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# Strength of Partisan and Candidate Ties in India<sup>#</sup>

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## Abstract

This study estimates the impact of incumbency on re-election prospects of parties and candidates in India, between 1977 and 2014, for *Lok Sabha* elections. We make use of regression discontinuity design to estimate the causal effect of incumbency by comparing outcomes in closely fought elections. Results indicate that on an average, incumbent parties are significantly disadvantaged in comparison to non-incumbent parties. Similarly, the causal impact of incumbency on candidates highlights significant disadvantage to the incumbents. Moreover, on comparing the results, we conclude that it is a candidate who is more disadvantaged than a party. This is indicative of stronger ties amongst voters and parties rather than with candidates.

**Keywords:** Elections, party, candidates, regression discontinuity design, incumbency

**JEL:** D72

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## 1. Introduction

'Incumbency' has been a widely studied theme of political economy literature. Questions like - "How does being in power effects re-election probabilities of the incumbent in the next election" or "what would be its impact on the vote share", have been studied extensively by many social and political scientists.

Political actors (parties or candidates) belong to one of the two groups - incumbents and non-incumbents, depending on their winning status in the last election. Further, they can either have well-placed morals and ethical values, or can be opportunistic and corrupt. But it is important to note that none of these characteristics are easily identifiable by the voters. So, when a voter goes to vote, how does s/he identify to whom s/he would want to vote for? Their decisions are influenced by the manifestos and political propagandas of these political actors, reflecting the political ideologies of these actors. Further, incumbents, by virtue of being in power, are in a better position to convince voters about their 'type'. Thus, if being in power can help a party or a candidate to garner support, then we can expect incumbency to have a causal impact on the re-election probability.

In this paper, we are analysing the impact of incumbency; however, the purpose here is to induce the strength of political alignment of the electorate, in case of *Lok Sabha* elections. In order to evaluate and compare the degree of association between the electorate and political actors, we make use of incumbency effects at candidate and party level.

Extant literature on incumbency effects has evaluated the impact of holding office on the electoral prospects of the candidate and for the party. Literature on incumbency effects for developed and developing countries display interestingly divergent patterns. In countries like the United States and Britain (developed nations), it has largely been observed that incumbents are more likely to win elections vis-a-vis the non-incumbents, mostly under the paradigm of bi-party system. In democratic systems, incumbents have access to resources that non-incumbents might not have. Stronger incumbents can, therefore, escalate the cost to the challengers, through the resources that only incumbents can have privileged access to. Hence, a challenger that does not have a strong financial back-up, may not be able to withstand competition from the incumbent. This further consolidates the position of the incumbent vis-a-vis the challenger.

Cummings (1966) analyses presidential elections over a forty year period. He compares the winning probabilities of an incumbent candidate with that of a non-incumbent candidate, by controlling for partisan loyalties and finds a significant benefit to the incumbents in the next

elections. Another paper, by Lee (2008) studies the causality between the incumbency status, vote share and re-election probability in the next election, from the point of view of party. He, too, observes a positive impact of incumbency, on both, vote share and re-election probabilities.

However, for many developing countries, the evidence suggests otherwise. Studies in these countries (Molina, 2001; Steeves, 1996; Fraenkel, 2006; Trease, 2005; Erikson et al., 2012) suggest that a significantly higher proportion of incumbents fails to get re-elected. For instance, in a study by Klasnja and Titiunik (2013), they analyse the electoral process of Brazilian Mayor's elections from 1969 onwards and find significant disadvantage to an incumbent party. They justify the results with the help of a theoretical model under which they argue that the presence of term limits negatively effects the incentive structure of individual politicians, due to which their party suffers systematic losses.

In the context of India, there exist very few studies that have studied the phenomenon of incumbency. These include one by Linden (2004) and other by Uppal (2009). Both of these have studied the incumbency effects for the candidates, former has analysed it for national elections, while latter has analysed it for state elections. Their results are coherent and point towards significant disadvantage to an incumbent candidate, especially for post 1991 period. It is important to note that both the studies have only looked at the impact of incumbency for a candidate and not for a party. In the literature, it has been highlighted that party identification is one of the most dominant considerations for the voters (Ansolabehere et al (2006)). Therefore, in this paper we study the impact of incumbency for a party, which has not been delved upon so far.

Politics and therefore, the elections in India, have been dominated by a single party, namely Indian National Congress, for a very long period of time, since independence. The party has served in "centre"<sup>2</sup> for more than 50 years and has won 11 out of total 16 general elections that have taken place in the country. However, political landscape has undergone a sea change in the course of these 16 elections. State elections of 1969 marked the first visible step towards this change, when INC lost its first ever election and witnessed the formation of a non-congress government. Following this, INC lost its first national election, election of 1977. As a result, the country observed the formation of first ever non-congress government in the "centre". A decade later, in the year of 1989, political terrain went another profound structural transformation, with the rise and strengthening of state and regional parties. It has given rise to the era of coalition governments by putting an end to one party rule.

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<sup>2</sup> "Centre" here refers to the lower house of the parliament.

With many notable changes having taken place since 1977, it becomes important to study the national elections in India. Therefore, this paper analyses the causal impact of incumbency on party and candidate, respectively, at constituency level<sup>3</sup>. The purpose is to identify the political alignments of the voters. We make use of an established quasi-experimental technique, Regression Discontinuity Design (RDD).

Our results indicate a significant disadvantage to the incumbents (at party and candidate level). However, our results suggest that on an average, an incumbent candidate is more disadvantaged than an incumbent party. These results are indicative of stronger ties between the Indian electorate and an incumbent party than with an incumbent candidate.

In the next section, we discuss description and source of data that has been used for analysis. Section 3 discusses the dynamics of Indian elections. The subsequent section, section 4, describes the estimation technique that has been employed and discusses the variables that have been used in the estimations. Section 5, discusses the results of the estimations and finally, we conclude this study in the last section, section 6.

## 2. Description of Data

We have used the data for national elections that have been made available by the Election Commission of India<sup>4</sup>. It covers elections from 1977 to 2014. As our study focuses on the Lok Sabha elections, we draw our relevant information from this data that features eleven Lok Sabha elections during this phase.<sup>5</sup> Thus, our data is a pooled cross-section that comprises of description on each candidate from each constituency, about the party it is contesting from, whether the seat was a reserved seat (for *Scheduled caste* (SC) or *Scheduled Tribe* (ST) candidate), absolute number of votes the candidate (party) has received. Information on the size of registered electorate and the number of voters who actually voted (voter turnout), is also provided. There is another aspect of this data: the delimitation process of constituencies on a regular basis, to keep population across each constituency maintained at a comparable level.<sup>6</sup> During our period of study, one such exercise has taken place, (i.e. under the Delimitation Act of 2002, which eventually got completed in 2008). This results into the creation of some new constituencies and non-existence of some of the old ones.

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<sup>3</sup> In this study, a party is treated as an incumbent party if it has won the last election, in a given constituency. Therefore, a party who is incumbent in a given constituency need not be the one who is in power in the “centre”.

<sup>4</sup> [http://eci.nic.in/eci\\_main1/ElectionStatistics.aspx](http://eci.nic.in/eci_main1/ElectionStatistics.aspx) accessed in the month of February 2015.

<sup>5</sup> The elections years that are included in the data are - 1977, 1980, 1984(85), 1989, 1991, 1996, 1998, 1999, 2004, 2009 and 2014.

<sup>6</sup> The task of delimitation has been entrusted with the Delimitation Commission of India, who is responsible for delimiting or reconstructing the boundaries of the state and national assemblies based on the new population data. So far, four delimitation exercises have taken place under the Delimitation Act of 1952, 1962, 1972 and 2002.

Further, the data suffers from some internal inconsistencies. These include the way in which names of the candidates are recorded. There are severe discrepancies in the spelling of a name from one year to another, with prefix and suffix added from time to time, like the use of honorific. The names of the constituencies and parties, too, suffer from these inconsistencies - variation in spelling and the manner in which they are recorded. The data has been manually corrected for these issues.

### **3. Dynamics of Indian Elections**

In this section, we discuss some broad time trends and descriptive statistics from the data. In *Table 1*, overall time trends of certain important variables have been discussed, that may influence re-election rates. One such variable is the competition, at candidate and at party level, respectively. It measures number of candidates and number of parties, respectively that contest a given election, from a particular constituency. During the period under consideration, level of competition has increased in terms of number of parties as well as number of candidates. This increase in the level of competition impacts margin of victory (MoV), which is basically the difference of vote share of the winner from vote share of the first runner up. The margin of victory has fallen from 27% in 1977 to 10-15% in the post liberalisation period. However, inspecting the voter turnout, during the same time period, we observe that it has not changed drastically and hovers in the range of 55-60% of the total electorate. There are studies (e.g. Ezrow and Xezonakis, 2016) which suggest that voter turnouts are negatively related to the level of satisfaction of the electorate with the existing government machinery. To put it simply: higher is level of dis-satisfaction from the current government, larger is voter turnout; and stronger is the anti-incumbency wave.

Analysing *Table 1* in greater detail confirms the findings of Ezrow and Xezonakis (2016). The elections of 1977, 1998-99 and 2014, received some of the highest voter turnouts, which coincides with the negative incumbency wave for the parties that were in power at that time. Further, what we do observe from the table is, higher voter turnouts during “waves” in favour of a particular party. For instance, in the election of 1984, soon after the assassination of then Prime Minister, Indira Gandhi, there was huge a sympathy wave in favour of INC (can be observed from a very high voter turnout), that won them the 1984 election with thumping majority.

**Table 1: Time Trends of Lok Sabha Elections**

Year	Number of Candidates	Number of parties	Margin of Victory	Voter Turnout (%)
1977	05	2	0.27	60.7
1980	09	3	0.19	56.5
1984	10	3	0.20	62.3
1989	12	5	0.16	60.5
1991	16	6	0.15	54.4
1996	25	6	0.12	55.4
1998	09	5	0.10	61.4
1999	09	5	0.10	59.0
2004	10	6	0.12	57.5
2009	15	8	0.10	57.6
2014	15	9	0.15	66.3
<b>Over all</b>	<b>12</b>	<b>5</b>	<b>0.15</b>	<b>59.2</b>

Note: Author's calculations. These figures depict averages for any given constituency

Next, in Figure 1 we show the trend for re-contest rates. We observe that on an average 40% of the incumbent candidates drop out from next election, against only 15% of the incumbent parties drop out from the following elections. It is important to note here, that attrition of the parties might actually be lower than stated, as some of the existing parties might be getting merged with other parties. An incumbent party's re-contest rates were on an average higher than those of an incumbent candidates, throughout the time period under consideration, except for the year of 1980. Lower rate of party re-contests in this election might probably be a result of loosely held coalition of Janta Party alliance with 295 seats, which got split in 1979, with several members of coalition, Bhartiya Lok Dal and members of erstwhile Socialist Party breaking away from this grand alliance. Thus, the incumbent party was no longer in place to re-contest the elections in 1980.

When we observe re-election rates, they have been more or less similar for an incumbent party as well as for an incumbent candidate, given that they have re-contested, as shown in Figure 2. These re-election rates are hovering around 50 percent for the re-contesting incumbent parties as well as candidates, which means that on an average, roughly 50% of incumbents (Parties or candidates) gets re-elected into power in the next election.

Figure 1: Re-contest rates of Incumbents

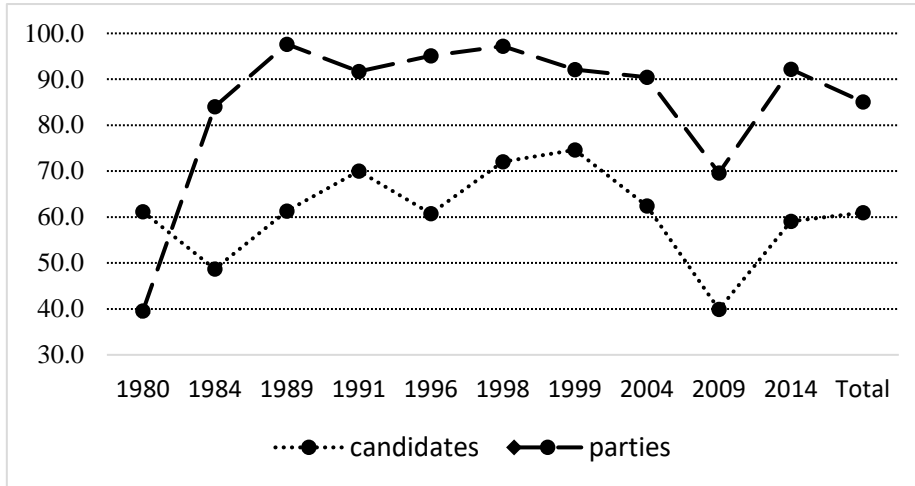
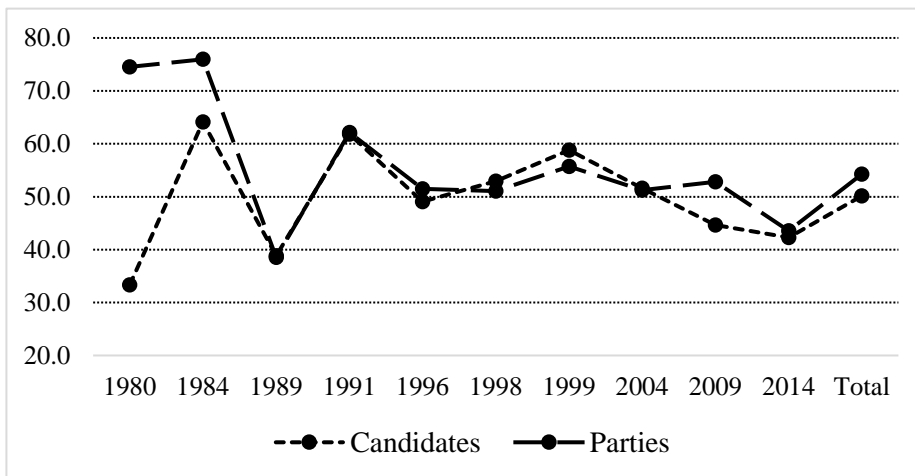


Figure 2: Re-election Rate of Incumbents

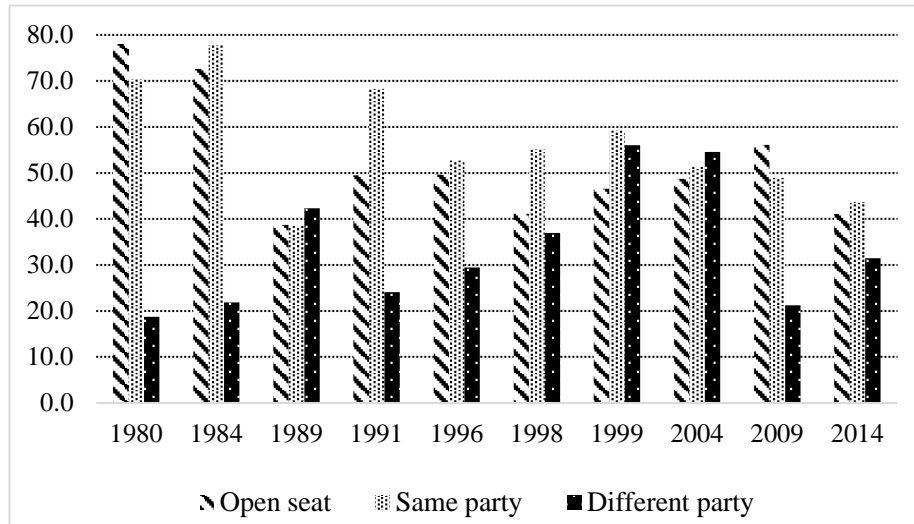


The re-election rates that we have discussed above, of party and candidate, have an element of the effect of the incumbency status of candidate and party, respectively. Thus, in an attempt to segregate the impact of incumbency status of party from the impact of incumbency of candidate, we analyse re-election rates for incumbent candidates who contest from an incumbent party with those incumbent candidates who contest from a different party (a non-incumbent party) in the next election. This gives us a crude measure of the impact of incumbency of a candidate. Similarly, we further compare the re-elections rates of an



incumbent party when it contests from an “open seat”<sup>7</sup>, with the case when the incumbent party contest with the incumbent candidate, to get a crude measure of the impact of incumbency of a party.

Figure 3: Comparison of re-election rates of candidates



On comparing the re-election rates of an incumbent party when it has contested from an open seat to the re-election rates of an incumbent candidate when it contested from a non-incumbent party (Figure 1Figure 3), we find that, on an average, the re-election rates of incumbent party, from an open seat, were higher than the re-election rates of incumbent candidate when s/he contested from a non-incumbent party. This finding points toward stronger effect of the incumbency status on the re-election rates for a party than for a candidate. It is, therefore, suggestive of a stronger party preferences than candidate preferences amongst the voters. These trends and statistics, thus, make a case to investigate the strength of the alignments in further detail using econometric tools.

In the next section, we discuss the methodology and estimation results, to estimate the causal impact of incumbency status on re-election probabilities of an incumbent party and an incumbent candidate.

#### 4. Estimation Methodology

The objective of this study is to estimate and compare the partisan incumbency effect with that of the candidate. Previous studies in this field has used methods like “sophomore surge” and “retirement slump” to estimate the causal impact of incumbency on the outcome of interest (probability of winning or vote share, in the next election). Sophomore surge is defined as the

<sup>7</sup> When an incumbent candidate has either dropped out or have left the incumbent party, to join some other party. In that case, the seat becomes an “open seat”.

gain in vote share enjoyed by the freshman incumbent running for re-election, while retirement slump is the average loss in the vote share of the incumbent party when the incumbent candidate retires. Gelman and King (1990) have shown in their study that sophomore surge underestimates and retirement slump overestimates the incumbency effect. However, their own measure of incumbency effect was not free from problems, too. Though, while constructing their measure for the effect of incumbency status, they did control for the partisan swings, they could not control for the quality of the candidates, which was a major confounding factor. All these measures have been used to estimate the incumbency effect at the candidate level and not at the party level.

#### 4.1 Regression Discontinuity Design

Recent empirical literature in this area extensively relies on the use of *Regression Discontinuity Design* (RDD), as an econometric tool to control for inherent selection effect. It is a quasi-experimental<sup>8</sup> approach which involves a dichotomous treatment being assigned, on the basis of a single deterministic continuous covariate, also called as the “forcing variable” or the “score”. Treatment is assigned to those individuals whose score crosses a known threshold value.

Thistlethwaite and Campbell (1960) pioneers the use of RDD in estimating treatment effects under a non-experimental setting. It is in the paper by Hahn et al (2001) which formally recognises that RDD actually requires mild continuity assumptions for identifying treatment effects as compared to any other non-experimental approaches or natural experimental approaches (difference-in-difference and instrumental variable). RDD is often treated as an approximation of the randomized control trials (RCTs) and is therefore, popularly known as quasi-experimental design.

In RD design, assignment to the treatment (D) is determined by a threshold value or a cut-off point (c), which is determined by the value of forcing variable (X). Observations on the left of the threshold serves as a reasonable counterfactual to the observations on the right, if we can assume that all the other factors effecting Y are continuous with respect to X.

$$Y = \alpha + X\beta + D\gamma + \varepsilon$$

Conventionally it is important to use observations closer to the cut-off for estimating effect of the treatment on the outcome variable. However, it is not always possible to do away with the observations that lie farther, especially in case of parametric estimation. In those cases,

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<sup>8</sup> Quasi experimental design is a research design, like experimental designs, that are used to test causal hypotheses. The design, by definition, lacks random assignment. The design is suitable in situations of ex-post impact evaluations.

researchers make use of higher order polynomials of the forcing variable. But as Gelman and Imbens (2014) highlights, the use of higher order polynomial terms (third or fourth order) can render results misleading because of substantially higher probability of Type-1 error.

In this paper, we perform estimations using parametric as well as non-parametric estimation technique, based on logit and OLS estimations and local randomization technique, respectively. outcome variable of interest is '*probability of winning*' in the next election, that is in (t+1) period. It is a binary variable, that takes a value of 1 if the party (candidate) has won the election in period t+1 and 0, otherwise. The other outcome variable that this paper looks at is the '*vote share*' in the next election (t+1), which is a continuous variable. The forcing variable in our study is the '*margin of victory*'. If the margin of victory is positive then, by construction, it assigns a party (candidate) into the treatment group (incumbency dummy takes value 1); and if it is negative then it assigns a party (candidate) into the control group (incumbency dummy takes value 0).<sup>9</sup>

The design is based on few important assumptions which should meet in order to ensure its internal validity. First of these assumptions to hold is that the distribution of observed covariates should not change discontinuously at the cut-off point. The assumption ensures that the comparison and treatment groups are same in terms of all baseline characteristics. It is because of this assumption that we can use the average outcome on the right of the threshold as a valid counterfactual for those to the left of it, which gives us the "average treatment effect". Next assumption, crucial for the internal validity of the design, is that the density of forcing variable should be continuous around the threshold. In simple terms, it means that individuals should have neither 'complete' nor 'precise control' (i.e. less than complete) over the *assignment variable*. If it is possible to precisely control the assignment variable and if treatment has significant positive effect, then we may witness individuals sorting or self-selecting themselves into the treatment. That is, individuals may get to precisely manipulate the assignment variable to get the treatment and would make the results biased. Thus, to validate the design, we will be testing for these assumptions in the result section (Section 5).

## 4.2 Description of Variables

In the paper, we focus on two main outcome variables – one, is the probability of winning and other, is the vote share, on which we estimate the causal impact of incumbency status of the party and of the candidate, separately. The unit of analysis is the given *Lok Sabha* constituency.

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<sup>9</sup> Our analysis has made use of sharp RDD, as the forcing variable precisely determines the treatment status, which corresponds to the incumbency status.

A party is recognised as an incumbent party if it is in power currently, in a given constituency, and every other party is the opponent party. In the following election the incumbent party will re-contest the election, with some probability, along with a gamut of opponents, which will also include independent candidates. However, since the focus is on the incumbency effects for the parties, information/data on independent candidates has not been used, as they were not associated with any party, *per se*.

Similarly, a candidate is defined as an incumbent candidate if s/he was the representative candidate of the elected party, last year. Like an incumbent party, an incumbent candidate, too, may not re-contest the election in the next period. He or she may drop out from the incumbent party and it is also possible that s/he might not re-contest at all, in which case s/he completely drops out from the elections. Therefore, for an incumbent candidate his/her incumbency status is defined on the basis of whether s/he is re-contesting or not, irrespective of the fact if they are doing it from the incumbent party or from some other party, but within a constituency.

Further, in order to control for the impact of delimitation, we include the lagged value of the variables in the estimation. This should be able to control for the partisan alignments that must have existed prior to delimitation. There are constituencies that have very weak alignments and hence, elect a different government every single time. Similarly, there are constituencies, like *Amethi* which has very strong partisan alignment with Indian National Congress party, which is evident from its election result in every *Lok Sabha* election. The idea behind controlling for one period lagged value of the dependent variable, is to capture the latest partisan alignments that a constituency is under and not to trace it from the beginning of the time.

Moreover, for the party level analysis, we control for whether a party in constituency is same as the incumbent party in the center. It has been defined as a dummy variable, which takes value 1 in cases when the ruling party in center is same as the contesting from a Lok Sabha constituency and 0, otherwise.

Normally, in RDD literature it is observed that adding covariates does not serve any purpose except for the fact that it helps in bringing down the standard errors of the estimation. We control for other variables (characteristics) that can possibly influence the outcome variable, for running validity checks and in parametric estimations.

Following is the list of variables that we make use of. First is voter turnout, it has been observed that higher voter turnout is associated with a higher degree of dissatisfaction among the voters with the existing political regime. Next, we control for 'number of parties' or 'number of candidates', for the party and candidate level analysis, respectively, that contest the election from the same constituency, to control for the level of competition in the constituency. We also

include variables capturing the political and electoral experience of party and candidate. The political experience variable captures the number of times a party or a candidate has been elected to power, before the election in question (period  $t+1$ ), while electoral experience captures the number of time a party or candidate has contested election, from a given constituency. We further augment the list of controls, by including a dummy for the reservation status of a constituency, which takes value 1 if the constituency is reserved and zero, otherwise. Similarly, a dummy has been introduced to capture the type of party (national party or regional party), as dynamics can differ for a national party in the national elections against a regional party in the national elections. This dummy takes value 1 if the party is a national party and zero, otherwise. Lastly, we also include for registered electorate (following Lee and Lemieux (2009)) to proxy for the eligible voting population of the constituency.

## **5. Estimation Results**

The paper analyses and compares the causal impact of the incumbency status on the re-election probability of the incumbent parties and of the candidates.

Estimations make use of parametric and non-parametric estimation techniques under the assumptions of RDD, at the level of party and candidate, separately. The ensuing discussion is divided into three parts - first, we discuss the validity checks of the estimation strategy, then the incumbency effects at party level and finally the incumbency effects at the level of candidate. Lastly, the causal impact in both the cases are compared to find out if it is a party that hold stronger ties with the electorate or is it a candidate.

### **5.1 Validity Checks**

Before discussing the results, it is important for us to establish the validity of the estimation strategy. In order to do that, we need to test for the two important assumptions that we have discussed in the previous section. One of them is 'covariate balance' and other is 'continuity in the density function' of the forcing variable.

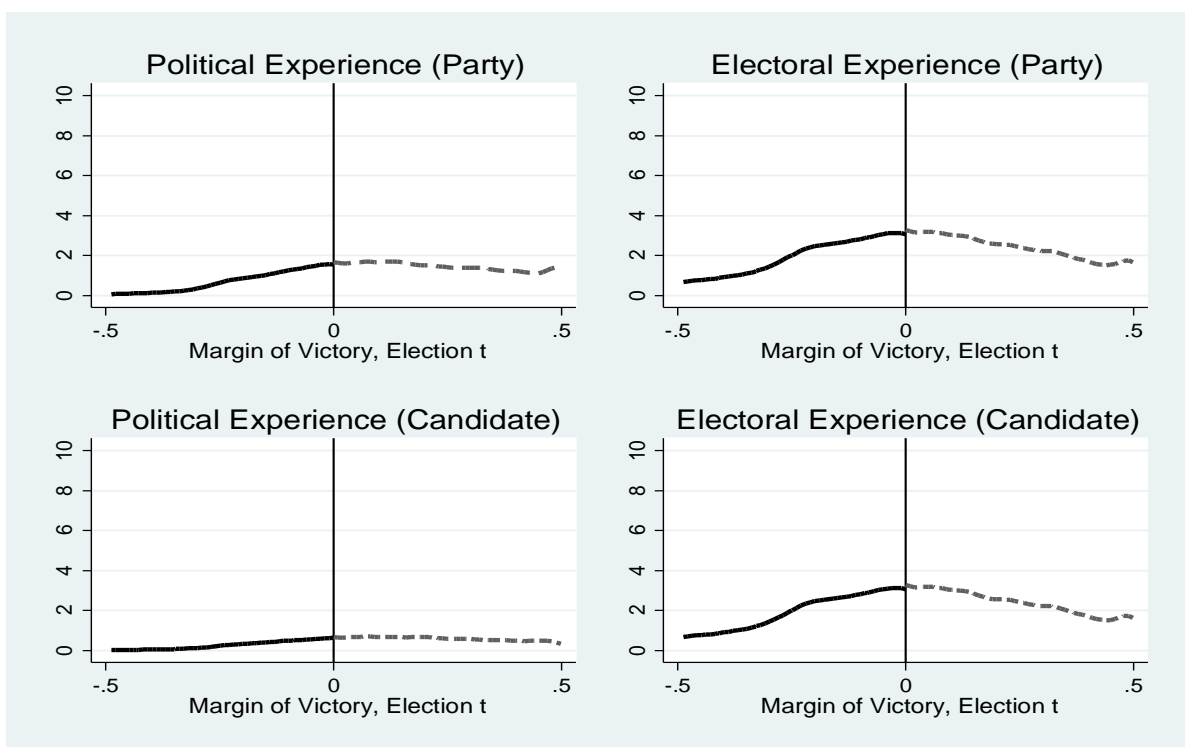
The main implication of the assumption of 'covariate balance' is that the baseline characteristics are similar for both the control and the treatment group, around the vicinity of the threshold. The balance test results for the relevant covariates is shown in the graph (Figure 4). As can be seen, there is no significant jump in any of the covariates (Figure 4 & Figure 5) around the threshold value of the forcing variable, that is margin of victory, in period 't'. This validates the first assumption of RDD, which means that the characteristics of an incumbent party (treatment group) are similar to that of a losing party or a non-incumbent party (control group), around the cut-off.

Next we test the second assumption, which is the continuity in the density of forcing variable, around the cut-off point. To test this assumption, we employ a test procedure developed by McCrary (2008). The results from the same do not point towards any systematic manipulation of the running variable.

In Figure 6, we have plotted the density of running variable, 'margin of victory'. It is clear from the graph that there is no violation of the assumption of continuity of the forcing variable's density function, around the cut-off point at zero. This also means that individuals are unable to precisely control their treatment status or to self-select themselves into the treatment. Hence, the second crucial assumption of RDD gets satisfied, too.

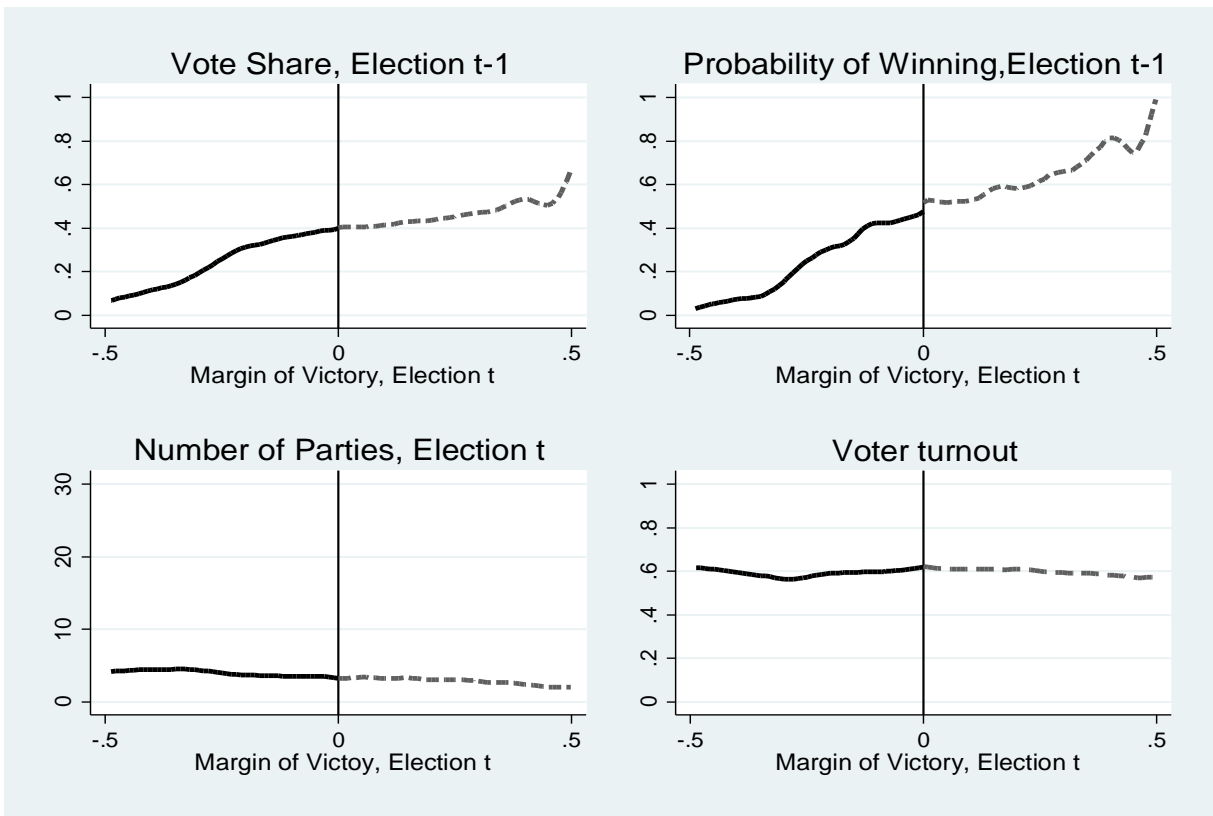
Given that the assumptions for the validity of RDD are being met and the validity of design is ensured. We now present the results of the estimations using parametric and non-parametric estimation technique. The estimation strategy precisely gives us the causal impact of incumbency status of 'party' on its re-election probabilities. This has been captured as a vertical jump in the probability of winning election in period  $t+1$  at the cut-off value of the running variable, 'margin of victory' in period  $t$ .

Figure 4: Balance test results of covariates -1



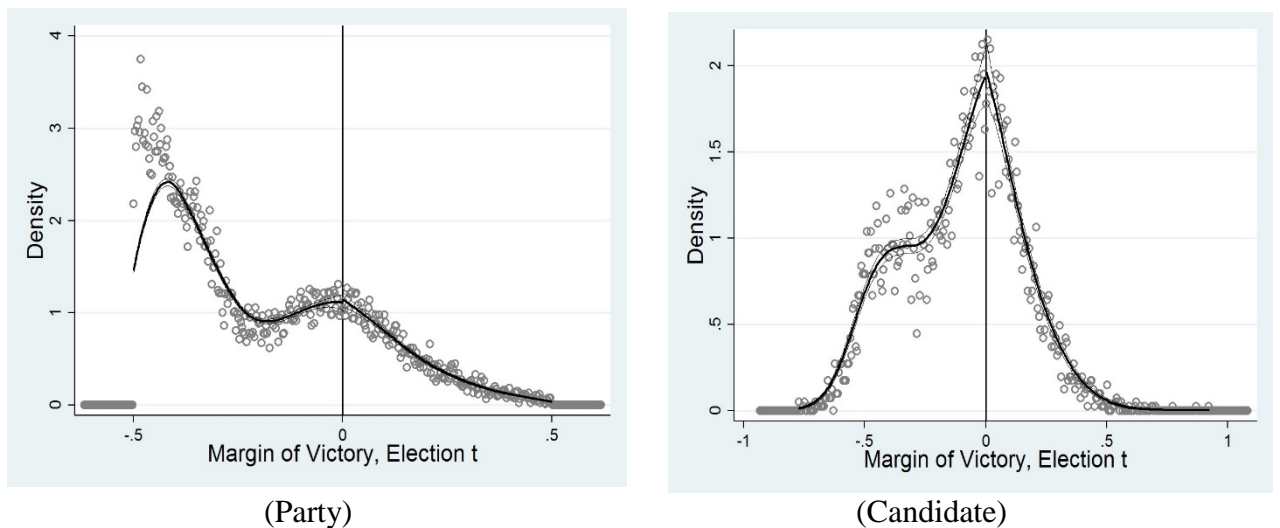
Note: Political experience and electoral experience of party and candidate in period  $t$ , do not exhibit any significant jump in their value, around the threshold. Solid and broken line represents the predicted value of local polynomial smoother on either side of the cut-off.

Figure 5: Balance test results of covariates -2



Note : Other variables include - Vote share in t-1, Probability of winning in t-1, number of parties in election t and voter turnout in election t

Figure 6: McCrary's Test



Note: Graph shows results of McCrary Test, conducted at the level of a party and a candidate, to test whether there is discontinuity in the density of the forcing variable, which is 'margin of victory', in election t. It indicates towards individuals not having any precise control over the assignment to treatment.

## 5.2 Partisan Ties

There are two established econometric methods - parametric and non-parametric estimation techniques, to estimate the causal impact of incumbency status for the party as well as for the candidate. We make use of both of them to strengthen the analysis.

**Parametric Estimation** –Parametric estimation assumes a functional form of the regression function on either side of the cut-off. Lee (2008) has made use of fourth order polynomial to estimate the impact of incumbency on re-election probabilities. But, Gelman and Imbens (2014) have criticised the use of higher order polynomials, for reasons discussed above. Therefore, estimations in this paper, involves linear estimation on either side of the cut-off, except for the case when full sample is used, wherein, the analysis was based on the second order polynomial in the 'margin of victory' (quadratic functional form)<sup>10</sup>. The literature points out that the impact of 'margin of victory' might not be same on either side of the cut-off and hence, the interaction term between the margin of victory and the incumbency status has been used as an additional control in estimations.

Results in column (1) of Table 2 corresponds to the results from pooled cross sectional analysis, while the results in column (2) & (3) corresponds to RDD (as we are looking only at certain percentage of observations around the threshold, 5% and 10%, respectively).

These results suggest significant disadvantage to the incumbent party, to the tune of 14 to 17 percentage points, which means that if a party is incumbent then its probability of winning the next election is lower by 17 percentage points (approximately). Other than the incumbency status of a party, there are other factors that influence its probability of winning in the next election. One such variable is the electoral experience of party which is significantly negative. It suggest that being in public eye for long has negative effect on the winning chances of a party. However, there is significant and positive effect of the partisan alignments of the constituency as well as that of the 'type' of party. Strong partisan alignments increases probability of winning in the next election and highlights the strong effects of partisan make-up of the constituency. Similarly, if a party in question is a national party, it improves its prospects of winning in the next election significantly than when it is a regional party. This is probably because the mind make up of the voters changes significantly when they are voting

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<sup>10</sup> We tried to work out the estimations using third and fourth order polynomial in 'margin of victory', along with its interaction with the dummy for incumbency status, but their fit of the model was inadequate when plotted against the raw data. Hence, we restricted the analysis to second order polynomial. Further, the fit with the second order polynomial was resulting in an conflicting fit against the plot of the raw data. Therefore, when we narrowed down the bandwidth (RDD), we employed only first order polynomial in the 'margin of victory' along with its interaction with the incumbency dummy



in national elections than when they vote in state elections. They probably recognise the fact that government formation at the parliamentary level would require a national party getting majority number seats rather than a regional party. Also, they acknowledge the national character of these elections, the fact that these elections would elect an official representative of the people of India, who would be responsible in representing India in various high level meetings, international organisations and would also be responsible in addressing the issues of national importance. Further, if a party in a constituency is same as the incumbent party in the center, then the winning probability is significantly reduced, as has been highlighted by the significant negative sign of the variable ‘incumbent party in the center’.

*Table 2: Re-election probability of party: Parametric estimation (Marginal effects)*

	(1) Full Sample	(2) 10%Bandwidth	(3) 5%Bandwidth
Incumbency Status	-0.133*** (0.023)	-0.133*** (0.031)	-0.158*** (0.044)
MoV	0.983*** (0.130)	1.423*** (0.287)	1.949** (0.799)
Voter Turnout	-0.169*** (0.065)	-0.026 (0.129)	-0.033 (0.176)
Number of Parties	-0.008*** (0.002)	-0.004 (0.004)	-0.001 (0.006)
Political Experience of Party	0.032*** (0.005)	0.014 (0.009)	0.007 (0.011)
Political Experience of Candidate	0.016*** (0.005)	0.002 (0.008)	-0.004 (0.011)
Electoral Experience of Candidate	-0.006 (0.004)	0.006 (0.006)	0.015* (0.008)
Electoral Experience of Party	-0.036*** (0.004)	-0.040*** (0.008)	-0.044*** (0.011)
Incumbent party in Center	-0.127*** (0.013)	-0.165*** (0.022)	-0.180*** (0.030)
(Win) <sub>t-1</sub>	0.057*** (0.012)	0.099*** (0.021)	0.136*** (0.028)
Reserved constituency	-0.011 (0.011)	0.005 (0.021)	0.012 (0.029)
National party	0.072*** (0.014)	0.050* (0.026)	0.082** (0.035)
<b>N</b>	<b>8732</b>	<b>3374</b>	<b>1830</b>

Note: This table provides results of parametric estimations at party level. Reported here are the average marginal effects of variables. The outcome variable of interest is “probability of winning” in the next election for a party. Standard errors reported in parentheses are clustered at constituency and party level. Estimations have controlled for the interaction between ‘margin of victory’ and dummy for incumbency status and they are significant. We have also controlled for the size of the electorate, but it has no influence on the probability of winning and hence, has not been reported here. Further, we have also controlled for time and state fixed effects. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01.

**Non-parametric Estimation** - In this case, estimations have been carried out at three levels - one, on the data trimmed at 10% around the threshold; then on data trimmed at 5% around the

threshold and finally, we made use of optimal bandwidth<sup>11</sup>. Smaller bandwidth reduces the bias but with higher variance and a higher bandwidth, reduces the variance but with higher bias. The purpose is to precisely know the impact of incumbency around the cut-off, as that is where the actual randomization takes place.

Results from non-parametric estimations are consistent with those from parametric estimations (see Table 3) with their strong implication towards disadvantage to an incumbent party. Incumbency lowers probability of winning in the next election by, on an average, 15 percentage points when the bandwidth was 5% and for the optimal bandwidth, the disadvantage gets further reduced to 11.6 percentage points.

*Table 3: Re-election probability of party: Non-parametric estimation*

	(1)	(2)	(3)
	5% Bandwidth	10% Bandwidth	Optimal Bandwidth
Wald Statistic	-0.152*** (0.046)	-0.135*** (0.033)	-0.116*** (0.028)
<i>N</i>	<b>13511</b>	<b>13511</b>	<b>13511</b>

Note : This table provides the results of the non-parametric estimations at the party level. Reported here is the value of the Wald statistic, which gives the ratio of the jump between the outcome variable and forcing variable due to the change in the treatment status. The outcome variable of interest is the probability of winning of the party in the next election (t+1). Standard errors in parentheses are clustered at the level of constituency and party. \*p < 0.10, \*\*p < 0.05, \*\*\*p < 0.01.

Results from both, parametric and non-parametric estimation techniques are indicative of the fact that an incumbent party suffers from negative publicity that it garners during the course of its tenure in power. If anything goes wrong in the country (political or economic failure), then it is an incumbent party who is being held responsible. It is important to note, that since the analysis has been carried at the level of constituency, therefore, it is possible that the incumbent party might not be the ruling party in the centre but it can still be from one of the members or allies of the ruling coalition, that is, the ruling government in the center. Therefore, though not directly, but indirectly, by the virtue of being an ally, that party also suffers a disadvantage.

**Impact on Vote Share** - Next, the paper looks into the impact of incumbency status on vote share gathered by the incumbent party using parametric and non-parametric techniques.

**Parametric estimations** - Estimations reveal a significant impact of incumbency on vote share of the incumbent party. Parametrically as well as non-parametrically, incumbency status of party lowers its vote share in the next election by 3-4 percentage points, approximately, under

<sup>11</sup> Optimal bandwidth was calculated using Imbens (2011) to minimize the mean square error(MSE), i.e. bias plus variance.

RDD. Results for pooled cross-section suggests a decline in the vote share of 6 percentage points, estimated parametrically (Table 4).

Apart from incumbency status, electoral and political experience of a party as well as partisan alignments in a given constituency, are also important for determining vote share received by the party. While political experience and partisan alignments increases the vote share received by a party, electoral experience reduces vote share received by the incumbent party, in the next election. Further, vote share of the incumbent party in the center is significantly reduced in the next election, when the contest from a Lok Sabha constituency.

**Non-parametric estimations** - Similar results are observed using non-parametric estimations, of the impact of incumbency status on vote share in the next election (Table 5). These results reinforces the results from parametric estimations, that is, incumbency status reduce vote share of the incumbent party by approximately 3 percentage points.

Combining results for probability of winning and vote share, we observe that a decline in vote share of 2 to 6 percentage points (RDD and cross sectional analysis), results in a decline in probability of winning in the next election by approximately 17 percentage points (according to non-parametric and parametric estimation results). This basically means that owing to competition and weak party system of our elections, even a small decline in vote share can have severe implications on probability of winning an election for a party.

*Table 4: Vote share of Party: Parametric Estimation*

	(1) Full Sample	(2) 10% Bandwidth	(3) 5% Bandwidth
Incumbency Status	-0.058*** (0.006)	-0.031*** (0.007)	-0.036*** (0.010)
MoV	0.681*** (0.052)	0.400*** (0.097)	0.417* (0.245)
Incumbency Status * MoV	-0.484*** (0.070)	-0.212* (0.128)	-0.111 (0.339)
Voter turnout	-0.057** (0.023)	-0.009 (0.032)	-0.005 (0.040)
Number of Parties	-0.010*** (0.001)	-0.006*** (0.001)	-0.005*** (0.001)
Political Experience of Party	0.013*** (0.001)	0.009*** (0.002)	0.010*** (0.003)
Political Experience of Candidate	0.008*** (0.002)	0.004** (0.002)	0.003 (0.003)
Electoral Experience of Candidate	-0.003*** (0.001)	-0.001 (0.002)	-0.001 (0.002)
Electoral Experience of Party	-0.004*** (0.001)	-0.010*** (0.002)	-0.011*** (0.003)
Incumbent party in Center	-0.034*** (0.004)	-0.041*** (0.005)	-0.044*** (0.007)

(Win) <sub>t-1</sub>	0.012*** (0.003)	0.008* (0.005)	0.011* (0.006)
Reserved Constituency	-0.009** (0.003)	-0.001 (0.005)	0.004 (0.006)
National Party	0.027*** (0.004)	0.015** (0.007)	0.022** (0.009)
<b>N</b>	<b>8732</b>	<b>3375</b>	<b>1832</b>

Note: This table provides results of parametric estimation for open seat elections. The outcome variable of interest is Vote Share in the next election, of a party. Standard errors in parentheses are clustered at constituency and party level. Estimations have also controlled for the size of the registered electorate, which has no influence on the vote share of party. Further, we have also controlled for the state and time fixed effects. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01.

*Table 5: Vote Share of party: Non-parametric estimation*

	<b>(1) 5% Bandwidth</b>	<b>(2) 10% Bandwidth</b>	<b>(3) Optimal Bandwidth</b>
Wald Statistic	-0.027** (0.012)	-0.029*** (0.009)	-0.029*** (0.007)
<b>N</b>	<b>13511</b>	<b>13511</b>	<b>13511</b>

Note: This table provides results of non-parametric estimations at party level. Reported here is the value of Wald statistic, which gives the ratio of jump between the outcome variable and forcing variable due to a change in the treatment status. The outcome variable of interest is vote share of party in the next election (t+1). Standard errors in parentheses are clustered at the level of constituency and party. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01.

**Open seat elections** - In Indian electoral system, a candidate contests elections, mostly under a party banner. It is, therefore, important to note that the results of the impact of incumbency status on re-election probabilities of an incumbent party, discussed above, might be masquerading the impact of incumbency status of a candidate, too. Hence, in order to flesh out the impact of incumbency that accrues to a party only, we have analysed open seat elections. In an open seat election, an incumbent candidate drops out of the race while an incumbent party stays and contests the next election with a new candidate (non-incumbent). This helps in teasing out the incumbency effect of a party by nullifying the effect of a candidate.

Regression results presented in Table 6 show that the disadvantage still persist at the level of party, with more or less similar magnitude. If a party is incumbent, it lowers its re-election chances in the next election to the tune of 9 to 18 percentage points. Results of pooled cross sectional analysis in column (3) estimates disadvantage at 13.3 percentage points. The disadvantage to the incumbent party increases as we lower down the bandwidth (RDD), from 15.9 percentage points to 18.4 percentage points for 10% and 5% bandwidth, respectively. Thus, we can meticulously assume that an incumbent party is disadvantaged in the next election. Results from non-parametric estimations verifies these results (see Table 7). The magnitude of disadvantage suffered by an incumbent party in an open seat, is comparable to the disadvantage suffered by an incumbent party otherwise. Hence, all the arguments from

these estimations enforce the fact that an incumbent party's re-election chances gets significantly lower in the next election, reasons for which has been discussed in the end.

Similar analysis has also been carried out on the vote share for the open seat elections and it is observed that the incumbency reduces the vote share garnered by an incumbent party by 7 and 4 percentage points (column (1), (2) & (3) in Table 8) for the pooled cross section and for different alternative bandwidths under RDD, respectively. The analysis is also supported by the results of non-parametric estimations which also depicts a decline of approximately 3 percentage points in vote share of an incumbent party in the next election (Table 9).

Therefore, the results of open seat elections are in tandem with the results derived when all the elections (open seat elections as well as normal elections) are taken together, with more or less same magnitudes. Hence, there does exist a significant disadvantage at party level.

*Table 6: Re-election probabilities in Open seat election: Parametric Estimation (Marginal effects)*

	(1) Full Sample	(2) 10% Bandwidth	(3) 5% Bandwidth
Incumbency Status	-0.131*** (0.026)	-0.154*** (0.036)	-0.178*** (0.053)
MoV	0.981*** (0.138)	1.563*** (0.337)	2.041** (0.968)
Voter Turnout	-0.126* (0.073)	-0.183 (0.152)	-0.184 (0.209)
Number of Parties	-0.006** (0.002)	-0.003 (0.005)	-0.004 (0.007)
Political Experience of Party	0.032*** (0.006)	0.019* (0.011)	0.018 (0.014)
Political Experience of Candidate	0.021*** (0.007)	0.002 (0.013)	-0.000 (0.017)
Electoral Experience of Candidate	-0.011** (0.005)	0.000 (0.009)	0.012 (0.011)
Electoral Experience of Party	-0.033*** (0.005)	-0.042*** (0.009)	-0.050*** (0.013)
Incumbent party in the center	-0.118*** (0.015)	-0.155*** (0.027)	-0.170*** (0.037)
(Win) <sub>t-1</sub>	0.029* (0.015)	0.078*** (0.027)	0.120*** (0.037)
Reserved Constituency	-0.017 (0.012)	-0.001 (0.024)	-0.013 (0.035)
National Party	0.099*** (0.014)	0.085*** (0.030)	0.108*** (0.041)
<b>N</b>	<b>6604</b>	<b>2351</b>	<b>1267</b>

Note: This table provides results of parametric estimations at party level, for open seat elections. Reported in this table are the average marginal effects of the variables. Standard errors in parentheses are clustered at constituency and party level. Estimations have controlled for the interactions between “margin of victory” and dummy for incumbency status and they were significant. We have also controlled for the size of the registered electorate, which had no influence on probability of winning of the party. Further, we have also controlled for the time and state fixed effects. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01.

Table 7: Re-election probabilities in Open seat elections: Non-parametric estimations

	(1) 5% Bandwidth	(2) 10% Bandwidth	(3) Optimal Bandwidth
Wald Statistic	-0.140** (0.055)	-0.118*** (0.038)	-0.112*** (0.029)
<i>N</i>	<b>11382</b>	<b>11382</b>	<b>11382</b>

Note: This table provides results of non-parametric estimations at party level. Reported here is the value of Wald statistic, which gives the ratio of jump between the outcome variable and forcing variable due to a change in the treatment status. The outcome variable of interest is vote share of party in the next election (t+1). Standard errors in parentheses are clustered at the level of constituency and party. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01.

Table 8: Vote share in open seat election: Parametric estimation

	(1) Full Sample	(2) 10% bandwidth	(3) 5% bandwidth
Incumbency Status	-0.069*** (0.007)	-0.038*** (0.009)	-0.042*** (0.012)
MoV	0.785*** (0.056)	0.365*** (0.115)	0.440 (0.294)
Incumbency Status * MoV	-0.593*** (0.084)	-0.105 (0.159)	-0.185 (0.408)
Voter Turnout	-0.064** (0.026)	-0.032 (0.036)	-0.030 (0.047)
Number of Parties	-0.010*** (0.001)	-0.006*** (0.001)	-0.004*** (0.002)
Political Experience of Party	0.013*** (0.002)	0.010*** (0.003)	0.013*** (0.003)
Political Experience of Candidate	0.013*** (0.003)	0.005 (0.003)	0.005 (0.004)
Electoral Experience of Candidate	-0.006*** (0.002)	-0.002 (0.002)	-0.002 (0.003)
Electoral Experience of Party	-0.004** (0.002)	-0.011*** (0.002)	-0.013*** (0.003)
Incumbent party in center	-0.032*** (0.005)	-0.035*** (0.006)	-0.035*** (0.009)
(Win) <sub>t-1</sub>	0.002 (0.005)	0.003 (0.006)	0.002 (0.008)
Reserved Constituency	-0.008* (0.004)	0.001 (0.006)	0.005 (0.008)
National Party	0.034*** (0.005)	0.022*** (0.008)	0.026** (0.010)
<i>N</i>	<b>6607</b>	<b>2355</b>	<b>1273</b>

Note: This table provides results of parametric estimation for open seat elections. The outcome variable of interest is Vote Share in the next election, of a party. Standard errors in parentheses are clustered at constituency and party level. Estimations have also controlled for the size of the registered electorate, which has no influence on the vote share of party. Further, we have also controlled for the state and time fixed effects. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01.

Table 9: Vote share in open seat election: Non-parametric estimation

	(1) 5% Bandwidth	(2) 10% Bandwidth	(3) Optimal Bandwidth
Wald Statistic	-0.030*** (0.014)	-0.031*** (0.010)	-0.033*** (0.008)
<i>N</i>	<b>11382</b>	<b>11382</b>	<b>11382</b>

Note: This table provides results of non-parametric estimations for open seat elections. Reported here are the value of Wald statistic, which gives the ratio of jump between outcome variable and forcing variable due to change in treatment status. The outcome variable of interest is vote share of party in the next election (t+1). Standard errors in parentheses are clustered at the level of constituency and party. \*p < 0.10, \*\*p < 0.05, \*\*\*p < 0.01.

### 5.3 Candidate Ties

Analysing incumbency effects at candidate level is in a way a method of identifying the relationship between the voters and candidate and hence a mechanism of evaluating candidate ties. Literature in this area has been vast as most of the earlier studies have focussed at the impact of incumbency at the level of candidate, irrespective of the political paradigm (Gelman & King, 1993 ;Cox & Katz, 1996; Linden, 2004; Uppal, 2009). In this section, we estimate incumbency effects at the level of candidates for the national (*Lok sabha*) elections. The aim is to compare these effects with that of the party and to evaluate, whether the partisan ties are stronger than the candidate ties. In order to enable a comparison, we undertake similar analysis at candidate level and would then compare the results for candidate and party.

An incumbent candidate is defined as a candidate, who is in a position of power as a result of winning in the last election (in period `t'), may or may not be associated be to a political party. A candidate without any party affiliation is an independent candidate and can also be a Member of Parliament. However, such cases when an independent candidate has made to the parliament are very few. Therefore, in order to simplify the analysis, we have excluded all those cases where an independent candidates have failed in the election and have kept only successful cases of these independent candidates.

We now present the results of the estimation of incumbency effects for candidates using parametric and non-parametric estimations.

**Parametric estimation** - We have carried out the analysis as before in the case of partisan ties, with similar set of controls. These controls include, political experience of party and candidate, to control for the impact of experience from being in power; electoral experience of party and the candidate, to control for the experience of contesting elections and being in public eye,

irrespective of whether it won an election or not; voter turnout, to control for the number of voters who actually voted in an election, as this might significantly influence vote share and therefore, the winning margins; level of competition (number of parties, that contested election in a given constituency); registered electorate, to control for the size of electorate in each constituency; double lagged value of winning status, to control for any strong candidate alignments in a constituency; dummy for the reservation status of a constituency; type of party - national or regional, as national parties would have better finances and might also have a larger vote base, especially true in case of national elections. We have also controlled for state and time fixed effects.

In the table below (Table 10), we have presented the results from the parametric estimations. The estimations involved second order polynomial in the 'margin of victory', with its interaction with the incumbency status of the candidate, to allow for different effects of margin of victory on the probability of winning across the threshold, for the pooled cross-sectional analysis and a simple linear model in 'margin of victory' with its interaction with the incumbency status of the candidate.

Parametric estimations have been carried out at three levels - one, for the entire data (Full), then, for the bandwidth of 10% around the cut-off and finally, for the bandwidth of 5% around the cut-off (Table 10). Results from these estimations show that an incumbent candidate too have a significant disadvantage in the next election. For the pooled cross sectional analysis, disadvantage has been to the tune of 21 percentage points and it increases to 24.4 percentage points for 10% bandwidth and increases further to 26 percentage points for 5% bandwidth, with the last two results being the results from RDD. Further, results from RDD also suggest that no other variable but only a candidate's alignments, within a constituency, is significant in influencing its probability of winning in the next election, other than his incumbency status.

Electoral experience of the party that has a significant effect on re-election probability of a candidate under pooled cross-section, became insignificant when the bandwidth was reduced to 10% and 5%. Only control variable that remains significant at 5% bandwidth is the one representing the partisan alignments of the constituency, given by  $(Win)_{t-1}$ .

These results indicate strong disadvantage to an incumbent candidate. Next, we have analysed the same data non-parametrically, results of which are discussed below.

**Non-parametric estimation** - Non parametric estimations have been carried out at three levels, one for the data under the bandwidth of 10% around the cut-off and then for the data under the bandwidth of 5% around the cut-off value and finally for the optimal bandwidth. Optimal



bandwidth has been calculated using Imbens and Kalyanaraman (2011) to minimize mean square error (MSE).

*Table 10: Re-election probabilities of candidate: Parametric estimation (Marginal effects)*

	(1) Full Sample	(2) 10% Bandwidth	(3) 5% Bandwidth
Incumbency status	-0.212*** (0.040)	-0.244*** (0.050)	-0.265*** (0.075)
MoV	1.416*** (0.225)	1.938*** (0.523)	3.683*** (1.379)
Voter Turnout	-0.265* (0.141)	0.201 (0.234)	0.133 (0.304)
Number of Candidates	-0.008 (0.006)	-0.001 (0.010)	0.000 (0.012)
Political Experience of Party	0.018 (0.014)	-0.029 (0.021)	-0.042 (0.030)
Political Experience of Candidate	0.019 (0.021)	0.007 (0.030)	-0.046 (0.041)
Electoral Experience of Candidate	-0.017 (0.016)	-0.001 (0.021)	0.037 (0.028)
Electoral Experience of Party	-0.027** (0.011)	0.006 (0.016)	0.005 (0.022)
(Win) <sub>t-1</sub>	-0.001 (0.029)	0.069 (0.045)	0.146** (0.061)
Reserved Constituency	0.0167 (0.022)	-0.00540 (0.037)	0.0441 (0.048)
National Party	0.037 (0.028)	-0.020 (0.046)	0.038 (0.061)
<b>N</b>	<b>2320</b>	<b>1043</b>	<b>567</b>

Note: This table provides the results of parametric estimations at candidate level. Reported here are the average marginal effects of the variables. Standard errors are clustered at constituency and candidate level. Above estimations have controlled for the interactions between 'MoV' and incumbency status of the candidate. We have also controlled for the registered electorate, which has no significant influence on the re-election probabilities of the candidate. Further, we have also controlled for the state and time fixed effects. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01.

*Table 11: Re-election probabilities of candidate: Non-Parametric Estimation*

	(1) 5% Bandwidth	(2) 5% Bandwidth	(3) Optimal Bandwidth
<b>Wald Statistic</b>	-0.170*** (0.062)	-0.167*** (0.044)	-0.146*** (0.036)
<b>N</b>	<b>5742</b>	<b>5742</b>	<b>5742</b>

Note: This table provides results of non-parametric estimations at candidate level. Reported here are the values of Wald-statistic, which gives the ratio of the jump between the outcome variable and forcing variable, due to the change in treatment status. Standard errors in parentheses are clustered at the level of constituency and candidate. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01.

Results from non-parametric estimations exhibit similar pattern (Table 11) with the results from parametric estimation, but of a different magnitude. When we consider data under the

bandwidth of 5% and 10% on either side of the threshold, results show a highly significant disadvantage for an incumbent candidate, to the tune of 17 percentage points. For the optimal bandwidth, magnitude of disadvantage is slightly lower (14.6 percentage points) but is statistically significant.

If we harmonize these results, they are indicative of the fact that negative incumbency effects at candidate level are stronger than those for party. The difference in magnitudes of incumbency effects at candidate and party level or rather stronger disadvantage to candidate than party is suggestive of the fact that voters punish candidates more severely than they punish parties. It also indicates that they have more faith in the reputation of parties than in candidates, implying firm partisan alignments of the voters. Strong partisan alignments make voters to not punish an incumbent party as severely as they punish candidates. Additionally, it is also possible that parties might have dropped out controversial candidates or candidates that have been detrimental to the image of the party.

**Impact on the Vote share** - Next, we have presented the effect of incumbency status on vote share of a candidate, similar to what we have examined for a party. As can be observed from the tables of parametric and non-parametric estimations (Table 11 & Table 12), vote share of an incumbent candidate, is significantly lower by approximately 6 percentage points for polled cross section (full data) and was lower by 3 and 8 percentage points, when we consider 5% and 10% bandwidth, respectively. Out of the controls that have been included in the regression, only one stays significant at 5% bandwidth - the level of competition in a given constituency. Higher is the competition, in terms of more candidates, lower is the vote share of an incumbent candidate. Similarly, analysing results from non-parametric estimations (Table 12), we observe similar patterns. Incumbency negatively effects vote share of candidates to the tune of 3 percentage points, approximately for 5 and 10 percent bandwidth and for the optimal bandwidth, too.

Therefore, in an overall sense, the results at candidate level are similar to what we got for the party level. Incumbency status reduces the vote share in the next election, by approximately 3 percentage points for the party and the candidate. However, in terms of probability of winning in the next-election, the impact of incumbency status seems to be more severe at the level of candidate than for party. This is indicative of stronger party preferences than candidate preferences. Disadvantage at any level (party or candidate) might be stemming out because of improved role of media and therefore better access to information by the voters. Other than having access to information, the disadvantage could be depicting the difficulty attached with maintaining allies and coalition partners. Lastly, it might just be a part of some electoral cycle,

owing to which a party comes to power and stays in power for few terms after which the other prominent party will get elected to power.

However, despite of all these reasons, what stays is that voters still have stronger party preferences than they have candidate preferences. They identify more with the ideology of a party than they identify with the ideology of any single candidate. There might exist aberration to this phenomenon, but, on an average, this holds true.

*Table 12: Vote share of candidate: Parametric estimation*

	(1) Full Sample	(2) 10% Bandwidth	(3) 5% Bandwidth
Incumbency Status	-0.059*** (0.011)	-0.080*** (0.021)	-0.034 (0.027)
MoV	0.475*** (0.108)	1.164 (0.859)	-4.547** (2.012)
Incumbency Status * MoV	-0.181 (0.134)	-0.183 (1.042)	6.355** (2.540)
Voter Turnout	-0.088** (0.043)	0.037 (0.063)	0.046 (0.072)
Number of Candidates	-0.010*** (0.002)	-0.007*** (0.002)	-0.007*** (0.002)
Political experience of party	0.006* (0.004)	-0.004 (0.005)	-0.005 (0.006)
Political experience of candidate	0.021*** (0.006)	0.022*** (0.008)	0.012 (0.009)
Electoral experience of candidate	-0.011*** (0.004)	-0.013** (0.005)	-0.004 (0.006)
Electoral experience of party	-0.007** (0.003)	0.001 (0.004)	-0.001 (0.005)
(Win) <sub>t-1</sub>	-0.007 (0.008)	0.002 (0.011)	0.010 (0.014)
Reserved Constituency	-0.016** (0.006)	-0.014 (0.009)	-0.010 (0.010)
National party	0.024*** (0.008)	0.006 (0.012)	0.013 (0.013)
<b>N</b>	<b>2325</b>	<b>1053</b>	<b>575</b>

Note: This table provides the results of parametric estimations for the impact of incumbency status on vote share of the candidate. Standard errors in parentheses are clustered at constituency and candidate level. Estimations have also controlled for the size of electorate, which has no impact on re-election probabilities of winning and hence, has not been reports here. Further, we have also controlled for the state and time fixed effects. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01.

Table 13: Vote share of candidate: Non-parametric estimation

	(1) —5%—	(2) —10%—	(3) Optimal
Wald Statistic	-0.027*	-0.031***	-0.032***
	(0.016)	(0.012)	(0.010)
<i>N</i>	<b>5742</b>	<b>5742</b>	<b>5742</b>

Note: This table provides results of non-parametric estimations at candidate level. Reported here is the value of Wald statistic, which gives the ratio of jump between the outcome variable and forcing variable due to change in the treatment status. The outcome variable of interest is vote share of candidate in the next election (t+1). Standard errors in parentheses are clustered at the level of constituency and candidate. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01.

## 6. Conclusion

The main objective of this study has been two-fold - first, to estimate the causal impact of incumbency on re-election probabilities of an incumbent party and an incumbent candidate and secondly, to compare the strength of ties between the electorate and a political party, with the strength of ties between the electorate and a political candidate.

The results point towards growing disadvantage to an incumbent party as well as to an incumbent candidate, in the context of *Lok Sabha* elections (parliamentary elections). Disadvantage in itself is indicative of voters having access to more and better information. It also signifies the role of allies or coalition formation. Fact that no single party can manage majority in the center since 1991 (with the exception of 2014 elections) means that it is important to win allies to come in power. It is more about networking and massaging ego of fringe groups, that cannot come to power on their own but do have the strength to rock the boat. For instance, in the elections of 2004, BJP was behind INC by only 4 seats, but, still could not make it to power. Primary reason behind this failure has been its inability to retain its previous allies / political partners. Congress, on the other hand, having realised the importance of coalitions in this new era of politics, could manage to form government in the Center by breaking away the allies of BJP or the members of former NDA (National Democratic Alliance). This has given rise to new political partnerships of INC in the form of UPA (United Progressive Alliance).

Further, if we compare the level of disadvantage between party and candidate, we have found that it is severe when the effect is estimated at candidate level, with higher probability of incumbent candidates losing out in the next elections than incumbent parties. It corroborates to the fact that voters are firmly aligned with parties (or its ideologies) than with candidates. Therefore, these voters punish incumbent candidates more than they punish incumbent parties,

in central elections. Stronger association between an incumbent party and the electorate has also been observed in the National Election Study, conducted by CSDS (National Election Study 2004 & 2009). The post poll-survey by the organisation indicates that higher percentage of voters vote for the party than for the candidate.

It is also important to highlight that any significant disadvantage to an incumbent party in the next election can have serious implication over the kind of policies that are brought in place. With the myopic aim of increasing or improving re-election chances in the next election, party in the center would indulge in promoting populist policies, rather than the one that are more desirable from a long-term perspective. Similarly, candidates too might internalise the weak chances of re-election that they have in the next election and would start appeasing themselves through means that will make them pocket as much as they can in that term, that is while they are in the office. Either ways, disadvantage can have serious implications on the incentive structure of the party and the candidate.

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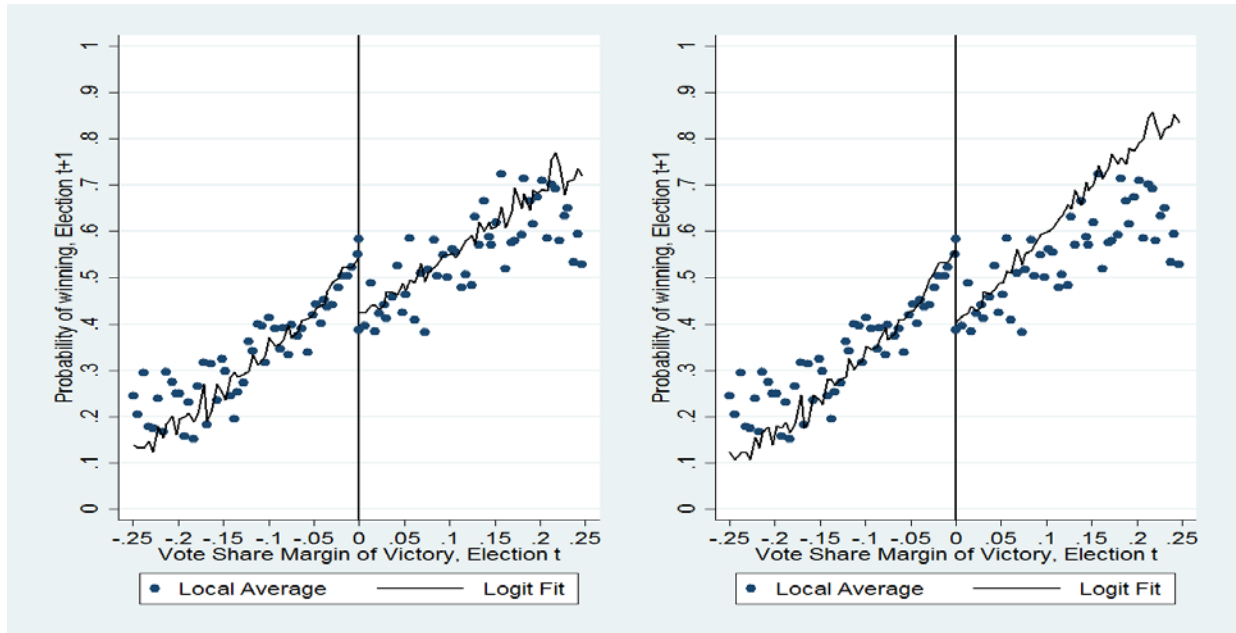
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# Appendix

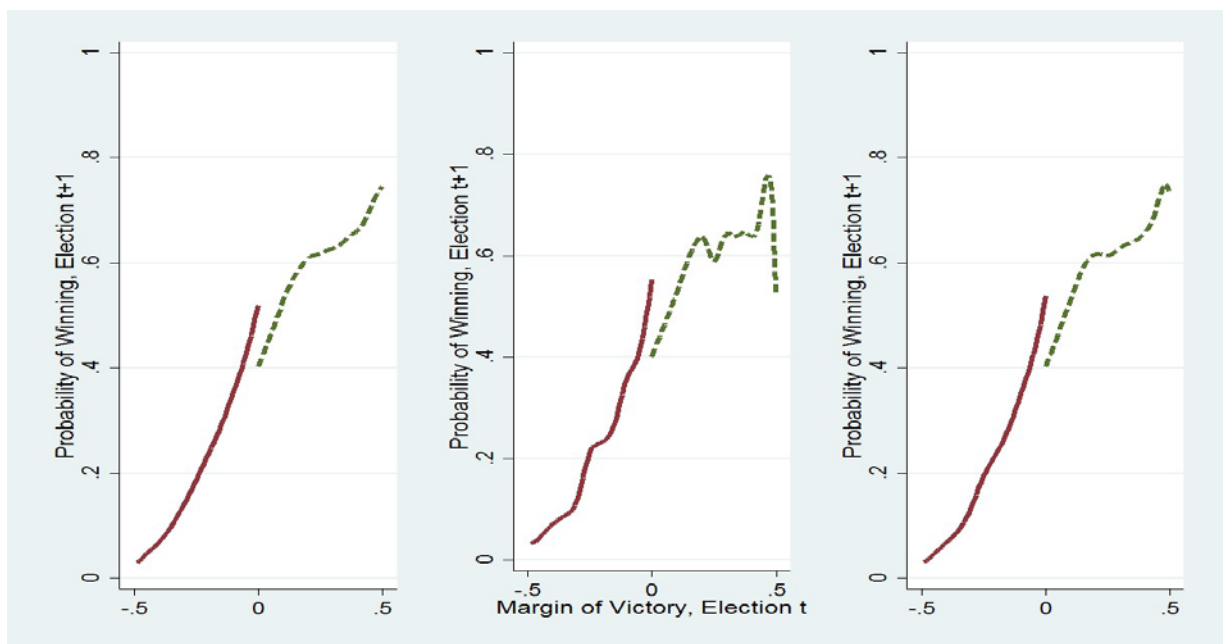
## I. Graphical analysis at party level

Figure 7: Graphical Analysis of Probability of Winning of Party: Parametric estimation



Note: The graph corresponds to the parametric estimation of probability of winning of a party. On the left side is plot with 10% Bandwidth and on the right side the plot is for 5% Bandwidth. In both of them we can clearly see the jump in the probability of winning in the next election, at the threshold.

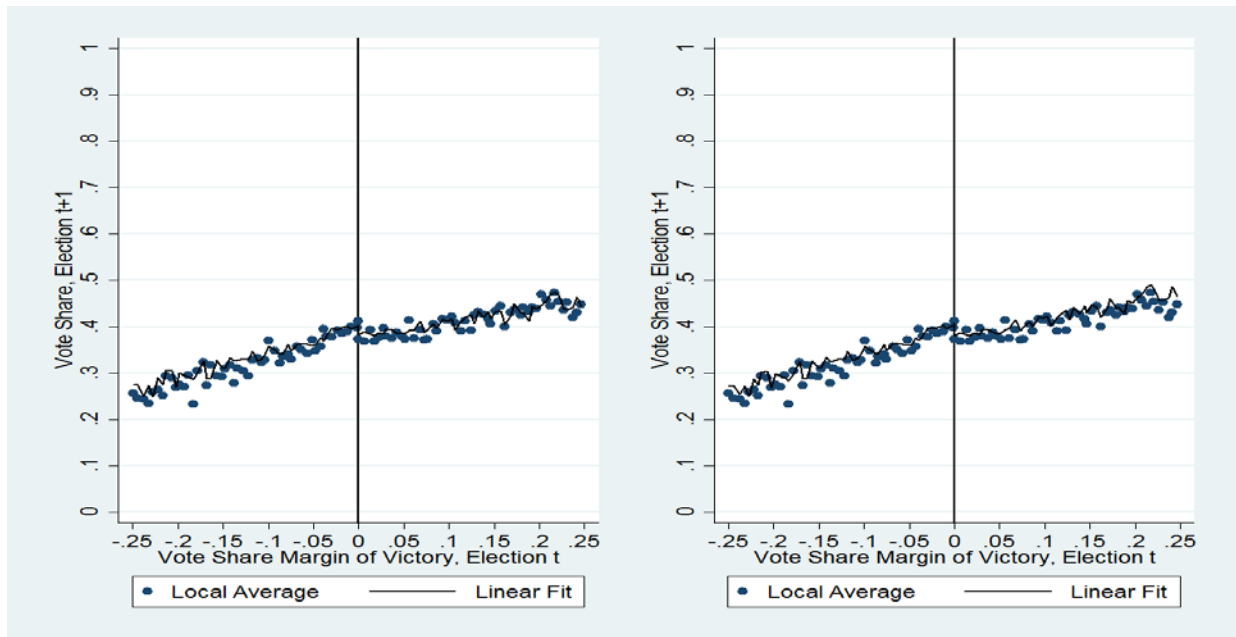
Figure 8: Graphical Analysis of Probability of winning of party: Non-parametric estimation



Note: The above graph corresponds to non-parametric estimations of probability of winning of a party. First panel corresponds to the graph against optimal bandwidth, second panel is for the graph with 10% bandwidth and the final panel displays graph for the 5% bandwidth. In each one of them we can clearly see the jump in the probability of winning in the next election, at the threshold.

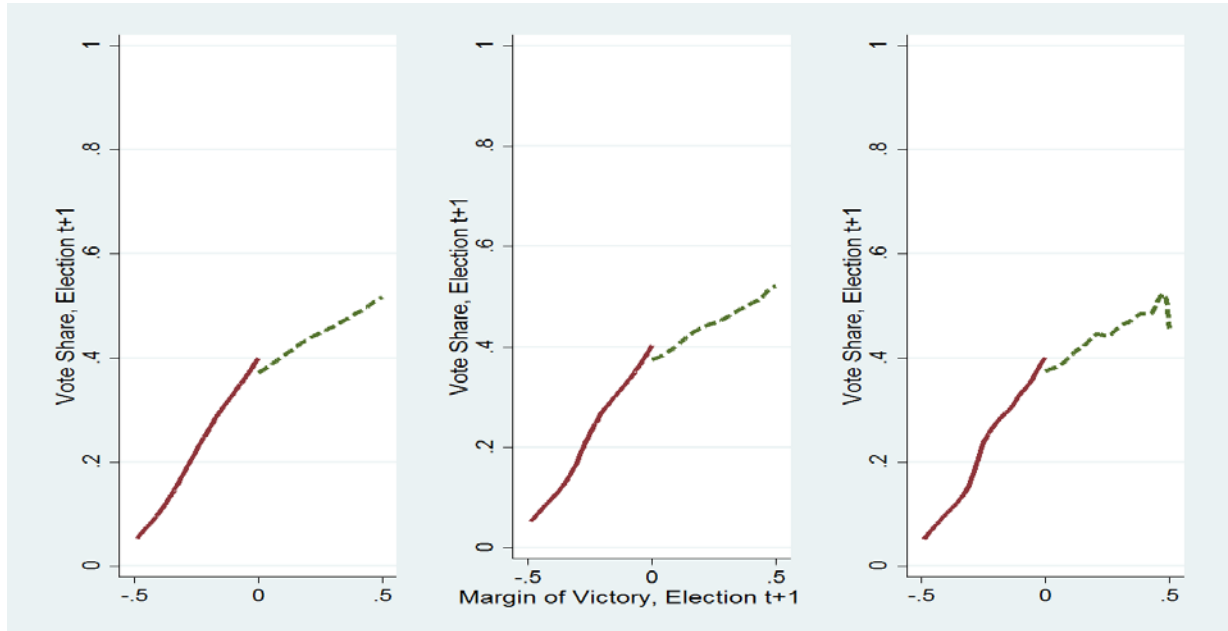


Figure 9: Graphical Analysis of Vote share of Party: Parametric estimation



Note: The graph corresponds to the parametric estimation of vote share of a party. On the left side is plot with 10% Bandwidth and on the right side the plot is for 5% Bandwidth. In both of them we can see a jump in the vote share in the next election but of a smaller magnitude, at the threshold.

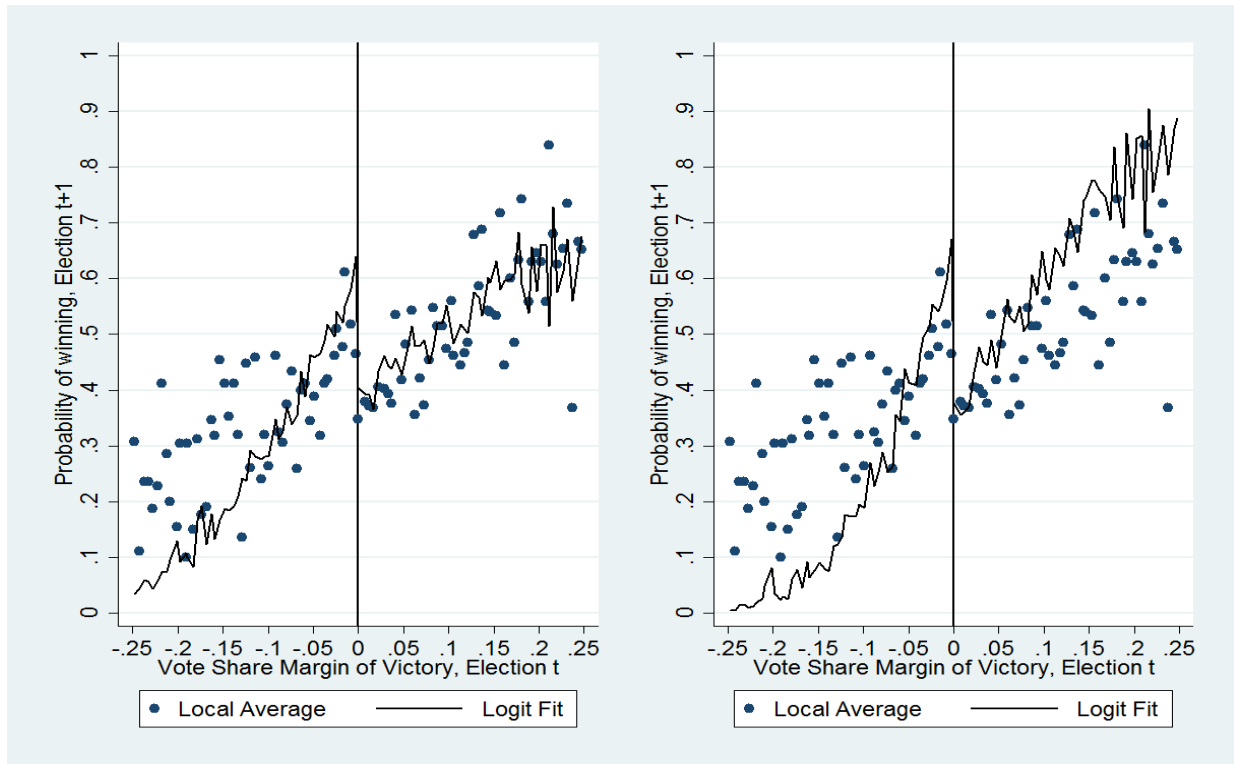
Figure 10: Graphical Analysis of Vote share of party: Non-parametric estimation



Note: The graph corresponds to the non-parametric estimation of vote share of a party. On the left side, is the plot of the vote share corresponding to optimal bandwidth, in the centre the plot is for 10% Bandwidth and on the right side it is for 5% Bandwidth. In each one of them we can see a significant jump in the vote share in the next election, though of a smaller magnitude, at the threshold.

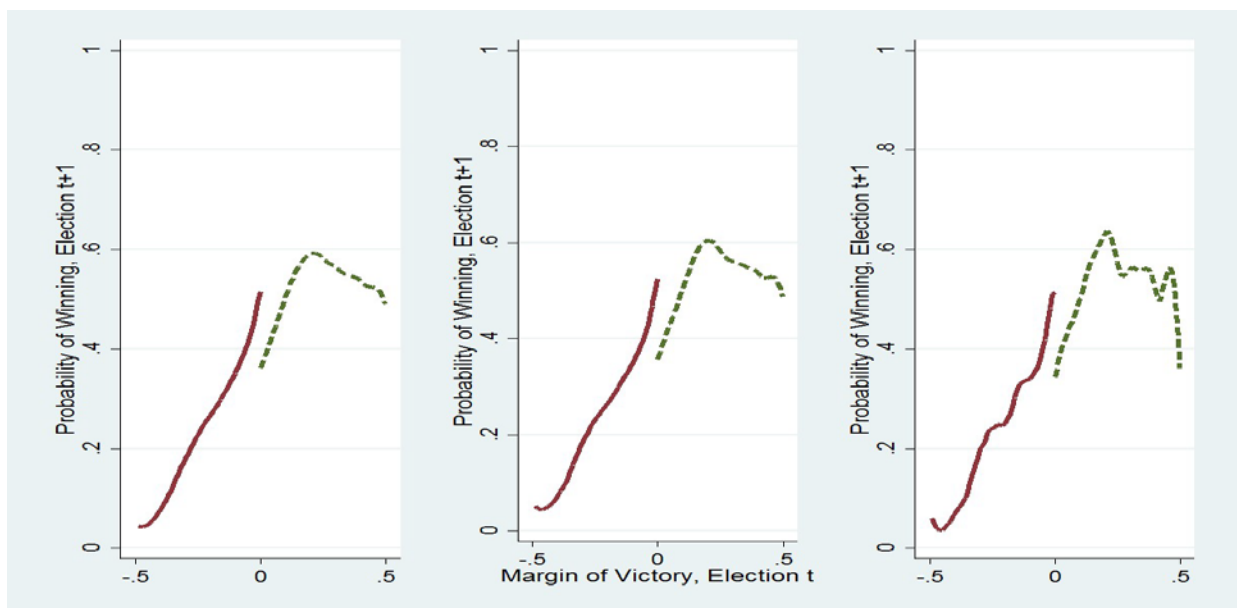
## II. Graphical analysis at candidate level

Figure 11: Graphical Analysis of Probability of Winning of candidate: Parametric estimation



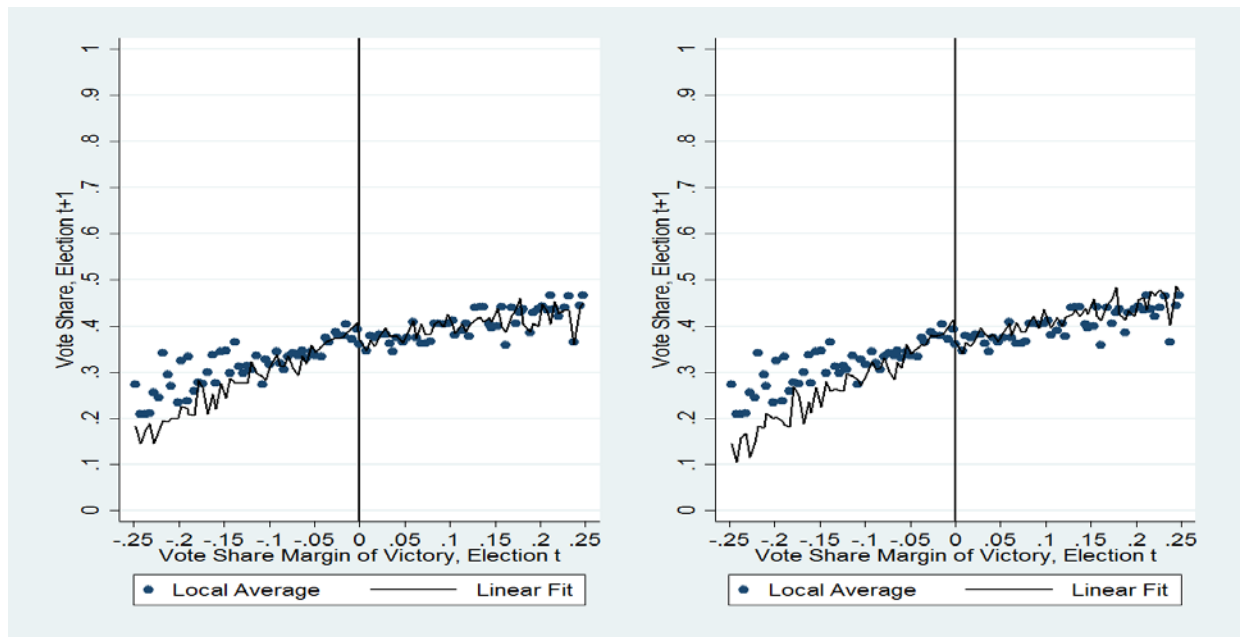
Note: The graph corresponds to the parametric estimation of probability of winning of a candidate. On the left side is plot with 10% Bandwidth and on the right side the plot is for 5% Bandwidth. In both of them we can clearly see the jump in the probability of winning in the next election, at the threshold.

Figure 12: Graphical Analysis of probability of winning of candidate: Non-parametric estimation



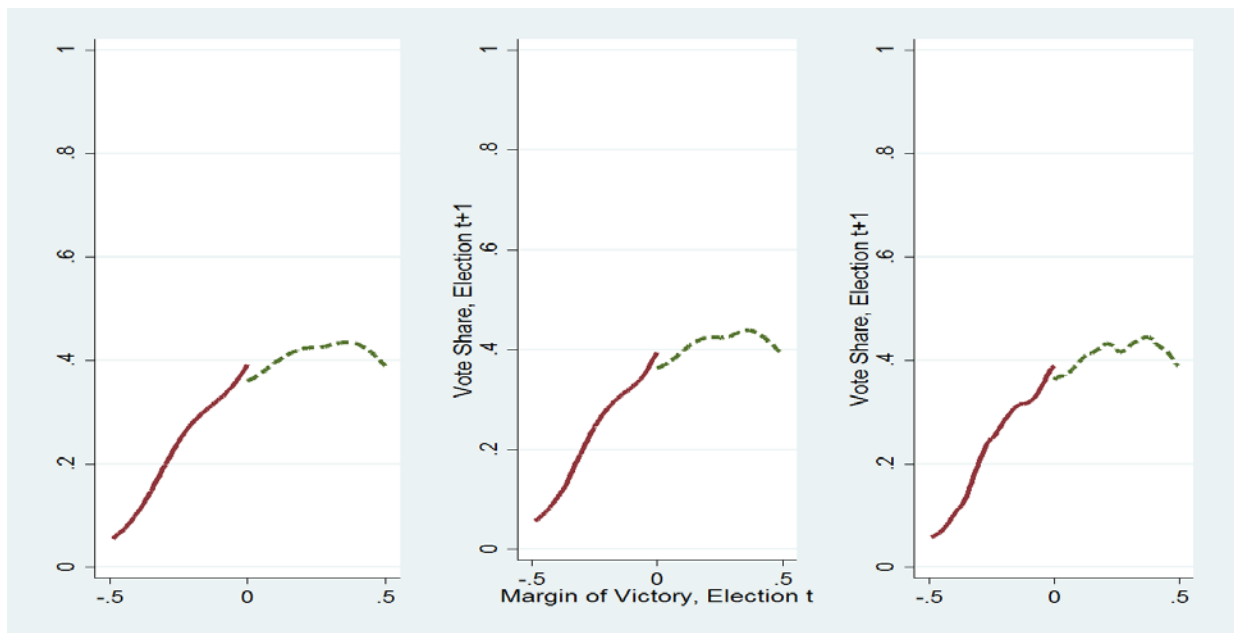
Note: The above graph corresponds to non-parametric estimations of probability of winning of a candidate. First panel corresponds to the graph against optimal bandwidth, second panel is for the graph with 10% bandwidth and the final panel displays graph for the 5% bandwidth. In each one of them we can clearly see the jump in the probability of winning in the next election, at the threshold.

Figure 13: Graphical Analysis of Vote share of candidate: Parametric estimation



Note: The graph corresponds to the parametric estimation of vote share of a candidate. On the left side is plot with 10% Bandwidth and on the right side the plot is for 5% Bandwidth. In both of them we can see a slight jump in the vote share but of a smaller magnitude, at the threshold.

Figure 14: Graphical Analysis of the vote share of the candidate: Non-parametric estimation



Note: The above graph corresponds to non-parametric estimations of vote share of a candidate. First panel corresponds to the graph against optimal bandwidth, second panel is for the graph with 10% bandwidth and the final panel displays graph for the 5% bandwidth. In each one of them we can clearly see the jump in the vote share in the next election, at the threshold.