How Indian Voters Respond to Candidates with Criminal Charges: Evidence from the 2009 Lok Sabha Elections

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Abstract

This paper examines the response of voters to candidates who have reported that they have criminal charges against them, within the framework of a simple analytical model which assumes that criminal charges give rise to some *stigma* amongst the electorate, and result in a negative effect on vote shares. Campaigning, the cost of which is borne from candidates' wealth, helps a candidate to increase his or her expected vote share by winning over the "marginal" voter. A criminal candidate gets an additional benefit since he can use the campaigning to convince voters of his innocence, and so reduce the negative effects of the stigma associated with criminal charges. We test the implications of the model using data for the 2009 Lok Sabha elections in India, and find support for all the implications of the model. Our empirical results show that voters *do* penalise candidates with criminal charges; however, this negative effect is reduced if there are other candidates in the constituency with criminal charges; besides, the vote shares are positively related to candidate wealth, with the marginal effect being higher for the candidates with criminal charges.

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Introduction

It is now well-known that the nexus between Indian politicians and criminals has assumed alarming proportions. Roughly a fourth of the members of the current Lok Sabha (the lower house of the national parliament) face pending criminal charges.[2] A similar situation prevails in the various state assemblies. Many of the members of the national parliament or state assemblies have been indicted with serious charges, including murder. Not surprisingly, this has attracted increasing attention in both the media as well as in academic research. It has also attracted official attention with the appointment of an independent commission to analyse the phenomenon and suggest remedial measures.[3]

The only legal measure designed to prevent the influx of criminals into parliament and the state assemblies is the *Representation of People's Act, 1951*. This Act specifies that candidates will be barred from contesting an election on conviction by a court of Law. The period of disqualification is for six years from the date of conviction, or from the date of release from prison, depending on the severity of the charge. Unfortunately, this law hardly has any bite because of the well-known infirmities in the Indian judicial system. In particular, governments typically drag their feet when it comes to prosecuting "local elites". Even when cases are registered, inordinate judicial delay implies that these cases drag on, seemingly indefinitely.

This is why the Election Commission had proposed in 2004 that the *Representation of the People Act, 1951* should be amended to disqualify candidates accused of offences which carry sentences of five years or more *as soon as* a court deems that charges can be framed against the person. However, the Lok Sabha itself would be required to pass appropriate legislation to implement the Election Commission's suggestion. Obviously, such legislation is against the interests of a large number of politicians, and so it is not surprising that the Election Commission's proposal has not been implemented.

A landmark judgement of the Supreme Court in 2002 required every candidate contesting state and national elections to submit a legal affidavit disclosing his or her personal, educational qualifications, as well as information about personal wealth and importantly their criminal record. The court also stipulated that wide publicity should be given to the contents of the affidavits so that the electorate can take an informed decision about who to elect to the assemblies and parliaments. Unfortunately, the Supreme

[2] That is, courts have decided that these charges have sufficient credibility for judicial proceedings to be initiated. However, this does not mean that these charges have culminated in convictions.
[3] See the Vohra Commission Report, 1995.

Court's order does not seem to have had much impact in so far as the influx of legislators with criminal indictment is concerned.[4]

The continuing entry of large numbers of candidates with criminal records into Indian legislatures raises several questions. First, why do parties nominate such candidates? Given the huge demand for party tickets, the nomination of candidates with criminal records suggests that such candidates must possess some electoral advantage. We discuss some hypotheses which have been suggested to explain this electoral advantage. Second, what is the economic effect of electing candidates with a criminal record? Third, what is the response of voters to candidates who have reported that they have criminal charges against them?

While the first two issues have been discussed in the literature, the third issue has not been scrutinised rigorously. A somewhat cursory look at the data by simply looking at the ratio of winning candidates to number of contesting candidates amongst the criminal and non-criminal groups suggests that criminal candidates have a higher probability of winning. Perhaps, this has given rise to the feeling that criminals have an electoral advantage. The following from Aidt *et al* (2011) is representative of the prevailing view: "Criminals, we show, boast an extraordinary electoral advantage in India."

We examine this issue within the framework of an analytical model which assumes that criminal charges do give rise to some *stigma* amongst the electorate. This stigma has a negative effect on vote shares since voters are less likely to vote for candidates who have criminal charges levied against them. Campaigning, the cost of which is borne from candidates' wealth, helps a candidate to increase his or her expected vote share by winning over the "marginal" voter. A criminal candidate gets an additional benefit since he can use the campaigning to convince voters of his innocence, and so reduce the negative effects of the stigma associated with criminal charges. This is plausible since the candidates have not been convicted, but only charged with some criminal offence. We look at a Nash equilibrium of a game in which the only strategic variable is the amount of campaign expenditure.

We test the implications of this simple model using data for the 2009 Lok Sabha elections. We find that the data supports all the implications of the model. We briefly describe the principal results.

First, voters *do* penalise candidates with criminal charges. That is, all else being equal, the vote share of a candidate with criminal charges is lower than that of the one who does not have any such blemish. However, this negative effect is reduced if there are other candidates in the constituency with criminal charges. Notice that the negative effect of criminal charges on vote shares seems to contradict the prevalent view that candidates with criminal charges have an electoral advantage.

We do not have data on campaign expenditure of candidates. However, our model predicts that (i) the higher the wealth of a candidate, the greater will be his campaign expenditure, (ii) campaign expenditure has a positive effect on expected vote share, the

[4] However, the judgement has been of immense help to several researchers who have exploited the information contained in the affidavits. Apart from the present paper, see, for instance, Aidt *et al* (2011), Chemin (2008), Paul and Vivekananda (2004), Vaishnav (2011).

marginal effect possibly differing across the two categories of candidates - those with criminal charges, and those with an unblemished record. Putting these together, the model's prediction is that expected vote shares should be positively related to candidate wealth, with the marginal effect perhaps being different across the two categories of candidates. The regression results corroborate both conclusions.

Since voters penalise candidates with criminal charges, why do political parties still nominate them when so many candidates without criminal charges fight to get their party's nomination? A plausible explanation starts from the premise that candidates facing the threat of criminal convictions are more keen to contest the elections. Their enthusiasm is easily explained. Apart from the usual benefits which accrue to *all* successful candidates, candidates with criminal indictments look forward to an additional benefit. In particular, successful candidates (particularly those belonging to parties in the government) can with high probability either use coercion or influence to ensure that the local administration does not pursue the case(s) against them with any vigour.

Moreover, the data suggest that criminal candidates are significantly wealthier than those without criminal charges.[5] Also, they are perhaps willing to contribute a higher fraction of their wealth to the party, or they ask for less resources from the party. This simply reflects the higher price or value that they place on a party ticket. So, criminal candidates generate positive externalities to candidates of their own party since their additional contributions release party funds which can be used in other constituencies. This is a plausible explanation of why parties may nominate candidates with criminal backgrounds even if they are (partially) penalised at the polls.

Several recent papers offer explanations of why parties choose candidates with a dubious background. Banerjee and Pande (2009) start with the observation that voters may have a preference for candidates belonging to their own ethnic group. This implies that a politician belonging to the ethnically dominant group in a constituency may win even if he is of lower *quality*. Banerjee and Pande (2009) assume that parties do want to select candidates of the best quality. However, the quality of candidates available to a party in any constituency is a random variable. They show that an increase in the relative size of the ethnically dominant group or an increase in voters' preferences for candidates belonging to their own group can worsen the quality of the winning candidate. Banerjee and Pande test the predictions of their model by using panel data on politician quality in 102 jurisdictions in the state of Uttar Pradesh.[6]

Of course, the Banerjee-Pande hypothesis does not explain why so many candidates with a criminal background *contest* elections. But, it does provide at least a *partial* explanation of why there is an increasing number of *successful* legislators in state assemblies as well as the Lok Sabha with criminal background.

Vaishnav (2011) studies elections to 28 state assemblies between 2003 and 2009. He finds that personal wealth of candidates is positively associated with criminal status where a candidate is defined to be a criminal if he has been charged with a "serious" crime. The basic result is subjected to a variety of robustness checks. This leads him to

[5] Vaishnav (2011) also finds that potentially criminal candidates have higher wealth.
[6] They measure a politician's quality by his record of illegal and corrupt behaviour as identified in a field survey.

offer the same explanation that we have mentioned earlier- parties nominate criminal candidates simply because they contribute larger sums to the party coffers.

Aidt. *et al* (2011) develop an interesting theoretical model where they assume that criminal candidates have some electoral advantage, although parties also incur some reputational cost in nominating them. They "are agnostic about the sources of this advantage", but speculate that the electoral advantage of criminals could arise because they can intimidate prospective voters of rival parties into staying away from the polls. Notice that this would imply voting turnout should be negatively correlated with number of criminals in a constituency. We show that this is not true in the 2009 Lok Sabha elections.

So, parties face a trade-off between the reputational cost of nominating candidates with criminal charges and their electoral advantage. This trade-off implies that parties would be more willing to incur the reputational cost in constituencies which are likely to witness close contests since the electoral advantage is more attractive in these constituencies. Conversely, a party would be unlikely to field a tainted candidate in a constituency where the party is very likely to win. Similarly, candidates with criminal indictments are more likely to be fielded in constituencies where the cost is lower – for instance, in constituencies where voters are poorly informed about the characteristics of the contesting candidates.

These theoretical predictions are plausible enough given the specified model. Unfortunately, there are some questionable issues in their empirical exercise. Perhaps, the most problematic is that they use literacy as the proxy for the cost of fielding a tainted candidate. Their rationale for doing so is that illiterate voters are less likely to be aware of the criminal background of the contesting candidates. Even if this is accepted at face value, there are at least two problems with using literacy as an explanatory variable. First, the only available data on literacy is from the 2001 Census, although their electoral data are for the 2004 and 2009 Lok Sabha elections. Second, census data are available only for administrative districts which do not coincide with political constituencies. Clearly, literacy data at the constituency level for 2004 and 2009 simply do not exist!

Aidt *et al* measure competitiveness by the percentage difference between the vote shares of the winning candidate and his/her closest rival in the *same* election. This raises serious endogeneity problems since the individual candidate characteristics (whether of criminal background or not) presumably has some influence on vote shares and hence on the measure of competitiveness used by the authors!

Chemin (2008) studies state elections and observes that bureaucratic corruption is lower in constituencies which elect criminal representatives. He also finds that poverty is higher in these constituencies. However, the mechanisms through which these effects operate is not spelt out in any detail.

The rest of the paper is organized as follows. In *section 2* the theoretical framework is laid out and the testable hypotheses are spelt out. The econometric specification and the details on the data and the different data sources used in the paper are described in *section 3*. Results from the empirical exercise are discussed in *section 4*, and the last section concludes.

2. The Theoretical Framework

In this section, we outline a simple model of electoral competition which provides a rationalisation for the regression equation(s) that we use in the paper. Before setting out the formal model, we briefly outline its basic features. Fix any constituency. Since we want to focus on how criminal charges affect the electoral fortunes of different candidates in the constituency, we do not consider how candidates choose their policy platforms. Instead, we assume that every candidate *i* in the constituency has a *fixed* policy or electoral platform. An alternative interpretation is that policy platforms are chosen in the first stage. Given the vector of policy platforms, candidates decide how much to spend on campaigning in the second stage. The main focus of the theoretical model is on how candidates decide on the amount of campaign expenditure, and how this affects expected vote shares.

Voters take into account the vector of policy platforms as well as candidate characteristics such as education, their past record in public service and party characteristics in deciding which candidate to support. A particular candidate characteristic that we will emphasise in the paper is *criminal record*. That is, some candidates may have a certain number of criminal charges levied against them. Such criminal charges result in some *stigma* associated to the candidates.[7]

Campaign expenditures benefit candidates in two ways. First, campaigning helps each candidate to influence voters that his or her electoral platform and individual characteristics are superior to that of the rivals. Second, candidates with criminal charges can campaign to convince voters that the charges leveled against them are baseless.[8] Voters base their voting decisions on the policy platforms, and candidate characteristics including the stigma attached to the different candidates. Finally, candidates choose the amount of campaign expenditure taking into account their expected vote share and its cost.

We now describe the model in greater detail.

Suppose there are *n* candidates in the constituency. For each candidate i, the *exogenous* characteristics are given by (p_i, c_i, w_i) where p_i represents i 's electoral platform as well as all relevant individual characteristics other than criminal record, c_i is a dummy variable which takes value 1 if i is a "criminal" and 0 otherwise, while w_i refer to the wealth of i. Each candidate i has to decide on the amount of campaign expenditure, which is financed out of the candidate's wealth. Let e_i denote the amount of expenditure of candidate i spent in order to convince the "marginal voter" to vote for him. Since all candidates participate in this activity, this resembles a contest. Let $h_i(e_i, e_{-i})$ describe the

[7] We use the term "stigma" to refer to the negative feeling experienced by voters about the candidate. All other things being equal, voters will prefer to vote for the candidate with a lower level of stigma.

[8] There is anecdotal evidence that in several states, candidates do *institute* false criminal charges against their opponents. Any such charge results in criminal proceedings being started. Given the inordinate delays in completing judicial proceedings in India, there is ample scope for a particular candidate to convince voters that the charges are false.

extent to which candidate i is succesful in winning over marginal voters when he spends e_i, while the campaign expenditure of others (for this purpose) is $e_{-i} = (e_1, \ldots, e_{-i}, e_{i+1}, \ldots . e_n)$. Then, $h_i(e_i, e_{-i})$ is a Tullock contest function. We assume that $h_i(e)$ is a strictly increasing, strictly concave function in e_i for all e_{-i}, and strictly decreasing in e_j . So, the higher the campaign expenditure of candidate i, the larger is the expected number of votes that i can hope to win over. However, the marginal benefit of additional expenditure is decreasing in e_i. On the other hand, campaigning by other candidates eats into the vote share of i.

We assume $\sum_{i=1}^{n} h_i(e) = 0$, where $e = (e_1, \ldots, e_n)$, and that
$\lim_{e_i \to 0} \frac{\partial h_i(e_i, e_{-i})}{\partial e_i} = \infty.$
One example of a function satisfying these specifications is
$h_i(e) = \frac{\ln e_i}{\sum_{j=1}^{n} e_j} - 1/n$

The criminal cases attract some *stigma* to i. Tainted candidates can campaign in order to convince voters that the charges against him are politically motivated and baseless. Let v_i denote the level of expenditure incurred for this purpose. Then, letting $S_i(c_i, v_i)$ denote the stigma attached to candidate i, we assume that S_i is decreasing and strictly concave in v_i. Also, we assume that

(1) $\lim_{v_i \to 0} \frac{\partial S_i(1, v_i)}{\partial v_i} = -\infty$

and

(2) $S_i(1, v_i) > 0$ for all v_i

So, all tainted candidates have an incentive to spend some strictly positive amount in reducing stigma, but they cannot wipe away the stigma completely. Of course, $S_i(0, v_i) = 0$ - no stigma is attached to candidates without any charges. Such candidates will set $v_i = 0$.

We assume that for all i, total campaign expenditure cannot exceed the candidate wealth, so that $e_i + v_i \leq w_i$. Let p denote the vector of candidate platforms $(p_1, \ldots, p_n)$. Similarly, e, v, c, w denote the corresponding vectors. Hence, the profile of candidate characteristics in the constituency is denoted (p, c, e, v, w).
Fix the profile of candidate characteristics (*p, c, e, v, w*). Candidate i 's *expected vote share* EV_i is

(3) $EV_i(p, c, e, w) = K_i(p) + h_i(e) - S_i(c_i, v_i) + \sum_{j \neq i} g_{ij} (S_j(c_j, v_j))$.

Equation 3 has the following interpretation. Suppose no candidate has any criminal charges against them so that there is no stigma attached to any candidate. Also, assume

first that no candidate does any campaigning. Then, $K_i(p)$ specifies *i* 's expected vote share corresponding to the vector of policy platforms p chosen by the competing candidates. Although we have not specified voters' behavior in detail, notice that K_i is very general. For instance, suppose P is the policy space, with voters' ideal points being distributed over P according to some distribution. Then, as in Downsian models of electoral competition, a voter will vote for the candidate whose policy platform is closest to his ideal point. Notice that we have made no assumption either about the structure of P or the distribution of voters' ideal points. We assume that

$$\sum_{i=1}^{n} K_i(p) = 1$$

As we have remarked earlier, $h_i(e)$ represents the expected increase in vote share due to campaigning.

Suppose now that candidate i has criminal charge(s) levied against him. Then, the function S_i comes into play. We assume that candidate i's stigma reduces his own expected vote share.

What is the effect on candidate i's expected vote share if some other candidate j has criminal charges instituted against him? Suppose first that candidate i is tainted. The fact that there are other candidate(s) with criminal charges lowers the stigma attached to i, and this increases i's expected vote share. Also, the stigma attached to j makes every other candidate seem "better" in the eyes of each voter, and so increases their vote share. Assume that

(4) $$g_{ij}(S_j(c_j, v_j)) = \frac{1}{n-1} S_j(c_j, v_j)$$

Notice that for all j, $S_j(c_j, v_j) = \sum_{i \neq j} g_{ij} S_j(c_j, e_j)$. Since $\sum_{i=1}^{n} h_i(e) = 0$ and $\sum_{i=1}^{n} K_i(p) = 1$, we have

(5) $$\sum_{i=1}^{n} EV_i = 1$$

Each candidate's objective is to maximise expected vote share, net of the disutility associated with campaign expenditure. Let the disutility be represented by $d(e_i, w_i)$. We assume that

(6) $$\frac{\partial d(e_i+v_i, w_i)}{\partial e_i} > 0, \frac{\partial^2 (e_i+v_i, w_i)}{\partial e_i^2} > 0, \frac{\partial^2 (e_i+v_i, w_i)}{\partial e_i \partial w_i} < 0$$

The latter assumption means that marginal disutility is decreasing in wealth. This is a reasonable assumption and mirrors the usual assumption of decreasing marginal utility of wealth.

The only strategic variable for the candidates is the level of campaign expenditure. A Nash equilibrium is a vector (e^*, v^*), such that for each i,

(7) (e^*, v^*), maximises $EV_i(p, c, (e_i, e^*_{-i}), (v_i, v^*_{-i})) - d(e_i, w_i)$

Consider any tainted candidate i. His choice of (e_i^*, v_i^*) must satisfy the first order conditions.

(8) $$\frac{\partial h_i(e_i, e_{-i}^*)}{\partial e_i} = \frac{\partial d(e_i^* + v_i^*, w_i)}{\partial e_i}$$

(9) $$\frac{\partial S_i(1, v_i^*)}{\partial v_i} = \frac{\partial d(e_i^* + v_i^*, w_i)}{\partial v_i}$$

The term on the left hand side of *equation 8* is the increase in expected vote share from additional campaign expenditure arising because candidate i is better able to convince voters that her policy platform is superior to that of others. So, the left hand side represents the marginal benefit arising from additional campaign expenditure. The right hand side is the marginal disutility arising from additional campaign expenditure. Hence, the equation represents the familiar condition that marginal benefit should be equated to marginal disutility in equilibrium. *Equation 9* is the requirement that expected marginal benefit from expenditure to reduce stigma must equal marginal disutility arising from additional campaign expenditure.

These conditions follow because our assumptions on $h_i(e)$ and $S_i(1, v_i)$ ensure an interior equilibrium; that is, $e_i^* > 0$ and $v_i^* > 0$ for each tainted candidate.
Candidates who have no criminal charges against them set $v_i^* = 0$ and so the only relevant first-order condition for them is *equation 8*.

Given the assumptions we have made so far, a Nash equilibrium must exist. Moreover, for each (e_{-i}, v_{-i}), there is a unique pair (e_i, v_i) solving i's first order condition. Since each i's best response is unique, there can only be pure strategy Nash equilibria.

Lemma 1 : Consider any two candidates i and j such that $c_i = c_j$ and $w_i > w_j$. Then, at any Nash equilibrium (e^*, v^*), $e_i^* > e_j^*$. Moreover, if $c_i = c_j = 1$, then $v_i^* > v_j^*$.

Proof : Choose i, j such that $c_i = c_j$ and $w_i > w_j$. Suppose the lemma is wrong and that there is some Nash equilibrium where $e_i^* \leq e_j^*$. From *equations 8* and *9*, and the fact that h_i and $S_i(1, v_i)$ are strictly concave, this implies that $v_i^* \leq v_j^*$. Then,

$$\frac{\partial h_i(e_i^*, e_{-i}^*)}{\partial e_i} \geq \frac{\partial h_j(e_j^*, e_{-j}^*)}{\partial e_j}$$

and

$$\frac{\partial d(e_i^* + v_i^*, w_i)}{\partial e_i} < \frac{\partial d(e_i^* + v_i^*, w_j)}{\partial e_j}$$

the latter following from *equation 7* and $w_i > w_j$.

But, then either i or j is not satisfying the first order condition. A similar proof establishes that $v_i^* > v_j^*$ when $c_i = c_j = 1$. This contradiction establishes the lemma.

We only have data on the wealth of candidates and not on their campaign expenditure. Fortunately, the previous lemma shows that there is a monotonically

increasing relationship between wealth and campaign expenditure *within* each of the two category of candidates – that is, the "tainted" candidates with criminal charges, and those who do not have any criminal charges. This monotonic relationship is used to establish the following very simple proposition.

Fix any Nash equilibrium (e^*, v^*) corresponding to the exogenous vectors of characteristics (p, c, w). Let $\emptyset^* = (\emptyset_1^*, \ldots\ldots, \emptyset_n^*)$denote the expected vote shares of the candidates at this Nash equilibrium.

Proposition: The expected vote share vector $\emptyset^*$ satisfies the following

(i) For any pair of candidates i and j, if $w_i = w_j$ and $c_i = 1,\ c_j = 0$, then $\emptyset_j^* - \emptyset_i^* > K_j(p) - K_i(p)$.
(ii) Ceteris paribus, criminal charges against candidate i's rivals have a positive effect on i's vote share.
(iii) For any two candidates i and j , if $c_i = c_j$ and $w_i > w_j$, then $\emptyset_i^* - \emptyset_j^* > [K_i(p) - K_j(p)]$.

Proof : (i) Consider two candidates i and j such that $c_i = 1$and $c_j = 0$. Also, assume that $w_i = w_j$. We first show that

$h_j(e^*) > h_i(e^*)$

To see this, we need to show that $e_j^* > e_i^*$. Given the assumptions we have made, $v_i^* > 0$ since $c_i = 1$. Suppose $e_i^* \geq e_j^*$. Then, given $w_i = w_j$,

$$\frac{\partial d_i(e_i^* + v_i^*, w_i)}{\partial e_i} > \frac{\partial d_j(e_j^*, w_i)}{\partial e_j}$$

But,

$$\frac{\partial h_i(e^*)}{\partial e_i} \leq \frac{\partial h_j(e^*)}{\partial e_j}$$

The latter two inequalities show that either i or j is not satisfying equation 9.

Hence, $e_j^* > e_i^*$ and so $h_j(e^*) > h_i(e^*)$. Moreover, $S_i(1, v_i^*) > 0$, and so this too reduces i's expected vote share. From *equation 4*, it follows that

$\emptyset_j^* - \emptyset_i^* > K_j(p) - K_i(p)$

(ii) This follows straightaway from the specification of the model. If $c_j = 1$, then $S_j(1, v_j^*) > 0$ and hence $g_{ij}(S_j(1, v_j^*) > 0$.

(iii) Suppose $w_i > w_j$ and $c_i = c_j$, $K_i(p) = K_j(p)$. Then, we know from lemma 1 that

$e_i^* > e_j^*$

Moreover, if $c_i = c_j = 1$, then

$v_i^* > v_j^*$

It follows straightaway from equation 4 that

$$\emptyset_i^* - \emptyset_j^* > K_i(p) - K_i(p)$$

This concludes the proof of the proposition.

We discuss briefly the implications of the proposition for our regression exercise. Consider part (i) of the proposition. Essentially, this says that once we have controlled for wealth and policy platforms, then expected vote share will be lower for a tainted candidate. We will attempt to verify this in the regression exercise by checking whether the criminal dummy has a negative coefficient[9]. The implication of part (ii) of the proposition is straightforward - the coefficient on the variable representing rival candidates with criminal charges should be positive. Finally, part (iii) requires that the coefficient on the wealth variable should be positive. Notice that the proposition leaves open the possibility that wealth has a differential impact on vote shares of tainted and non-tainted candidates.

3. Data and Econometric Specification

We now describe the data and the econometric specification used in the empirical exercise.

Data

In 2002, the Supreme Court in India decreed that all candidates contesting an election for the Lok Sabha, Rajya Sabha, or state assemblies in India had to file an affidavit with the Election Commission of India containing information on their assets (and liabilities), criminal charges and education. We derive the data on these variables directly from the affidavits of the candidates- these are available on the election commission's website as well as from a website maintained by the Association for Democratic Reforms (ADR), http://myneta.info.

The data on percent of votes obtained, age, and gender of the candidates are obtained from the election commission's website. Information on candidate incumbency has been gathered using various sources including searching through reports in the newspapers or on various internet sites. We define a party as an *incumbent* in a State if it was in power in the State (or was a major coalition partner), from 2008 up to the elections in 2009. The State level incumbency information has been put together using the information contained in various articles in the *Economic and Political Weekly* and elsewhere (*see*, appendix A1 and A2 for details). The state level data on crime has been obtained from the National Crime Bureau Reports. *Appendix A1* provides the data sources from where the data on various variables have been obtained, while *Appendix A2* provides the summary statistics of the variables.

India has 28 States and 7 Union Territories (UTs) in all. Among the UTs, only Delhi has its proper local administration with its own Chief Minister, while the remaining UTs

[9] In the theoretical model, the only determinants are (p, c, e, v). In the regression exercise, we will have additional controls.

are administered by the centre. Therefore, we include Delhi as a "State" in our sample while excluding the remaining six UTs from the analysis. We follow Gupta and Panagariya (2012) and exclude the eight northeastern States since they have a special status with deep involvement of the center in their development process, as well as the State of Jammu and Kashmir. This leaves us with a total of 20 States including Delhi. These States account for 506 out of the total of 543 parliamentary seats across the country.

Using the data from the affidavits, we define three categories for the education status of the candidates, education up to high school, an undergraduate, and a post graduate or a technical degree, and define different dummies for each one of them. Relative wealth is calculated as the ratio of the wealth of the candidate to the average wealth of the rest of the candidates. In the regressions, when we exclude all Independent candidates we calculate relative wealth as the ratio of the candidate's wealth to the average wealth of the other non-Independent candidates in the constituency.

Each candidate's affidavit has to contain information on whether the candidate faced any criminal charges, as well as the sections of the Indian Penal Code (IPC) under which the charges if any have been framed. In addition, the candidate has to declare whether he or she has ever been convicted. Thus, in principle, data are available on the number of criminal cases that a candidate faces, the specific sections of the IPC under which the candidate faces these charges and whether the candidate has ever been convicted. The ADR further divides the charges into the charges for serious and non serious offences, by examining the sections of the IPC under which the candidates face the charges. The conviction rate of candidates facing charges is very low,out of the 1,155 candidates in the 2009 Lok Sabha elections who faced at least one criminal charge, only 15 candidates were convicted.

It is sometimes claimed that the data on criminal charges is misleading since the charges might be initiated by political rivals. Moreover, some of the charges are associated with involvement in political activities. In order to clean the data of such "spurious" charges, we specify a value of one to the criminal dummy only when a candidate faces more than one charge. This adjustment takes care of some obvious cases of frivolous charges or charges arising out of political activities.[10] Henceforth, we will use the term *tainted candidate* to denote a candidate who has two or more criminal charges against them.

Consider now the patterns of criminal charges across candidates, states, and parties, and their correlates with other candidate specific factors for the 20 states that are included in our regression analysis. *Table 1* shows that it is the national and recognized state parties which field a substantially higher proportion of tainted candidates. In fact, roughly one in seven candidates fielded by state parties have at least two criminal charges levied against them. The corresponding number for national parties is over one in ten candidates. This, together with the fact that a substantially higher number of *winning* candidates come from the national and state parties, is a partial explanation of why the win-ratio (the ratio of the number of successful candidates to the number of

[10] As robustness checks, we choose alternative specifications where (i) the criminal dummy takes value one if a candidate has three or more criminal charges; or (ii) the *number* of criminal charges instead of a criminal dummy is used as an explanatory variable.

contesting candidates) is substantially higher for tainted candidates. This is documented in *Table 2*.

Table 3 shows the distribution of constituencies by the number of candidates who faced at least two charges. On average, about 15 candidates contested the election in each constituency in the 2009 Lok Sabha elections. Despite the large number of candidates, an overwhelming number of constituencies - over 75 per cent – had no tainted candidates. In other words, there was a concentration of tainted candidates in some constituencies. In fact, states like Bihar, Jharkhand, and Kerala had a concentration of tainted candidates.

Table 4 shows that on average, tainted candidates were wealthier, more likely to be incumbents and obtained a much larger percent of the votes. Somewhat surprisingly, the average age and education level of tainted candidates is also higher. Indeed, the differences in averages of these variables are statistically significant at the 1 percent level.

Econometric Specification

Our main interest is in examining whether the higher win ratio of tainted candidates can be reconciled with the assumption that voters do punish these candidates. The dependent variable in all our regressions is the vote share of each candidate *i*. Since this takes value between zero and one, we transform the variable by calculating the log odds ratio for vote share of each candidate and estimate the model by ordinary least squares, with heteroskedasticity corrected standard errors. The dependent variable Y_i is thus calculated as $\log\left(\frac{\text{Vote share}_i}{1-\text{vote share}_i}\right)$.

Another constraint is that the vote shares of all candidates add up to one within each constituency. Therefore in our benchmark regressions we estimate the regressions either by dropping all the candidates of a large party[11], or all the candidates belonging to a large coalition such as the United Progressive Alliance (UPA) or National Democratic Alliance (NDA), one at a time. Since the vote shares of these large parties and coalitions are significant (see *Table 5*), the adding-up constraint does not apply any longer.

We first start with a parsimonious specification in which the only explanatory variables are the criminal dummy and *Relative Wealth*. The reason why Relative (and not Absolute) wealth is used is straightforward. While the wealth of candidate *i* himself should have a positive impact, the wealth of other candidates should have a non-positive effect since vote shares add up to one. It therefore makes sense to use the relative wealth of candidate *i* as an explanatory variable. We also include other candidate characteristics such as the level of education of the candidate, dummy for the incumbent candidates seeking reelection to Lok Sabha, and a dummy for the candidates contesting as members of the state incumbent party(ies) in the regression equation.

The variables of particular interest are the criminal dummy and relative wealth. *Tables 6 and* 7 report the results of the regression exercises. The difference between these two tables is that the latter excludes the set of all Independent candidates from the

[11] We report results by dropping the candidates of the INC, BJP or BSP, as well as the UPA and NDA coalitions.

sample. However, there is no difference in the qualitative results. It turns out that the coefficients of both these variables are *positive* and statistically significant. Of course, the fact that the coefficient on the criminal dummy variable is positive seems to corroborate the view that tainted candidates have an electoral advantage. Certainly, it does not suggest that voters attach any stigma to tainted candidates. Next, we introduce a new variable which is the interaction of the criminal dummy with the number of *other* tainted candidates in the constituency. The presence of *other* tainted candidates in the constituency increases the vote share of a tainted candidate – a finding consistent with the theoretical model. The coefficient on the criminal dummy continues to be positive but is no longer statistically significant. So, these regressions do not suggest that voters punish tainted candidates.

However, the data does suggest that tainted candidates are significantly wealthier than the rest. The theoretical model also leaves open the possibility that wealth may play a differential role for tainted candidates. Since the earlier parsimonious regressions do not incorporate these factors explicitly, we enrich the specification by introducing a new variable which is the interaction of wealth with the criminal dummy.

So, our benchmark regression equation is:

$$Y_i=\alpha + \beta_c\ Criminal\ dummy_i + \beta_{cw}\ Wealth_i{*}\ Criminal\ dummy_i + \gamma_s\ Number\ of\ Candidates\ with\ Charges_i\ {*}Criminal\ dummy_i + \beta_w\ Relative\ Wealth_i + \beta_n\ Incumbency_i + \beta_{ns}\ State\ Incumbent_i + \beta_e\ Dummies\ for\ high\ Education\ Status_i + \gamma\ Constituency\ Fixed\ Effects + \lambda\ Party\ Fixed\ Effects + \varepsilon_i \quad (11)$$

In this formulation, β_c measures the response of voters to candidates with a criminal charge. Note that β_{cw} is not quite the marginal effect of wealth on vote shares of the tainted candidates since we use relative wealth as the "uninteracted" variable. It measures the differential impact of wealth on candidates with criminal charges.

In all our regressions we include constituency fixed effects and party fixed effects to control for omitted variables, such as the varying policy platforms of the candidates belonging to different political parties. We also conduct various robustness tests which are reported in detail in the next section.

Our empirical results for the basic regression equations are discussed in detail in the next section.

4. Main Regression Results

In this section, we describe the results of the basic regressions. We have two parallel sets of basic regressions. In the first, we estimate our regressions using the data for all candidates in the twenty states that we have included in our analysis. We then run the same regression on a smaller sample which includes only the candidates affiliated with some political party, thus dropping the observations for "Independent" candidates. We drop the Independent candidates since the majority of these candidates obtained

only negligible vote shares.[12] Almost all the results are invariant with respect to the two samples.

Table 8 reports the basic regression results. *Column I* contains the results for our benchmark specification. In subsequent columns we drop the candidates affiliated with the Indian National Congress (INC), Bhartiya Janata Party (BJP), Bahujan Samaj Party (BSP), UPA and NDA respectively from the sample, in order to avoid the adding up constraint. In *Table 9* we carry out a similar exercise but after dropping the Independent candidates from the data.

The variables we are particularly interested in are the criminal dummy variable, relative wealth, as well as the interaction of the criminal dummy with wealth and with the number of other candidates with criminal charges in the constituency. *Table 8* shows that our results are remarkably consistent with the theoretical model of *Section 2*. Importantly, the qualitative results hold irrespective of which party or coalition is dropped from the sample in order to take care of the adding-up constraint. Thus, the negative coefficient on the criminal dummy shows that tainted candidates lose vote share relative to the others. Relative wealth has a positive effect on vote shares. The coefficient of (log) wealth interacted with the criminal charge dummy is positive, implying that the loss in vote share is smaller for a wealthier candidate. Similarly, the coefficient of the interaction between the number of other tainted candidates with criminal charges and the criminal dummy is positive and significant in the regressions for all the candidates. This implies that the stigma attached to being a tainted candidate declines if there are other tainted candidates in the constituency.

Among other results, the high education status of the candidates has a positive effect on vote share. We also find that incumbency at the candidate level as well as at the party level in the state increases the vote share of the candidates.[13] Most of these results are robust to the exclusion of Independent candidates from the sample.

We now report on some robustness checks. Since the primary purpose of the paper is to throw light on voter response to tainted candidates, we conduct a key robustness test by constructing the dummy for criminal charges in an alternative way. This dummy takes value 1 if the candidate faces at least *three* criminal charges (instead of *two* in the earlier specification), and zero otherwise. Construction of the dummy in this way reduces the possibility of labeling a candidate as tainted if the charges against him are politically motivated or perhaps arising from violations of the law while undertaking political activities. The results are qualitatively similar to the ones obtained earlier for most of the variables. The coefficients of the criminal dummy and the interaction between wealth and criminal dummy are somewhat larger than before, thus indicating that the loss of vote share is larger for a candidate who faces three or more charges than for the candidates with at least two charges. For such candidates, additional wealth helps in reducing the stigma by a larger amount as well.

Table 10 reports some additional robustness checks. *Column III* in *Table 10* includes the interaction of state incumbent and criminal dummy, while *column IV* includes age and gender of the candidate in the regressions. Finally, in the last column we include

[12] There were 3825 independent candidates with an average vote share of about 0.80 percent. Only 10 Independent candidates won in the 2009 election.
[13] Gupta and Panagariya (2011) also come to the same conclusion.

the number of all candidates with criminal charges in a constituency rather than only against the top four candidates by vote share, interacted with the dummy for criminal candidates.

The results show that the coefficients of the main variables of interest—wealth or relative wealth, criminal dummy and the interaction of wealth and criminal dummy, retain their significance. The only variable which loses significance in some of the specifications is the interaction of the number of charges against other candidates with criminal dummy.

Some other robustness tests are reported in *Table 11*. In *column I*, relative wealth is calculated as the ratio of the candidate's own wealth to the sum of the wealth of candidates who received at least 3 percent of the total votes. Similarly, the number of candidates with charges also includes the data for only these candidates. In *column II* we estimate the regressions using the data only for the constituencies reserved for candidates from the scheduled castes and schedule tribes. In the last column we estimate the regressions only for the constituencies which are not reserved for the candidates of the schedules or scheduled tribes. Again all our main results hold— the criminal dummy has a negative coefficient, wealth or relative wealth has a positive coefficient, and the interaction of wealth and criminal dummy has a positive coefficient. The coefficient of other candidates with charges is mostly positive, but insignificant in some of the specifications.

We have conducted two more robustness tests, but do not report the results. In one, we drop one state at a time and estimate our benchmark specification with the rest of the data. All of our results hold with minor variations in the coefficients or the significance levels. This robustness test confirms that our results are not driven by any outlier state. Second we estimate regressions similar to those in *Table 10* by eliminating the Independent candidates from the sample. The qualitative results remain unchanged.

These results seem to leave very little doubt that voters do punish tainted candidates – this conclusion remains true irrespective of the specification chosen by us, and also remains true when we leave Independents out of the regression exercise. However, this raises the obvious question. Why do political parties nominate so many tainted candidates when they have so many other aspiring candidates fighting for a party ticket? As we have mentioned earlier, Aidt *et al* (2010) construct a theoretical model which assumes that tainted candidates have some *electoral advantage* which induces political parties to nominate them despite some reputational cost. They do not specify the nature of the electoral advantage, but mention in passing that it could be the power of criminal candidates to intimidate voters who are likely to vote for their rivals. If this were the case, then one would expect voter turnout to be lower the greater is the number of tainted candidates. *Table 12* negates this hypothesis – the data seem to show no negative relationship between voter turnout and the number of tainted candidates in a constituency.

An alternative hypothesis advanced by Vaishnav (2010) is that tainted candidates are wealthier. In fact, he finds empirical support for this hypothesis in his data set which consists of elections in various State assemblies. As *Table 13* shows, this seems to be true even in our sample. So, it seems plausible to argue that tainted candidates use their greater wealth to "buy" their tickets. They can use their wealth to campaign more intensively, and perhaps also contribute to party funds. Unfortunately, we have no data

(other than the self-reported wealth of the candidates) to empirically verify any other hypothesis.

5. Conclusion

Our main empirical results suggest that voters do punish candidates who have criminal charges against them. However, these tainted candidates are able to overcome this electoral disadvantage because they have greater wealth, and wealth plays a significant role in increasing vote shares. The most plausible channel through which wealth affects vote shares is of course through campaign expenditures, which are likely to be positively related to wealth.

There is now a fair body of evidence suggesting that voters who have information about the corrupt ion of incumbent politicians do punish the latter. For instance, Ferraz and Finan (2008) use detailed Brazilian electoral and audit data to show that new information about political corruption reduces the probability of re election for corrupt incumbents. Bobonis *et al* (2011) find that publicly available pre-election municipal audits significantly reduce the level of corruption in Puerto Rican municipalities.[14] Closer home, Banerjee *et al* (2011) conclude, on the basis of a field experiment conducted before the Delhi state legislative elections , that voters who had access to information about incumbent performance punished worse performing incumbents and those facing better quailed challengers – these incumbents then received significantly fewer votes.

Our empirical results, along with this body of evidence suggests that it is important for voters to be better informed about candidate characteristics. The mere requirement that candidates file affidavits with the Election Commission about their characteristics is of limited use if voters do not have access to this information. Perhaps, the Election Commission needs to play a more active role in disseminating this information. The Commission must also think seriously about enhancing the existing ceilings on campaign expenditure since practically no candidate or party adheres to the current limits on expenditure. However, the Commission must ensure that all candidates adhere to the enhanced (but realistic) ceiling. This will then at least reduce the "wealth advantage" enjoyed by tainted politicians.

[14] See also Brollo(2011),

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Appendix A1: Description and Data Sources of Variables

Variable	Source	Description
Dependent Variable	Election Commission and own calculation	The dependent variable for candidate i is calculated as $\log\left(\frac{\text{Vote share}_i}{1-\text{vote share}_i}\right)$
Criminal Dummy	Election Commission and Association for Democratic Reforms (ADR)	The dummy takes a value 1 if the candidate has two or more criminal cases against him, and zero otherwise. In robustness tests the dummy takes a value 1 if the candidate has three or more cases against him.
Wealth*Criminal Dummy	Election Commission	Interaction variable calculated as Log wealth x dummy for criminal charges
Relative wealth	Election Commission and own calculation	Wealth of the candidate/average wealth of all other candidates in the constituency
Candidates with charges	Election Commission and ADR	Number of candidates within the constituency who face criminal cases. In most specifications, as mentioned in the tables, we look at the number of such candidates within top four candidates by vote share, and in robustness tests we include the number of all candidates with charges within the constituency.
Candidates with charges*criminal dummy	Election Commission and ADR and own construction	Interaction between number of candidates with charges and criminal charges dummy.
Education: Dummy for Undergraduate Degree Dummy for Masters Degree	Election Commission	Dummy for Undergraduate Degree takes a value 1 if a candidate has education up to undergraduate, and zero otherwise; and Dummy for Masters Degree takes a value 1 for education level higher than undergraduate (or for a technical or professional degree) and zero otherwise.
Age	Election Commission	In years
Gender dummy	Election Commission	Dummy takes a value 1 if the candidate is a female, and 0 otherwise
Incumbent Member of Parliament	Various sources on the web	The dummy takes a value 1 if the candidate was a member of the previous Lok Sabha, and zero otherwise.

State Incumbent party	Various sources on the web and different issues of *Economic and Political Weekly*	The dummy takes a value 1 if the candidate belongs to a party which was in power in state government in 2008-09 before the Lok Sabha Elections. The state incumbent parties are: Andhra Pradesh, Indian National Congress (INC), TRS; Bihar: JDU, Bhartiya Janata Party (BJP); Chhattisgarh: BJP; Delhi: INC; Goa: INC, NCP; Gujarat: BJP; Himachal Pradesh: BJP; Haryana: INC; Kerala: CPI (Marxist), CPI; Maharashtra: INC, NCP; Madhya Pradesh: BJP; Orissa: Biju Janata Dal; Punjab: Siromani Akali Dal, BJP; Rajasthan: BJP; Tamil Nadu: Dravida Munnetra Kazhagam, INC; Uttarakhand: BJP; Uttar Pradesh: Bajuhan Samaj Party; West Bengal: CPI (Marxist), RSP; Karnataka: BJP; Jharkhand: JMM, BJP

Appendix A2: Summary Statistics of Variables

Variable	Observations	Average	Minimum	Maximum
Per cent of Votes Obtained	7192	6.82	0.02	78.80
$\log\left(\frac{\text{Vote share}_i}{1-\text{vote share}_i}\right)$	7192	-4.61	-8.52	1.31
Criminal dummy (at least two cases)	7173	0.07	0	1
Number of candidates with charges (in top four candidates)	7192	1.22	0	4
Relative wealth	7192	2.26	0.00	452.22
Wealth (1000s) log	7192	13.81	0.69	22.57
Education dummy for undergrad degree	6749	0.22	0	1
Education dummy for masters degree	6749	0.27	0	1
Incumbent Member of Parliament	7192	0.05	0	1
State incumbency party	7192	0.07	0	1
Age	7191	45.98	25	88
Gender Dummy	7192	0.07	0	1

*we drop three outliers from the regressions when the relative wealth exceeded 500. Statistics ate given for the data for twenty states that we have used in the paper.

Table 1: Candidates with Criminal Cases across Party Types

Party Type	Number of Candidates	Number of Candidates with least 2 Criminal Cases	% of Candidates With at least 2 Criminal Cases
	I	II	III: (II/1)*100
National Parties	1353	176	11.5
State Parties	585	108	15.6
Unrecognised Parties	1790	110	6.2
Independent Candidates	3659	124	3.4

Source: Authors' own calculations using the data mentioned in *Appendix A1*; data refer to the observations on twenty states included in the regressions.

Table 2: Distribution of Contesting and Winning Candidates by the number of Criminal Cases

Number of Criminal Cases	Number of Candidates	Number of Winning Candidates
I	II	III
0	6,551	349
1	607	73
2-4	382	57
5-9	92	16
>10	44	10
Total	7676	506

Source: Authors' own calculations using the data mentioned in *Appendix A1*; data refer to the observations on twenty states included in the regressions.

Table 3: Distribution of Candidates with Charges across Constituencies

Number of candidates with at least two charges	Number of constituencies
0	206
1	169
2	83
3	25
4	14
5	9

Source: Authors' own calculations using the data mentioned in *Appendix A1*, data refers to the observations on twenty states included in the regressions.

Table 4: A Comparison of Variables for Candidates with and without Criminal Charges (at least two Criminal Charges)

Criminal Dummy	% votes	Age	Log Assets (in 1000s)	Education Index	Incumbent (percent)
0	5.9	45.7	13.7	2.57	4
1	15.4***	47.2***	15.1***	2.71***	10***
Total	6.59	45.8	13.81	2.58	5

Source: Authors' own calculations using the data mentioned in *Appendix A1*; data refer to the observations on twenty states included in the regressions. *** indicates that the values are significantly different from those for candidates with one or no charges at 1 percent level of significance.

Table 5: Number of seats and Vote Shares of Parties

	Parties	Number of Seats	Average Vote Share
NDA	Asom Gana Parishad	6	33.63
	Bhartiya Janata Party	433	25.00
	Indian National Lok Dal	5	28.99
	Janata Dal (United)	55	18.53
	Rashtriya Lok Dal	7	37.66
	Shiromani Akali Dal	10	43.18
	Shiv Sena	47	18.08
	Telangana Rashtra Samiti	9	29.23
UPA	All India Majlis-e-Ittehadul Muslimeen	1	42.14
	All India Trinamool Congress	35	34.13
	Dravida Munnetra Kazhagam	22	44.89
	Indian National Congress	440	35.06
	Jammu & Kashmir National Conference	3	48.18
	Jharkhand Mukti Morcha	42	5.62
	Kerala Congress(M)	1	50.13
	Muslim League Kerala State Committee	17	9.30
	Nationalist Congress Party	68	16.99
	Republican Party of India (Athvale)	53	0.40
	Viduthalai Chiruthaigal Katch	3	29.28
BSP	Bahujan Samaj Party	500	7.18

Table 6: Explaining the Vote Share of Candidates—Benchmark Specification
(All Candidates, no Interaction Between Wealth and Criminal Dummy)

	I	II	III	IV	V	VI
	All	**Drop INC**	**Drop BJP**	**Drop BSP**	**Drop UPA**	**Drop NDA**
Criminal Dummy	0.132	0.158	0.121	0.128	0.154	0.06
	[1.21]	[1.43]	[1.07]	[1.11]	[1.35]	[0.55]
Candidates with Charges (among top 4) *criminal dummy	0.278***	0.284***	0.306***	0.287***	0.270***	0.316***
	[5.09]	[4.95]	[5.24]	[4.92]	[4.56]	[5.54]
Relative Wealth	0.008***	0.013***	0.008***	0.008***	0.014***	0.008***
	[3.32]	[5.04]	[3.10]	[2.87]	[4.61]	[3.16]
Education dummy for undergrad degree	0.148***	0.134***	0.135***	0.164***	0.123***	0.122***
	[4.12]	[3.69]	[3.65]	[4.42]	[3.40]	[3.30]
Education dummy for masters degree	0.260***	0.252***	0.261***	0.256***	0.240***	0.247***
	[7.27]	[6.91]	[7.07]	[6.90]	[6.52]	[6.71]
State Incumbent	1.772***	2.072***	1.926***	1.599***	1.976***	1.812***
	[24.34]	[24.57]	[20.25]	[18.74]	[22.20]	[18.59]
Incumbent Member of Parliament	0.845***	1.092***	0.946***	0.929***	1.105***	0.931***
	[9.69]	[10.22]	[8.87]	[10.31]	[9.82]	[8.39]
Fixed Effects for Constituencies	Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effects for Parties	Yes	Yes	Yes	Yes	Yes	Yes
Observations	6,729	6,338	6,341	6,281	6,145	6,213
Adj. R-squared	0.782	0.757	0.763	0.79	0.752	0.762

*,**, *** indicate that the coefficient is significantly different from zero at 10, 5 and 1 percent levels of significance respectively. Robust t statistics are reported in parentheses. The variables are defined in *Appendix A1* and in the text. The dependent variable is calculated as $\log\left(\frac{\text{Vote share}_i}{1-\text{vote share}_i}\right)$. In *column I* we estimate the regression for all the candidates. In *column II -VI* we drop candidates belonging to specific parties or coalition groups from the sample of all candidates.

Table 7: Explaining the Vote Share of Candidates—Benchmark Specification
(No independent Candidates, no Interaction Between Wealth and Criminal Dummy)

	I	II	III	IV	V	VI
	All	**Drop INC**	**Drop BJP**	**Drop BSP**	**Drop UPA**	**Drop NDA**
Criminal Dummy	0.218	0.264*	0.226	0.208	0.222	0.15
	[1.40]	[1.66]	[1.33]	[1.17]	[1.30]	[0.90]
Candidates with Charges (among top 4) * criminal dummy	0.229***	0.213***	0.266***	0.244***	0.203**	0.280***
	[3.10]	[2.76]	[3.23]	[2.91]	[2.45]	[3.46]
Relative Wealth	0.007***	0.010***	0.007***	0.008***	0.011***	0.007***
	[3.23]	[3.74]	[3.24]	[3.15]	[3.49]	[3.42]
Education dummy for undergrad degree	0.214***	0.191***	0.185***	0.263***	0.166***	0.158**
	[3.56]	[3.01]	[2.79]	[3.96]	[2.58]	[2.38]
Education dummy for masters degree	0.339***	0.321***	0.359***	0.358***	0.293***	0.332***
	[6.02]	[5.42]	[5.77]	[5.77]	[4.80]	[5.29]
State Incumbent	1.741***	2.008***	1.860***	1.654***	1.905***	1.748***
	[24.10]	[23.21]	[18.08]	[18.70]	[20.47]	[16.69]
Incumbent Member of Parliament	0.783***	1.009***	0.893***	0.859***	1.022***	0.893***
	[8.89]	[9.35]	[8.15]	[9.28]	[8.96]	[7.88]
Fixed Effects for Constituencies	Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effects for Parties	Yes	Yes	Yes	Yes	Yes	Yes
Observations	3,629	3,238	3,241	3,181	3,045	3,113
Adj. R-squared	0.773	0.767	0.76	0.787	0.769	0.764

*,**, *** indicate that the coefficient is significantly different from zero at 10, 5 and 1 percent levels of significance respectively. Robust t statistics are reported in parentheses. The dependent variable is calculated as $\log\left(\frac{\text{Vote share}_i}{1-\text{vote share}_i}\right)$. *In column I* we estimate the regression for all the candidates affiliated to some party, thus dropping Independent candidates. In subsequent columns, we drop candidates belonging to specified parties or coalitions

Table 8: Explaining the Vote Share of Candidates—Benchmark Specification (All Candidates)

	I	**II**	**III**	**IV**	**V**	**VI**
	All	Drop INC	Drop BJP	Drop BSP	Drop UPA	Drop NDA
Criminal Dummy	-1.06***	-1.05***	-1.04***	-1.27***	-1.05***	-0.88**
	(2.83)	(2.83)	(2.70)	(3.30)	(2.74)	(2.30)
Candidates with Charges (among top 4)	0.25***	0.25***	0.29***	0.26***	0.24***	0.29***
*Criminal dummy	(4.48)	(4.37)	(4.71)	(4.38)	(4.03)	(5.10)
Relative Wealth	0.007***	0.012***	0.007***	0.007***	0.013***	0.007***
	(3.02)	(4.51)	(2.81)	(2.65)	(4.11)	(2.90)
Wealth log*Criminal Dummy	0.082***	0.084***	0.081***	0.096***	0.084***	0.066**
	(3.19)	(3.27)	(3.01)	(3.64)	(3.16)	(2.46)
Education Dummy for Undergrad Degree	0.14***	0.13***	0.13***	0.16***	0.12***	0.119***
	(4.03)	(3.63)	(3.55)	(4.33)	(3.35)	(3.23)
Education Dummy for Masters Degree	0.26***	0.25***	0.257***	0.25***	0.24***	0.244***
	(7.16)	(6.79)	(6.95)	(6.74)	(6.42)	(6.61)
State Incumbent	1.76***	2.054***	1.910***	1.599***	1.961***	1.798***
	(24.10)	(24.18)	(19.89)	(18.75)	(21.89)	(18.28)
Incumbent Member of Parliament	1.77***	2.06***	1.91***	1.60***	1.97***	1.80***
	(24.15)	(24.29)	(19.99)	(18.69)	(21.99)	(18.38)
Fixed Effects for Constituencies	Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effects for Parties	Yes	Yes	Yes	Yes	Yes	Yes
Observations	6,729	6,338	6,341	6,281	6,145	6,213
Adj. R-squared	0.78	0.76	0.764	0.79	0.75	0.76

*,**, *** indicate that the coefficient is significantly different from zero at 10, 5 and 1 percent levels of significance respectively. Robust t statistics are reported in parentheses. The regression equation is in *equation 8* and the variables are defined in *Appendix A1* and in the text. The dependent variable is calculated as $\log\left(\frac{\text{Vote share}_i}{1-\text{vote share}_i}\right)$. In *column I* we estimate the regression for all the candidates. In *column II -VI* we drop candidates belonging to specific parties or coalition groups form the sample of non independent candidates.

Table 9: Explaining the Vote Share of Candidates (Candidates who are affiliated with a Political Party)

	I	II	III	IV	V	VI
	Party affiliated	**Drop INC**	**Drop BJP**	**Drop BSP**	**Drop UPA**	**Drop NDA**
Criminal Dummy	-0.97*	-1.04**	-0.85*	-1.20**	-1.18**	-0.59
	(1.93)	(2.17)	(1.65)	(2.21)	(2.21)	(1.15)
Candidates with Charges (among top 4)	0.198***	0.17**	0.23***	0.21**	0.160*	0.26***
*Criminal Dummy	(2.60)	(2.18)	(2.76)	(2.48)	(1.88)	(3.06)
Relative Wealth		0.009*	0.009**	0.012***	0.009*	0.009**
		(1.79)	(2.41)	(3.52)	(1.65)	(2.48)
Wealth log*Criminal Dummy	0.079**	0.089***	0.07**	0.095***	0.096***	0.05
	(2.37)	(2.79)	(2.13)	(2.64)	(2.71)	(1.48)
Education Dummy for Undergrad Degree	0.23***	0.19***	0.18***	0.25***	0.16**	0.15**
	(2.76)	(2.94)	(2.70)	(3.83)	(2.49)	(2.30)
Education Dummy for Masters Degree	0.35***	0.32***	0.36***	0.36***	0.29***	0.33***
	(4.37)	(5.33)	(5.70)	(5.70)	(4.69)	(5.25)
State Incumbent	1.74***	2.0***	1.87***	1.64***	1.91***	1.76***
	(23.95)	(23.05)	(17.95)	(18.53)	(20.44)	(16.60)
Incumbent Member of Parliament	0.78***	0.99***	0.89***	0.86***	1.02***	0.89***
	(8.88)	(9.21)	(8.08)	(9.29)	(8.87)	(7.80)
Fixed Effects for Constituencies	Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effects for Parties	Yes	Yes	Yes	Yes	Yes	Yes
Observations	3,629	3,227	3,231	3,172	3,037	3,103
Adj. R-squared	0.774	0.766	0.76	0.787	0.768	0.763

*,**, *** indicate that the coefficient is significantly different from zero at 10, 5 and 1 percent levels of significance respectively. Robust t statistics are reported in parentheses. The regression equation is in *equation 11* and the variables are defined in *Appendix A1* and in the text. The dependent variable is calculated as $\log\left(\frac{\text{Vote share}_i}{1-\text{vote share}_i}\right)$. In *column I* we estimate the regression for the candidates who are affiliated with a political party; so we drop all independent candidates from the sample. In subsequent columns, we drop candidates belonging to specified parties or coalitions.

Table 10: Explaining the Vote Share of Candidates: Robustness Tests

	I	II	III	IV	V
Criminal Dummy			-1.27***	-0.98***	-1.02**
			(3.30)	(2.65)	(2.53)
Criminal Dummy (more than 2 cases)	-1.15*	-1.45**			
	(1.87)	(2.15)			
Candidates with Charges (among top 4)*	0.28***	0.195**			
Criminal Dummy (>2cases)	(3.76)	(2.03)			
Candidates with Charges (among top 4)			0.27***	0.25***	
*Criminal Dummy			(4.84)	(4.43)	
Candidates with Charges*Criminal Dummy					0.037
					(1.22)
Relative Wealth	0.008***		0.007***	0.007***	0.007***
	(3.22)		(2.88)	(3.00)	(2.98)
Relative Wealth (no independents)		0.008***			
		(2.69)			
Wealth log*Criminal Dummy			0.099***	0.078***	0.10***
			(3.71)	(3.03)	(3.95)
Wealth log*Criminal Dummy (>2 cases)	0.089**	0.113***			
	(2.21)	(2.63)			
Education Dummy for Undergrad Degree	0.15***	0.22***	0.14***	0.14***	0.14***
	(4.17)	(3.60)	(4.02)	(4.04)	(4.01)
Education Dummy for Masters Degree	0.26***	0.35***	0.25***	0.25***	0.25***
	(7.25)	(6.09)	(7.10)	(6.92)	(7.10)
State Incumbent	1.79***	1.76***	1.85***	1.77***	1.78***
	(24.37)	(24.12)	(24.06)	(24.18)	(24.31)
Incumbent Member of Parliament	0.84***	0.78***	0.83***	0.82***	0.84***
	(9.59)	(8.82)	(9.57)	(9.43)	(9.56)
State Incumbent*Criminal Dummy			-0.52***		
			(3.26)		
Age				0.005***	
				(3.78)	

Gender				0.036	
				(0.69)	
Fixed Effects for Constituencies	Yes	Yes	Yes	Yes	Yes
Fixed Effects for Parties	Yes	Yes	Yes	Yes	Yes
Observations	6,729	3,618	6,729	6,728	6,729
Adj. R-squared	0.781	0.772	0.783	0.783	0.781

*,**, *** indicate that the coefficient is significantly different from zero at 10, 5 and 1 percent levels of significance respectively. Robust t statistics are reported in parentheses. The regression equation is in *equation 11* and the variables are defined in *Appendix A1* and in the text. The dependent variable is calculated as $\log\left(\frac{\text{Vote share}_i}{1-\text{vote share}_i}\right)$. In *column I* and *II* we include a new criminal charge dummy, which takes a value 1 only if the candidates face at least three charges. In *column I* we estimate the regression for all the candidates and in *column II* we estimate the regression after dropping independent candidates from the regression. In *column III* we include the interaction of state incumbent and criminal dummy. *In column IV* we include age and gender of the candidates in the regressions, and in *column V*, we include the interaction variable of all candidates with charges in the constituency and criminal dummy (rather than the candidates with charges among top four candidates interacted with criminal dummy).

Table 11: Explaining the Vote Share of Candidates: More Robustness Tests

	I	II	III
	Different Reference group for relative wealth	**Only Reserved Constituencies**	**Only General Constituencies**
Criminal Dummy	-1.08***	-1.79*	-0.85**
	(2.86)	(1.87)	(2.01)
Candidates with charges (at least 3 % vote share)	0.08		
*Criminal Dummy	(1.42)		
Candidates with charges (among top 4)		0.30*	0.25***
*Criminal Dummy		(1.91)	(4.00)
Relative Wealth (candidates with at least 3 % votes)	0.013***		
	(4.10)		
Relative Wealth		0	0.009***
		(0.15)	(4.56)
Wealth log*Criminal Dummy	0.109***	0.140**	0.064**
	(4.49)	(1.97)	(2.26)
Education Dummy for Undergrad Degree	0.14***	0.19**	0.11**
	(3.98)	(2.53)	(2.54)
Education Dummy for Masters Degree	0.26***	0.39***	0.21***
	(7.14)	(4.83)	(4.95)
State Incumbent	1.79***	1.71***	1.76***
	(24.52)	(11.30)	(20.41)
Incumbent Member of Parliament	0.82***	0.66***	0.88***
	(9.37)	(3.24)	(8.62)
Fixed Effects for Constituencies	Yes	Yes	Yes
Fixed Effects for Parties	Yes	Yes	Yes
Observations	6,715	2,021	4,708
Adj. R-squared	0.781	0.764	0.787

*,**, *** indicate that the coefficient is significantly different from zero at 10, 5 and 1 percent levels of significance respectively. Robust t statistics are reported in parentheses. The regression equation is in *equation 11* and the variables are defined in *Appendix A1* and in the text. The dependent variable is calculated as $\log\left(\frac{\text{Vote share}_i}{1-\text{vote share}_i}\right)$. In *column I*, relative wealth is calculated with respect to the wealth of the candidates who obtained at least 3 percent of the vote share. In *column II* we estimate the regression for only the candidates who contested elections from a constituency reserved for the candidates of scheduled castes or scheduled tribes; in *column III* we estimate the regression for the unreserved constituencies.

Table 12: Voter Turnout and the Number of Candidates with Criminal Charges
(Dependent Variable: Percent of Eligible Voters who voted)

	I	II	III	IV	V	VI
Number of Candidates with at least two Charges	0.079	0.34	0.23			0.20
	(0.28)	(1.21)	(0.79)			(0.72)
Total Candidates		-0.23***	-0.24***			-0.23***
		(4.14)	(4.30)			(4.18)
Number of Candidates with at least				0.861**	1.0**	
Two Charges from a Large Party				(2.08)	(2.38)	
Number of Candidates from Large Parties					-0.579*	
					(1.86)	
Dummy for a Constituency Reserved			-2.25***	-1.25	-1.397*	-2.23***
for the Scheduled Caste Candidates			(2.91)	(1.65)	(1.83)	(2.85)
Dummy for a Constituency Reserved			1.14	2.61**	2.74**	0.51
for the Scheduled Tribe Candidates			(0.94)	(2.24)	(2.31)	(0.41)
Literacy						-0.093**
						(2.09)
State Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effects for Parties	No	No	No	No	No	No
Observations	506	506	506	506	506	506
Adj. R-squared	0.78	0.788	0.792	0.784	0.785	0.794

*,**, *** indicate that the coefficient is significantly different from zero at 10, 5 and 1 percent levels of significance respectively. Robust t statistics are reported in parentheses. Dependent variable is percent of eligible voters who voted. Regressions are estimated using linear OLS regressions. A large party refers to a national or a state party. Literacy rate refers to the rate of literacy for each constituency in 2008, the data for which is obtained from Indicus Analytics.

Table 13: Candidate Wealth and Criminal Dummy
(Dependent Variable: Candidate Wealth, Log)

	I	II	III	IV	V
Criminal Dummy	0.779***	0.781***	0.646***	0.762***	0.714***
	(7.57)	(7.58)	(6.27)	(5.79)	(6.06)
Dummy for National Party	2.577***	2.072***			1.924***
	(42.74)	(31.15)			(22.36)
Dummy for State Party	1.882***	1.625***			1.426***
	(19.82)	(17.55)			(13.21)
Education Dummy for Undergrad Degree		0.744***	0.648***	0.656***	0.701***
		(11.11)	(9.79)	(5.29)	(7.37)
Education Dummy for Masters Degree		1.041***	0.820***	1.020***	1.021***
		(16.07)	(12.51)	(8.63)	(11.88)
Incumbent Member of Parliament		1.135***	0.872***	1.097***	1.041***
		(11.64)	(8.41)	(10.54)	(10.71)
Fixed Effects for Constituencies	Yes	Yes	Yes	Yes	Yes
Fixed Effects for Parties	No	No	Yes	No	No
Observations	7,173	6,733	6,729	2,075	3,629
Adj. R-squared	0.253	0.305	0.372	0.208	0.29

*,**, *** indicate that the coefficient is significantly different from zero at 10, 5 and 1 percent levels of significance respectively. Robust t statistics are reported in parentheses. Dependent variable is log wealth of the candidates. Dummy for national party takes a value 1 if the candidate belongs to a national party, and zero otherwise; dummy for a state party takes a value 1 if the candidate belongs to a state party, and zero otherwise. In *column IV* we estimate regressions only for the candidates of national parties; and in *column V* regressions are estimated only for candidates who are affiliated with one of the political party, thus dropping the "Independent candidates".