

# Parochial Politics: Ethnic Competition and Politician Corruption in India

Abhijit V. Banerjee and Rohini Pande\*

## Abstract

The prevalence of narrow minded, or parochial, politics, be it along religious, ethnic or geographic lines, is central to understanding the political economy of development. We develop a model of party competition to explain how polarization of the voter population along ethnic lines may both increase entry by parochial parties which pander to the majority and politician corruption. Central to our model is the notion that political competition is multi-dimensional; citizens care about politician quality and have group preferences. Ethnic polarization, by increasing the electoral returns to parochialism, enhances parties and voters willingness to trade-off politician quality in favor of more parochial candidates. We use North India as a testing ground for the model's predictions, exploiting the dramatic rise of low caste parties since the 1980s. Detailed survey data on politician corruption spanning 30 years shows a strong correlation between the rise of party competition and politician corruption.

Preliminary draft

---

\*The authors are from MIT and Yale University respectively. Pande thanks NSF for financial support for this project under grant SES-0417634

# 1 Introduction

“Our vote and your rule, this will not work anymore”  
(Campaign slogan of a low caste Indian party, BSP)<sup>1</sup>

“Rather, the competition for votes fosters the emergence of demagogues who scapegoat the resented minority and foment active ethnonationalist movements demanding that the country’s wealth and identity be reclaimed by the ‘true owners of the nation.’ ” (Amy Chua (2002))

A common presumption in the political economy of development literature is that increased political competition will improve the quality of governance by improving the set of choices. The classic example here is democratization (Acemoglu and Robinson (2005)). Some, relatively tenuous empirical support for this idea comes from Jones and Olken (2005) and Rodrik and Wacziarg (2005) (who use cross country data) and more convincingly from Besley, Persson, Sturm (2005) (who use US data).

Yet, there is also a strong suggestion in the literature that ethnic diversity may limit the benefits of democratization (Easterly and Levine (1997), Alesina and La Ferrara (2005)). In fact, a number of commentators go further and doubt the efficacy of democracy in ethnically diverse environments Chua (2002), Zakaria). In this paper we formalize the above debate in the context of a model where votes have multi-dimensional preferences and parties compete for votes. We develop a model of party competition to identify how increased polarization of voter preferences along one dimension can cause the entry of parties which pander to the more extreme views on that dimension. Further, we identify the conditions under which such party entry lowers politician quality.

We test the implications of our model using detailed data on politician corruption from North India. Our analysis exploits the dramatic rise in party competition in India – since the mid 1980s, entry of new (low caste) parties has made Indian politics both more competitive and more representative (Yogendra Yadav, a leading commentator, calls it the ‘second democratic upsurge’). We focus on Uttar Pradesh (UP), India’s most populous state. Figure A shows the dramatic rise in political competition in this state as measured by the difference in the vote share of the winner and runner up.

---

<sup>1</sup>The original slogan in Hindi reads ‘Mat hamara raj tumhara nahin chalega

This is true for both jurisdictions reserved for low caste candidates and those which are not. Figure B shows that the vote share of low caste parties saw a dramatic increase as well, and Figure C that voter turnout rose significantly.

Yet, politician corruption remains an important and increasing problem in India. In 2006, 30.4% of 36-45 years old national legislators have criminal records but only 19.3% of 55-65 years old legislators do so. In UP the fraction candidates with criminal records increased from 3.5% in 1969 to 7.69% in 1980 and 16.28% in 1996 (survey data).

This paper provides one explanation for the link between political competition and the decline in politician quality. While citizens potentially care about political corruption, in the absence of policy commitment they also care about politician preferences, one proxy for which is politician ethnicity. With multi-dimensional political competition, heightened parochialism can simultaneously increase party competition *and* reduce politician quality.

To test this theory we use detailed survey data on politician corruption in Uttar Pradesh at three points in time – 1969, 1980 and 1996. We first document the simultaneous increase in party competition and political corruption in Uttar Pradesh. We then exploit geographic variation in the identity of the majority group to examine whether increases in political corruption are correlated with the demographics and party identity of the electoral winner in the manner predicted by the model. The observed patterns in the data are consistent with a model of increased party competition accompanied by increased parochialism.

## 2 Literature Review

The salience of ethnicity in developing country politics is widely discussed. However, the reasons for ethnification of politics remain debated. Horowitz (1985) argues that in divided societies majoritarian politics encourages ‘group headcounts’ and ethnic party formation. Posner (2005) suggests ethnic cleavages are endogenous to the process of ethnic mobilization. He argues that changes in institutional incentives e.g. move from a single party system to a multiparty system impacts the size of the boundaries within which mobilization takes place. Individuals and entrepreneurs alike select on mobilizing along those cleavages, which will maximize their likelihood of being a part of a winning coalition within an institutional context. Others suggest that party systems come to represent the social cleavages, which define a polity

(Lipset and Rokken, 1967; Bartolini and Mair). In India, Chandra (2004) suggests that existence of patronage-based politics has made ethnicity politically salient.

Views on how ethnic competition has affected political and policy outcomes remains mixed. A number of authors note that increased political competition improves representation of citizens, both as politicians and in terms of the choice of policy outcomes (Chandra (2004), Jaffrelot (2002)). There is evidence that it may also increase pork-barrel politics and conflict (Bates (1974), Wilkinson (2004), Posner (2005)).

Much of this discussion however starts from the premise that ethnicity is the sole domain of political competition. In contrast, we argue that a central element of understanding the economics implications of ethnic politics is the multidimensional nature of politics.

This point has been elegantly made by Myerson (1993) in the context of alternative electoral systems. He shows that in the presence of strategic voting and multi-dimensional party competition, plurality voting creates a strong incentive for voters to coordinate along specific dimensions such as ethnicity and that this can lead to an equilibrium where the most honest candidate ends up losing most of the time. In a similar vein Pedro-i-Miguel (2005) argues coordination problems can explain the survival of African autocracies.

Our model is closely related to these papers. We differ in assuming sincere voting on the part of citizens. Given this, we ask how, increased polarization in the voter population along ethnic lines affects party entry and politician quality (as measured by his/her corruption record). Unlike the literature on polarization and conflict literature which has largely focussed we do not ask why ethnicity becomes the logical dimension for political competition (Fearon and Laitin (2000), Esteban and Ray (1994), Esteban and Ray (2005)).

Finally, our modelling of parties as groups of citizens who if elected implement their preferred policy draws upon citizen candidate models ala Osborne Slivinski (1997) and Besley and Coate (1997)

### **3 Context**

Uttar Pradesh (UP), with a population of 166 million, is India's most populous state and is home to more than one sixth of India's population. Over 80% of it's population is Hindu by religion. A Hindu is born into a caste –

a hierarchical social ordering of population groups. Historically caste identity has determined an individual's economic outcomes and his/her social status. According to the 1931 census (the last census to ask about caste), upper castes represented roughly 20% of UP's population with the top caste Brahmins making up 9.2% of the population – the highest percentage in any state. A majority of its population (59%) belongs to low castes (Scheduled Castes (SCs) and Other Backward Castes (OBCs)).

A key feature of our analysis is the rise in political awareness among the *majority* caste group – the low castes. The literature provides multiple explanations for the increasing political awareness among low castes over this period. These include the existence of popular low caste movements spearheaded by leaders individuals who went on to form low caste parties (Yogendra Yadav); affirmative action and agricultural growth which created a class of middle class low caste citizens who demanded political recognition and social change (Chandra (2004)) and the use of quota politics by socialist parties which fostered the use of low caste membership as a form of political identity (Jaffrelot (2002)).

UP has seen a dramatic rise in political competition – it went from single upper caste party (Congress) dominance until 1977 to having four effective parties by early 1990s, of which two are explicitly low caste parties. At Independence the main political party in UP (as in much of the country) was the Indian National Congress. This party was dominated by upper castes and in the first decade after independence the (over)-representation of upper castes among Congress legislators actually rose from 58 to 61 % . Lower castes made up less than a tenth of the Congress MLAs (Meyer (1969)). Jaffrelot (2002) reports that in 1968 75% of the members of UP Congress Committee were from upper castes –there was one SC member among the presidents of its branches at the district/town level and not a single representative from the lower castes.

Among lower castes the one group that succeeded in achieving significant political representation earlier on were the SCs. Political reservation in favor of this group implied roughly 20% political representation for this group.

In 1984 an explicitly low caste, specifically Scheduled Caste, party the *Bahujan Samaj Party*. The party campaign slogans explicitly used the population size of lower castes as justification for its quest for power (“85% living under the rule of 15%, this will not last, this will not last” and “The highest number has to be the best represented”.) In 1992, a second low caste party the samajwadi party was formed. This party also explicitly targeted the low

caste population, and since the early 1990s one (or both) of these two parties has been a part of the elected UP state government. Figure D demonstrates the resulting change in caste composition of legislators. In Table 1 we show that increased party competition was associated with voters voting along caste lines.

Yet, at the same time Uttar Pradesh remains poorly governed on many dimensions.

*As a state of the Indian union, its dirty, bitter, caste-based and often violent politics still make waves that spread beyond its borders. Uttar Pradesh is a particularly acute example of the increasing criminal involvement in Indian politics.* The Economist, May 2003.

## 4 Multi-dimensional competition: Prima Facie evidence

As motivation, we provide suggestive evidence that voter preferences over candidate quality and party identity are jointly determined. Our analysis exploits the 2003 Supreme court judgement that required all electoral candidates to provide the Election Commission with affidavits declaring

- All past criminal convictions and current cases in which charges have been framed (under trial)
- Household assets
- Educational Qualifications

The Election Commission, in turn, passed an order (March 13, 2003) that returning officers should release affidavits to media and opposing candidates on request. A number of NGOs have been active in making these affidavits public, and the affidavits are available on each state election commission's website.

For the 2004 national election we collected the crime and education affidavits of the top 5 candidates in each of the 80 UP Lok Sabha (National Legislature) constituencies.

In our data we see that 20% of the candidates have a criminal record; the average criminal politician has 4 registered cases registered. The four main crimes are rioting (59 cases), assault (40), (attempted) murder (32) and criminal intimidation (29). We use these data to ask whether within constituency  $j$ , does the criminal record of candidate  $i$  affects his/her electoral prospects?

$$Y_{ij} = \alpha_j + \beta_1 C_{ij} + \beta_2 P_{ij} + \gamma X_{ij} + \epsilon_{ij}$$

The measures of electoral success ( $Y_{ij}$ ) we consider are whether the candidate is a winner, his vote share and his position in the election.  $C_{ij}$  is a dummy which equals one if candidate has criminal record.  $X_{ij}$  is a set of candidate characteristics: caste, education and age. The average candidate age is 48 years. Half the candidates are low caste and the elite upper caste Brahmins make up 13%. Over 70% of the candidates are graduates. Finally,  $P_{ij}$  is a low caste party dummy. Thirty seven percent of the candidates in our sample belong to a low caste party.

Table 2 presents the results. In the odd columns we see that a criminal record boosts electoral popularity – a candidate with criminal record is 17% more likely to win. However, as the odd columns demonstrate we cannot rule out the idea that criminality and party affiliation are correlated and the latter is what affects electoral success.

## 5 A Model of multidimensional political competition

### 5.1 The set-up

There is an underlying population of voters who are characterized by a scalar  $\lambda \in [\lambda_0, \lambda_1]$ ,  $\lambda_0 < 0 < \lambda_1$ . The scalar measures how aligned their interests are with the interests of the majority group in the population. Someone with a negative  $\lambda$  is therefore someone who is worse off when a politician pursues a pro-majority policy, while someone with a high  $\lambda$  is better off. The population is described by a distribution function  $G(\lambda)$

We have in mind a citizen candidate model where there are enough people who want to run even if they have no chance of winning.<sup>2</sup> The affinity with

---

<sup>2</sup>The fact that there is no cost of running means that we do not need to guarantee that

the citizen-candidate models therefore comes from the fact that candidates cannot fully commit to specific policies in order to win elections. Voters therefore have to decide based how they expect the politicians to behave, which, in turn, depends on politician characteristics.

At any point of time  $t$  each politician is characterized by a vector  $(Q_t, p_t)$ :  $Q_t$  represents quality—probity, charisma, competence, commitment—something that all voters value equally;  $p_t$  represents parochialism, or more specifically the willingness to favor the majority group.  $p_t$  can be positive or negative, so it is the absolute value of  $p$  that measures how parochial the politician is. A voter  $\lambda$  at time  $t$  expects to get an expected utility of  $Q_t + \lambda p_t$  if politician  $(Q_t, p_t)$  is elected at time  $t$ .

This formulation allows for the possibility that  $Q$  and  $p$  evolve over time: For example, the same politician may become more corrupt over time as new opportunities turn up or enforcement becomes slacker. It also allows  $Q$  and  $p$  to be related—perhaps parochial politicians have to be at least somewhat corrupt in order to be in a position to favor their favored groups.

There are  $n$  potential political parties: Party  $j$  is characterized by a set of potential candidates  $P_j = \{(Q_t^{j1}, p_t^{j1}), (Q_t^{j2}, p_t^{j2}), \dots, (Q_t^{jm_j}, p_t^{jm_j})\}$ . Each party gets to select one candidate per constituency. For the most part we will assume that each parties list of candidates for each constituency is separately fixed. This is probably best interpreted as a situation where voters have a very strong preference for local candidates (say because they know more about them) and hence each party has a separate candidate list for each constituency.

Candidates need to enter elections through parties—otherwise everyone will run for election and we cannot just focus on party competition. We assume that parties are strictly ordered in terms of parochialism: If  $j > i$  then every  $p$  in  $P_j$  is greater than any  $p$  in  $P_i$ . Some parties are clearly more pro-majority than others.

In any given constituency there is an election in which each party fields a candidate and then the voters decide who they want to vote for. People vote sincerely for the candidate they prefer.<sup>3</sup> Finally we assume that parties want to maximize vote share. We will later describe a model of probabilistic

---

parties have a high enough chance of winning to make them put candidates unlike in the usual citizen candidate models. However given the probabilistic voting assumption we do not really need this: we could actually allow for small but positive costs of running.

<sup>3</sup>With strategic voting there may be multiple equilibria for a given set of choices for each party's choice of candidates: Myerson (1993).

voting that will generate this as the optimal choice for parties.

## 5.2 Analysis of the model.

### 5.2.1 Preliminaries

Figure 1 below represents a voting equilibrium. The horizontal axis represents  $\lambda$ . The left extreme is  $\lambda_0$  while the right extreme is  $\lambda_1$  and the intermediate vertical represents the value 0. The asymmetry between  $\lambda_0$  and  $\lambda_1$  represents the fact that the high  $\lambda$  people are a majority.

The vertical axis represents the expected utility associated with a candidate. In this equilibrium there are three candidates. Each of them is represented by a straight line, giving for each  $\lambda$  the value they deliver to that voter.

With sincere voting everyone between A and B votes for Party  $P_1$ ; those between B and C vote for Party  $P_2$ ; and those between C and D vote for Party  $P_3$ . This determines  $v_1, v_2, v_3$ , the structural vote shares of the three parties. In the case, also shown in figure 1, where Party  $P_3$  is everywhere dominated by Party  $P_2$ ,  $v_3 = 0$ .

The actual vote shares however are determined by a combination of  $v$ 's and some unpredictable elements (charisma, rumors, etc.). We define  $W_i(v_i : v_{-i})$  to be the probability that party  $i$  wins given  $i$ 's vote share and the vector of the vote shares all the other parties. Assume

$$0 \leq \underline{W} \leq W_i(v_i : v_{-i}) \leq \overline{W} < 1, \text{ for all } i$$

and let  $W$  be increasing and S-shaped (first convex and then concave in  $v_i$ ). The assumption that  $W$  is S-shaped nests as a limiting case the case of the pure plurality rule.

### 5.2.2 Some basic observations

A mixed strategy equilibrium always exists (Nash's Theorem) in this model. Moreover it can be shown that generically there is at most one pure strategy equilibria. Henceforth we will assume that a pure strategy equilibrium exists and that it will continue to exist when we change the conditions of the game.

### 5.2.3 Increased polarization

We introduce the idea of polarization here by assuming that  $G(\lambda)$  is uniform on  $[\lambda_0, \lambda_1]$ . We say that polarization has gone up when  $G(\lambda)$  is replaced by  $G^*(\lambda)$  which is uniform on  $[\lambda_0^*, \lambda_1^*]$  where  $\lambda_0^* = \mu\lambda_0$  and  $\lambda_1^* = \mu\lambda_1$ , with  $\mu > 1$ . In other words those who were against pro-majority policies become, on average even more against them while those were for pro-majority policies also become, on average, more in favor. The fraction of pro-majority people is kept constant. Note that because the initial mean of  $G$  was greater than 0, this increases the mean level of  $\lambda$  (i.e. it is not a mean preserving spread).

Figure 2a and 2b describes what might happen when polarization goes up in a particular constituency. The figures are drawn assuming that even before the increase in polarization even the most anti-majority party, party 1, was getting some majority votes (a reasonable assumption in the UP context). In 2a we start with  $v_3 = 0$ . There were only two parties really in the game and neither was particularly pro-majority. In figure 2b  $v_3 > 0$ . The pro-majority party already had a significant presence.

Assume first that none of the parties change their candidates as a result of the polarization (this may be the optimal choice). This gives us the pure selection effect induced by an increase in polarization. The increase in polarization makes  $v_3$  go up and  $v_1$  and  $v_2$  go down.

If we compare two alternative candidates for party 3 who are differ only in quality,  $v_3$  will go up for both but the one with the higher  $Q$  will always do better (order-preserving). Likewise the shifts for parties 1 and 2 will also be order-preserving. It follows that in the case where  $W$  is close to the plurality rule, *the selection effect implies that* average quality of winners and losers from the majority party will go up and those from the non-majority parties will go down. The intuition for this is simple: because we are close to the pure plurality rule we only need to say what happens to the best (highest  $Q$ ) losers and worst (lowest  $Q$ ) winners (they are the ones who shift across the winning line). For the pro-majority party because it becomes stronger, the best losers become the worst winners, lowering quality among both winners and losers. The argument for the anti-majority party is exactly parallel.

Figure 2a and 2b show how parties might change candidates with increased polarization. From revealed preference,  $P_3$  will not change unless  $P_2$  changes. How would  $P_2$  change?

By revealed preference if there was an option that  $P_2$  that did better

against  $P_1$  we would have already chosen it. So he will choose an option that does worse against  $P_1$  but better against  $P_3$ . So if party 2 changes its candidate  $Q_2$  must go down and  $p_2$  must go up. Once  $p_2$  goes up, by revealed preference  $p_3$  must go up (if it were to change) and correspondingly  $Q_3$  must go down. By the same logic  $p_1$  must go up as well. Since we assumed that the point  $B$  is in the positive orthant, then  $Q_1$  must go down. To summarize: **The *substitution* effect of a change in polarization is to reduce the quality of all three candidates.**

#### 5.2.4 Implications for the data

There are three reasons suggested by this model why overall quality of candidates would fall with polarization.

- 1. The pro-majority party now starts coming much more often in the top 2 and their candidates tend to be new and therefore worse because they have not yet been subject to much public scrutiny
- 2. The pro-majority party candidates who start coming in the top two because of polarization tend to be its high  $p$  low  $Q$  candidates.
- 3. The selection effect reduces the quality of all the candidates.

Relative to this overall decline: The majority party winners and losers should get worse: i.e. low caste party candidates in low caste areas and high caste party candidates in high caste areas should be worse. The non-majority party winners and losers should be better: i.e low caste party candidates in high caste areas and high caste party candidates in low caste areas. However since we do not observe all losers but only the top loser (who are also selected) we cannot test the implications for losers.

## 6 Empirics

### 6.1 Survey Design

Our data are drawn from a field survey on politicians conducted by us between July-November 2003 in UP. We randomly selected two jurisdictions in each district. The winner and runner up in each of these jurisdictions in the

elections of 1969, 1980 and 1996 entered our sample. This gave us a sample of 618 politicians across 102 jurisdictions.<sup>4</sup>

For each district and election year we selected two politicians and two journalists as respondents. Each respondent was asked about three candidates in that district. We assigned candidates randomly to respondents while ensuring that three respondents were asked about each candidate. On average, we obtained 2.8 reports per politician.

To select journalists we identified one prominent journalist affiliated with 6 leading newspapers (based on circulation figures) in UP (four state-level and two local). We randomly selected two of these journalists as respondents. To identify politician respondents we divided alive winners in the non-sample constituencies in each district for our three sample years into candidates belonging to the party which won the most number of seats in UP in that year, and others. One politician from each group was randomly selected. Absent alive winners from either party grouping, we moved to the runner up and so on. In case of multiple runner ups we selected the one who lost by the narrowest margin. We substituted for 38 politicians, and no journalists.<sup>5</sup> Appendix table describes the respondent characteristics.

### 6.1.1 Measuring Corruption

Corruption, by definition, is illegal, which makes it difficult to measure. The dominant approach in the literature for examining corruption is to measure perceptions of corruption not corruption per se. However, a number of recent papers suggest that such perception-based data may be biased (Bertrand and Mullainathan, Olken (2006)). We discuss how we address the concern of such bias in our data.

A first concern is question-specific bias. To address this we use multiple

---

<sup>4</sup>To select the sample constituencies we started with the universe of districts in UP in 1991. The average number of constituencies per district is 7.5. We combined districts with four or fewer constituencies, which gave us a sample of 51 districts. Constituency boundaries have been constant since 1977. We use the post-1977 constituency definition to randomly sampled three constituencies per district of which (a randomly selected) two entered our main sample and the third was used for substitution purposes. We used maximum area overlap to identify the matching constituencies in 1969. We substituted from a third constituency if the respondent was uninformed about candidate(s) in the main sample. We had roughly 30 substitutions per year.

<sup>5</sup>Six politicians were substituted for being dead/non-traceable. The others either refused to give an appointment, were politically too important or criminals.

indicators of corruption. These are listed in table 3. A second concern is respondent specific bias, that is the relationship between the respondent and politician may shape the respondent’s view of politician corruption. To address this we use reports from multiple respondents for each candidate. Further, all our regressions control for a number of respondent characteristics. These include whether the respondent went to college, his age, whether he shares the politician’s party affiliation and caste, whether the politician is a friend or relative (self reported) and whether the respondent is a journalist.

Another concern is potentially systematic time bias in respondents corruption reports. We address this concern for the overall corruption rank reports. Specifically, we asked respondents for a corruption rank (on a scale of 1-10) for both sampled politician and three hypothetical politician descriptions (described in Table 4). We used these responses to construct an ordinal ranking – that is, the politician was given corruption rank of one if his corruption rank was below that for politician X, a rank of two if it equalled that for politician X, three if it is between rank of politician X and Y and so on (see King, Murray, Salomon, and Tandon (2004)).

Finally, for a subset of questions we verified responses for a random sample of respondents. This was done by conducting a second survey. For instance, for petrol pumps we interviewed the head of the district petrol association and obtained addresses of petrol pumps purportedly owned by politicians. We then went to these pumps and verified addresses. For criminal records we verified criminal records for a subsample of 1996 politicians. Verification was from the Local Intelligence Unit cell of the district police which keeps these records. The results are reported in Table 5. It is clear that the overall match rate is high, especially in those cases where all respondents report the same answer. We therefore report two sets of results – one which uses all responses and only which considers the sample in which all respondents agree.

A large literature documents the increased political presence of lower castes since the 1980s, both as voters and as candidates. Our model suggests that variations in the identity of the majority population group will affect the electoral fortunes of parties, and this effect will be enhanced by polarization. We use detailed caste-wise data from the 1931 census to construct our caste population measure. Specifically, we use the fraction population belonging to either scheduled castes or Other backward castes ‘LOshare’. The mean LOshare is 60%.

### 6.1.2 Measuring Polarization

We start by examining party responses to increased polarization in UP, as epitomized by the entry of low caste parties. In Table 6 column (1) we see that in 1996 both high and low caste parties were more likely to field low caste candidates. However, in column (2) we see this represented a trend break for the High caste parties which, prior to 1996, were significantly less likely to field low caste candidates. Further, in column (3) we see that for high caste parties this substitution towards OBC candidates is particularly marked for high LOshare constituencies. In columns (4)-(6) we examine the electoral fortunes of high and low caste parties. Neither party groupings performed significantly differently in 1996, but high caste parties did significantly worse relative to 1980. Further, they were much more likely to lose in high LOshare areas.

In summary then, the data suggests that high caste parties *substituted* in favor of low caste candidates. They also faced more competition in high LOshare constituencies, which would have expected to have a selection effect.

### 6.1.3 Measuring Party Identity

Finally, we distinguish between High caste and low caste parties – High caste includes Congress and BJP, low caste includes socialist parties in 1969 and 1980 (BKD,janata) and explicit low caste parties in 1996 (SP and BSP).

## 6.2 Rise in Corruption

In Table 7 we examine the time trend in corruption. Our theoretical results suggest that if the substitution effect dominates the selection effect then we will observe an overall decline in quality. We start by documenting the time trends in corruption in our data. Given respondent  $r$  we estimate for politician  $i$  in constituency  $j$  a constituency fixed effect regressions of the form:

$$Y_{ijrt} = \alpha_j + \beta_1 post + \beta_2 post^2 + \gamma X_{rt} + \epsilon_{ijrt}$$

$Y_{ijrt}$  is a corruption outcome.  $post = 1$  if year= 1980 or = 1996.  $post^2 = 1$  if year= 1996.  $X_{rt}$  is a set of respondent characteristics (respondent age, whether college educated, whether journalist, whether same party as candidate, whether same caste as candidate and whether knew candidate

as friend/ relative. The results are in Table 7. Relative to 1969, we see a significant increase in corruption for all dimensions of corruption. Further, the rise in corruption is highest for the post 1980 period.

We are interested in examining whether, in line with the model, the rise in corruption is related to the rise of parochialism. Our analysis exploits the variation in ethnic make-up across jurisdictions – which, we argue, will affect both a party’s choice of candidate *and* candidate selection by voters.

### 6.3 Polarization and Candidate Quality

We now test a central prediction of the selection part of our model—where the increase in polarization was particularly important (i.e. in very high LOshare areas and very Upper caste share areas, which are very low LOshare areas), corruption among winners should differ systematically by demographic composition and party identity. Specifically in high LOshare areas the upper-caste winners should be worse and the lower caste winners should be worse in 1996 relative to 1980. The opposite ought to be true in low LOshare area. The results are reported in Table 8 and point very strongly to this type of selection.

We do not test the implications for losers because only the best loser is in the data set. Instead we look at the winner loser gap. To the extent that low quality highly parochial candidates were winning in 1996, the winner-loser gap would tend to be negative. The one exception ought to be the reserved constituencies, where the scope for competition along the parochialism dimension was more limited (both candidates had to be SCs). Therefore the election was more likely to be fought on the quality dimension and the winner-loser gap ought to be positive. We show evidence for this difference between reserved and unreserved constituencies in Table 9.

## 7 Discussion

In this paper we show how increased polarization of the voter population on one dimension can cause party entry and increased political competition. Polarization by increasing the salience of one dimension of electoral politics can worsen outcomes on other dimension, here politician quality.

We find that politician corruption data from Uttar Pradesh supports this model. It remains an open question whether, as parties mature, candidate

quality will improve.

It is also debatable whether the increase in polarization was itself affected by political parties who wished to change the type of political competition – especially moot in the case of Hindu parties.

\*incomplete bibliography\*

## References

- [1] Alberto Alesina and Eliana La Ferrara [2005] , “Ethnic Diversity and Economic Performance,,” *Journal of Economic Literature* 43: 721-61 (with Eliana La Ferrara).
- [2] Daron Acemoglu and J. Robinson (2005) *Economic Origins of Dictatorship and Democracy*, Cambridge University Press.
- [3] Kanchan Chandra [2004] *Why Ethnic Parties Succeed: Patronage and Ethnic Headcounts in India*. Cambridge University Press.
- [4] Amy Chua (2002) *World on Fire: How Exporting Free Market Democracy Breeds Ethnic Hatred and Global Instability*, Doubleday Press.
- [5] William Easterly and R. Levine [1997] , “Africa’s Growth Tragedy: Policies and Ethnic Divisions,” *Quarterly Journal of Economics* CXII (4), 1203-1250.
- [6] James Fearon and David Laitin [2000], “Violence and the Social Construction of Ethnic Identities,” *International Organization*.
- [7] Donald L. Horowitz [1985], *Ethnic Groups in Conflict*, Berkeley: University of California Press.
- [8] Jaffrelot Christophe [2002], *India’s Silent Revolution The Rise of the Lower Castes in North India*, Columbia University Press.
- [9] Jones, Benjamin and Benjamin Olken, [2005], “Do Leaders Matter? National Leadership and Growth since World War II”, *Quarterly Journal of Economics*, August.

- [10] Gary King; Christopher J.L. Murray; Joshua A. Salomon; and Ajay Tandon. [2004] , “Enhancing the Validity and Cross-cultural Comparability of Measurement in Survey Research, ” *American Political Science Review*, Vol. 97, No. 4 .
- [11] Roger Myerson [1993], “Effectiveness of Electoral Systems for Reducing Government Corruption: A Game Theoretic Analysis,” , *Games and Economic Behavior* , 118-132.
- [12] Daniel N. Posner, [2005], *Institutions and Ethnic Politics in Africa*, Cambridge University Press .
- [13] Dani Rodrik and R. Wacziarg [2005] Do Democratic Transitions Produce Bad Economic Outcomes? ”, *American Economic Review Papers and Proceedings*, vol. 95, no. 2, pp. 50-55

**Figure A: Average vote difference between winner and runner up in Uttar Pradesh elections**



Figure B: Party Vote Share in Uttar Pradesh elections

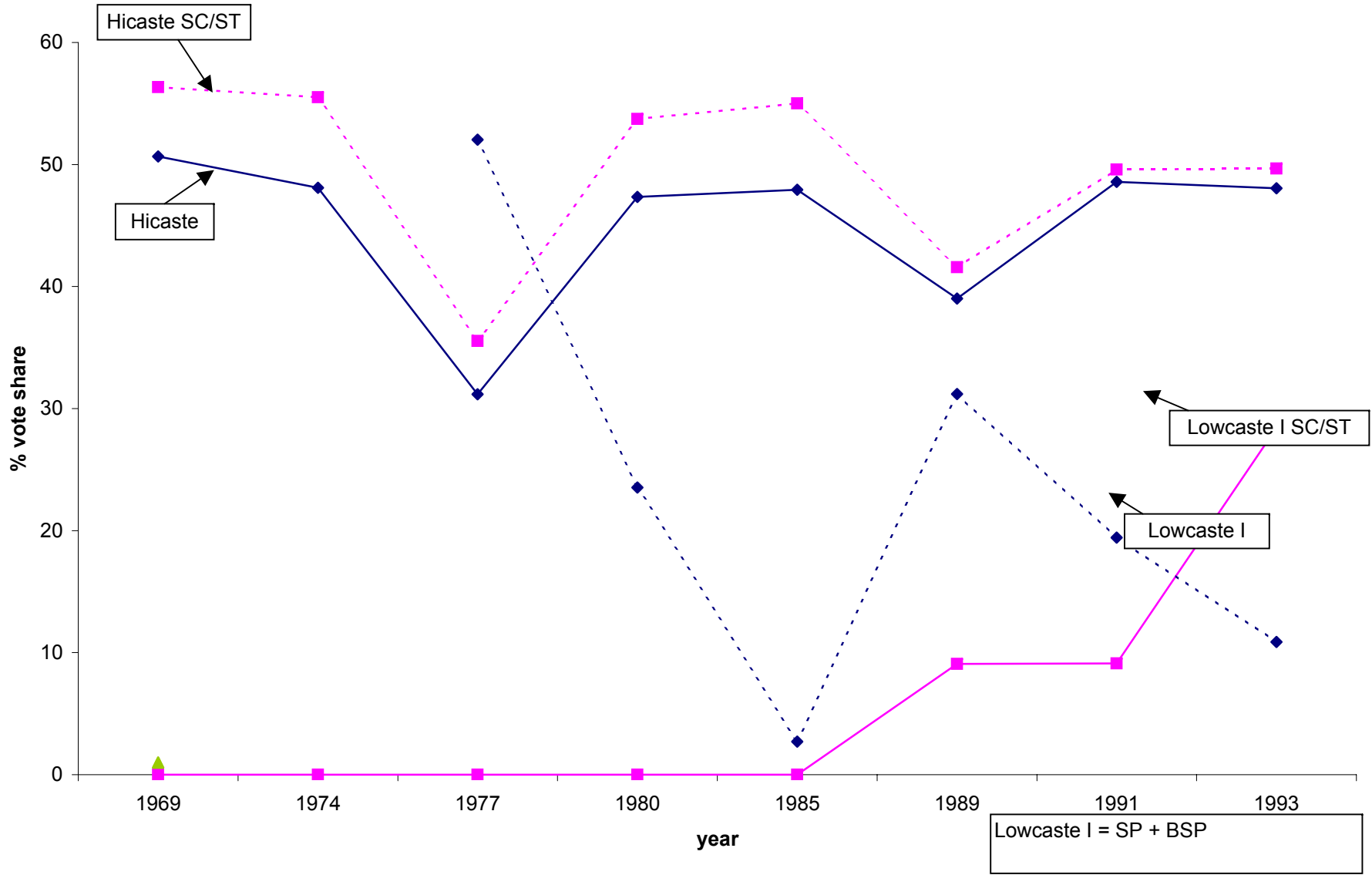


Figure C: Average Voter Turnout in Uttar Pradesh Elections

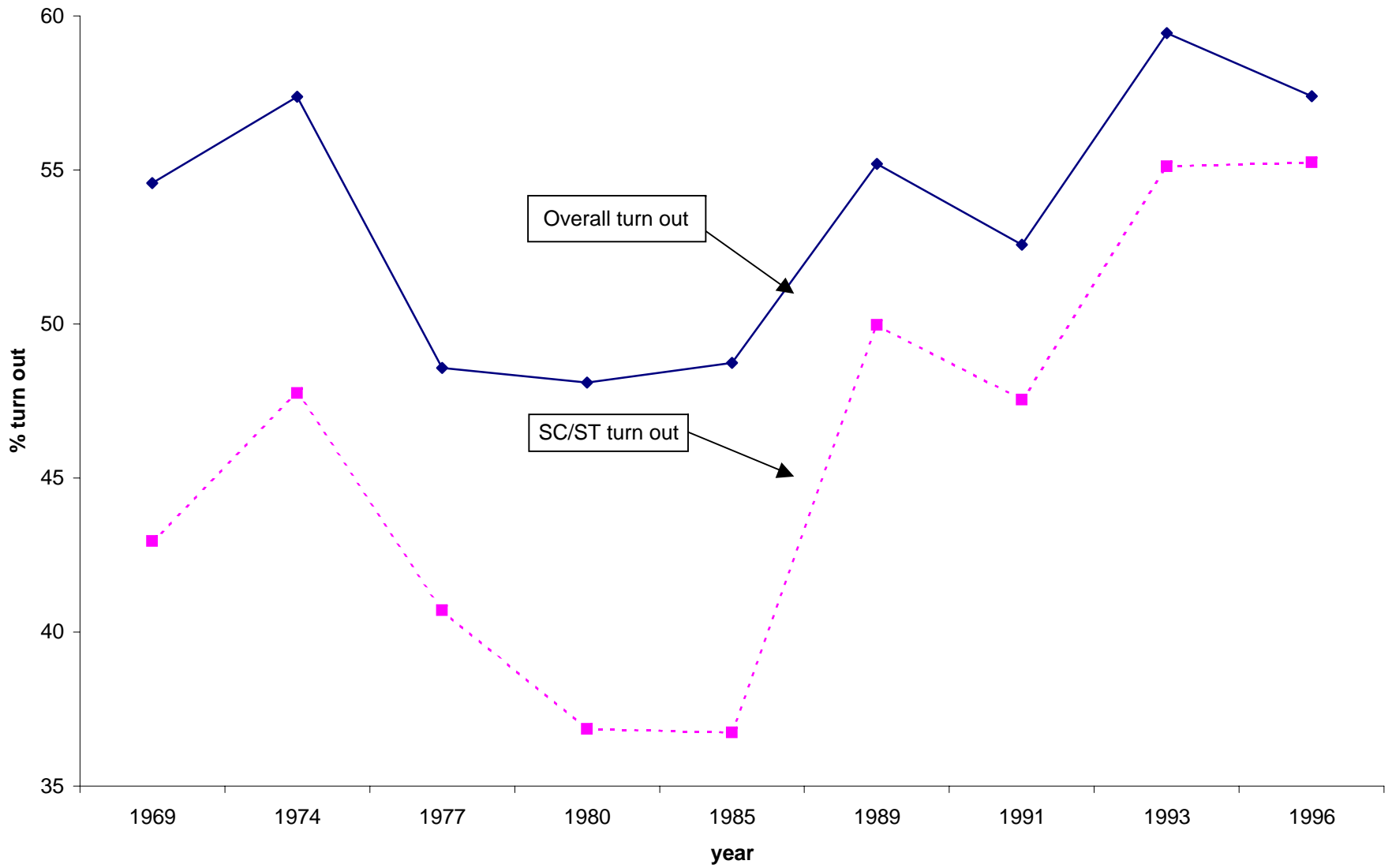
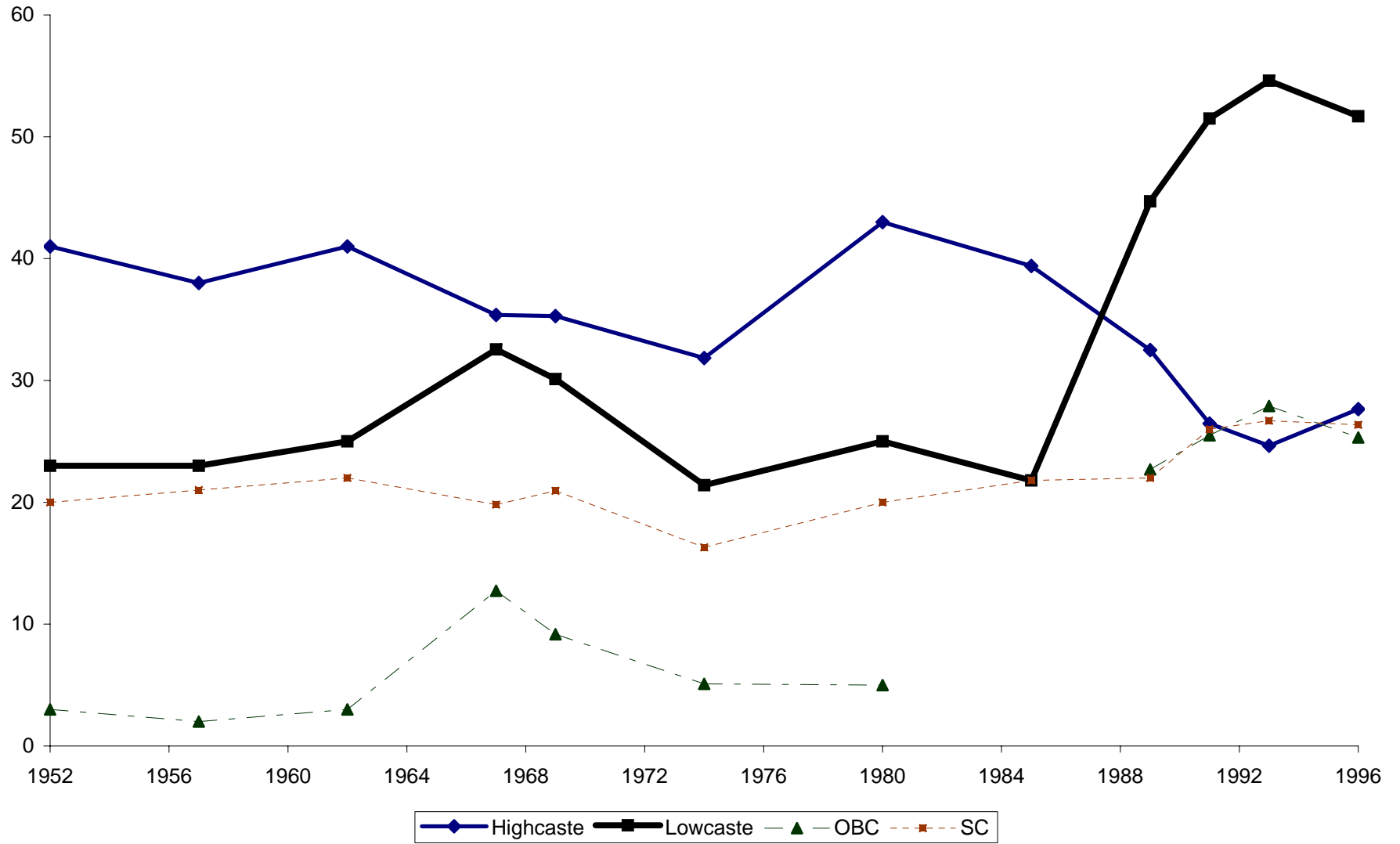


Figure D: Caste composition of UP legislators



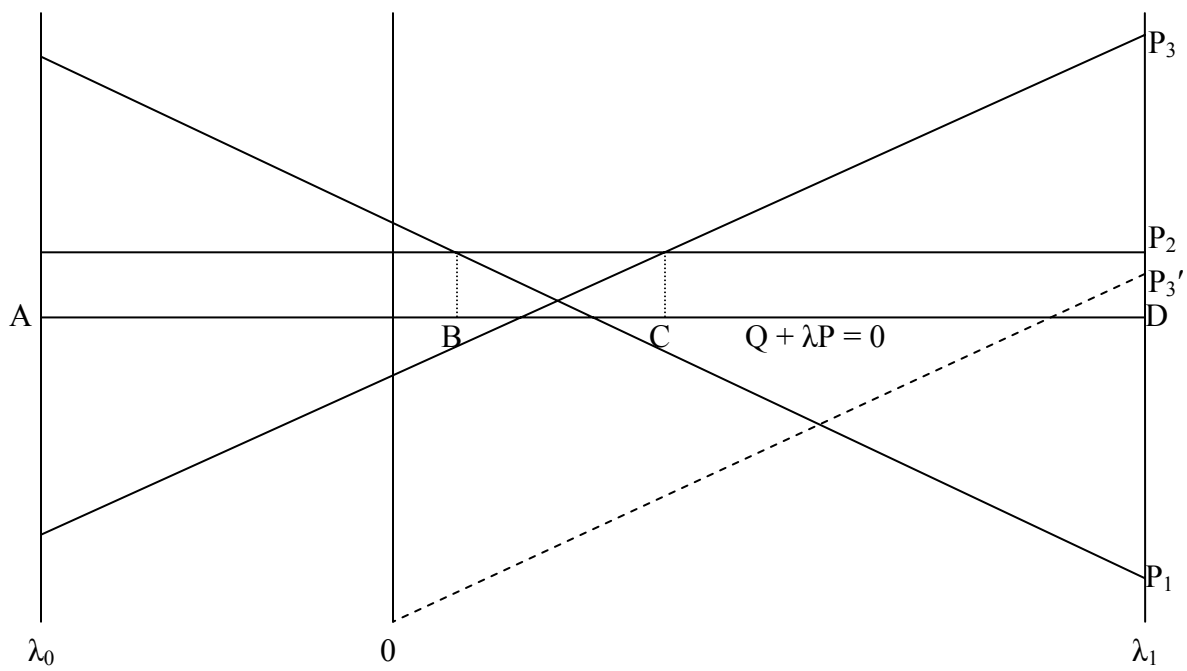


Figure 1

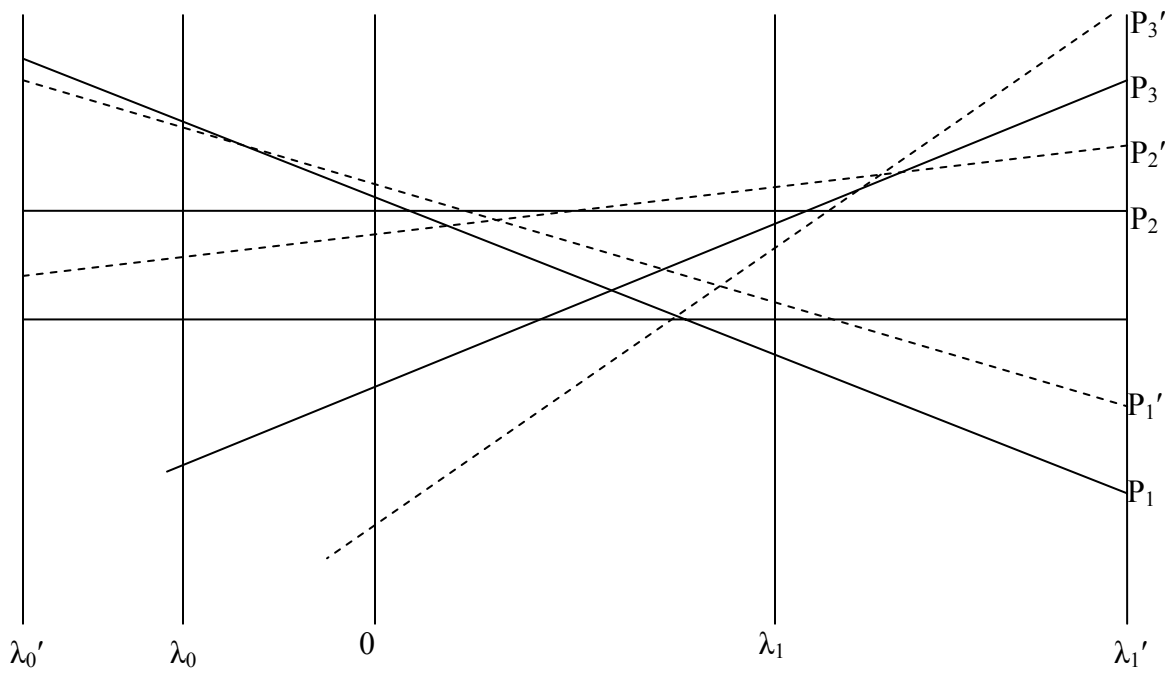


Figure 2a

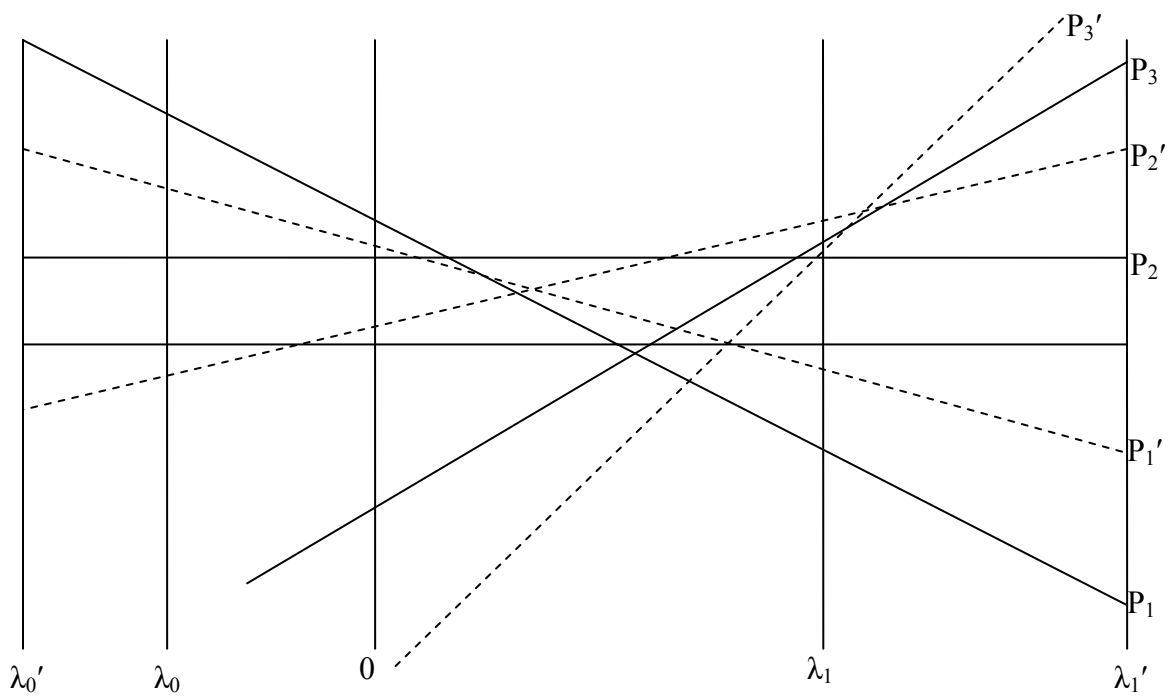


Figure 2b

Table 1: Caste-wise voting patterns in Uttar Pradesh, 1999 National election

	Brahmins	Thakurs	Yadavs	Jatavs
Fraction voting for High caste party	77.90%	70%	9.80%	15.30%
Low caste party	7.40%	4.50%	66.60%	73.30%
Populaton share	10%	7%	15%	18%

Source: CSDS Pre-election survey, Sample size for UP~1000

Table 2: Crime Record and Electoral Success in National Elections

	Winner		Voteshare		Position	
	(1)	(2)	(3)	(4)	(5)	(6)
Has criminal record	0.17 (0.07)	0.09 (0.07)	0.07 (0.02)	0.03 (0.02)	-0.80 (0.23)	-0.31 (0.20)
Low caste party		0.25 (0.05)		0.13 (0.01)		-1.54 (0.14)
Brahmin	0.02 (0.08)	0.05 (0.08)	0.01 (0.03)	0.03 (0.03)	0.04 (0.28)	-0.14 (0.25)
OBC	0.14 (0.08)	0.11 (0.07)	0.02 (0.02)	0.01 (0.02)	-0.25 (0.25)	-0.06 (0.21)
Age	-0.06 (0.25)	0.09 (0.23)	0.06 (0.09)	0.13 (0.08)	-0.65 (0.84)	-1.53 (0.71)
High school	-0.04 (0.10)	-0.04 (0.10)	-0.01 (0.04)	-0.01 (0.03)	-0.01 (0.38)	0.02 (0.30)
Graduate	0.04 (0.09)	0.03 (0.09)	0.05 (0.03)	0.04 (0.02)	-0.54 (0.32)	-0.43 (0.25)
R-squared	0.03	0.11	0.07	0.28	0.08	0.34
Fixed effects			Constituency			
N	391	391	391	391	391	391

Notes: The data are for the top five candidates (in terms of voteshare) for the 80 Parliamentary constituencies in Uttar Pradesh in 2004 election

Table 3: Correlates of Corruption

	1969	1980	1996
<b>Economic improvement:</b> Own/family economic situation improved a lot after entering politics	0.20	0.30	0.40
<b>Business/Contracting:</b> New/ expansion of business/contracting activity since entering politics	0.27	0.40	0.54
<b>Petrol pump:</b> New/ expansion of petrol pump since entering politics	0.05	0.08	0.08
<b>Criminal Association:</b> Is Associated with Criminals	0.07	0.14	0.21
<b>Crime record:</b> Has a criminal record	0.04	0.08	0.16
Normalized Corruption rank	2.31	3.25	3.65

Notes: Each of these is a dummy variable =1 if politician is said to have undertaken the activity

Table 4: Using Vignettes on Corruption

	1969	1980	1996
Rank on 1-10 corruption scale, where 1 is most honest			
<b>For politicians</b>	2.31	3.25	3.65
<b>For hypothetical vignettes described as follows:</b>			
X: Used political position to benefit party, but not him/herself. His/her lifestyle reflected his/her honestly earned income.	2.86	2.82	3.00
Y: Used political position to benefit party. In addition, used it to benefit family/members of own social group. His/her lifestyle was better than he/she could afford on his/her honestly earned income	5.82	5.92	5.94
Z: Used political position to benefit party and family/members of own social group. He/she is known for taking money from business groups and is associated with criminals. His/her lifestyle far exceeds his/her honestly earned income	9.62	9.45	9.44
<b>Ordinal Corruption rank (scale 1-7)</b>	2.96	3.33	3.53

Table 5: Comparison of Survey Corruption data with Objective verification

	overall	1969	1980	1996
Petrol Pump				
Number candidates compared	225	75	74	76
Matches (as % of total)	0.91	0.92	0.91	0.89
% mismatches where ALL respondents disagree with objective data	0.33	0.33	0.43	0.25
Criminal Cases (comparison of survey and Local Intelligence Unit (LIU) data)				
Number candidates compared				75
Matches (as % of total)				0.8
% mismatches where ALL respondents disagree with LIU				0.53
Mismatches when ALL survey respondents say candidate criminal but not LIU (as % of cases where LIU and survey disagree and LIU says no criminal case)				0.13
Mismatches when LIU says criminal and ALL survey respondents say not (as % of cases where LIU and survey disagree and LIU says criminal case)				1
Of these, number of cases where crime in LIU data is rioting as recorded by LIU				0.86

Table 6: Party Placement of Candidates and Electoral Fortunes

	obc candidate			winner		
	1996	all years		1996	all years	
	(1)	(2)	(3)	(1)	(2)	(3)
Low caste party	0.35 (0.09)			0.11 (0.13)		
High caste party	0.14 (0.08)	-0.06 (0.05)	0.02 (0.06)	0.03 (0.13)	-0.12 (0.10)	-0.25 (0.35)
High caste party *post		-0.17 (0.06)	0.07 (0.07)		0.55 (0.13)	0.64 (0.41)
High caste party *post2		<b>0.15</b> <b>(0.07)</b>	<b>-0.05</b> <b>(0.07)</b>		<b>-0.47</b> <b>(0.14)</b>	<b>0.52</b> <b>(0.44)</b>
LOshare*post		0.16 (0.11)	0.32 (0.16)		-0.04 (0.13)	0.09 (0.42)
LOshare*post2		0.14 (0.10)	0.02 (0.15)		0.07 (0.11)	1.09 (0.36)
High Caste*			-0.12			0.24
Loshare			(0.15)			(0.56)
High Caste			-0.41			-0.17
LOshare*post			(0.19)			(0.65)
High Caste			<b>0.34</b>			<b>-1.61</b>
LOshare*post2			<b>(0.17)</b>			<b>(0.68)</b>
post		0.03 (0.05)	-0.07 (0.06)		-0.28 (0.11)	-0.36 (0.26)
post2		-0.07 (0.05)	-0.01 (0.06)		0.22 (0.11)	-0.42 (0.23)
Fixed effect	no	constituency		no	constituency	
N	216	654	654	218	659	659

Notes: High Caste Party includes BJP (BJS in 1969) and Congress. Low Caste party is BKD in 1969, JD in 1980 and SP and BSP in 1996.

LOshare is the fraction population in the constituency that belongs to SC/ST or OBC (1931 census)

Table 7: The Rise in Corruption

Dependent variable	Sample	Coefficients		
		Post	Post 2	N
Economic Improvement	All	0.10 (0.03)	0.11 (0.03)	1818
	Agreed	0.06 (0.04)	0.16 (0.05)	1063
Business/Contracting	All	0.15 (0.04)	0.14 (0.04)	1818
	Agreed	0.21 (0.06)	0.14 (0.06)	1130
Petrol Pump	All	0.04 (0.02)	0.01 (0.02)	1818
	Agreed	0.02 (0.02)	0.00 (0.02)	1626
Criminal association	All	0.07 (0.03)	0.06 (0.03)	1716
	Agreed	0.02 (0.02)	0.06 (0.03)	1397
Crime record	All	0.04 (0.02)	0.07 (0.02)	1724
	Agreed	-0.01 (0.01)	0.07 (0.02)	1509
Corruption Rank	All	0.98 (0.18)	0.31 (0.19)	1776
Ordinal Corruption Rank	All	0.46 (0.09)	0.22 (0.09)	1776

Notes: All regressions include constituency fixed effects and a set of respondent controls. These include respondent age, whether college educated, whether journalist, whether knows politician as relative/friend, whether shares politicians party affiliation and caste.

Table 8: Ethnic Make-up and Candidate Quality: sample of winners

Reports	Economic Improvement		Business/ Contracting		Petrol pump		Criminal Association		Criminal record		normaliz edrank	Ordinal rank
	All	Agreed	All	Agreed	All	Agreed	All	Agreed	All	Agreed	All	All
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
High caste party*	-0.06	0.29	-0.31	-1.08	0.04	-0.26	-0.03	-0.06	-0.15	0.02	0.63	-0.85
LOshare	(0.28)	(0.50)	(0.33)	(1.06)	(0.29)	(0.21)	(0.24)	(0.23)	(0.15)	(0.14)	(3.00)	(1.70)
High caste party*	-0.09	-0.02	0.87	2.26	-0.01	0.13	0.18	0.30	0.37	0.44	6.43	4.35
LOshare*post	(0.36)	(0.56)	(0.45)	(1.89)	(0.36)	(0.16)	(0.30)	(0.26)	(0.21)	(0.21)	(1.82)	(1.03)
High caste party*	<b>-1.27</b>	<b>-5.07</b>	<b>-1.27</b>	<b>-1.98</b>	<b>0.39</b>	<b>0.50</b>	<b>-0.72</b>	<b>-0.71</b>	<b>-0.98</b>	<b>-0.84</b>	<b>-12.93</b>	<b>-7.23</b>
LOshare*post2	<b>(0.41)</b>	<b>(1.13)</b>	<b>(0.64)</b>	<b>(1.34)</b>	<b>(0.39)</b>	<b>(0.35)</b>	<b>(0.50)</b>	<b>(0.52)</b>	<b>(0.42)</b>	<b>(0.47)</b>	<b>(6.52)</b>	<b>(3.31)</b>
High caste party	0.05	-0.15	0.15	0.55	-0.11	0.11	-0.02	-0.04	0.04	-0.05	-0.76	0.55
	(0.15)	(0.23)	(0.19)	(0.64)	(0.16)	(0.09)	(0.17)	(0.16)	(0.08)	(0.07)	(2.01)	(1.14)
High caste party	0.08	-0.05	-0.51	-1.22	0.10	-0.03	-0.09	-0.17	-0.17	-0.10	-3.69	-2.71
*post	(0.19)	(0.24)	(0.28)	(1.19)	(0.21)	(0.06)	(0.20)	(0.18)	(0.10)	(0.07)	(1.19)	(0.66)
High caste party	<b>0.85</b>	<b>3.41</b>	<b>0.84</b>	<b>1.11</b>	<b>-0.16</b>	<b>-0.19</b>	<b>0.37</b>	<b>0.41</b>	<b>0.53</b>	<b>0.41</b>	<b>8.48</b>	<b>4.79</b>
*post2	<b>(0.24)</b>	<b>(0.67)</b>	<b>(0.40)</b>	<b>(0.88)</b>	<b>(0.23)</b>	<b>(0.18)</b>	<b>(0.31)</b>	<b>(0.30)</b>	<b>(0.26)</b>	<b>(0.26)</b>	<b>(4.21)</b>	<b>(2.14)</b>
LOshare*post	0.47	0.40	-0.71	-1.40	0.06	0.02	-0.10	-0.12	0.03	-0.30	-4.64	-3.05
	(0.27)	(0.36)	(0.29)	(1.56)	(0.25)	(0.14)	(0.22)	(0.18)	(0.15)	(0.18)	(1.39)	(0.84)
LOshare*post2	<b>0.93</b>	<b>2.51</b>	<b>1.11</b>	<b>1.56</b>	<b>-0.24</b>	<b>-0.32</b>	<b>0.64</b>	<b>0.51</b>	<b>0.77</b>	<b>0.83</b>	<b>11.65</b>	<b>6.65</b>
	<b>(0.35)</b>	<b>(0.65)</b>	<b>(0.41)</b>	<b>(1.05)</b>	<b>(0.31)</b>	<b>(0.22)</b>	<b>(0.36)</b>	<b>(0.41)</b>	<b>(0.32)</b>	<b>(0.40)</b>	<b>(4.61)</b>	<b>(2.35)</b>
post	-0.14	-0.12	0.58	1.00	0.00	0.02	0.14	0.12	0.04	0.07	3.89	2.40
	(0.12)	(0.15)	(0.15)	(0.97)	(0.12)	(0.04)	(0.16)	(0.14)	(0.05)	(0.06)	(0.94)	(0.52)
post2	<b>-0.51</b>	<b>-1.41</b>	<b>-0.53</b>	<b>-0.63</b>	<b>0.10</b>	<b>0.11</b>	<b>-0.33</b>	<b>-0.28</b>	<b>-0.39</b>	<b>-0.33</b>	<b>-6.93</b>	<b>-3.93</b>
	<b>(0.20)</b>	<b>(0.33)</b>	<b>(0.30)</b>	<b>(0.73)</b>	<b>(0.20)</b>	<b>(0.11)</b>	<b>(0.23)</b>	<b>(0.23)</b>	<b>(0.19)</b>	<b>(0.21)</b>	<b>(2.99)</b>	<b>(1.53)</b>
Controls	Constituency and respondent											
Fixed effect	Constituency											
N	990	513	990	606	990	862	943	741	941	790	973	973

Notes: 1. Post=1 if year=1980 or 1996 and Post2=1 if year=1996. Loshare is fraction SC/ST and OBC population (according to 1931 census)

2. Constituency controls include controls for reserved constituency and bothobc and their interactions with post and post2. We also include interactions of reserved constituency with LOshare, High caste party and Highcasteparty\*LOshare and interactions of all 3 with post and post2. Respondent controls are respondent age, whether college educated, whether journalist, whether same party as candidate, whether same caste as candidate.

Table 9: Political Corruption within Constituencies

Reports	Economic Improvement		Business/ Contracting		Petrol pump		Association with Criminals		Crime record		normalized rank	Ordinal rank
	All	agreed	All	agreed	All	agreed	All	agreed	All	agreed	All	All
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
winner*LOshare*	1.13	0.48	0.40	3.98	-0.60	-1.28	-0.08	0.06	0.31	-0.02	0.05	-0.07
reserved	(1.55)	(0.89)	(0.34)	(2.37)	(0.31)	(2.93)	(0.12)	(0.10)	(0.12)	(0.05)	(0.12)	(0.08)
winner*LOshare*	7.06	3.55	0.10	-3.90	1.30	3.23	-0.40	-0.44	0.06	0.17	0.01	0.23
reserved*post	(2.33)	(1.26)	(0.42)	(2.38)	(0.44)	(2.98)	(0.25)	(0.24)	(0.18)	(0.09)	(0.17)	(0.13)
winner*LOshare*	<b>-11.58</b>	<b>-5.92</b>	<b>-0.31</b>	<b>-0.51</b>	<b>0.05</b>	<b>-4.63</b>	<b>0.00</b>	<b>-0.12</b>	<b>-0.75</b>	<b>-0.15</b>	<b>-0.93</b>	<b>-8.39</b>
reserved*post2	<b>(2.43)</b>	<b>(1.25)</b>	<b>(0.37)</b>	<b>(0.57)</b>	<b>(0.55)</b>	<b>(2.29)</b>	<b>(0.33)</b>	<b>(0.34)</b>	<b>(0.28)</b>	<b>(0.13)</b>	<b>(0.32)</b>	<b>(4.65)</b>
winner*reserved	-0.03	-2.47	0.60	1.24	0.05	-0.04	-0.02	-0.01	0.01	0.07	-0.04	-0.06
	(0.20)	(1.51)	(0.17)	(1.94)	(0.07)	(0.06)	(0.06)	(0.02)	(0.07)	(0.06)	(0.88)	(0.50)
winner*reserved	-0.11	2.36	-0.73	-1.86	0.04	0.11	-0.13	-0.03	-0.02	-0.10	-4.37	-2.00
*post	(0.24)	(1.51)	(0.22)	(1.96)	(0.11)	(0.09)	(0.09)	(0.04)	(0.08)	(0.06)	(1.38)	(0.72)
winner*reserved	-0.26	-0.19	-0.51	2.04	-0.04	0.01	0.35	-0.02	0.52	5.77	5.39	2.77
*post2	(0.21)	(0.35)	(0.27)	(1.49)	(0.12)	(0.11)	(0.13)	(0.06)	(0.14)	(3.22)	(1.39)	(0.69)
winner*LOshare	1.10	0.46	0.02	0.00	0.16	0.55	0.09	0.04	0.03	0.03	0.05	0.08
share	(1.05)	(0.56)	(0.13)	(0.10)	(0.18)	(0.38)	(0.06)	(0.04)	(0.06)	(0.05)	(0.09)	(0.08)
winner*LOshare	-3.20	-1.77	-0.20	-0.20	-0.40	-1.43	0.12	0.07	-0.26	-0.19	-0.02	-0.13
*post	(1.59)	(0.85)	(0.19)	(0.23)	(0.28)	(0.59)	(0.10)	(0.07)	(0.11)	(0.09)	(0.11)	(0.09)
winner*LOshare	5.78	3.20	0.25	0.44	0.18	0.39	-0.16	-0.11	0.47	0.15	0.29	0.29
*post2	(1.61)	(0.81)	(0.23)	(0.57)	(0.32)	(0.62)	(0.11)	(0.08)	(0.14)	(0.12)	(0.16)	(0.17)
winner	0.01	-0.04	-0.11	-0.38	-0.03	-0.01	-0.01	0.00	-0.04	-0.07	-0.87	-0.27
	(0.08)	(0.05)	(0.11)	(0.26)	(0.03)	(0.01)	(0.03)	(0.02)	(0.06)	(0.06)	(0.68)	(0.37)
winner*post	0.19	0.22	0.20	0.89	0.00	0.00	0.15	0.05	0.05	0.08	2.00	0.93
	(0.12)	(0.12)	(0.17)	(0.37)	(0.06)	(0.03)	(0.06)	(0.04)	(0.07)	(0.06)	(1.03)	(0.56)
winner*post2	-0.01	0.24	0.02	0.04	0.05	0.02	-0.20	0.01	-0.16	-0.15	-2.77	-1.53
	(0.15)	(0.35)	(0.20)	(0.38)	(0.06)	(0.03)	(0.08)	(0.06)	(0.10)	(0.11)	(1.04)	(0.53)
Others	Respondent control and constituency*year fixed effects											
N	1818	1063	1818	1130	1818	1626	1716	1397	1724	1509	1776	1776