Incumbency Effects in Indian Elections – A Preliminary Exploration

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Abstract:
“Anti-incumbency” is a familiar refrain among politicians and journalists around election time. In this paper, we attempt to empirically detect and analyze incumbency effects in Lok Sabha elections in India. We define incumbency effects as the change in the proportion of votes polled by an incumbent party candidate from that in the previous election in a particular constituency. We show that Indian elections are frequently marked by a constituency-level anti-incumbency effect. However, regarding the effect on votes polled by a “ruling party at centre” candidate, there is no consistent pattern over time. Being in power at the centre may act for or against a party or leave it unaffected at the polls.

* We thank Kajli Bakshi and Ong-Ard Singtokul for research assistance.
Incumbency Effects in Indian Elections – A Preliminary Exploration

I. Introduction

“Anti-incumbency” is a familiar refrain among politicians and journalists around election time. There is a general impression that being in office works against a candidate or party in an election in India. At the same time, parties routinely nominate sitting MPs and MLAs as their candidates in next elections. A systematic empirical study of the effects of incumbency on votes in India is lacking. The causes of this lacuna are not hard to find. First, systematic and comprehensive data on Indian elections have only recently become available in a user-friendly form. Besides, the multi-party system and shifting electoral alliances in India make the job of the researcher significantly difficult.

Nevertheless, the question of incumbency effects has been studied extensively by political science researchers. There is considerable consensus on the incumbency benefits in US Congressional elections [see Levitt and Wolfram (1997)]. However, defining and measuring incumbency effects in the Indian setting are considerably more difficult than in countries with two-party systems like the USA. In fact, it is only recently that a more or less comprehensive statistical model for analyzing multi-party elections has made its appearance [see Katz and King (1999)].

In this paper, we attempt to empirically detect and analyze incumbency effects in Lok Sabha elections in India. We labor under considerable odds. The shifting sands of political alliance, birth and death of political parties and party-switching among candidates all combine to make our inquiry difficult. Nevertheless, we carry out what, to the best of our knowledge, is among the first systematic analyses of Indian electoral data devoted to the question of incumbency effects. Our results should be of interest to researchers, commentators and political strategists alike and would hopefully spur further empirical research in the area.

We pose the following research questions: Is anti-incumbency an electoral myth or reality in India? How has the incumbency effect evolved over the decades? Does incumbency matter at the constituency or national level?
The results of our study may be summarized like this. Anti-incumbency, as measured by a simple decline in the proportion of votes polled by the incumbent party is indeed a salient feature of Indian elections. Barring 1957 and 1971, it has been considerable and statistically highly significant in every general election. As for a pattern of anti-ruling party bias in the polls, that, however, is far from consistent and varies from year to year with both pro- and anti-ruling party effects showing up in different elections.

The rest of the article is structured as follows. In the next section, we provide a brief discussion of the literature on incumbency effects as well as that on Indian elections. The following section describes our data and provides an overall picture of Loksabha elections taken through a statistician’s lenses. The fourth section describes our tests and presents our findings. The final section concludes with pointers towards future research.

II. Literature Review

The literature on incumbency effects on election results is extensive and of considerable vintage [See, for instance, Erickson (1971), Alford and Hibbing (1981), Jacobson (1987), Cox and Katz (1994) and Levitt and Wolfram (1997)]. Most attention has been focused on the US Congressional elections establishing beyond reasonable doubt that US Representatives enjoy a considerable incumbency advantage when going for re-election. Furthermore, the advantage is, in fact, increasing.

In spite of this extensive study, however, questions about the methodology persist. Gelman and King (1990) point out that the most popular definitions and measurements of incumbency bias are riddled with statistical estimation problems. They argue that both of the two most common measures of incumbency bias – “sophomore surge” and “retirement slump” – suffer from estimation biases. The first refers to the increase in percentage of votes polled by an incumbent candidate seeking his first re-election and is an underestimate. The latter captures the decline in vote share for the party when an incumbent retires and is an overestimate. Alford and Brady (1988) use a combination of the two – named “slurge” – as a measure, which reduces the estimation problems. Levitt
and Wolfram (1997) take into account the Gelman and King (1990) improvements and decompose the incumbency advantage into its separate elements.

None of these studies, not their methodology is directly applicable to the Indian situation simply because they are developed in the context of the two-party US system whereas the Indian context is that of multiple political parties. An exact statistical approach to analyzing multi-party elections was developed by Katz and King (1999) and used in Honaker et al (2002) to analyze the British elections. This approach comes closest to what can be reliably used in the Indian situation. In fact, Indian electoral data poses even greater challenges given the instability of political parties, the co-existence and shifting alliance between national and regional parties and considerable party-switching among candidates.

Given these challenges, it is not surprising that relatively few formal empirical analyses of Indian election results have been attempted over the years. In recent years Virmani (2004) analyzes Indian electoral data to answer a broad range of questions regarding economic development and voter behavior. He argues that the “anti-incumbency” effect is driven by lack of good governance with the view that it requires a minimum level of governance efforts to counter the natural decay of public goods and services. Kumar (2003) focuses on the question of incumbency effects and studies it in terms of seat-level wins and losses by ruling parties.

The present article builds on these works by focusing on constituency-level electoral panel data that allows us to examine the distribution of votes in different constituencies in different elections. As opposed to Kumar (2003) we use the change in proportion of votes won as the chief indicator of polling performance. The distinction is important since the winner in Indian elections is often determined by the number of main contenders in an election. Thus an incumbent may increase his share of votes and still lose an election simply because his political rivals may have agreed to put up a unified front against him. Looking at the proportion of votes cast rather than ‘probability of winning’ thus allows us to define and measure the incumbency bias more accurately.

III. Data and a snapshot of Indian elections
The pre-2004 data for our study come from a dataset created by the Center for Development Studies while the 2004 data is obtained from the Election Commission webpage. The data cover all Lok Sabha elections from 1952 through 2004. The dataset provides information on constituency-level electoral results. Table 1 summarizes some of the key characteristics of Indian general elections over the years.

[Table 1 about here]

It is quite apparent from table 1 that the typical Lok Sabha seat has always witnessed a multi-cornered contest. The number of independent candidates per seat peaked in the 90’s, but even in the last few elections, several parties have contested the typical seat along with a few independent candidates. Over the years, however, the Lok Sabha elections have become more hotly contested as is evident from the declining winning margin in terms of share of the valid votes cast. The last election (2004) appears to have gone against that trend, though. It is also clear from the table that, notwithstanding the multiplicity of candidates, the average constituency traditionally witnesses a direct fight between the winner and the runner up, who together garner over 80% of the votes cast. However, the “also-rans” may, have an impact in deciding the result in the median constituency as their collective vote share frequently exceeds the winning margin. In 2004 for instance, their share, on average, was over 17% of votes cast, far above the approximately 12% average winning margin. Thus there is enough vote splitting to queer the ground for the major contestants.

The above snapshot of the Indian elections helps set the stage for the definition and discussion of incumbency effects in Indian general elections and puts the results that follow in a clearer perspective.

IV. Incumbency Effects

We define a constituency-level “incumbency effect” as simply the change in the share of valid votes polled by a candidate from the incumbent party (the party that won the previous election from the constituency in question) from that in the previous
election. Clearly several alternative definitions of “incumbency effect” are reasonable as well. One could think of incumbency at the individual candidate level rather than at the party level. One could also think of incumbency in terms of being in power at the national or state level rather than holding the constituency itself. One may advocate the use of “probability of winning” as opposed to change in vote share as the more appropriate measure of “incumbency effect”. Furthermore, one could raise questions about measuring the “incumbency effect” when an incumbent party wins the seat more than once. In such a situation, the previous election vote share may, arguably, be an incorrect benchmark for measuring incumbency effect.

While these reservations have their merits, our choice of the measure of “incumbency effect” can be defended. While a candidate’s individual identity is an important question in deciding an election, in the hugely partisan politics of India, it is likely that the party identity is far more important. While many candidates have strong pockets of influence in their constituencies, most would have a hard time winning an election as an independent candidate (they can, of course, often have enough clout to ensure the defeat of the official party candidate if they are denied tickets). Therefore we select the party rather than the candidate as our unit of analysis. Of course, our approach also allows for separate measurement of the individual candidates’ incumbency effect in addition to the party effect. As for the question of constituency-level incumbency versus state or national level incumbency, we go with the former because it is difficult to specify a priori the voters’ decision making process. The Indian voter is known to be quite astute, electing opposing parties at the state and national level elections held within short intervals. Our approach, once again, allows us to take into account state and national level incumbency effects separately. We refrain from using the “probability of winning” approach, since we have access to the exact number and share of votes and the actual vote shares directly capture as much information as a “probability of winning” measure. Finally, the question of repeat incumbents, though reasonable, is unlikely to bias our analysis if we believe that the incumbency effect, if any, would compound with repeated incumbency. Thus we believe our definition of “incumbency effect” satisfactorily captures the notion in the complex electoral environs of India. In the analysis that follows, we exclude the 1980 elections since the splintering of the Janata Party in 1980
makes determination of incumbent candidates difficult in a large number of constituencies in that election.

Figure 1 shows the average incumbency effect in the different elections and the t-values associated with them. The dotted line marks the threshold of statistical significance for the t-values. It is apparent that except for 1957 and 1971, “anti-incumbency” has, as rumored, been strong and statistically significant in all elections. The 1971 elections, held in the glow of Indian victory in the Bangladesh War, actually exhibited a surprisingly strong “pro-incumbency” effect. Barring that, the general effect seems to be strongly negative shaving off, on average, 5% votes from the incumbent party (7% if we exclude the 1971 election). With the average winning margin hovering around 10% in recent years, the 5-7% “anti-incumbency effect” is large enough to play a deciding role in electing governments at the center.

An important question that arises in the analysis of electoral results is whether being in power provides any benefits or disadvantages in terms of incumbency effects for a party. In fact, the term “incumbency” is frequently used in the popular press in precisely this sense, with “anti-incumbency” meaning a withdrawal of voters from the part in power. This effect is well tested using the metric we employ in this study, the change in proportion of votes polled by an incumbent candidate. To analyze the effect of “being in power” on the incumbency effect we essentially use the Analysis of Variance (ANOVA) approach. We divide our sample of incumbents in each election into two groups – candidates from parties that were in power at the center in the outgoing Lok Sabha and candidates that were “out of power”. The difference in the incumbency effects between these two groups, while taking into account the within-group variability of incumbency effects, gives us a picture of the pro-or-anti-ruling party swing among the voters. The results of this analysis are presented below in Table 2.

[Table 2 about here]

Table 2 shows the difference between change in proportion of votes polled by incumbent candidates from the ruling party and that for other candidates along with the associated values of the F-statistic. In contrast to the picture in Figure 1, table 2 shows no
uniform pattern. Different elections exhibit different swings. 1971 stands out as the election with the greatest pro-ruling party effect – presumably an effect of the 1971 war victory – while there are other years, notably 1962 and 1984 when the ruling party scored big – the latter perhaps owing to Mrs. Gandhi’s assassination. On the other hand 1977, 1989, 1996 and 1998 all showed substantial anti-ruling party voting trends. Some years, including 1999 and 2004 most recently, show neither effect to be statistically significant though in 2004 the average “anti-ruling party bias” is the highest among all non-significant negative biases. Thus it cannot be said that the ruling party is always or even generally at a disadvantage in the polls. The electorate can and does judge performance though it may be emotionally swayed by great national events. Anti-incumbency effects, if any, are stronger and consistent at the constituency level than at the national level.

Using constituency-level incumbency effects to detect and measure voter sentiment towards parties in power is only one measure of this important effect. Other measures are possible and should be investigated in future research to corroborate or challenge our conclusions regarding the “ruling party effect”.

V. Conclusions

We define incumbency effects as the change in the proportion of votes polled by an incumbent party candidate from that in the previous election in a particular constituency. We show that Indian elections are frequently marked by a constituency-level anti-incumbency effect. However, regarding the effect of votes polled by a “ruling party” candidate, the pattern is less consistent with different elections showing different patterns.

The present paper attempts to open up an interesting and important topic for empirical analysis. It perhaps raises more questions than it answers. One could very well ask the question, who is the real “incumbent” – the individual candidate or the party? What factors other than being the ruling party the center affect the incumbency effect? How does being a ruling party in the concerned state affect the incumbency effect? Is there a geographic pattern in the incumbency effects? We, of course, know of the consistency with which Left Front candidates have won in West Bengal? Is it despite the
anti-incumbent erosion pointed out in this paper? Do the effects persist even after accounting for economic growth and social development in the states? Does the electorate adequately reward good economic policy formulation?

The analysis of incumbency effect is but one of countless important questions that can and should be raised about Indian elections. With the availability of constituency level data, such questions can now be answered more easily. A better understanding of the Indian electorate is essential not just for the politicos and the forecasters but to the extent that all policy is formulated within the democratic structure of Indian body politic, it is indeed critical for successful economic and social policy formulation and implementation.
References


Cox, Gary and Jonathan Katz, 1994, “Why Did the Incumbency Advantage in U.S. House Elections Grow?”, Mimeo, Department of Political Science, University of California at San Diego


Table 1: A constituency-level summary of the Lok Sabha elections

<table>
<thead>
<tr>
<th>Election Year</th>
<th>No. of seats</th>
<th>No. of candidates</th>
<th>No. of Independents</th>
<th>Total valid votes</th>
<th>Voter turnout (%)</th>
<th>Winning margin (votes)</th>
<th>Winning margin (% of votes)</th>
<th>Winner's share (% of votes)</th>
<th>Top 2 candidates' share (% of votes)</th>
</tr>
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<tbody>
<tr>
<td>1952</td>
<td>401</td>
<td>4.7</td>
<td>2.1</td>
<td>1.3</td>
<td>1.3</td>
<td>264,110</td>
<td>206,411</td>
<td>53.3</td>
<td>16.6</td>
</tr>
<tr>
<td>1957</td>
<td>403</td>
<td>3.8</td>
<td>1.9</td>
<td>1.2</td>
<td>1.2</td>
<td>299,042</td>
<td>229,219</td>
<td>54.2</td>
<td>16.0</td>
</tr>
<tr>
<td>1962</td>
<td>494</td>
<td>4.0</td>
<td>1.6</td>
<td>1.0</td>
<td>1.2</td>
<td>233,135</td>
<td>69,056</td>
<td>53.3</td>
<td>12.4</td>
</tr>
<tr>
<td>1967</td>
<td>520</td>
<td>4.6</td>
<td>2.1</td>
<td>1.7</td>
<td>1.8</td>
<td>280,513</td>
<td>76,384</td>
<td>58.6</td>
<td>11.2</td>
</tr>
<tr>
<td>1971</td>
<td>518</td>
<td>5.4</td>
<td>2.6</td>
<td>2.2</td>
<td>2.1</td>
<td>283,016</td>
<td>80,553</td>
<td>53.4</td>
<td>11.5</td>
</tr>
<tr>
<td>1977</td>
<td>542</td>
<td>4.5</td>
<td>2.3</td>
<td>2.3</td>
<td>2.1</td>
<td>348,556</td>
<td>87,482</td>
<td>58.8</td>
<td>10.0</td>
</tr>
<tr>
<td>1980</td>
<td>542</td>
<td>8.5</td>
<td>5.3</td>
<td>5.2</td>
<td>4.9</td>
<td>364,989</td>
<td>108,671</td>
<td>55.8</td>
<td>10.2</td>
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<tr>
<td>1984</td>
<td>542</td>
<td>10.1</td>
<td>6.4</td>
<td>7.2</td>
<td>6.0</td>
<td>460,561</td>
<td>111,103</td>
<td>62.5</td>
<td>10.1</td>
</tr>
<tr>
<td>1989</td>
<td>529</td>
<td>11.6</td>
<td>8.7</td>
<td>7.0</td>
<td>8.1</td>
<td>568,575</td>
<td>151,635</td>
<td>60.4</td>
<td>11.4</td>
</tr>
<tr>
<td>1991</td>
<td>537</td>
<td>16.3</td>
<td>11.1</td>
<td>10.3</td>
<td>9.7</td>
<td>518,106</td>
<td>155,398</td>
<td>54.6</td>
<td>12.7</td>
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<tr>
<td>1996</td>
<td>543</td>
<td>24.0</td>
<td>14.9</td>
<td>18.0</td>
<td>13.2</td>
<td>616,710</td>
<td>168,146</td>
<td>57.3</td>
<td>12.9</td>
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<tr>
<td>1998</td>
<td>543</td>
<td>8.8</td>
<td>4.3</td>
<td>3.5</td>
<td>3.4</td>
<td>678,892</td>
<td>155,929</td>
<td>61.3</td>
<td>9.2</td>
</tr>
<tr>
<td>1999</td>
<td>543</td>
<td>8.5</td>
<td>4.5</td>
<td>3.6</td>
<td>3.4</td>
<td>667,163</td>
<td>165,744</td>
<td>59.2</td>
<td>10.8</td>
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<tr>
<td>2004</td>
<td>543</td>
<td>10.0</td>
<td>4.9</td>
<td>4.4</td>
<td>3.8</td>
<td>717,021</td>
<td>181,994</td>
<td>58.9</td>
<td>11.8</td>
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</table>
Table 2: “Ruling party” status and incumbency effects

<table>
<thead>
<tr>
<th>Election Year</th>
<th>Ruling Party (dis)advantage [Incumbency effect (gain in incumbent party's share of votes): Ruling – Non-ruling]</th>
<th>F-statistic</th>
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</thead>
<tbody>
<tr>
<td>1957</td>
<td>3.38%</td>
<td>0.701</td>
</tr>
<tr>
<td>1962</td>
<td>8.97%</td>
<td>10.702**</td>
</tr>
<tr>
<td>1967</td>
<td>3.42%</td>
<td>3.688</td>
</tr>
<tr>
<td>1971</td>
<td>24.54%                                                                ** Significant at 5% (1%) level</td>
<td>249.829**</td>
</tr>
<tr>
<td>1977</td>
<td>-10.92%                                                               ** Significant at 5% (1%) level</td>
<td>25.023**</td>
</tr>
<tr>
<td>1984</td>
<td>13.55%                                                                ** Significant at 5% (1%) level</td>
<td>84.531**</td>
</tr>
<tr>
<td>1989</td>
<td>-8.73%</td>
<td>42.382**</td>
</tr>
<tr>
<td>1991</td>
<td>0.22%</td>
<td>0.015</td>
</tr>
<tr>
<td>1996</td>
<td>-9.95%</td>
<td>83.553**</td>
</tr>
<tr>
<td>1998</td>
<td>-9.61%</td>
<td>77.712**</td>
</tr>
<tr>
<td>1999</td>
<td>1.67%</td>
<td>3.158</td>
</tr>
<tr>
<td>2004</td>
<td>-3.34%</td>
<td>3.812</td>
</tr>
</tbody>
</table>

*1980 excluded
** Significant at 5% (1%) level
Figure 1: Incumbency Effect over the years

* 1980 excluded