			*BJP*		
	Probability of winning marginal constituency	*Sample proportion of marginal constituencies won*	*Total number of marginal constituencies contested*	*Probability of winning marginal constituency*	*Sample proportion of marginal constituencies won*	*Total number of marginal constituencies contested*
1967	0.692	0.537	203			
1971	0.583	0.553	92			
1977	0.427	0.493	73			
1980	0.678	0.595	131			
1984	0.545	0.594	138			
1989	0.385	0.480	175	0.543	0.553	38
1991	0.428	0.511	188	0.550	0.512	121
1996	0.451	0.450	180	0.676	0.543	140
1998	0.507	0.515	163	0.516	0.554	168
1999	0.355	0.382	178	0.516	0.592	169
2004	0.447	0.421	164	0.557	0.558	138
2009	0.569	0.592	218	0.537	0.525	143
2014	0.358	0.302	86	0.676	0.728	92
Total	0.499	0.499	1989	0.566	0.566	1009

Source: Own calculations from *Lok Sabha* election data

Table 3.6 Election-on-election changes in the likelihood of winning marginal constituencies

	INC				*BJP*			
	Difference in the probability of winning[a]	*Standard error*	*z-value*	*p-value*	*Difference in the probability of winning*[a]	*Standard error*	*z-value*	*p-value*
1967–71	0.109	0.056	1.95	0.05				
1971–77	0.156	0.072	2.15	0.03				
1977–80	−0.252	0.067	−3.77	0.00				
1980–84	0.134	0.056	2.40	0.02				
1984–89	0.160	0.053	3.05	0.00				
1989–91	−0.043	0.048	−0.90	0.37	−0.007	0.084	−0.08	0.93
1991–96	−0.024	0.046	−0.52	0.60	−0.127	0.056	−2.26	0.02
1996–98	−0.056	0.053	−1.05	0.29	0.160	0.065	2.47	0.01
1998–99	0.153	0.047	3.27	0.00	0.001	0.051	0.02	0.99
1999–04	−0.092	0.046	−2.01	0.04	−0.041	0.052	−0.80	0.43
2004–09	−0.122	0.048	−2.54	0.01	0.020	0.054	0.36	0.72
2009–14	0.211	0.057	3.67	0.00	−0.139	0.072	−1.93	0.05

Source: Own calculations from *Lok Sabha* election data

[a]The difference is computed as the likelihood of winning in the *earlier* year minus the likelihood of winning in the *later* year. The likelihoods are shown in Table 3.5

was *not* significantly different from 0. Consequently, the overall evidence, over the elections between 1962 and 2014, was that for the INC, there was a significant *pro-incumbency* effect operating in marginal constituencies. On the face of it, there was an *anti-incumbency* effect operating in marginal constituencies for the BJP. However, considering the elections

Table 3.7 INC and BJP predicted probabilities of winning marginal constituencies as the incumbent and non-incumbent parties

	INC		*BJP*	
	Incumbent probability of winning	*Non-incumbent probability of winning*	*Incumbent probability of winning*	*Non-incumbent probability of winning*
1967	0.724	0.664		
1971	0.618	0.551		
1977	0.462	0.396		
1980	0.711	0.650		
1984	0.581	0.513		
1989	0.418	0.354		
1991	0.462	0.396	0.529	0.565
1996	0.487	0.420	0.657	0.690
1998	0.543	0.475	0.496	0.533
1999	0.387	0.325	0.495	0.532
2004	0.482	0.415	0.536	0.573
2009	0.604	0.537	0.517	0.553
2014	0.390	0.328	0.657	0.690
All elections	0.535	0.467	0.545	0.582

Source: Own calculations from *Lok Sabh*a election data

between 1989 and 2014 in their entirety, the observed *anti-incumbency* effect was not statistically significant.

3.3.3 Number of Candidates, Turnout, and Vote Share

Figure 3.1 shows the predicted probability, computed over all the *Lok Sabha* elections between 1967 and 2014, of the INC winning a "10-point" marginal constituency as 49.9 percent.[7] In computing this probability, the values of all the other variables—in particular, the number of independent and 'other' party candidates—were 'as observed'. If the model was tweaked so that there were *no* independent candidates—the number of 'other' party candidates as observed—the predicted probability of the INC winning a marginal constituency would have fallen to 45.7 percent. Under a different, but related, scenario in which there no 'other' party candidates—the number of independent candidates as observed—the

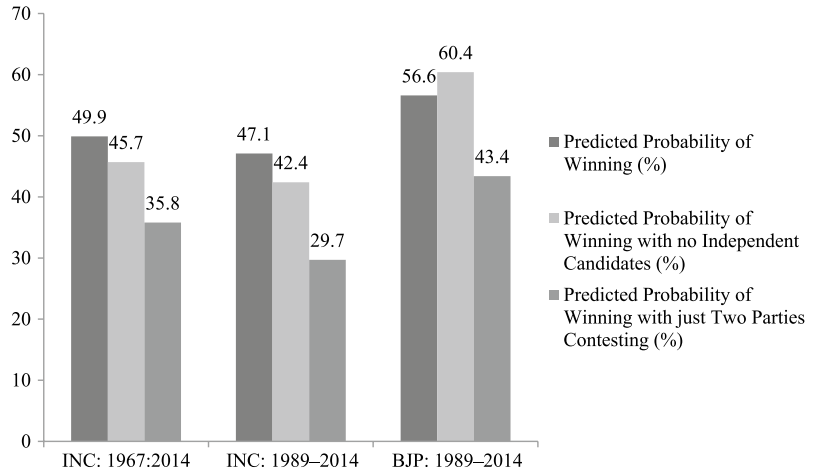

Fig. 3.1 INC and BJP predicted probabilities of winning marginal constituencies with no independent candidates or just two parties contesting (*Source*: Own calculations from *Lok Sabha* election data)

predicted probability of the INC winning a marginal constituency would have fallen to 35.8 percent. The results when the predicted sample was restricted to the elections between 1989 and 2014 were similar. The general conclusion is that electoral competition in marginal constituencies—through the presence of independents and 'other' parties—enhances the INC's chances of winning marginal constituencies. These candidates split the anti-INC vote so that in their absence, the INC's chances of winning would have been lower.

For the BJP, on the other hand, the predicted probability, computed over all the *Lok Sabha* elections between 1989 and 2014, of its winning a marginal constituency would have risen from 56.6 percent, when the number of independent and 'other' party candidates were 'as observed', to 60.4 percent under a scenario under which there were no independent candidates. In electoral terms, the presence of independent candidates erodes the BJP vote and reduces its chances of winning. In this respect, the effect of independent candidates on the chances of the INC and the BJP winning marginal constituencies are diametrically different: independents help the INC but hurt the BJP.

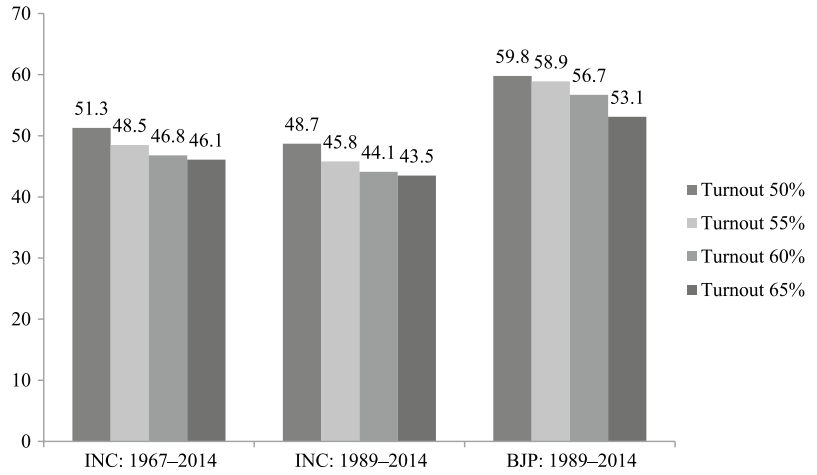

Fig. 3.2 INC and BJP predicted probabilities of winning marginal constituencies at different rates of voter turnout (*Source*: Own calculations from *Lok Sabha* election data)

Figure 3.2 shows that a high turnout of voters in marginal constituencies hurts the winning chances of both the INC and BJP. *Ceteris paribus* the INC was predicted to have a 48.7 percent chance, computed over all the *Lok Sabha* elections between 1989 and 2014, of winning a marginal constituency when the turnout of voters was 50 percent. The corresponding prediction for the BJP was 59.8 percent. As the turnout rate rose, the likelihood of both parties winning fell: at a 65 percent turnout, the predicted probabilities of the INC and the BJP winning marginal constituencies were, respectively, 43.5 and 53.1 percent.

It is a truism of electoral politics that the recipe for winning in getting your supporters into the polling booth while, simultaneously, ensuring that your opponents stay at home. The above findings illustrate this truism. Both the INC and the BJP have core supporters who would readily vote for their party. A low turnout, on the other hand, ensures that many putative voters—who may not be as enthusiastic about the INC or the BJP as their more committed supporters—do not spoil the party by coming out to vote.

Figure 3.3 shows the predicted probabilities of the INC and the BJP winning marginal constituencies for different vote shares obtained.

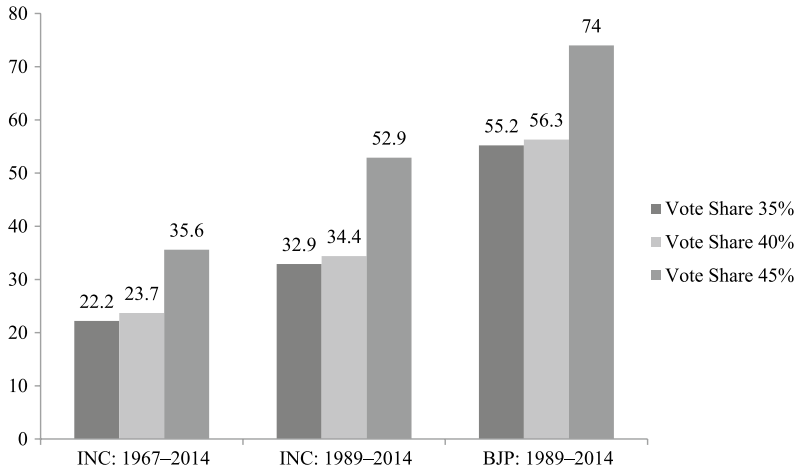

Fig. 3.3 INC and BJP predicted probabilities of winning marginal constituencies at different vote shares (*Source*: Own calculations from *Lok Sabha* election data)

Computed over all the eight elections between 1989 and 2014, the predicted probability of winning marginal constituencies, at each of the three vote shares, 35, 40, and 45 percent, was always higher for the BJP than for the INC: with a 35 percent vote share, the INC had a 34.4 percent chance of winning a marginal constituency compared to the BJP's 56.3 percent. The next section examines the relative performance of the INC and the BJP in greater depth.

3.4 The Electoral Performance of the INC and the BJP Compared

The previous section examined the electoral performance, in marginal constituencies, of the INC and the BJP. This was, however, conducted separately for the two parties without attempting to assess their comparative performance. So, for example, we examined, for marginal constituencies in which the INC was the winner or the runner-up, the likelihood of it winning the election regardless of who its closest opponent was: this could have the BJP, or another party, or even an independent candidate. In a

similar vein, we examined the likelihood of the BJP winning in marginal constituencies, in which it was the winner or the runner-up, regardless of who its closest opponent was: this could have the INC, or another party, or even an independent candidate. By contrast, in this section, we make a head-to-head comparison of the INC and BJP by analysing all the constituencies that were contested by *both* parties.

Table 3.8, which sets out the number of constituencies contested by both parties, shows that the proportion of all *Lok Sabha* constituencies contested by both parties has increased from 41.5 percent in 1984 to around 85 percent in 1991 and 1996, before falling to around 66 percent in the last three *Lok Sabha* elections of 2004, 2009, and 2014. This fall had been engendered by the INC and the BJP having to bow to the exigencies of coalition politics and contesting fewer seats than they were used to in the 1990s.

As Fig. 3.4 shows, the constituencies contested by the INC in 2014 were, at 464, 62 seats fewer than the 526 contested by it in 1996. For the BJP, the largest numbers of constituencies contested were in 1991 and 1996 when it contested well over 450 constituencies. It then drew in its horns for the 1998, 1999, and 2004 elections, when its tally of contested constituencies was well short of 400; since then the BJP has extended its electoral reach, contesting 433 and 428 constituencies, respectively, in the 2009 and 2014 election.

Table 3.8 Constituencies contested by the INC and the BJP

	Contested by INC and BJP	*Contested by INC but not by BJP*	*Contested by BJP but not by INC*	*Contested by neither party*	*Total*
1984	225	292	4	20	541
1989	221	289	4	14	528
1991	457	47	21	12	537
1996	456	70	13	4	543
1998	352	125	36	30	543
1999	307	146	32	58	543
2004	310	107	54	72	543
2009	361	79	72	31	543
2014	373	91	55	24	543
Total	3062	3669	291	439	7461

Source: Own calculations from *Lok Sabha* election data

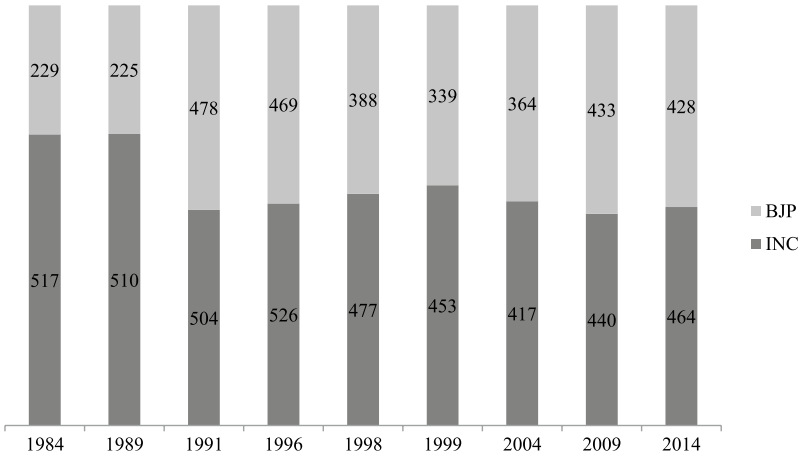

Fig. 3.4 Total number of seats contested by the INC and the BJP: 1984–2014 (*Source*: Own calculations from *Lok Sabha* election data)

3.4.1 Econometric Methodology

In order to assess the relative electoral performance of the INC and the BJP, we estimated a two-equation probit (bivariate probit) model over the sample of constituencies—in the 20 major states of India (listed in Tables 3.3 and 3.4) and over the nine *Lok Sabha* elections from 1984 to 2014—which were contested by *both* the INC and the BJP.[8] The first equation related to the INC: the dependent variable in this equation took the value 1 ($y_i = 1$) if the INC won the election for constituency i, $i = 1, \ldots N$, and 0 if it did not ($y_i = 0$). The second equation related to the BJP: the dependent variable in this equation took the value 1 ($z_i = 1$) if the BJP won the election for constituency i, $i = 1, \ldots N$, and 0 if it did not ($z_i = 0$).

This system of two probit equations (*bivariate probit*) is the discrete choice analogue of the *Seemingly Unrelated Regression Equations* (SURE) method of estimation with continuous dependent variables (Greene, 2003, pp. 710–19). Like SURE estimates, the estimates from the bivariate probit system are more efficient than those obtained from estimating each equation as a single equation because the correlation between the error terms of the two equations is explicitly taken into account. In addition, and more importantly for the purpose of this analysis, the fact that the

equations are estimated as a system allows hypotheses to be tested *between* equations rather than just *within* individual equations. As we will see, this allows one to arrive at an assessment of the comparative electoral efficiency of the INC and the BJP.

The estimates from the bivariate probit equation, estimated on data for the 2684 constituencies contested by both the INC and the BJP over 1989–2014, are shown in Table 3.9. The same conditioning variables were used in both the probit equations—one for the INC and the other for the BJP—and, indeed, are those used in the logit analysis of the previous section.[9] To recapitulate, these were:

(i) The share of the total votes received by the party in that constituency;
(ii) Whether the party held the constituency in the previous election (i.e., it was the 'incumbent' party);
(iii) The percentage of the electorate voting in that election ('turnout');
(iv) The number of independent candidates in the election;
(v) The number of 'other' (i.e., other than the INC and the BJP) party candidates in the election;
(vi) The year of the election; and
(vii) The state in which the constituency was located.

The comparison between the electoral performance of the INC and the BJP, in constituencies where both parties were contestants, was made with respect to two parameters:

1. The overall probability of winning the constituency computed with the values of the conditioning variables taking their observed constituency values; and
2. The overall probability of winning the constituency for each party obtaining a particular vote share: 35, 40, and 45 percent. In other words, what would be the likelihood of the INC and the BJP winning a constituency if their vote shares had been (say) 35 percent, and was this likelihood significantly different between the two parties?

Table 3.10 compares the predicted probabilities of the INC and the BJP winning *Lok Sabha* elections between 1989 and 2014 in constituencies, in the 20 major Indian states, which they both contested. Aggregated over all these elections, the first row of Table 3.10 shows that the INC

Table 3.9 Bivariate probit estimates for the likelihood of the INC and the BJP winning constituency elections

	INC				*BJP*			
Variable	*Estimated bivariate probit coefficients*	*Standard error*	*z-value*	*p-value*	*Estimated bivariate probit coefficients*	*Standard error*	*z-value*	*p-value*
INC vote share	0.064	0.023	2.79	0.01	0.161	0.033	4.82	0.00
INC vote share squared	0.001	0.000	2.59	0.01	0.000	0.000	−1.05	0.30
INC incumbent	0.358	0.084	4.24	0.00	0.050	0.087	0.58	0.57
Turnout	−0.042	0.027	−1.53	0.13	0.041	0.040	1.02	0.31
Turnout squared	0.000	0.000	1.31	0.19	0.000	0.000	−1.16	0.25
Number of independents	0.017	0.013	1.33	0.18	−0.002	0.014	−0.12	0.90
Number of independents squared	0.000	0.000	−1.24	0.22	0.000	0.000	−0.26	0.79
Number of 'other' parties	0.102	0.055	1.87	0.06	0.143	0.054	2.64	0.01
Number of 'other' parties squared	−0.002	0.003	−0.75	0.46	−0.005	0.003	−1.79	0.07
Year [Reference: 1989]								
1991	0.451	0.154	2.92	0.00	−0.254	0.177	−1.44	0.15
1996	0.456	0.165	2.76	0.01	0.226	0.200	1.13	0.26
1998	0.503	0.166	3.03	0.00	−0.198	0.176	−1.12	0.26
1999	0.047	0.170	0.27	0.78	−0.239	0.178	−1.35	0.18
2004	0.391	0.168	2.33	0.02	−0.193	0.175	−1.10	0.27
2009	0.753	0.166	4.53	0.00	−0.291	0.184	−1.58	0.12
2014	−0.359	0.223	−1.61	0.11	0.314	0.250	1.26	0.21
State [Reference: Andhra Pradesh]								

(*continued*)

Table 3.9 (continued)

	INC				*BJP*			
Variable	*Estimated bivariate probit coefficients*	*Standard error*	*z-value*	*p-value*	*Estimated bivariate probit coefficients*	*Standard error*	*z-value*	*p-value*
Assam	0.761	0.214	3.56	0.00	0.794	0.378	2.10	0.04
Bihar	−0.387	0.258	−1.50	0.13	1.018	0.367	2.77	0.01
Chhattisgarh	−1.747	0.589	−2.97	0.00	1.198	0.535	2.24	0.03
Gujarat	−1.062	0.199	−5.35	0.00	0.114	0.358	0.32	0.75
Haryana	0.976	0.257	3.81	0.00	0.817	0.398	2.05	0.04
Himachal Pradesh	−0.962	0.412	−2.33	0.02	−0.023	0.485	−0.05	0.96
Jammu and Kashmir	0.553	0.433	1.28	0.20	0.950	0.571	1.67	0.10
Jharkhand	0.366	0.346	1.06	0.29	1.256	0.437	2.88	0.00
Karnataka	−0.155	0.162	−0.96	0.34	0.675	0.351	1.92	0.05
Kerala	−0.317	0.179	−1.77	0.08	–			
Madhya Pradesh	−0.822	0.173	−4.76	0.00	0.475	0.346	1.37	0.17
Maharashtra	−0.187	0.180	−1.04	0.30	0.117	0.351	0.33	0.74
Orissa	−0.160	0.206	−0.78	0.44	0.455	0.446	1.02	0.31
Punjab	−0.203	0.321	−0.63	0.53	−0.114	0.602	−0.19	0.85
Rajasthan	−0.689	0.213	−3.24	0.00	−0.048	0.361	−0.13	0.89
Tamil Nadu	−0.490	0.277	−1.77	0.08	0.065	0.421	0.16	0.88
Uttarakhand	−0.307	0.427	−0.72	0.47	−0.008	0.537	−0.01	0.99
Uttar Pradesh	0.538	0.214	2.51	0.01	1.381	0.349	3.95	0.00
West Bengal	−0.745	0.218	−3.42	0.00	0.147	0.476	0.31	0.76
Intercept	−3.709	0.899	−4.12	0.00	−7.626	1.294	−5.89	0.00

Source: Own calculations from *Lok Sabha* election data

Notes to Table 3.9: Observations on 2684 constituencies, in the 20 major Indian states, which were contested by both the INC and the BJP

Table 3.10 INC and BJP predicted likelihood of winning by year

1	*2*	*3*	*4*	*5*	*6*	*7*
	INC likelihood of winning	*BJP likelihood of winning*	*Difference*	*Standard error of difference*	*z-value for testing H_0: Difference = 0*	*p-value*
All years	0.306	0.405	−0.099	0.010	−9.59	0.00
1989	0.243	0.422	−0.179	0.039	−4.58	0.00
1991	0.327	0.379	−0.052	0.030	−1.77	0.08
1996	0.328	0.459	−0.131	0.033	−3.96	0.00
1998	0.337	0.389	−0.052	0.032	−1.63	0.10
1999	0.251	0.382	−0.131	0.031	−4.18	0.00
2004	0.315	0.390	−0.075	0.033	−2.26	0.02
2009	0.387	0.373	0.014	0.032	0.45	0.65
2014	0.185	0.472	−0.288	0.041	−7.01	0.00

Source: Own calculations from *Lok Sabha* election data

had a 30.6 percent chance of winning an election compared to the BJP's 40.5 percent, and furthermore, reading across the row, this difference of nearly 10 points was significantly different from 0. For every election in this period, except for the 2009 election, the predicted likelihood of the BJP winning was greater than that of the INC, and for several elections (1989, 1996, 1999, 2004, and 2014), this difference in the likelihoods was significantly different from 0.

Table 3.11 compares the probabilities of winning for the INC and the BJP under different scenarios for the vote share obtained. If the INC received 35 percent of the vote, then *ceteris paribus* its predicted probability of winning would be 22.6 percent; if, on the other hand, the BJP received 35 percent of the vote, then *ceteris paribus* its predicted probability of winning would be 31.5 percent. Under a 40 percent vote share scenario, the predicted probabilities of winning would rise for both parties, but the BJP's probability would still be higher than that of the INC: 50.8 percent against 39.6 percent. The pattern was repeated when each party received a hypothetical 45 percent share of the total vote: both likelihoods of winning would rise further, but the BJP advantage in terms of a higher winning probability would continue (69 percent versus 60.2 percent).

Table 3.11 INC and BJP likelihood of winning at different constituency vote shares

1	*2*	*3*	*4*	*5*	*6*	*7*
Vote share (%)	*INC likelihood of winning*	*BJP likelihood of winning*	*Difference*	*Standard error of difference*	*z-value for testing H_0: Difference = 0*	*p-value*
All years						
35	0.226	0.315	−0.089	0.020	−4.49	0.00
40	0.396	0.508	−0.112	0.024	−4.62	0.00
45	0.602	0.690	−0.088	0.040	−2.22	0.03
1989						
35	0.152	0.333	−0.181	0.058	−3.10	0.00
40	0.301	0.530	−0.230	0.071	−3.23	0.00
45	0.506	0.712	−0.206	0.072	−2.87	0.00
1991						
35	0.255	0.263	−0.009	0.044	−0.20	0.85
40	0.438	0.451	−0.012	0.053	−0.23	0.82
45	0.650	0.642	0.008	0.052	0.16	0.88
1996						
35	0.256	0.400	−0.144	0.057	−2.54	0.01
40	0.440	0.600	−0.160	0.062	−2.57	0.01
45	0.651	0.767	−0.116	0.072	−1.60	0.11
1998						
35	0.269	0.278	−0.010	0.049	−0.20	0.84
40	0.455	0.468	−0.013	0.057	−0.23	0.82
45	0.666	0.658	0.008	0.053	0.15	0.89
1999						
35	0.161	0.267	−0.106	0.045	−2.36	0.02
40	0.314	0.455	−0.141	0.057	−2.48	0.01
45	0.521	0.646	−0.125	0.059	−2.13	0.03
2004						
35	0.239	0.280	−0.040	0.049	−0.83	0.41
40	0.419	0.470	−0.051	0.060	−0.85	0.39
45	0.631	0.659	−0.028	0.058	−0.48	0.63
2009						
35	0.339	0.254	0.085	0.047	1.80	0.07
40	0.536	0.439	0.097	0.056	1.74	0.08
45	0.737	0.631	0.106	0.053	2.01	0.04
2014						
35	0.093	0.427	−0.334	0.064	−5.25	0.00
40	0.208	0.626	−0.419	0.071	−5.90	0.00
45	0.390	0.786	−0.396	0.100	−3.94	0.00

Source: Own calculations from *Lok Sabha* election data

3.5 Hindi-Speaking Versus Non-Hindi-Speaking States

Of the total of 543 *Lok Sabha* constituencies, 204 (or 37.6 percent) are—and have been since the 1996 *Lok Sabha* election—in the seven Hindi-speaking (HS) states, Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Rajasthan, Uttarakhand, and Uttar Pradesh; of these 204 constituencies, respectively, 40 and 80 are in Bihar and Uttar Pradesh.[10] The HS states are of particular importance for the BJP since a large number of its contested constituencies are from these states: in 2014, as Fig. 3.5 shows, nearly 45 percent (192 out of 428) of the constituencies contested by the BJP were from the HS states. These states are also important for the INC but to a lesser degree: as Fig. 3.5 shows, 34 percent (158 out of 464) of the constituencies contested by the INC in 2014 were from the HS states.

Figure 3.6 shows that of the 373 constituencies which were contested by *both* the INC and BJP in 2014, 153 constituencies (41 percent) were from the HS states while in 2009, of the 361 constituencies which were contested by *both* the INC and BJP, 149 constituencies (40 percent) were from the HS states. Although this proportion of approximately 40 percent of 'head-to-head' contests, between the INC and the BJP, in constitu-

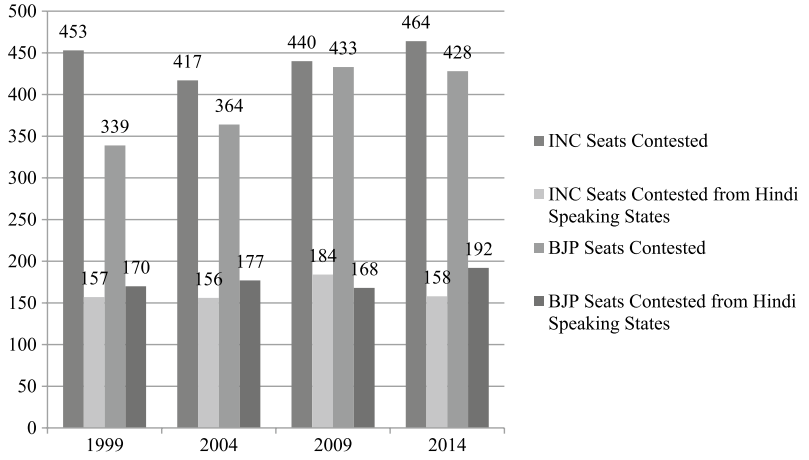

Fig. 3.5 Seats contested by the INC and the BJP in Hindi-speaking states (*Source*: Own calculations from *Lok Sabha* election data)

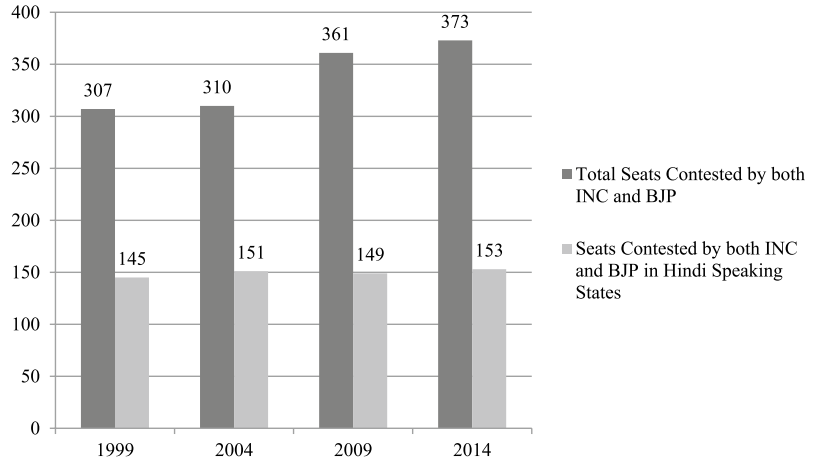

Fig. 3.6 Seats contested by both the INC and the BJP in Hindi-speaking states (*Source*: Own calculations from *Lok Sabha* election data)

encies in the HS states has dipped from the corresponding figure of 48 percent in the 1999 and 2004 elections—145 out of 307 constituencies in 1999 and 151 out of 310 constituencies in 2004—these constituencies are, and likely to remain, an important battlefield for both parties.

This raises the question of whether the electoral performances of the INC and the BJP, when they contested the same constituency, differed according to whether the constituency was in an HS or a non-HS state. With a view to answering this question, this section compares the electoral performances of the INC and the BJP when they (both) contested constituencies in the HS and in the non-HS states.

In order to compare the performances of the INC and the BJP, we estimated two *separate* bivariate probit models (of the type described in the earlier section): the first bivariate probit model was estimated on data for constituencies, which were contested by both the INC and BJP, in the 13 major non-HS states; and the second bivariate probit model was estimated on data for similar constituencies in the seven major HS states. In total, over the eight elections between 1989 and 2014, there were 1456 such constituencies in the non-HS states and 1228 constituencies in the HS states.

As in the previous section, the first equation in each of the two bivariate probit models related to the INC: the dependent variable in this equation took the value 1 ($y_i = 1$) if the INC won the election for constituency i, $i = 1,\ldots N$, and 0 if it did not ($y_i = 0$). The second equation related to the BJP: the dependent variable in this equation took the value 1 ($z_i = 1$) if the BJP won the election for constituency i, $i = 1,\ldots N$, and 0 if it did not ($z_i = 0$). The control variables in the non-HS and the HS models were the same as those used in the previous section: the share of the total votes received by the party in that constituency; whether the party held the constituency in the previous election (i.e., it was the 'incumbent' party); the turnout in that election; the number of independent candidates in the election; the number of 'other' (i.e., other than the INC and the BJP) party candidates in the election; the year of the election; and the state in which the constituency was located.

The comparison between the electoral performance of the INC and the BJP, in constituencies where both parties were contestants, was made—separately for non-HS and HS major states—with respect to two parameters: (i) the overall probability of winning the constituency with the values of the conditioning variables taking their observed constituency values; and (ii) the overall probability of winning the constituency when each party obtained a particular vote share; 35, 40, and 45 percent.

Table 3.12 shows that in terms of the *overall* predicted probability of winning a constituency—computed over all the eight elections between 1989 and 2014, with the conditioning variables taking their observed constituency values—the electoral performances of the INC and the BJP, in constituencies they both contested, differed according to whether these constituencies were in non-HS or in HS states. The INC was much stronger in the non-HS states—at 40.7 percent, its average probability of winning in these states was significantly higher than the BJP's 28.2 percent—and the BJP, however, was much stronger in the HS states—at 55.5 percent, its average probability of winning in these states was significantly higher than the INC's 18.7 percent.

These probabilities of winning varied when they were computed on an election-by-election basis. For example, the superior performance of the INC in non-HS states withered in the 2014 election when there was no significant difference between the INC and the BJP in their respective probabilities of winning in the non-HS major states (26.2 percent versus 29.1 percent) but the superior performance of the BJP over the INC in HS states was magnified (8.2 percent versus 74.3 percent). In the 1996

Table 3.12 INC and BJP likelihood of winning by year, non-Hindi and Hindi-speaking major states

1	*2*	*3*	*4*	*5*	*6*	*7*
	INC likelihood of winning	*BJP likelihood of winning*	*Difference*	*Standard error of difference*	*z-value for testing H_0: Difference = 0*	*p-value*
All years						
NHS	0.407	0.282	0.126	0.014	9.25	0.00
HS	0.187	0.555	−0.368	0.015	−24.50	0.00
1989						
NHS	0.388	0.231	0.157	0.055	2.83	0.01
HS	0.104	0.630	−0.526	0.056	−9.34	0.00
1991						
NHS	0.446	0.271	0.175	0.044	4.00	0.00
HS	0.177	0.496	−0.319	0.044	−7.26	0.00
1996						
NHS	0.416	0.341	0.076	0.040	1.88	0.06
HS	0.251	0.585	−0.334	0.062	−5.41	0.00
1998						
NHS	0.441	0.273	0.169	0.042	4.04	0.00
HS	0.204	0.561	−0.357	0.050	−7.14	0.00
1999						
NHS	0.341	0.264	0.077	0.043	1.77	0.08
HS	0.145	0.539	−0.394	0.045	−8.84	0.00
2004						
NHS	0.405	0.286	0.118	0.043	2.75	0.01
HS	0.207	0.498	−0.291	0.052	−5.65	0.00
2009						
NHS	0.489	0.273	0.216	0.038	5.63	0.00
HS	0.294	0.479	−0.184	0.054	−3.42	0.00
2014						
NHS	0.262	0.291	−0.029	0.053	−0.55	0.58
HS	0.082	0.743	−0.660	0.063	−10.53	0.00

Source: Own calculations from *Lok Sabha* election data

NHS is non-Hindi-speaking major states; HS is Hindi-speaking major states

(when the INC won 139 seats to the BJP's 161) and 1999 (when the INC won 114 seats to the BJP's 182) elections, too, there was no significant difference between the two parties in their respective likelihoods of winning in non-HS states.[11] In general, however, the pattern of the various elections was that in constituencies contested by both parties, the average

Table 3.13 INC and BJP predicted likelihood of winning at different constituency vote shares: Hindi- and non-Hindi-speaking major states

1	*2*	*3*	*4*	*5*	*6*	*7*
Vote share (%)	*INC likelihood of winning*	*BJP likelihood of winning*	*Difference*	*Standard error of difference*	*z-value for testing H_0: Difference = 0*	*p-value*
All years						
NHS:35	0.187	0.165	0.022	0.024	0.90	0.37
HS:35	0.292	0.482	–0.190	0.034	–5.65	0.00
NHS:40	0.349	0.346	0.003	0.039	0.09	0.93
HS:40	0.458	0.682	–0.224	0.036	–6.26	0.00
NHS:45	0.578	0.579	–0.001	0.145	–0.01	1.00
HS:45	0.628	0.833	–0.205	0.031	–6.67	0.00
1989						
NHS:35	0.169	0.078	0.091	0.060	1.53	0.13
HS:35	0.137	0.582	–0.445	0.095	–4.67	0.00
NHS:40	0.327	0.208	0.120	0.103	1.16	0.25
HS:40	0.273	0.768	–0.495	0.096	–5.14	0.00
NHS:45	0.561	0.429	0.132	0.134	0.99	0.32
HS:45	0.447	0.890	–0.444	0.091	–4.86	0.00
1991						
NHS:35	0.226	0.134	0.092	0.062	1.48	0.14
HS:35	0.273	0.384	–0.111	0.071	–1.56	0.12
NHS:40	0.406	0.305	0.101	0.097	1.03	0.30
HS:40	0.449	0.594	–0.146	0.079	–1.86	0.06
NHS:45	0.642	0.544	0.098	0.137	0.72	0.47
HS:45	0.631	0.769	–0.138	0.069	–1.99	0.05
1996						
NHS:35	0.196	0.286	–0.090	0.078	–1.15	0.25
HS:35	0.410	0.512	–0.102	0.106	–0.97	0.33
NHS:40	0.366	0.506	–0.141	0.113	–1.25	0.21
HS:40	0.596	0.712	–0.116	0.100	–1.15	0.25
NHS:45	0.602	0.721	–0.120	0.438	–0.27	0.79
HS:45	0.761	0.854	–0.093	0.078	–1.19	0.23
1998						
NHS:35	0.221	0.137	0.084	0.056	1.51	0.13
HS:35	0.323	0.477	–0.154	0.087	–1.76	0.08
NHS:40	0.400	0.311	0.089	0.079	1.13	0.26
HS:40	0.506	0.681	–0.175	0.087	–2.02	0.04
NHS:45	0.637	0.550	0.087	0.122	0.71	0.48
HS:45	0.684	0.833	–0.149	0.070	–2.14	0.03
1999						

(*continued*)

Table 3.13 (continued)

1	*2*	*3*	*4*	*5*	*6*	*7*
Vote share (%)	*INC likelihood of winning*	*BJP likelihood of winning*	*Difference*	*Standard error of difference*	*z-value for testing H_0: Difference = 0*	*p-value*
NHS:35	0.128	0.123	0.005	0.053	0.10	0.92
HS:35	0.212	0.444	−0.232	0.075	−3.10	0.00
NHS:40	0.265	0.287	−0.022	0.083	−0.26	0.79
HS:40	0.375	0.652	−0.276	0.081	−3.41	0.00
NHS:45	0.488	0.524	−0.036	0.119	−0.30	0.76
HS:45	0.558	0.812	−0.254	0.072	−3.54	0.00
2004						
NHS:35	0.184	0.162	0.022	0.058	0.39	0.70
HS:35	0.329	0.387	−0.058	0.085	−0.68	0.50
NHS:40	0.349	0.348	0.002	0.085	0.02	0.99
HS:40	0.512	0.598	−0.085	0.089	−0.96	0.34
NHS:45	0.585	0.587	−0.003	0.155	−0.02	0.99
HS:45	0.689	0.772	−0.082	0.075	−1.09	0.28
2009						
NHS:35	0.275	0.138	0.137	0.055	2.48	0.01
HS:35	0.489	0.360	0.129	0.084	1.53	0.13
NHS:40	0.467	0.311	0.156	0.077	2.03	0.04
HS:40	0.671	0.570	0.100	0.082	1.22	0.22
NHS:45	0.699	0.550	0.149	0.120	1.24	0.21
HS:45	0.819	0.750	0.068	0.064	1.07	0.28
2014						
NHS:35	0.074	0.171	−0.097	0.064	−1.51	0.13
HS:35	0.100	0.759	−0.660	0.100	−6.61	0.00
NHS:40	0.172	0.361	−0.189	0.100	−1.90	0.06
HS:40	0.216	0.890	−0.674	0.110	−6.15	0.00
NHS:45	0.362	0.600	−0.238	0.182	−1.31	0.19
HS:45	0.377	0.958	−0.581	0.124	−4.70	0.00

Source: Own calculations from *Lok Sabha* election data

NHS: X is non-Hindi-speaking at X percent vote share; HS: X is Hindi-speaking at X percent vote share

likelihood of the INC winning, compared to that for the BJP, was significantly higher in non-HS states and significantly lower in HS states.

As the results in Table 3.13 show, the thrust of these results was not altered when the likelihood of winning was computed at different vote shares. For a 40 percent vote share in an HS state constituency (row HS:40 in Table 3.13), the predicted probability of a BJP victory would

be 68.2 percent compared to the INC's 45.8 percent; with the same vote share in a non-HS state (row NHS:40 in Table 3.13), however, the INC would win with probability 34.9 percent compared to the BJP's 34.6 percent, a difference which was not statistically significant. The pattern was repeated under a hypothetical 45 percent share of the total vote: both likelihoods of winning would rise further, but the BJP advantage in terms of a significantly higher winning probability in HS states would remain (83.3 percent versus 62.8 percent in row HS:45 of Table 3.13); in non-HS states, the difference between the parties in their respective likelihoods of winning remained statistically insignificant (57.8 percent for the INC versus 57.9 percent for the BJP in row NHS:45 of Table 3.13).

3.6 Concluding Remarks

This chapter represented the first step towards the overall purpose of this book which is to evaluate the relative electoral efficiency of India's two major parties—the INC and the BJP. Whether one considered the marginal constituencies in which the INC was the winner or the runner-up (and a parallel set of constituencies in which the BJP was the winner or the runner-up), or whether one considered the set of *all* constituencies which the INC and the BJP *both* contested, the answer always seemed to be the same: the average predicted probability of the BJP winning a *Lok Sabha* constituency election was, except for the 2009 *Lok Sabha* election, always greater than that of the INC.

When attention was narrowed to constituencies in Hindi-speaking states and those in non-Hindi-speaking states, the advantage of the BJP over the INC in Hindi-speaking states (in terms of the average probability of winning constituencies in these states) was statistically significant; on the other hand, for constituencies in non-Hindi-speaking states, the difference between the INC and the BJP in their respective probabilities of winning was not statistically significant.

It is important to emphasise that the results presented in this chapter are based on *average* probabilities: that is, the average of the predicted probabilities of winning individual constituencies. So, the results should *not* be interpreted to mean that in *every* constituency, the probability of a BJP win is greater than that of the INC. There will be constituencies where the INC was predicted to have a better chance of winning than the BJP, but *averaging* over these probabilities, the BJP was better placed to win than the INC.

Notes

1. Note that 'observations' are distinguished by constituency name and by year of election: for example, Adilabad in the 1989 and 1991 *Lok Sabha* election is treated in the analysis as two distinct constituencies and, therefore, as two separate observations.
2. The focus was on constituencies in which the winning margin was 10 points or less in order to harvest the largest number of constituencies from the data while remaining within the ambit of marginal constituencies.
3. See Long and Freese (2014), pp. 126–28 for a discussion of measures of fit in binary models.
4. By implication, we do not consider marginal constituencies in which the INC or the BJP was neither the winner nor the runner-up.
5. Over the elections from 1962 to 2014, there were 113 constituencies in total in which there was only *one* party candidate, the rest being independents. The most recent of such these was Kokrajhar (Assam) in 2004 when the INC unsuccessfully fought the seat alongside three independents.
6. The effects of incumbency are analysed in detail in the next chapter. Here incumbency is simply used as a variable determining electoral outcome.
7. This is also the figure reported in the last row, second column, of Table 3.5.
8. The difference between a logit and a probit model, both of which deal with binary outcomes, is in the assumption made about the distribution of the error term. In a logit model, the error term is assumed to be logistically distribution while in a probit model, it is assumed to follow a normal distribution.
9. Listed in Table 3.9 which mirrors the listing in Tables 3.3 and 3.4.
10. After the creation in November 2000 of the states of Uttarakhand and Jharkhand from, respectively, the erstwhile states of Uttar Pradesh and Bihar, the former lost five constituencies while the latter lost 14 constituencies.
11. Notwithstanding the fact that, compared to the BJP, the likelihood of winning was greater for the INC.

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CHAPTER 4

Incumbents, Challengers, and Electoral Risk

Abstract Borooah develops a methodology, based on Bayes' theorem, for evaluating the electoral risk associated with being the incumbent party, as opposed to being a challenger party, in a constituency. His overall conclusion is that there is no obvious way of measuring the degree of anti-incumbency, or its obverse, pro-incumbency. There are at least four measures based on the likelihood of winning. Which measure is appropriate depends on what one is trying to establish.

4.1 Introduction

A major issue in the study of elections is whether, and to what extent, the chances of a candidate or a party being elected from a constituency are improved or damaged by virtue of the fact that he/she/it is the incumbent in that constituency (i.e., had won the previous election from that constituency). The literature on US elections suggests that incumbents enjoy a considerable advantage over their challenger rivals: they are not only much more likely to be re-elected, but also their margin of victory has increased significantly over time (Alford and Hibbing 1981; Collie 1981; Garand and Gross 1984). By contrast, a recurring theme in the literature on *Lok Sabha* elections in India since the 1990s is that of 'anti-incumbency': it is alleged that at every election since 1991, voters have cut a swathe through incumbent members of parliament and chosen to replace many of them with a fresh set of faces.

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The 'anti-incumbency' sentiment of Indian voters in a particular constituency may be underpinned by any one of four 'grievances'. At its broadest, it may represent a vote against the ruling party at the centre ('national government incumbency'). More narrowly, but still within the purview of a ruling party, it may represent a vote against the party of government in the state in which the constituency is based ('state government incumbency'). Alternatively, it may represent a vote against the party which won the constituency in the previous election, regardless of whether that party is part of the government at the centre or in the state ('party incumbency'). Finally, anti-incumbency might focus on the candidate rather than the party and represent a vote against the sitting member of parliament ('candidate incumbency').

In this chapter—and, indeed, in this book—incumbency is defined in terms of the party which won the constituency in the previous election ('party incumbency'), and an anti-incumbent vote is, therefore, a vote against the incumbent party. Consequently, issues relating to 'government incumbency' (Yadav 2004) or 'candidate incumbency' (see Linden 2003) are not addressed. Within the context of party incumbency, this chapter draws on Bayes' Theorem to make more precise the concept of 'anti-incumbency' and then, based on this concept, measures the extent of anti-incumbency towards the Indian National Congress (INC) and the Bharatiya Janata Party (BJP).

4.2 Bayes' Theorem and the 'Incumbency Effect'

The Reverend Thomas Bayes, an eighteenth century Presbyterian minister, proved what, arguably, is the most important theorem in statistics.[1] Bayes' Theorem states that the probability of a hypothesis being true (event T), *given that the data has been observed* (event A), is the probability of the hypothesis being true, *before any data has been observed*, times an 'updating factor'. The theorem is encapsulated by the well-known equation:

$$P(T \mid A) = \frac{P(A \mid T)}{P(A)} \times P(T) \tag{4.1}$$

where: $P(T)$represents the *prior* belief that the hypothesis is true *before the data has been observed*; $P(A)$ is the probability of observing the data, *regardless of whether the hypothesis is true or not*; $P(A|T)$ is the probability of

observing the data, given that the hypothesis is true, and $P(A \mid T) / P(A)$ is the Bayesian 'updating factor' which translates one's *prior* (i.e., *before* observing the data) belief about the hypothesis's validity into a *posterior* (i.e., *after* observing the data) belief.[2]

In this chapter, we use Bayes' ideas to analyse the question of whether incumbents are more or less likely to win elections than challengers. As in the preceding paragraph, let A and $\bar{A}$ denote the 'data' which, in this case, is: (i) the party is the incumbent in that constituency, event A; and (ii) the party is a challenger (i.e., *not* the incumbent) in that constituency, event $\bar{A}$. Similarly, let T and $\bar{T}$ denote the 'hypothesis' which, in this case, is: (i) the party wins the election to that constituency, event T; and (ii) the party loses the election to that constituency, event $\bar{T}$. Then $P(T)$ is the probability of the party winning the election for that constituency *in the absence of any information about whether it is the incumbent or challenger party there*. The probability that the party wins the election for the constituency, *given that it is the incumbent party in that constituency* is $P(T \mid A)$, and this can be obtained by applying Bayes' theorem as in Eq. 4.1. Similarly, the probability that the party wins the election in the constituency, *given that it is a challenger party in that constituency*, is $P(T \mid \bar{A})$, and this can also be obtained from Bayes' theorem by replacing A with $\bar{A}$ in Eq. 4.1.

4.2.1 *The 'Bayes Factor' and the 'Inverse Bayes Factor'*

One definition of the risk, associated with being the incumbent, is the ratio of the likelihood that the incumbent party wins an election to the likelihood that it loses it. This ratio is, hereafter, referred to as the *risk ratio (RR)* and is denoted by ρ, where:

$$\rho = \frac{P(T \mid A)}{P(\bar{T} \mid A)} = \frac{P(A \mid T)}{P(A \mid \bar{T})} \times \frac{P(T)}{P(\bar{T})} = \frac{P(A \mid T)}{P(A \mid \bar{T})} \times \frac{P(T)}{1 - P(T)} = \Phi \frac{P(T)}{1 - P(T)} \tag{4.2}$$

where: $\Phi = \dfrac{P(A \mid T)}{P(A \mid \bar{T})} = \dfrac{\rho}{\lambda}$, where $\lambda = \dfrac{P(T)}{1 - P(T)}$ is *(OR)* that the ratio of the likelihood of winning, to the likelihood of losing, the election.

The term Φ in Eq. 4.2 is the so-called *Bayes Factor (BF)* applied to incumbent parties. The BF is a measure of whether the data (A: the party is the incumbent) is more likely to be observed under one outcome (T:

the party wins) than under the alternative outcome ($\bar{T}$: the party loses): $\Phi > 1 (< 1)$ signifies that the likelihood of being an incumbent is higher (lower) when the party *wins* compared to when the party *loses*. It tells us by how much we should alter our prior belief that the party will win with probability, $P(T)$, and lose with probability, $P(\bar{T}) = 1 - P(T)$, in the light of the data that the party is an incumbent.[3]

4.2.2 *The Inverse Bayes Factor*

The RR, ρ in Eq. 4.1, measures the odds of the null hypothesis being 'true' (the party *wins* the election from a constituency) to it being 'false' (the party *loses* the election from that constituency) *under a particular set of data* which, in this case, is that the party is the incumbent party in the constituency. In this formulation of risk, the data applicable to the different outcomes (winning or losing the election) was the same (the party was the incumbent). An alternative view of risk is obtained by posing the following question: given two rival scenarios: in the first, a party is an incumbent in an election to a constituency, while, in the second, it is a challenger—what is the ratio of its probabilities of winning in these different situations?

In this case, the RR of being the incumbent party is the ratio of the likelihood that the party wins the election *if it was the incumbent* to the likelihood that the party wins the election *if it was a challenger*. Here the outcome is the same (the party wins the election) but the data that is input is different (incumbent or challenger). In order to answer this question, the relevant RR (represented by σ) is $\sigma = \dfrac{P(T \mid A)}{P(T \mid \bar{A})}$. Hereafter, σ is referred to as the *inverse risk ratio* (IRR): given two different 'pieces' of information—a party is an incumbent or a challenger—what is the ratio of the party's probabilities of winning the election?

In turn, one can expand σ so that:

$$\sigma = \frac{P(T \mid A)}{P(T \mid \bar{A})} = \frac{P(A \mid T)P(T)}{P(A)} \times \frac{P(\bar{A})}{P(\bar{A} \mid T)P(T)}$$
$$= \frac{P(A \mid T)}{P(\bar{A} \mid T)} \times \frac{P(\bar{A})}{P(A)} = \Psi \frac{P(\bar{A})}{P(A)} \tag{4.3}$$

where: $\Psi = \frac{P(A \mid T)}{P(\bar{A} \mid T)} = \frac{\sigma}{\mu}$ where $\mu = \frac{P(\bar{A})}{P(A)}$ is the *inverse odds ratio (IOR)*:

the ratio of the likelihood of contesting a seat as a challenger party to that of contesting it as the incumbent party. The term Ψ in Eq. 4.3 is the *inverse Bayes Factor (IBF)* applied to the party that won that constituency. The IBF is the odds of the null hypothesis being true (the party wins) under one set of data (the party was the incumbent), against it being true (the party wins) under the obverse set of data (the party was a challenger). If $\Psi > 1 (< 1)$ then, given that the hypothesis is true (the party wins), we are more (less) likely to observe one set data (A: the party is the incumbent party) than the complementary set of data (A: the party is a challenger).

Table 4.1 Winning and incumbency outcomes for the INC and the BJP: 1962–2014

	INC		*BJP*	
	Number of seats won in year t	*Number of incumbent seats in year t+1*	*Number of seats won in year t*	*Number of incumbent seats in year t+1*
1962:1967	357	305		
1967:1971	281	279		
1971:1977	352	332		
1977:1980	154	146		
1980:1984	353	360		
1984:1989	414	410	2	2
1989:1991	197	199	85	85
1991:1996	244	246	121	121
1996:1998	139	139	161	161
1998:1999	141	141	182	182
1999:2004	114	105	182	157
2004:2009	145	120	138	103
2009:2014	206	206	116	116
2014	44		282	

Source: Own calculations from *Lok Sabha* election data

4.3 Risk Ratio and Bayes Factor Calculations for *Lok Sabha* Elections

Table 4.1 shows the winning and incumbency outcomes for seats contested by the INC and the BJP in *Lok Sabha* elections. The INC results pertain to the 14 successive *Lok Sabha* elections in India from 1962 (3rd *Lok Sabha*) to 2014 (16th *Lok Sabha*); since the BJP only made its electoral debut in the 1984 *Lok Sabha* election, its results pertain to the nine *Lok Sabha* elections between 1984 and 2014.

If there were no constituency changes between elections, then the number of seats won by a party (say, the INC) in one election should be the number of seats in which it was the incumbent in the subsequent election. However, boundary changes mean that constituencies disappear between elections and, sometimes, even reappear. A case in point is the number of changes that occurred between the 2004 and 2009 *Lok Sabha* elections. The INC won 145 *Lok Sabha* seats in the General Election of 2004 but in the 2009 election, it was the incumbent in only

Table 4.2 Incumbency/non-incumbency[a] performance of the INC in *Lok Sabha* elections

	Contested seats	*Winning incumbent seats*	*Losing incumbent seats*	*Winning challenger seats*	*Losing challenger seats*	*Electoral turnover (%)*
1967	514	176	129	105	104	46
1971	441	223	47	129	42	40
1977	492	101	224	53	114	56
1980	492	121	13	232	126	50
1984	517	297	59	117	44	34
1989	510	148	260	49	53	61
1991	504	148	50	96	210	29
1996	526	92	151	47	236	38
1998	477	68	70	73	266	30
1999	453	52	88	62	251	33
2004	417	45	57	100	215	38
2009	440	70	46	136	188	41
2014	464	34	170	10	250	39

Source: Own calculations from *Lok Sabha* election data

Electoral turnover: percentage of seats contested by INC which changed hands between INC and other parties

[a]Incumbency refers to seats held by the INC

Table 4.3 Incumbency/non-incumbency[a] performance of the BJP in *Lok Sabha* elections

	Contested seats	*Winning incumbent seats*	*Losing incumbent seats*	*Winning challenger seats*	*Losing challenger seats*	*Electoral turnover (%)*
1989	225	1	1	84	139	38
1991	478	45	39	76	318	24
1996	469	86	34	75	274	23
1998	388	108	53	74	153	33
1999	339	115	65	67	92	39
2004	364	79	76	59	150	37
2009	433	52	50	64	267	26
2014	428	103	13	179	133	45

Source: Own calculations from *Lok Sabha* election data

Electoral turnover: percentage of seats contested by BJP which changed hands between BJP and other parties

[a]Incumbency refers to seats held by the BJP

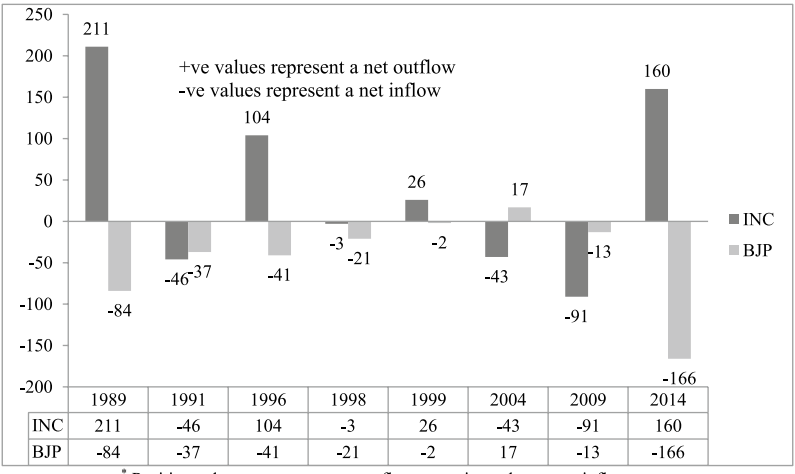
119 constituencies. Similarly, the BJP won 138 *Lok Sabha* seats in the General Election of 2004, but, in the 2009 election, it was the incumbent in only 103 constituencies.[4]

Tables 4.2 and 4.3 show, respectively, the losses and gains by the INC and the BJP depending upon whether they were the incumbent or a challenger party. So, when the 2009 elections were announced, the INC, as Table 4.2 shows, was the incumbent in 120 constituencies. However, in the 2009 elections, it decided to contest only 116 of its 'incumbent' constituencies, and of these, it won 70 and lost 45.[5] In the constituencies where it was not the incumbent party, it won 136 and lost 189. Consequently, a total of 181 seats changed hands between the INC and the other parties (45 INC incumbents lost and 136 INC challengers won)[6] which represented an 'electoral turnover' for the INC of 41 percent of the 440 seats it contested in 2009.

Similarly, as Table 4.3 shows, in 2009, the BJP, as the incumbent party, won and lost, respectively, 52 and 50 seats while, as a challenger party, it won and lost, respectively, 64 and 267 seats. As a consequence of this, a total of 114 seats changed hands in 2009 between the BJP and the other parties[7] (50 BJP incumbents lost and 64 BJP challengers won) which was an 'electoral turnover' for the BJP of 26 percent of the 433 seats it contested in 2009.

A high volume of trade between a party and other parties suggests either, or both, of two things: (i) a soft 'centre', so that core voters exit easily; and (ii) a strong 'periphery', so that non-traditional voters enter easily. In 'trading' between itself and other parties, a party can either have an 'electoral deficit': out-migration exceeds in-migration (the number of losing incumbents exceeds the number of winning challengers); or it can have an 'electoral surplus': in-migration exceeds out-migration (the number of winning challengers exceeds the number of losing incumbents).

Figure 4.1 shows the *net* migration of seats (i.e., exits less entries) for the two parties for parliamentary elections between 1989 and 2014. This shows that it was only in the 2004 and 2009 elections that there was a net inflow of seats into the INC. On the other hand, except for the 2004 election—when there was a small net outflow from the BJP—the BJP has always been able to attract a net inflow of seats. This is evidence to suggest that since 1989, INC fortunes have on a downward trend, and this has been mirrored in an upward trend in the fortunes of the BJP.



	1989	1991	1996	1998	1999	2004	2009	2014
INC	211	-46	104	-3	26	-43	-91	160
BJP	-84	-37	-41	-21	-2	17	-13	-166

* Positive values represent a net outflow; negative values a net inflow.

Fig. 4.1 Net migration of seats (losses less gains) from the INC and the BJP positive values represent a net outflow; negative values a net inflow (*Source:* Own calculations from *Lok Sabha* election data)

Table 4.4 RR and BF calculations for the INC in *Lok Sabha* elections

	Number of seats won by incumbent	*Number of seats lost by incumbent*	*RR*[a] *(ρ)*	*Number of seats won*	*Number seats lost*	*OR*[b] *(λ)*	*BF*[c] *(Φ)*
1967	176	129	1.36	281	233	1.21	1.12
1971	223	47	4.74	352	89	3.96	1.20
1977	101	224	0.45	154	338	0.46	0.98
1980	121	13	9.31	353	139	2.54	3.67
1984	297	59	5.03	414	103	4.02	1.25
1989	148	260	0.57	197	313	0.63	0.90
1991	148	50	2.96	244	260	0.94	3.15
1996	92	151	1.80	139	387	0.36	5
1998	68	70	0.97	141	336	0.42	2.31
1999	52	88	0.59	114	339	0.34	1.74
2004	45	57	0.79	145	272	0.54	1.46
2009	70	46	1.56	206	234	0.88	1.77
2014	34	170	0.2	44	420	0.10	2

Source: Own calculations from *Lok Sabha* election data

Incumbency refers to seats held by the INC

[a]RR = the ratio of the number of seats won *by incumbents* to seats lost *by incumbents* (see Eq. (3.2))

[b]OR = Number of seats won to number of seats lost, by the INC

[c]BF = RR/OR

Table 4.4 shows that the INC's RR (ρ_{INC})—defined, as $\rho = P(T \mid A)/P(\bar{T} \mid A)$ in Eq. 4.2—as the ratio of the number of seats contested by the INC incumbents that were won and lost—for all the *Lok Sabha* elections from 1967 to 2014; Table 4.5 does the same for the BJP's RR (ρ_{BJP}) for all the *Lok Sabha* elections from 1989 to 2014.[8] For four of the five elections between 1967 and 1984, the RR for the INC was greater than unity (meaning that the chance of the INC winning a seat in which it was an incumbent was greater than that of losing it) but in the four of the five elections held after 1996, the RR for the INC was less than unity (meaning that the chance of the INC winning a seat in which it was an incumbent was less than that of losing it): in the INC massacre of 2014, the chances of incumbents winning their seats were just 20 percent of their chances of losing them.

For the BJP, on the other hand, the RR was always positive. Even in the difficult elections of 2004 and 2009, both of which led to INC-led coali-

Table 4.5 RR and BF calculations for the BJP in *Lok Sabha* elections

	Number of seats won by incumbent	*Number of seats lost by incumbent*	*RR*[a] *(ρ)*	*Number of seats won*	*Number seats lost*	*OR*[b] *(λ)*	*BF*[c] *(Φ)*
1989	1	1	1	85	140	0.61	1.64
1991	45	39	1.15	121	357	0.34	3.38
1996	86	34	2.53	161	308	0.52	4.87
1998	108	53	2.04	182	206	0.88	2.32
1999	115	65	1.77	182	157	1.16	1.53
2004	79	76	1.04	138	226	0.61	1.70
2009	52	50	1.04	116	317	0.37	2.81
2014	103	13	7.92	282	146	1.93	4.10

Source: Own calculations from *Lok Sabha* election data

Incumbency refers to seats held by the BJP

[a]RR = the ratio of the number of seats won *by incumbents* to seats lost *by incumbents* (see Eq. (3.2))

[b]OR = Number of seats won to number of seats lost, by the BJP

[c]BF = RR/OR

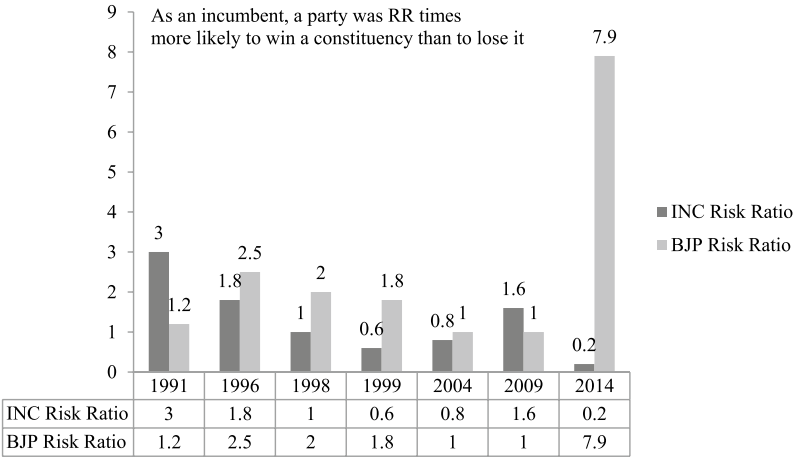
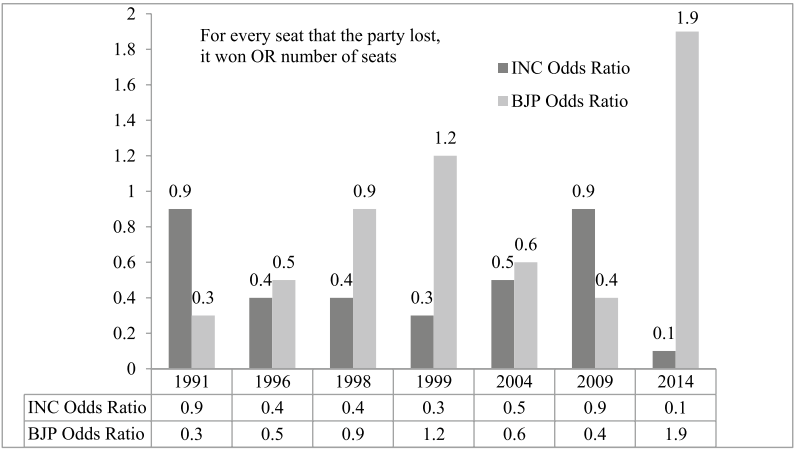


Fig. 4.2 The RR for the INC and the BJP compared (*Source*: Own calculations from *Lok Sabha* election data)

tion governments, the RR for the BJP was slightly over unity, meaning that the chance of the BJP winning a seat in which it was an incumbent was just greater than that of losing it. In other elections, the RR for the BJP was comfortably over unity, and most spectacularly, the BJP's RR in the 2014 election was 7.92: the chances of the BJP winning an incumbent seat were eight times than that of losing it.[9] Figure 4.2 compares the RRs for the INC and the BJP from the 1991 election onwards.

The *OR*, λ, is the ratio of the *total* number of seats won, to the *total* number of seats lost, by the INC and is the empirical equivalent of the term $P(T)/P(\bar{T})$ in Eq. 4.2. Figure 4.3 compares the ORs for the INC and the BJP from the 1991 election onwards with the lowest and highest ORs being recorded for the 2014 elections: in this election, the INC and the BJP won 0.1 and 1.9 seats, respectively, for every seat that they lost.

The RR (ρ) when compared to the OR (λ) yields the BF defined as the term $\Phi = P(A \mid T)/P(A \mid \bar{T})$ in Eq. 4.2.[10] If the RR is greater than the OR ($BF = \frac{\rho}{\lambda} > 1$), it means that in the light of the information that the party is an incumbent, we should *revise upwards*—by the amount suggested by the *BF*—our prior belief that the party will win with probability, $P(T)$, and lose



	1991	1996	1998	1999	2004	2009	2014
INC Odds Ratio	0.9	0.4	0.4	0.3	0.5	0.9	0.1
BJP Odds Ratio	0.3	0.5	0.9	1.2	0.6	0.4	1.9

Fig. 4.3 The OR for the INC and the BJP compared (*Source*: Own calculations from *Lok Sabha* election data

with probability, $P(\bar{T}) = 1 - P(T)$. Conversely, if the RR is less than the OR ($BF = \frac{\rho}{\lambda} < 1$), it means that in the light of the information that the party is an incumbent we should *revise downwards*—by the amount suggested by the *BF*—our prior belief that the party will win with probability, $P(T)$, and lose with probability, $P(\bar{T}) = 1 - P(T)$.[11]

Table 4.4 shows that except for 1977 and 1989, the RR was always greater than the OR for the INC (meaning that the *BF* value, entered in the last column of Table 4.4, was greater than one): even in the 1996, 1999, and 2014 elections, when it was very 'risky' standing as an INC incumbent,[12] *it was not as risky as standing as an INC challenger*. Consequently, in 1999, the likelihood of an INC win being an incumbent victory was almost twice as likely (RR/OR = 1.91) as an INC loss being an incumbent defeat. Only in the 1977 and 1989 elections, both of which were characterised by a strong anti-INC sentiment, was it more risky being an INC incumbent compared to being an INC challenger: BF = (risk/OR) < 1 implied that the likelihood of an INC loss being an incumbent defeat was greater (by 2 percent in

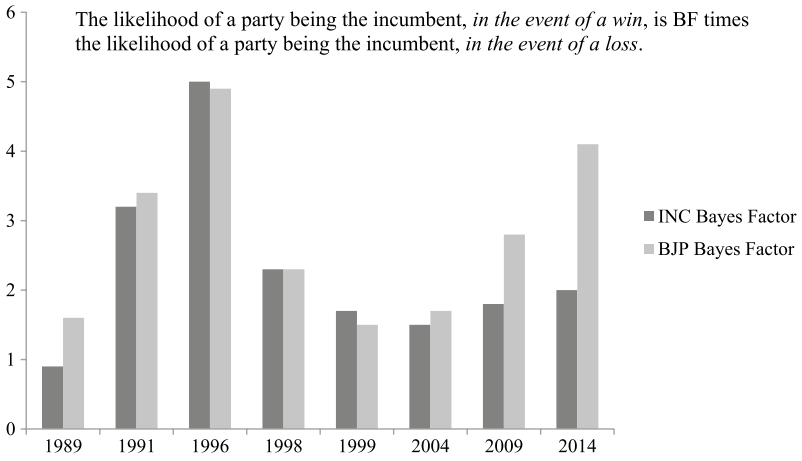


Fig. 4.4 BF values for the INC and the BJP compared (*Source*: Own calculations from *Lok Sabha* election data)

1977 and 10 percent in 1989) than the likelihood of an INC win being an incumbent victory.

For the BJP, too, the RR was always greater than the OR (meaning that the *BF* value entered in the last column of Table 4.5 was greater than one). In the 2014 election, the likelihood of a BJP win being an incumbent victory was more than four as likely (RR/OR=4.1) as of a BJP loss being an incumbent defeat. However, as Fig. 4.4 shows, the BF was generally higher for the BJP than for the INC. For both parties, a win was more likely to signal an incumbent victory than a defeat was to signal an incumbent loss, but this gap was larger for the BJP than the INC.

4.4 The Inverse Risk Ratio and the Inverse Bayes Factor Calculations for *Lok Sabha* Elections

The proportion of incumbent seat wins to the proportion of incumbent seat losses (from the seats contested by, respectively, the INC and BJP as incumbent parties) were compared in Tables 4.4 and 4.5 to yield *the* RR. This then led, through a comparison of the RR with the OR, to the BF.

Tables 4.6 and 4.7 compare, for respectively, the INC and the BJP, the ratio of the proportion of *incumbent* wins (from the seats contested by, respectively, the INC and BJP as incumbent parties) to the proportion of *challenger* wins (from the seats contested by, respectively, the INC and BJP as challenger parties). This ratio is the IRR defined by the term $\sigma = P(T \mid A)/P(T \mid \bar{A})$ in Eq. 4.3. The IOR—the term $\mu = P(\bar{A})/P(A)$ in Eq. 4.3—represents the ratio of the likelihood of contesting as a challenger to the likelihood of contesting as an incumbent. A comparison of the IRR with the IOR then results in the IBF. This is the term $\Psi = P(A \mid T)/P(\bar{A} \mid T)$ in Eq. 4.3. If $\Psi > 1 (< 1)$, the probability of winning as an incumbent is greater (less) than the probability of winning as a challenger.

Table 4.6 shows that except for the elections of 1977 and 1989, the IRR was always greater than 1, meaning that the INC had a greater chance of winning from where it was the incumbent than from where it was the challenger: indeed, since 1991, the chances of winning as an incumbent have been more than twice that of winning as a challenger. Table 4.7 tells a similar story with respect to the BJP's IRR: the likelihood of an

Table 4.6 IRR and IBF calculations for the INC in *Lok Sabha* elections

	Proportion of seats contested by INC incumbents that were won by them (%)	*Proportion of seats contested by INC challengers that were won by them (%)*	*IRR*[a] *(σ)*	*Number of challenger seats contested*	*Number of incumbent seats contested*	*IOR*[b] *(μ)*	*IBF*[c] *(Ψ)*
1967	57.7	50.2	1.15	209	305	0.69	1.67
1971	82.6	75.4	1.10	171	270	0.63	1.75
1977	31.1	31.7	0.98	167	325	0.51	1.92
1980	90.3	64.8	1.39	358	134	2.67	0.52
1984	83.4	72.7	1.15	161	356	0.45	2.56
1989	36.3	48.0	0.76	102	408	0.25	3.04
1991	74.8	31.4	2.38	306	198	1.55	1.54
1996	37.9	16.6	2.28	283	243	1.16	1.97
1998	49.3	21.5	2.29	339	138	2.46	0.93
1999	37.1	19.8	1.87	313	140	2.23	0.84
2004	44.1	31.8	1.39	315	102	3.09	0.45
2009	60.3	42.0	1.44	324	116	2.79	0.52
2014	16.7	3.9	4.28	260	204	1.27	3.37

Source: Own calculations from *Lok Sabha* election data

Incumbency refers to seats held by the INC

[a]IRR = the ratio of the proportion of contested seats won by *incumbents* to the proportion of contested seats won by *challengers* (see Eq. (3.3))

[b]IOR = Number of challenger seats contested to number of incumbent seats contested by the INC

[c]IBF = IRR/IOR

incumbency win was always greater than that of a non-incumbency win. Figure 4.5 brings together the values of the IRR for the INC and BJP from the 1991 election onwards.

The values of the IOR, μ, shown in Tables 4.6 and 4.7 are the ratios of the total number of seats which the parties—respectively, INC and BJP—contested as challengers to the total number of seats they contested as incumbents. Since 1991, there has been a sharp reduction in the number of seats won by the INC in *Lok Sabha* elections notwithstanding the fact

Table 4.7 IRR and IBF calculations for the BJP in *Lok Sabha* elections

	Proportion of seats contested by INC incumbents that were won by them (%)	*Proportion of seats contested by INC challenger that were won by them (%)*	*IRR*[a] *(σ)*	*Number of challenger seats contested*	*Number of incumbent seats contested*	*IOR*[b] *(μ)*	*IBF*[c] *(Ψ)*
1989	50	37.7	1.33	223	2	111.5	0.01
1991	53.6	19.3	2.78	394	84	4.69	0.59
1996	71.7	21.5	3.33	349	120	2.91	1.14
1998	67.1	32.6	2.06	227	161	1.41	1.46
1999	63.9	42.1	1.52	159	180	0.88	1.73
2004	51.0	28.2	2.64	209	155	1.35	1.96
2009	51.0	19.3	2.64	331	102	3.25	0.81
2014	88.8	57.4	1.55	312	116	2.69	0.58

Source: Own calculations from *Lok Sabha* election data

Incumbency refers to seats held by the BJP

[a]IRR = the ratio of the proportion of contested seats won by *incumbents* to the proportion of contested seats won by *challengers* (see Eq. (3.3))

[b]IOR = Number of challenger seats contested to number of incumbent seats contested by the BJP

[c]IBF = IRR/IOR

that the number of constituencies contested by the INC has not fallen commensurately.

Consequently, post-1991, the INC emerges as a challenger party in the majority of the seats contested by it, and in 2004, it contested three times as many constituencies where it was a challenger compared to where it was the incumbent. For the BJP, the three elections of 1996, 1998, and 1999 were 'good' elections when it won, respectively, 161, 182, and 182 seats, and consequently, it built up a stock of seats in which it was the incumbent party. This stock, combined with the fact that it contested far fewer seats than the INC (in 1999 the BJP contested only 339 constituencies compared to the INC's 453), meant that it had a smaller ratio of challenger to incumbent seats. Figure 4.6 brings together the values of the IBF for the INC and BJP from the 1991 election onwards.

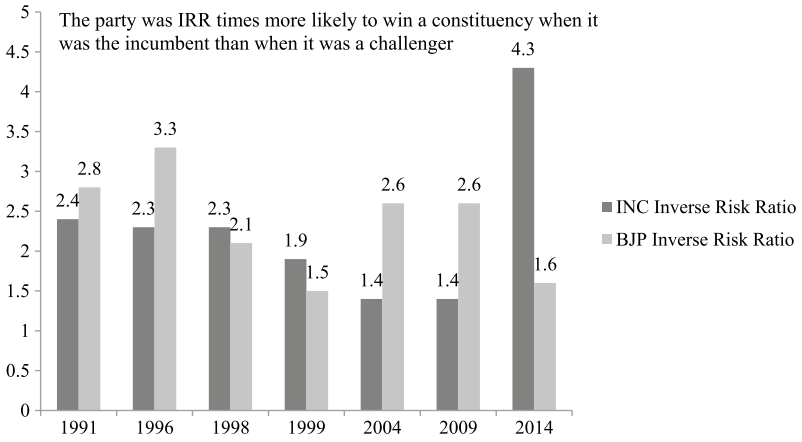


Fig. 4.5 The IRR for the INC and the BJP compared (*Source:* Own calculations from *Lok Sabha* election data)

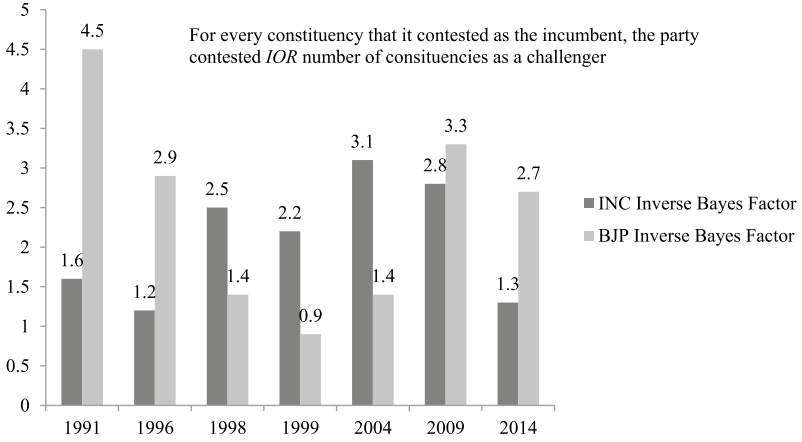


Fig. 4.6 The IOR for the INC and the BJP compared (*Source:* Own calculations from *Lok Sabha* election data)

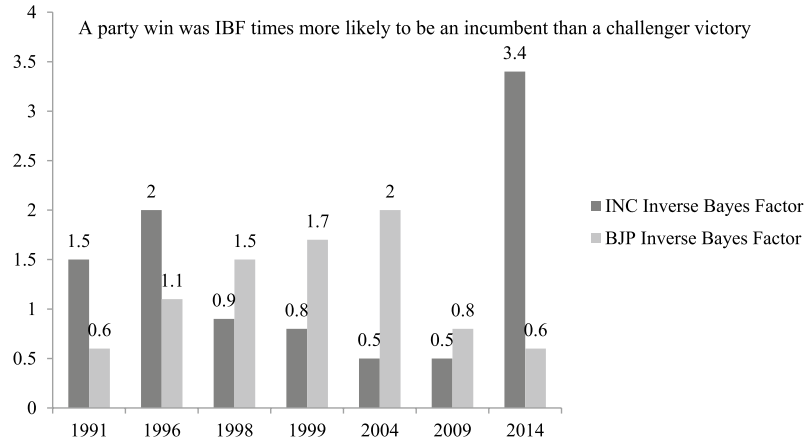


Fig. 4.7 IBF values for the INC and the BJP compared (*Source:* Own calculations from *Lok Sabha* election data)

When the IRR was greater than the IOR ($\sigma/\mu > 1$), the chance of a party win being an incumbent victory was greater than the chance of it being a challenger victory, and this is reflected in the fact that the IBF, $\Psi > 1$, implying $P(A \mid T) > P(\bar{A} \mid T)$. When the IRR was less than the IOR ($\sigma/\mu < 1$), the chance of a party win being a challenger victory was greater than the chance of it being an incumbent victory, and this is reflected in the fact that the IBF, $\Psi < 1$, implying $P(A \mid T) < P(\bar{A} \mid T)$.[13] Figure 4.7 brings together the values of the IBF for the INC and BJP from the 1991 election onwards.

Figure 4.7 shows that the INC's IBF value was 3.4 for the *Lok Sabha* election of 2014. Even though the INC only won 44 seats in this election, its constituency victories, as and when they did occur, were 3.4 times more likely to have been as the incumbent, than as a challenger, party. On the other hand, the BJP which went into the 2014 election with only 116 incumbent constituencies but ended up winning 282 seats. In the event of a BJP's victory in this election, the likelihood that the party was the incumbent in a constituency was only 60 percent of the likelihood that it was a challenger.

4.5 Concluding Remarks

This chapter's contribution lay in developing a methodology, based on Bayes' theorem, for evaluating the electoral risk associated with being the incumbent party, as opposed to being a challenger party, in a constituency. The first concept was that of 'the risk ratio'—the likelihood of a party *winning*, compared to the likelihood of a party *losing*, a constituency as its incumbent party. On this measure, for the five *Lok Sabha* elections after 1996 of 1998, 199, 2004, 2009, and 2009, the likelihood of the INC *losing* an incumbent seat was *larger* than its likelihood of *winning* it; on the other hand, for the same elections, the likelihood of the BJP *losing* an incumbent seat was *smaller* than its likelihood of *winning* it. So, on this measure—for the five *Lok Sabha* elections of 1998, 1999, 2004, 2009, and 2014—there was an anti-incumbency effect for the INC but a pro-incumbency effect for the BJP.

The second concept was that of the BF. If $BF > 1$, the party was more likely to have been the incumbent in a constituency if it won from that constituency compared to losing from it. The fact that $BF > 1$ for the INC tells us that while it was 'risky' for the INC to contest an election as the incumbent—in the sense that the probability of winning was greater than that of losing—it was not as 'risky' as the INC contesting the election as the challenger. So, on this interpretation, there was a pro-incumbency effect for the INC. For the BJP, too, $BF > 1$ and its value were larger for the INC. For both parties, a win was more likely to signal an incumbent victory than a defeat was to signal an incumbent loss, but this gap was larger for the BJP than the INC.

The third concept was that of the IRR: the likelihood of a party winning a constituency as the incumbent compared to the likelihood of a party winning a constituency as the challenger. Both INC and the BJP had a greater chance of winning as the incumbent party compared to winning as the challenger party (the IRR was greater than 1) so that on this interpretation, there was a pro-incumbency effect towards both parties.

The fourth concept was that of the IBF: when $IBF > 1$, a party win was more likely to be as the incumbent than as a challenger; conversely, when $IBF < 1$, a party win was more likely to be as a challenger than as the incumbent. On this interpretation, there was a pro-incumbent effect for the INC in the *Lok Sabha* election of 2014 (in the event of an INC's vic-

tory in this election, the likelihood that the party was the incumbent in a constituency was 3.4 times the likelihood that it was a challenger) but an anti-incumbency effect for the BJP (in the event of a BJP's victory in this election, the likelihood that the party was the incumbent in a constituency was only 60 percent of the likelihood that it was a challenger).

The overall conclusion of this chapter is that there is no obvious way of measuring the degree of anti-incumbency, or its obverse, pro-incumbency. There are at least four measures based on the likelihood of winning. Which measure is appropriate depends on what one is trying to establish. As Huckleberry Finn advised (in Chap. 28 of Mark Twain's eponymous novel): 'you pays your money and you takes your choice'.

Notes

1. See "In Praise of Bayes", *The Economist*, 28 September 2000.
2. The updating factor is the ratio of the probability of observing the data when the theory is true, to that of observing the data regardless of whether the theory is true or false: $P(A) = P(A \mid T)P(T) + P(A \mid \bar{T})P(\bar{T})$, $\bar{T}$ being the event that the theory is false.
3. See Matthews (2000).
4. For example, in Delhi: Sadar, Outer Delhi, and Karol Bagh which were 2004 *Lok Sabha* constituencies disappeared in 2009.
5. The four constituencies in 2009 which the INC did not contest, even though it was the incumbent party in these, were: Bombay North East, Hatkanangale, Namakkal, and Nilgiris.
6. 'Parties' include independent candidates.
7. 'Parties' include independent candidates.
8. Equation (4.2) is defined in terms of the *proportion* of contested incumbent seats won to the *proportion* of contested incumbent seats lost, but since the denominators are equal, $\rho = \dfrac{N_W^{incum} / N_W^{incum} + N_L^{incum}}{N_L^{incum} / N_W^{incum} + N_L^{incum}} = \dfrac{N_W^{incum}}{N_L^{incum}}$ where N_W^{incum} and N_L^{incum} are the number of seats won and lost by a party as an incumbent.
9. In the 2014 election, the BJP contested 116 seats in which it was the incumbent party and won 103 of them.
10. Proof: $\rho = \dfrac{P(T \mid A)}{P(\bar{T} \mid A)} = \dfrac{P(A \mid T)}{P(A \mid \bar{T})} \dfrac{P(T)}{P(\bar{T})} \Rightarrow \dfrac{P(A \mid T)}{P(A \mid \bar{T})} = \dfrac{\rho}{\lambda} = \Phi$

11. In other words, if *BF> 1*, it means that a party is more likely to have been the incumbent in a constituency if it won, than if it lost, from there: $P(A \mid T) > P(A \mid \bar{T})$. Conversely, if *BF< 1,* it means that a party is more likely to have been the incumbent in a constituency if it lost, than if it won, from there: $P(A \mid T) < P(A \mid \bar{T})$.
12. In 1999, for example, INC incumbents lost 88 of the 140 seats they contested.
13. Proof: $\sigma = \dfrac{P(T \mid A)}{P(T \mid \bar{A})} = \dfrac{P(A \mid T)}{P(\bar{A} \mid T)} \dfrac{P(\bar{A})}{P(A)} \Rightarrow \dfrac{P(A \mid T)}{P(\bar{A} \mid T)} = \dfrac{\sigma}{\mu} = \Psi$

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CHAPTER 5

Analysis of Vote Shares

Abstract Borooah examines the effects of incumbency on vote share: are incumbent parties in a constituency, on average, more likely to get a larger vote share than parties that are challenging? Aggregated over all eight elections between 1989 and 2014, the average predicted vote share for INC incumbents was higher than that for INC challengers and, similarly, the average predicted vote share for BJP incumbents was higher than that for BJP challengers. However, compared to the average predicted vote shares for the BJP when it was the incumbent party, the INC did not do as well as the incumbent party but the INC did better than the BJP when both were challenger parties.

5.1 Introduction

The analysis in the previous chapter focused on the effects of being an incumbent or a challenger on the probability of winning. An alternative mode of analysis would be to examine the effects of incumbency on vote share: regardless of whether they win or lose, are incumbent parties in a constituency, on average, more likely to get a larger vote share than parties that are challenging? In order to examine this hypothesis, we estimated, using constituency data, two equations: the first had as its dependent variable the vote share of the INC in a constituency (i.e., the votes received by the INC in the constituency as a percentage of the total votes cast in that

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constituency) and the second had as its dependent variable the vote share of the BJP in that constituency.

5.2 Estimating Vote Shares

The equations were estimated as a system of equations, using the method of *Seemingly Unrelated Regression Equations* (SURE) (Greene 2003, Chap. 14). SURE estimates are more efficient than those obtained from estimating each equation as a single regression equation because the correlation between the error terms of the two equations is explicitly taken into account. In addition, and more importantly for the purpose of this analysis, the fact that the equations are estimated as a system allows hypotheses to be tested *between* equations as well as *within* individual equations.

The conditioning variables in the two equations were as follows:

1. whether the party was the winner in that constituency,
2. whether the party held the constituency in the previous election (i.e., it was the 'incumbent' party),
3. the percentage of the electorate voting in that election ('turnout'),
4. the number of independent candidates in the election,
5. the number of 'other' (i.e., other than the INC and the BJP) party candidates in the election,
6. the year of the election, and
7. the state in which the constituency was located.

The coefficient on the 'incumbent' variable (item 2, above) was allowed to vary according to the year of the election: this meant that the 'incumbent coefficient' would be different according to the election that was being considered. The equations were estimated on data for the 2684 constituencies contested by *both* the INC and the BJP in the eight *Lok Sabha* elections: 1989, 1991, 1996, 1998, 1999, 2004, 2009, and 2014. Table 5.1 shows the results from estimating the (two equation) SURE model with the equation statistics shown in Table 5.2.

Table 5.1 Seemingly unrelated regression estimates for vote shares of the INC and the BJP

INC				
INC won	13.64	0.41	32.88	0.00
INC incumbent	–4.92	2.01	–2.45	0.01
Year [Reference: 1989]				
1991	–4.40	1.98	–2.22	0.03
1996	–7.81	2.00	–3.91	0.00
1998	–13.39	1.98	–6.77	0.00
1999	–8.52	2.00	–4.27	0.00
2004	–10.29	1.98	–5.18	0.00
2009	–8.25	1.96	–4.20	0.00
2014	–15.59	1.99	–7.82	0.00
Incumbent × year				
1991	5.56	2.27	2.45	0.01
1996	2.77	2.21	1.26	0.21
1998	9.92	2.28	4.35	0.00
1999	5.18	2.33	2.23	0.03
2004	6.91	2.32	2.98	0.00
2009	5.96	2.26	2.63	0.01
2014	11.39	2.15	5.30	0.00
Turnout	0.43	0.15	2.97	0.00
Turnout squared	0.00	0.00	–2.96	0.00
Number of independents	–0.18	0.03	–5.67	0.00
Number of independents squared	0.00	0.00	4.46	0.00
Number of 'other' parties	–1.20	0.25	–4.87	0.00
Number of 'other' parties squared	0.05	0.01	3.46	0.00
State [Reference: Andhra Pradesh]				
Assam	–1.01	1.18	–0.85	0.39
Bihar	–9.62	1.07	–8.98	0.00
Chhattisgarh	10.51	1.59	6.63	0.00
Gujarat	6.30	1.05	6.01	0.00
Haryana	–2.88	1.33	–2.16	0.03
Himachal Pradesh	8.16	1.88	4.33	0.00
Jammu and Kashmir	–3.92	2.30	–1.71	0.09
Jharkhand	–4.67	1.86	–2.51	0.01
Karnataka	3.33	0.90	3.68	0.00
Kerala	5.33	1.02	5.24	0.00
Madhya Pradesh	4.92	0.92	5.34	0.00
Maharashtra	3.36	0.97	3.44	0.00
Orissa	0.61	1.06	0.58	0.57
Punjab	4.66	1.86	2.51	0.01
Rajasthan	4.55	0.99	4.59	0.00
Tamil Nadu	–3.22	1.23	–2.62	0.01

(*continued*)

Table 5.1 (continued)

Uttarakhand	3.66	2.45	1.49	0.14
Uttar Pradesh	−16.06	0.89	−17.99	0.00
West Bengal	−4.54	1.01	−4.49	0.00
Intercept	33.93	4.87	6.97	0.00
BJP				
BJP won	16.27	0.39	41.20	0.00
BJP incumbent	17.84	6.07	2.94	0.00
Year [Reference: 1989]				
1991	−2.12	0.83	−2.56	0.01
1996	−2.40	0.84	−2.87	0.00
1998	7.72	0.89	8.68	0.00
1999	8.71	0.97	9.00	0.00
2004	4.64	0.92	5.06	0.00
2009	0.44	0.86	0.50	0.61
2014	10.06	0.92	10.92	0.00
Incumbent × year				
1991	−10.18	6.20	−1.64	0.10
1996	−12.71	6.17	−2.06	0.04
1998	−16.20	6.15	−2.63	0.01
1999	−16.62	6.15	−2.70	0.01
2004	−14.17	6.14	−2.31	0.02
2009	−12.82	6.15	−2.08	0.04
2014	−13.33	6.12	−2.18	0.03
Turnout	0.26	0.14	1.90	0.06
Turnout squared	0.00	0.00	−3.08	0.00
Number of independents	0.11	0.03	3.54	0.00
Number of independents squared	0.00	0.00	−2.60	0.01
Number of 'other' parties	−1.20	0.23	−5.20	0.00
Number of 'other' parties squared	0.05	0.01	4.37	0.00
State [Reference: Andhra Pradesh]				
Assam	9.89	1.10	9.02	0.00
Bihar	9.27	0.97	9.54	0.00
Chhattisgarh	13.58	1.52	8.92	0.00
Gujarat	19.52	1.00	19.55	0.00
Haryana	8.88	1.24	7.14	0.00
Himachal Pradesh	20.76	1.77	11.74	0.00
Jammu and Kashmir	6.65	2.14	3.10	0.00
Jharkhand	6.58	1.74	3.79	0.00
Karnataka	12.49	0.86	14.58	0.00
Kerala	−5.06	0.95	−5.35	0.00
Madhya Pradesh	16.14	0.89	18.21	0.00
Maharashtra	14.85	0.92	16.15	0.00
Orissa	5.79	0.98	5.93	0.00

(*continued*)

Table 5.1 (continued)

Punjab	12.20	1.74	7.02	0.00
Rajasthan	17.73	0.93	19.06	0.00
Tamil Nadu	−1.39	1.14	−1.23	0.22
Uttarakhand	18.10	2.29	7.91	0.00
Uttar Pradesh	5.75	0.82	7.01	0.00
West Bengal	4.24	0.92	4.60	0.00
Intercept	13.55	4.31	3.15	0.00

Source: Own calculations from *Lok Sabha* election data

Notes to Table 5.1: Observations on 2684 constituencies, in the 20 major Indian states, which were contested by both the INC and the BJP

Table 5.2 Equation statistics from the SURE equation

Equation	*Constituencies*	*Parameters*	*RMSE*	R^2	χ^2	*p-value for* χ^2
INC vote share	2684	41	8.86	0.676	5697.4	0.0
BJP vote share	2684	41	8.26	0.784	9915.65	0.0

5.2.1 Predictive Performance of the SURE Model

The coefficients reported in Table 5.1 were used to predict the vote shares of the INC and the BJP, collectively over all the eight elections between 1989 and 2014 and, also, for each individual election. The predictions were made by applying the coefficient estimates (shown in Table 5.1) to the values of the variables as observed in the 2684 constituencies, in the 20 major states, which were contested by both the INC and the BJP. This yielded 2684 predicted vote shares (one for each constituency) for the INC and another 2684 predicted vote shares for the BJP. The average of these 2684 predicted vote shares for the INC and the BJP is reported in this chapter.

A property of the estimated SURE equation—which is a general property of linear regressions—is that it 'passes through the mean'. As a consequence of this property, the average *predicted* vote shares for the INC and the BJP was identical to the mean of their *actual* vote shares in the 2684 constituencies in the 20 major states which were contested by both parties.[1]

The predictions for the vote shares for the INC and the BJP, for an individual election (say, the 2014 election), were made under the *hypothetical* scenario that *all* the 2684 observations related to the 2014 election. In other words, in computing the predicted INC and BJP vote shares for this prediction, the coefficient pertaining to the 2014 election (shown in Table 5.1) was applied to *all* 2684 observations, the coefficients pertaining to the other elections being ignored. Similarly, in computing the predicted INC and BJP vote shares for another election (say, the 2009 election), the coefficient pertaining to the 2009 election (shown in Table 5.1) was applied to *all* 2684 observations, the coefficients pertaining to the other elections being ignored. The difference between the predictions, of the INC and BJP vote shares, represents the *election effect* on vote shares: since these two sets of predictions differ *only* in the fact that the first set of predictions related to the 2014 election and the second set related to the 2009 election, without any change in the values of the explanatory variables underpinning the two sets of predictions, the difference between them must be *entirely* due to the effect of differences between the 2014 and 2009 elections, that is to the 'election effect'.

The predictions from the SURE model are compared to actual outcomes in Table 5.3. When the elections are considered in their entirety (row: 'All years' in Table 5.3), the predictions and the outcomes are identical since the regression 'passes through the mean'.[2] The predicted and

Table 5.3 The predictive performance of the SURE Model, 1989–2014

		Observed			*Predicted*		
	Number of constituencies[a]	*INC*	*BJP*	*Difference*	*INC*	*BJP*	*Difference*
All years	2684	32.2	31.5	0.7	32.2	31.5	0.7
1989	212	39.4	27.5	11.9	39.6	31.4	8.2
1991	434	37.7	22.2	15.5	37.4	26.4	11.0
1996	434	29.7	23.9	5.8	32.9	25.4	7.5
1998	331	31.3	36.0	–4.7	30.1	34.6	–4.5
1999	288	34.4	39.8	–5.4	33.1	35.5	–2.4
2004	294	32.9	34.5	–1.6	32.0	32.1	–0.1
2009	340	36.3	25.4	10.9	33.7	28.3	5.4
2014	351	24.4	39.6	–15.2	28.4	37.7	–9.3

[a]Constituencies relate to those in the 20 major states (listed in Table 5.1) which were contested by both the INC and the BJP

observed outcomes differ in terms of the individual elections, but not substantially. The predicted INC vote share, in constituencies in the major Indian states contested by both the INC and the BJP, falls from a high of 39.6 percent (observed: 39.4 percent) in 1989 to a low of 28.4 percent (observed: 24.4 percent), while the predicted BJP vote share, in the same 2684 constituencies, rises from a low of 25.4 percent (observed: 23.9 percent) in 1996 to a high of 37.7 percent (observed: 39.6 percent) in 2014.

5.3 Incumbent and Challenger Vote Shares

The SURE model also predicts the INC and BJP vote shares when they are incumbents and challengers. In making these predictions, the methodology that was used took the following form. Using the coefficients of the INC equation (shown in the first panel of Table 5.1), the predicted INC vote share in each of these constituencies was computed and, then, averaged, first when it was supposed that all the INC candidates in the 2684 constituencies were *incumbents* and next when it was supposed that all the INC candidates in the 2684 constituencies were *challengers*. Since these two sets of predictions differ *only* in the fact that in the first prediction, the INC was assumed to be the incumbent, and in the second, it was assumed to be the challenger, the difference between these two predictions must be due *entirely* to the incumbent-challenger effects for the INC. An identical exercise was then conducted for the BJP.

These predicted vote shares with respect to incumbents and challengers are shown in Tables 5.4 and 5.5. (It is important to emphasise that by the structure of the SURE equations from which they were derived, these predictions are made with respect to only those 2684 constituencies that were contested by *both* the INC and the BJP.) Table 5.4 compares the vote shares of INC incumbents and challengers and BJP incumbents and challengers: columns 2 and 3 of Table 5.4 show the predicted vote shares of, respectively, INC incumbents and challengers—and, in the row below, the predicted vote shares of BJP incumbents and challengers—first, aggregated over all elections and, then, for individual elections; the difference between the incumbent and challenger vote shares is recorded in column 4; column 5 shows the standard error of the difference; column 6 shows the z-value (computed as the difference divided by the standard error); and column 7 records the probability of obtaining, under the null hypothesis that the difference is zero, a value greater than the observed z.

Table 5.4 Vote shares of incumbents and challengers: BJP and INC

1	*2*	*3*	*4*	*5*	*6*	*7*
	Incumbent vote share (%)	*Challenger vote share (%)*	*Difference*	*Standard error*	*z-value*	*p-value*
All years						
INC	33.5	31.8	1.7	0.4	4.2	0.0
BJP	35.5	30.4	5.2	0.6	9.4	0.0
1989						
INC	36.6	41.5	−4.9	2.0	−2.5	0.0
BJP	44.3	26.4	17.9	6.1	2.9	0.0
1991						
INC	37.8	37.1	0.6	1.1	0.6	0.5
BJP	32.0	24.3	7.7	1.3	6.0	0.0
1996						
INC	31.6	33.7	−2.2	1.0	−2.3	0.0
BJP	29.2	24.0	5.1	1.1	4.8	0.0
1998						
INC	33.2	28.1	5.0	1.1	4.6	0.0
BJP	35.8	34.2	1.7	1.0	1.7	0.1
1999						
INC	33.3	33.0	0.3	1.2	0.2	0.8
BJP	36.4	35.1	1.2	1.0	1.2	0.2
2004						
INC	33.2	31.3	2.0	1.2	1.7	0.1
BJP	34.8	31.1	3.7	1.0	3.7	0.0
2009						
INC	34.3	33.3	1.1	1.0	1.0	0.3
BJP	31.9	26.9	5.0	1.0	5.2	0.0
2014						
INC	32.4	25.9	6.5	0.8	8.0	0.0
BJP	41.0	36.5	4.5	0.9	5.3	0.0

Source: Own calculations from *Lok Sabha* election data using SURE estimates of Table 5.1

Table 5.4 shows that considering all the eight elections between 1989 and 2014 collectively, the average predicted vote shares of INC incumbents and challengers were, respectively, 33.5 and 31.8 percent, and reading across the columns of that row, this difference of 1.7 points (column 4) was significantly different from zero.[3] The next row does the same for the BJP: the average predicted vote shares of BJP incumbents and challengers were, respectively, 35.5 and 30.4 percent, and using the preceding argument, this difference, too, was significantly different from zero.

Table 5.5 Differences in vote shares between BJP and INC incumbents and challengers

1	*2*	*3*	*4*	*5*	*6*	*7*
	INC vote share	*BJP vote share*	*Difference*	*Standard error*	*z-value*	*p-value*
All years incumbents and challengers (I + C):	32.2	31.5	0.8	0.3	3.0	0.0
1989 (I + C)	39.6	31.4	8.3	2.2	3.8	0.0
1991 (I + C)	37.4	26.4	11.0	0.8	13.9	0.0
1996 (I + C)	32.9	25.5	7.5	0.8	9.0	0.0
1998 (I + C)	30.1	34.6	−4.5	0.8	−5.7	0.0
1999 (I + C)	33.1	35.5	−2.4	0.9	−2.6	0.0
2004 (I + C)	32.0	32.1	−0.1	0.8	−0.1	0.9
2009 (I + C)	33.7	28.3	5.4	0.7	7.3	0.0
2014 (I + C)	28.5	37.7	−9.3	0.9	−10.7	0.0
All years: incumbent	33.5	35.5	−2.0	0.6	−3.4	0.0
1989 incumbent	36.6	44.3	−7.7	6.1	−1.3	0.2
1991 incumbent	37.8	32.0	5.8	1.4	4.0	0.0
1996 incumbent	31.6	29.2	2.4	1.3	1.9	0.1
1998 incumbent	33.2	35.8	−2.7	1.2	−2.2	0.0
1999 incumbent	33.3	36.4	−3.1	1.3	−2.5	0.0
2004 incumbent	33.2	34.8	−1.5	1.3	−1.2	0.2
2009 incumbent	34.3	31.9	2.4	1.2	2.0	0.1
2014 incumbent	32.4	41.0	−8.6	1.2	−7.5	0.0
All years: challenger	31.8	30.4	1.4	0.3	4.4	0.0
1989 challenger	41.5	26.4	15.1	2.0	7.4	0.0
1991 challenger	37.1	24.3	12.8	0.9	14.5	0.0
1996 challenger	33.7	24.0	9.7	0.9	10.3	0.0
1998 challenger	28.1	34.2	−6.0	0.9	−6.6	0.0
1999 challenger	33.0	35.1	−2.1	1.0	−2.1	0.0
2004 challenger	31.3	31.1	0.2	0.9	0.2	0.9
2009 challenger	33.3	26.9	6.4	0.8	7.9	0.0
2014 challenger	25.9	36.5	−10.6	0.9	−11.2	0.0

Source: Own calculations from *Lok Sabha* election data using SURE estimates of Table 5.1

In terms of the individual elections, the vote share for BJP incumbents always exceeded that for BJP challengers, except in the 1998 and 1999 elections (in both of which the BJP did particularly well, relative to the INC, winning 182 seats in each election to the INC's 141 in 1998 and 114 in 1999) when the difference in vote shares between incumbents and

challengers was not significantly different from zero. On the other hand, the vote share of INC incumbents was significantly smaller than that of INC challengers in the 1989 and 1996 elections and significantly larger in the 1998 and 2014 *Lok Sabha* elections. This would suggest that in elections which went against the INC (e.g., 1998 and 2014) it was left to the incumbent constituencies to produce the votes while, in elections that went in favour of the INC (e.g.,1991 and 2009), incumbents and challengers were on an equal footing. A similar picture emerges with respect to the BJP: when it did well, as in 1998 and 1999, incumbents and challengers got similar vote shares; when it did badly, as in 1991 and 2009, BJP incumbents obtained a larger vote share than BJP challengers.

Table 5.5 compares the vote shares of INC and BJP candidates. In particular, Table 5.5 compares: (i) the predicted vote shares of *all* INC candidates with *all* BJP candidates (labelled I+C in Table 5.5); (ii) the predicted vote shares of INC and BJP incumbents; and (iii) the predicted vote shares of INC and BJP challengers. Columns 2 and 3 show, respectively, the relevant INC and BJP vote shares with the difference in column 4 and the its standard error in column 5; column 6 shows the z-value (computed as the difference divided by the standard error), and column 7 records the probability of obtaining, under the null hypothesis that the difference is zero, a value greater than the observed z.

Aggregating over all candidates, incumbents and challengers, and over all eight elections from 1989 to 2014, there was no significant difference between the vote shares obtained by INC (32.3 percent) and BJP candidates (31.5 percent) in the 2684 constituencies, in the 20 major states, contested by both parties. In terms of the individual elections, however, the vote share of INC, compared to that of BJP, candidates was significantly larger in the 1989, 1991, and 2009 elections and significantly lower in the 1998, 1999, and 2014 elections.

In terms of comparing the INC and BJP in terms of the vote shares of their incumbent and challenger candidates, aggregating over all eight elections from 1989 to 2014, with respect to the 2684 constituencies (in the 20 major states) that were contested by *both* the INC and the BJP, the vote share of INC incumbents (33.5 percent) was significantly lower than that of BJP incumbents (35.5 percent); however, compared to that of BJP challengers (30.4 percent), the vote share of INC challengers (31.8 percent) was significantly higher. In terms of individual elections, BJP incumbents had a significantly higher vote share than INC incumbents.

5.4 Vote Shares in Hindi-Speaking and Non-Hindi-Speaking States

Chapter 3 pointed to the importance of Hindi-speaking (HS) states to the relative electoral fortunes of the INC and the BJP. To recapitulate: of the total of 543 *Lok Sabha* constituencies, 204 (or 37.6 percent) are—and have been since the 1996 *Lok Sabha* election—in the seven HS states of Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Rajasthan, Uttarakhand, and Uttar Pradesh, and of these 204 constituencies, respectively, 40 and 80 are in Bihar and Uttar Pradesh. The HS states are of particular importance for the BJP since a large number of its contested constituencies are from these states: in 2014, nearly 45 percent (192 out of 428) of the constituencies contested by the BJP were from the HS states. These states are also important for the INC but to a lesser degree: 34 percent (158 out of 464) of the constituencies contested by the INC in 2014 were from the HS states.

The relative importance of these states to the INC and the BJP is reflected in the vote shares that the two parties obtained from these two parts of India. In 2014, the INC had an average all-India vote share of 19.3 percent which was composed of 17.5 percent of the vote in the HS states and 20.4 percent of the vote in the non-HS states; the BJP, on the other hand, with a national vote share of 31 percent, obtained 44 percent of the total vote in the HS states, but only 23.5 percent of the total vote in the non-HS states. To put it differently, two-thirds of the nearly 107 million votes obtained by the INC in 2014 were from the 306 constituencies it contested in the non-HS states, and one-third came from the 158 constituencies it contested in the HS states; for the BJP, on the other hand, 48 percent of its total vote in 2014 was from the 236 constituencies it contested in the non-HS states, and 52 percent came from the 192 constituencies it contested in the HS states.

Table 5.6, which shows the vote shares of the INC and the BJP in HS and non-HS states, in each of the eight elections between 1989 and 2014, reinforces the point made earlier about the imbalance in support for the INC and the BJP between constituencies in the HS and non-HS states. For example, in the 1989 *Lok Sabha* election, when the INC obtained a national vote share of nearly 40 percent, its vote share in the HS and non-HS states were, respectively, 33 and 44 percent; in the 2014 *Lok Sabha* election, when the BJP obtained a national vote share of 31 percent, its vote share in the HS and non-HS states were, respectively, 44 and 24 percent. These are, of course, vote shares pertaining to *all* constituencies in

Table 5.6 INC and BJP vote shares in *Lok Sabha* constituencies in Hindi-speaking and non-Hindi-speaking states

	Vote share in Hindi-speaking states (%)		*Vote share in non-Hindi-speaking states (%)*		*All India vote share (%)*	
	INC	*BJP*	*INC*	*BJP*	*INC*	*BJP*
1989	32.9	18.2	43.6	8.0	39.9	11.5
1991	27.8	30.0	41.2	14.7	36.5	20.0
1996	17.7	32.2	34.6	13.9	28.7	20.3
1998	17.8	35.6	30.6	19.6	25.8	25.6
1999	22.6	32.5	31.6	18.8	28.3	23.8
2004	19.7	29.8	30.3	18.0	26.5	22.2
2009	25.2	25.7	30.2	15.4	28.6	18.8
2014	17.5	44.0	20.4	23.5	19.3	31.0

Source: Own calculations from *Lok Sabha* election data

the HS and non-HS states, some of which were not contested by one or both of the two parties: in the 2014 *Lok Sabha* election, the INC contested 158 of the 204 constituencies (77 percent) in HS states and 306 of the 339 constituencies (90 percent) in non-HS states; by contrast, in that same election, the BJP contested 192 of the 204 constituencies (94 percent) in HS states and 236 of the 339 constituencies (70 percent) in non-HS states.

In order to compare the performances of the INC and the BJP in the HS and non-HS states, in respect of the vote shares of incumbents and challengers, we estimated two *separate* SURE models (of the type described in the earlier section and controlling for the variables, noted in Table 5.1): the first SURE model was estimated on data for constituencies, which were contested by both the INC and BJP, in the 13 major non-HS states, and the second SURE model was estimated on data for similar constituencies in the seven major HS states. In total, over the seven elections between 1989 and 2014, there were 1456 such constituencies in the non-HS states and 1228 constituencies in the HS states.[4]

Table 5.7 shows that considered over all the elections between 1989 and 2014, for constituencies in HS states *which were contested by both the INC and the BJP*, the vote shares of INC and BJP incumbents (respectively, 29 and 40 percent) were significantly larger than that of their corresponding challengers (respectively, 25 and 37 percent). However, as Table 5.8 shows, for similar constituencies in non-HS states, INC incumbents did not have any advantage, in terms of significantly higher vote shares, over

Table 5.7 Vote shares of incumbents and challengers: BJP and INC in Hindi-speaking states

1	*2*	*3*	*4*	*5*	*6*	*7*
	Incumbent vote share (%)	*Challenger vote share (%)*	*Difference*	*Standard error*	*z-value*	*p-value*
All years						
INC	29.1	25.1	4.0	0.8	5.4	0.0
BJP	40.0	37.1	2.9	0.5	5.8	0.0
1991						
INC	32.2	29.1	3.1	2.2	1.4	0.2
BJP	38.9	32.0	6.9	1.5	4.6	0.0
1996						
INC	21.2	20.3	0.9	1.6	0.6	0.6
BJP	38.3	36.9	1.4	1.3	1.1	0.3
1998						
INC	28.8	22.3	6.5	1.8	3.6	0.0
BJP	41.1	38.0	3.1	1.3	2.4	0.0
1999						
INC	31.6	29.1	2.5	1.8	1.4	0.2
BJP	38.7	38.3	0.4	1.4	0.3	0.8
2004						
INC	31.2	24.9	6.3	1.8	3.5	0.0
BJP	37.2	34.3	2.9	1.3	2.2	0.0
2009						
INC	29.9	26.2	3.7	1.9	2.0	0.0
BJP	36.2	32.2	4.0	1.3	3.1	0.0
2014						
INC	28.6	22.6	5.9	1.2	5.1	0.0
BJP	45.5	43.3	2.2	1.1	1.9	0.1

Source: Own calculations from *Lok Sabha* election data using SURE estimates of equation for non-Hindi-speaking states

INC challengers; however, compared to BJP challengers, BJP incumbents continued to have a significantly higher vote share in constituencies in non-HS states contested by both the INC and the BJP.

Tables 5.9 and 5.10 compare the vote shares of INC and BJP candidates in constituencies which were contested by both the INC and the BJP in, respectively, HS and non-HS states. In particular, Tables 5.9 and 5.10 compare: (i) the predicted vote shares of *all* INC candidates with *all* BJP candidates (labelled I+C in Tables 5.9 and 5.10); (ii) the predicted vote shares of INC and BJP incumbents; and (iii) the predicted vote shares

Table 5.8 Vote shares of incumbents and challengers: BJP and INC in non-Hindi-speaking states

1	*2*	*3*	*4*	*5*	*6*	*7*
	Incumbent vote share (%)	*Challenger vote share (%)*	*Difference*	*Standard error*	*z-value*	*p-value*
All years						
INC	37.4	36.8	0.6	0.5	1.2	0.2
BJP	31.5	25.8	5.7	0.7	8.2	0.0
1991						
INC	42.5	42.2	0.3	1.3	0.2	0.8
BJP	26.5	19.7	6.9	2.2	3.1	0.0
1996						
INC	36.4	42.6	−6.3	1.2	−5.3	0.0
BJP	25.1	18.1	7.0	1.9	3.6	0.0
1998						
INC	37.2	33.3	3.9	1.3	2.9	0.0
BJP	32.0	30.6	1.4	1.5	0.9	0.4
1999						
INC	36.0	35.5	0.4	1.5	0.3	0.8
BJP	36.2	32.3	3.9	1.5	2.7	0.0
2004						
INC	35.8	37.1	−1.3	1.5	−0.9	0.4
BJP	33.2	28.2	5.1	1.4	3.6	0.0
2009						
INC	38.8	38.1	0.7	1.2	0.6	0.6
BJP	28.7	22.2	6.5	1.4	4.5	0.0
2014						
INC	36.8	29.4	7.5	1.1	7.0	0.0
BJP	37.2	30.2	7.0	1.2	5.8	0.0

Source: Own calculations from *Lok Sabha* election data using SURE estimates of equation for Hindi-speaking states

of INC and BJP challengers. Columns 2 and 3 show, respectively, the relevant INC and BJP vote shares with the difference in column 4 and the its standard error in column 5; column 6 shows the z-value (computed as the difference divided by the standard error); and column 7 records the probability of obtaining, under the null hypothesis that the difference is zero, a value greater than the observed z.

Aggregating over all candidates, incumbents and challengers, and over all eight elections from 1989 to 2014, Table 5.9 shows that the average predicted vote share of BJP candidates was significantly larger than that

Table 5.9 Differences in vote shares between BJP and INC incumbents and challengers, Hindi-speaking states

1	*2*	*3*	*4*	*5*	*6*	*7*
	INC vote share	*BJP vote share*	*Difference*	*Standard error*	*z-value*	*p-value*
All years incumbents and challengers (I + C):	25.6	38.2	−12.7	0.4	−35.4	0.0
1991 (I + C)	29.7	34.8	−5.1	1.2	−4.4	0.0
1996 (I + C)	20.4	37.3	−16.9	1.4	−12.2	0.0
1998 (I + C)	23.6	39.1	−15.5	1.1	−13.9	0.0
1999 (I + C)	29.5	38.3	−8.7	1.1	−7.8	0.0
2004 (I + C)	26.2	35.3	−9.2	1.1	−8.7	0.0
2009 (I + C)	26.9	33.7	−6.8	1.1	−6.5	0.0
2014 (I + C)	23.8	44.1	−20.3	1.2	−16.3	0.0
All years: incumbent	28.8	40.0	−11.2	0.7	−16.1	0.0
1991 incumbent	32.1	38.7	15.7	2.3	6.8	0.0
1996 incumbent	21.1	38.1	11.0	2.1	5.3	0.0
1998 incumbent	28.7	40.9	5.0	1.7	2.9	0.0
1999 incumbent	31.5	38.5	−0.5	1.8	−0.3	0.8
2004 incumbent	31.1	37.0	2.3	1.6	1.4	0.2
2009 incumbent	29.8	36.0	9.9	1.7	5.9	0.0
2014 incumbent	28.5	45.3	−0.6	1.6	−0.4	0.7
All years: challenger	24.5	37.1	−12.6	0.4	−28.5	0.0
1991 challenger	29.0	31.8	−6.6	2.5	−2.7	0.0
1996 challenger	20.2	36.7	−17.0	2.0	−8.7	0.0
1998 challenger	22.2	37.8	−12.1	1.9	−6.4	0.0
1999 challenger	29.0	38.1	−7.0	1.8	−3.8	0.0
2004 challenger	24.8	34.1	−5.8	2.0	−3.0	0.0
2009 challenger	26.1	32.0	−6.1	2.0	−3.0	0.0
2014 challenger	22.5	43.1	−16.8	1.6	−10.7	0.0

Source: Own calculations from *Lok Sabha* election data using SURE estimates of equation for Hindi-speaking states

of INC candidates in constituencies in HS states which were contested by both parties (38.2 percent versus 25.6 percent); this result was also true for a comparison of BJP and INC incumbents and BJP and INC challengers. In terms of the individual elections, too, BJP candidates were predicted to receive, on average, a higher vote share than their INC rivals in constituencies, in the HS states, which they both contested.

On the other hand, aggregating over all candidates, incumbents and challengers, and over all eight elections from 1989 to 2014, Table 5.10 shows that the average predicted vote share of INC candidates was signifi-

Table 5.10 Differences in vote shares between BJP and INC incumbents and challengers, non-Hindi-speaking states

1	*2*	*3*	*4*	*5*	*6*	*7*
	INC vote share	*BJP vote share*	*Difference*	*Standard error*	*z-value*	*p-value*
All years incumbents and challengers (I + C):	36.2	27.0	9.3	0.4	25.6	0.0
1991 (I + C)	42.1	21.1	20.9	1.1	19.4	0.0
1996 (I + C)	39.7	19.6	20.1	1.1	19.1	0.0
1998 (I + C)	34.8	30.9	3.9	1.1	3.5	0.0
1999 (I + C)	35.5	33.1	2.4	1.3	1.8	0.1
2004 (I + C)	36.3	29.3	7.0	1.2	5.8	0.0
2009 (I + C)	38.2	23.5	14.7	1.0	15.0	0.0
2014 (I + C)	32.4	31.7	0.7	1.2	0.6	0.5
All years: incumbent	37.0	31.5	5.5	0.7	7.7	0.0
1991 incumbent	42.2	26.6	15.7	2.3	6.8	0.0
1996 incumbent	36.1	25.2	11.0	2.1	5.3	0.0
1998 incumbent	37.0	32.0	5.0	1.7	2.9	0.0
1999 incumbent	35.7	36.2	–0.5	1.8	–0.3	0.8
2004 incumbent	35.6	33.3	2.3	1.6	1.4	0.2
2009 incumbent	38.6	28.7	9.9	1.7	5.9	0.0
2014 incumbent	36.6	37.3	–0.6	1.6	–0.4	0.7
All years: challenger	36.0	25.8	10.2	0.4	23.3	0.0
1991 challenger	41.9	19.7	22.2	1.3	17.7	0.0
1996 challenger	42.4	18.1	24.3	1.2	20.1	0.0
1998 challenger	33.1	30.6	2.4	1.3	2.0	0.1
1999 challenger	35.3	32.3	3.0	1.5	2.0	0.0
2004 challenger	36.9	28.2	8.6	1.4	6.4	0.0
2009 challenger	37.9	22.2	15.7	1.1	14.6	0.0

Source: Own calculations from *Lok Sabha* election data using SURE estimates of equation for non-Hindi-speaking states

cantly larger than that of BJP candidates in constituencies in non-HS states which were contested by both parties (36.2 percent versus 27 percent); this result generally held for a comparison of BJP and INC incumbents and was always true for a comparison of BJP and INC challengers. For the individual elections as well, except for the 2014 *Lok Sabha* election, INC candidates were predicted to receive, on average, a higher vote share than their BJP rivals in constituencies, in the non-HS states, which they both contested.

5.5 Concluding Remarks

The central contribution of this chapter was to undertake an econometric investigation of the vote shares of the INC and BJP, in constituencies, which they both contested, in the 20 major states. This investigation paid particular attention to whether, in these constituencies, the two parties were incumbents or challengers. Aggregated over all eight elections between 1989 and 2014, the average predicted vote share for INC incumbents was higher than that for INC challengers, and similarly, the average predicted vote share for BJP incumbents was higher than that for BJP challengers. So, measured in terms of vote shares, there would appear to be a pro-incumbency effect towards both the INC and the BJP.

Compared to the average predicted vote shares for the BJP when it was the incumbent party, the INC did not do as well as the incumbent party. However, in terms of average predicted vote shares, the INC did better than the BJP when both were challenger parties. So, on this interpretation, in terms of a cross-party comparison, there would appear to be an anti-incumbency effect towards the INC but a pro-incumbency effect towards the BJP.

Notes

1. Note that these are weighted means, the weights being the proportions of the constituencies' vote to the total vote.
2. Note that these predictions relate only to those constituencies, in the 20 major states, contested by both the INC and the BJP.
3. Since dividing this difference by its standard error of 0.41 (column 6) yielded a z-value of 4.2 (column 6), the p-value of column 7 shows that the probability of observing a z-value of this magnitude, under the null hypothesis that the difference was zero, was absurdly small, and so, this hypothesis could be 'rejected'.
4. In presenting the results, the 1989 election was omitted since there were only two BJP incumbents in this election, and both constituencies were in non-HS states: Hanamkonda in Andhra Pradesh (won by C.J. Reddy) and Mehsana in Gujarat (won by A.K. Patel).

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CHAPTER 6

The Relationship Between Votes and Seats

Abstract Borooah develops the concept of the amplification coefficient which assesses its ability to convert votes into seats. In this respect, his major finding was that the BJP, in electoral terms, was much more efficient than the INC. The central result is that, averaging over the eight *Lok Sabha* elections between 1989 and 2014, in order to win 200 seats in the *Lok Sabha* the INC would have had to receive 35 votes for every 100 votes received by the collective of non-INC parties (that is, 26 percent of the total vote) but the BJP would have had to receive only 27 votes for every 100 votes received by the collective of non-BJP parties (that is, 21 percent of the total vote).

6.1 Introduction

As noted earlier, in *Lok Sabha* elections, a single representative for each of 543 constituencies is elected—on the basis of obtaining the largest number of votes of all the candidates contesting that constituency—as a member of the *Lok Sabha* for that constituency. This system of election is called the First-Past-the-Post (FPTP) system. The disjoint, under this system, between the votes obtained and the seats won by a party frequently causes consternation. Unlike a proportional electoral system, in which a party's share of the total vote is a good predictor of its share of parliamentary seats, the relation between seats and votes in an FPTP system often works in mysterious ways.

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For example, in the *Lok Sabha* elections of 2014, the Bharatiya Janata Party (BJP) won 282 seats with 31 percent of the vote while the INC with nearly 20 percent of the vote could manage only 44 seats; in the same election, the All India Anna Dravida Munnetra Kazhagam (AIADMK) won 37 seats with just 3.3 percent of the vote. Nor is this anomaly between votes and seats confined to India: in the UK General Election of May 2015, the Scottish National Party won 56 seats in the House of Commons on the back of just under 1.5 million votes, while in the same election, the UK Independence Party received nearly 4 million votes and were rewarded with just one seat.

In this chapter, we attempt to understand some of these mysteries in respect of General Parliamentary Elections in India. This chapter is concerned with analysing the fortunes of India's two largest political parties, the INC and the BJP, and in the context of the above remarks, this chapter examines, in some detail, the relationship between the votes obtained and the seats won by the INC and the BJP.

The starting point of the analysis is the *Law of the Cubic Proportion* according to which, in a two-party contest, 'the proportion of seats won by the victorious party varies as the cube of the proportion of votes cast for that party over the country as a whole' (Kendall and Stuart, 1950, p. 183).[1] In this chapter, we take a different approach to this 'law' by separately computing for the INC and BJP the coefficient which equates the proportion of their votes to the proportion of their seats. We term this the *amplification coefficient* and show that its value is very different for the two parties. Since the BJP gained political traction only from the 1989 General Election—when it won 85 seats, having won just two seats in the previous General Election of 1984—the analysis in this chapter is confined to eight General Elections: 1989, 1991, 1996, 1998, 1999, 2004, 2009, and 2014.

6.2 The Electoral Fortunes of the INC and the BJP

Table 6.1 presents a summary account of election outcomes for the INC and the BJP for the eight Indian *Lok Sabha* elections held between 1989 and 2014. This highlights two features of the electoral performance of the INC and the BJP. First, the BJP always contested fewer seats than the

Table 6.1 BJP and INC election results for eight *Lok Sabha* elections: 1989–2014

		BJP					*INC*				
Year	*Lok Sabha*	*Seats*	*Constituencies contested*	*Vote share*	*Votes*	*Votes per seat won*	*Seats*	*Constituencies contested*	*Vote share*	*Votes*	*Votes per seat won*
2014	16	282	428	31.3	171,657,552	608,715	44	464	19.5	106,938,240	2,430,415
2009	15	116	433	18.8	78,435,352	676,167	206	440	28.6	119,110,824	578,207
2004	14	138	364	22.2	86,371,560	625,881	145	417	26.5	103,408,952	713,165
1999	13	182	339	23.8	86,562,208	475,617	114	453	28.3	103,120,328	904,564
1998	12	182	388	25.6	94,266,192	517,946	141	477	25.8	95,111,128	674,547
1996	11	161	469	20.3	67,697,336	420,480	139	526	28.8	96,034,448	690,895
1991	10	121	478	20.0	55,953,668	462,427	244	504	35.7	102,059,792	418,278
1989[a]	9	85	225	11.4	34,171,476	402,017	197	510	39.5	118,894,704	603,526

Source: Own calculations from Election Commission of India data
[a]Elections were not held in Assam because electoral rolls were incomplete

INC though, with the INC's acceptance of the exigencies of seat adjustment under coalition government, the number of seats it contested fell from a high of 526 in 1996 (97 percent of the total of 543 *Lok Sabha* seats) to a low of 417 in 2004 (77 percent of *Lok Sabha* seats). Second, except for the 1991 and 2009 elections, when it won over 200 seats, the INC has always paid a higher 'price' in terms of votes for the seats that it did win: for example, in 2004, when both parties won roughly the same number of seats—145 for the INC to the BJP's 138—the votes per seat for the INC, at 713,165, was considerably higher than the BJP's 625,881.

The corollary is that compared to the BJP, the INC is relatively inefficient in terms of converting votes into seats: in 2004, it won 26.5 percent of the vote compared to the BJP's 22.2 percent, but only won seven more seats on the strength of this four point advantage; in 1996, it obtained a larger vote share (28.8 percent compared to 20.3 percent), but won fewer seats (139 compared to the BJP's 161); and in 1998, the BJP won 41 more seats than the INC (182 compared to 141) with the same share of the vote as the INC (26 percent).

Given our interest in the two leading protagonists, the INC and the BJP, the focus of the analysis was those constituencies in which there was an INC and/or a BJP candidate so that constituencies in which there was neither an INC nor a BJP candidate were excluded from the analysis. Table 6.2 shows that of the total of 4323 constituencies in the eight *Lok Sabha* elections between 1989 and 2014, there were only 245

Table 6.2 Constituencies contested by the INC and the BJP in *Lok Sabha* elections: 1989–2014

	1989	*1991*	*1996*	*1998*	*1999*	*2004*	*2009*	*2014*	*Total*
Neither INC nor BJP contested	14	12	4	30	58	72	31	24	245
INC contested but BJP did not	289	47	70	125	146	107	79	91	954
BJP contested but INC did not	4	21	13	36	32	54	72	55	287
Both INC and BJP contested	221	457	456	352	307	310	361	373	2837
Total	528	537	543	543	543	543	543	543	4323

Source: Own calculations from Election Commission of India data

constituencies which neither party contested (5.7 percent of the total) and 2837 constituencies which were contested by both parties (65.6 percent of the total).[2]

6.3 The 'Amplification Coefficient' and the Law of the Cubic Proportion

We assume a two-party system (parties A and B), in which the representative in each constituency is elected under an FPTP system. Let $V_A{}^t$ and $V_B{}^t$ represent the votes obtained, and $S_A{}^t$ and $S_B{}^t$ won, by parties A and B, respectively, at an election held in time t such that $V_A^t < V_B^t$. If $\left(V_A^t / V_B^t\right) < 1$ is the *ratio* of votes accruing to parties A and B, then for some real number α, we must have:

$$\left(\frac{V_A^t}{V_B^t}\right)^{\pm} = \frac{S_A^t}{S_B^t} \tag{6.1}$$

We refer to the term α as the *amplification coefficient* because it amplifies the votes ratio into a seats ratio. For example, if $\alpha = 3$ and the vote ratio is 40/60 (i.e., 1:1.5, meaning that for every vote obtained by party A, party B obtains 1.5 votes), then the seats ratio will be $(40)^3/(60)^3$, that is 1:3.4, meaning that for every seat won by party A, party B would win 3.4 seats. So, if there were 100 seats contested, parties A and B would win 23 and 77 seats, respectively.[3]

The value $\alpha = 3$ embodies the 'Law of the Cubic Proportion' of election results under an FPTP system (Kendall and Stuart, 1951; Rajagopalan, 1959; Curtice and Steed, 1986; Norris and Crewe, 1994). In general, of course, the value of α will be different from 3. Indeed, for any given election, it is possible to solve for, α, the amplification coefficient associated with that election as:

$$\pm = \frac{\log\left(S_A^t / S_B^t\right)}{\log\left(V_A^t / V_B^t\right)} \tag{6.2}$$

Various values of α are possible:

1. If $\alpha > 1$, then the votes of party A—which is trailing in terms of votes—are amplified or exaggerated in terms of the number of seats by which it trails party B. In other words, the seats ratio, S_A^t/S_B^t, is smaller than the votes ratio, V_A^t/V_B^t.
2. If $\alpha < 1$, then the votes of party A—which is trailing in terms of votes—are de-amplified or dampened in terms of the number of seats by which it trails party B. In other words, the seats ratio, S_A^t/S_B^t, is larger than the votes ratio, V_A^t/V_B^t.
3. If $\alpha = 1$, then the FPTP system mimics a proportional system: seats are won in the same ratio that votes were obtained.
4. There could be the outcome when parties A and B obtain the same number of votes ($V_A^t = V_B^t$) but win different numbers of seats ($S_A^t \neq S_B^t$). In this case, the denominator of equation (6.2) is zero, and α will not be defined.
5. There could be the outcome in which party A obtains fewer votes than party B but wins more seats: $V_A^t \left\langle V_B^t \text{ but } S_A^t \right\rangle S_B^t$. In this situation, the numerator in Eq. (6.2) is positive, with the denominator negative, so that $\alpha < 0$.[4]

Case 5, above, represents the (not unusual) situation where party A obtains a majority in parliament without securing a majority of votes. It is important to point out that since, by assumption, party A trails party B in terms of votes, the smaller the value of α, the smaller will be party A's *relative disadvantage* in terms of seats. When $\alpha = 0$, $S_A^t = S_B^t$ implying $V_A^t < V_B^t$, and when $\alpha < 0$, $S_A^t > S_B^t$ implying $V_A^t < V_B^t$.

6.4 Calculating the Amplification Coefficient for the INC and the BJP

We compute the value of the amplification coefficient, from data for eight *Lok Sabha* elections, held between 1989 and 2014 (9th to the 16th *Lok Sabha*) for the two main protagonists in these elections—the BJP and the INC—by mimicking a two-party system. In the first instance, we compare the INC (party A in the above analysis) with the *collective* of non-INC parties, including independent candidates (party B in the above analysis); in the second instance, we compare the BJP (party A in the above analysis) with the *collective* of non-BJP parties, including independent candidates (party B in the above analysis).

Table 6.3 shows that in 2014, $V_{INC} / V_{\widehat{INC}} = 0.239$ and $S_{INC} / S_{\widehat{INC}} = 0.088$ for the INC (where, depending on the context, ^ over the party name represents 'non-INC' or 'non-BJP'). Consequently, using the expression in Eq. 6.2, the value of the amplification coefficient, α, in the 2014 *Lok Sabha* elections was 1.7 for the INC and −0.09 for the BJP.

Since $$V_{INC} / V_{\widehat{INC}} = 0.239 \text{ and } S_{INC} / S_{\widehat{INC}} = 0.088 \Rightarrow \left(V_{INC} / 0.239\right), = V_{\widehat{INC}} \text{ and } \left(S_{INC} / 0.088\right) = S_{\widehat{INC}}$$

for every *vote* won by the INC, the non-INC collective won 4.2 votes (=1/0.239), but for every *seat* won by the INC, the non-INC collective won 11.4 seats (=1/0.088). On the other hand, for the BJP, $V_{BJP} / V_{\widehat{BJP}} = 0.449$ and $S_{BJP} / S_{\widehat{BJP}} = 1.08$ implying that for every *vote* won by the BJP, the non-BJP collective won 2.2 votes (= 1/0.449), but for every *seat* won by the BJP, the non-BJP collective won 0.93 seats.[5] Furthermore, since $$V_{INC} / V_{\widehat{INC}} = 0.239 \Rightarrow V_{INC} = 0.239 \times V_{\widehat{INC}} \Rightarrow V_{INC} / \left(V_{INC} + V_{\widehat{INC}}\right), = 0.239 / \left(1.239\right)$$

and since $$S_{INC} / S_{\widehat{INC}} = 0.088 \Rightarrow S_{INC} = 0.088 \times S_{\widehat{INC}} \Rightarrow S_{INC} / \left(S_{INC} + S_{\widehat{INC}}\right), = 0.088 / \left(1.088\right)$$

it follows that in 2014, the INC received 19.3 percent (= 0.239/1.239) of total votes while winning only 8 percent of seats (= 0.088/1.088), while

Table 6.3 Vote and seat ratios and values of the amplification coefficient in *Lok Sabha* elections: 1989–2014

	INC/non-INC			*BJP/non-BJP*		
	Votes ratio (V_A/V_B)	*Seats ratio* (S_A/S_B)	*Amplification coefficient* (α)	*Votes ratio* (V_A/V_B)	*Seats ratio* (S_A/S_B)	*Amplification coefficient* (α)
2014	0.239	0.088	1.70	0.449	1.08	−0.09
2009	0.400	0.611	0.54	0.232	0.272	0.89
2004	0.361	0.364	0.99	0.285	0.341	0.86
1999	0.395	0.266	1.43	0.312	0.504	0.59
1998	0.348	0.351	0.99	0.344	0.504	0.64
1996	0.403	0.344	1.18	0.254	0.421	0.63
1991	0.576	0.833	0.33	0.250	0.291	0.89
1989	0.663	0.595	1.26	0.129	0.192	0.81

Source: Own calculations from Election Commission of India data

the BJP, with 31 percent ($= 0.449/1.449$) of total vote, won 52 percent ($= 1.08/2.08$) of the seats.

One can verify that the amplification coefficients are correctly calculated by computing the total number seats that a party *would* have won and comparing these with the numbers actually won: these should be identical if α has been correctly computed. In order to do so, define $\acute{A} = \left(V_A / V_B\right)^{\hat{\alpha}}$, where $\hat{\pm}$ represents the value of the amplification coefficient computed using Eq. 6.2; then, from Eq. 6.1, the computed number of seats won by party A is: $\hat{S}_A = \left[\acute{A}/\left(1+\acute{A}\right)\right] \times \left(S_A + S_B\right)$, where $S_A + S_B$ represents the total number of elected seats in parliament. This should equal, S_A, the actual number of seats won by party A.

The fact that in 2014, $\alpha > 1$ for the INC reflects the fact that the INC won 19.3 percent of the popular vote, but only 8 percent of *Lok Sabha* seats: as noted in point 1, above, this means that INC's *disadvantage*, relative to the non-INC parties, in terms of votes were *amplified* in terms of seats. The fact that in the same election, $\alpha < 0$ for the BJP reflects the fact that the BJP won a majority in the *Lok Sabha* without winning a majority of the popular vote (point 5, above).[6]

In 2004, the INC's votes and seats ratios were almost equal—respectively, 0.361 and 0.364—yielding a value of the INC amplification coefficient close to unity ($\alpha = 0.99$). This illustrates point 3 above: in the context of the INC, the electoral system yielded a *proportional* outcome. However, in the same election, $\alpha = 0.89$, meaning that the BJP's disadvantage, relative to the non-BJP parties, was *dampened* with respect to seats.

Remembering that a lower value of α is more desirable than a higher value, Table 6.3 shows that the value of α was smaller for the BJP than the INC for six—1989, 1996, 1998, 1999, 2004, and 2014—of the eight elections studied. Equally worrying for the INC was that $\alpha > 1$ for four of the eight elections between 1989 and 2014. This meant that in the 2014, 1999, 1996, and 1989 elections, the INC vote disadvantage, relative to the non-INC parties, was *amplified* in terms of a seats disadvantage. For example, in 1999, for every vote won by the INC, the non-INC parties won 2.5 votes, but for every seat won by the INC, the non-INC parties won 3.8 seats.

The BJP did not have this problem: as Table 6.3 shows, in each of the eight elections, the value of its amplification coefficient was less than one meaning that is was able to neutralise some of its vote disadvantage, relative to the non-BJP parties, in terms of its seat disadvantage. For example, in 2009, with $\alpha = 0.89$, for every vote won by the BJP, the non-BJP parties won 4.3 votes,

but for every seat won by the BJP, the non-BJP parties won 3.7 seats. Thus, the essential difference between the BJP and the INC was that compared to the INC, the BJP was more efficient in translating votes into seats.

In order to understand this, measure of this inefficiency considers a party which targets, say, 200 (out of a total of 543) seats in the *Lok Sabha*. Then, from Eq. 6.2, the vote ratio which will deliver this is: $V_A / V_B = \left(S_A / S_B\right)^{1/\pm} = \left(0.368\right)^{1/\pm}$. Excluding the election of 2014—which was a landslide victory for the BJP and, arguably, an outlier on a scale unlikely to be repeated—the average of the amplification coefficient over the seven elections between 1989 and 2009 was 0.96 for the INC and 0.76 for the BJP. Applying these averages, in order to win 200 seats in the *Lok Sabha*, the INC and BJP would have required a vote ratio of, respectively, 0.353 and 0.267.

In other words, to win 200 seats in the *Lok Sabha*, the INC would have had to receive 35 votes for every 100 votes received by the collective of non-INC parties (i.e., 26 percent of the total vote), but the BJP would have had to receive only 27 votes for every 100 votes received by the collective of non-BJP parties (i.e., 21 percent of the total vote). The value of the amplification coefficient, α, is thus a measure of electoral efficiency—the *smaller* its value, the *greater* the ease with which votes are converted into seats.

6.5 Hindi-Speaking States

In earlier chapters, we had drawn attention to the importance of Hindi-speaking (HS) states to the relative electoral fortunes of the INC and the BJP. To recapitulate: of the total of 543 *Lok Sabha* constituencies, 204 (or 37.6 percent) are—and have been since the 1996 *Lok Sabha* election—in the seven HS states of Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Rajasthan, Uttarakhand, and Uttar Pradesh, and of these 204 constituencies, respectively, 40 and 80 are in Bihar and Uttar Pradesh. The HS states are of particular importance for the BJP since a large number of its contested constituencies are from these states: in 2014, nearly 45 percent (192 out of 428) of the constituencies contested by the BJP were from the HS states. These states are also important for the INC but to a lesser degree: 34 percent (158 out of 464) of the constituencies contested by the INC in 2014 were from the HS states. We can pursue the analysis of electoral efficiency (meaning the relative ease with which votes are converted into seats) by computing the INC and BJP amplification coefficients for constituencies in the seven Hindi-speaking states.

Table 6.4 Vote and seat ratios and values of the amplification coefficient in *Lok Sabha* elections for Hindi-speaking states[a]: 1989–2014

	INC/non-INC			*BJP/non-BJP*		
	Votes ratio (V_A/V_B)	*Seats ratio* (S_A/S_B)	*Amplification coefficient* (α)	*Votes ratio* (V_A/V_B)	*Seats ratio* (S_A/S_B)	*Amplification coefficient* (α)
2014	0.212	0.036	2.15	0.784	5.375	–6.92
2009	0.338	0.437	0.76	0.347	0.417	0.83
2004	0.245	0.159	1.31	0.425	0.581	0.63
1999	0.291	0.200	1.30	0.481	0.907	0.13
1998	0.217	0.193	1.08	0.552	1.22	–0.33
1996	0.215	0.152	1.22	0.475	1.147	–0.18
1991	0.385	0.291	1.29	0.429	0.658	0.49
1989	0.489	0.152	2.63	0.221	0.378	0.64

Source: Own calculations from Election Commission of India data

[a]Bihar, Chhattisgarh (2004 and after), Jharkhand (2004 and after), Madhya Pradesh, Rajasthan, Uttarakhand (2004 and after), and Uttar Pradesh

Table 6.4, which reproduces the all-India results of Table 4.3 for the collective of HS states, shows that the BJP's electoral efficiency was far greater than that of the INC in the HS states. Except for the 2009 election, the INC's seat ratio was always smaller than its vote ratio resulting in an amplification coefficient that was greater than one. By contrast, the BJP's seat ratio was always larger than its vote ratio resulting in an amplification coefficient that was less than one. Indeed, in the 1996, 1998, and 2014 elections, the BJP secured a majority of the *Lok Sabha* seats from the HS states on a minority vote (point 5 above).

In contrast, as Table 6.5 shows, the INC performed much better, relative to the BJP, in the non-HS states. Its votes and seats ratios (i.e., $V_{INC} / V_{\widehat{INC}}$ and $S_{INC} / S_{\widehat{INC}}$) were both higher in the non-HS states than in the HS states, and its amplification coefficient was more favourable: bearing in mind that as discussed earlier, a lower value of the amplification coefficient is more desirable than a higher value; the amplification coefficient for the INC was always lower in the non-HS, than in the HS, states; and conversely, the amplification coefficient for the BJP was always lower in the HS, than in the non-HS, states.

In order to gain an appreciation of differences in inter-party electoral performance between the HS and non-HS states, suppose that the INC and the BJP each targets one in three of the seats from the

Table 6.5 Vote and seat ratios and values of the amplification coefficient in *Lok Sabha* elections for non-Hindi-speaking states[a]: 1989–2014

	INC/non-INC			*BJP/non-BJP*		
	Votes ratio (V_A/V_B)	*Seats ratio* (S_A/S_B)	*Amplification coefficient* (α)	*Votes ratio* (V_A/V_B)	*Seats ratio* (S_A/S_B)	*Amplification coefficient* (α)
2014	0.253	0.114	1.58	0.301	0.395	0.773
2009	0.415	0.683	0.434	0.177	0.181	0.987
2004	0.430	0.505	0.810	0.213	0.211	1.01
1999	0.456	0.299	1.54	0.225	0.284	0.844
1998	0.432	0.469	0.901	0.237	0.219	1.06
1996	0.524	0.476	1.15	0.154	0.157	0.99
1991	0.690	1.44	–0.977	0.170	0.114	1.23
1989	0.77	1.06	–0.252	0.085	0.084	1.01

Source: Own calculations from Election Commission of India data

[a]Andhra Pradesh, Assam, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Karnataka, Kerala, Maharashtra, Orissa, Punjab, Tamil Nadu, and West Bengal

HS states (total 204 constituencies) and a similar proportion from the non-HS states (total 313 constituencies). Excluding the 2014 election, the average of the amplification coefficients over the last three elections (1999, 2004, and 2009) was, in the HS state, 1.12 for the INC and 0.53 for the BJP, and in the non-HS states, it was 0.93 and 0.95 for, respectively, the INC and the BJP. Then, the vote ratios that would deliver half of the constituencies, in the HS states, to the INC and the BJP are, respectively, $V_A / V_B = \left(S_A / S_B\right)^{1/1.12} = \left(0.5\right)^{1/1.12} = 0.54$ and $V_A / V_B = \left(S_A / S_B\right)^{1/0.53} = \left(0.50\right)^{1/0.53} = 0.27$. In other words, to win one-third of the seats in the HS states, the INC and the BJP would have required vote shares of, respectively, 35 (=0.54/1.54) and 21 percent (=0.27/1.27) in the HS states. On the other hand, to win one in three seats in the non-HS states, both the INC and the BJP would have needed a vote ratio—of, respectively, INC to non-INC votes and BJP to non-BJP votes, of 0.48 or 32 percent (=0.48/1.48) of the vote in the non-HS states.[7]

6.6 Concluding Remarks

The contribution of this chapter was to develop the concept of the *amplification coefficient* which, when applied to the votes received and seats won by a party, could be used to assess its ability to convert votes into seats. In this respect, this chapter's major finding was that the BJP, in electoral terms, was much more efficient than the INC. This can be encapsulated in our finding that averaging over the eight *Lok Sabha* elections between 1989 and 2014, in order to win 200 seats in the *Lok Sabha*, the INC would have had to receive 35 votes for every 100 votes received by the collective of non-INC parties (i.e., 26 percent of the total vote), but the BJP would have had to receive only 27 votes for every 100 votes received by the collective of non-BJP parties (i.e., 21 percent of the total vote). This places the INC at a considerable disadvantage vis-à-vis the BJP in terms of contesting elections and suggests that this is an issue that the INC's managers could usefully address.

Notes

1. Kendall and Stuart (1950) draw attention to the fact that the law was first proposed by James Parker Smith—who, in turn, attributed it to P.A. MacMahon—in evidence before the Royal Commission on Systems of Elections (2010).
2. Bear in mind that 'observations' were distinguished by constituency name *and* by election year: so, for example, Adilabad in the 1989 *Lok Sabha* election represented a separate observation from Adilabad in the 1991 *Lok Sabha* election.
3. Party A: $(1/4.4)\times 100 = 22.7$ and party B: $(3.4/4.4)\times 100 = 77.3$.
4. Another perverse outcome would be when party A obtains more votes than party B, but wins fewer seats: $V_A^t > V_B^t$ but $S_A^t < S_B^t$. In this situation, the numerator in equation (2) is negative, with the denominator positive, so that $\alpha < 0$. This is a situation in which where the party A's majority in votes fails to translate into a parliamentary majority.
5. $$\begin{aligned} V_{INC} / V_{\widehat{INC}} = 0.239 &\Rightarrow V_{INC} = 0.239 \times V_{\widehat{INC}} \\ &= 0.239 \times V_{\widehat{INC}} + 0.239 \times V_{INC} - 0.239 \times V_{INC} \\ &\Rightarrow V_{INC} / \left(V_{INC} + V_{\widehat{INC}}\right) = 0.239 / \left(1.239\right) \end{aligned}$$

   This implies that in 2014, the INC received 19.3 percent of total votes while winning only 8 percent of seats while the BJP, with 31 percent of total vote, won 52 percent of the seats. For the INC, $\left[0.239/1.239\right] = 0.193$; and for the BJP, $\left[0.449/1.449\right] = 0.31$ and $\left[1.08/2.08\right] = 0.52$

6. If the BJP, on a minority vote, had won the same number of seats as the collective of non-BJP parties (i.e., 271 or 272 seats), the value of α would have been zero.
7. Vote ratios of 0.47 (= $(0.5)^{1/0.93}$) and 0.48 (= $(0.5)^{1/0.95}$) which amounts to 32 percent of the vote in the non-HS states

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CHAPTER 7

The Concentration and Distribution of Votes

Abstract Borooah examines the topics of vote concentration (differences between the INC and the BJP in the concentration of their votes and seats in the various states) and vote distribution (unevenness in the distribution of the INC and BJP vote across the constituencies). Combining these topics the central question is what proportion of the seats won by the INC and the BJP was due to a high average vote and what proportion was the result of a favourable distribution of votes? The message is that even if the INC received the same number of total votes as the BJP it would still win fewer seats. For the INC to nullify the effects of its distributional disadvantage it must raise its vote substantially above the BJP vote.

7.1 Introduction

The previous chapter analysed the electoral efficiency of the INC and BJP in terms of their ability to convert votes into seats. A large part of this ability depends upon the geographical distribution of their vote. An excessive concentration of the party's vote in a small area leads to a small of seats with large majorities. On the other hand, if spread too thinly, electoral support dissipates resulting in many 'near misses', but few electoral successes. This observation leads, in this chapter, to an analysis of the distribution of the party vote between constituencies and between states. Within this broad theme, we pursue two topics. Firstly, there is

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the question of concentration. Borrowing an analogy from industrial economics, are there differences between the INC and the BJP in the degree to which their votes and seats are concentrated in the various states and union territories which produce their votes and seats? The second question relates to the unevenness in the distribution of the INC and BJP vote across the constituencies. In terms of their seat tally, to what extent would the two parties benefit, or suffer, from a more equal distribution of their vote? To put matters differently, what proportion of the seats won by the INC and the BJP was due to a high average vote and what proportion was the result of a favourable distribution of votes?

The first question is answered in terms of measures of concentration popular in the industrial economics literature, in particular, the Herfindahl- Hirschman index (HHI) of concentration. The issue that is addressed here is *vote supply*: how much of a party's total vote is sourced from different states/constituencies? Then, there is the different, and conceptually separate, issue of *vote shares*: what proportion of the total vote in a state/constituency does a party obtain? We show how the two issues of vote supply and vote shares are related and arrive at measures of vote concentration (issue 1) and vote distribution (issue 2). Lastly, the chapter, using electoral simulations, shows how differences in their respective vote distributions affect the electoral fortunes of the INC and the BJP very differently.

7.2 Where the Votes Come from: The Concentration of Votes by State

One can think of the total number of votes obtained by a party (V) as being produced by K ($k = 1 \ldots K$) states, with each state producing V_k votes for the party. If V is excessively concentrated in a few states—that is, the production of votes for the party is characterised by oligopolistic tendencies—then it will win few seats but with large majorities. On the other hand, if V is fairly evenly spread over the states—that is, the production of votes for the party is characterised by competitive tendencies—then it may again win few seats, this time with small majorities. The optimal geographical distribution of the total national vote of a party must, therefore, take regard of both having enough supporters in a state's constituencies to comprise a plurality of voters while, at the same time, avoiding concentration of its total support in just a few states.

These considerations raise the question of the degree to which the votes of the INC and BJP are *concentrated* in the states. A popular measure of concentration, used in the industrial economics literature, to measure the degree of competition in a market, is the *HHI*.[1] Applied to the concentration of a party's votes across the Indian states, the *HHI* for party *j* is represented by HHI^j and defined as:

$$HHI^j = \sum_{k=1}^{K} \left(v_k^j\right)^2 \tag{7.1}$$

where: V^j is total number of votes obtained by party *j*; V_k^j is total number of votes obtained by party *j* in state *k*; and $v_k^j = V_k^j / V^j$ is state *k*'s share in party *j*'s total vote *(k=1…K)*. At one extreme, if state *k* produces all the votes for party *j*, then $v_k^j = 1$ and $HHI^j = 1$, which is the *maximum* value of the index. At the other extreme, if all the states have an equal share in the total vote for party *j*, $HHI^j = 1/K$ which is the *minimum* value of the index. Consequently, $1/K \leq HHI^j \leq 1$.

Table 7.1 shows: (i) the shares of India's major states in the *total vote* produced by these states; (ii) the shares of India's major states in the *total INC* vote produced by these states; and (iii) the shares of India's major states in the *total BJP vote* produced by these states. The last lines of Table 7.1 compare the total *Lok Sabha* vote in the major states with the total *all-India Lok Sabha* vote: this shows, for example, that in 2014, the former was nearly 97 percent of the latter; similarly, the total INC and BJP vote in the major states were, respectively, 96 and 97 percent of the corresponding all-India vote.

Of the total vote emanating from the major states in the *Lok Sabha* election of 2014, Uttar Pradesh produced 15.1 percent, followed by West Bengal with 9.6 percent, Maharashtra with 9.1 percent, and Andhra Pradesh with 9 percent. Table 7.1 also shows that in the 2014 *Lok Sabha* election, the BJP did particularly well, and the INC did particularly badly, in Uttar Pradesh: 20.6 percent of the BJP vote, but only 5.9 percent of the INC vote, came from this state which produced over 15 percent of the total (major states) vote. By contrast, in the same election, the INC did particularly well, and the BJP did particularly badly, in Orissa: 5.4 percent of the INC vote, but only 2.8 percent of the BJP vote, came from this state which produced 4 percent of the total (major states) vote.

Table 7.1 The contributions of the major states to the total L*ok Sabha* vote[a]

	2004			*2009*			*2014*		
	Total contribution	*INC contribution*	*BJP contribution*	*Total contribution*	*INC contribution*	*BJP contribution*	*Total contribution*	*INC contribution*	*BJP contribution*
Andhra Pradesh	9.4	14.9	3.6	10.4	14.5	2.1	9.0	5.4	2.5
Assam	2.7	3.6	2.9	3.0	3.8	2.6	2.8	4.3	3.3
Bihar	7.7	1.3	5.1	6.0	2.2	4.5	6.7	2.9	6.3
Chhattisgarh	1.9	2.9	4.1	2.1	2.8	5.1	2.3	4.6	3.6
Gujarat	4.0	6.7	8.6	4.3	6.7	10.8	4.8	8.3	9.2
Haryana	2.1	3.4	1.7	2.0	3.0	1.3	2.1	2.6	2.4
Himachal Pradesh	0.7	1.3	1.3	0.7	1.1	1.8	0.6	1.2	1.0
J&K	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.8	0.7
Jharkhand	2.5	2.0	3.7	2.3	1.2	3.3	2.4	1.7	3.1
Karnataka	6.6	9.3	10.5	6.1	8.2	13.5	5.8	12.3	8.0
Kerala	4.0	4.9	1.9	4.0	5.7	1.3	3.4	5.4	1.1
Madhya Pradesh	4.9	6.3	10.6	4.8	6.9	11.2	5.5	10.1	9.6
Maharashtra	9.0	8.2	9.3	9.2	6.4	8.9	9.1	8.6	8.0
Orissa	4.5	6.9	3.9	4.4	5.2	4.0	4.0	5.4	2.8
Punjab	2.7	3.5	1.3	2.9	4.7	1.6	2.6	4.5	0.7
Rajasthan	4.6	7.2	10.2	4.4	7.5	8.7	5.1	8.0	9.0
Tamil Nadu	7.6	4.1	1.7	7.5	4.1	0.9	7.6	1.7	1.3
Uttar Pradesh	14.1	6.4	14.1	13.7	9.0	12.8	15.1	5.9	20.6
Uttarakhand	0.7	1.0	1.3	0.8	1.2	1.4	0.8	1.5	1.5
West Bengal	9.8	5.4	3.6	10.6	5.1	3.5	9.6	4.8	5.2

Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total vote from major states	379,076,480	99,695,696	83,489,256	403,313,440	112,695,216	75,491,856	536,140,896	102,771,824	166,309,568
Total all-India vote	389,779,776	103,408,952	86,371,560	417,158,656	119,110,824	78,435,352	553,801,792	106,938,240	171,657,552

Source: Own calculations from Election Commission of India data

[a]The 'major states' are: Andhra Pradesh, Assam, Bihar, Chhattisgarh, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Tamil Nadu, Uttarakhand, Uttar Pradesh, and West Bengal

Table 7.2 Values of the Herfindahl, entropy, and dissimilarity indices for the vote contribution of major states[a]

		Total vote in major states			*Total INC vote in major states*			*Total BJP vote in major states*		
Year	*Number of major states*	*HHI*	*Entropy*	*Dissimilarity*	*HHI*	*Entropy*	*Dissimilarity*	*HHI*	*Entropy*	*Dissimilarity*
1989	17	0.085	2.562	0.262	0.086	2.554	0.268	0.145	2.159	0.498
1991	17	0.086	2.574	0.261	0.083	2.596	0.239	0.115	2.378	0.368
1996	17	0.084	2.609	0.285	0.086	2.617	0.245	0.119	2.395	0.399
1998	17	0.085	2.606	0.274	0.089	2.571	0.292	0.11	2.458	0.356
1999	17	0.085	2.601	0.281	0.083	2.619	0.263	0.098	2.514	0.341
2004	20	0.075	2.743	0.292	0.072	2.777	0.263	0.081	2.702	0.334
2009	20	0.075	2.745	0.286	0.072	2.782	0.253	0.085	2.66	0.361
2014	20	0.076	2.744	0.285	0.069	2.801	0.245	0.094	2.627	0.36

Source: Own calculations from Election Commission of India data

[a]Note that the states of Chhattisgarh, Jharkhand, and Uttarakhand did not exist prior to the 2004 *Lok Sabha* election

Table 7.2 shows values of the *HHI* (defined by Eq. 7.1), for each *Lok Sabha* election since 1989, with the major states as the vote-generating units. The values are shown with respect to: (i) the total vote emanating from the major states; (ii) the total INC vote emanating from the major states; and (iii) the total BJP vote emanating from the major states. This table shows that for every election between 1989 and 2014, the BJP had associated *HHI* values which were greater than the corresponding *HHI* values for the INC: this implied that in the context of the major states, the BJP's votes were more concentrated than those of the INC's. This is a reflection of the fact that the INC, as the older party, has a significant presence in parts of India—like Assam, Kerala, and Jammu and Kashmir—where the BJP, until recently, has been all but invisible.

Also shown are the values with respect to two other indices. The first of these is Shannon's *entropy index* defined as:

$$E = -\sum_{k=1}^{K} v_k^j \log\left(v_k^j\right) \tag{7.2}$$

And the second of these is the dissimilarity index defined as:

$$D = \frac{1}{2}\left[\sum_{k=1}^{K}\left(v_k^j - \frac{1}{K}\right)\right] \tag{7.3}$$

If a state's vote share, with respect to party *j*, is equal to 1 (meaning that party *j* gets all its votes from that state) so that, say, $v_1^j = 1, v_2^j \ldots = v_K^j = 0$, then $E = 0$, which is its *minimum* value, and $D = K\text{-}1$ which is its *maximum* value; on the other hand, if all the states have equal shares in party *j*'s total vote so that, $v_1^j = v_2^j = \ldots = v_K^j = 1/K$, then $E = \log(1/K)$, which is its *maximum* value, and $D = 0$, which is its *minimum* value. The values of these indices confirm the fact that in the context of the major Indian states, the BJP vote is more concentrated than that of the INC: for every election between 1989 and 2014, the value of the entropy index (E in Eq. 7.2) is *higher*—and the value of the dissimilarity index (D in Eq. 7.3) is *lower*—for the INC compared to its value for the BJP.

7.2.1 The Effective Number of States

As Table 7.1 shows, over 536 million votes cast in the 2014 *Lok Sabha* election emanated from the 20 major Indian states. The contributions from the different states, however, varied considerably, from Uttar Pradesh's 15.1 percent of the total vote to Himachal Pradesh's 0.6 percent. This makes the obvious point that in terms of 'producing' votes, not all states are equal; it also raises, by way of corollary, a query about the *effective* number of states in the political system when the 20 major states were adjusted by their vote shares.

This concept of an 'effective number' was first applied to political parties (see Dunleavy and Bouchek 2003). Suppose there are N political parties in the system with each party receiving different vote shares. Some of these vote shares might be so small, and others so large, that *effectively*, there are *fewer* than N political parties in the electoral system. Laakso and Taagepera (1979) suggested that the *effective* number of parties, N^*, could be computed as the inverse of the HHI as:

$$N^* = 1 / HHI \tag{7.4}$$

where: HHI is the HHI computed from the vote shares of the N parties. If all the N parties received the same share of the total vote, $1/N$, $HHI = 1/N$, and $N^* = N$: the effective number of parties is same as the total number of parties. If one party obtained the entire vote, $HHI = 1$ and $N^* = 1$: effectively, the electoral system consists of a single party. In general, the greater the concentration of votes (larger the HHI value), the smaller will be the number of effective parties.

These ideas can equally be applied to the Indian states which contribute unequally to the total amount of votes they generate. Consequently, the *effective* number of (major) states is smaller than the actual number, 20, of states. How much smaller can be determined by applying the Laakso and Taagepera (1979) formula of Eq. 7.4? So, in the 2014 election, the HHI values for the INC and the BJP were, respectively, 0.069 and 0.094: consequently, the effective number of states for the INC and the BJP were, respectively, 14.5 (=1/0.069) and 10.6 (=1/0.094). The effective number of states differs between the two parties because the concentration of their votes, within the major states, is different: the number of effective states was larger for the INC—with a smaller concentration of its vote—than for the BJP with a greater vote concentration.

7.3 Inequality in the Inter-Constituency Distribution of Party Vote Shares

The previous section addressed the question of *vote supply* in the context of the major Indian states with particular reference to the concentration of the national vote. In that section, the key variables were the proportions of the total vote, the total INC vote, and the total BJP vote *that were sourced from the different states*: for example, in the 2014 *Lok Sabha* election, 20.6 percent of the BJP vote was sourced from Uttar Pradesh while Madhya Pradesh supplied 10 percent of the INC vote. This section turns to the separate, but related, question of party *vote shares*, namely, the proportion of the total vote in a particular geographical area (state or constituency) that accrued to a particular political party. It is relatively straightforward to show that vote supply (previous section) and vote shares (this section), though conceptually different, are, in fact, empirically related.

Suppose that of the total of V_k votes in an area k (e.g., state or constituency), V_k^j is in favour of party j. Then the vote share of party j in area k $(k=1\ldots K)$ is represented by $v_k^j = V_k^j / V_k$. Let $V = \sum_{k=1}^{K} V_k$ and $V^j = \sum_{k=1}^{K} V_k^j$ represent, respectively, the total (national) vote (over all parties) and party j's total (national) vote. Then the *vote share* can be decomposed in the terms of *vote supply* as follows:

$$\begin{aligned} v_k = V_k^j / V_k &= \left(V_k^j / V_k\right)\left(V / V^j\right)\left(V^j / V\right) \\ &= \left(V_k^j / V^j\right)\left(V / V_k\right)\left(V^j / V\right) = \left(g_k^j / n_k\right)\overline{v}^j \end{aligned} \tag{7.5}$$

where: $g_k^j = V_k^j / V^j$ is the proportionate contribution that area k makes to the party j's national vote; $n_k = V_k / V$ is the proportionate contribution that area k makes to the total (national) vote; and $\overline{v}_j = V^j / V$ is party j's share of the national vote.

By way of a numerical example, suppose that k represents Uttar Pradesh and that j represents the BJP. Now, from Table 7.1, for the *Lok Sabha* election of 2014, $g_k^j = 20.6, n_k = 15.1, \text{and } \overline{v}_k^j = 31$, implying, from Eq. 7.5 that the BJP obtained 42.3 percent of the total vote in Uttar Pradesh.

In this section, we measure inequality in the distribution of inter-constituency vote shares of the INC and the BJP in the major states, and having done that, in the section following, we *decompose* inter-constituency

inequality by the states to which the constituencies belong. The first exercise, of inequality measurement, will suggest a relationship between electoral popularity and electoral inequality while the second exercise, of inequality decomposition, will evaluate how much of overall inter-constituency inequality in vote shares can be explained by the aggregation of constituencies by the state.

The inequality measure used, both for measurement and for decomposition, belongs to the family of *entropy* measures. The logic of the entropy measure is taken from information theory. Suppose that a party's vote share, v, is a random variable which takes values, $v_1, v_2, \ldots, v_N$, over N constituencies, with probabilities, $p_1, p_2, \ldots, p_N, 0 \le p_i \le 1, \sum_{i=1}^{N} p_i = 1$. Now the *information content* of a message that the random variable v has taken an unusual value is greater than that of a message that is has taken a more commonly observed value. Hence, the information content, h_i, of v taking a specific value, v_i, is a decreasing function of p_i, the probability of observing that value, so that $h_i = h(p_i)$ is a decreasing function of the p_i. Also, since the values assumed by v are assumed independent of each other, the information content of the *joint* occurrence of two values, say, $v = v_r$ and $v = v_s$, is the sum of the individual information contents: $h(v_r, v_s) = h(v_r) + h(v_s)$. A decreasing function that satisfies this property is $h(p_i) = \log(1/p_i) = -\log(p_i)$.

A measure of the expected amount of information or entropy in a system, defined by the values of a random variable v and the associated probabilities, is given by (Renyi, 1965):

$$E = \sum_{i=1}^{N} p_i h(p_i) = -\sum_{i=1}^{N} p_i \log(p_i) \tag{7.6}$$

The maximum value of E in Eq. 7.6—and also in Eq. 7.2—occurs when the values are equally likely so that $p_1 = p_2 = \ldots = p_N = 1/N$ and a measure of the *disorder* of the system is the extent to which the expected value falls below this maximum:

$$I = \sum_{i=1}^{N} \underbrace{(1/N) \times h(1/N)}_{\text{maximum value}} - \sum_{i=1}^{N} \underbrace{p_i \times h(p_i)}_{\text{observed value}} = \sum_{i=1}^{N} \left[\log(p_i) - \log(1/N) \right] \tag{7.7}$$

The larger the value of I in Eq. 7.7, the greater will be the *disorder* or *inequality* in the system. If we set the probabilities to the observed vote shares, so that $p_i = v_i$, $i = 1 \ldots N$, and let $\bar{v}$ represent the mean vote share, we can obtain Theil's (1967) *Mean Logarithmic Deviation* (MLD) index as:

$$MLD = \left(\sum_{i=1}^{N} \log(\bar{v} / v_i \right) / N \tag{7.8}$$

Table 7.3 shows the MLD and Gini values for the INC and the BJP in respect of the inter-constituency distribution of their vote shares for every *Lok Sabha* election between 1989 and 2014 with higher values of both indices representing higher inequality levels.[2] These values show that inequality in the distribution of INC vote shares was at a low in 1989; thereafter it rose steadily, reaching a peak in 1998; it fell in 1999, remained fairly steady till 2009 but then rose sharply in 2014. By contrast, the inter-constituency distribution of the BJP vote was highly unequal in 1989 after which it fell reaching a low in 1999; then it peaked in 2009 before falling back in 2014.

Set alongside the values of the MLD and Gini indices are the party vote shares. These make clear (see Figs. 7.1 and 7.2) that in general, whenever overall support for a party was high, inequality in the distribution of the party's vote share, between the constituencies, was low: the INC in 1989, 1991, and 2009 and the BJP in 1998, 1999, and 2014. Conversely,

Table 7.3 Inequality in the distribution of constituency vote shares

	INC			*BJP*		
	MLD	*Gini*	*Vote share*	*MLD*	*Gini*	*Vote share*
1989	0.042	0.155	39.5	0.563	0.449	11.4
1991	0.110	0.216	35.7	0.381	0.412	20
1996	0.302	0.299	28.8	0.500	0.425	20.3
1998	0.399	0.353	25.8	0.131	0.211	25.6
1999	0.190	0.252	28.3	0.085	0.187	23.8
2004	0.250	0.267	26.5	0.133	0.238	22.2
2009	0.142	0.211	28.6	0.513	0.433	18.8
2014	0.457	0.394	19.5	0.135	0.233	31.3

Source: Own calculations from Election Commission of India data

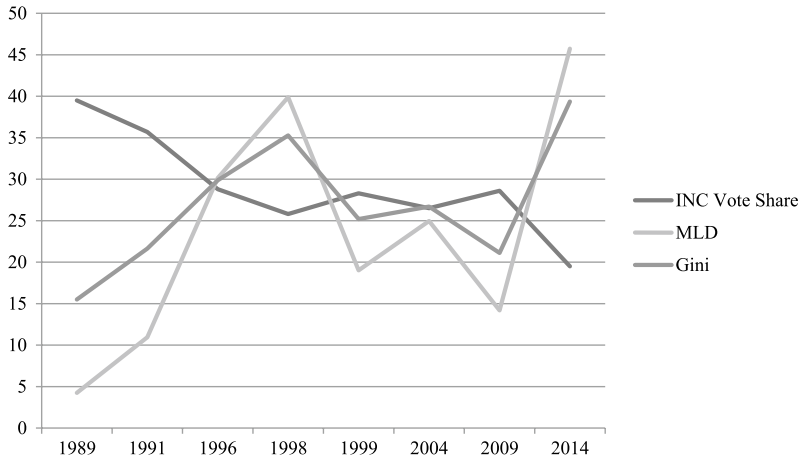


Fig. 7.1 INC vote shares and vote share inequality: 1989–2014 (*Source*: Own calculations from *Lok Sabha* election data)

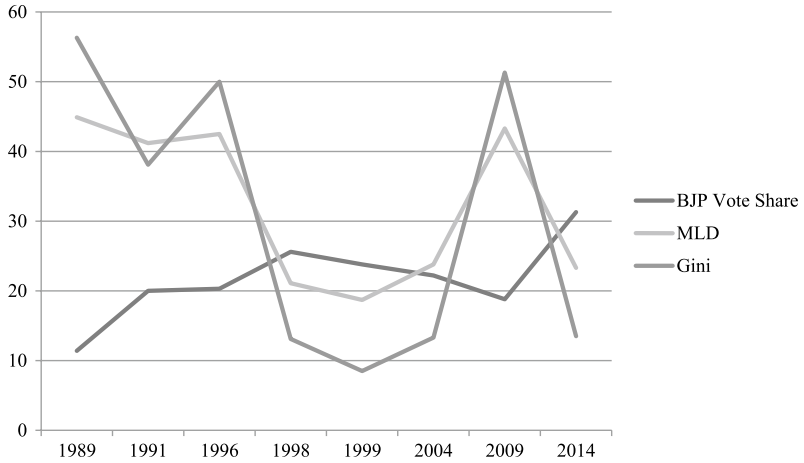


Fig. 7.2 BJP vote shares and vote share inequality: 1989–2014 (*Source*: Own calculations from *Lok Sabha* election data)

whenever overall support for a party was low, inequality in the distribution of the party's vote share, between the constituencies, was high: the INC in 1998 and 2014 and the BJP in 1989, 1991, 1996, and 2009.

7.4 The Decomposition of Inequality in Vote Shares

Inequality in a party's vote share across the different constituencies leads one to ask: what 'explains' such inequality? Is it due to the fact that constituencies are segmented into states, with different states embodying different 'political' cultures? In that case, we would expect that some of the observed inequality can be explained by differences *between* states because constituencies in some states offer, on average, a lower vote share to that party compared to constituencies in other states. But not all of inequality in vote shares can be explained by differences between states—some of the observed (overall) inequality will be due to the fact that there is inequality in constituencies *within* the same state because the party does not receive the same vote share from *all* constituencies *within* a particular state.

Of course, one need not subdivide constituencies by state—one could, equally well, have subdivided them by region (e.g., North, South, East, West, and Central) or by their level of income (e.g., low-income, medium-income, and high-income states). Whenever, and however, one subdivides households, there are always two sources of inequality: *between-group* and *within-group*. The method of inequality decomposition attempts to separate (or decompose) overall inequality into these two constituent parts: between-group inequality and within-group inequality. When the decomposition is *additive*, overall inequality can be written as the *sum* of within-group inequality and between-group inequality:

$$\underset{\text{overall ineqality}}{I} = \underset{\text{within group inequality}}{A} + \underset{\text{between group inequality}}{B}$$

When inequality is additively decomposed, then one can say that the basis on which the constituencies were subdivided (say, by state) contributed $[(B/I)\times 100]$ percent to overall inequality in a party's vote shares, the remaining inequality, $[(A/I)\times 100]$ percent, being due to inequality *within* the states. If one subdivided the constituencies by income (say, three groups) *and* by state (20 major states), so that one had 60 categories,

then by additively decomposing inequality, as above, one could say that income *and* state collectively accounted for $[(\mathrm{B}/\mathrm{I}) \times 100]$ percent of overall inequality in the vote shares of a party, the remaining inequality being due to inequality within the 60 categories. So, inequality decomposition provides a way of analysing the extent to which inter-constituency inequality in a party's vote share can be 'explained' by a constellation of factors.

More formally, suppose that the total of N constituencies is divided into M mutually exclusive states groups with N_m $(m = 1 \ldots M)$ constituencies in each state. Let $\mathbf{v} = \{v_i\}$ and $\mathbf{v_m} = \{v_i\}$ represent the vector of vote shares for a party in, respectively, all the constituencies $(i = 1 \ldots N)$ and in the constituencies in state m. Then an inequality index $I(\mathbf{v}; N)$ defined over this vector is said to be additively decomposable if:

$$I(\mathbf{v};N) = \sum_{m=1}^{M} I(\mathbf{v_m};N_m) w_m + \mathbf{B} = \mathbf{A} + \mathbf{B} \tag{7.9}$$

where: $I(\mathbf{v}; N)$ represents the *overall* level of inequality; $I(\mathbf{v_m}; N_m)$ represents the level of inequality within state m; **A**—expressed as the weighted sum of the inequality in each state, w_m being the weights—and **B** represent, respectively, the *within-group* and the *between-group* contribution to overall inequality.

If, indeed, inequality can be 'additively decomposed' along the lines of Eq. 7.9 above, then, as Cowell and Jenkins (1995) have argued, the proportionate contribution of the between-group component (**B**) to overall inequality is the income inequality literature's analogue of the R^2 statistic used in regression analysis: the size of this contribution is a measure of the amount of inequality that can be 'explained' by the factor (or factors) used to subdivide the sample.

Only inequality indices which belong to the family of *Generalised Entropy Indices* are additively decomposable (Shorrocks, 1980). These indices are defined by a parameter θ, and when $\theta = 0$, the weights are the constituency shares of the different states (i.e., $w_m = N_m / N$); since the weights sum to unity, the within-group contribution **A** of Eq. 7.9 is a weighted average of the inequality levels within the groups. When $\theta = 0$, the inequality index is Theil's MLD, defined in Eq. 7.8 of the previous section, which, because of its attractive features in terms of the interpretation of the weights, is used in this chapter to decompose inequality in a party's vote shares.

Figure 7.3 shows the within-state and between-state contributions to inter-constituency inequality in INC and BJP vote shares. This shows that for several elections—1989, 1996, 1999, 2009, and 2014—the between-state contribution to inequality in the distribution of BJP vote shares exceeded 60 percent, and this contribution was not less than 50 percent for any election. Except for the *Lok Sabha* election of 1998, the between state contribution to inequality in the INC vote share was always lower than the corresponding contribution for the BJP. The overall consensus from this decomposition is that for both parties, over half of inequality in the distribution of inter-constituency vote shares could be explained by the location of the constituencies in different states.

7.5 The Effect of the Distribution of Votes on the Number of Seats Won

We hypothesise that the number of seats won (S) by a party at a *Lok Sabha* election, given the number of seats contested, depends upon its mean vote (μ) and the degree of inequality (I) in the distribution of its vote both

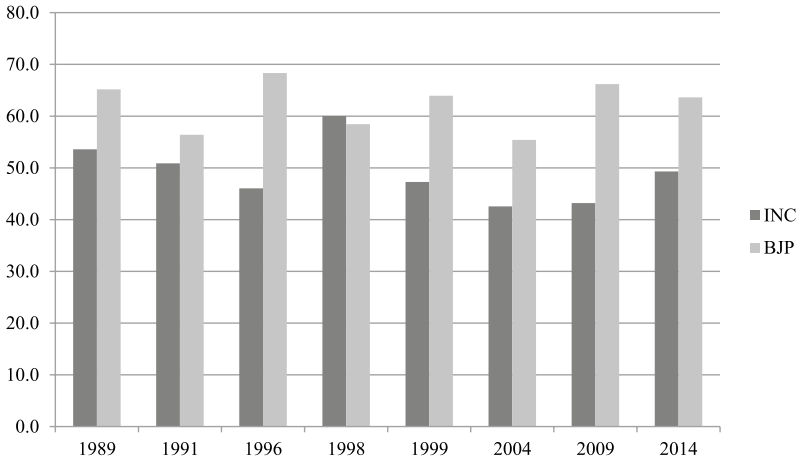


Fig. 7.3 Between income inequality as a proportion of total inequality, decomposition by major states (*Source*: Own calculations from *Lok Sabha* election data)

computed over the constituencies in which it fielded candidates.[3] More formally:

$$S = f\left(\overset{+}{\mu}, \overset{?}{I}\right) \tag{7.10}$$

7.5.1 *Simulation A: The Equal Distribution of Votes*

It is impossible to specify a priori the *distribution* of votes (as encapsulated in the value of I in Eq. 7.10) which, in the face of a given *total* of votes, will maximise the number of seats won. So, in order to investigate the separate contributions of μ and I to the number of seats won by the BJP and INC, we ran a simulation in which, with the mean vote of each party unchanged, the inter-constituency vote distribution of the two parties was rendered the same; we then examined the number of seats each party would have won under this scenario. The simplest distributional uniformity was to assume that each party's total vote was *equally distributed* between the constituencies it contested, and Table 7.4 shows the number

Table 7.4 BJP and INC seats for eight *Lok Sabha* elections, 1989–2014, under an equally distributed scenario

	BJP			*INC*		
Year	*Seats won*	*Seats under equal distribution*	*Votes per seat contested*	*Seats won*	*Seats under equal distribution*	*Votes per seat contested*
2014	282	278	401,075	44	18	230,465
2009	116	40	181,144	206	183	270,707
2004	138	131	237,285	145	130	247,983
1999	182	165	255,345	114	109	227,638
1998	182	147	242,954	141	50	199,394
1996	161	72	144,884	140	110	183,375
1991[a]	120	56	116,821	244	276	200,628
1989[b]	85	34	151,873	197	207	233,126

Source: Own calculations from Election Commission of India data

[a]Including delayed elections in Punjab held in 1992

[b]Elections were not held in Assam because electoral rolls were incomplete.

of seats the party *would* have won or lost under this 'equally distributed' scenario.

In the six elections after (and including) the 1996 *Lok Sabha* elections, Table 7.4 shows that both parties would have lost seats under an equal distribution scenario. In the 2014 *Lok Sabha* elections, the BJP, with its 31.3 percent share of the vote (which translated to 401,075 votes *per constituency contested*), won 282 seats. If it had received exactly 401,075 votes in *each* of the 428 constituencies it contested in 2014, it would have won 278 seats, or in other words, the unequal distribution of its vote across the 428 seats it contested enabled it to win an additional four seats. Similarly, in the 2014 *Lok Sabha* elections, the INC, with its 19.3 percent share of the vote (which translated to 230,465 votes *per constituency contested*), won 44 seats. If it had received exactly 230,465 votes in *each* of the 464 constituencies it contested in 2014, it would have won only 18 seats, or in other words, the unequal distribution of its vote across the 464 seats it contested enabled it to win an additional 26 seats.

The effect of distribution, on the number seats won, varied by election. As Table 7.4 shows, the effect of inequality in the inter-constituency distribution of the BJP vote, on the number of seats it won, was greatest in 1989, 1991, 1996, and 2009. In these elections, the distribution of its vote helped it win a large number of additional seats: 51 seats in 1984; 64 seats in 1991; 89 seats in 1996; and 76 seats in 2009. By contrast, the effect of distribution on the number of seats won by the INC was more muted. The most marked effect was in 1998 when its vote distribution across the constituencies helped it win an additional 91 seats; apart from this particular election, the INC vote distribution, compared to the BJP vote distribution, added far fewer seats to what it would have won with an equal distribution of votes across the constituencies.

7.5.2 Simulation B: Equal Number of Votes Received

In the second simulation (simulation B), it was assumed that the INC and the BJP received the same number of votes nationally—which was the average of their respective national vote—but that the distribution of the vote across the constituencies remained unchanged for both parties. So, for example, for the 2014 *Lok Sabha* election, it was assumed that both the INC and the BJP received 139,297,888 votes—which was an average of the INC's 106,938,240 and the BJP's 171,657,552 votes—and

that in *each* of the constituencies contested by them, their respective votes *increased or decreased proportionately* to the change in their national votes.

In other words, in the *Lok Sabha* elections of 2014, the INC vote was marked *up* by multiplying the number of votes it received, in each of the 464 constituencies it contested, by1.3, and the BJP vote was marked *down* by multiplying the number of votes it received, in *each* of the 428 constituencies it contested, by 0.81.[4] The implication of this was that the *distribution* of the INC and the BJP vote remained unchanged: any inequality index like the Gini or the MLD would yield the same value on both the old and new set of INC—and on the old and new set of BJP—constituency votes.

Table 7.5 shows that in 2014, even with the INC and the BJP receiving the same number of votes—with the INC increasing its votes by 32.4 million votes with the BJP's vote falling by an equal amount—the INC would have won 122 seats compared to the BJP's 229. As a result of these extra 32.4 million votes, the INC would have gained won only 78 seats (44 to 122) while the loss of 32.4 million votes would have deprived the BJP of only 53 seats.

Suppose that if distribution did not matter, the two parties, which shared the vote equally between them, would have also won an equal number of seats: for the 2014 *Lok Sabha* election, this would have been 163 seats each.[5] So, in the 2014 *Lok Sabha* election, for reasons of vote distribution, the INC, which under this simulation was predicted to win 122 seats (see Table 7.5), *under-performed* by 41 seats, or by 25 percent of its equal division of 163 seats, and the BJP, which under this simulation was predicted to win 229 (see Table 7.5) seats *over-performed* by 66 seats, or by 40 percent of its equal division of 163 seats.

In the 2009 *Lok Sabha* election, the equal division of votes was 98,773,088 which represented a shortfall for the INC (which received 119,110,824 votes in this election), and a bonus for the BJP (which received 78,435,352 votes in this election) of 20,337,736 votes. Under this scenario, we might have expected both parties to each win 161 seats. However, it turned out that the INC would have won only 100 seats (61 fewer than expected 161 seats), and the BJP would have won 184 seats (23 more than the expected 161 seats). So, in the *Lok Sabha* election of 2009, for reasons of vote distribution, the INC, which (under this simulation) was predicted to win 100 seats *under-performed* by 61 seats, or by 38 percent of its equal division of 161 seats, and the BJP, which (again under

Table 7.5 BJP and INC seats for eight *Lok Sabha* elections, 1989–2014, under an equal voters' scenario

	Actual votes		*Equal votes*	*Equal seats*	*INC*		*BJP*	
	INC	*BJP*	*INC & BJP*	*INC & BJP*	*Seats won*	*Predicted seats won*	*Seats won*	*Predicted seats won*
1989	118,894,704	34,171,476	76,533,088	141	197	55	85	133
1991	102,059,792	55,953,668	79,006,728	183	244	144	121	204
1996	96,034,448	67,697,336	81,865,888	150	139	80	161	211
1998	95,111,128	94,266,192	94,688,656	162	141	140	182	182
1999	103,120,328	86,562,208	94,841,264	148	114	84	182	210
2004	103,408,952	86,371,560	94,890,256	142	145	122	138	161
2009	119,110,824	78,435,352	98,773,088	161	206	100	116	184
2014	106,938,240	171,657,552	139,297,888	163	44	122	282	229

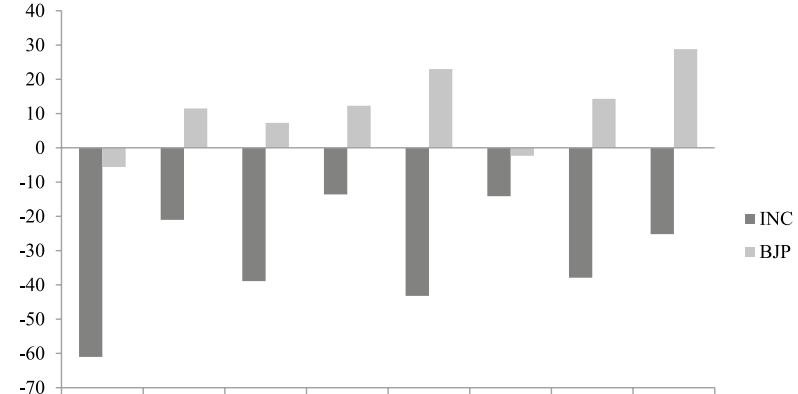
Source: Own calculations from Election Commission of India data

this simulation) was predicted to win 184 seats *over-performed* by 24 seats, or by 15 percent of its equal division of 161 seats.

Figure 7.4 shows the under- and over-performance rates of the INC and the BJP for every *Lok Sabha* election since 1989. The important point that emerges from this figure is that the INC has always under-performed as a party: it has always failed to translate an equal division of votes between it and the BJP into an equal division of seats. By contrast, except for the 1989 and 2004 *Lok Sabha* elections, the BJP has always over-performed: it has succeeded in translating an equal division of votes between it and the INC into a (favourable) unequal division of seats.

7.6 Concluding Remarks

This chapter highlighted the importance of the distribution of a party's votes in determining the number of seats it wins under a FPTP system. The ominous message that the results of this chapter contain for the INC



	1989	1991	1996	1998	1999	2004	2009	2014
INC	-61	-21	-38.9	-13.6	-43.2	-14.1	-37.9	-25.2
BJP	-5.6	11.5	7.3	12.3	23	-2.3	14.3	28.8

* Negative and positive values represent, respectively, under-performance and over-performance.

Fig. 7.4 INC and BJP under- and over-performance with respect to seats when each received an equal number of votes* (*Negative and positive values represent, respectively, under- and over-performance). *Source*: Own calculations from Election Commission of India data

is that even it received the same number of total votes as the BJP, it would still, because of differences between them in their vote distributions, win fewer seats. For the INC to nullify the effects of its distributional disadvantage, it must raise its electoral popularity substantially above that of the BJP.

Or else, it must improve its vote distribution. As the previous chapters have pointed out, the BJP enjoys a considerable advantage over the INC in the 204 constituencies in the Hindi-speaking states while the INC does not enjoy, to the same degree, advantage over the BJP in the non-Hindi-speaking states. This is an area that the INC needs to redress, either on its own or, more plausibly, with strategic alliances with like-minded parties.

Notes

1. See Hirschman (1964).
2. The Gini coefficient is defined in Chap. 2.
3. While the number of consistencies a party contests sets an upper limit to the number of seats it can win, it does not follow that that the more seats it contests, the larger will be the number of seats it wins: in the *Lok Sabha* election of 1999, the INC contested 453 constituencies but won only 114 seats, while the BJP contested 339 constituencies and won 182 seats.
4. 1.3 = 139, 297,888/106,938,240 and 0.81 = 139, 297,888/171,657,552.
5. The average of the 282 and 44 seats won, respectively, by the BJP and INC.

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CHAPTER 8

Conclusions

Abstract Borooah concludes that although India's experience of coalition governments, or minority governments with outside support, has been largely unfavourable, such governments are likely to be the main feature of Indian politics in future years. Coalition government in India is provided in the context of the FPTP system allied to strong regional parties. A combination of the electoral system and the strength of the regional parties means that such parties can exercise inordinate influence on national politics, through the strength of their presence in the *Lok Sabha*, even if this strength is based on a localised vote which is but a sliver of the national vote. Consequently, while one might be sanguine about the prospects for Indian democracy, the prospect of effective government is less certain.

The foundations of this book lay in a set of data which recorded the details of the election result for each candidate, for all the constituencies, in every *Lok Sabha* General Election from 1962 to 2014. The edifice built upon this foundation, and discussed in the preceding chapters, was the result of interrogating these data. The central purpose of this interrogation was to give shape to the notion of 'electoral efficiency' by which is meant the capacity of a party to convert votes into parliamentary seats. Parliamentary elections in India—and also elections to its state Assemblies—are conducted under the FPTP system: a single representative for each of 543 constituencies is elected—on the basis of obtaining the largest number of

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votes of all the candidates contesting that constituency—as a member of the *Lok Sabha* for that constituency. The disjoint, under the FPTP electoral system, between the votes obtained by a party and the seats won by it frequently causes surprise, sometimes bordering on consternation. The primary purpose of this book was to throw light on this relationship for Indian parliamentary elections.

Given that India's two main political parties—the INC and the BJP—receive, between them, over half the national parliamentary vote, the analysis in this book is restricted to a comparison of the relative electoral efficiencies of these two parties. This leads to a further constraint. The BJP made its electoral debut in the 1984 *Lok Sabha* elections, winning just two seats, but really got into its stride in the 1989 *Lok Sabha* elections when it won 85 seats. Consequently, a great deal, but not all, of the analysis in this book is a comparison of the INC and the BJP and, consequently, restricted to the eight *Lok Sabha* elections of 1989, 1991, 1996, 1998, 1999, 2004, 2009, and 2014.

The tenor of this book was analytical, based upon a rigorous examination of the data. In the process, it drew upon the methodology of economics and statistics to shed light on electoral outcomes in India. Chapter 3 used systems estimation techniques to predict the probabilities of the INC and BJP winning elections—and Chap. 5 used systems estimation techniques to predict the vote shares of the INC and the BJP—in constituencies contested by both parties; Chap. 4 used Bayesian methods to analyse the issue of anti-incumbency; Chap. 6 refined the concept of the 'Cubic Law of Elections' to develop the concept of the 'amplification coefficient' which amplifies votes into seats; and Chap. 7 measured vote concentration and vote inequality with particular reference to the decomposition of inequality and carried out two significant simulations with regard to the inter-constituency distribution of the INC and BJP vote.

A consistent feature of the results was that the BJP was better at converting votes into seats than the INC. *Ceteris paribus*, it was more likely to win marginal seats (Chap. 3); its predicted vote share was higher than that for the INC in seats contested by both parties (Chap. 5); it required a smaller vote share than the INC to win the same number of seats (Chap. 6); and because it dominated the Hindi-speaking states, its vote distribution was much more favourable to winning seats than the INC: if the two parties received the *same* number of votes nationally, the BJP would win more seats than the INC.

None of the analysis presented in this book is intended to imply that the INC can never win more seats than the BJP. What the analysis does suggest is that compared to the BJP, it will have to do much better at the polls to obtain a comparable result in terms of seats. The key to this result lies in the 204 constituencies in the seven Hindi speaking (HS) states of Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Rajasthan, Uttarakhand, and Uttar Pradesh. The advantage that the BJP has over the INC in these states is not nullified by the advantage that the INC has over the BJP in constituencies in the non-HS states. To put it in perspective, two-thirds of the nearly 107 million votes obtained by the INC in 2014 were from the 306 constituencies it contested in the non-HS states and one-third came from the 158 constituencies it contested in the HS states; for the BJP, on the other hand, 48 percent of its total vote in 2014 was from the 236 constituencies it contested in the non-HS states and 52 percent came from the 192 constituencies it contested in the HS states.

And yet, on this book's analysis, single-party majority governments are unlikely to be seen frequently. The height of the 'Modi wave' in 2014 was considerably lower than that of the 'Indira wave' in 1971 or the 'Rajiv wave' of 1984. The strength of regional parties—in Tamil Nadu, Andhra Pradesh, West Bengal, and Uttar Pradesh—ensures that elections are no longer a zero-sum game between two parties. So, notwithstanding the current BJP majority government, it is difficult not to concur with Rudolph and Rudolph (2002) when they suggest that coalition government has come to stay in India.

It is unlikely that single-party government will be provided by any party other than the INC or the BJP. For either to win a majority in the *Lok Sabha*, they would need to win at least 30 percent of the national vote, probably more for the INC. Since, between them, they received, on average, 50–55 percent of the post-1984 national vote, this would require the vote of the losing party to collapse to about 20 percent (which is close to the INC's vote share of 19.5 percent in the 2014 *Lok Sabha* elections). This, in turn, implies a large dose of disillusionment with the losing party which, given that the INC vote share of 19.5 percent, alluded to above, followed on the heels of its shambolic United Progressive Alliance (UPA) government of 2009-14, is unlikely to be repeated.

An anxiety to which this prognostication gives rise is that India's experience of coalition governments, or minority governments with outside support, has been largely unfavourable. In terms of stability, only three governments—The National Democratic Alliance (NDA) government

formed after the *Lok Sabha* elections of 1999, and the UPA-I and UPA-II formed after the *Lok Sabha* elections of, respectively, 2004 and 2009—completed their five-year parliamentary terms. The others have been short-lived, either because of rivalries for the job of prime minister (the 1977 Janata Party government) or through constituent parties withdrawing support over 'issues' (the BJP withdrawing its support to the 1989 'National Front' government and AIADMK withdrawing its support to the 1998 [BJP-led] NDA government). At the same time, stability *per se* has not been a guarantor of good government: the UPA-II government (2009–2014) was, in its later stages, mired in scandal as coalition ministers exploited their ministerial positions to make money.

The worrying feature of coalition government in India is that it is provided in the context of the FPTP system allied to strong regional parties. A combination of the electoral system and the strength of the regional parties means that such parties can exercise inordinate influence on national politics, through the strength of their presence in the *Lok Sabha* even if this strength is based on a localised vote which, furthermore, is but a sliver of the national vote. After the 2014 *Lok Sabha* elections, six regional parties—the All India Anna Dravida Munnetra Kazhagam, the All India Trinamool Congress, the Biju Janata Dal, the Shiv Sena, the Telugu Desam Party, and the Telangana Rashtra Samithi—between them held 136 of the 543 (25 percent) seats in the 16th *Lok Sabha* on the strength of just 14 percent of the national vote. Under plausible scenarios, any one of these parties, with such parliamentary strength, would be in a position to topple a government. So, while one might be sanguine about the prospects for democracy in India, the prospect of effective government following on the heels of *Lok Sabha* elections is less certain.

> "King rules or barons rule
> The strong man strongly and the weak by caprice
> They have but one law, to seize the power and keep it,
> And the steadfast can manipulate the greed and lust of others,
> The feeble is devoured by his own".
>
> (T.S. Eliot, *Murder in the Cathedral*)

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