

Explaining Corruption: Electoral Competition and Varieties of Rent-Seeking in India

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Abstract: The rich literature on corruption has highlighted a range of potential causes for corrupt behavior. Yet, the majority of analyses are limited in their ability to differentiate between different types of corruption and the variation in these types within a single institutional context. In addition, the literature presents conflicting arguments regarding the relationship between democratic electoral competition and the incentives for corruption. In this paper, I present a new conceptualization of corruption, one that emphasizes the type of transactions and actors involved, to highlight the potential variation in incentives for actors engaged in different types of corruption. I then evaluate the hypothesis that electoral competition, and in particular electoral volatility, can have differing effects on the incentives for corruption, depending on politicians' perceived risks and rewards from rent-seeking. I test these claims in India, where the sub-national institutional context controls for a range of alternative explanations. Using two different measures of corruption, I show that electoral volatility has a strong and positive association with low-level corruption, when politicians are insulated from the risk of discovery. Where politicians are more likely to be exposed for corrupt behavior, however, electoral volatility has a neutral or slightly negative relationship with corruption. These findings emphasize both the need for more disaggregated analyses of the types of corruption and a more nuanced understanding of the ways in which the incentives to retain office can shape political behavior in different settings.

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A rich literature exists on the nature and causes of corruption, particularly in the cross-national context. Social scientists have emphasized the importance of variations in economic and social development, regulatory structures, and institutional configurations (Gerring and Thacker 2004, Huntington 1968, Lipset 1960, Montinola and Jackman 2002, Persson et al. 2003, Treisman 2000) for shaping the incentives for and against corrupt behavior. Yet, these analyses are limited in a number of important ways. First, they tend to focus on only one type of corruption, such as petty corruption in public service delivery, and so are potentially restricted in their ability to generalize to behaviors such as bribe-taking by legislators. Second, cross-national analyses tend to provide only limited insights for understanding the variation in corruption within a consistent institutional setting, such as a single country. Finally, existing work offers only initial insights into the effects of political incentives on corrupt behavior, leaving untested potentially important hypotheses about the relationship between democratic competition and the demand for illicit sources of income.

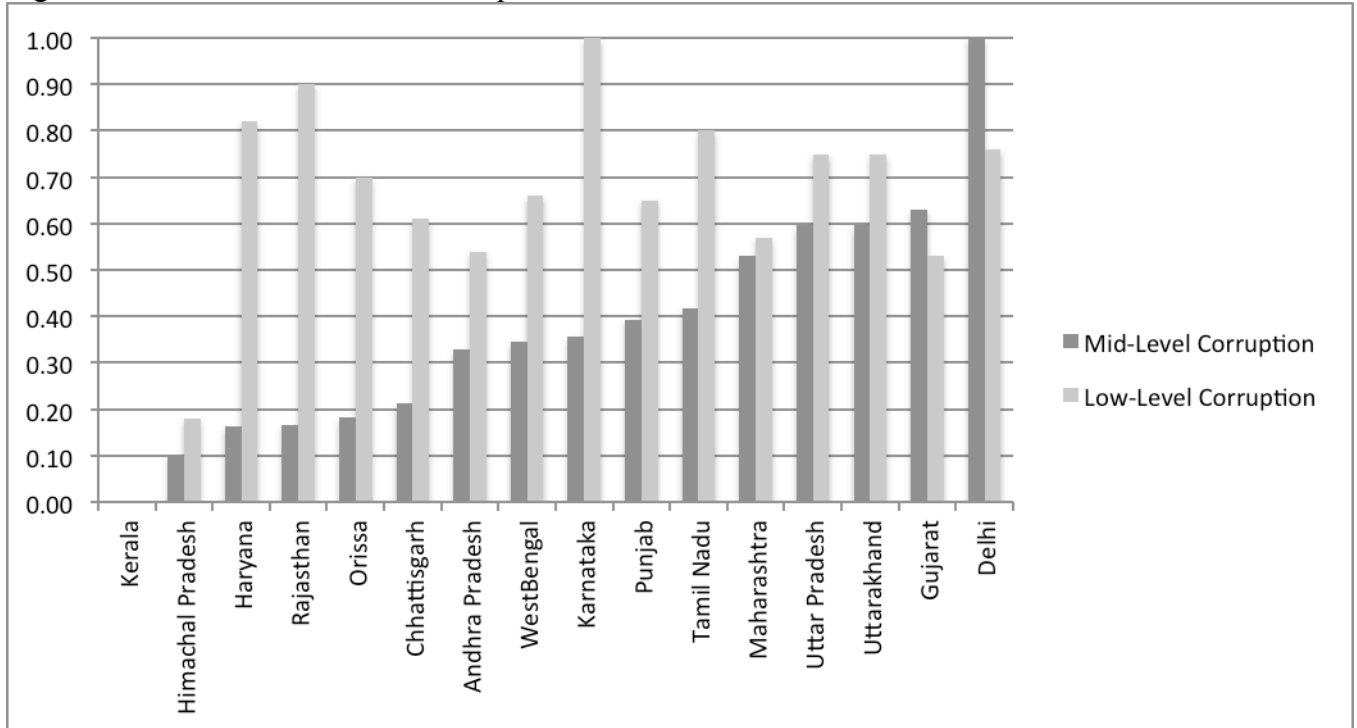
In this paper, I use the setting of India's federalist democracy to begin to examine the causes of variation in diverse types of corruption. I highlight the diversity of corruption that exists within India, examine a set of potential causes of variation in corruption, and then explore empirically the nature of one particular relationship, that between electoral competition and the corrupt behavior of bureaucrats and politicians. In contrast to work positing that electoral competition can have either a corruption-reducing (Montinola and Jackman 2002; Rose-Ackerman 2008) or corruption-enhancing effect (Heywood 1997; Scott 1969, 1972; Yadav 2011), I examine whether the relationship between electoral competition, and in particular electoral volatility, and corruption can differ across *types* of corruption. High levels of electoral

volatility on their own may increase the likelihood that politicians will engage in rent seeking, as they attempt to maximize the benefits of their limited term in office or experience a demand for campaign finance funds, but this effect can be moderated where politicians perceive a greater risk that their illicit actions will be exposed, thereby reducing their chances of reelection. The level of risk is linked to the type of corruption being considered and the typical actors who engage in those activities; where politicians are more likely to be associated with a corrupt act, they will be less likely to engage in that type of corruption, all else equal. Thus, greater electoral competition may both increase and decrease the likelihood of corruption, depending on the type of corruption and politicians' associated risk of being exposed for their behavior.

This analysis is informed by the initial empirical observation that “corruption” can differ dramatically both across and within regions of a single country. In India, two measures of corruption at the state level offer quite different pictures of elite behavior. As Figure 1 shows, states with high levels of what I call here low-level corruption, otherwise known as petty or retail corruption and discussed in more detail below, do not necessarily experience significant mid-level corruption, or corruption in the implementation of government programs, while other states have similar levels of both types. Given these differences in corruption scores across sub-national units, established explanations for the causes of corruption provide minimal leverage for explaining variation within India. If economic development is associated with lower levels of corruption (Charron 2010; Lipset 1960; Montinola and Jackman 2002; Treisman 2000), then why does Kerala—a medium growth state—display relatively minimal corruption on both scores while Gujarat, a high growth state, has slightly above average mid-level corruption? Perhaps even more to the point, how can any single argument shed light on relatively nominal medium-

level corruption alongside much more significant low-level corruption in Haryana, Rajasthan, and Karnataka? The puzzle of variation in types of corruption across India remains.

Figure 1 – Low- and Mid-Level Corruption in India



Transparency International India and CMS (2005), Government of India (2001), Author’s analysis

I posit that variation in India’s sub-national corruption provides an opportunity to develop a more nuanced understanding of the various types of corruption that can co-exist within a single political unit and to theorize the causes for this variation. In the remainder of the paper, I present the conceptualization of corruption used here and briefly review the primary established arguments for variation in corruption. I then provide a framework for understanding how these various factors may, or may not, factor into an actor’s decision to engage in a corrupt act, before offering particular consideration of the seemingly conflicting theories regarding the effects of electoral competition on the honesty of elected officials. I subsequently test a set of hypotheses about the relationship between electoral competition and corruption using a measure of low-level corruption based on a citizen survey and a new and unique measure of mid-level corruption

based on the misuse of constituency development funds. I find that electoral volatility displays a strong and positive relationship with low-level corruption, confirming the expectation that politicians faced with the risk of losing office will support rent extraction by bureaucrats who engage with citizens in the delivery of public services. The finding for mid-level corruption, however, is weaker and, for the most part, runs in the opposite direction. Where politicians are directly associated with a spending program, electoral volatility tends to have a null or dampening effect on corruption, in line with arguments emphasizing the relevance of accountability in a democratic setting. These findings offer support for an understanding of corruption that directs greater attention to the political incentives associated with corrupt behavior and the variation in risks and rewards accompanying different types of corruption.

Conceptualizing Varieties of Corruption

While the most common definition of corruption, that it is the abuse of public office for private gain (*inter alia*, Bardhan 2006; Jain 2001; Olken 2007; Rose-Ackerman 1975), offers a concise starting point for categorizing various behaviors as corrupt or not, it does little to help us explore variations in types of abuse. As a result, a number of analysts have developed more specific typologies of corrupt behavior. A basic distinction is often made between political and bureaucratic corruption, implying that there is a difference between the corrupt acts of elected versus appointed officials (Bardhan 2006). However, the nuances of this distinction and its relevance for understanding the causes of corruption are often left unexplored.

Alternatively, Rose-Ackerman differentiates between petty corruption and grand corruption—what I refer to here as low-level and high-level corruption—the former referring to bribes citizens pay to lower level officials either to speed the delivery of services or to bribe

officials to “bend the rules” (Rose-Ackerman 2002; Cisar 2003) while the latter “involves large sums of money with multinational corporations frequently making the payoffs,” where politicians use their power to shape policies in ways that benefit bribers (Rose-Ackerman 2002; 2008: 265; Jain 2001; see also Bussell 2012).

The dichotomy of petty and grand corruption, however, is incomplete. In their analysis of municipal-level corruption in Brazil, Ferraz and Finan highlight that “most corruption schemes used by local politicians to appropriate resources are based on a combination of fraud in procurements, the use of fake receipts or ‘phantom’ firms, and over-invoicing the value of products or services. In addition, the audit reports suggest that some politicians “simply divert resources for personal purposes” (Ferraz and Finan 2008: 710). None of these activities necessarily fit the characteristics of grand and petty corruption just discussed. Here, we are dealing with fraud in the implementation of state policies, where individual citizens (other than business owners and managers) are unlikely to be directly affected, yet we are also not concerned with the design of legislation and regulations at the highest levels. Instead, this type of “mid-level” corruption involves the misuse of government resources, either to extract direct gains or to benefit preferred individuals and groups. This also encompasses activities such as the skimming of funds from infrastructure initiatives, as evaluated empirically by Golden and Picci (2005) and Olken (2007).

Thus, a conceptualization of corruption that emphasizes the level at which corrupt acts occur, low-level (petty), mid-level, and high-level (grand) corruption, may better account for the range of corrupt activities in which politicians and bureaucrats are engaged. This organization depends primarily on identification of specific activities and the types of actors who are participating and is particularly appropriate for exploring variation in corruption within and

across political units.¹ This will allow for a focus on the individual actors engaging in these activities, how those actors vary across different types of corruption, and the ways in which the incentives for each group of actors differ across contexts.

Identifying the groups typically involved in different levels of corruption is thus of primary importance. This can help us to explore the likely perceptions and expectations of different actors with regard to different types of corruption and the incentives for each to participate in corrupt activities in any given environment. For these purposes, I will consider actors in the Indian context, but the general ideas should be generalizable across many developing country contexts.

High-level corruption most often involves the top levels of political elites and bureaucratic officials. Here, we are concerned with the design of policies and behind-the-scenes negotiations over the content of legislation. Regulatory policies, in particular, may be of primary interest to private companies, who are looking to maximize market share and revenues, thus presenting politicians with opportunities for rent-seeking. Initial implementation of policies also offers occasions for corruption, especially when there is a limited supply of licenses available, such as in the case of the recent scandal over 2G telecommunications licenses (NDTV 2010c), and politicians and senior bureaucrats can leverage limited supply to extract higher rents.

¹ Other typologies are of course possible and have been utilized in previous analyses, as noted by Heywood (1997), and depend on the perspective of the analyst and goals of the research. For example, one might differentiate between “transitive” and “extortive” corruption (Alatas 1990), where “The former refers to a mutual arrangement between a donor and a recipient, actively pursued by, and to the mutual advantage of, both parties, whereas the latter entails some form of compulsion, usually to avoid some form of harm being inflicted on the donor or those close to him/her” (Heywood 1997: 426). Alternatively, one can distinguish between personal and institutional corruption, or “corruption aimed at personal enrichment and that which seeks to benefit an institution such as a political party” (Ibid.).

Mid-level corruption involves bureaucrats and politicians skimming funds directly from government programs, as well as relationships between these government actors and local companies and contractors to implement infrastructure programs and other government initiatives. Contracting interactions may involve excess billing, kickbacks, or alternative schemes to extract rents from funds otherwise intended to serve the broader population. The officials involved are typically mid-level bureaucrats, though bureaucrats at both ends of the spectrum may also receive a portion of these funds. Relevant politicians are likely to be state legislators and local elected officials who participate in decision-making about the implementation of government programs. This corruption, like high-level corruption, is often behind-the-scenes and rarely gains the attention of a large portion of the population. While citizens may have a greater sense that their services are affected by these activities than with regard to high-level regulatory corruption, they are much less likely to be personally involved in the transactions and so are still only tangentially aware of the effects of mid-level corruption on their living conditions.

Low-level, otherwise known as petty or retail, corruption refers to activities engaged in by individual citizens and street-level government officials. Citizens pay bribes, often termed “speed money,” in order to encourage bureaucrats to provide services in a more efficient manner. This is particularly common in places where bureaucrats have a monopoly on the provision of services and citizens do not have recourse to other actors for acquiring their desired services. Low-level corruption may also refer to cases where citizens attempt to increase the chances that they will be chosen for a program with limited enrollment or to acquire a service to which they are not entitled, such as welfare benefits, by paying a bribe to an official. In both cases, the main actors are typically a citizen and a junior official, rather than companies, more senior officials, or politicians. Table 1 summarizes the characteristics of low-, mid-, and high-level corruption in

terms of the typical actors involved, the types of government activities and related corrupt behaviors, and the sources of illicit funds involved in these transactions.

Table 1 – Types of Corruption

Type of Corruption	Type of Actor²	Type of Government Activities	Examples of Corrupt Behavior	Source of Illicit Funds
High - Level	- Central Government Minister - Central bureaucrat/Secretary	- Central government regulations - Allocation of licenses	- Payments for favorable legislation - Kickbacks for licenses	- Private companies
High - Level	- State minister - State bureaucrat (IAS)	- State government regulations - Allocation of licenses - Allocation of land	- Payments for favorable legislation - Kickbacks for licenses, land contracts	- Private companies
Mid - Level	- State legislator - Local bureaucrat (DC/BDO)	- Implementation of constituency development programs - Implementation of government schemes (schools, roads)	- Allocation of scheme funds to unapproved/ghost party - Kickbacks on contracts - Overbilling of projects	- Government funds - Private companies
Low - Level	- Local bureaucrat (BDO or lower)	- Provision of individual benefits (IDs, welfare payments)	- Bribes for “speedy” services - Bribes for illegal access to benefits	- Individual citizens

A separate question from who is associated with the specific activity is who eventually benefits from the corrupt act. As Wade (1985; see also de Zwart 1994) describes, a sophisticated flow of bribes extends through the layers of India’s bureaucracy and into the pockets of state politicians. Utilizing their power over lateral transfers, politicians can manipulate the state’s

² This column includes only those actors who are likely to be the *direct* beneficiaries of a corrupt transaction. As noted elsewhere, state and central politicians are likely to be indirect beneficiaries of even the lowest levels of corruption, as payments flow up the hierarchy, largely due to the bureaucratic transfer system. This is important for understanding who is perceived to be responsible for a corrupt act, but less so for the act itself.

formal and informal institutions to extract rents. Because some posts at the same level are more attractive than others—they are in a better location, provide more interesting work, or, perhaps most importantly, offer greater potential for rent-seeking—bureaucrats are willing to bribe their superiors to the extent that they expect their position to improve by obtaining a transfer to a different post, creating a “market” for public office. Politicians take advantage of this willingness to offer bribes for appointments and thereby increase their income (Frankel 2005; Wade 1985), with some legislators able to “collect sizeable sums from bureaucrats who seek agreeable transfers” (Manor 1995: 56). Payment for transfers is illegal and the abuse of this system offers potential benefits to both the bureaucrats and the politicians who engage in the market.

Due to this informal institution of bureaucratic transfers, the person who initially *receives* a bribe is not likely to be the only recipient of a portion of that bribe. The power to transfer gives politicians leverage over bureaucrats, such that elected officials are likely to benefit both from bribes that they may receive directly and from bribes received by appointed officials. At the same time, in theory, the power to transfer could also be used to *limit* bribes taken by bureaucrats, with the threat of transfer used as a tool of accountability rather than a tool of extraction. However, anecdotal evidence, as well as the general pressure on incumbents to amass resources for their reelection campaigns, supports a corruption-encouraging model of transfers rather than a corruption-discouraging model.

Explaining Variation in Corruption

The proposed causes of corruption I am most interested in here are those that may help to explain variation in corruption within a single institutional setting, such as the states of India. In India, primary bureaucratic, legislative, and electoral institutions are the same at the state level, though

there are some variations at the sub-state level due to differences in state policies. Where these differences may be feasibly linked to variations in corruption, I consider them below.³ For the most part, however, India's institutional setting provides an opportunity to explore causes of corruption that are more difficult to identify in the diverse institutional setting of cross-national comparisons.

Existing arguments

Jain notes three institutional preconditions for the existence of corruption: discretionary power, the availability of rents, and a low probability of prosecution (Jain 2001: 77). Officials need discretionary power to design and/or implement regulations in order to be able to use them to their advantage. This advantage has value where rents are available and it is worth the risk of getting caught when the judicial system is such that it is unlikely they will pay any price for their self-serving behavior (ibid.).

Glaeser and Saks consider three broad arguments for causes of variation in corruption. The first, based loosely on the logic of Lipset (1960), is "that places with higher levels of income and education are less corrupt. The key element of this hypothesis is that voters with more education and income are more willing and able to monitor public employees and to take action when these employees violate the law" (Glaeser and Saks 2006: 1054). Alternatively, "A second hypothesis, connected with Mauro (1995) and Alesina et al. (2002), is that ethnic heterogeneity increases corruption. As voters become more diverse along ethnic or income lines, then voting will inevitably focus on redistribution rather than on the honesty of government officials"

³ Thus, I do not consider here those arguments that are focused on institutional variations, such as in the type of legislative institutions (Gerring and Thacker 2004) or electoral institutions (Chang and Golden 2007; Persson et al. 2003), which do not vary within India.

(Glaeser and Saks 2006: 1054). Finally, a third argument suggests that “places with more government revenues or regulations will have higher levels of corruption, as these places will have more assets to steal and more rules to subvert” (Glaeser and Saks 2006: 1054-1055).

Analysts also argue that extractable resources can increase the tendency of elites to engage in corrupt behavior, with Chang and Golden surmising that, “the mere availability of natural resources means there are more lootable goods and higher rents easily accessible to predatory rulers” (Chang and Golden 2010:11). Alternatively, large amounts of foreign aid may also create incentives for rent extraction and as investigated by Svensson (2000) and by Alesina and Weder (2002). Similarly, within-country aid, such as from the central government to sub-national regions may also be associated with greater corruption.

Tresiman (2000) highlights the importance of variations in legal systems, arguing that “legal culture,” or the “prevailing expectations and practices that govern how [laws] are enforced,” can shape the likelihood of corruption because it affects potential perpetrators’ expectations about the “probability of getting caught” and “the consequences if they do” (Tresiman 2000: 402-403). Thus where the legal system is more effective, where officials perceive there to be a greater risk of engaging in corruption, we should observe lower levels of corrupt activity.

Recent work by Tavits (2007) extends the literature on clarity of responsibility (Powell and Whitten 1993, Powell 2000) to argue that citizens’ ability to associate corrupt outcomes with particular politicians can affect the willingness of these actors to engage in corrupt behavior. In general, “when political institutions provide high clarity of responsibility, politicians face incentives to pursue good policies and reduce corruption. These incentives are induced by the

electorates' rejection of incumbents who do not provide satisfactory outcomes" (218). A cross-national analysis provides empirical support for her claims.

Another important set of arguments in the literature, which emphasizes the relationship between democratic competition and corruption, has received less empirical attention and yet may offer important insights for understanding corruption in the Indian context. On the one hand, a significant portion of "the corruption literature posits that democracy—or, more specifically, political competition—reduces political corruption" (Chang and Golden 2010: 11). Political competition is perceived to be dangerous for corrupt politicians, because it "increases the chances of public exposure of wrongdoing since political opponents and the mass media have incentives to investigate and publicize incumbents' malfeasance... Thus, the threat of losing office induced by higher levels of competition reduces politicians' incentives to engage in corruption" (Ibid., see also Montinola and Jackman 2002; Treisman 2000).

On the other hand, as Rose-Ackerman notes, "Democracy and the free market are not invariably a cure for corruption. A shift from authoritarian to democratic rule does not necessarily reduce payoffs. Rather it redefines the country's norms of public behavior" (Rose-Ackerman 2008: 365). As a result, "a country that democratizes without also creating and enforcing laws governing conflict of interest, financial enrichment, and bribery, risks undermining its fragile new institutions through private wealth-seeking" (Ibid.). While Rose-Ackerman recognizes that democracy can have a dampening effect on corruption, she also emphasizes that "the desire for re-election will deter corruption [only] so long as the electorate disapproves of the practice and has some way of sorting out valid from invalid accusations" (Rose-Ackerman 2008: 376).

Across democracies, the effect of electoral competition is also debated. While greater electoral competition should increase the incentives of opposition candidates to expose the behavior of incumbents, in order to push the election in their direction, increased competition also means greater pressure on politicians and candidates for office to raise funds for their election campaigns. In competitive electoral environments “parties are over-extended and under-resourced. It is inevitable that they should seek to exploit all avenues in the search for funds” (Heywood 1997: 430). This may be done legally or illegally, with the latter case potentially constituting an example of corruption, such as when office holders raise funds through abuse of their official position.

Where elected officials use the power of their office to collect illicit funds that may then be used as a part of their election campaigns, variations in the demand for funds to finance reelection campaigns may be a primary cause of variation in the levels of corrupt activities. As politicians face more competitive elections, they will feel greater pressure to spend in their campaigns, which, given legal constraints on maximum spending levels, may encourage greater spending through illegal practices. Thus, politicians who anticipate a high risk that they will lose reelection may make an effort to accumulate a larger funding base to compete.

In addition, politicians who anticipate losing office may also strive to increase their access to illicit funds while in office, in order to maximize the personal benefits of their limited term (Rose-Ackerman 2008, Treisman 2000), and to collect the largest funding base possible to facilitate their ability to compete in future elections even if they lose office. Gamboa-Cavazos et al. argue that, “If a politician’s horizon is short, he has more incentives to offer or coerce corruption to firms, than [sic] if his horizon is long. This is because shorter horizons make politicians less accountable and reduce their chances of taking advantage of their rank or

misusing their office, and thereby increase a politician's opportunism" (Gamboa-Cavazos et al. 2007: 1-2). Treisman (2000) found no evidence of this effect in his cross-national study, however Gamboa-Cavazos et al. "uncover a non-linear effect on corruption: high graft for long and short political horizons, and low graft for intermediate horizons," though this effect holds only "for higher-level political corruption, but not for bureaucratic or administrative graft" (Gamboa-Cavazos et al. 2007: 2). Heywood (1997) also argues that security of office can lead to greater corruption (Heywood 197:431-432).

Explaining Corruption through Decision-Making

While each of these arguments is likely to provide some insight into the nature of corruption, I posit that a comprehensive understanding of the scale and scope of corruption requires a broader view of the situation faced by politicians and bureaucrats. In most cases, the above noted analysts look to a single variable, such the electoral system or the level of economic development, to explain variation in corruption across political units. In those cases where a set of variables is considered, there is typically little done to examine the potential relationships between these variables and how they might jointly affect the nature of corruption, rather than acting as standalone causal factors. And yet, as Jain (2001) notes, corruption requires that actors have the power of discretion, access to some types of rents, and the expectation that they will not be held accountable. I would add to this that there must also be some *demand* for rents that motivates the actor in the first place. Without all of these conditions, it is unlikely that we will observe corrupt behavior, and yet analysts tend, for conceptual or practical reasons, to focus on only a portion of this overall dynamic.

I instead suggest that an inclusive understanding of corruption, both in general and within the Indian context, requires instead an analysis that attempts to evaluate the ways in which a set of characteristics, or variables, can jointly shape the patterns of corruption that emerge in a given setting. The starting point for this analysis is a consideration of the decisions actors must make in choosing to engage in a corrupt activity, couched in the conditions of demand, discretion, access, and lack of accountability, so as to understand when and where particular variables may influence the decision to be corrupt. While this framework is general enough to be used across institutional contexts, I focus here on the decision-making of state actors in India, so as to highlight the issues that are likely to be affecting decisions to engage, or not engage, in corrupt behavior across India.

I make the basic assumption that anyone engaging in corrupt behavior will consider the likely costs and benefits of their actions. If this is the case, then evaluating the nature of that calculation is of primary importance to understanding why different actors may make different choices about whether or not to be corrupt. This perspective does not assume that factors such as culture do not matter, but that these characteristics of an environment will be taken into account when an actor considers a particular act.

For now, I will not differentiate between types of actors, the most important distinction of which I will make later between politicians and bureaucrats. Instead, I begin with a basic decision-making process outside the electoral system, saving consideration of electoral factors for the final set of decisions. The starting point is a state actor who needs additional money. There are many reasons why state officials might feel the need for additional resources—they may feel underpaid, may require funds to run a reelection campaign, may feel pressure from a superior to provide a payment, etc. All of these reasons are important sources of *demand* for

corrupt rents and when an actor experiences this demand, they are faced with a sequence of decisions that may or may not result in corrupt behavior. Variations in the conditions at each decision point can then also help us to understand why in some places *more* actors choose to be corrupt or a set of actors choose to be corrupt *more often* than under different circumstances.

Any actor has two basic options for accessing additional financial resources: legal and illegal means. Legal means would include making efforts to get a raise or move to a higher paying job or to seek out a loan to meet current financial needs. If these sources are unavailable or insufficient, then an actor may consider illegal sources of income, such as extraction of rents through bribes from citizens, kickbacks on government contracts, or skimming of resources from government schemes.⁴

Whether or not an actor is able to access these sources of illicit rents depends in large part on their position within state power structures. Different actors have access to different types of corrupt rents, depending on their discretion over policy-making and implementation. As shown previously in Table 1, different actors are more likely to have access to different types of corruption. For example, national-level ministers have the best access to regulatory decisions and, along with their senior bureaucrat counterparts, to decisions over the allocation of benefits that typically result from these regulations, such as licenses. While this process is arguably more competitive than it was pre-1991 economic reforms, the recent 2G telecom licensing scandal highlights the continued potential for corruption in central government regulatory processes. Alternatively, state legislators, while they will have minimal power over policy if they are not

⁴ I am setting aside here the concept of “institutional corruption,” which emphasizes the potentially corrupting effect of certain legal activities, such as political donations from interest groups (for a discussion, see: <http://wiki.lessig.org/InstitutionalCorruption>). This emerging concept requires further analysis in the Indian context, but this is outside the scope of the current discussion.

ministers, can exert power over the implementation of policies in their constituencies (whether formally or informally). This is most explicitly the case with regard to constituency development funds, in which state politicians chose specific capital projects for implementation in their electoral domain. State bureaucrats are most likely to be able to extract rents in the actual delivery of services to citizens, either through the payment of “speed money” or bribes to acquire illegal access to means-tested goods (such as a ration card).

Whether or not an actor chooses to access the sources of rents available to them depends on a cost-benefit calculation over the probable revenues and losses of the transaction. For any given corrupt act, what are the total probable rents from that act and what are the total probable losses, given the likelihood of being held legally accountable for the behavior at some point in the future? The former element of the equation is typically much easier to calculate—a politician or bureaucrat can often set the price for their behavior, making their likely revenue obvious. The *official* cost of an act, the fine or jail time that is associated with the behavior according to the law, may also be reasonably well known. However, the final piece of the equation, the likelihood that a person would actually be caught and forced to pay that penalty, is much harder to assess. This depends on the efficiency of the police and the legal system, which can vary across parts of a country. At the same time, it is probably reasonable to assume that state actors have basic expectations, developed through their observations of previous events, of how likely it is that they will be caught and punished for any given activity. Of course these perceptions can change—one would expect that central ministers have updated their expectations regarding the likelihood of exposure and punishment in light of the 2G scam—but this also assumes that there are some basic expectations in a given context.

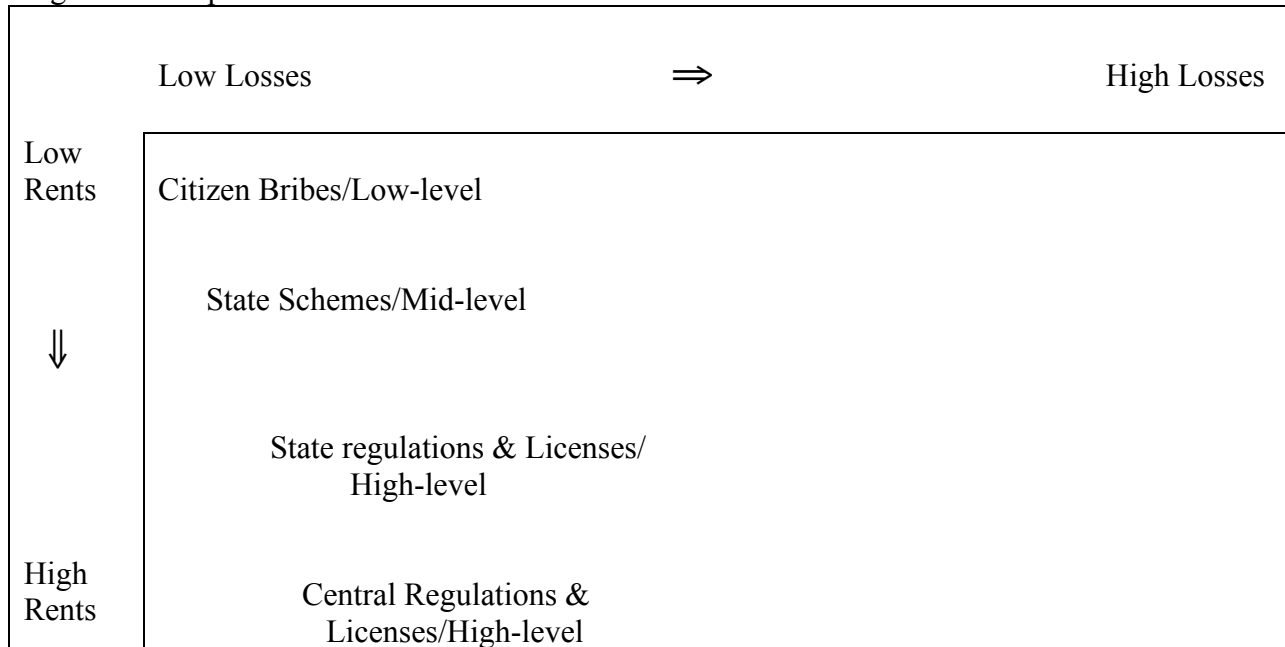
Different types of corrupt activities, then, can be organized according to the combination of their likely costs and benefits, as shown in Figures 2 & 3. In Figure 2, the examples of corruption noted above are organized according to their theoretical costs and benefits, given a transparent and functioning police and legal system. In contrast, Figure 3 shows a proposed alternative organization, given a legal environment more like that in many parts of India, in which the anticipated losses are much lower, resulting from corruption in the police and an inefficient legal system.⁵ Here, most forms of corruption are appealing given the low probable costs associated with any type.

Figure 2 – Theoretical Costs & Benefits of Corrupt Acts



⁵ Corruption in the Police Department and the efficiency of the legal system differ across India's states and thus the graph of costs and benefits would be different in each state and thus likely to influence decision-making regarding corruption. Figure 3 serves as a general picture of deviation from theoretical positions on the graph. I discuss the potential for empirical testing of state-level variation below.

Figure 3 – Proposed General Costs and Benefits in India



Given this second table, it is difficult to imagine a case in which actors would choose not to engage in corrupt behavior, assuming they make it to this decision point. With a need for additional income, if higher salary or a loan at a reasonable rate are not available, then the combination of discretionary control over decisions and a lack of strong accountability can make corrupt behavior a rational decision under the circumstances.

For bureaucrats, this is largely where the decision sequence ends. For incumbent politicians, however, there is a final issue for consideration and that is the potential effect of their actions on their potential for reelection. Their choice is likely to differ dependent on whether or not they are seeking another term. On the one hand, if the politician is term-limited or has decided for some other reason not to run for reelection, then we might expect them to maximize the benefits of their last years in office (Gamboa-Cavazos et al. 2007, Rose-Ackerman 2008,

Treisman 2000).⁶ If, on the other hand, the incumbent plans to run for reelection, then they are likely to consider the effects of their behavior on their campaign.

Citizen response to corrupt behavior on the part of politicians should depend first on whether they are able to observe the behavior and second whether they are willing to sanction the politician with their vote. In addition to the literature noted above on the role of education and the media, a rich literature on clarity of responsibility helps to emphasize the relevance of whether citizens can observe the outputs of government and understand which party is responsible. As Tavits discusses, drawing on Powell and Whitten (1993), “The underlying assumption of the clarity of responsibility argument is that at least some citizens consider government outputs, including corruption, to be an important element of their voting decision” (Tavits 2007: 220). However, “whether or not citizens are able to assign responsibility to the government depends on the extent to which those who are responsible can be identified” (Tavits 2007: 220, Powell 2000). If it is not clear who is responsible for a particular government output, including corruption, then it becomes very difficult for voters to develop a clear picture of who should be sanctioned (Tavits 2007; Powell and Whitten 1993; Samuels 2004). This literature emphasizes the role of formal institutions in allocating responsibility.

Even when citizens can allocate behaviors to particular actors, they may not choose to sanction them for their behavior. An emerging theme in the corruption literature highlights those cases where citizens vote for politicians even when they have previously been shown to be corrupt. Kurer (2001) evaluates the range of explanations for why voters may retain corrupt politicians and posits that three scenarios offer logically feasible explanations. First, information

⁶ This decision is still constrained by the same conditions as before, including the likelihood of being caught and punished. The calculation should be the same for a politician not running for reelection as that of an appointed official.

asymmetries may exist such that individuals do not have clear perceptions of the actual levels of corruption relative to their perceptions (Kurer 2001: 77-78). As a result, they do not have the knowledge they need to vote against corrupt incumbents.

Second, citizens may resist voting for a clean candidate if they think there is a risk that this candidate will not be able to win. This is particularly likely in situations where there is a high level of clientelism, such that citizens, or some portion of citizens, are likely to receive direct benefits from the incumbent. Even if a voter prefers the clean candidate, they may fear the “worst outcome [which] is to have the ‘corrupt’ party win but not to have supported it, and thus to be shut out of the clientelistic distribution network” (Kurer 2001: 78), such that they vote instead for the corrupt party to maintain their particularistic benefits.

Finally, citizens may have no choice but to vote for the corrupt candidate, if they are going to vote, due to a lack of clean candidates. The barriers to entry for non-corrupt candidates may be so high that there is not a viable alternative. This seems particularly likely in the context of expensive elections and minimal party financing, where it is the richest candidates who are allocated tickets by the parties, regardless of ideology (Chhibber and Sirnate 2012).

Pereira et al. (2009) provide empirical evidence to support the case that citizens will reelect candidates with a record for corruption, showing that release of audits with critical findings regarding incumbents have a negative relationship with reelection only in the year just prior to an election. In India, the more general case can be made that citizens will reelect individuals with a criminal record, given the large number of criminals in elected office (Aidt, Golden, and Tiwari 2011; Vaishnav 2011).

Initial Empirical Analyses

What I propose here is that evaluating the nature of corruption, and the ways in which it varies within India, requires analyzing each decision and developing measures for the key variables that are hypothesized to affect an actor's behavior at each decision point. In Table 2, I present a list of variables, drawn from the preceding literature review, and an initial set of proposed measures for those variables. Some measures have been used in earlier analyses, but the goal here is to understand when and where these factors may matter in a decision-making scheme.

Table 2 – Variables and Measures for Evaluating Variation in Corruption

Decision Point	Potential Variable	Proposed Measure ⁷
Does actor need money?	Level of Greed	- TBD
	Size of Salary	- Official salaries of MPs, MLAs, IAS, State AS, lower bureaucracy compared to cost of living
	Cost of Elections	- Average cost per MP election* - Average cost per MLA election* - Average cost per Zilla/Block/Gram panchayat election*
	Competitiveness of Elections	- Effective number of parties (ECI) - Electoral volatility (ECI)
Does actor have access to sources of funds (licit or illicit)?	Availability of increased salary	- TBD
	Availability of loans	- TBD
	Access to possible sources of illicit rents	- On individual basis, depends on position - Economic resources, e.g. domestic product per capita, fiscal space (RBI)

⁷ Where a source for the measure has been determined, that is listed in parentheses after the measure. If an appropriate measure is still being developed, this is listed as to be determined (TBD). All measures with an asterisk (*) are currently being developed through a politician and citizen survey being implemented this month in Bihar, to be extended to additional states. Other sources for these measures will also be explored.

		<ul style="list-style-type: none"> - Level of industrialization - Natural resource wealth - Foreign aid (World Bank, TBD)
	Expected costs of illicit behavior	<ul style="list-style-type: none"> - On individual basis, depends on type of illicit behavior - Corruption in police (TII/CMS surveys) - Quality of judicial system (Crime in India stats)
Will citizens observe corrupt behavior?	Level of clarity of responsibility in formal institutions	<ul style="list-style-type: none"> - Whether politician is “face” of corruption - TBD
	Level of education (ability to monitor directly)	<ul style="list-style-type: none"> - Literacy rates (Census)
	Degree to which quality auditing functions are present	<ul style="list-style-type: none"> - Presence of audit bodies (CAG) - Quality of audit reports (CAG)
	Degree to which audit results are made public	<ul style="list-style-type: none"> - Frequency of public information sharing regarding government audits (media/newspaper reports; TBD)
Will citizens sanction known corrupt incumbents?	Level of information asymmetries	<ul style="list-style-type: none"> - Correlation between individual perceptions of and experience with corruption (TII/CMS surveys)
	Level of clientelism	<ul style="list-style-type: none"> - Percentage of voters receiving a gift before elections* - Portion of voters who receive gift from the incumbent party*
	Degree of barriers to entry for opponents	<ul style="list-style-type: none"> - Cost of elections* - Number of candidates vying for opposition party tickets - Number of candidates in an election (ECI)
	Degree to which individuals feel threatened regarding their vote choice	<ul style="list-style-type: none"> - Crime levels (Crime in India stats)

As the extent of this table makes clear, conducting an evaluation of the complete decision-making process and all types of corruption is largely outside the scope of a single paper. For current purposes, I begin the analysis with a small sub-set of independent and dependent variables that should help to provide some initial insights into the relationship between these characteristics and corruption outcomes in the Indian context. Before presenting the empirical analyses, I first consider in greater detail the characteristics in India of the key independent and dependent variables to be evaluated, electoral competition and corruption.

Corruption in India

Corruption is commonplace in India, as both cross-national and sub-national corruption studies attest (Transparency International 2008; Transparency International India and Centre for Media Studies 2005, 2008). A recent spate of scandals have highlighted the prevalence of corrupt behavior by politicians and bureaucrats alike: investigations into the construction of facilities for the 2010 Commonwealth Games in Delhi “discovered widespread contract rorting, falsification of records and unjustifiable inflation in contract costs” (Sexton 2010); an apartment building in Maharashtra, intended to serve war veterans, was found instead to be benefiting top politicians, bureaucrats, and members of the military (NDTV 2010a; 2010b); and central government officials have been accused of costing the government nearly U.S. \$40 billion through allocation of second generation mobile communications spectrum at “throwaway prices” (NDTV 2010c).

The general public is also often faced with demands for bribes in the course of everyday dealings with the state. An analysis of low-level corruption at the state level and across eleven government departments found that more than 60% of Indians have paid a bribe to receive a government service, amounting to more than Rs 210 billion (approximately U.S. \$4.7 billion) in

bribes each year (Transparency International India and Centre for Media Studies 2005: 3). These bribes do not come entirely from the wealthy; another survey found that more than one-third of people below the poverty line in India had paid a bribe in the previous year to access government services (Transparency International India and Centre for Media Studies 2008).

What has received less empirical attention is the corruption engaged in by politicians and, especially, bureaucrats within government departments in the implementation of state policy. For example, India's public distribution system, which provides subsidized foodstuffs to low income households, is thought to involve significant leakage of funds for the program, and the foodstuffs themselves, yet little empirical work has been done to quantify the problem. The oft-repeated critique by Prime Minister Rajiv Gandhi that only 16 paise (cents) of every rupee spent in the program reaches the intended citizen has been validated by recent government analyses, but these have received minimal academic attention (Times of India 2009). Similarly, while Wade's (1985) landmark study of corruption in the Irrigation department provided insights into the mechanisms of India's corruption, further work has rarely explored the nature of corruption within state government activities.⁸

Measuring state-level corruption

In this analysis, I use a new set of measures to operationalize government corruption in India. Because I am interested in investigating the causes of variation in different types of corruption, the analysis requires multiple different measures. I am not currently able to measure *all* types of corruption, but the measures presented here should offer initial insights into the relevance of electoral competition in shaping corrupt behavior.

⁸ One exception is Beteille's (2009) work on corruption within the Indian educational system.

In order to measure low-level corruption, I rely on a citizen survey conducted in 2005 to gauge citizens' experiences with and perceptions of corruption. Conducted by Transparency International India and the Centre for Media Studies, this survey inquired about respondents' interactions with eleven different government departments and included questions about whether they had paid any additional money to acquire their desired services. As a result, it is possible to measure variation in the payment of bribes by citizens both across states and across departments within a state. This is a particularly good measure of low-level corruption because, while it still relies on citizen willingness to report that they paid extra money, it emphasizes actual experiences and thus should be superior to those measures that rely solely on perceptions⁹.

My second measure emphasizes mid-level corruption and draws on an audit of India's Members of Parliament Local Area Development Scheme (MPLADS), which is a constituency development fund initiative that has been in place since 1993. Under this program, the national government gives each MP a lump sum grant to be spent in their constituency on development initiatives. Each MP is given the same amount of money, with the scheme allocating Rs. 10 million (~U.S. \$222,000) to each MP each year, with an increase to Rs. 20 million in the 1998-99 fiscal year. The funds are intended "to enable the MPs to identify small works of a capital nature based on locally felt needs in their constituency" (Government of India 2001: 3). There are restrictions on the use of these funds, however, which attempt to limit the types of activities on which they can be spent and for whom. For example, the scheme in general "does not permit revenue expenditure in any form; the expenditure on works relating to offices/residential buildings, and purchase of inventory or stock of any kind" (Ibid.).

⁹ The data from the survey reinforce the importance of this distinction, as there were clear differences between the average reported experiences with paying an additional amount and citizens' perceptions of corruption in each state and department.

The audit was conducted in 2000-1 and reviewed the period from 1997-2000. The evaluation involved an analysis of spending patterns in a sample of constituencies in each state. The audit documentation does not make clear how the individual constituencies were chosen for the review, so there is a possibility that the patterns in the chosen constituencies are not representative of spending patterns, and misuse of funds, in other constituencies in the state. However, there is no reason to believe that a different strategy for selecting constituencies was used for different states. 241 constituencies were sampled from a total of 786 (31%) and at least two constituencies were sampled in every state.¹⁰

The audit tracked illegal behavior in the spending of funds based on the rules and guidelines laid out by the government for the MPLADS program. A portion of the rules deal with inappropriate uses of funds that fit the conceptualization of mid-level corruption used here.¹¹ I subsequently evaluated the audit reports for each state and coded each time that there was a record of one of the types of inappropriate behavior and noted the monetary value of the infraction. The monetary values reported by the audit were either reported by constituency or for the state as a whole. Where the value was reported for the state, I divided the value by the

¹⁰ Both Lok Sabha (lower, elected house) and Rajya Sabha (upper, appointed house) constituencies were sampled. I include data only from Lok Sabha constituencies, thus for those states with only one Lok Sabha constituency, I have only one observation.

¹¹ Based on a review of all the categories of inappropriate behavior tracked by the audit, I coded the following categories as representative of corrupt behavior: district collectors (the top administrators in a district) “clubbed” (put together) funds from multiple sources for a given project, funds were used for inadmissible purposes, inadmissible works were executed under the scheme, works were undertaken by or for commercial and private organizations, repairs and maintenance of existing projects were undertaken, stores and stock items were purchased, other inadmissible works were undertaken, contracts were awarded in an irregular manner, and there was suspicion of fraud or misappropriation of funds. Excluded were problems such as deficiencies in the maintenance of the “cash book” that are the responsibility of local administrators.

number of constituencies for which that type of behavior was reported, in order to develop a per constituency measure.

In order to develop a standardized score for each constituency, I took the constituency value and standardized it for each type of infraction across the states. This calculation took the average value for each constituency within a single infraction type, subtracted the mean value, and then divided by the standard deviation. I then averaged the standardized scores for all of the infraction types in a single constituency to produce an overall score for each constituency.

This measure is one of the first, if not the only, to gauge variation in mid-level corruption across the Indian states. It offers us an important tool for evaluating sub-national variation in the misuse of government funds and contracting opportunities as well as for comparing the presence of low-level and mid-level corruption across the states. At the same time, this measure is not likely to be representative of all types of mid-level corruption. As discussed above, because this is an audit of a constituency development fund, citizens may be more aware of the link between politicians and spending in this area than they are in other government programs. As a result, politicians may be more wary of allowing corrupt activity to occur in this program, particularly when they perceive their chances of reelection to be low. The state-level composite scores for both measures are shown above in Figure 1 (see also Bussell 2012).

Electoral competition in India

As noted above, electoral competition may affect the degree to which politicians feel the need for additional income to fund reelection campaigns, given the high cost of running elections. At the same time, in a highly competitive electoral environment, a politician might also believe that exposure of corrupt activities could make it less likely that they will win

reelection. Whether or not this is the case should depend on whether citizens are likely to associate the politician with corrupt acts, as highlighted above.

The demand for corrupt rents can be plausibly linked to electoral competition in the Indian context. In the post-Independence period, the competitiveness of state and national elections has substantially increased. This began in the 1960s, when the Indian National Congress first saw a substantial loss of seats in Parliament, the Lok Sabha, and lost control of multiple state assemblies (Kothari 1970). A rise in competitive national parties and a proliferation of regional parties in the succeeding decades means that the central government has in recent years been, and is likely to continue to be, ruled by a coalition government and Congress is no longer dominant in any state, though it frequently alternates power with the Bharatiya Janata Party or a regional party at the state level. This is the case in states such as Himachal Pradesh, Andhra Pradesh, and Rajasthan. In other states, including Maharashtra, Kerala, and Uttar Pradesh, Congress now typically only rules in coalition with one or more other parties. Finally, in some states, including Tamil Nadu and, to a certain extent, West Bengal, Congress now plays a negligible role in local political dynamics. Largely regional parties have picked up the seats that Congress has lost in these states.¹²

Financing these increasingly competitive elections has become a major task for politicians. There is no explicit election funding mechanism or established institutional source

¹² The ideologically oriented Communist Party of India (Marxist) is active and successful in multiple states, while the caste-based Bahujan Samaj Party has attempted to increase its presence outside its base in Uttar Pradesh. Other state-based parties, such as the Telegu Desam Party in Andhra Pradesh and the Dravida Munnetra Kazhagam and All India Anna Dravida Munnetra Kazhagam in Tamil Nadu, play a role in the politics of only one state, but are often able to leverage their hold on parliamentary seats to exert influence on policy at the national level in the context of coalition politics. On the BJP, see, *inter alia*, Sridharan, 2005; Seshia, 1998; Graham, 1987. For the BSP, see Chandra, 2004 and the Communist parties, Rodrigues, 2006. On Andhra Pradesh, see Suri, 2004 and Tamil Nadu, Thirunavukkarasu, 2001.

for financing campaigns to Indian state assemblies. Parties give candidates “tickets” to run for a particular office in the state, but candidates must fund their own election without guaranteed support from the party (for further elaboration, see Wade 1985). While the Election Commission of India (ECI) limits candidate expenditure in state assembly elections (ECI 2007), spending by political parties and supporters of candidates is not limited, thereby creating the potential for much higher spending if funds are available. This loophole indirectly allows for higher spending by the candidate, who could attribute expenditures above the limit to the party or friends (Iype 2004). As one former candidate for a Lok Sabha (national parliament) seat in Kanpur, Uttar Pradesh noted, “I spent within the limit of Rs. 1.5 lakh. But my friends and party put in INR 20-25 lakh”¹³ (Jayant Malhoutra, as quoted in Rekhi and Shekhar 1996).

In the 2008 Karnataka state assembly elections, a successful candidate stated that, “The quantum of money being used in elections has been increasing despite the restrictions. The ECI can’t contain it” (Kumar, as quoted in Sharma 2008). Analysts estimate that approximately INR 4,000 crore (~US\$900 million) was spent across the 224 Karnataka constituencies (Sharma 2008). Not only are candidates expected to set aside money for the use of the party as a whole, they find it necessary to provide goods to citizens to encourage their votes (Ibid.). One elected official estimated spending approximately 120 million Rupees (U.S. \$2.7 million) over twenty days just to employ individuals to pass out gifts to potential voters and “goons” to battle the employees of other candidates.¹⁴ My own survey work in Karnataka and Jharkhand shows that approximately 20 percent of citizens typically report receiving gifts, which range from INR 100-500, in advance of elections.

¹³ One lakh (1,00,000) is equal to 100,000. Rs. 1.5 lakh is equal to approximately \$3,330; Rs. 20-25 lakh is equal to approximately \$44,000-56,000.

¹⁴ The candidate reported paying 2,000 workers between INR 1,000 and 5,000 per day for 20 days. My estimate uses INR 3,000 and an exchange rate of INR 45/U.S. \$1.

Measuring electoral competition

Appropriate measures for electoral competition are the source of considerable debate in comparative politics (see, for example, Grzymala-Busse 2007). In studies of India, two measures are most commonly used, the effective number of parties (based either on the number of parties holding seats in the legislature or the number of votes received by all parties standing in an election) and electoral volatility (based on changes in the number of seats held or votes received from one election to the next) (Chhibber and Nooruddin 2004; Nooruddin and Chhibber 2008).¹⁵ Whether a single party or coalition of parties lead the legislature is a related measure that may be used to capture the distribution of power across parties. Recent work by Keefer and Khemani (2009) uses party stronghold, a binary measure of whether the same party has held a seat for the previous four elections, as a measure of competition. Outside the Indian context, the margin of victory is often used to measure constituency-level electoral competition (Cleary 2007).

In each case, a different assumption is made about the relevance of particular electoral characteristics to the behavior of politicians. For Chhibber and Nooruddin's earlier work, the relevant consideration is how many parties a given party expects to have to compete with in order to win an election and thus whether it needs to develop a broad or more targeted voter base. A coalition government measure, however, emphasizes instead the likelihood of competition within the legislature over policy-making (Bussell 2012). In Chhibber and Nooruddin's later work, electoral competition is the outcome variable and of greater concern is what factors increase the likelihood that a party will be voted out of office, thus the emphasis on volatility (measured on the basis of changes in vote share). Electoral competition in this case has

¹⁵ ENP is calculated by the formula $ENP = 1/\sum p_i^2$ where p_i is the proportion of seats held by each party or votes received. Electoral volatility is calculated by the formula $EV = (\sum_{i=1}^n |seats_{i,t} - seats_{i,t-1}|)/2$ where seats is the seats (or, in a single constituency, votes) is the share of total seats in the assembly gained by party i in election t .

less to do with the party system and more to do with the conditions supporting, or destabilizing, incumbents. Keefer and Khemani's party stronghold is a blunter but similar measure, used to operationalize the notion that parties will, or will not, perceive a strong likelihood that they will stay in power. For margin of victory, I use the difference in votes between the top two parties in each election as a percentage of the total votes cast in that constituency.

These measures also differ in the level at which they are constructed. Effective number of parties and coalition government, by definition, must be calculated with regard to the legislative body. Volatility and party stronghold, in contrast, may be calculated either at the legislative or the constituency level, depending on the theoretical interests of the analyst; Nooruddin and Chhibber's (2008) measure is at the state legislative level while Keefer and Khemani's (2009) is constituency level). Margin of victory is a constituency-level variable.

For current purposes, I submit that electoral volatility is the most appropriate operationalization of competition. This measure best captures the likelihood that politicians perceive they are at risk of losing their seat in an upcoming election. In a best case scenario, volatility would be measured at the constituency, to take into account variations in the strength of parties and candidates at this level. However, for the current analysis, whether the measure is constructed at the legislative or constituency level depends more on the level at which there is data on the dependent variable.

Even within volatility there are multiple potential measures, as indicated above. Here, my primary measure at the legislative level is based on changes in the number of seats held by parties from one election to the next. I calculate volatility for both the state assembly and for national parliament seats for each state. I prefer this measure to one based on votes because it

more directly emphasizes the risk of losing an election. At the constituency level, the best measure would be based on changes in the votes received by all participating parties.¹⁶

Potential confounders and additional explanations

The discussion above highlights that there are a wide range of factors that may influence the decision of state actors to engage in corrupt behavior. While I focus here on electoral competition, due both to space and data constraints, I have, where possible, included measures of additional potentially important independent variables, as well as measures of state characteristics that may be associated with both the level of electoral competition and the level of corruption, such that I want control for these variables in any statistical analysis.

Economic variables are considered to account for hypothesized relationships between economic development, measured by state domestic product per capita, and corruption as well as the relationship between fiscal space and electoral competition highlighted in Nooruddin and Chhibber (2008). These measures are calculated on the basis of data from the Reserve Bank of India. I also include a measure of the percent of a state's domestic product that is derived from

¹⁶ Unfortunately, the Election Commission of India provides data on the votes received only by the top two vote-getting parties in each constituency. As a result, it is only possible to calculate the measure on the basis of the top two parties in each election. This measure of electoral volatility may be flawed due to lack of data on parties receiving a smaller portion of votes. Because the Election Commission of India provides constituency-level vote tallies only for the top two vote getting parties, the measure may over estimate the level of volatility in three-party states. For example, if the Indian National Congress and the Bharatiya Janata Party are the top two parties in the 1991 election and the BJP and Janata Dal are the top two parties in the 1996 election, then this calculation assumes that the JD received no votes in the first election and that the INC received no votes in the second election, even though it is likely that each party did receive some votes. Thus, the measure of change in vote share will over estimate the votes lost by the INC and those gained by the JD in the second election. It may be possible to impute the votes received by third parties on the basis of total votes in an election, though this becomes more complicated in elections with more than three parties. I will explore potential revisions to this measure in future versions of the paper.

the primary agricultural sector, versus industrial production or services. Related arguments about links between social development and corruption are accounted for with a human development index, which incorporates a range of measures including literacy rates and life expectancy.

Population density, the number of people per square kilometer based on the 1991 and 2001 censuses, and a measure of historical land tenure patterns are also considered to account for hypotheses related to the effects of geography and the nature of landlord relations in the pre-colonial and colonial period on current governance outcomes (Banerjee et al. 2005; Banerjee and Iyer 2005). A summary of all the variables and their sources is provided in Table 3 and the correlations between variables are provided in Tables 4 and 5.

Table 3 – Data Summary Statistics and Sources

Variable	Observations	Mean	Standard Deviation	Minimum	Maximum	Source*
Low-level Corruption	19	.52	.22	0	1	1
Police	19	.48	.26	0	1	1
Schools	19	.41	.21	0	1	1
Hospitals	19	.51	.22	0	1	1
Land Admin.	19	.59	.24	0	1	1
Municipal Admin.	.19	.58	.24	0	1	1
Mid-Level Corruption – MPLADS	118	.46	.14	0	1	2
Electoral Volatility States 2004	15	38.71	21.86	6.04	70.00	3
Effective Number of Parties Seats	19	2.93	1.00	1.50	4.89	3
Effective Number of Parties Votes	18	4.7	1.6	2.48	9.68	3
Coalition Government	19	.42	.51	0	1	3
Victory Margin 1991	152	15.97	14.63	.08	86.86	3
Victory Margin 1996	156	11.86	10.12	.06	47.93	3
Victory Margin 1998	156	11.09	10.16	.01	73.41	3
Victory Margin 1999	156	11.34	9.80	.13	48.77	3
Average Victory Margin	156	12.48	7.30	2.57	44.38	3
Party Stronghold	156	.18	.39	0	1	3
Party Change	156	1.52	1.00	0	3	3
State Domestic Product per Capita 2004	19	740238.3	580016.2	208213	2977198	4, 5
Fiscal Space 2004	19	1.03	.17	.77	1.39	4

Primary Sector	15	.27	.07	.156	.407	6
Population Density	19	662.89	1396.60	93	6352	5
Land Tenure	16	.52	.39	0	1	7

*Sources: 1 = Transparency International India and Centre for Media Studies (2005), 2 = Government of India (2001), 3 = Election Commission of India, 4 = Reserve Bank of India, 5 = India National Census 2001, 6 = Bhattacharya and Sakthivel (2004), 7 = Banerjee et al. (2005).

Table 4 – Correlations Between Variables – Low-Level Corruption¹⁷

	Low-Level Corruption	Volatility	ENPS	ENPV	Coalition	SDP/capita	Fiscal Space	Primary Sector	Population Density	Land Tenure	HDI
Low-Level Corruption	1.0										
Volatility	.61	1.0									
ENPS	.26	-.06	1.0								
ENPV	-.02	.03	.68	1.0							
Coalition	.19	-.32	.85	.47	1.0						
SDP/Capita	-.60	-.10	-.27	-.09	-.42	1.0					
Fiscal Space	-.27	-.74	-.12	-.02	.14	-.06	1.0				
Primary Sector	.02	.21	-.04	.17	.04	-.37	-.20	1.0			
Pop Density	.36	.25	.50	.26	.43	-.33	-.48	.15	1.0		
Land Tenure	-.46	-.00	-.09	.06	-.24	.76	-.17	-.28	-.36	1.0	
HDI	-.48	.01	-.08	.17	-.25	.88	-.11	-.34	-.11	.68	1.0

Table 5 – Correlations Between Variables – Mid-Level Corruption

	MPLADS	Margin 1991	Margin 1996	Margin 1998	Margin 1999	Average Margin	Party Stronghold	Party Change
MPLADS	1.0							
Margin 1991	.14	1.0						
Margin 1996	.17	.38	1.0					
Margin 1998	.17	.17	.22	1.0				
Margin 1999	.05	.18	.14	.39	1.0			
Average Margin	.20	.75	.64	.63	.60	1.0		

¹⁷ In the interest of space, correlations with department-level corruption scores are not shown.

Party Stronghold	.03	.02	-.01	.26	.05	.11	1.0	
Party Change	.00	.05	-.01	-.16	-.03	-.04	-.74	1.0

Analyses and Findings

The following analyses consider the relationships between electoral competition, primarily operationalized as electoral volatility, and both low-level and politician-linked mid-level corruption. To preview the findings, bivariate scatterplots for the association between electoral volatility and both dependent variables, at the state level, are shown in Figures 4 and 5, with OLS trendlines.

Figure 4 – Low-Level Corruption and Electoral Volatility

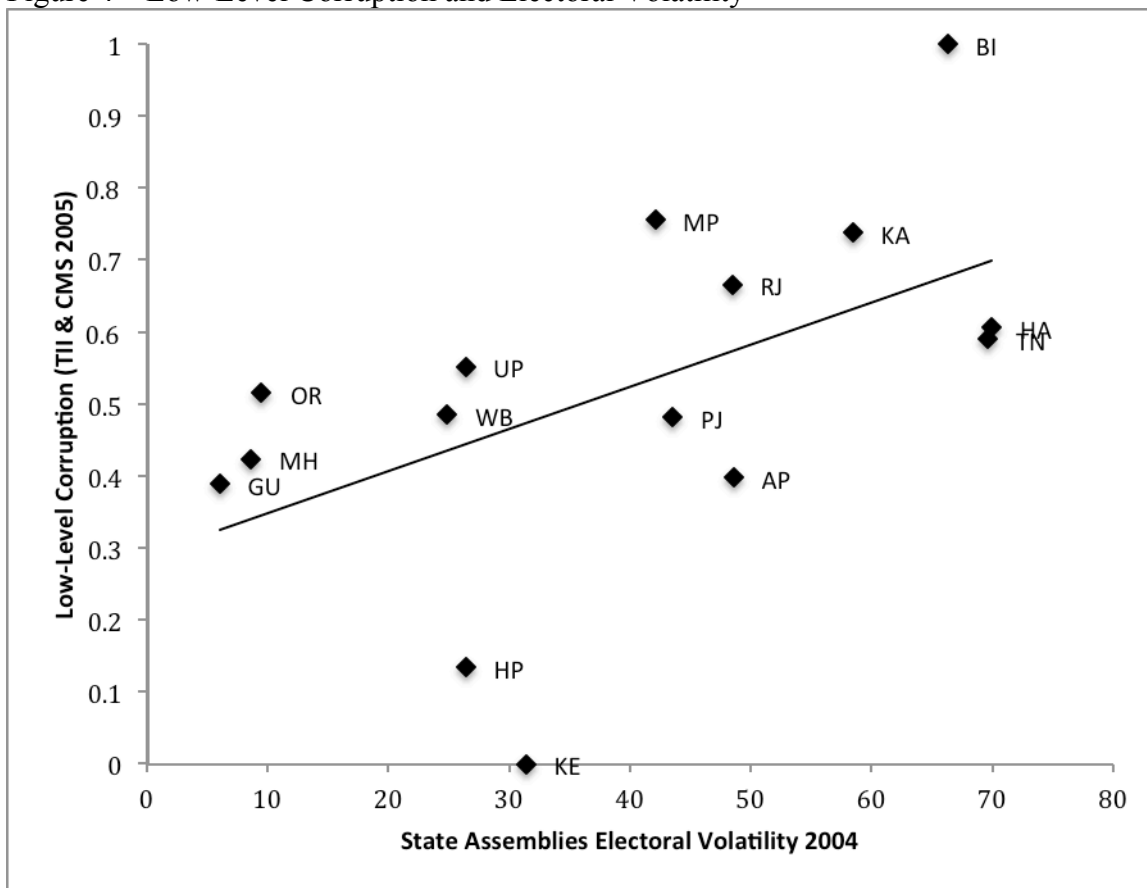


Figure 5 – Mid-Level, Politician-Linked Corruption and Electoral Volatility

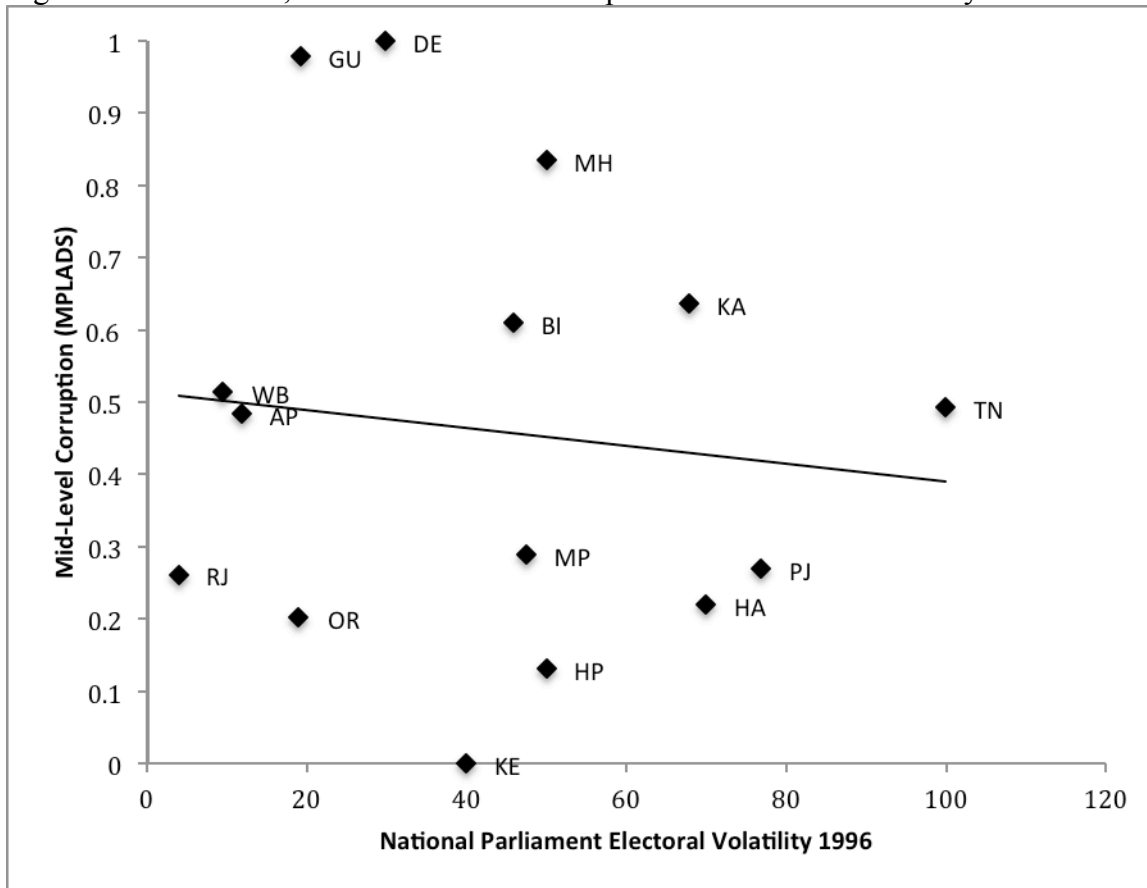


Figure 4 suggests that there is a linear and positive relationship between electoral volatility and low-level corruption. The association between volatility and mid-level politician-linked corruption is much less clear. The spread around the trendline in Figure 5 is much wider, slightly negative, and potentially heteroscedastic. There is thus less evidence in this case for a clear relationship between volatility and this type of corruption, which may be explained by the greater risk posed to politicians of being exposed for corrupt behavior in their own constituency development funds. The following analyses provide more rigorous tests of these observed trends.

Low-level corruption

The first set of analyses evaluates the relationship between electoral competition and low-level corruption, as measured by the citizen survey of experiences with and perceptions of corruption in government departments. Here, I provide tests using both the overall measure of corruption in the state and department-level measures in order to identify any differences in the predictors of corrupt activity across departments. Because data from the survey is only available for one year, and because it offers a state-level measure, the size of my sample is quite small. However, this implies that any statistically significant relationships found in the analysis reflect a particularly strong true relationship between the variables, given this model. In addition, this means that it is infeasible to include a large number of measures for potential confounders and alternative explanations. For the multivariate models, I selected variables for the model on the basis of their correlation with both electoral competition and the corruption measure or only the corruption measure. I present results only for the electoral volatility measure of corruption, as other measures, including the effective number of parties holding seats or votes and the presence of a coalition government, did not display strong correlations with low-level corruption.

The results of these models are shown in Table 6. I present models for the overall corruption index score and for the land administration department, which is one of the most corrupt departments in India, according to the survey. In all models, the level of electoral volatility displays a statistically significant relationship ($p < .05$) with low-level corruption in the predicted direction; higher levels of electoral volatility are associated with higher levels of corruption. A one percent increase in electoral volatility is associated with between a .004 and .008 increase in corruption on a scale from 0-1. These models are also a reasonably good fit to the data, with adjusted R-squared scores on the multivariate models ranging between .56 and .83.

Models for corruption in the police department and public hospitals display statistically significant relationships with electoral volatility at $p < .10$, while models measuring corruption in public schools and the municipal corporation do not show a strong relationship with electoral volatility (results not shown).

Table 6 – Low-level Corruption in India’s States

	Low-level Corruption Index – 1	Low-level Corruption Index – 2	Low-level Corruption Index – 3	Low-level Corruption Land – 1	Low-level Corruption Land – 2	Low-level Corruption Land – 3
Electoral Volatility (2004 state)	.006* (.003)	.005* (.002)	.004* (.002)	.008* (.003)	.007*** (.001)	.007** (.001)
SDP/ Capita 2004		.000 (.000)	.000 (.000)		.000 (.000)	.000 (.000)
Human Development		-.594* (.224)	-.031 (.345)		-.803*** (.157)	-.577 (.324)
Land Tenure			-.051 (.138)			
Primary Sector						
Population Density						
Constant	.289 (.116)	.493 (.164)	.641 (.150)	.292 (.121)	.511 (.115)	.524 (.141)
R ² _{adj}	.22	.56	.51	.34	.83	.75
N	15	15	13	15	15	13

Note: For all models, # = $p < .10$, * = $p < .05$, ** = $p < .01$, *** = $p < .001$

None of the measures of control variables exhibit robust relationships with low-level corruption. Economic conditions are not strongly related with corruption in any model, nor are historical land tenure patterns. The level of social development displays a statistically significant relationship with both the corruption index and corruption in land administration, but this result is not robust in all models. A larger portion of state income from the primary sector is robustly related to higher corruption in the police department.

Mid-level corruption

The second set of analyses evaluates the relationship between electoral competition and corruption in the Members of Parliament Local Area Development Scheme. In this case, it is possible that the effect of electoral competition to be muted, given that there is a greater risk that MPs themselves will be associated with any observed corruption in the implementation of the scheme. Because these projects are targeted at the constituency and so are implemented near to where voters for that politician live, the chances are reasonably good that citizens may observe indiscretions in these initiatives. The dependent variable, based on the MPLADS audit discussed above, is measured at the constituency level.

For these analyses, the only independent variables I am testing are a set of electoral competition measures. Because MP electoral constituencies do not perfectly align with administrative boundaries on which other data, such as average income or literacy rates, are collected, inclusion of constituency-level measures for these variables is a complicated task. While some previous analyses have developed related measures of public goods outcomes, the methodology is not perfect and requires potentially problematic assumptions about the share of districts in each constituency and the allocation of policy goods across parts of districts.¹⁸ Thus, I will restrict my analysis here to evaluating the basic relationship between mid-level corruption and electoral competition and save additional multivariate models for future analyses.

¹⁸ Banerjee and Somanathan (2007) develop public goods provision measures at the MP constituency level by mapping districts to constituencies. Districts that cross constituency borders have their outcomes weighted across the constituencies according to their relative geographic distribution. However, this was done based on a visual comparison of maps, not specific administrative data, and so is potentially limited both in its accuracy and in the assumption that the power of MPs to shape outcomes in a district is related to the proportion of the district that falls within their constituency.

In the first OLS regression, I evaluate the relationship between constituency-level electoral volatility, based on the number of votes received by the top two vote-getting parties in the 1991 and 1996 Lok Sabha elections, with the level of corruption in MPLADS spending during the period 1997-2000. I then use an alternate measure of electoral competition, the victory margin in a single election, to capture the perceived strength of the winning party during their immediate term of office. Finally, I replicate Keefer and Khemani's (2009) measure of party stronghold, to capture the ongoing strength of parties in a constituency during the period under which the dependent variable is measured.

Table 7 presents the results of these models, all of which use the MPLADS corruption score at the constituency level, scaled from 0-1, as the dependent variable. Important to note here is that a positive association between victory margin and corruption in this case implies a relationship in the opposite direction from a positive association between volatility and corruption. A larger margin means a stronger win for the ruling party, implying that they should feel more secure in office than a party observing high historical electoral volatility.

The findings here highlight a much weaker relationship between electoral competition and the level of corruption than observed for the low-level corruption models. The measure of electoral volatility displays no association with corruption. Victory margin does show some relationship, and this is strongest for the measure of average victory margin across the entire period (measures of single election victory margins are significant at the $p < .10$ level at best). The strength of the finding for average victory margin is interesting, as it implies that in those constituencies where the winning party, whoever that may be, tends to win with a large margin, politicians may feel more stable in office and so be more likely to engage in corrupt behavior for

which there is a reasonable chance that they will be held responsible. A one percent increase in average vote margin is associated with a .001 increase in MPLADS corruption on a 0-1 scale.

Table 7 – Mid-Level (MPLADS) Corruption in Parliamentary Constituencies

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Volatility (1996)	.000 (.000)							
Victory Margin (1991)		.001 (.001)						
Victory Margin (1996)			.002 [#] (.001)					
Victory Margin (1998)				.002 [#] (.001)				
Victory Margin (1999)					.000 (.001)			
Victory Margin (Average)						.003* (.002)		
Party Stronghold (all years)							.009 (.032)	
Party Stronghold (1996-1999)								.048 [#] (.026)
Constant	.448 (.020)	.440 (.019)	.432 (.019)	.438 (.018)	.455 (.019)	.416 (.024)	.458 (.014)	.445 (.015)
R ² _{adj}	-.00	.01	.02	.02	-.01	.03	-.01	.02
N	114	114	117	117	117	117	118	118

Party stronghold, which Keefer and Khemani (2009) found to have a strong negative association with the likelihood that MPs would spend their constituency development funds, does not display a clear relationship with corruption in MPLADS spending. If we consider party control only in the elections immediately prior to and during the period of time covered by the audit, we do observe a weak positive relationship ($p < .10$), suggesting again that MPs who felt more secure in their constituencies were more likely to support corrupt actions in the implementation of their development funds.

Finally, I test the relationship between corruption and a count of the number of times that a constituency has changed party hands over the period under consideration, which offers an

alternative measure of volatility at the constituency level, one that expands on the party stronghold measure. Keefer and Khemani's measure includes the 1991, 1996, 1998, and 1998 elections, so a party change measure over this period ranges from 0-3. This measure shows no relationship to mid-level corruption in an OLS regression, but some interesting patterns do emerge if we compare the mean corruption scores for those constituencies with different party change histories. In line with the other analyses in this section, I test the hypothesis that a higher number of changes should be associated with a lower level of corruption.

Table 8 presents the results of a modified model excluding five outlier cases that exhibited the highest and lowest scores on the MPLADS measure.¹⁹ A plot of all cases shows that these five constituencies displayed substantially different associations with party change than other cases. None of the models that include these cases display a statistically significant relationship between the variables (results not shown). When these cases are excluded, a somewhat perplexing pattern emerges. The relationship between corruption and electoral competition seems to differ at differing levels of competition. When we compare corruption between those constituencies with no changes or one change in power and those with two changes in power, the results are statistically significant and in the predicted direction. However, when we compare constituencies with no, one, or two changes in power to those with three changes in power, the direction of the relationship flips and is statistically significant (in the opposite direction) in two of these models.

¹⁹ This includes three cases from Gujarat, one of which scored the highest and two of which scored the lowest, one Delhi observation that scored the highest corruption, and Pondicherry, which also had the lowest score.

Table 8 – Mid-level (MPLADS) Corruption and Party Change

	Mean A	Mean B	Difference in Means
0 Changes – 1 Change	.44 (.01)	.48 (.02)	-.04 (.02) ^(#)
0 Changes – 2 Changes	.48 (.02)	.44 (.01)	.04 (.02)*
0 Changes – 3 Changes	.44 (.01)	.52 (.03)	-.08 (.04) ^(*)
1 Change – 2 Changes	.48 (.02)	.44 (.01)	.04 (.02)*
1 Change – 3 Changes	.48 (.02)	.52 (.03)	-.04 (.04)
2 Changes – 3 Changes	.44 (.01)	.52 (.03)	-.08 (.03) ^(*)

Note: In this table, asterisks and pound signs in parentheses indicate that the difference in means was statistically significant in the *opposite* direction to what was predicted.

Discussion and Conclusion

Overall, the findings of these empirical tests suggest that there is a relationship between electoral volatility and corruption in India, but that this relationship differs, and may even run in different directions, depending on the type of corruption being considered. The association between electoral volatility and low-level corruption is the most striking. States that observed higher electoral volatility in the two most recent state assembly elections as of 2004 were more likely to exhibit high levels of corruption, all else equal. This provides empirical support for an argument that where politicians, and parties, believe that there is a high risk that they will lose seats in an upcoming election, they will be more accepting of—and in theory may encourage—corrupt behavior on the part of bureaucrats. This seems reasonable under the assumptions that politicians will extract some portion of these rents to support their election campaigns and that they will feel insulated from the risk of being associated with corrupt actions because it is bureaucrats who most typically accept and demand these types of bribes and it is difficult for citizens to observe the role that politicians may play in encouraging this behavior.

The relationship between electoral competition and mid-level, politician-linked corruption is less explicit. Here, there is either no observable relationship or it is in the opposite direction, such that greater stability is related to higher corruption, rather than less stability. The

primary exceptions to this are the findings with regard to party change, which suggest that the relationship between electoral competition, or electoral volatility in particular, and this type of politician-specific mid-level corruption may require an even more nuanced interpretation. When politicians feel more stable in their positions, they may be reasonably likely to engage in corrupt activity with regard to the implementation of their constituency development funds, as this stability minimizes the risk to their chances of reelection if they are discovered. In this case, the demand for rents is less likely to be associated with the cost of elections, and rather with a non-electoral drive for increased income. However, when volatility is extremely high, such that the party in power in a constituency tends to change in every election, the risk of discovery may pale in comparison to the perceived demand for an aggressive election campaign that will require significant under-the-table funding sources. In this case, politicians may again be more likely to engage in corrupt behavior than when the threat to reelection is slightly less severe.

These findings suggest that the relationship between electoral competition and corruption is neither exclusively positive or negative. As previous analysts have suggested, the accountability engendered by democracy may indeed play a powerful role in encouraging politicians in competitive electoral environments to resist engaging in corruption, at least some of the time. However, competition also means uncertainty for politicians, uncertainty that can create incentives for corrupt behavior, so as to maximize both the benefits of office and the chances of retaining those benefits. A comprehensive understanding of the links between competition and corruption requires that we address the tradeoffs between these dynamics in for all types of corruption.

Given the generally poor fit of the models using the MPLADS measure of mid-level corruption, an additional question that emerges from the analyses: what else explains variation in

corruption in the implementation of the MPLADS program in particular, and, perhaps, in politician-linked mid-level corruption in general? This is where the broader perspective outlined above should serve as a useful guide to further analyses that attempt to uncover the role of additional, yet-to-be-tested, variables that may also shape portions of the decision-making process. In future analyses I plan to develop state- and constituency-level measures of related variables to further explore variation in multiple types of corruption.

This analysis is also limited by the fact that I do not currently have data available to test the relationships between electoral competition and the two other types of corruption discussed above, mid-level corruption that is not linked to politicians and high-level corruption (at both the state and national levels). For the former case, I am currently in the process of developing a set of measures based on audits of annual state-level financial reports, which should allow for analysis of corruption over time both across states and across departments within states. I am also exploring potential measures for the latter case, based on surveys of businesses and media reports, as well as a survey of politicians that will evaluate all types of corruption.

Despite these limitations, the evidence provided here offers support for a disaggregated view of corruption, one that emphasizes the varied actors participating in corrupt activities and their incentives for doing so. Without such a conceptualization, we risk measurement strategies and analyses that conflate the causes of different corruption types and thus distort any recommendations that might emerge from the analysis for policy reform. Future work should address these distinctions explicitly and further attempt to distinguish the ways in which politicians' actions may differ across rent-seeking opportunities.

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