

The Private Returns to Public Office*

Raymond Fisman[†]
Florian Schulz[‡]
Vikrant Vig[§]

First version: February 2012

This version: February 2013

Abstract

We study the wealth accumulation of Indian state politicians using public disclosures required of all candidates. The annual asset growth of winners is 3-5 percentage points higher than runners-up. By performing a within-constituency comparison for very close elections, we rule out a range of alternative explanations for the winners premium. The asset growth of winners is significantly higher in more corrupt states, bolstering the view that the winner's premium is the result of rent-seeking. For ministers, the winner's premium is 10 percentage points higher than for non-minister winners, suggesting that opportunities for rent-seeking increase with progression through the political hierarchy.

JEL Classification: D72; D73; D78

Keywords: Information disclosure; Indian politics; Regression discontinuity

*Acknowledgments: We would like to thank Patrick Bolton, Ben Olken and seminar participants at the LSE-UCL development workshop, Columbia, NYU and Warwick University. In addition, Ray Fisman would like to thank the Chazen Institute and Vikrant Vig would like to thank the RAMD research grant at the London Business School for their generous support. Kyle Matoba and Jane Zhao provided excellent research assistance.

[†]Columbia University. Email: rf250@columbia.edu

[‡]UCLA Anderson. Email: fschulz@anderson.ucla.edu

[§]London Business School. Email: vvig@london.edu

1 Introduction

Understanding the motivations of politicians is a central question in economics and political science. It is crucial for modeling the pool of candidates that will seek office, and also important for designing policies to constrain politicians' behavior while in office. Individuals may stand for election because of the non-pecuniary benefits of public service, or because of the financial returns that come with political office. The latter may include official salaries, private sector opportunities after leaving office, and also non-salary earnings while in office, legal or otherwise. There is relatively limited evidence on the returns to public office in large part because, at least until recently, unofficial earnings have seldom been reported publicly.

In this paper, we examine the net financial returns for public officeholders in India, taking advantage of data gathered via India's Right to Information (RTI) Act. Since 2003, the RTI has required all candidates standing for public office at all levels to disclose the value and composition of their assets. Disclosure was mandatory, with punitive consequences for misreporting. We calculate the asset growth of politicians using the disclosures of politicians that competed in consecutive state assembly elections and use these figures to compare the asset growth of election winners versus election runners-up.

A common challenge in estimating the value of public office is to account properly for the unobserved skills or resources available to politicians regardless of whether they are elected. To provide a plausible group of 'control' politicians, we focus on the subset of elections where both winner and runner-up from the same constituency run in the subsequent election, allowing us to compare the asset growth of plausibly similar political candidates. When we further limit the sample to very close elections, we argue that any difference in asset growth is unlikely to be driven by unobserved ability differences between winners and runners-up.

In our baseline specifications, we find that winning politicians' assets grow at 3 to 4

percent per year faster than the assets of runners-up; the estimated “winner’s premium” is slightly higher for politicians winning in close elections (we consider winning margins of 10, 5, and 3 percentage points). When we use a regression discontinuity (RD) design, we estimate a winner’s premium of 4.5 percent.

To understand the mechanism underlying the high returns of election winners, we examine the geographic and candidate-level heterogeneity in the winner’s premium. First, we examine whether the winner’s premium is higher in more corrupt constituencies, as one would predict if it were the result of bribery and other forms of rent-extraction. We proxy for corruption by focusing on constituencies in the so-called BIMARU states (Bihar, Madhya Pradesh, Rajasthan, and Uttar Pradesh) that have been singled out for corruption (see, for example, Bose (2007)).¹ Our estimates indicate that for BIMARU politicians, the winner’s premium is more than twice that of lawmakers in other states. Employing an RD design, we observe even starker differences: we estimate a winner’s premium of more than 10 percent per year for BIMARU politicians, whereas we observe no discontinuity at the winning margin in non-BIMARU states. We find similar results using alternative corruption proxies, including BIMAROU designation (which augments the BIMARU list with the state of Orissa), as well as Transparency International’s state-level corruption index from 2005.

We also assess how the extent of political power - and the resultant funds at a politician’s disposal - affect the returns to office. We focus on state ministers, guided in part by media accounts of Indian corruption (one recent article in the *Economist* describes a public works minister caught on videotape telling officials that it was acceptable to “steal a little.”²). We find that despite *similar official salaries*, the winner’s premium for state ministers is more than 10 percent higher than for non-minister winners. Interpretation of this estimate can be confounded by the fact that assignment to minister posts is non-random. To deal with concerns of unobserved ability correlated with minister assignment, we compare the asset returns of candidates who obtain minister positions in the period we study, to politicians

¹<http://www.livemint.com/Companies/p1lgqFU3h1QjPIM955E4CO/Ashish-Bose-The-man-who-coined-the-term-8216Bimaru821.html>

²<http://www.economist.com/node/21562253/>

who were ministers in the past, won in this election, but do not hold ministerial posts during our sample period simply because of a shift in a state’s ruling party. For this sample of ‘minister-quality’ politicians, we still find a large and significant asset growth premium for holding ministerial positions, or more than 6 percent per year.

As a separate measure of political advancement, we examine the winner’s premium of incumbents versus candidates that had not recently held office. We find relatively low financial returns to winning for “freshman” politicians. Indeed, the point estimates imply a negative return to public office for non-incumbents, suggesting that their returns from private sector outside options are comparable to or even higher than the returns obtained through public office. By contrast, for incumbents our estimate of the winner’s premium is more than 12 percent.

We also examine the returns to political office of “seasoned candidates.” Specifically, we focus on contests between pairs of politicians where both had competed and been winner or runner-up in the two elections prior to 2003. We argue that these “seasoned” politicians are very likely to have similar abilities and outside options, and we obtain similar (though larger) estimates for the winner’s premium using this subsample.

Finally, we look at a quasi-experiment in the state of Bihar where a hung assembly in February 2005 resulted in a follow-up election in October of the same year. By looking at candidates that won in February but lost in October, and vice-versa, we argue that we come as close as possible to providing a causal estimate of the returns to public office. The Bihar quasi-experiment yields similar (though somewhat larger) estimates of the winner’s premium, relative to our main analysis.³

Overall, our main empirical findings are best explained by a model of rent-seeking in political office where the scope for rent extraction increases as politicians rise in the legislative hierarchy: ‘freshman’ returns are negative relative to outside options, incumbents and seasoned candidates benefit from a substantial winner’s premium in asset growth, and ministers

³The higher magnitude can be rationalized from the cross-sectional results, since Bihar is one of the BIMARU states.

benefit from a further asset growth premium over and above that of incumbents.⁴

This study contributes to the literature on politicians' motivations for seeking public office. There exist numerous theoretical models describing politician motivation and behavior. These include the seminal contributions of Barro (1973), Ferejohn (1986) and Buchanan (1989), as well as more recent work by Besley (2004), Caselli and Morelli (2004), and Matozzi and Merlo (2008). A number of recent papers examine empirically the role of official wages in motivating politician labor supply, including Ferraz and Finan (2011) and Gagliarducci and Nannicini (forthcoming) for Brazilian and Italian mayors respectively; Kotakorpi and Poutvaara (2011) for Finnish parliamentarians; and Fisman et al. (2012) for Members of the European Parliament. Diermeier et al. (2005) further consider the role of career concerns for Members of Congress in the United States.

In contrast to these analyses that focus on the effect of official wages, we compare the general wealth accumulation of winning versus losing politicians to provide a measure of the overall financial benefits of holding public office. At a broader level, we contribute to the growing empirical literature that aims, often via indirect means, to detect and measure corruption (see Olken and Pande (2012) for a recent survey). While we cannot detect corruption directly, the rapid wealth accumulation that we observe for higher-level officials necessarily implies access to income beyond official wages.

Our work connects most directly to prior studies that examine the wealth accumulation of politicians, which have focused primarily on U.S. and British lawmakers. Lenz and Lim (2009) compare the wealth accumulation of U.S. politicians to a matched sample of non-politicians from the Panel Study on Income Dynamics. Their results suggest little benefit from public office. Using a regression discontinuity design, Eggers and Hainmueller (2009) find that British Conservative party MPs benefit financially from public office while Labour MPs do not. Finally, Querubin and Snyder (2009) examine the wealth accumulation of U.S.

⁴This pattern is broadly consistent with a tournament model of politics in the spirit of Lazear and Rosen (1981), where participants compete for the higher returns that come with greater political experience. It is noteworthy that in our context, the higher returns come through rent extraction rather than official compensation.

politicians during 1850-1880 using a regression discontinuity design and find that election winners out-earn losers only during 1870-1880. We view our work as complementary to these studies in several ways. First, we focus on a modern political context where abuse of public office is of significant concern. (For example, Transparency International’s Corruption Perceptions Index in 2000 ranked the United Kingdom and the United States as the 10th and 14th least corrupt countries out of the 91 countries in the Index. India ranked 69th.) Further, the mandatory disclosures of all Indian candidates since 2003 help to mitigate selection issues that affect some of these earlier studies, and also concerns over the use of wealth information provided on a voluntary basis. Crucially, the breadth of our data allow us to exploit the geographic and personal attributes of politicians to provide a more fine-grained analysis of the nature of political rent-seeking.⁵

Closest to our study is the concurrent work of Bhavnani (2012), which also examines politicians’ wealth accumulation in India based on mandatory asset disclosures. Given the similarities, it is important to note the distinguishing features of our work. Bhavnani’s data include information on elections in 11 states, while we have a much more comprehensive database covering elections in 24 states. This affords a number of crucial advantages. Most importantly, we are able to include analyses that allow for constituency fixed-effects, which helps to rule out many explanations for the winner’s premium based on unobserved differences across candidates. Our sample is also less vulnerable to selection concerns, since disclosures were matched across elections by hand rather than via a matching algorithm. Our specifications also differ in a number of ways - for example, we focus on assets net of liabilities, a standard measure of wealth, while Bhavnani focuses only on assets. This distinction is potentially important in the presence of, for example, preferential loan access of politicians which would mechanically inflate asset measures.

⁵Our work also relates to several studies that attempt to infer the non-salary financial benefits of public office. Two recent papers examine the stock-picking abilities of U.S. legislators over different time periods, and with widely disparate results - Ziobrowski et al. (2011) reports high positive abnormal returns for Senators and members of the House of Representatives, while Eggers and Hainmueller (2011) reports that Congress members’ portfolios *underperform* the market. Braguinsky et al. (2010) estimate the hidden earnings of public servants in Moscow by cross-referencing officials’ salary data with their vehicle registrations.

Finally, we note that while our study focuses on India, comparable asset disclosure laws now exist for politicians in many countries. It is in theory possible to employ a similar approach in other countries where candidates for public office are required to disclose their assets, and where these disclosures are subject to legal sanction and/or media scrutiny. This presents a promising avenue for future research.⁶

In the next section, we provide a detailed description of the data and the institutional context. We follow in Section 3 with a simple model that will help to organize our results and motivate the empirical strategy. Section 4 presents our results, where we estimate the winner’s premium and its correlates using both a regression approach and also a regression discontinuity design. In Section 5, we provide a discussion of external validity and also consider several alternative explanations for the winner’s premium, and argue that it is difficult to reconcile these explanations with our full set of findings. We provide our conclusions in Section 6.

2 Background and Data

We use hand-collected data from sworn affidavits of Indian politicians running as candidates in state assembly elections (Vidhan Sabha). Prompted by a general desire to increase transparency in the public sector, a movement for freedom of information began during the 1990s in India. These efforts eventually resulted in the enactment of the Right to Information Act (2005), which allows any citizen to request information from a “public authority.” During this period, the Association for Democratic Reforms (ADR) successfully filed public interest litigation with the Delhi High Court requesting disclosure of the criminal, financial, and educational backgrounds of candidates contesting state elections.⁷ Disclosure requirements of politicians’ wealth, education and criminal records were de facto introduced across all states beginning with the November 2003 assembly elections in the states of Chhattisgarh,

⁶The comprehensive overview of politician disclosure laws in Djankov et al. (2010) provides an indication of the widespread adoption of such laws.

⁷<http://adrindia.org/about-adr/>

Delhi, Madhya Pradesh, Mizoram, and Rajasthan. The punishment for inaccurate disclosures include financial penalties, imprisonment for up to six months, and disqualification from political office.

Candidate affidavits provide a snapshot of the market value of a contestant's assets and liabilities at a point in time, just prior to the election when candidacy is filed. In addition to reporting their own assets and liabilities, candidates must disclose the wealth and liabilities of their spouse and dependent family members. This requirement prevents simple concealment of assets by putting them under the names of immediate family members, and henceforth our measure of wealth will be aggregated over dependent family members. Further, criminal records (past and pending cases) and education must be disclosed. While the relationship linking wealth, education, and criminal activity to election outcomes is interesting in its own right, we focus in this study on the effect of electoral victory on wealth accumulation over an election cycle of five years on average. Since reporting requirements are limited to those standing for election, asset growth can only be measured for re-contesting candidates, i.e., those that contest - and hence file affidavits - in two elections. Therefore, our study is limited to elections in the 24 states which had at least two elections between November 2003 and May 2012, covering about 94 percent of India's total electorate. Table 1 lists the 24 states in our sample along with descriptive information corresponding to the first of the two elections.

The primary sources for candidate affidavits are the GENESYS Archives of the Election Commission of India (ECI)⁸ and the various websites of the Office of the Chief Electoral Officer in each state. The archives provide scanned candidate affidavits (in the form of pictures or pdfs) for all candidates. A sample affidavit is shown in Online Appendix A. Except for the nine elections prior to October 2004, we are able to collect these data from the websites of the National Election Watch which, in collaboration with the ADR, provides digitized candidate affidavits.⁹ Data for the nine earlier elections were collected directly from the scanned affidavits.

⁸<http://eci.gov.in/archive/>

⁹<http://www.myneta.info/>

In a first step, among all the candidates that contest in the first election in each state, we filter out the winners and the runners-up (our control group) using the Statistical Reports of Assembly Elections provided by the Election Commission of India (ECI).¹⁰ We then match the names of these winners and runners-up with candidates that contest in the subsequent election in that state. Due to the many commonalities among Indian names as well as different spellings of names across elections, matching was done manually. Overall, we are able to manually match a total of 3715 re-contesting candidates (2347 winners and 1368 runners-up) based on variables such as name, gender, age, education, address, and constituency, as well as family members' names (usually the name of the father or spouse).¹¹

Of these initial 3715 candidates that competed in consecutive elections, we were unable to locate affidavits for both elections for 53 candidates because of broken web links and hence discard them from our sample. Further, we filter out candidates with affidavits that are poorly scanned, have missing pages, or handwriting that is too unclear or ambiguous to get a clear picture of a candidate's reported financial situation. This drops a total of 573 candidates, or about 15.6 percent of the remaining sample.¹² Next, we verify suspicious values and, since our main focus is on growth in wealth, remove candidates that list significant assets without corresponding market value information, leaving a sample of 3021 matched candidates (1911 winners and 1110 runners-up). Of these 3021 candidates, we have 658 constituencies in which both the winner and the runner-up re-contest in the following election.

From the affidavits, we compute each candidate's *Net Wealth* at the time of filing, just prior to each election. In each case, we define net wealth as the sum of movable assets (such as cash, deposits in bank accounts, and bonds or shares in companies) and immovable assets (such as land and buildings) less liabilities (such as loans from banks), aggregated

¹⁰http://eci.gov.in/eci_main1/ElectionStatistics.aspx

¹¹A probabilistic matching algorithm, based on variables such as name and age, proved to be inefficient. To provide an example, in the Tamil Nadu Election of 2006, there are 2 candidates with identical names (RAJENDRAN.S), Age (56), and education (10th Pass) despite being identifiably distinct politicians. We also commonly encountered differential spellings of names between elections, for instance, Shakeel Ahmad Khan (Bihar, 2005) and Shakil Ahmad Khan (Bihar, 2010).

¹²Affidavit availability and quality differs somewhat across states and tends to be slightly worse in the earlier years. For example, out of 54 matched candidates in Delhi (2003), 27 percent of affidavits are unavailable or of very poor quality.

over all dependent family members listed on the affidavit. Finally, we remove candidates with negative or extremely low net asset bases using a cutoff of beginning net worth of Rs 100,000.¹³ This yields a final sample of 2810 matched candidates (1791 winners and 1019 runners-up) of which 1140 are constituency-matched pairs, i.e., we have 570 constituencies in which both the winner and runner-up recontest. The last 3 columns of Table 1 provide a state-level breakdown of these 570 constituencies. We define *Final Net Wealth* as net wealth at the end of the electoral cycle under consideration, and *Initial Net Wealth* as net wealth at the beginning of the cycle.

We define a *Criminal Record* dummy as equal to one if the candidate has pending or past criminal cases at the time of the first election, and measure education based on years of schooling (*Years of Education*). In addition to information gathered from candidates' affidavits, we also collect data on election victory margins and incumbency from ECI's Statistical Reports of Assembly Elections. The reports also allow us to classify constituencies as Scheduled Caste (SC), Scheduled Tribe (ST), or "general" constituencies. SC and ST constituencies are reserved for candidates classified as SC or ST in order to promote members of historically under-represented groups; general candidates cannot compete in these SC/ST-designated constituencies. We also distinguish among winning candidates based on whether they went on to hold significant positions in the state government, using an indicator variable *Minister* to denote membership in the *Council of Ministers*, the state legislature's cabinet.

We use several state-level measures to proxy for opportunities for political rent extraction. First, we define an indicator variable, *BIMARU*, to denote constituencies located in the states of Bihar, Madhya Pradesh, Rajasthan, and Uttar Pradesh which, as noted in the introduction, have been singled out for corruption and dysfunction ("bimar" means sick in Hindi). The neighboring state of Orissa is often added to the group, leading to the acronym (and for our purposes, indicator variable) *BIMAROU*. We also use a perception-based cor-

¹³None of these adjustments materially changes the quantitative nature of our results. Our findings are very robust to using different cutoff values (e.g., Rs 500,000) or no adjustment at all.

ruption measure provided in the 2005 Corruption Study by Transparency International India. This report constructs an index for 20 Indian states based on perceived corruption in public services using comprehensive survey results from over 10,000 respondents. The index takes on a low value of 240 for the state of Kerala and a high of 695 for Bihar. Our sample covers 17 of the 20 states for which the index is available; for ease of interpretation, we rescale the original measure such that it has a mean of zero and standard deviation of one, for the 17 states in our sample. There is a high degree of concordance between the Transparency measure, *TICorruption*, and the BIMARU classification. Three BIMARU states—Bihar, Madhya Pradesh, and Rajasthan—fill three of the five highest-corruption positions in the Transparency index, while Uttar Pradesh is ranked 9th out of 20.

Finally, we collected a cross-section of state legislature salaries during 2003-2008, and use the *Base Salary* of politicians to examine more formally whether official salaries are an important determinant of wealth accumulation. As we note in the introduction, these official salaries are likely too low to account for the high levels of wealth accumulation of many politicians.

Table 2 lists definitions of the main variables used in the analysis and Table 3 provides descriptive statistics for our constituency-matched sample of 1140 candidates (Panel A) as well as for candidates from the subsample of elections decided by close margins (Panel B). The median of $\log(\textit{Initial Net Assets})$ is nearly identical for winners versus runners-up - 15.147 versus 15.149. This corresponds to about Rs 3.8 million (\$76,000 at an exchange rate of Rs 50 per dollar) for winners and for runners-up. As a point of reference, state legislators' salaries, including allowances, are generally well under Rs 1,000,000 (about \$20,000) with relatively little variation as a function of seniority. The median of $\log(\textit{Final Net Assets})$ is 16.09 for winners, versus 15.93 for runners-up, a difference of 15.5 percent, given the log scale, and significant at the 10 percent level. There is an average of 4.9 years between the two snapshots of net assets, so the difference between initial and final net assets implies a different rate of asset growth of 3.2 percent ($15.7/4.9$).

Apart from *Final Net Assets*, winners and runners-up also differ based on incumbency. Incumbents are less likely to win in this sample of re-contestants, consistent with Linden’s (2004) finding of an incumbency disadvantage for Indian politicians. The two groups are otherwise quite similar on observables, with no appreciable difference in age, education, or gender. About 14 percent of winners are members of the state Councils of Ministers (by definition, 0 percent among runners-up) and 18 percent of the elections in our sample are from SC/ST-designated constituencies. Runners-up in the subsample of close elections tend to be slightly more educated than winners on average (14.35 years of educations vs. 13.69 for winners) though the median years of education is identical. Overall, based on these observables, runners-up seem to constitute a reasonably comparable control group.¹⁴

3 Empirical Strategy

We present a simple model of electoral incentives based on the costs of running for office and the financial returns of private versus political employment. We emphasize that we are not ‘testing’ the model: we provide it as a means of organizing our results, and motivating our empirical strategy.

We model a politician’s career as lasting for two periods; candidates who contest elections in period 0 may recontest in period 1. Initially, we assume that periods are independent and that the probability of winning an election is given by p . The cost of running a political campaign is fixed as M in each period, which must be covered by the candidates themselves. We assume an initial wealth level of $W_0 > M$. We denote returns for candidate i by R_{ij} where $j \in \{W, L\}$ denotes whether a politician won or lost the election, corresponding to political rents versus returns in the private sector. Differential return opportunities across constituencies c are captured by α_c . In addition, candidate i ’s wealth, which grows at interest rate r , is hit by an idiosyncratic shock ϵ_i which may affect his ability to recontest. Thus, in

¹⁴On further investigating election expense for a subset of candidates, we also find no material differences between winners and runners-up. Election expenditure by each candidate is further limited by law to about Rs 1,000,000 in large states, and candidates generally receive lump sum grants from their political parties.

its most general form, contesting candidate i 's wealth dynamics can be written as:

$$W_{ict} = (1 + r)W_{ict-1} - M + R_{ij} + \alpha_c + \epsilon_i \quad (1)$$

In order for a candidate to stand for election in period t , two conditions must be met. First, the expected returns from winning the election, net of election expenses, must exceed his outside option, and second, a candidate must be able to finance the costs of running for office. These conditions may be expressed as:

$$pR_{iW} + (1 - p)R_{iL} - M \geq R_{iL} \quad \text{or} \quad R_{iW} - R_{iL} \geq M/p \quad (2)$$

$$W_{it} \geq M \quad (3)$$

While, by revealed preference, conditions (2) and (3) are satisfied for all candidates in our sample at $t = 0$ (the first of the two elections we observe), some candidates who would prefer to recontest at $t = 1$ may have insufficient funds to do so.¹⁵

Thus, between $t = 0$ and $t = 1$ winners and runners-up generate the following returns, respectively:

$$W_{ic1} = (1 + r)W_{ic0} - M + R_{iW} + \alpha_c + \epsilon_i \quad \text{if } D_i = 1$$

$$W_{ic1} = (1 + r)W_{ic0} - M + R_{iL} + \alpha_c + \epsilon_i \quad \text{if } D_i = 0$$

which can be written succinctly as:

$$W_{ic1} = (1 + r)W_{ic0} - M + R_{iL} + (R_{iW} - R_{iL}) \cdot D_i + \alpha_c + \epsilon_i \quad (4)$$

where D_i indicates whether the candidate has been in office during the period. We can

¹⁵This is based on the simplifying assumption that candidates cannot borrow against future income, for example, because rents extracted from holding office are not pledgeable.

rewrite (4) as a general regression specification of the form:

$$y_{ic1} = \alpha + \beta \cdot D_i + \alpha_c + \mathbf{x}'_i \mathbf{b} + \epsilon_i \quad (5)$$

where \mathbf{x}_i controls for initial wealth levels as well as other candidate characteristics.

We wish to measure final assets for an individual elected to public office,¹⁶ relative to the counterfactual where he was not elected:

$$\mathbb{E}(y_{ic1}|D_i = 1) - \mathbb{E}(y_{ic1}|D_i = 0) = \beta \quad (6)$$

Of course, we cannot measure winner versus loser wealth for a given politician, but will rather make a comparison across observed winners i and losers j . That is, the estimate will be based on:

$$\mathbb{E}(y_{ic1}|D_i = 1) - \mathbb{E}(y_{jc1}|D_j = 0) = \hat{\beta} \quad (7)$$

which can be rewritten as the sum of β and a selection term:

$$\begin{aligned} \mathbb{E}(y_{ic1}|D_i = 1) - \mathbb{E}(y_{jc1}|D_j = 0) &= \mathbb{E}(y_{ic1}|D_i = 1) - \mathbb{E}(y_{ic1}|D_i = 0) \\ &\quad + \underbrace{\mathbb{E}(y_{ic1}|D_i = 0) - \mathbb{E}(y_{jc1}|D_j = 0)}_{\text{Selection term}} \end{aligned}$$

In our identification strategy, we focus on close elections. By comparing candidates that just won the election to candidates that just lost, we compare the returns of very similar candidates.¹⁷ This random assignment ensures that the selection term highlighted above goes to zero; that is, the runners-up in our sample represent an appropriate comparison group for those obtaining public office. We will return to augment the model in Section 5.1 to examine how the focus on the constituency-matched sample affects the external validity of our results.

¹⁶In our analysis, we will estimate the logarithm of final net assets conditional on initial assets, to allow for greater flexibility of functional form. In practice, it makes very little difference for our estimates on the returns to holding office whether we use final assets or asset growth as the dependent variable.

¹⁷We later verify that winners and losers of close elections are very similar on observables.

4 Results

We present our results using three separate approaches. First, we provide a graphical depiction of candidates’ net asset growth. We then present estimates of the winner’s premium and its correlates using regression analyses, followed by a presentation of the results using a regression discontinuity design. After presenting our main results, we turn to a pair of alternative approaches to estimating the winner’s premium based on ‘seasoned candidates’ and a quasi-experiment resulting from Bihar’s hung assembly in 2005.

4.1 Graphical presentation of results

We begin by presenting a series of figures that provide a visual description of our results. In Figure 1 we plot the Epanechnikov kernel densities of the residuals obtained from regressing $\log(\textit{Final Net Assets})$ on candidate observables, including $\log(\textit{Initial Net Assets})$. Panel A uses the entire sample of constituency-matched candidates while Panel B only uses candidates that were within a margin of 5 percentage points.¹⁸ In both cases, the Kolmogorov-Smirnov test for equality of the distribution function of winner and runner-up residuals is rejected at the 1 percent level. These figures thus depict a differential effect of election outcomes on net asset growth between the treatment and control groups. In Panels C and D, we divide the sample based on whether their constituencies are located in *BIMARU* states. Panel C shows a clear rightward shift for winners relative to runners-up, and we reject the equality of the distribution functions at the 1 percent level. By contrast, the winner and runner-up distributions for non-BIMARU states in Panel D clearly overlap with one another. Thus, the existence of a winner’s premium is driven largely by candidates in high corruption states.

In Panel E, we disaggregate winners into ministers and non-ministers and plot kernel densities of these two groups as well as the runners-up. The kernel density plots indicate a higher rate of asset growth for ministers, and also suggest a long right tail for ministers,

¹⁸The chosen bandwidth is the width that would minimize the mean integrated squared error if the data were Gaussian and a Gaussian kernel were used.

implying that a relatively small number of these high-level politicians generate very high asset growth.

Finally, Panels F and G disaggregate the sample based on whether an incumbent is standing for reelection in the constituency. Panel F shows winner and runner-up densities for the sample of constituencies where an incumbent was standing for reelection. The winner distribution is clearly shifted to the right, implying a greater winner’s premium in races involving incumbents (a test for equality of the distribution functions is rejected at the 1 percent level). Panel G shows densities for the subsample of non-incumbent constituencies - the winner distribution is now slightly shifted to the left but a test for equality of the distribution functions cannot be rejected (p-value of 0.622).

4.2 Regression Analyses

We now turn to analyze the patterns illustrated in Figure 1 based on the regression framework we developed in Section 3. The basic estimating equation is given by:¹⁹

$$\begin{aligned} \log(FinalNetAssets_{ic}) = & \alpha_c + \beta_1 * Winner_{ic} + \beta_2 * \log(InitialNetAssets_{ic}) \\ & + Controls_{ic} + \epsilon_{ic} \end{aligned} \quad (8)$$

These within-constituency estimates of the winner’s premium are presented in Table 4. In the first column, we show the binary within-constituency correlation between the indicator variable *Winner* and $\log(Final Net Assets)$, including $\log(Initial Net Assets)$ as a control. The coefficient of 0.167 (significant at the 1 percent level) implies that, after accounting for initial net assets, winners finish a five year electoral cycle with 16.7 percent higher assets than runners-up. This is equivalent to an annual asset growth premium of 3.4 percent.²⁰ Column (2) adds controls for gender, incumbency, having a criminal record, the logarithm of years of education, as well as quadratic controls for age; the point estimate is virtually unchanged,

¹⁹Results are essentially unchanged when using *net asset growth* as the dependent variable.

²⁰16.7/4.9 years; the average legislature period in our sample is 4.9 years.

at 0.164 (significant at the 1 percent level). In columns (3) - (5) we examine the winner's premium in close elections, defined by those where the vote share gap between winner and runner-up was less than 10, 5, and 3 percentage points. In each case, we find that winners' assets are 16 - 21 percent higher than runners-up at the end of an electoral cycle, representing a 3 - 4 percent annual growth premium (significant at least at the 5 percent level). In results not shown, we find that the interaction of $Winner_{ic}$ and $\log(InitialNetAssets_{ic})$ is negative (though not significant) consistent with public office generating rents that are, to some degree, fixed rather than proportional to politicians' initial wealth.²¹

If the higher asset accumulation of winners versus runners-up may be attributed to rent-seeking behavior, then we expect to see a greater impact of electoral success on asset growth in high corruption constituencies. We present in Table 5 results based on several measures of state-level corruption. Given that our variation in corruption is at the state-level, standard errors are clustered by state throughout the table. We begin, in columns (1) and (2), with the sample split based on whether a constituency is located in a *BIMARU* state. The coefficient on *Winner* is twice as large for *BIMARU* relative to non-*BIMARU* states. In Column (3) we use the full sample, and include the interaction term $Winner*BIMARU$. The coefficient implies a winner's premium that is 0.136 higher in *BIMARU*-based constituencies, though the interaction term is not significant (p-value = 0.12). We note, however, that we have erred on the side of conservatism throughout in saturating the model with constituency fixed-effects. In column (4) we present results based on a specification that includes only state fixed effects. The point estimate is slightly lower, with a much smaller standard error (p-value=0.03). (We note that the point estimates in our main results are also virtually identical when we use state fixed-effects, but estimated with greater precision, relative to the results reported in Table 4.)

In Columns (5) and (6) we present results employing two alternative state-level measures

²¹In results not reported, we also find that legislators who win by large margins do not earn a higher winner's premium. Such a specification is, however, subject to extreme problems of unobserved heterogeneity - the large margin may be because of a candidate's effort or political skill, confusing the interpretation of the $Winner*Margin$ interaction.

of corruption, *BIMAROU* and *TICorruption*. The point estimate for *Winner*BIMAROU* is 0.156 and significant at the 10 percent level.²² The direct effect of *Winner* is reduced to 0.104. In column (6), we find that the interaction term *Winner*TICorruption* is positive, though not significant at conventional levels (p-value 0.128); its magnitude implies that a one standard deviation increase in corruption is associated with an incremental 1.3 percent (0.063/4.9) higher annual asset growth rate for election winners. In results not shown, we confirm that using state rather than constituency fixed-effects generates virtually identical point estimates, but much smaller standard errors. In particular, the interaction terms *Winner*BIMAROU* and *Winner*TICorruption* take on values of 0.153 and 0.0671 respectively, significant at the 5 percent level.

To the extent that the higher asset growth of election winners is the result of the office itself - rather than unobserved differences that are correlated with holding office - there are two further predictions that suggest themselves. First, elected officials that are members of the ruling party or coalition should be better placed to benefit from holding office. Second, higher-level offices, where the potential for rent-seeking is greatest, should also be associated with particularly high asset growth. It is of particular note, in considering these two further hypotheses, that state-level legislators' official salaries are invariant to whether they are part of the ruling coalition, and also that ministers' official salaries are only slightly higher than those of rank and file politicians.

We begin in Table 6 by comparing the returns of ruling party politicians to those who were elected but not part of the majority party or coalition. We denote ruling party or coalition members by the indicator variable, *Government*, and include it as well as the interaction term *Government*Winner* as covariates in Equation (8). The coefficient on the interaction term is 0.606, significant at the 10 percent level, while the direct effect of *Government* is negative and large in magnitude (-0.217), though not significant (p-value=0.207). The direct effect of *Winner* is slightly negative, though not significant. Overall, our estimates indicate

²²Given the larger point estimate using *BIMAROU*, it is not surprising that when we estimate (8) for Orissa alone, we obtain a relatively high estimate of the winner's premium of 0.28

that the benefits of winning public office, relative to outside options, accrue exclusively to those who are part of the ruling government.

We next explore the effect of membership in the Council of Ministers (COM) on asset accumulation. Column (2) presents the results of our basic specification in Equation (8), augmented by the inclusion of *Minister*, an indicator variable denoting COM membership. The coefficient on *Minister* is 0.602, significant at the 1 percent level, implying a more than 12 percent higher asset growth rate, relative to non-ministers.²³ The winner’s premium is reduced to 0.083, implying that a significant fraction of the overall winner’s premium is the result of very high asset growth rates for high-level politicians.²⁴ In column (3), we include both *Minister* and *Government*Winner* as covariates. The coefficient on *Minister* falls modestly, to 0.534, while the coefficient on *Government*Winner* falls by about a third, and is no longer significant at conventional levels (p-value=0.172). This indicates that a large fraction of the benefits to being a member of the governing party accrue to high-level politicians.

The primary concern in interpreting our results on the asset growth of ministers is that it could reflect the higher outside earnings of those with the skills and experience to obtain ministerial positions. To account for the unobserved attributes of “minister quality” candidates, we compare the returns of politicians who served as ministers during 2003-2012 to the returns of elected politicians who did not hold ministerial posts during 2003-2012, but had served as minister in a prior period. We argue that these former ministers - who were no longer in the cabinet primarily because their party was thrown out of office - serve as a plausible comparison group to control for the unobserved abilities of sitting ministers.

This analysis required an additional data collection effort. To identify former ministers, we developed a list of all state-level ministers for the electoral cycle that preceded the 2003-

²³Note that, since all ministers are also election winners, it is not appropriate to include a *Winner*Minister* term.

²⁴When we limit the sample to close elections, decided by margins of 10, 5, and 3 percent respectively, the point estimates for *Minister* - particularly for the 5 percent threshold - are marginally smaller than for the full sample. However, in all cases, they are significant at least at the 5 percent level.

2012 elections that we study here.²⁵ We then matched these names with our sample of re-contesting candidates, resulting in a total of 268 matches.

Since only a small subset of politicians ever hold ministerial posts, we cannot perform this analysis for our constituency-matched sample. We therefore return to our original set of 3715 re-contesting candidates (see the Background and Data section), and utilize all candidates who held a ministerial post during 2003-2012, or the preceding legislative period. For this sample of present and past ministers, we show the results of a modified version of Equation (8), including *Minister* as the main covariate of interest, in Table 7. We include state fixed effects to account for unobserved differences in earnings opportunities across states. In our baseline results in column (1), the coefficient of 0.312 (significant at the 1 percent level) indicates that current ministers generate asset growth that is 6.4 percent (0.312/4.9) higher than politicians who previously served as ministers, but do not in the 2003-2012 electoral cycle. In column (2) we include *Incumbent* as a control, to account for the possibility that current minister status is simply picking up the effects of multiple terms in office, and find that our point estimate increases marginally to 0.343. In column (3), we include fixed effects for India’s districts, representing a much finer set of controls for unobserved differences across candidates. Our point estimate on *Minister* increases to 0.439. Finally, in column (4), we further refine the sample to only include (i) current ministers and (ii) past ministers who won the current election but whose party was not a member of the ruling state government. This subsample allows us to tease out another “government effect”: politicians of both groups won the current election *and* held a ministerial post at least once, but differ in that only one group’s party was part of the government. Put differently, while the groups are very comparable in many dimensions, only the current ministers exercise control over large budgets during the period we study. The point estimate of *Minister* for this subsample is 0.236, significant at the 1 percent level. While not dispositive, this evidence strongly suggests that at least some component of the high asset growth for state ministers is likely the result of the office itself, rather than unobserved ability correlated with minister status.

²⁵Most information was sourced from archives of state government websites as well as an extensive review of newspaper articles.

In the remaining two columns in Table 7, we disaggregate assets into *Movable Assets*, holdings such as cash, bank deposits, and jewelry, and *Immovable Assets*, such as land and buildings (see the full definition in the Data section). We see a sharp difference between the composition of asset growth for minister versus non-minister politicians. The coefficient on *Winner* is a highly significant predictor of growth in movable assets, implying a winner’s premium of 6.22 percent. The magnitude of the coefficient on *Minister* in (5) implies a further premium in movable asset growth of 6.35 percent, significant at the 10 percent level. For immovable assets, the minister growth premium is 7.59 percent and significant at the 5 percent level, while the winner’s premium is small in magnitude and statistically insignificant. Note that immovable assets constitute, on average, about three quarters of a candidate’s total assets. If the asset growth of politicians is the result of extra-legal payments, this difference may simply reflect the fact that the scale of gifts is larger for ministers (e.g., cars versus buildings). It may also result from access to low cost purchase of land for high-level individuals as suggested by, for example, the case of Karnataka’s former Chief Minister B.S. Yeddyurappa, who acquired land parcels at extremely favorable prices before selling them off to mining companies.²⁶ Such opportunities may only be available to high-ranking politicians.

We next turn to examine the effect of incumbency, and more generally the impact of having more prior experience in government on asset accumulation. In Table 8 we include the interaction term *Incumbent*Winner* as a covariate. In column (1), we observe that its coefficient is very large in magnitude, 0.75, and significant at the 1 percent level. The point estimate on the direct effect of *Incumbent* is -0.29, indicating that at least part of the reason for the larger winner’s premium among incumbents is the low earnings of incumbents who fail to be reelected. This indicates that incumbent politicians may have weak private sector employment opportunities after spending a term in office. In column (2) we include *Minister* as a control, since attainment of high-level positions is correlated with tenure in state politics (the correlation between *Minister* and *Incumbent* for members of the ruling party is 0.21). The inclusion of this control reduces the coefficient on *Incumbent*Winner* marginally, to

²⁶“Ministers stole millions in Karnataka mining scam,” *BBC South Asia*, July 21, 2011

0.65 (significant at the 1 percent level), and has little effect on other coefficients. Finally, in column (3) we control for whether a candidate served in the state assembly prior to the one immediately preceding the election cycle we study here, denoted by the indicator variable *PriorMember*. The inclusion of *PriorMember* and its interaction with *Winner* has no effect on the measured effects of incumbency.

To recap our results thus far: Given the differential returns to office in corrupt versus non-corrupt states, our findings are most easily explained by a model of politician rent-seeking. Further, our findings on the higher returns for incumbents and ministers suggest that the financial benefits of public office increase with experience and progression through the political hierarchy.

We conclude this section by looking at the effect of a number of other personal and constituency attributes on candidates' asset growth. A measure of market earnings potential often employed in the labor literature is education (see Duflo (2001) for evidence on the returns to education in Indonesia, and Dale and Krueger (2002) for an example in the U.S. context). In column (1) of Table 9, we include $\log(\textit{Years of Education})$ as a control, and also its interaction with *Winner*. In keeping with prior evidence on the returns to education, the coefficient on the direct effect of $\log(\textit{Years of Education})$ —reflecting earnings for non-winners—is positive, though not significant at conventional levels (p-value=0.11). Its interaction with *Winner* is negative, and its coefficient, -0.585, indicates a relatively modest return to public office for higher education politicians, who are likely to have relatively lucrative options in the private labor market.

In column (2) we include a measure of per capita income, approximated by the average state-level per capita net domestic product between 2004 and 2009, $\log(\textit{Income per Capita})$ taken from the Reserve Bank of India (RBI). The coefficient on the interaction of income and *Winner* is negative, though small in magnitude and not statistically significant.²⁷

In column (3) we consider the set of constituencies reserved for members of disad-

²⁷Results are nearly identical when using a district-level measure of household income for 2008 instead.

vantaged groups, so-called Scheduled Tribes and Castes (SC/ST). The interaction term $SC/ST_Quota * Winner$ is significant at the 5 percent level (p-value=0.016), and implies a winner’s premium in asset growth of about 6 to 7 percent for constituencies reserved for SC/ST candidates. There are two primary explanations for the relatively high winner’s premium for SC/ST-designated constituencies. First, since these seats are reserved for a limited set of potential candidates, it may slacken electoral competition, allowing candidates to extract greater rents without fear of losing their positions. Alternatively, SC/ST politicians may have less lucrative private sector options as a result of discrimination, lower unobserved skill levels, or weaker labor market opportunities in SC/ST-dominated areas. While we cannot include both the direct effect of SC/ST_Quota and constituency fixed effects in a single specification, column (4) shows the direct effect of SC/ST quotas with a coarser set of fixed effects, at the district level. There are approximately half as many districts as constituencies in our main sample. We find a very similar coefficient on the interaction term $SC/ST_Quota * Winner$ in this specification - approximately 0.33 - while the direct effect of SC/ST_Quota is -0.31. These estimates suggest that among runners-up, SC/ST politicians fare significantly worse than other candidates, consistent with the high winner’s premium in SC/ST constituencies resulting in large part from different private sector opportunities.

We show the interaction of *Female* and *Winner* in column (5). The coefficient is positive and marginally significant. Finally, in column (6) we interact *Winner* with $\log(Base\ Salary)$. We find no evidence that the winner’s premium is higher in states with more generous official salaries for legislators, implying that it is unlikely that official salaries play a major role in the differential asset accumulation of elected officials.

4.3 Regression Discontinuity Design

An alternative identification strategy is based on a regression discontinuity design, with the winner’s premium identified from the winner-loser differential in close elections. In this section, we explicitly model the value of winning using regression discontinuity methods. We

show a series of figures that depict our tests for discontinuities around the winning threshold, followed by estimates of winner-loser discontinuities.

We calculate the discontinuity using a local linear regression approach as suggested by Imbens and Lemieux (2008), and employed by Querubin and Snyder (2011) in a similar context to our own. Specifically, we augment (8) by the variable $Margin_{ic}$ and use the subsample of elections that were decided by margins of 5% or less. As shown in Table 3, covariates for winners and runners-up are fairly balanced for this set of close elections.²⁸

$$\begin{aligned} \log(FinalNetAssets_{ic}) = & \alpha_c + \tau * Winner_{ic} + \beta_1 * \log(InitialNetAssets_{ic}) \\ & + \beta_2 * Margin_{ic} + Controls_{ic} + \epsilon_{ic} \end{aligned} \quad (9)$$

The scatterplots and lines of best fit we show alongside our estimates of the winner’s discontinuity are produced using common methods developed in the regression discontinuity literature (e.g., DiNardo and Lee (2004), Imbens and Lemieux (2008) and Angrist and Pischke (2009)). First, we generate residuals by regressing $\log(Final Net Assets)$ on candidate observables, including $\log(Initial Net Assets)$, gender, incumbency, and age, but excluding $Winner$ and $Margin$. We next collapse the residuals on margin intervals of size 0.5 (margins ranging from -25 to +25) and then plot estimates of the following specification:

$$\bar{R}_i = \alpha + \tau \cdot D_i + \beta \cdot f(Margin(i)) + \eta \cdot D_i \cdot f(Margin(i)) + \epsilon_i \quad (10)$$

where \bar{R}_i is the average residual value within each margin bin i , $Margin(i)$ is the midpoint of margin bin i , D_i is an indicator that takes a value of one if the midpoint of margin bin i is positive and a value of zero if it is negative, and ϵ_i is the error term.²⁹ $f(Margin(i))$ and $D_i \cdot f(Margin(i))$ are flexible fourth-order polynomials.

In columns (1) - (7) of Table 10, Panel A, we show discontinuity estimates of (9) using

²⁸For robustness, we also repeat the analysis for different subsamples and including higher-order polynomials in $Margin$.

²⁹To address heterogeneity in the number of candidates and residual variance within each bin, we weigh observations by the number of candidates, and alternatively by the inverse of within-bin variance. Results are similar in both specifications.

local linear regressions as described above, while in in Figure 2, Panels A - G, we present accompanying graphs to illustrate visually our discontinuity estimates.³⁰ We additionally present our discontinuity estimates based on the procedure employed in our graphs in Panel B of Table 10, to allow for a comparison of discontinuity estimates illustrated in the graphs and those obtained from local linear regressions.³¹

For the full constituency-matched sample, the discontinuity estimate indicates a jump in the residual values around the threshold. The point estimate of τ is 0.236, and statistically significant at the 10 percent level, as shown in column (1) of Table 10 Panel A. (In Appendix Figure 5 we show an analogous figure for $\log(\text{Initial New Assets})$; for initial wealth, we observe no discontinuity at the victory threshold.) The estimate employing residual data generates a similar though slightly smaller discontinuity, 0.207. Next, in columns (2) and (3) we partition the sample into *BIMARU* and *Non-BIMARU* constituencies (the corresponding graphs are shown in Figure 2, Panels B and C). We observe a winner's premium of 0.493 in *BIMARU* constituencies, significant at the 1 percent level (the residual data used to generate the figures produce a coefficient of 0.624). Our estimates for *Non-BIMARU* constituencies do not provide evidence of differential returns for winners versus runners-ups. Overall, these results are in line with those obtained from standard regression analyses.

Column (4) includes only ministers with corresponding runners-up. The point estimate of the discontinuity is 0.773, significant at the 1 percent level, a result qualitatively similar to that obtained through the regression analysis in the previous section. The premium is somewhat smaller in magnitude, 0.627, when estimated using the residual data, as indicated in Figure 2, Panel D. On the other hand, the subsample of non-minister winners and their corresponding runners-up does not indicate a statistically distinguishable jump - the estimate of the discontinuity is 0.168 with a standard error of 0.155 (see also Figure 2, Panel E). In

³⁰Note that the symmetries in the RD plots are the result of constituency fixed effects. Including constituency fixed effects allows us to control for observable and unobservable constituency-level heterogeneity such as differences in local labor markets or *SC/ST_Quota*.

³¹Note that while the scatterplots we show are generated via collapsed data, the results reported in Panel B of Table 10 use raw (i.e., uncollapsed) residuals. As can be seen, the estimates of discontinuities using this two-step approach are quantitatively and qualitatively very similar to those of the local linear regressions that we employ as the benchmark specification.

columns (6) and (7), we disaggregate the sample based on whether an incumbent is standing for reelection in the constituency (see also Figure 2, Panels F and G). The coefficient estimate of the discontinuity for the incumbent subsample is 0.310, significant at the 10 percent level (0.286 and significant at the 5 percent level for the residual data). By contrast, for the sample of non-incumbent constituencies, we observe no jump at the threshold (the point estimate is -0.168 with a standard error of 0.259).

Finally, in Figure 3 we plot kernel densities of *age* and $\log(\text{Initial Net Assets})$ for the sample of constituency-matched candidates that were within a *Margin* of 5 percentage points (“close elections”). Panel A plots *age* densities for winners and runners-up and Panel B plots densities for $\log(\text{Initial Net Assets})$. For both age and initial wealth, the Kolmogorov-Smirnov test for equality of the distribution function of winners and runners-up cannot be rejected at the 5 percent level (p-values of 0.099 and 0.979, respectively), providing some validation of our regression discontinuity design.

Based on these discontinuities, we can perform a simple back-of-the envelope calculation to approximate the winner’s premium in monetary terms. We do this by first calculating how winners’ average wealth would have grown had they not won the election using the net asset growth rate of all constituency-matched runners-up, and then comparing this average to the level of wealth accumulation using the discontinuity estimates from the RD design. Overall, for *Winners* as a group, the estimated annual premium is approximately Rs 1,000,000 (USD 20,000). However, for *Ministers* the winner premium is significantly larger, about Rs 3,700,000 per year (USD 74,000). By comparison, state-level legislators have salaries that are much lower - generally well under Rs 1,000,000 per year (USD 20,000) including allowances, with very little variation as a function of seniority. Further, these wealth accumulation increments are relative to candidates’ initial assets that are, on average, only about Rs 10,000,000 (USD 200,000), implying a large impact in percentage terms.

4.4 Evidence from Seasoned Candidates

We analyze a restricted sample of constituencies where both winner and runner-up are seasoned politicians, in the sense of both competing in at least two elections *prior* to the elections we consider in our analysis, and where both were either winner or runner-up in these earlier elections. Repeated contests of this sort between seasoned politicians is surprisingly common in our sample. We provide one illustrative example below for the Biswanath Assembly Constituency in the state of Assam. In this case, both candidates, Prabin Hazarika and Nurjamal Sarkar, have contested all elections since 1991 and have been either a winner or a runner-up in each instance. We argue that such career politicians are less likely to exit because of party decisions or a reevaluation of future electoral success - by construction, we include only politicians who have performed well as candidates in the recent past. This subset of active seasoned politicians arguably represent more comparable treatment and control candidates than the full sample of re-contesting politicians.³²

Biswanath Assembly Constituency (Assam)						
Year	Winner	%age	Party	Runner-up	%age	Party
2011	Prabin Hazarika	45.51	AGP	Nurjamal Sarkar	44.09	INC
2006	Nurjamal Sarkar	41.76	INC	Prabin Hazarika	39.46	AGP
2001	Nurjamal Sarkar	48.55	INC	Prabin Hazarika	44.3	AGP
1996	Prabin Hazarika	42.62	AGP	Nurjamal Sarkar	31.76	INC
1991	Nurjamal Sarkar	46.49	INC	Prabin Hazarika	17.39	AGP

We focus our analysis on this set of active seasoned candidates in Figure 4. Figure 4 shows the net asset growth of seasoned candidates, and indicates a clear discontinuity around the winning threshold. The point estimate of the discontinuity is 0.52 and significant at the 10 percent level.

³²At the same time, it is important to note that these politician-pairs are those who may have relatively limited outside options (hence their repeated election bids). So while we argue that our seasoned politician comparison represents a legitimate causal estimate, it is one that may have limited external validity. We address issues of external validity more broadly in Section 5.1 below.

4.5 Evidence from Bihar’s Hung Assembly

We conclude this section by presenting some results from a quasi-experiment. In Bihar’s legislative assembly election in February 2005, no individual party gained a majority of seats, and attempts at forming a coalition came to an impasse. As a result of this hung assembly, new elections were held in October/November of the same year.³³ In a significant fraction of these contests, repeated within less than a year of one another, the initial winner was defeated in the follow-up election. For these constituencies, we come as close as possible to observing the counterfactual of winners reassigned to runner-up, and vice-versa.

From the 243 constituencies contested in the February election, we sample those where both the winner and runner-up competed again in the October election of the same year and emerged as winner/runner-up or runner-up/winner in this later election. This leaves a sample of 260 candidates (130 constituencies) for which we analyze the probabilities of winning the October election as a function of the winning margin in the February election. Results are shown in the table below:

Bihar February 2005	Probability of Winning October 2005 Election					
Winner	66.2%	63.2%	60.9%	58.6%	52.2%	50.0%
Runner-Up	33.8%	36.8%	39.1%	41.4%	47.8%	50.0%
Margin (February 2005)		< 20%	< 15%	< 10%	< 5%	< 1%
Elections	130	117	110	87	46	10

Overall, winners in the February 2005 election won in the later contest only 66.2 percent of the time. Further, as one narrows the February 2005 margin, this advantage decreases monotonically. At the 5 percent threshold, the probability of winning is statistically indistinguishable from 50 percent for either candidate. This suggests a significant element of randomness to close elections in this sample.³⁴

³³Bihar was under the direct rule of India’s federal government during this period.

³⁴Recent papers by Snyder (2005), Caughey and Sekhon (2010), Carpenter et al. (2011), and Folke et al. (2011) critically assess regression discontinuity studies that rely on close elections. There remains an active debate on whether close elections can really be considered a matter of random assignment. If sorting around

We compare the net asset growth of two groups – the *treatment* and *control* groups. The *treatment* group consists of candidates that were runners-up in the February 2005 election but won in the October 2005 contest, while the *control* group is comprised of candidates that were winners in February 2005 but runners-up in the October election. These cases where winners and losers were switched owing to the hung assembly provide a measure of the returns to public office with a straightforward causal interpretation. We look at all such candidates whose winner status shifted between these two 2005 elections, and *also* chose to run again in 2010, so we can calculate their asset growth rates. The resulting set of candidates is relatively small - 25 winners and 26 runners-up - which limits our statistical power. For this subset of candidates we find that the annual net asset growth of the *treatment* group is on average 12.76% higher than that of the control group, a difference that is significant at the 5 percent level. If we limit ourselves only to the constituency matched samples where winner and runner-up status switched and *both* candidates ran in the 2010 election, the sample is reduced to 11 constituencies - 22 candidates - and we find a difference in the net asset growth between winners and runners-up of approximately 6 percent, roughly similar to the magnitudes we observe with the full sample. Given the small sample size, the difference in asset growth for the sample of 22 candidates is not statistically significant.

5 Discussion of Results

The results documented above show a significant return to public office, which increases as legislators progress through the the political hierarchy. Our focus on constituency-matched candidates where the election was decided by a narrow margin ensures that these returns are benchmarked to similar ‘quality’ individuals; yet the issue naturally arises of whether these results generalize to the broader set of state assembly candidates. We assess this concern, and also consider possible alternative explanations for our results, in the discussion that follows.

the winning threshold is not random, but close winners have systematic advantages, then the RD design may fail to provide valid estimates of the returns to office. The Bihar example provides at least suggestive evidence that close elections are relatively random in the context we consider in this paper.

5.1 External Validity

We focus on constituency-matched winner and runner-up pairs where *both* candidates recontest at $t = 1$, and it is important to understand how estimates from this selected sample of politician pairs might differ that which one would obtain with the broader set of candidates.

Our simple model in Section 3 indicates that the constituency selection issue arises from the fact that some candidates will be hit by negative wealth shocks that prevent them from recontesting at $t = 1$. Specifically, in order for a candidate to be observed in the sample, he must have sufficient funds to cover the election expense, $W_{i1} \geq M$.³⁵ Given that the wealth of winners is larger than that of runners-up as a result of higher earnings in office, there is a natural discontinuity in the recontesting probabilities – winners are more likely to recontest elections than losers.³⁶ To understand how this affects our estimates, consider the selection equation capturing the recontesting decision z_i :

$$z_i = \begin{cases} 1 & \text{if } \epsilon_i \geq 2M - (1+r)W_{ic0} - R_{ij} - \alpha_c \\ 0 & \text{if } \epsilon_i < 2M - (1+r)W_{ic0} - R_{ij} - \alpha_c \end{cases}$$

and the outcome equation is:

$$W_{ic1} = \begin{cases} (1+r)W_{ic0} - M + R_{iL} + (R_{iW} - R_{iL}) \cdot D_i + \alpha_c + \epsilon_i & \text{if } z_i = 1 \\ \emptyset & \text{if } z_i = 0 \end{cases}$$

That is, we do not observe candidates for which $z_i = 0$. In analyzing how selection affects our estimates, first note that:

$$\mathbb{E}[y_i | \mathbf{x}_i] = \mathbb{E}[y_i | \mathbf{x}_i, z_i = 1] \cdot P(z_i = 1) + \mathbb{E}[y_i | \mathbf{x}_i, z_i = 0] \cdot P(z_i = 0) \quad (11)$$

³⁵Consistent with the model, we find that the runners-up that exit the sample have lower initial wealth.

³⁶In this model, one can distinguish between the following cases of wealth shocks (ϵ) and exit: (1) positive wealth shocks leading both candidates, winner and runner-up, to recontest, (2) large negative wealth shocks such that both candidates exit the sample, (3) negative wealth shocks such that only runners-up exit the sample, and (4) wealth shocks such that only the winner exits the sample. If one assumes that shocks to wealth are idiosyncratic and follow the same distribution for runners-up and winners, then it follows that case (3) is more likely to happen than case (4) since it requires a relatively larger negative shock for winners to exit the sample.

where $\mathbb{E}[y_i|\mathbf{x}_i, z_i = 1]$ is the expectation based on the selected sample of candidates and $\mathbb{E}[y_i|\mathbf{x}_i]$ is the expectation based on the full sample. This can be rewritten as:

$$\mathbb{E}[y_i|\mathbf{x}_i, z_i = 1] = \mathbb{E}[y_i|\mathbf{x}_i] + \{\mathbb{E}[y_i|\mathbf{x}_i, z_i = 1] - \mathbb{E}[y_i|\mathbf{x}_i, z_i = 0]\} \cdot P(z_i = 0) \quad (12)$$

Generally, in analyzing marginal effects of the k -th variable, x_{ki} , we can take derivatives:

$$\underbrace{\frac{\partial \mathbb{E}[y_i|\mathbf{x}_i, z_i = 1]}{\partial x_{ki}}}_{\hat{b}_k} = \underbrace{\frac{\partial \mathbb{E}[y_i|\mathbf{x}_i]}{\partial x_{ki}}}_{b_k} + \underbrace{\frac{\partial}{\delta x_i} \{\mathbb{E}[y_i|\mathbf{x}_i, z_i = 1] - \mathbb{E}[y_i|\mathbf{x}_i, z_i = 0]\} \cdot P(z_i = 0)}_{\text{Selection Bias } (\nu)}$$

More specifically, our estimate of the returns to office, denoted by $\hat{\beta}$, corresponds to the *difference* in expected values, when x_{ki} is the indicator variable D_i , and D_i switches from 0 to 1. That is:

$$\hat{\beta} = \frac{\mathbb{E}[y_i|\mathbf{x}_i, D_i = 1, z_i = 1] - \mathbb{E}[y_i|\mathbf{x}_i, D_i = 0, z_i = 1]}{1}$$

which can be expressed as:

$$\begin{aligned} \hat{\beta} &= \mathbb{E}[y_i|\mathbf{x}_i, D_i = 1] - \mathbb{E}[y_i|\mathbf{x}_i, D_i = 0] \\ &+ [\{\mathbb{E}[y_i|\mathbf{x}_i, D_i = 1, z_i = 1] - \mathbb{E}[y_i|\mathbf{x}_i, D_i = 1, z_i = 0]\}] \\ &- [\{\mathbb{E}[y_i|\mathbf{x}_i, D_i = 0, z_i = 1] - \mathbb{E}[y_i|\mathbf{x}_i, D_i = 0, z_i = 0]\}] \cdot P(z_i = 0) \end{aligned} \quad (13)$$

Thus, we have $\hat{\beta} = \beta + \nu$. The direction of possible bias in our estimate of the winner's premium will depend on the sign of the selection term (ν). In the context of our framework, it is runners-up with negative shocks to wealth who are relatively more likely to exit the sample: Since all candidates chose to contest at $t=0$ and $R_{iW} > R_{iL}$, *any* given shock to wealth ϵ will be more likely to cause runners-up to drop out of the sample. Since a greater proportion of runners-up will exit due to negative wealth shocks, had we observed these exiting candidates as well, our estimate of the average returns to office would have been larger. Put differently, the model predicts that the selection effect is negative, and our

estimate of $\hat{\beta}$ biased downwards ($\hat{\beta} < \beta$).

Our parsimonious model ignores alternative sources of exit. In particular, in addition to wealth shocks, one could augment the model to allow for noise in candidates' outside options at the reelection date $t = 1$, so that $R_{iL,t=1} = R_{iL,t=0} + \eta_i$. Thus, a sufficiently large positive shock to outside opportunities would convince any candidate - winner or loser - to opt out of standing for election. It should be noted that if these shocks affect both winners and runners-up symmetrically, they will not generate any differential exit and hence no obvious bias. An upward bias in our estimate results only if such shocks have a disproportionately positive impact on runners-up.

It should be noted that a number of observed patterns in candidate attributes, suggest that our estimates of β are, if anything, biased toward zero. First, consistent with the model, we observe a significantly higher exit rate among candidates, particularly runners-up, with low initial wealth. While these candidates were able to finance an initial campaign, they are most affected by negative shocks to wealth. Second, we do not find that the data support the view that runners-up who choose *not* to run again for office have higher outside earnings options than those runners-up who stand for reelection (and hence remain in the sample). Indeed we find the opposite to be true - taking years of education as a proxy for outside earnings opportunities, we find that runners-up who opt to run for election again have 13.76 years of education on average, as compared to 13.09 for those who do not stand for election a second time. This runs counter to the spare model outlined above, but also suggests an additional selection on runners-up that may bias our results *towards* zero, assuming that education is positively correlated with private labor market outcomes.³⁷

³⁷While beyond the focus of this paper, the high education of candidates who choose to run despite an initial loss would plausibly result if we consider the non-pecuniary returns to holding public office. If the ego benefits of public office are correlated with human capital - as suggested by, for example, Besley (2004) - then high education runners-up (who value the office for its own sake) will be more likely to run for office than low education runners-up, all else equal.

5.2 Alternate explanations for the *Winner's premium*

Our estimates of asset growth are based on *disclosed* wealth. If standing politicians face higher disclosure standards, this could plausibly generate a pure reporting-based winner's premium in observed asset growth. We note, however, that the most straightforward versions of this hypothesis would generate the opposite pattern for incumbents versus non-incumbents than what we observe: Non-incumbents at $t=0$ would disclose few assets, and conditional on winning would provide fuller disclosure at $t=1$. Incumbents, by contrast, would provide relatively full disclosure at both times conditional on winning, and hence observed asset *growth* of incumbents would be lower. Further, to the extent that standing politicians are better monitored in low-corruption states, the disclosure bias would predict a *higher* winner's premium in low corruption states, again the opposite of the patterns observed in the data.

These arguments are not dispositive - more complicated models of disclosure bias might plausibly generate at least some of our findings - but the most straightforward cases of asset underreporting are biased against our findings on the cross-sectional correlates of the winner's premium.

Other alternate explanations for the *winner's premium* may relate to the differential consumption of winners and runners-up. For example, if winners substitute government perquisites for consumption while in office or shy away from conspicuous consumption that might offend voters, differential spending patterns between the two groups of candidates may generate a *winner's premium*. We investigate this concern using data on durable goods consumption such as motor vehicles and jewelry, and find that it is higher for winners than for runners-up, and that this effect is largest for winners that are appointed to the Council of Ministers, which is at odds with the differential consumption hypothesis. Further, to the extent that conspicuous consumption would elicit greater voter backlash in low corruption states, the differential consumption hypothesis would predict a greater winner's premium in low corruption states, the opposite of the pattern observed in the data.

6 Conclusion

In this paper, we utilize the asset disclosures of candidates for Indian state legislatures, taken at two points across a five year election cycle, and accessed through the country's Right to Information Act. We use these data to compare the asset growth of election winners versus runners-up to calculate the financial returns from holding public office relative to private sector opportunities available to political candidates.

Our main findings suggest that the annual growth rate of winners' assets is 3-5 percent higher than that of runners-up. Further, this effect is more pronounced among legislators in more corrupt regions of India, implying that the higher returns are likely associated with political rent extraction. We further find that the winner's premium in asset growth is much higher for senior politicians - ministers and also incumbents. This pattern is best explained by a model of rent-seeking where the financial benefits of office increase with experience and progression through the political hierarchy.

These findings have a number of implications for modeling politicians' behavior and the political process. First, our results may imply a sharp difference in the value of influencing legislators at different levels in the political hierarchy: for example, it indicates that the votes and influence of individual legislators may have a relatively low value for private agents, as compared to the value of influencing ministers. At least in financial terms, one may thus think about prospective politicians being motivated more by future rewards from gaining higher positions than by the initial returns of holding office. This is broadly consistent with a tournament model of politics in the spirit of Lazear and Rosen (1981), where participants compete for the high returns that only a small fraction of entry-level politicians will attain.

A few comments and caveats are worth noting in interpreting our findings. First, our results necessarily account only for publicly disclosed assets, and hence may serve as a lower bound on any effect (though we note that non-politicians may also engage in hiding assets for tax purposes). This makes it all the more surprising that the data reveal such high returns for state ministers and those holding office in high-corruption regions. Additionally,

we measure the returns to holding public office only while a politician is in power. To the extent that politicians profit from activities like lobbying and consulting after leaving office, we may consider our estimates to be a lower bound on the full value of holding public office. Further, even if we assume transparent financial disclosure, the relatively modest returns from winning public office for lower-level or first-time politicians do not imply the near-absence of corruption. Given the low salaries of legislators, they may be required to extract extra-legal payments merely to keep up with their private sector counterparts.

Our work also presents several possible directions for future work. Given the high returns we observe among ministers, it may be fruitful, with the benefit of additional data, to examine whether particular positions within the Council of Ministers are associated with high rents. One may also assess whether electoral accountability is affected by voter exposure to asset data, in the spirit of Banerjee et al (2011). It may be interesting to explore the impact of the Right to Information Act itself: disclosure requirements may induce exit by winners that have extracted high rents, in order to avoid possible corruption-related inquiries. Finally, we are unable in this work to uncover the mechanism through which asset accumulation takes place. We leave these and other extensions for future work, which will be enabled either by experimental intervention or the accumulation of new data via the Right to Information Act.

References

- [1] Angrist, Joshua and Jorn-Steffen Pischke, 2009, *Mostly Harmless Econometrics*, Princeton University Press, Princeton, NJ.
- [2] Banerjee, Abhijit V., Selvan Kumar, Rohini Pande and Felix Su, 2011, *Do Informed Voters Make Better Choices? Experimental Evidence from Urban India*, Working Paper.
- [3] Barro, Robert, 1973, *The Control of Politicians: An Economic Model*, Public Choice 14:19-42.
- [4] Besley, Timothy, 2004, *Paying Politicians: Theory and Evidence*, Journal of the European Economic Association, 2, 193-215.
- [5] Bhavnani, Rikhil R., 2012, *Using Asset Disclosures to Study Politicians Rents: An Application to India*, Working Paper.
- [6] Braguinsky, Serguey , Sergey Mityakov, and Andrey Liscovich, 2010, *Direct Estimation of Hidden Earnings: Evidence From Administrative Data*, Working Paper.
- [7] Buchanan, James, 1989, *The Public Choice Perspective*, in Essays on the Political Economy, Honolulu: University of Hawaii Press.
- [8] Carpenter, David, Brian Feinstein, Justin Grimmer and Eitan Hersh, 2011, *Are Close Elections Random?*, Working Paper.
- [9] Caselli, Francesco and Massimo Morelli, 2004, *Bad Politicians*, Journal of Public Economics 88, 759-782.
- [10] Caughey, Devin M. and Jasjeet S. Sekhon, 2010, *Regression-Discontinuity Designs and Popular Elections: Implications of Pro-Incumbent Bias in Close U.S. House Races*, Working Paper.
- [11] Dale, Stacy Berg and Alan B. Krueger, 2002, *Estimating The Payoff To Attending A More Selective College: An Application Of Selection On Observables And Unobservables*, The Quarterly Journal of Economics 117(4), 1491-1527.
- [12] Diermeier, Daniel, Michael Keane and Antonio Merlo, 2005, *A Political Economy Model of Congressional Careers*, American Economic Review 95(1): 347373.
- [13] DiNardo, John and David S. Lee, 2004, *Economic Impacts of New Unionization on Private Sector Employees: 1984-2001*, Quarterly Journal of Economics 119, 1383-1441.

- [14] Djankov, Simon, Rafael La Porta, Florencio Lopez-de-Silanes, and Andrei Shleifer, 2010, *Disclosure by Politicians*, American Economic Journal: Applied Economics 2, 179-209.
- [15] Duflo, Esther, 2001, *Schooling and Labor Market Consequences of School Construction in Indonesia: Evidence from an Unusual Policy Experiment*, American Economic Review 91(4), 795-813.
- [16] Eggers, Andrew and Jens Hainmueller, 2009, *MPs for Sale? Estimating Returns to Office in Post-War British Politics*, American Political Science Review, 103(4): 513-533.
- [17] Eggers, Andrew and Jens Hainmueller, 2011, *Political Investing: The Common Stock Investments of Members of Congress 2004-2008*, Working Paper.
- [18] Ferejohn, John, 1986, *Incumbent Performance and Electoral Control*, Public Choice 50: 5-25.
- [19] Ferraz, Claudio and Frederico Finan, 2011, *Electoral Accountability and Corruption: Evidence from the Audits of Local Governments*, American Economic Review 101, 1274-1311.
- [20] Fisman, Raymond J., Nikolaj Harmon, Emir Kamenica and Inger Munk, 2011, *Labor Supply of Politicians*, Working Paper.
- [21] Folke, Olle, Shigeo Hirano and James M. Snyder, Jr, 2011, *A Simple Explanation for Bias at the 50-50 Threshold in RDD Studies Based on Close Elections*, Working Paper.
- [22] Gagliarducci, Stefano and Tommaso Nannicini, forthcoming, *Do Better Paid Politicians Perform Better? Disentangling Incentives from Selection*, Journal of the European Economic Association.
- [23] Imbens, Guido and Thomas Lemieux, 2008, *Regression Discontinuity Designs: A Guide to Practice*, Journal of Econometrics 142(2) 615-635.
- [24] Kotakorpi, Kaisa and Panu Poutvaara, 2011, *Pay for Politicians and Candidate Selection: An Empirical Analysis*, Journal of Public Economics 95 (7-8): 877-885.
- [25] Lazear, Edward P. and Sherwin Rosen, 1981, *Rank-Order Tournaments as Optimum Labor Contracts*, Journal of Political Economy 89(5): 841-864.
- [26] Linden, Leigh, 2004, *Are Incumbents Always Advantaged? The Preference for Non-Incumbents in India*, Working Paper.
- [27] Lenz, Gabriel, and Kevin Lim, 2009, *Getting Rich(er) in Office? Corruption and Wealth Accumulation in Congress*, Working Paper.
- [28] Matozzi, Andrea and Antonio Merlo, 2008, *Political Careers or Career Politicians?*, Journal of Public Economics 92(3-4), pages 597-608.

- [29] Olken, Benjamin and Rohini Pande, 2012, *Corruption in Developing Countries*, Working Paper.
- [30] Querubin, Pablo and James Snyder, *Returns to U.S. Congressional Seats in the Mid-19th Century*, in *The Political Economy of Democracy*, Enriqueta Aragonés, Carmen Bevia, Humberto Llavador, and Norman Schofield (eds.), 2009.
- [31] Querubin, Pablo and James Snyder, 2011, *The control of politicians in normal times and times of crisis: Wealth accumulation by U.S. congressmen, 1850-1880*, Working Paper.
- [32] Snyder, Jason, 2005, *Detecting Manipulation in U.S. House Elections*, Working Paper.
- [33] Ziobrowski, Alan J., James W. Boyd, Ping Cheng and Brigitte J. Ziobrowski, 2011, *Abnormal Returns From the Common Stock Investments of Members of the U.S. House of Representatives*, *Business and Politics*: Vol. 13: Iss. 1, Article 4.

Table 1: Overview of Sample States

Notes: This Table provides an overview of the states in our sample along with some state characteristics at the time of the first elections. The columns labeled *Winners* and *Runners-up* show the number of candidates which we were able to manually match across elections and in parentheses we show the number of matches that were potentially usable (i.e., good quality affidavits). *Pairs* refers to the number of constituencies in which Winners and Runners-up both recontested. *October 2005 Re-Election. Sources: Statistical Reports on General Elections, Election Commission of India, New Delhi (various years); India Corruption Study 2005, Transparency International India (June 30, 2005).

State	Year 1	Year 2	Corruption Index	Electorate	Turnout	Constituencies	Total Contestants	Matched Candidates		
								Winners (Parentheses: good Affidavits)	Runners-up (Parentheses: good Affidavits)	Pairs
Andhra Pradesh	2004	2009	4.21	51,146,498	69.96%	294	1896	152 (112)	94 (76)	57 (35)
Arunachal Pradesh	2004	2009	-	683,512	64.02%	60	168	55 (38)	22 (11)	19 (7)
Assam	2006	2011	5.42	17,434,019	75.77%	126	997	109 (95)	69 (48)	62 (37)
Bihar*	2005	2010	6.95	51,385,891	45.85%	243	2135	180 (131)	114 (72)	84 (34)
Chhattisgarh	2003	2008	4.45	13,543,656	71.30%	90	819	56 (23)	31 (14)	15 (2)
Delhi	2003	2008	4.96	8,448,324	53.42%	70	817	46 (27)	8 (3)	7 (2)
Goa	2007	2012	-	1,010,246	70.51%	40	202	36 (34)	19 (18)	18 (17)
Haryana	2005	2009	5.16	12,735,888	71.96%	90	983	59 (48)	44 (38)	29 (15)
Jharkhand	2005	2009	5.20	17,766,202	57.03%	81	1390	63 (41)	51 (33)	43 (19)
Karnataka	2004	2008	5.76	38,586,754	65.17%	224	1715	85 (49)	35 (22)	3 (2)
Kerala	2006	2011	2.40	21,483,937	72.38%	140	931	105 (62)	31 (23)	25 (15)
Madhya Pradesh	2003	2008	5.84	37,936,518	67.25%	230	2171	127 (104)	51 (38)	30 (17)
Maharashtra	2004	2009	4.33	65,965,792	63.44%	288	2678	214 (183)	112 (96)	85 (61)
Manipur	2007	2012	-	1,707,204	86.73%	60	308	47 (33)	33 (24)	28 (14)
Mizoram	2003	2008	-	532,028	78.65%	40	192	31 (13)	17 (9)	15 (5)
Orissa	2004	2009	4.75	25,651,989	66.05%	147	802	108 (81)	78 (56)	60 (37)
Puducherry	2006	2011	-	659,420	86.00%	30	218	25 (22)	17 (12)	14 (9)
Punjab	2007	2012	4.59	16,775,702	75.45%	116	1043	89 (75)	61 (48)	46 (29)
Rajasthan	2003	2008	5.43	33,928,675	67.18%	200	1541	105 (72)	72 (52)	41 (18)
Sikkim	2004	2009	-	281,937	79.23%	32	91	12 (11)	14 (11)	2 (2)
Tamil Nadu	2006	2011	5.09	46,603,352	70.82%	234	2586	127 (97)	43 (32)	23 (13)
Uttar Pradesh	2007	2012	4.91	113,549,350	45.96%	403	6086	300 (267)	221 (179)	172 (124)
Uttarakhand	2007	2012	-	5,985,302	59.45%	69	785	57 (47)	30 (27)	23 (17)
West Bengal	2006	2011	4.61	48,165,201	81.97%	294	1654	159 (126)	101 (77)	60 (39)
TOTALS				631,967,397		3601	32208	2347 (1791)	1368 (1019)	961 (570)
Lok Sabha	2004	2009		671,487,930	58.07%	543	5435			

Table 2: Variable Definitions

Variable	Description
Movable Assets (1)	Sum of (i) Cash, (ii) Deposits in Banks, Financial Institutions and Non-Banking Financial Companies, (iii) Bonds, Debentures and Shares in companies, (iv) NSS, Postal Savings etc., (v) Personal loans/advance given, (vi) Motor vehicles, (vii) Jewelry, and (viii) Other assets such as values of claims/interests as reported on the candidate affidavit. This item excludes the value of life or other insurance policies (which are usually reported at payoff values).
Immovable Assets (2)	Sum of (i) Agricultural Land, (ii) Non-Agricultural Land, (iii) Commercial Buildings and (vi) Residential Buildings ("Buildings and Houses"), and (v) Others as reported on the candidate affidavit.
Total Assets	Defined as the sum of (1) and (2).
Total Liabilities (3)	Sum of (i) Loans from Banks and Financial Institutions, (ii) Loans from Individuals/Entities and (iii) any other liability, as well as (vi) any dues reported on the candidate affidavit.
Net Assets	"Net Worth" of the Candidate. Defined as the sum of (1) and (2) minus (3) and computed at the beginning (<i>Initial Net Assets</i>) and at the end (<i>Final Net Assets</i>) of the electoral cycle under consideration. We remove candidates with extremely low net assets bases (Net assets below Rs 100,000 as of election 1).
Net Asset Growth	Annualized Growth in Net Assets over an election cycle. Winsorized at the 1 and 99 percentiles.
Winner	Dummy variable taking on a value of 1 if the contestant won election 1.
Minister	Dummy variable indicating whether the constituency winner was appointed to the state's Council of Ministers.
Prior Member	Dummy variable indicating whether the candidate held a ministerial post during the preceding legislative period (sourced from archives of state government websites as well as from various news articles)
Margin	Vote share difference between winner and runner-up (negative for runners-up).
Incumbent	Dummy variable taking on a value of 1 if the contesting candidate won the preceding constituency election.
Education	Ordinary scale variable ranging from 1 to 9. We assign values based on the following education bands: 1 = Illiterate, 2 = Literate, 3 = 5th Pass, 4 = 8th Pass, 5 = 10th Pass, 6 = 12th Pass, 7 = Graduate or Graduate Professional, 8 = Post Graduate, 9 = Doctorate. This variable is missing if education information was not given.
Years of Education	Number of years of education the candidate has received. When using log specification, one is added to the number of years of education.
Criminal Record	Dummy variable indicating whether the candidate has past or pending criminal cases.
Government	Dummy variable indicating whether the candidate's party is part of the ruling state government.
SC/ST Quota	Dummy variable indicating whether the constituency of the candidate is that of disadvantaged groups, so-called Scheduled Castes and Tribes (SC/ST).
TI Corruption	Survey-based state corruption index (based on perceived corruption in public services) as reported in the 2005 Corruption Study by Transparency International India. The index takes on a low value of 2.40 for the state of Kerala (perceived as "least corrupt") and a high value of 6.95 for Bihar (perceived as "most corrupt"). We rescale the original measure such that it has a mean of zero and standard deviation of one, for the 17 states in our sample.
Female	Dummy indicating the gender of the candidate (1 = Female).
Age	The age of the candidate at the first election.
Base Salary	Monthly base salaries of MLAs. Collected from states' Salaries and Allowances and Pension of Members of the Legislative Assembly (Amendment) Acts, official websites, and newspaper articles.
BIMARU	Dummy variable indicating whether the constituency is located in one of the states Bihar, Madhya Pradesh, Rajasthan or Uttar Pradesh.
BIMAROU	Dummy variable indicating whether the constituency is located in one of the states Bihar, Madhya Pradesh, Rajasthan, Orissa or Uttar Pradesh.
Income per Capita	Average state-level per capita net domestic product at factor cost between 2004 and 2009 (Source: RBI).

Table 3: Descriptive Statistics of Constituency-Matched Pairs (1140 Candidates)

Notes: Panel A shows descriptive statistics for the 1140 constituency-paired candidates that constitute our main sample (570 winners and 570 runners-up). In Panel B, we only include candidates of those constituencies that are decided by a winning margin of five or less percent ('close elections'). Except for *Net Wealth*, which is shown both elections, all variables are as of the first of the two elections. Variables are defined in detail in Table 2. The last column shows t-statistics of difference in means tests.

Variable	Winner and Runner-up			Winner			Runner-up			Diff. in Means (T-stat)
	Mean	Median	Std. Dev.	Mean	Median	Std. Dev.	Mean	Median	Std. Dev.	
Panel A: All Constituencies										
log(Initial Net Assets)	15.15	15.15	1.42	15.13	15.15	1.40	15.16	15.15	1.44	-0.42
log(Final Net Assets)	16.04	16.02	1.43	16.11	16.09	1.36	15.97	15.93	1.50	1.67
Female	0.06	0	0.23	0.06	0	0.24	0.06	0	0.23	0.25
Age	48.42	48	9.89	47.83	48	9.80	49.02	49	9.94	-2.03
Years of education	13.90	15	3.15	13.74	15	3.38	14.05	15	2.90	-1.67
Incumbent	0.37	0	0.48	0.34	0	0.47	0.40	0	0.49	-2.15
Criminal Record	0.30	0	0.46	0.30	0	0.46	0.31	0	0.46	-0.11
Government	0.44	0	0.50	0.57	1	0.49	0.30	0	0.46	9.68
Minister	0.07	0	0.25	0.14	0	0.35				
Margin	8.39	6.29	7.43							
SC/ST Quota	0.18	0	0.39							
MLA Base Salary	16671	8000	21391							
Panel B: Constituencies decided by Margin \leq 5%										
log(Initial Net Assets)	15.08	15.18	1.38	15.04	15.12	1.34	15.13	15.19	1.42	-0.65
log(Final Net Assets)	15.97	15.99	1.36	16.02	16.02	1.26	15.92	15.95	1.46	0.79
Female	0.06	0	0.24	0.05	0	0.23	0.07	0	0.26	-0.78
Age	48.44	48	9.83	47.63	47	9.53	49.26	49	10.09	-1.76
Years of education	14.02	15	3.15	13.69	15	3.49	14.35	15	2.73	-2.21
Incumbent	0.37	0	0.48	0.34	0	0.48	0.40	0	0.49	-1.17
Criminal Record	0.32	0	0.47	0.30	0	0.46	0.35	0	0.48	-1.01
Government	0.43	0	0.50	0.54	1	0.50	0.32	0	0.47	4.87
Minister	0.06	0	0.23	0.12	0	0.32				
Margin	2.42	2.51	1.46							
SC/ST Quota	0.13	0	0.34							

Table 4: **Within-Constituency Effects of Winning the Election**

Notes: The regression equation estimated is: $\log(FinalNetAssets_{ic}) = \alpha_c + \beta_1 * Winner_{ic} + \beta_2 * \log(InitialNetAssets_{ic}) + Controls_{ic} + \epsilon_{ic}$. The dependent variable, $\log(FinalNetAssets_{ic})$, is the logarithm of net wealth at the end of the legislative period. α_c is a constituency fixed-effect. $Winner_{ic}$ is the dummy for winning the election (e=1). $\log(InitialNetAssets_{ic})$ is the logarithm of the initial net assets of the politician. $Controls_{ic}$ include the logarithm of years of education, criminal record (dummy if a criminal record were present as of the first election), gender, age, and incumbency. The regression is also run for close elections (Columns 3-5), where the vote share gap between the winner and the incumbent was less than 10, 5, and 3 percentage points. Robust standard errors are given in parentheses. The reported constant is the average value of the fixed effects. Coefficients with ***, **, and * are statistically significant at the 1%, 5%, and 10% levels, respectively.

Variables	(1)	(2)	(3)	(4)	(5)
	log(Final Net Assets)				
Winner	0.167*** (0.049)	0.164*** (0.052)	0.187*** (0.056)	0.160** (0.067)	0.209** (0.085)
log(Initial Net Assets)	0.722*** (0.031)	0.710*** (0.034)	0.715*** (0.038)	0.693*** (0.047)	0.674*** (0.058)
log(Years of Education)		-0.057 (0.117)			
Criminal Record		0.0611 (0.089)			
Female		-0.293 (0.181)			
Age		-0.0122 (0.028)			
Age ²		1.07E-04 (0.000)			
Incumbent		0.0805 (0.062)			
Constant	5.021*** (0.469)	5.651*** (0.894)	5.108*** (0.569)	5.432*** (0.704)	5.704*** (0.873)
Close Elections:			Margin ≤ 10	Margin ≤ 5	Margin ≤ 3
Observations	1,140	1,099	768	450	274
R-squared	0.833	0.841	0.848	0.861	0.868

Table 5: **Winner Premium and State-level Corruption**

Notes: This table presents results based on several measures of state-level corruption. In columns (1) and (2), the sample is split based on whether a constituency is located in a *BIMARU* state and the regression equation estimated is: $\log(FinalNetAssets_{ic}) = \alpha_c + \beta_1 * Winner_{ic} + \beta_2 * \log(InitialNetAssets_{ic}) + \epsilon_{ic}$. The dependent variable, $\log(FinalNetAssets_{ic})$, is the logarithm of net wealth at the end of the legislative period. α_c is a constituency fixed-effect. $Winner_{ic}$ is the dummy for winning the election (e=1) and $\log(InitialNetAssets_{ic})$ is the logarithm of the initial net assets of the politician. In column (3), we use the full sample and include an interaction term $Winner * BIMARU$ and in column (4) we use state-fixed effects rather than constituency-fixed effects. In columns (5) and (6), we present results employing two alternative state-level measures of corruption, *BIMAROU* and *TICorruption*. Standard errors clustered at the state-level are given in parentheses. The reported constant is the average value of the fixed effects. Coefficients with ***, **, and * are statistically significant at the 1%, 5%, and 10% levels, respectively.

Variables	(1)	(2)	(3) log(Final Net Assets)		(5)	(6)
Winner	0.257*** (0.043)	0.122 (0.075)	0.121 (0.075)	0.122** (0.053)	0.104 (0.079)	0.188** (0.062)
log(Initial Net Assets)	0.681*** (0.036)	0.743*** (0.057)	0.721*** (0.042)	0.741*** (0.027)	0.720*** (0.043)	0.718*** (0.044)
Winner*BIMARU			0.136 (0.084)	0.134** (0.059)		
Winner*BIMAROU					0.156* (0.086)	
Winner*TICorruption						0.063 (0.039)
Constant	5.697*** (0.536)	4.672*** (0.875)	5.033*** (0.646)	4.737*** (0.402)	5.051*** (0.651)	5.080*** (0.675)
Sub-Sample:	<i>BIMARU</i>	<i>BIMARU</i>				
Observations	386	754	1140	1140	1140	998
Fixed Effects	Const.	Const.	Const.	State	Const.	Const.
R-squared	0.842	0.83	0.833	0.674	0.834	0.833

Table 6: **The Effect of Potential Influence in Government on the Returns to Office**

Notes: This table compares the returns of ruling party politicians to those who were elected but not part of the majority party or coalition. We denote ruling party or coalition members by the indicator variable, *Government*, and include it as well as the interaction term *Government*Winner* in Equation (8). *Minister* denotes whether the constituency winner was appointed to the state's Council of Ministers. Robust standard errors are given in parentheses. The reported constant is the average value of the fixed effects. Coefficients with ***, **, and * are statistically significant at the 1%, 5%, and 10% levels, respectively.

Variables	(1)	(2)	(3)
	log(Final Net Assets)		
Winner	-0.121 (0.142)	0.083 (0.051)	-0.096 (0.139)
log(Initial Net Assets)	0.729*** (0.031)	0.715*** (0.031)	0.721*** (0.031)
Government	-0.217 (0.172)		-0.181 (0.167)
Government*Winner	0.606* (0.316)		0.416 (0.304)
Minister		0.602*** (0.152)	0.534*** (0.159)
Constant	4.986*** (0.469)	5.125*** (0.467)	5.097*** (0.468)
Observations	1140	1140	1140
R-squared	0.835	0.838	0.839

Table 7: Returns of Past and Present Ministers & Asset Growth Decomposition

Notes: The dependent variable in columns (1)-(4) is the log of the politician's final net worth. The sample in columns (1)-(3) consists of all re-contesting candidates who either held a ministerial post during the current or preceding legislative period, or both. In column (4), the sample is further refined to only include current ministers as well as past ministers who won the current election but whose party was not a member of the ruling state government. In columns (5) and (6), the dependent variable is the log of the politician's movable and immovable assets, respectively, and the sample consists of the constituency-matched pairs. Robust standard errors are given in parentheses. The reported constant is the average value of the fixed effects. Coefficients with ***, **, and * are statistically significant at the 1%, 5%, and 10% levels, respectively.

Variables	(1)	(2)	(3)	(4)	(5)	(6)
		log(Final Net Assets)			log(Final Mov. Assets)	log(Final Immov. Assets)
Winner	0.057 (0.099)	0.060 (0.099)	-0.117 (0.172)		0.305*** (0.063)	0.070 (0.065)
Minister	0.312*** (0.083)	0.343*** (0.088)	0.439** (0.176)	0.236*** (0.090)	0.311* (0.165)	0.372** (0.162)
Incumbent		0.085 (0.079)	0.058 (0.151)	0.068 (0.075)		
log(Initial Net Assets)	0.694*** (0.027)	0.692*** (0.027)	0.736*** (0.051)	0.659*** (0.030)		
log(Initial Movable Assets)					0.629*** (0.034)	
log(Initial Immovable Assets)						0.645*** (0.039)
Constant	5.461*** (0.429)	5.407*** (0.436)	4.818*** (0.804)	6.057*** (0.497)	5.929*** (0.452)	6.127*** (0.576)
Observations	514	514	514	378	1114	1070
Fixed Effects	State	State	Dist.	State	Const.	Const.
R-squared	0.731	0.732	0.887	0.785	0.799	0.792

Table 8: **Incumbency**

Notes: The table shows results for the constituency fixed-effects regression model and investigates the effects of incumbency. The log of politicians' final net assets is the dependent variable. *Winner* is 1 if the politician won election $e=1$ and 0 if the politician did not win. *Incumbent* is the dummy for incumbency. We also include an interaction term between *Incumbent* and *Winner*. *Minister* indicates whether the constituency winner was appointed to the state's Council of Ministers. In column (3), we also include a dummy variable, *PriorMember*, which indicates whether the candidate held a ministerial post during the preceding legislative period, as well as its interaction with *Winner*. Robust standard errors are given in parentheses. The reported constant is the average value of the fixed effects. Coefficients with ***, **, and * are statistically significant at the 1%, 5%, and 10% levels, respectively.

Variables	(1)	(2)	(3)
	log(Final Net Assets)		
Winner	-0.106 (0.105)	-0.145 (0.104)	-0.137 (0.104)
log(Initial Net Assets)	0.709*** (0.032)	0.707*** (0.031)	0.704*** (0.032)
Incumbent	-0.288** (0.127)	-0.276** (0.126)	-0.334*** (0.128)
Incumbent*Winner	0.751*** (0.238)	0.651*** (0.236)	0.727*** (0.238)
Minister		0.537*** (0.156)	0.547*** (0.158)
PriorMember			0.322* (0.191)
PriorMember*Winner			-0.427 (0.273)
Constant	5.340*** (0.477)	5.356*** (0.474)	5.397*** (0.484)
Observations	1140	1140	1140
R-squared	0.837	0.841	0.842

Table 9: Other Candidate Characteristics

Notes: Other characteristics analyzed include education, average income per capita, constituencies reserved for SC/ST candidates, gender, MLA base salaries and their interactions with *Winner*. $\log(\text{Years of Education})$ is the logarithm of one plus years of education the candidate has received. *Income per Capita* measures average state-level per capita net domestic product between 2004 and 2009. *SC/ST_Quota* is a dummy for whether or not the constituency of the candidate is that of a disadvantaged group, so-called Scheduled Tribes and Castes (SC/ST). *Female* is the dummy for the gender of the candidate. Robust standard errors are given in parentheses. The reported constant is the average value of the fixed effects. Coefficients with ***, **, and * are statistically significant at the 1%, 5%, and 10% levels, respectively.

Variables	(1)	(2)	(3)	(4)	(5)	(6)
			log(Final Net Assets)			
Winner	1.722** (0.677)	0.852 (0.922)	0.108** (0.053)	0.110** (0.052)	0.135*** (0.051)	-0.175 (0.508)
log(Initial Net Assets)	0.714*** (0.033)	0.720*** (0.032)	0.723*** (0.031)	0.725*** (0.024)	0.726*** (0.030)	0.714*** (0.034)
log(Years of Education)	0.291 (0.184)					
log(Years of Education)*Winner	-0.585** (0.254)					
Winner*log(Income per Capita)		-0.067 (0.091)				
SC/ST_Quota*Winner			0.321** (0.132)	0.330*** (0.127)		
SC/ST_Quota				-0.311** (0.128)		
Female					-0.549** (0.225)	
Winner*Female					0.566* (0.307)	
Winner*log(Base Salary)						0.034 (0.055)
Constant	4.359*** (0.657)	5.054*** (0.475)	5.001*** (0.460)	5.024*** (0.363)	4.998*** (0.458)	5.146*** (0.502)
Observations	1100	1140	1140	1140	1140	1035
R-squared	0.84	0.833	0.835	0.766	0.835	0.841

Table 10: **Regression Discontinuity Design**

Notes: In this table, we report results from regression discontinuity specifications. In Panel A, we present discontinuity estimates of (9) using local linear regressions for the subsample of elections that were decided by margins of 5% or less. In column (1), we report results using the entire sample of constituency matched winners and runners-up. In columns (2) and (3) we partition the sample into *BIMARU* and *Non-BIMARU* constituencies. Column (4) only includes *Ministers* with corresponding runners-up, and (5) only includes winners not appointed to the Council of Ministers and corresponding runners-up. Finally, in columns (6)-(7), we disaggregate the sample based on whether an incumbent is standing for reelection in the constituency. Column (6) shows results for the sample of constituencies where an incumbent was standing for reelection; column (7) uses the sample of non-incumbent constituencies. In Panel B, we present discontinuity estimates in residuals at the winning threshold according to (10) and corresponding to the plots shown in Figure 2. Specifically, in a first step we generate residuals by regressing $\log(\text{Final Net Assets})$ on candidate observables, including $\log(\text{Initial Net Assets})$, gender, incumbency, and age but excluding winner dummy and margin, and a constituency-fixed effect. In a second step we run the following regression: $res_{ic} = \alpha + \tau \cdot D_{ic} + \beta \cdot f(\text{Margin}_{ic}) + \eta \cdot D_{ic} \cdot f(\text{Margin}_{ic}) + \epsilon_{ic}$, where res_{ic} is the residual obtained in the first-step regression, D_{ic} is the dummy for winning, and $f(\text{Margin}_{ic})$ are flexible fourth-order polynomials. The goal of these functions is to fit smoothed curves on either side of the suspected discontinuity. The magnitude of the discontinuity, τ , is estimated by the difference in the values of the two smoothed functions evaluated at 0. Coefficients with ***, **, and * are statistically significant at the 1%, 5%, and 10% levels, respectively. Robust standard errors are given in parentheses.

Panel A: Estimation using Local Linear Regressions

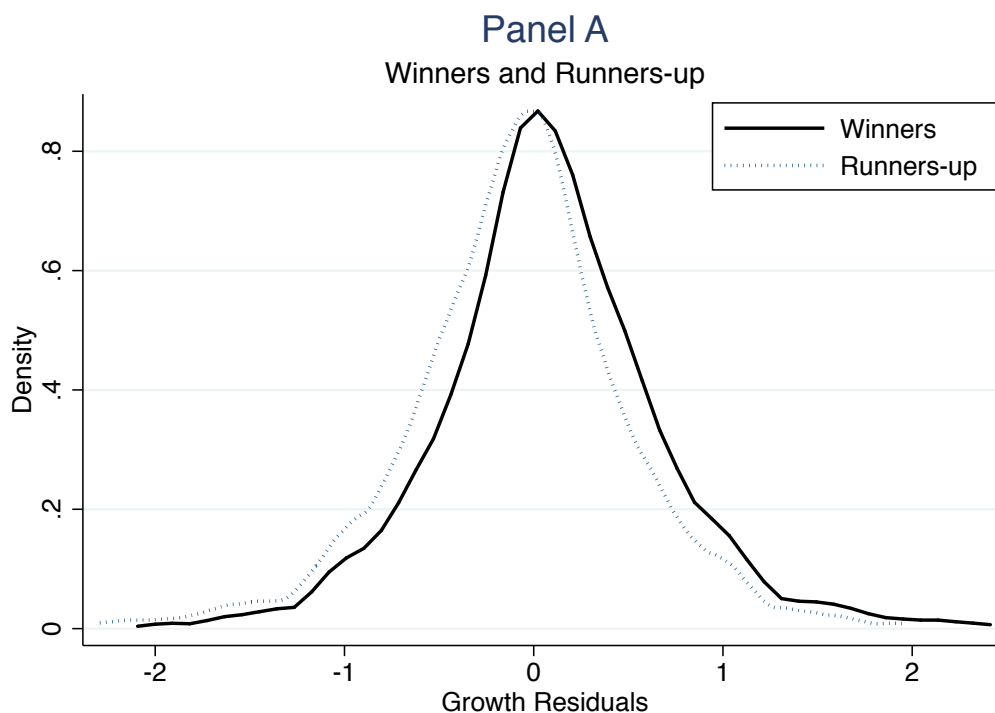
Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	log(Final Net Assets)						
Winner	0.236* (0.138)	0.493*** (0.180)	0.115 (0.188)	0.773*** (0.252)	0.168 (0.155)	0.310* (0.160)	-0.168 (0.259)
Sample:	All Winners	BIMARU Constituencies	Non-BIMARU Constituencies	Ministers	Non-Ministers	Incumbent Constituencies	Non-Incumbent Constituencies
Observations	440	162	278	50	390	325	115
R-squared	0.871	0.889	0.869	0.932	0.869	0.87	0.91

Panel B: RDD using Residuals

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	log(Final Net Assets) Residual						
Winner	0.207* (0.115)	0.624*** (0.149)	-0.034 (0.154)	0.627*** (0.184)	0.125 (0.127)	0.286** (0.131)	-0.056 (0.231)
Sample:	All Winners	BIMARU Constituencies	Non-BIMARU Constituencies	Ministers	Non-Ministers	Incumbent Constituencies	Non-Incumbent Constituencies
Observations	1102	380	722	150	952	818	284
R-squared	0.021	0.09	0.015	0.229	0.01	0.05	0.041

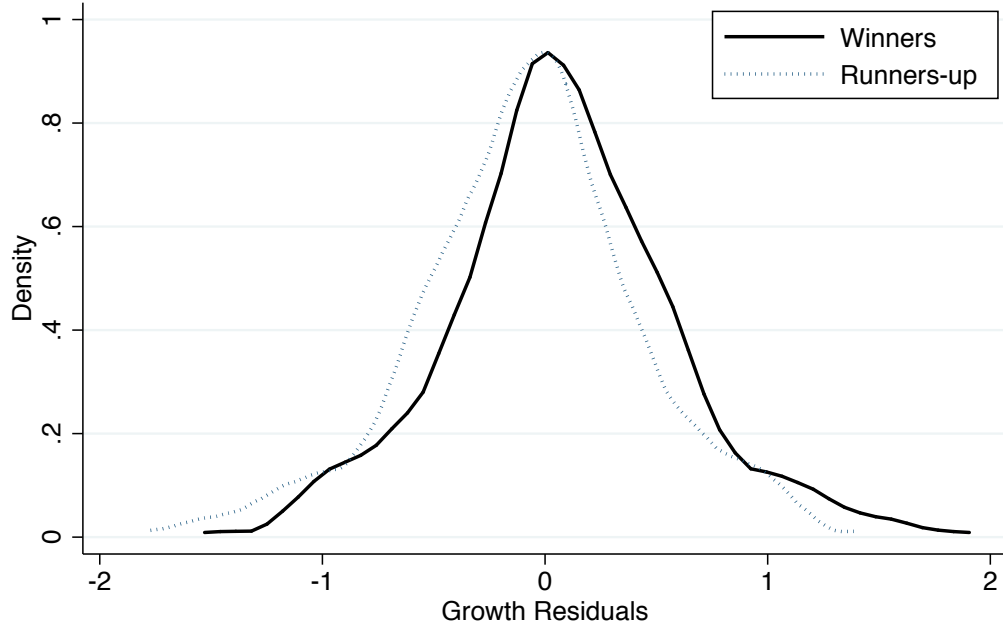
Figure 1: Kernel Densities of Asset Growth Residuals

Notes: This figure plots Epanechnikov kernel densities of residuals obtained from regressing $\log(\text{Final Net Assets})$ on $\log(\text{Initial Net Assets})$ and candidate observables (characteristics such as net assets, gender, and age but excluding winner dummy and margin) for the sample of constituency-matched candidates. Panel A uses the entire sample of constituency-matched candidates while Panel B only uses candidates that were within a margin of 5 percentage points (“close elections”). In both cases, the Kolmogorov-Smirnov test for equality of the distribution function of winner and runner-up residuals is rejected at the 1% level. In Panels C and D, we divide the sample based on whether their constituencies are located in *BIMARU* states. The test for equality of the distribution function of winner and runner-up residuals is rejected at the 1% level only for *BIMARU* states. In Panel E, we further disaggregate winners into ministers and non-ministers and plot kernel densities of these two groups as well as the runners-up. Finally, in Panels F and G, we disaggregate the sample based on whether an incumbent is standing for reelection in the constituency. Panel F shows winner and runner-up densities for the sample of constituencies where an incumbent was standing for reelection - test for equality of the distribution function is rejected at the 1% level. Panel G shows densities for the subsample of non-incumbent constituencies - test for equality of the distribution function cannot be rejected at conventional levels.



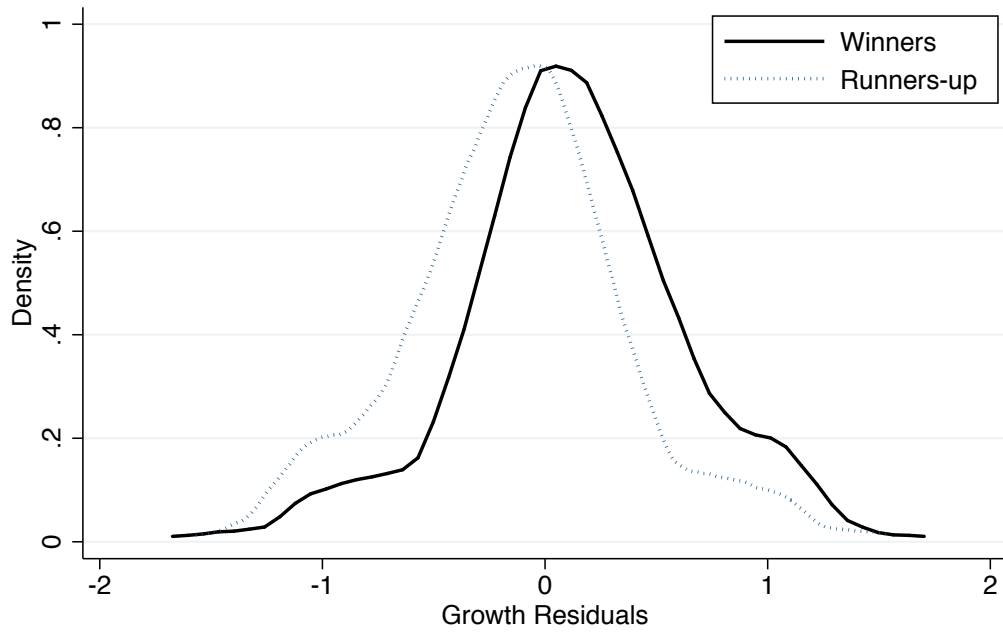
Panel B

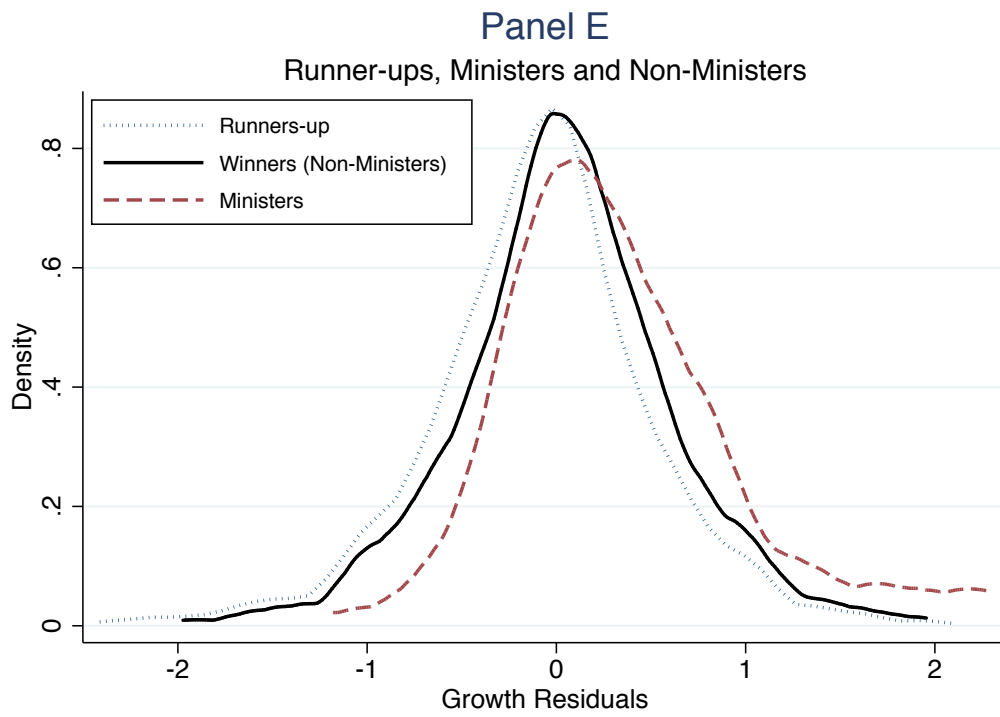
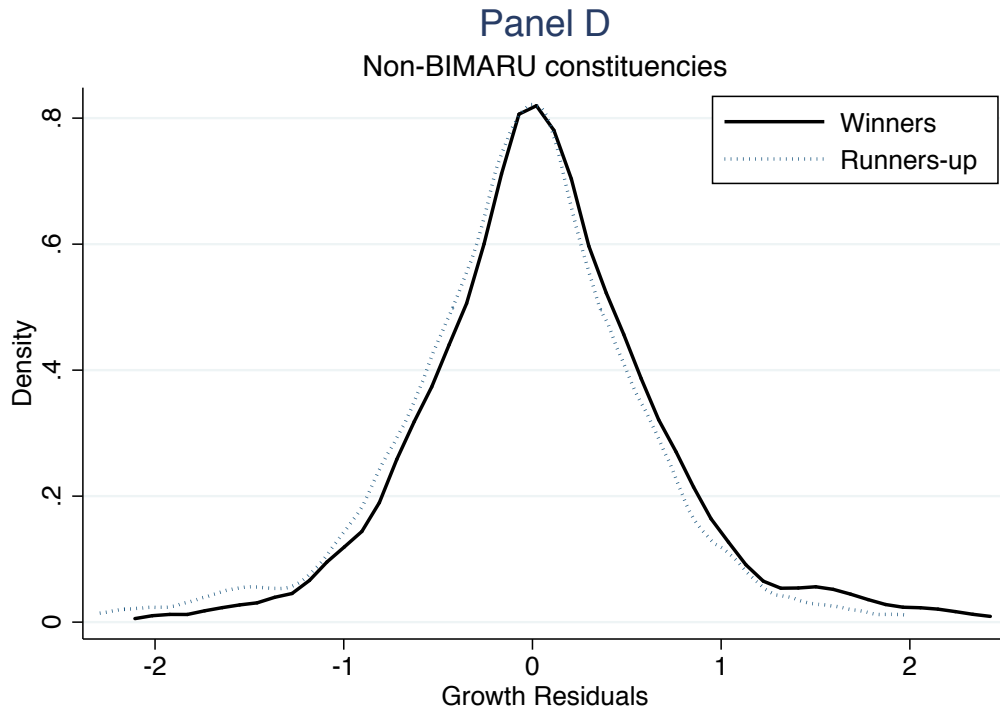
Winners and Runners-up in Close Elections (Margin within 5%)



Panel C

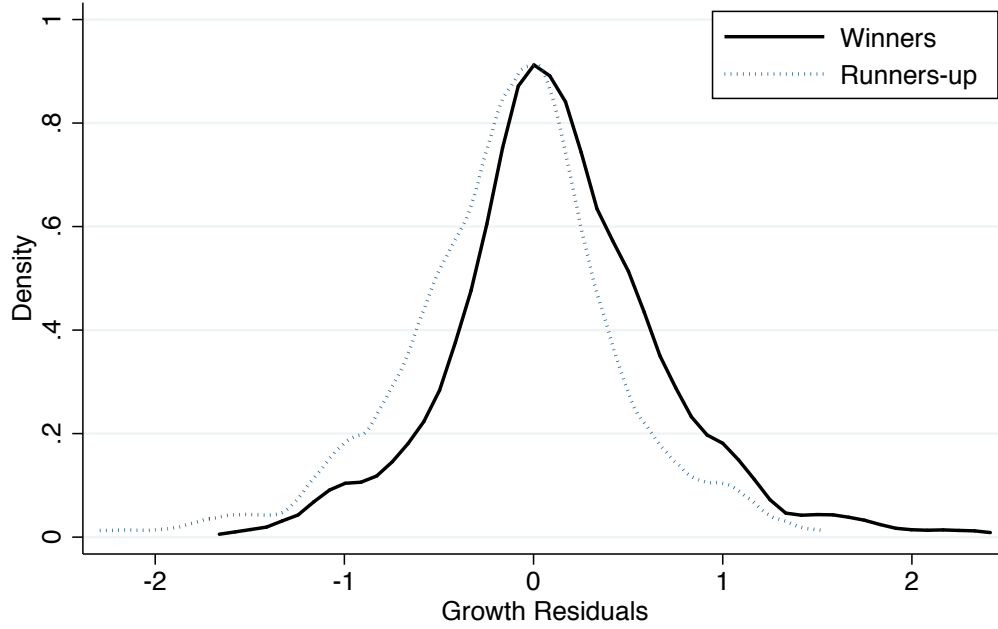
BIMARU constituencies





Panel F

Constituencies with Incumbent standing for reelection



Panel G

Constituencies without Incumbent standing for reelection

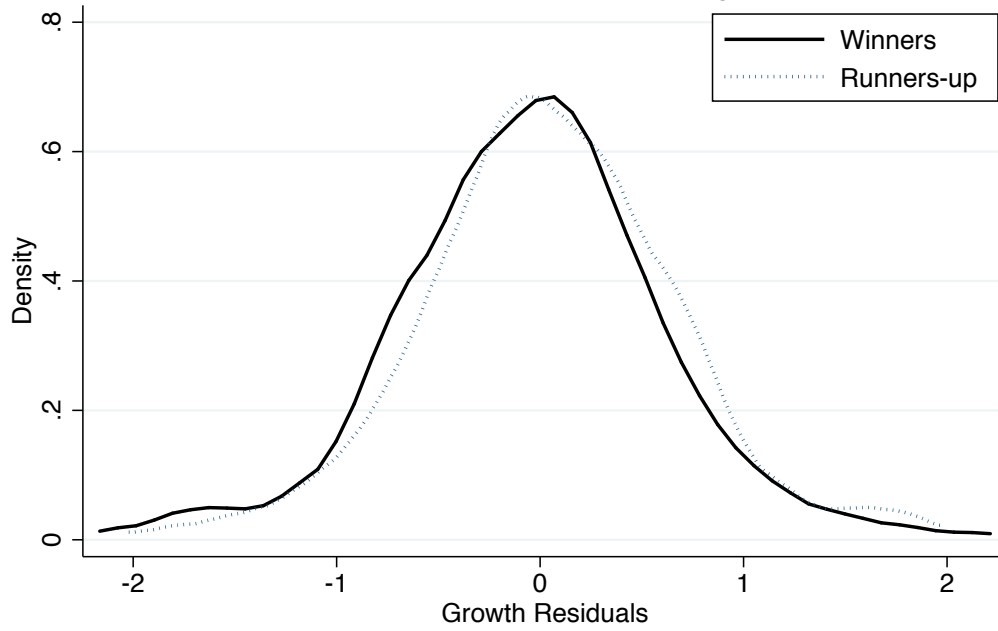
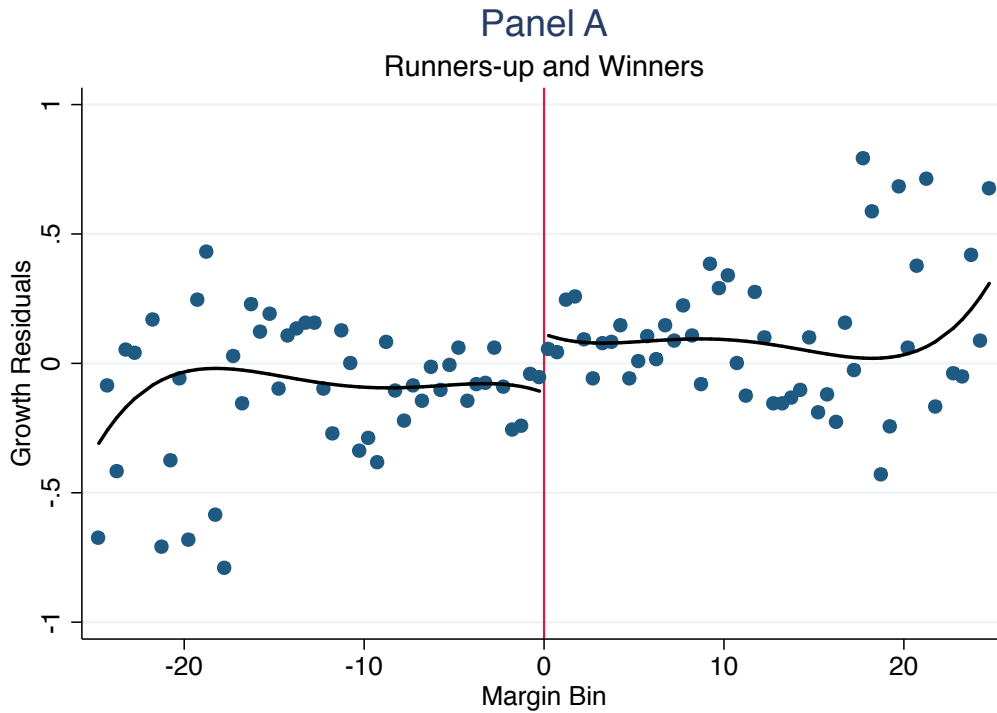
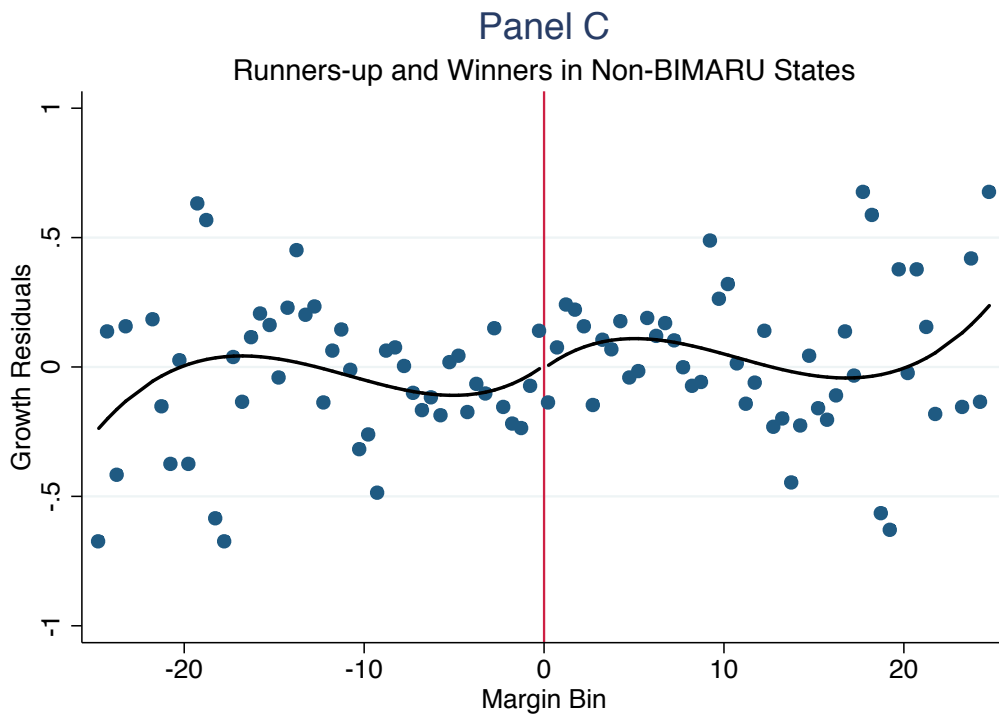
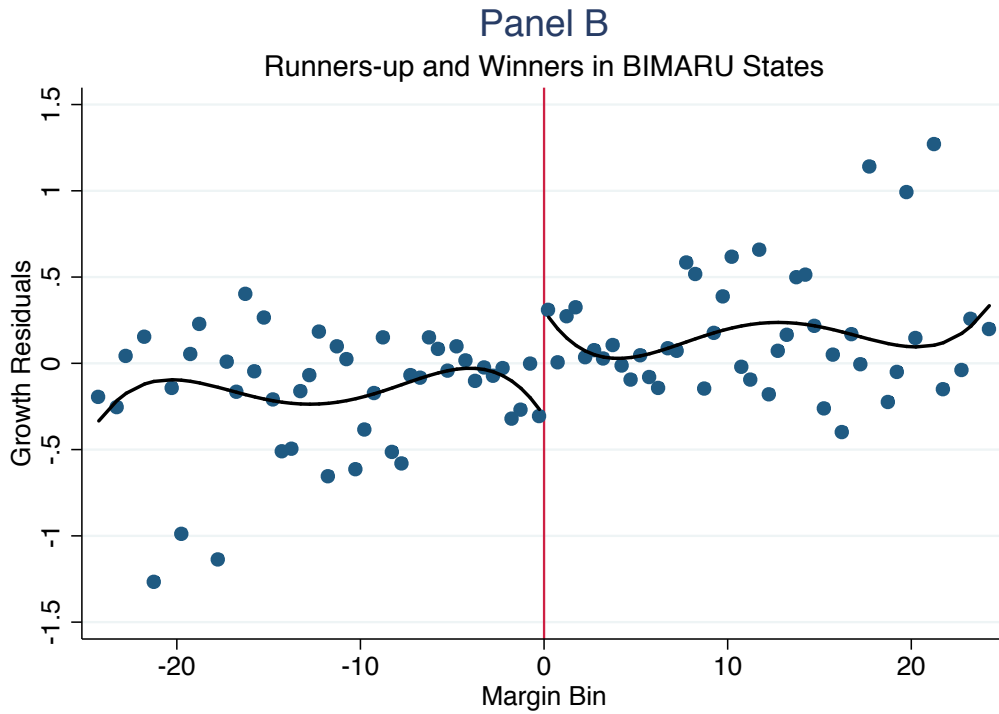
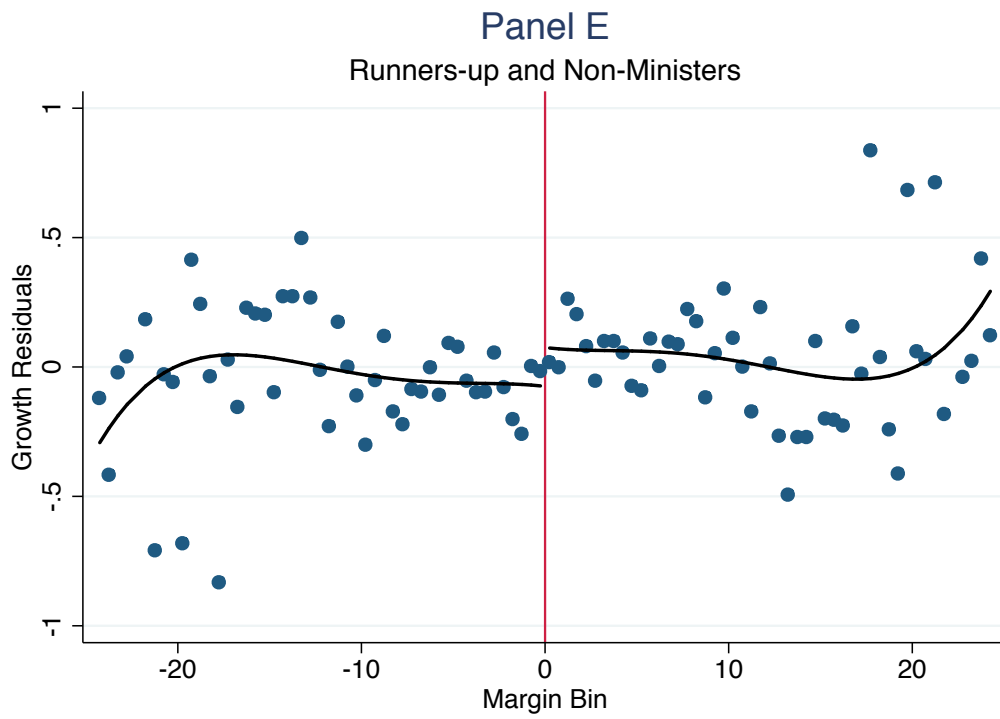
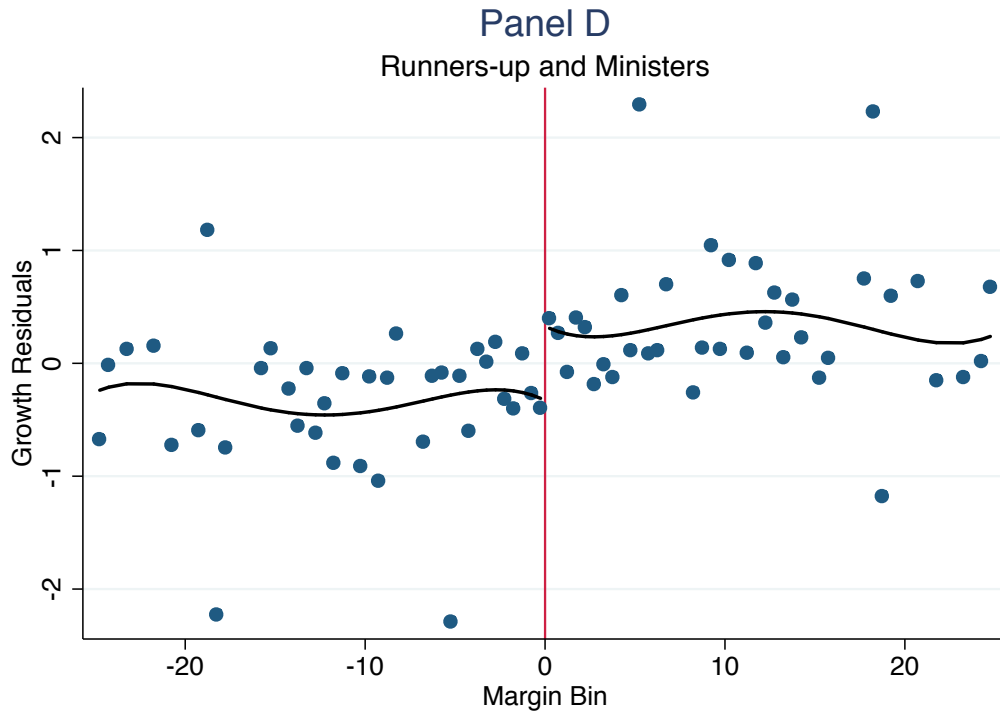


Figure 2: Regression Discontinuity Design

Notes: This figure investigates residuals obtained by regressing $\log(\text{Final Net Assets})$ on candidate observables, including $\log(\text{Initial Net Assets})$, gender, incumbency, and age, but excluding winner dummy and margin as a function of winning margin for the sample of constituency-matched candidates. We first collapse residuals on margin intervals of size 0.5 (margins ranging from -25 to +25) and then estimate the following equation: $\bar{R}_i = \alpha + \tau \cdot D_i + \beta \cdot f(\text{Margin}(i)) + \eta \cdot D_i \cdot f(\text{Margin}(i)) + \epsilon_i$ where \bar{R}_i is the average residual value within each margin bin i , $\text{Margin}(i)$ is the midpoint of the margin bin i , D_i is an indicator that takes a value of 1 if the midpoint of margin bin i is positive and a value of 0 if it is negative, and ϵ_i is the error term. $f(\text{Margin}(i))$ and $D_i \cdot f(\text{Margin}(i))$ are flexible fourth-order polynomials. Panel A shows results using the sample of all winners and runners-up. In Panels B and C we partition the sample based on whether a constituency was located in a *BIMARU* state. Panel D only includes Ministers with corresponding Runners-up; Panel E only includes winners that were not appointed to the Council of Ministers with corresponding Runners-up. Finally, in Panels F and G, we disaggregate the sample based on whether an incumbent is standing for reelection in the constituency. Panel F shows results for the sample of constituencies where an incumbent was standing for reelection; Panel G shows the subsample of non-incumbent constituencies.







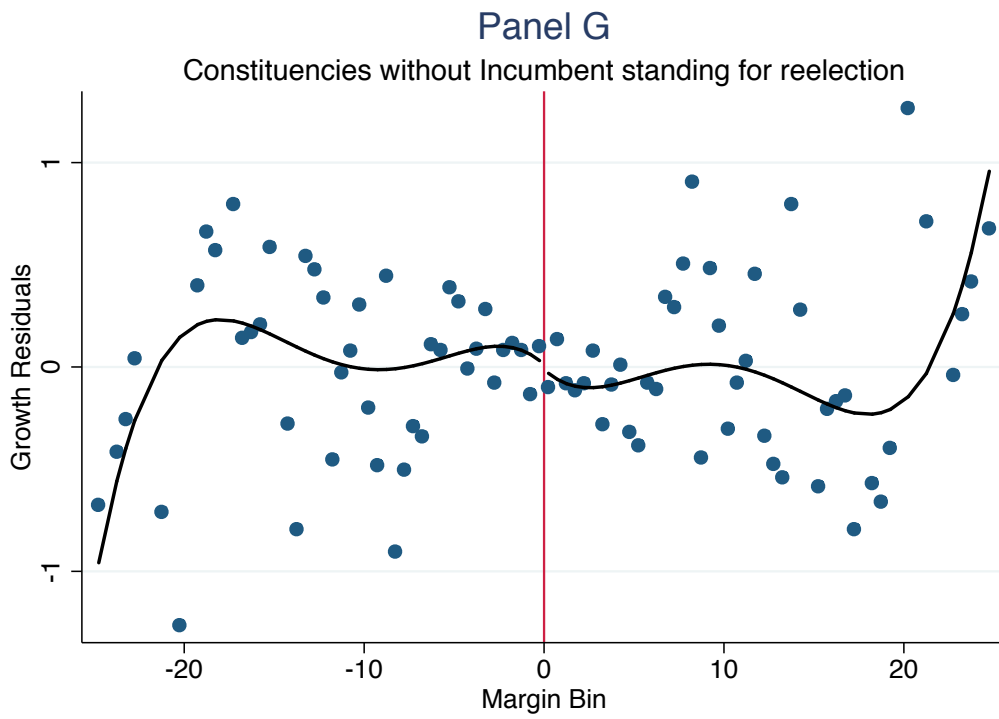
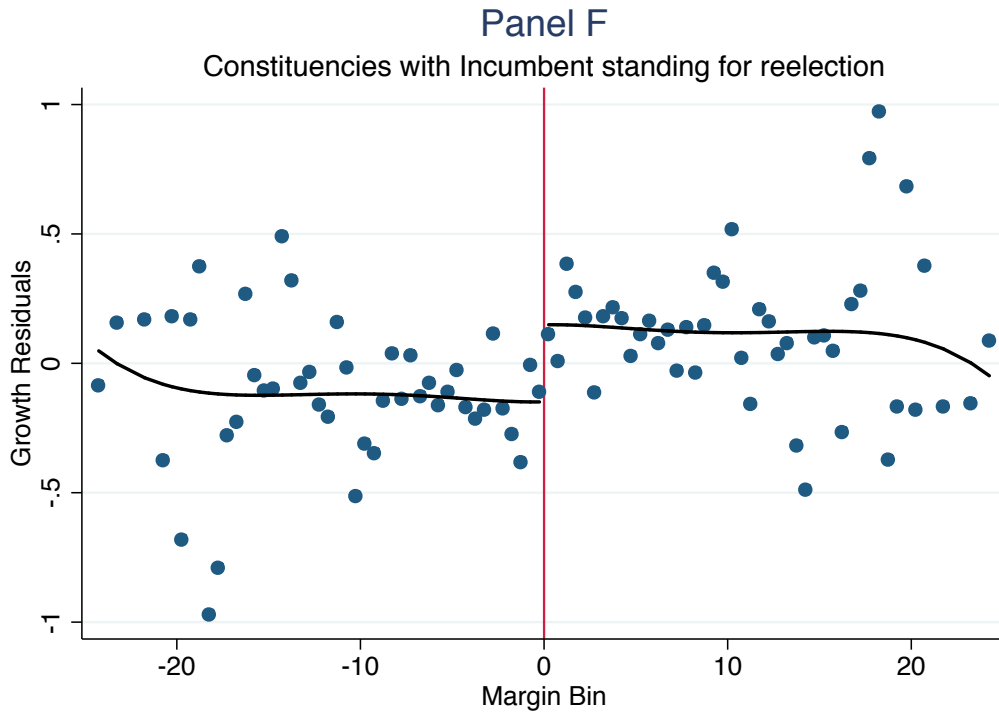
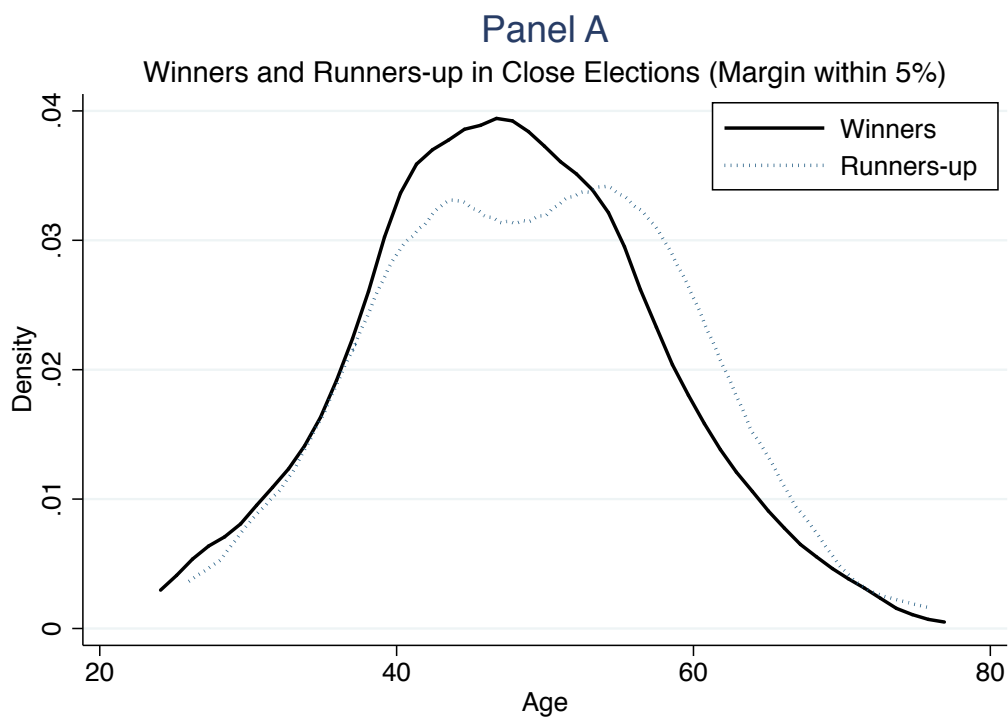


Figure 3: Kernel Densities of Observables Characteristics in Close Elections

Notes: This figure plots Epanechnikov kernel densities of age and log(Net Assets) for the sample of constituency-matched candidates that were within a *Margin* of 5 percentage points (“close elections”). Panel A plots age densities for winners and runners-up and Panel B plots densities for log(Net Assets). For both observables, the Kolmogorov-Smirnov test for equality of the distribution function of winners and runners-up cannot be rejected at the 5% significance level (p-values of 0.099 and 0.979, respectively).



Panel B

Winners and Runners-up in Close Elections (Margin within 5%)

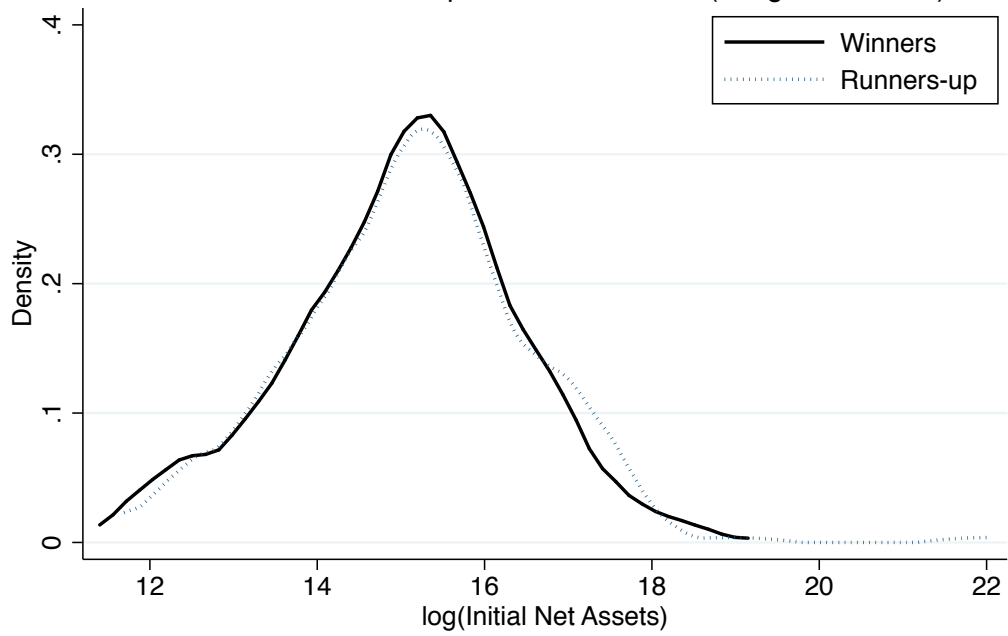


Figure 4: Seasoned Candidates

Notes: We investigate the winner's premium for the subsample of seasoned politicians. The point estimate of the discontinuity is 0.521 and significant at the 10% level (t-statistic of 1.84).

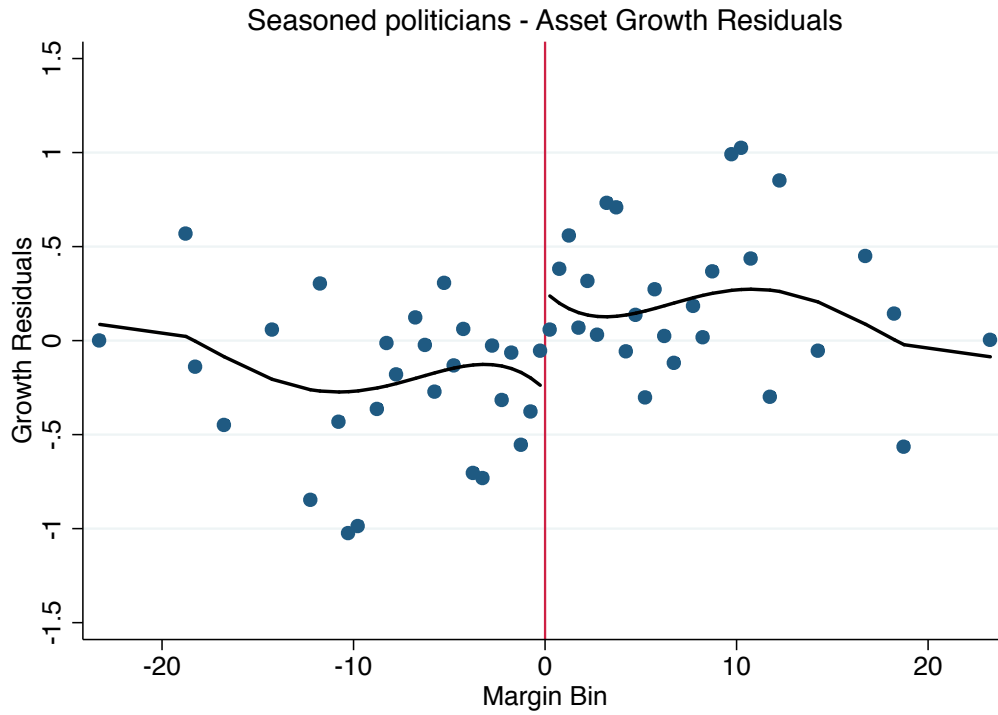
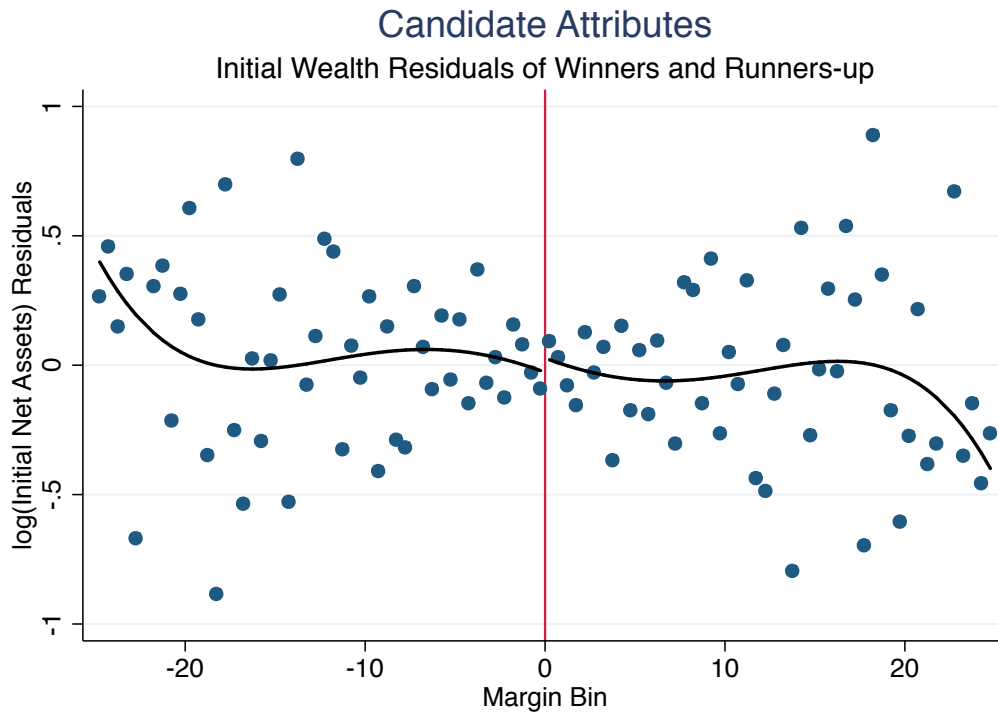


Figure 5: Initial Wealth of Candidates

Notes: This figure presents RD results for the variable $\log(\text{Initial Assets})$, demeaned by constituency. No discontinuity is observed at the victory threshold.



For Online Publication:

Appendix A: Sample Affidavit



3925 7.4.2004 10
 55-2050. 25000
 2008 5000. 20000
 K. RAMAKRISHNA
 STAMP VENDOR
 PONNUR -

ANNEXURE - 1

AFFIDAVIT TO BE FURNISHED BY CANDIDATE ALONG WITH NOMINATION PAPER
 BEFORE THE RETURNING OFFICER

for election to the Andhra Pradesh Legislative Assembly (Name of the House)
 from 97 Ponnur constituency
 (Name of the Constituency)

I, Narendra Kumar Dhulipalla Son of Late Veeraiah Chowdary aged 36 years, resident of Chintalapudi Village, Ponnur Mandal candidate at the above election, do hereby solemnly affirm and state on oath as under :-
 (Strike out whichever not applicable)

(1) The following case is pending against me in which cognizance has been taken by the court.

(i) Section of the Act and description of the offence for which cognizance taken :
 Section 147 - roiting, 148-roiting armed with dedly weapon, 188- dis obedience to order duly promulgated by public servant, 427- mischief, R/W 149 unlawful assembly of I.P.C.

(ii) The Court which has taken cognizance:
 The court of Judicial Magistrate of I Class Ponnur

(iii) Case No. :
 CC 128/99 on the file of Judicial Magistrate of I Class Ponnur, later on tranfer to the Court of V Additional Munsif Magistrate, Guntur. The same was renumbered C.C. 46/2001 and the same is pending there.

(iv) Date of order of the Court taking cognizance. :
 7-8-1999.

(v) Details of applicatins for revision etc., if any, filed against above order taking cognizance:
 At the instance of one of the accused in the above case i.e., A4 Chittinani Pratap, the Honourable High Court of A.P. by its order dated 23-1-2003 and passed in Cr. M.P. 206/2003 in Cr. P. 332/2003 stayed all further proceedings in the above said case pending inthe court of V A.M.M. Court, Guntur.

P. V. Raju
 P. V. RAJU
 ADVOCATE & NOTARY
 Near Market
 PONNUR - 522 124
 © : 244793
 M.Com., B.L.

[Handwritten Signature]

(2) That I give herein below the details of eh assets (immovable, movable, bank balance, etc.) of myself, my spouse and dependents.

A. Details of Movable Assets :

(Assets in joint name indicating the extent of joint ownership will also have to be given)

S. No.	Description	Self	Spouse Name Jyothirmai D.	Dependent -1 Name : D. Vaishnavi	Dependent -2 Name : D. Vydeepthi	Dependent -3 etc., name
1.	Cash					
2.	Deposits in banks, Financial Institutions and non Banking Financial Companies	Rs. 13,000 S.B.A/c. No. 600570, SBH, Assemly Ext. Counter, Hyderabad Rs. 6160 A/c. No. 01190005860, SBH, Ponnur. Rs. 11,000 A/c. No. 1, Chaitanya Grameena Bank, Ponnur. Joint A/c. with wife Rs. 11,012 A/c. No. 13115, Andhra Bank, Ponnur.				
3.	Bonds, Debentures and shares in companies	Rs. 10,000 shares in Dhulipalla Milk Line(P) Ltd. worth of Rs. 1,00,000.				
4.	Other Financial instruments NSS, Postal Savings, LIC Policies, Etc.,	LIC Policy No. 64165615 for Rs. 2,00,000 LIC Policy No. 672872728 for Rs. 5,00,000	LIC Policy No. 672872729 for Rs. 5,00,000			
5.	Motor Vehicles (details of make, etc.,)		Ambassador AP7F 9999 model 2000 value of Rs. 2,00,000			
6.	Jewellery (give details of weight and value)	30 gms. worth of Rs.13,500	800 gms. worth of Rs. 3,60,000	50 gms. worth of Rs. 22,500	50 gms. worth of Rs. 22,500	
7.	Other Assets such as values of claims/ interests					

Note :- Value of bonds / Shares / Debentures as per teh latest market value in Stock Exchange in respect of listed companies and as per books in case of non-listed companies should begiven.

*Dependent here means a person substantially dependents on teh income of teh candidate.

P. J. Raju
P. JAYA RAJU M.Cem., B.L.
ADVOCATE & NOTARY
Near Market
PONNUR - 522 124

B. Details of Immovable Assets :

(Note : Properties in joint ownership indicating teh extent of joint ownership will also have to be indicated.

S. No.	Description	Self	Spouse Name Jyothimai D.	Dependent -1 D. Vaishnavi	Dependent -2 D. Vydeepthi	Dependent -3 etc., name
1.	Agriculture Land Location(s) Survey Number(s) Extent (Total measurement) Current market value	Vallabharaopalem Vill. Ponnur Mdl. Survey Nos. 750-7, 0-34Cents 750-9, 0.37 Cts. 750-4, 1.41 Cts. 750-1, 0.70 Cts. 750-6, 0.17 Cts. 750-10, 0.17 Cts. Total Acre 3.16 Cents worth of Rs. 6,00,000 Enguturu Vill. Amaravathi Mdl. Survey Nos. 271-1A, 271-1C Ac 1-65 Cts worth of Rs. 82,500	Marripudi Vill. Bapatla Mdl. Survey Nos. 42/2, 0-67 Cts 79/1, 0.06 Cts. 78/1, Ac. 4.09 Cts. Total Acre 4.82 Cents worth of Rs. 9,50,000 Pundla Vill. Bapatla Mdl. Survey Nos 272-1 Ac. 2.93 Cts 284-1, Ac. 1.10 Cts. 284-2, 0.92 Cts. 284-3, 0.80 Cts 284-4, 0.97 Cts 284-5, 0.80 Cts. 176-1,2 0.12 Cts. Total Acre 7.64 Cts worth of Rs. 12,00,000			
2.	Non-Agriculture Land Location(s) Survey Number(s) Extent (Total measurement) Current market value	Chintalapudi Vill. Ponnur Mdl. House site 2 Cts worth of Rs. 10,000	Sai Baba Road, Koretapadu, Guntur D. No. 42-43-44, Plot No.18, Yards 239 worth of Rs.3,00,000			
3.	Buildings (commercial and residential) Location(s) Survey/Door Number(s) Extent (Total measurement) Current market value					
4.	Houses / Apartments etc. Location(s) Survey/Door Number(s) Extent (Total measurement) Current market value					
5.	Others Such as interest in property					

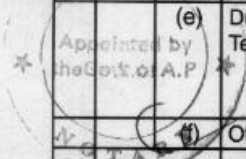
Dubey

P. Raja
P. JAYA RAJU M.Com., B.L.
ADVOCATE & NOTARY
Near Market
PONNUR - 522 124

(3) I give herein below the details of my liabilities / overdues to public Financial institutions and Government dues :-

(Note : Please give separate details for each item)

S. No.	Description	Name and address of bank/ Financial Institution (s) / department(s)	Amount outstanding as on 31-03-2004
(a) (i)	Loans from Banks	1. Chintalapudi PACS	Ac.No. 249 Rs. 25,000-00
		2. S.B.H., Ponnur towards my share in Dhulipalla Milk Line P.Ltd., Mulukuduru	Rs. 16966
(ii)	Loans from Financial Institutions		
(iii)	Government dues :-		
(a)	Dues to department dealing with Government accommodation		
(b)	Dues to department dealing with Supply of water		
(c)	Dues to department dealing with Supply of Electricity		
(d)	Dues to department dealing with Telephones		
(e)	Dues to department dealing with Telephones		
(f)	Other dues if any		
(b) (i)	Income Tax including surcharge (Also indicate the Assessment year upto which Income Tax Return filed. Give also Permanent Ac- count Number (PAN)		
(ii)	Wealth Tax (Also indicate the as- sessment year upto which Wealth Tax return filed.)		
(iii)	Sales Tax (Only in case of Proprietary Business)		
(iv)	Property Tax		



 Appointed by
 the Govt. of A.P.

P. JAYA RAJU
 ADVOCATE & NOTARY
 Near Market
 PONNUR - 522 124

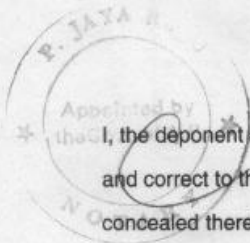
Dubey

(4) My educational qualifications are as under :-
(GIVE DETAILS OF SCHOOL AND UNIVERSITY EDUCATION
(Name of School / University and the year in which the course was completed should be given.)

Z.P.H.S., Ananthavarapadu	from 1981 - 1982	S.S.C
Andhra Lyola College, Vijayawada	from 1982 - 1984	Intermediate
University of Mysore, Mysore	from 1984 - 1989	B. Tech.


DEPONENT

Verification



I, the deponent above named, do hereby verify and declare that the contents of this affidavit are true and correct to the best of my knowledge and belief, no part of it is false and nothing material has been concealed therefrom.

Verified at Ponnur this the 21 day of April 2004.


DEPONENT



PJ Raja for Tupa
P. JAYA RAJU M.Com., B.L.
ADVOCATE & NOTARY
Near Market
PONNUR - 522 124



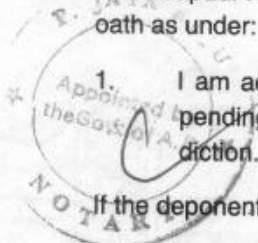
3993 7.4.2004 10/-
 Sold To 5805 3054 1/10000. 2552050. 2/10000.
 For whom 5805 3054 1/10000. 2552050. 2/10000.
 K. RAMAKRISHNA
 STAMP VENDOR
 PONNUR

ANNEXURE XIII C
 (CHAPTER V, PARA 9.3)

FORM 26
 (SEE RULE 4A)

Affidavit to be furnished by the candidate before the returning officer for election to A.P. Legislative Assembly (name of the House) from 97 Ponnur Constituency (name of the constituency).

I, Narendra Kumar Dhulipalla son of Late Veeraiah Chowdary aged about 36 years resident of Chintalapudi Village, Ponnur Mdl. candidate at the above election, do hereby solemnly affirm/state on oath as under:



1. I am accused of any offence(s) punishable with imprisonment for two years or more in a pending case(s) in which a charge(s) has/have been framed by the court(s) of competent jurisdiction.

If the deponent is accused of any such offence(s) he shall furnish the following information.

- (i) Case/First information report No. /Nos 38/98 of Ponnur (Town) Police Station.
- (ii) Police Station(s) Ponnur Town, District(s) Guntur, State(s) A.P.
- (iii) Section(s) of the concerned Act(s) and short description of the offence(s) for which the candidate has been charged:
 Section 147-Roiting, 148-Roiting armed with deadly weapon, 188-disobedience to order duly promulgated by public servant, 427- mischief, R/W, 149- unlawful Assembly of I.P.C.
- (iv) Courts which framed the Charge(s):
 The Court of Judicial Magistrate of I Class, Ponnur in C.C. 128/99.

P. J. Raju
 244793
P. JAYA RAJU M.Com., B.L.
 ADVOCATE & NOTARY
 Near Market
 PONNUR - 522 124

(Handwritten Signature)

(v) Date(s) on which the charge(s) :

7-8-1999.

(vi) Whether all or any of the proceeding(s) have been stayed by any court(s) of competent jurisdiction:

At the instance of one of the accused in the above case i.e., A4 Chitineni Pratap the Honourable High Court of A.P. by its order dated 23-1-2003 and passed in C.R. P. 206/2003 in CRMP 332/2330 stayed all further proceedings in the above said case pending in the court of V A.M.M. Court Guntur.

2. I have not been convicted of an offence(s) other than any offence(s) referred to in sub-section (1) or sub-section 92), or covered in sub-section (3), of the Representation of the People Act, 1951 (43 of 1951) and sentenced to imprisonment for one year or more.

I have not been convicted.

If deponent is convicted and punished as aforesaid, he shall furnish the following information.

(i) Case/First information report No./Nos. ----

(ii) Court(s) which punished ----

(iii) Police Station(s) ----

(iv) Section(s) of the concerned Act(s) and short description of the offence(s) for which the candidate has been charged ----

(v) Date(s) on which the sentence(s) was/were pronounced -----

(vi) Whether the sentence(s) has/have been stayed by any court(s) of competent jurisdiction --

Place Ponnur

Date : 7-4-2004

Signature of Deponent.

VERIFICATION

I, the above named deponent do hereby verify and declare that the contents of this affidavit are true and correct to the best of my knowledge and belief, no part of it is false and nothing material has been concealed therein.

Verified at Ponnur this 7th day of April 2004.

Signature of the deponent

Note : "The columns in this Form which are not applicable to the deponent may be struck off"



P. JAYA RAJU
M.Com., B.L.
ADVOCATE & NOTARY
Near Market
PONNUR - 522 124
© : 244793