Bribes, Campaign Donations, and Revolving Doors:

Endogenous Types of Special Interest Money

by

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Duke University

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Dissertation submitted in partial fulfillment of the requirements for the degree of
Doctor of Philosophy in the Department of Political Science
in the Graduate School of Duke University
2015
ABSTRACT

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Abstract

Special interest money enters politics in a number of ways: Politicians solicit contributions that help in their election campaigns; they enrich themselves while in office by accepting bribes; or, increasingly in many countries, they go through the “re-volving door” and take up lucrative post-government jobs in companies that were affected by their decisions in office. The central argument I make in this dissertation is that these different types of special interest money can act as functional substitutes and that their prevalence is a strategic choice. I examine this strategic choice theoretically and empirically, and provide insights into the consequences it has for policy and voters. I focus on two main factors: First, what consequences does the legal environment have? Second, what is the effect of the political environment?

Chapter 1 lays the theoretical groundwork. I study a formal model of political competition that determines whether and how special interest money enters politics. I show that laws criminalizing bribery or restricting campaign contributions lead to substitution effects and make other types of special interest money more common, in particular the revolving door. I also study the effect of legal restrictions on equilibrium policy and demonstrate that it only moves policy towards the median voter under certain circumstances. Higher political competitiveness leads incumbents to solicit campaign contributions, whereas the absence of competitiveness provides leeway for personal enrichment.
I test the effect of the legal and the political environment on the types of special interest money empirically, using newly assembled data from the world’s two largest democracies. Chapter 2 examines the effect of the degree of political competition on the choice between personal enrichment while in office and campaign spending in India. Making use of detailed mandatory asset disclosure data of state assembly members that run in consecutive elections, I show that candidates with ties to business groups increase their wealth to a higher degree when they are electorally secure. Conversely, they hold larger cash reserves, which are crucial in campaigns, the less electorally secure they are. Using a survey experiment, I show that the way special interest money is used matters to voters.

Chapter 3 asks where tougher regulations of money in politics comes from. I argue that political entrepreneurs running on an anti-corruption platform play an important role and provide a simple formal exposition of the conditions under which voters are willing to vote for them. The implications of the model are tested for one of the most successful electoral performances of an anti-corruption party of our time: the 2013 debut of the Aam Aadmi Party (AAP) in state elections in Delhi in India. Analyzing three rounds of pre-election surveys with a total of more than 40,000 respondents and election outcomes at the polling-booth level, I provide empirical support for the central insights of the formal model.

Finally, in Chapter 4 I study the effect of stricter regulations of bribery and campaign contributions on the revolving door, exploiting regulatory variation among the 50 state legislatures of the United States. Using a series of multilevel regression models, I show that former legislators are more likely to go through the revolving door and become lobbyists in states that make politicians less dependent on campaign contributions from special interests and that make it harder to earn money while in office. This suggests that politicians’ movement into the private sector upon exiting office can act as a substitute for other types of special interest money.
Für meine Eltern
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Introduction

On February 2, 2011, A. Raja was arrested by India’s Central Bureau of Investigation, completing the former minister’s of Communications and Information Technology fall from grace. During his tenure in office from 2007 to 2009, he was responsible for overseeing the allocation of 2G cellphone spectrum licenses. Accusations that this was not done in a transparent manner quickly surfaced. Prosecutors allege that Raja arbitrarily advanced the deadline by a few days, thereby eliminating a large number of applicants, and that he redefined the first-come first-served policy to favor specific companies. He is accused of accepting bribes in excess of $500 million and storing them in offshore accounts.\(^1\) While Raja’s case is particularly egregious, it is by no means exceptional in India. Besides the “2G scam,” there is also the “Coalgate scam” involving the allocation of coal blocks at throwaway prices, the “Commonwealth Games scam” surrounding construction of sports venues in Delhi, the “NRHM scam” related to health care delivery in rural Uttar Pradesh, the disproportionate assets conviction against former Tamil Nadu Chief Minister Jayalalithaa, and many more. Given this prevalence of cases, it is not surprising that a significant anti-corruption movement has emerged in India in recent years.

But neither the mass demonstration movement nor cases of politicians accepting large amounts of bribes are unique to India. In recent years, protesters in Brazil,
Spain, Ukraine, or Greece have also voiced their anger about how money allows wealthy individuals and special interest groups to exert a disproportionate influence on policy at the expense of ordinary voters. This frustration is not without reason, as revelations of how politicians used their position to personally enrich themselves abounded in the past few years. For example, former Greek defense minister Akis Tsochatzopoulos is accused of pocketing kickbacks worth at least $26 million.\(^2\) And in Brazil, one third of the members of Congress currently face trial on various charges, many of which involve personal enrichment.\(^3\)

But public outrage over the role of money in politics is not restricted to countries such as India, Greece, or Brazil that are notorious for their political corruption. Figure 1 plots the percentage of respondents in the most recent survey of Transparency International that thought their government is to a large extent or entirely run by a few big interests looking out for themselves. It shows that many voters in countries like Germany, the U.K., or the U.S. also think special interests have a lot of influence (Transparency International, 2013). And indeed, members of the “Occupy” movement in the U.S. and many Western European countries struck a very similar note as protesters in Greece, India, or Brazil, despite the fact that the former countries have stricter and better enforced anti-corruption laws. Why are these laws apparently not very successful in eliminating the influence of special interest groups?

One answer, of course, is that bribes are not the only way in which special interest money can enter politics. Campaign contributions feature prominently in most democracies. For example, former U.S. Representative Walt Minnick of Idaho stated in an interview that “I needed to raise $10,000 to $15,000 a day, and you only do it by elbow grease. (…) I would spend two or three hours a day as a congressman

\(^2\) http://www.nytimes.com/2012/05/03/world/europe/akis-tsochatzopoulos-corruption-case-hits-hard-in-greece.html

trying to raise money.” This is confirmed by Illinois Senator Dick Durbin: “I think most Americans would be shocked – not surprised, but shocked – if they knew how much time a United States senator spends raising money. And how much time we spend talking about raising money, and thinking about raising money, and planning to raise money. And, you know, going off on little retreats and conjuring up new ideas on how to raise money.”

But there are also still ways to get rich from politics, just with a little delay. In September 2005, Germany’s then-chancellor Gerhard Schröder signed an agreement to build a gas pipeline between Russia and Germany despite considerable opposition even within his own party. Only 17 days after leaving office in November 2005,

\[4\] http://www.thisamericanlife.org/radio-archives/episode/461/transcript
he accepted a position as board chairman of the consortium building the pipeline.\textsuperscript{5} Such so-called revolving door arrangements, where politicians take up lucrative post-government jobs in companies that were affected by their decisions in office, are increasingly common.

These examples are not isolated cases in the countries they are taken from. Politicians vastly increasing their personal wealth by accepting bribes are common in India, as they are in many other countries. Every two years, billions of dollars of campaign contributions are solicited and spent in U.S. elections. And Schröder is not the only German politician who took up a lucrative private sector job upon leaving office, more than a third of his cabinet did as well.\textsuperscript{6} At the same time, there is no revolving door in India and suitcases full of cash delivered to politicians are no longer happening in the Germany or the U.S., some notable exceptions aside. This raises the central questions I will answer in this dissertation: Is there something systematic about the way special interest money enters politics? When do politicians enrich themselves while holding office through bribes? Under what circumstances is the enrichment delayed until after they leave office and comes in the form of a revolving door job? When do politicians prioritize keeping their job and solicit campaign contributions in an effort to maximize their chances of winning reelection? And what effect does all of this have on policy, voters, and democratic representation?

Money and Politics

Political connections pay. Studies looking at countries all over the world consistently show that firms which in some way invest in having access to important political actors reap substantial benefits from it. This is true cross-nationally (Faccio, 2006; \textsuperscript{5} www.time.com/time/magazine/article/0,9171,1142152,00.html and www.washingtonpost.com/wp-dyn/content/article/2005/12/09/AR2005120901755.html \textsuperscript{6} https://www.lobbycontrol.de/download/drehtuer-studie.pdf)
Faccio, Masulis and McConnell, 2006) as well as for countries as different as India (Sukhtankar, 2012), Brazil (Claessens, Feijen and Laeven, 2008; Boas, Hidalgo and Richardson, 2014), Thailand (Bunkanwanicha and Wiwattanakantang, 2009), Pakistan (Khwaja and Mian, 2005), Indonesia (Fisman, 2001), Nazi Germany (Ferguson and Voth, 2008) Denmark (Amore and Bennedsen, 2013), and the United States (Richter, Samphantharaj and Timmons, 2009; Bonica et al., 2013; Huber and Kirchler, 2013; Gaikwad, 2013; Gilens and Page, 2014). Economic theory and evidence suggests that this rent-seeking collusion between politicians and private actors causes distortions that are detrimental for society as a whole and affect growth negatively (e.g. Tullock, 1967, 1990; Barro, 1973; Krueger, 1974; Becker, 1983; Murphy, Shleifer and Vishny, 1993; Mauro, 1995).

Consequently, the interaction between politicians and special interest groups is one of the more widely studied topics in Political Science as well as Economics. However, the literature largely skirts the questions asked above. This is because both formal-theoretical as well as empirical studies tend to fall into one of two camps. The first camp treats the interaction between interest groups and politicians as a black box and does not specify in what way the money of the former reaches the latter. Studies in the second camp are explicit about the type of special interest money. However, they look at the different mechanisms in isolation, one at a time. Table 1 demonstrates this by providing an overview of the literature on exchanges between politicians and special interest groups.

Many contributions do not explicitly specify the mechanisms through which the collusion between politicians and special interest groups occurs. In many formal models, special interest groups are thought to spend some resources on what is broadly termed “lobbying”, and politicians value this expenditure in some way and react by changing legislation in the group’s favor. This black box approach is used to investigate e.g. taxes and transfers policy (Dixit, Grossman and Helpman, 1997),
Table 1: Overview of studies on exchanges between politicians and special interest groups.

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<thead>
<tr>
<th>Study Type</th>
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<td>Bental and Ben-Zion (1975)</td>
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<td>Boas, Hidalgo and Richardson (2014)</td>
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<td>Revolving Door</td>
<td>Salisbury et al. (1989)</td>
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differences between parliamentary and presidential systems (Persson, Roland and Tabellini, 2000), and the effect of interest groups’ budget constraints and legislators’ preferences (Dekel, Jackson and Wolinsky, 2009). Similarly, much of the empirical literature on special interest influence uses indicators like Transparency International’s Corruption Perception Index that combine different forms of political (as well as non-political) corruption (see Treisman, 2007). Again, the interaction between politicians and special interest groups remains a black box.

If this black box is opened and the mechanism of interaction is examined in more detail, studies usually look at only one type at a time. Because campaign contributions play such an important role in the American political system, there is a large amount of theoretical and empirical work devoted to it. Most of the theoretical studies view campaign contributions as one part of an exchange relationship. Special interest groups make donations to politicians who in response “distort” policy. Politicians, in turn, use the campaign contributions to try to persuade voters to cast their ballot for them. This mechanism is most clearly articulated by Grossman and Helpman (1994, 2001), but features in many other prominent models of lobbying and campaign contributions (Ben-Zion and Eytan, 1974; Bental and Ben-Zion, 1975; Denzau and Munger, 1986; Persson and Tabellini, 2000; Prat, 2002; Ashworth, 2006).

Empirical studies on the determinants and effects of campaign contributions abound, especially in the United States. For example, Gawande and Bandyopadhyay (2000) find empirical support for the Grossman-Helpman model. They demonstrate an exchange of campaign contributions for policy favors in the context of trade protection for different industries. Mian, Sufi and Trebbi (2010, 2013) show the effect of campaign contributions by the mortgage industry on representative’s support for policy towards subprime mortgage credit expansion in the lead-up to the financial crisis and on the Foreclosure Prevention Act in 2008. Huber and Kirchler (2013) find that companies which made higher contributions to the eventual winner experienced
abnormal positive stock returns in the aftermath of U.S. presidential elections. Jayachandran (2006) uses the surprising defection of Jim Jeffords in 2001 that tipped party control in the U.S. Senate towards the Democrats to show that firms which donated more to the Republican party experienced a sizable loss in market capitalization. Gaikwad (2013) finds a similar effect for Democratic donors after the assassination of Osama Bin Laden. Campaign contributions and policy are not only related in the United States but elsewhere as well, for example in Brazil (Claessens, Feijen and Laeven, 2008; Yadav, 2011; Boas, Hidalgo and Richardson, 2014), Japan (Cox and Thies, 2000), Italy (Golden and Chang, 2001), India (Yadav, 2011) and various European countries (McMenamin, 2012).

Especially in developing countries, a common form of special interest money are bribes, understood as payments that provide personal material benefits to a politician in office (Ades and Di Tella, 1999; La Porta et al., 1999; Treisman, 2000, 2007). The canonical model is provided by Shleifer and Vishny (1994), who investigate bargaining between firm owners and politicians, where the firm can either be public or private. Politicians trade off between bribes and excess employment. Other studies examine more specific questions. For example, Myerson (1993), Helpman and Persson (2001), and Alt and Lassen (2003) study the effect of electoral systems and other political institutions on the bribery of politicians. Bribes in the framework of a citizen candidate model are considered by Besley and Coate (2001) and Felli and Merlo (2006). Snyder and Ting (2008) study the effect of bribery on candidate quality. Finally, Dal Bó, Dal Bó and Di Tella (2006) look at a pressure group’s choice between rewarding politicians for providing policy favors using bribes or violent punishment for failing to provide favors.

Due to the obvious data limitations, the empirical literature on bribing politicians is rather small. One approach is to use the perception measures of Transparency International or the World Bank (e.g. Persson, Tabellini and Trebbi, 2003; Kunicova
and Rose-Ackerman, 2005). Besides well-known problems with using perceptions of illicit behavior (Olken, 2009), such indices combine different forms of political as well as non-political corruption. In recent years, the focus has therefore shifted to single-country studies that look at actual bribes. The most prominent approach is to infer them indirectly from consumption patterns or politicians’ asset growth (Di Tella and Weinschelbaum, 2008). Querubin and Snyder (2013) use census data and a regression discontinuity design of close elections to show that the wealth of U.S. Congressmen increased during the civil war, but not before or after. Using a similar research design and mandatory asset disclosure affidavits of Indian politicians, Fisman, Schulz and Vig (2014) demonstrate that the wealth of election winners increases by 3 to 5 percent more than that of runner-ups. The effect is more pronounced in states known for high levels of corruption and for candidates that become ministers (see also Bhavnani, 2012). Ferraz and Finan (2008, 2011) use randomized audit reports from Brazil to study incumbent enrichment. Bussell (2012) leverages an audit of the usage of local area development funds by Indian members of parliament to develop a measure of high-level corruption. Authors also have used survey experiments to gain insight into the flow of bribes (Bussell, 2013).

Finally, incidences of politicians who take up lucrative employment in companies that were affected by their decisions in office receive a lot of attention in the press. In the social sciences, there is a small but growing literature examining this phenomenon. Theoretical models that study the move of politicians into the private sector, however, focus on cases where the remuneration for the job outside politics is set exogenously and unrelated to decisions in office (Besley, 2004, 2005; Diermeier, Keane and Merlo, 2005; Mattozzi and Merlo, 2008; Keane and Merlo, 2010).\(^7\)

\(^7\) A few contributions model the revolving door in the context of regulators and regulatory performance, see Che (1995); Salant (1995); Dal Bó (2006).
Empirical work focuses on the movement of politicians into the lobbying sector in the United States. These positions are very lucrative, providing compensation many times higher than legislator salaries (Palmer and Schneer, 2015). The central question in the literature is whether such revolving door lobbyists are valuable to interest groups because of their expertise or because of their connections within the legislature. Earlier studies find that revolving door lobbyists have more expertise and better knowledge than their career lobbyist counterparts (Salisbury et al., 1989; Heinz et al., 1993; Esterling, 2004; Parker, 2008). This may help in crafting laws that are of higher quality and thus lead to better outcomes for citizens. Recent work, however, presents evidence that politicians instead are mostly sought after because of their extensive networks of connections within the legislature (Blanes i Vidal, Draca and Fons-Rosen, 2012; Bertrand, Bombardini and Trebbi, 2014; LaPira and Thomas, 2014). These findings point to a less innocuous role of revolving door lobbyists. Either way, the political science literature so far has focused almost exclusively on the question of how lobbyists with prior experience in politics benefit interest groups. We know very little about when and why politicians find it in their interest to join the world of lobbyists. Outside of the United States, the movement of politicians into the private sector after leaving office is little studied. One exception is provided by Eggers and Hainmueller (2009). They show that members of the Conservative Party in the U.K. who won a seat in parliament tripled their probability of becoming director of a publicly traded firm, leading to substantially higher net worths at the time of their death. Recently, Musell (2014) shows that many presidents and prime ministers have an active and lucrative career after leaving office.

Strategic Choice of Types of Special Interest Money

The discussion on the previous pages has shown that there are many studies examining the intersection between special interest groups and politics. But they either
treat it as a black box, or they look only at bribes, only at campaign contributions, or only at the revolving door. While all of these parts of the literature provide important insights that advance our understanding of special interest politics, what stands out is how little they speak to each other. But bribes, campaign contributions, and revolving door jobs have many things in common. Each allows wealthy individuals or special interest groups to gain access to political actors and to potentially influence their policy decisions. Politicians, in turn, benefit as well, be it through additional income or a higher probability of winning elections and enjoying the spoils of office. The central argument I make is that bribes, campaign contributions, and revolving door jobs are different ways in which special interest money enters politics, that they can act as functional substitutes, and that their prevalence is a strategic choice.

In the four chapters of this dissertation, I examine this strategic choice theoretically and empirically. I show under what conditions politicians accept special interest money in the form of a bribe to personally enrich themselves while in office; when they give priority to improving their chance to win reelection and therefore solicit campaign contributions; and when they treat political office not as an end but as a means to move into a lucrative revolving door job. I focus on the effects of two main factors that affect the choice among those three types of special interest money. First, what consequences does the legal environment have? I argue that laws which criminalize bribery or restrict campaign donations lead to substitution effects: While they decrease incidents of the type of special interest money that is regulated, they lead to the other types becoming more common. In particular, they give rise to the revolving door – a form of exchange that is difficult to regulate in democratic societies that value the freedom of occupation. Second, what is the effect of the political environment? I argue that when political competitiveness is high and the incumbent expects to be in a close race for reelection, her priorities are to raise campaign contributions. If she has a systematic electoral advantage or disadvantage, the marginal
effectiveness of campaigning is smaller, leading her to prioritize personal enrichment in the form of bribes or a revolving door job. In addition to giving a systematic account of the conditions under which each type of special interest money is present, I also provide insights into the consequences this has for policy and voters.

This dissertation makes a number of core contributions. First and foremost, it provides analytical clarity by integrating bribes, campaign contributions, and revolving door jobs in a common framework. It therefore starts to bring together lines of inquiry that reside in disconnected silos and rarely speak to each other. This contributes to a modest but growing literature on the strategic choice between different ways of special interest influence that has started to develop in recent years. Most contributions focus on the choice between trying to change the rules through officially lobbying politicians, or circumventing them by bribing bureaucrats (Campos and Giovannoni, 2007; Naoi and Krauss, 2009; Bennedsen, Feldmann and Lassen, 2009; Harstad and Svensson, 2011). The logic that special interests can influence rules through various channels and that this decision is a strategic choice can be extended to the political realm. For example, Kaufmann and Vicente (2011) theoretically and empirically differentiate between illegal and legal corruption. Gingerich (2014) studies the choice between personal corruption (looting), and political corruption (usage of public resources for electoral gain) in a model of non-consolidated democracies. Empirically, Nyblade and Reed (2008) analyze event data from Japan and find that scandals relating to illegal activity for personal gain are more likely for less experienced and less electorally secure politicians, whereas election law violations (illicit acts for electoral gain) are more common among electorally insecure candidates and those who face intra-party competition. The dissertation relates to and expands upon this literature by examining the three most common types of special interest money in a single framework. It is the first to systematically integrate the revolving door and to provide evidence that it indeed is a way in which
interest groups can compensate politicians. The dissertation also draws attention to the substitution effects between those types, which have not been well understood to date.

Examining the presence of absence of bribes, campaign contributions, and revolving door job and the substitution effects between them is important in its own rights. The second major contribution of the dissertation, however, is that it goes beyond this and examines the effects of the different types on policy and voters. I show theoretically that stricter and better enforced laws against bribery and campaign contributions do not necessarily lead to government policy closer to the median voter. In the normative best case scenario, the substitution effects severely limit the effectiveness of a policy designed to limit special interest influence. In the worst case, stricter penalties can lead to policy further away from the median voter by pricing out financially less powerful interests that provide a counterpoint to wealthy groups. I also show that from a voter’s perspective, not all types of special interest money are alike. For example, in many countries campaign spending provides tangible benefits to voters in the form of clientelistic handouts. While this way of fighting elections may not be preferable to programmatic competition, there is a case to be made that it provides greater benefits to society than a situation in which politicians use their office for personal enrichment.

All of this has implications for institutional design and public policy. The recent mass protest movements all over the world have made it clear that the influence of special interests on the political process is of great concern to many people. The enthusiasm following the fall of the Soviet empire and the resulting third wave of democratization has given way to concerns about the retrenchment of democratic representation, about crony capitalism and governments controlled by the wealthy few at the expense of the masses. For example, the governor of the Central Bank of India, Raghuram Rajan recently wondered “whether we had substituted the crony
socialism of the past with crony capitalism.” And the American author David Simon contends that “the last job of capitalism – having won all the battles against labor, having acquired the ultimate authority, almost the ultimate moral authority over what’s a good idea or what’s not, or what’s valued and what’s not – the last journey for capital in my country has been to buy the electoral process, the one venue for reform that remained to Americans.” As a consequence, calls for policies aimed at preserving and increasing democratic representation have come to the forefront again in recent years. But all too often, the discussions about anti-corruption agencies, public campaign finance, or term limits are dominated by simplistic narratives about how such policies would limit the influence of special interest money. But to effectively increase democratic representation, it is paramount to understand the political and institutional conditions under which different forms of special interest money are prevalent, and what effect changing parameters will likely have on each type. Most importantly, simple reforms that only address one of them may fail to reduce policy bias and instead simply trigger a shift to a different mode of exchange, or even make things worse.

Outline of the Dissertation

The dissertation consists of four parts. Chapter 1 lays the theoretical groundwork. I study a formal model of political competition that determines whether and how special interest money enters politics. I focus on the effects of two main factors that affect special interest influence and the prevalence of bribes, campaign contributions, and revolving door jobs. First, what consequences does the legal environment have? I show that laws criminalizing bribery lead to substitution effects in that

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9 http://www.theguardian.com/world/2013/dec/08/david-simon-capitalism-marx-two-americas-wire
campaign contributions and revolving door jobs become more common. If there are also restrictions on campaign contributions, the revolving door becomes even more common. This leads to the empirical prediction that politics as a stepping stone towards a lucrative private sector job is most common in countries that regulate special interest money the most. I also show the effect of legal restrictions on equilibrium policy. Criminalizing bribes and campaign contributions raises the amount of money that pressure groups need to spend, potentially pricing them out of the political marketplace. The effect on government policy is ambiguous and depends on the number of interest groups, their policy positions, and the resources at their disposal. Second, what is the effect of the political environment? I show that when political competitiveness is high and the incumbent expects to be in a close race for reelection, her priorities are to raise campaign contributions. If she has a systematic electoral advantage or disadvantage, the marginal effectiveness of campaigning is smaller, leading her to prioritize personal enrichment in the form of bribes or a revolving door job. This leads to the empirical prediction that electorally secure candidates use their access to special interest money to enrich themselves, while marginal candidates use it to bolster their chances of winning reelection.

Then, I test the effect of the legal and the political environment on the types of special interest money empirically, using newly assembled data from the world’s two largest democracies. In Chapter 2, I test the effect of the degree of political competition on the choice between personal enrichment while in office and campaign spending in India. I make use of detailed mandatory asset disclosure data of members of state assemblies that run in consecutive elections. Because regulations regarding elections and money in politics in India are made at the federal level, I am able to hold them constant while exploiting variation in the competitiveness of the electoral districts. To isolate the effect of special interest money, my research design exploits the fact that one of India’s major political parties, the Communist Party of India
(Marxist) (CPM), is known to not have close (financial) ties to business groups. I use nearest neighbor matching for the first election to pair CPM members with comparable politicians that represent other major parties and therefore have access to special interest money. Then, I compare their assets stated in the affidavits before the second election. I show that candidates who can expect to be reelected easily and have ties to business groups increase their personal wealth (proxied by the number of motor vehicles) substantially over the course of a legislative period compared to their CPM counterparts. Conversely, there are no differences in the development of personal wealth between candidates with and without business ties for those that won office by a narrow margin and can therefore expect to face tough reelection fights. Consistently, I show that incumbents with access to special interest money who won by a narrow margin hold much larger cash reserves, which are crucial in Indian election campaigns, than their colleagues who won with a clear plurality. Taken together, this points to marginal candidates investing special interest money to maintain their job, while more secure incumbents have sufficient leeway to enrich themselves. In the final part of the chapter, I show that this matters to voters. Using an original survey experiment, I demonstrate that voters are consistently more tolerant towards politicians who accept illegal special interest money but use it for vote buying efforts which benefit voters through clientelistic goods, compared to politicians who use special interest money to enrich themselves.

In the final two chapters, I turn to the legal environment and its effect on special interest politics. Chapter 3 asks where tougher regulations of money in politics comes from. I argue that political entrepreneurs running on an anti-corruption platform play an important role and provide a simple formal exposition of the conditions under which voters are willing to vote for them. I decompose voters’ decision calculus into three components. First, a political entrepreneur promising limitations on the role of money in politics has support among citizens unable to benefit from
corrupt exchanges (push factors). In particular, this means the young and the poor are a natural support base for anti-corruption politicians. Second, however, voters are less likely to support an anti-corruption party if they receive clientelistic benefits from the established parties (pull factors). Since the poor (as well as rural voters) are the prime beneficiaries of clientelism, this means they are exposed to countervailing forces. Because the wealthy are able to afford bribes that give them access to government services and do not derive much utility from clientelistic handouts, they are likely to support status quo parties. Finally, anti-corruption candidates are less likely to receive support from voters who place emphasis on other factors in casting their vote, for example descriptive representation in terms of religion or ethnicity. The implications of the model are tested for one of the most successful electoral performances of an anti-corruption party of our time. In December 2013, the Aam Aadmi Party (AAP) gained almost 30 percent of the vote in state elections in Delhi in India. I use two sources of novel data. First, I look at vote intentions by analyzing three rounds of pre-election surveys with a total of more than 40,000 respondents. Second, I analyze the election outcomes at the polling-booth level, using demographic data derived from the electoral rolls as well as from GIS analysis. Both data sources confirm the insights of the formal model.

Finally, in Chapter 4 I study the effect of stricter regulations of bribery and campaign contributions on the revolving door. The literature thus identifies characteristics of legislators – expertise or connections – as the driving force behind the revolving door. However, these existing studies focus on the U.S. Congress in Washington. They are thus unable to examine the role of regulation and institutions, which according to the model should play a crucial role in determining which type of special interest is prevalent. I address this shortcoming by analyzing differences in how common the revolving door is in the 50 state legislatures of the United States. The highest rate can be found in Texas, where almost 28 percent of former legis-
lators moved into the lobbying profession. The state with the lowest rate is New Hampshire, where less than 3 percent of former legislators become lobbyists. I show that state regulations of the flow of special interest money can help explain these differences. For all state-level Senators and Representatives who left office between 2000 and 2009, I use lobbying registration records to determine whether they took up a post-politics lobbying position. I combine this with data on state regulations of money in politics as well as information on the legislators, their parties, and the legislatures they were members of. Using a series of multilevel regression models, I show that former legislators are more likely to go through the revolving door and become lobbyists in states that make politicians less dependent on campaign contributions from special interests and that make it harder to earn money while in office. This suggests that politicians’ movement into the private sector upon exiting office can act as a substitute for other types of special interest money. The finding complements the existing literature that has focused on individual characteristics of legislators by stressing the importance of the institutional context they are embedded in.
1

A Formal Model of Endogenous Types of Special Interest Money

1.1 Introduction

In recent years, many democratic countries have seen large-scale societal protest movements. While each of them put forward a different list of grievances, a common thread in many of them was frustration with the importance of money in the political system. The *India Against Corruption* movement demanded the passage of the “Jan Lokpal Bill” to establish an independent anti-corruption ombudsman. In Greece, a “people’s assembly” of demonstrators demanded that corrupt politicians should be sent to jail. Similar demands were made by the 15-M movement in Spain. And in Brazil, demonstrators objected to a proposed constitutional amendment called PEC-37 that would limit the ability to investigate officials.

But anger with the perceived outsize role of special interests in the political process was not limited to countries that have a reputation for being corrupt. Figure 1 in the introduction has shown that voters in countries with relatively strict and well enforced anti-corruption laws *also* think their government is controlled by special
interest groups, and members of the “Occupy” movement in the U.S. and many Western European countries struck a very similar note as protesters in India or Brazil.

While special interests seemingly manage to influence policy in many countries, the way they do so varies. In some cases, politicians accept bribes. In others, campaign donations are a priority. And in other cases still, politicians swiftly move through the revolving door upon leaving office, accepting lucrative positions in companies affected by their decisions in office. In this chapter, I lay the theoretical groundwork for the dissertation. I present a theoretical model that examines these three types of special interest money in conjunction. I study two questions: Does a politician set policy to a pressure groups’ ideal point and accept special interest compensation? And, if so, in what way is she compensated for it?

The formal model focuses on an incumbent politician who has the choice between setting policy to the ideal point of the median voter or to the ideal point of a special interest group. If she sets policy to the latter, electorally non-optimal position, she is “compensated” by way of bribes (material benefits while in office), campaign contributions (increased electoral prospects), and/or post-tenure employment in the private sector. The incumbent optimally choses her policy position as well as the type or types of compensation, if appropriate. I start by studying a benchmark model in which there are no legal restrictions on special interest money and the incumbent neither has an electoral advantage or disadvantage, so political competitiveness is high. I then examine the effect of the legal and the political environment. For the former, I first study the effect of criminalizing enrichment in office through bribes. Second, I add restrictions on accepting campaign contributions. In both cases, I show how penalizing these types of special interest money leads to substitution effects towards other forms. I also examine under what circumstances such reforms are successful in limiting the influence of monied interests. Then, I turn from legal to
political factors. To examine the effect of political competitiveness, I introduce an *a priori* valence difference between the incumbent and her challenger. Finally, I add a number of theoretical extensions, focusing on the role of political parties as well as term limits.

### 1.2 Model Setup

I study a two-period model that focuses on an incumbent politician. She decides on a single policy, and there is a special interest group that tries to influence this decision. The incumbent competes in an election against a challenger. A continuum of voters chose the candidate based on their policy positions, campaign efforts, and a random valence shock that is unknown ex ante. Special interest groups trade off a policy concession for compensation in the form of a campaign contribution, a bribe, and/or a revolving door job. The incumbent politician chooses a policy position and the form of compensation to maximize her lifetime utility. I deliberately start out by focusing on a stripped down version in which there are no penalties for bribing or campaign expenditures. This provides a benchmark against which the results can be compared when assumptions are relaxed.

In the first period, an incumbent politician $I$ is exogenously put in office. She chooses a policy position $x_I$, which cannot be modified in the future. To keep the model simple, $x_I \in \{0, 1\}$, where 0 is the ideal policy of the median voter, and 1 is the preferred policy of the special interest group. The special interest group tries to influence the policy by offering monetary compensation $m_I$ if $x_I = 1$. The politician decides whether to set the policy position to the interest group’s ideal point. If she does, she also decides on the distribution of the monetary compensation between campaign spending, personal enrichment, and a salary for a revolving door job.

Two qualifying points about how the model maps onto reality are in order. First, the exchange between politicians and interest groups is modeled as a direct *quid*
pro quo. Of course, in most cases the way in which interest groups remunerate politicians for policy favors is much more subtle. Lessig (2011) describes a long-term “gift economy,” in which campaign contributions or gifts indebt politicians to interest groups and policy favors indebt interest groups to politicians, perpetuating a continuous exchange (see also Fox and Rothenberg, 2011). Teachout (2014) expands: “Quids and quos are not named, but the general obligations are broadly understood, and failure to conform to the expectations of the gift economy leads to gifts drying up” (Teachout, 2014, 253). The quid pro quo mechanism should thus not be seen as a literal description of reality, but instead as a simplifying assumption in the spirit of well-known models of special interest influence (e.g. Grossman and Helpman, 2001). What matters is that the model captures the trade-off between an electorally suboptimal policy preferred by the special interest group and the opportunity to obtain direct or indirect monetary compensation.

Second, the distribution of the compensation between campaign spending, personal enrichment, and a salary for a revolving door job should also not be taken as a literal description of reality. Politicians do not explicitly express that they, for example, are foregoing a bribe or a campaign contribution to instead take up a lucrative job in the private sector upon leaving office. Instead, politicians might make their preferences clear by hinting to a certain company that their expertise could be a valuable addition. Again, in reality this is very much an implicit exchange, based on a mutual understanding and accumulated reputational capital. The important point is that the model captures the fact that interest groups have a finite amount of resources to expend and that there is a trade-off between the different mechanisms.

After the first period, a challenger $C$ appears and an election takes place. The voters cast their ballot based on the policy, the campaign efforts, and a valence term that is known to the voters but not the politicians. If $I$ wins, its policy is implemented. If $C$ wins, it takes over the government. Depending on the outcome of
the election and the way the incumbent allocated the special interest compensation, she either takes office for a second term, moves to a revolving door job, or returns to her original (non-political) occupation. I assume that there is no commitment problem, so the special interest group will employ the politician and pay her salary even though she is no longer in office.\footnote{This can be motivated by observing that the model presented here only looks at two periods that are part of an infinite horizon game in which special interest groups interact with parties represented by different politicians. If incoming politicians employ a trigger strategy in which the policy of an interest group that did not employ a previous politician even though it received the policy benefits is set to zero forever, it is optimal for special interest groups to employ politicians if the future is valued high enough. In non-technical terms, special interest groups have an interest in maintaining a reputation for employing ex-politicians to continue influencing policy.}

1.2.1 Special Interest Group

The interest group prefers policy $x_I = 1$ to $x_I = 0$, and only compensates the politician if the former policy position is chosen. The special interest groups has a simple non-strategic compensation schedule:

$$m^*_I = \begin{cases} 0 & \text{if } x_I = 0 \\ m_I & \text{if } x_I = 1 \end{cases} \quad (1.1)$$

A high $m_I$ could be the result of the fact that the policy shift is very valuable to the interest group, or that it has a high capability to raise funds from its members. It would be relatively easy to make the interest groups a strategic actor. For example, instead of giving $m_I$ if $x_I = 1$, it could instead give $\underline{m}_I$, which denotes the minimal compensation necessary to induce a politician to set $x_I = 1$. The main results would remain unaffected. Since the focus in this paper is on political actors, I use the simpler version with a non-strategic interest group.

1.2.2 Incumbent

In the first term, an incumbent $I$ is exogenously put in power. She derives utility from wealth and power, and makes two decisions in the first term. First, she sets
the policy position either to \( x_I = 0 \) or to \( x_I = 1 \). Second, if \( x_I = 1 \) and the interest groups pays a monetary compensation \( m_I \), the politician decides how to distribute it between campaign spending \( c_I \), personal enrichment \( b_I \), and a revolving door job with salary \( s_I \). Personal enrichment and the revolving door job are direct monetary benefits, whereas campaign spending improves the probability of winning the election. Holding office is associated with ego-rents \( \phi \) derived from being in power. For simplicity, I assume that holding office has no monetary value. This can be justified by the fact that salaries for political positions are usually modest, especially in relation to comparable private sector positions. To be sure, many politicians become very rich while being in office. This, however, is more likely due to the opportunities for personal enrichment that come with holding office, captured by \( b_I \) in this model.

The politician’s utility is linear in the spoils of office \( \phi \) and a concave function of her monetary income, so there is a declining marginal utility of income.\(^2\) Monetary income can come from three sources: bribes \( b_I \), a revolving door job \( s_I \), or from returning to the original occupation with reservation wage \( r_I \). I impose the restriction that \( \phi > r_I \), so the politician values the spoils of office higher than the wage from her original occupation. If this were not the case, there would be no reason to join politics in the first place. The equation for the utility of a politician depends on her (endogenous) career choice for the second term. There are three options: A politician can return to her original occupation if loosing the election, she can move to a revolving door job in the case of an election loss, or she can move to a revolving door job for sure and not run for reelection. In the first case, the utility of the politician is

\[
    u_I = \ln(1 + b_I + (1 - p(c_I, x_I))r_I) + p(c_I, x_I)\phi
\]

(1.2)

\(^2\) For a similar approach, see Gingerich (2014).
where \( p_I(c_I) \) is the probability that \( I \) wins the election given the amount of campaign contributions \( c_I \) raised. In the second case, it is

\[
  u_I = \ln(1 + b_I + (1 - p(c_I, x_I))s_I) + p(c_I, x_I)\phi
\]  

(1.3)

Finally, in the third case the utility is

\[
  u_I = \ln(1 + b_I + s_I)
\]  

(1.4)

1.2.3 Challenger

At the end of the first term, a challenger \( C \) appears. As this politician has not been in office, she has not had an opportunity to set policies and collect special interest compensation of any type. The only choice she has to make is the policy \( x_C \). Since the electorate is modeled such that the median voter theorem holds (see below) and the median voter’s position on the issue is 0, the challenger politician sets her policy accordingly.

1.2.4 Voters

There exists a continuum of voters whose ideal points for policy \( x \) are distributed according to any distribution with a median value of zero. Their utility is linearly decreasing in the distance between the policy proposed by the politicians and their ideal point. In addition to policy considerations, voters react to political campaigns. This can be interpreted either as voters responding to campaign advertisement (Huber and Arceneaux, 2007) or to clientelistic benefits (Stokes, 2005; Kitschelt and Wilkinson, 2007). Only the incumbent is able to collect special interest compensation, and is thus the only candidate that campaigns. A parameter \( \alpha > 0 \) indicates the ability of \( I \) to translate campaign spending into utility gain for voters. For example, a higher \( \alpha \) might reflect a better campaign organization or a superior patronage network. If \( \alpha \) is low, political competition mostly happens through programmatic appeals.

25
Voters also take valence characteristics of the candidates into account, for example
differences in their charisma or leadership quality. Without loss of generality, the
valence term for $I$ is normalized to zero. The valence term for $C$ is denoted by $\theta$
and is modeled as a random draw from a distribution. The distribution is common
knowledge but before the election the draw is known only to the voters. This means
that the candidates make their decisions on policy and campaign spending in the
face of uncertainty. A positive $\theta$ benefits $C$ and a negative $\theta$ benefits $I$. I assume
that $\theta \sim \text{Triangular}(-h, h, 0)$, where $h > 0$ and the three parameters describe the
minimum, maximum, and mode of the distribution. In expectation, neither candidate
benefits from the valence shock as it is equally likely to be positive or negative. The
triangular distribution is chosen because it is easy to work with mathematically, but
the substantive results would hold for any symmetric and unimodal distribution of
$\theta$.

The utilities of voting for the candidates for voter $j$ with ideal policy $x_j$ are:

\begin{align*}
    u^I_j &= \alpha c_I - |x_I - x_j| \\
    u^C_j &= \theta - |x_C - x_j|
\end{align*}

(1.5)
(1.6)

This implies that voter $j$ votes for $I$ if

\begin{equation}
    \alpha c_I - |x_I - x_j| \geq \theta - |x_C - x_j|
\end{equation}

(1.7)

In this environment, the median voter theorem holds and $I$ wins the election if the
median voter casts his ballot for her. The ideal position of the median voter on the
policy dimension is zero, which is also the position taken by $C$. It follows that $I$ wins
if and only if

\begin{equation}
    \theta \leq \alpha c_I - x_I
\end{equation}

(1.8)
Using the fact that $\theta$ is a random draw from a triangular distribution, the probability $p$ that $I$ wins the election is

$$p(c_I, x_I) = \begin{cases} 
\frac{1}{2h^2} (\alpha c_I - x_I + h)^2 & \text{if } -h \leq \theta \leq 0 \\
1 - \frac{1}{2h^2} (-\alpha c_I + x_I + h)^2 & \text{if } 0 < \theta \leq h
\end{cases} \quad (1.9)$$

Given that $\theta$ is equally likely to be positive or negative, this simplifies in expectation to

$$p(c_I, x_I) = \frac{1}{2} + \frac{1}{h} (\alpha c_I - x_I) \quad (1.10)$$

Parameters are chosen such that $0 < p(c_I, x_I) < 1$ under all conditions.

### 1.2.5 Timing

To summarize, the timing of the game is as follows:

1. **First term:** The incumbent $I$ is in office. She choses a policy $x_I$. If $x_I = 1$, the incumbent solicits the special interest compensation $m_I$ in the form of bribes worth $b_I$, campaign contributions worth $c_I$, and/or a revolving door job with salary $s_I$. She decides whether to run for reelection.

2. If $I$ choses to contest reelection, a challenger $C$ with $x_C = 0$ appears. The voters observe $x_C, x_I, c_I$, and $\theta$ and cast their ballots.

3. **Second term:** If $I$ is reelected, $x_I$ is implemented and the politician enjoys the spoils of office $\phi$. If $C$ wins the election, $x_C$ is implemented and $I$ either takes up a revolving door job with salary $s_I$, or returns to her original occupation and earns reservation wage $r_I$. If $I$ has not contested the election, she takes up her revolving door job and earns $s_I$.

### 1.3 Analysis of the Benchmark Model

The incumbent politician has to make two decisions. First, does she implement the policy preferred by the special interest group? Second, if she does, how does
she allocate the resulting compensation between bribes, campaign spending, and a revolving door job? And if the latter is an option, does she run for reelection and take up a the job only in the case she loses, or does she leave politics early and takes up the job no matter what? The decision problem is solved through backwards induction. The proofs for all propositions can be found in Appendix A.

Suppose politician $I$ sets $x_I = 1$ and thus receives compensation $m_I$ in return. In the benchmark model, special interest group influence is completely unregulated, so there are no penalties for accepting bribes and there are no limitations on campaign donations. This means that accepting a bribe for personal enrichment and taking a revolving door job are equivalent. A revolving door job, however, comes with opportunity costs: A politician who takes up such a job in the second term forfeits holding political office and the associated ego-rents. If bribes can be accepted without fear of punishment, politicians can have their cake and eat it too: They are able to get monetary compensation just like in a revolving door job, but they also have the chance to sit in office for a second term (or, failing to win reelection, return to their original job and earn their reservation wage). Thus, in the benchmark scenario without any restrictions on special interest influence, there is no revolving door.

The constrained maximization problem for politician $I$ who has set $x_I = 1$ is therefore

$$\max_{c_I, b_I} \ln(1 + b_I + (1 - p(c_I, x_I = 1))r_I) + p(c_I, x_I = 1)\phi \quad \text{s.t.} \quad c_I + b_I = m_I \quad (1.11)$$

The internal solutions for this are:

$$b^*_I = \frac{2h^2 - \alpha h(\phi(2 + r_I) - 2r_I) + 2\alpha\phi r_I(\alpha m_I - 1)}{2\alpha\phi(h + \alpha r_I)} \quad (1.12)$$

$$c^*_I = \frac{-2h^2 + \alpha h(\phi(2 + 2m_I + r_I) - 2r_I) + 2\alpha\phi r_I}{2\alpha\phi(h + \alpha r_I)} \quad (1.13)$$
The ego-rents from holding office have a decisive impact on the allocation of $m_I$, as $\frac{\partial (c_I/m_I)}{\partial \phi} \geq 0$. So if holding office is more desirable, a higher share goes towards campaign spending. If holding office is very desirable ($\phi \geq \frac{2h(h+\alpha r_I)}{a(h(2+r_I)+2r_I(1-am_I))} = \phi$), all special interest money goes towards campaigning. Conversely, if holding office is not very rewarding, a larger share of the special interest compensation is allocated towards personal enrichment rather than to furthering their electoral fortune. If the value of office is very low ($\phi \leq \frac{2h(h+\alpha r_I)}{a(h(2+2m_I+r_I)+2r_I)} = \bar{\phi}$), no special interest money goes towards campaigning. The equilibrium allocation is shown graphically in Figure 1.1.

The preceding discussion is summarized in:

**Proposition 1.** If there are no penalties for $b_I > 0$ or $c_I > 0$, then $s_I = 0$ and $I$ always seeks reelection. If $x_I = 1$, then $b_I > 0$ only if $\phi < \bar{\phi}$, and $c_I > 0$ only if $\phi > \bar{\phi}$.

The equilibrium generates a number of comparative statics that suggest conditions under which campaign contributions or bribes are prevalent. First, higher special interest compensation always (weakly) translates into higher bribes and higher campaign spending, as $\frac{\partial c_I}{\partial m_I} \geq 0$ and $\frac{\partial b_I}{\partial m_I} \geq 0$. However, which one gains more differs depending on the ego-rents of holding office. When they are low, $\frac{\partial (c_I/m_I)}{\partial m_I} \geq 0$, but
when they are high, $\frac{\partial (c_I / m_I)}{\partial m_I} \leq 0$.\footnote{The cutpoint where $\frac{\partial (c_I / m_I)}{\partial m_I} = 0$ is $\phi = \frac{2k(h+\alpha r_I)}{\alpha(h(2+r_I)+2r_I)}$. It is easy to show that this cutpoint is always between $\phi$ and $\bar{\phi}$.} Counter-intuitively, if holding office is not very desirable, increasing the special interest compensation leads to a higher percentage of it being used for campaigning. To see why this is the case, remember that when $\phi$ is low, most of $m_I$ comes in the form of bribes. If the special interest compensation increases, this priority becomes less strong and $I$ can “diversify” more. Again, keep in mind that both $b_I$ and $c_I$ go up, but the marginal utility of campaign spending is greater since it is at lower levels, so the share $c_I / m_I$ increases. By the same logic, if office is desirable a higher compensation leads to a lower percentage being used for campaigning.

Second, an incumbent who is better at translating campaign spending into votes (has a higher $\alpha$) will solicit a lower share of $m_I$ in the form of campaign contributions if the value of holding office is low. Because their spending goes further, they can afford to allocate a higher share of the special interest compensation towards their personal enrichment. But if the value of holding office is high, accepting a bribe is less lucrative, and having better campaigning ability makes it even more attractive to allocate more special interest money towards campaign contributions.\footnote{The cutpoint where $\frac{\partial (c_I / m_I)}{\partial \alpha} = 0$ is $\phi = \frac{2k(h+\alpha r_I)^2}{\alpha^2 r_I (2m_I+h(2+2m_I+r_I))}$.}

Having determined the equilibrium allocation in case the politician receives special interest money, the question now is under what conditions she decides to take the compensation in the first place. If policy is set to $x_I = 0$ and therefore $m_I = 0$, the utility that the incumbent receives is

$$u_I = \ln(1 + (1 - p(c_I = 0, x_I = 0)) r_I) + p(c_I = 0, x_I = 0) \phi \quad (1.14)$$

The politician sets $x_I = 1$ only if the utility from this “fallback” option is lower than the utility in Equation (1.4) with $b_I^*$ and $c_I^*$ as discussed above.
Proposition 2. I sets \( x_I = 1 \) only if \( m_I \geq m_{\bar{I}} \), where \( m_{\bar{I}} = \frac{h+\phi}{\alpha\phi} - 1 + \left( \frac{1}{\phi} - \frac{1}{2} \right) r_I + \frac{h+\alpha r_I}{\alpha\phi} \ln \left( \frac{\alpha\phi(2+r_I)}{2(h+\alpha r_I)} \right) \).

This proposition makes sense intuitively. Setting policy to \( x_I = 1 \) decreases the utility voters derive from voting for \( I \), lowering the probability that she can enjoy the spoils of office in the second term. If the compensation a special interest group can offer is sufficiently high (\( m_I \geq m_{\bar{I}} \)), this loss is outweighed by greater campaign spending (increasing the probability of winning reelection) and a higher monetary income through a bribe. If the interest group is financially less potent, the incumbent’s best bet is to set policy to the ideal point of the median voter and hope that she can stay in office for another term.

![Figure 1.2: Effect of the spoils of office \( \phi \) on the minimal amount that the interest groups needs to spend to induce \( x_I = 1 \).](image)

Examining the comparative statics of \( m_I \) allows for some interesting and less intuitive insights. A common argument in the literature as well as in public debates is that corruption can be reduced by making holding office more desirable (e.g. Besley, 2004). As Figure 1.2 shows this is only partly confirmed in the benchmark model,
as $\frac{\partial m_I}{\partial \phi} > 0$ only if $\phi$ is sufficiently low.\(^5\) If the ego-rents from holding office are low and the politician accepts special interest compensation, most of it comes in the form of a bribe. When the value of holding office increases in such a situation, the bribe becomes comparatively less attractive. At the same time, not enough of $m_I$ is allocated to $c_I$ for it to outweigh the electoral losses from setting $x_I = 1$. In such a situation, it can be beneficial for $I$ to instead set policy to the median voter’s ideal point and forfeit the bribe, but in return increase their chance of winning reelection.

At low levels of $\phi$, increasing the desirability of holding office causes $m_I$, the minimal amount that the interest groups needs to spend to induce $x_I = 1$, to increase.

But if the ego-rents from office are high to begin with, a politician who takes special interest compensation receives most of it in the form of campaign contributions. Raising $\phi$ will achieve two things: it will make holding office more lucrative, and it will increase the share of $m_I$ allocated to campaign contributions even further. It is therefore possible that setting policy in an electorally non-optimal way and soliciting most of the special interest compensation in the form of campaign contributions leads to a higher probability of winning reelection compared to setting $x_I = 0$ and not campaigning. Thus, in a political environment where most special interest influence happens through campaign contributions (and there are no penalties of any form), raising the desirability of holding office leads to a decrease of $m_I$, making it more likely that policy is set away from the median voter.

1.4 Legislation Against Special Interest Influence

No democratic country in the world leaves special interest money completely unregulated. Direct monetary payments to politicians in exchange for policy favors are at least formally outlawed in just about any country. Many also have restrictions on more hidden ways through which politicians can enrich themselves, such as gifts, 

\(^5\) The cutpoint where $\frac{\partial m_I}{\partial \phi} = 0$ is $\phi = \frac{2(h+\alpha\tau)}{\alpha(2+r\tau)}$.
sponsored travel, or holding stocks of certain companies. In addition, most democratic countries regulate how much money candidates or parties are allowed to accept for campaigning purposes. What is the impact of such restrictions on the amount and type of special interest compensation? In this section, I explore the effect of penalties for personal enrichment and penalties for campaign contributions.

1.4.1 Penalties for Bribes

Politicians that use their position for personal enrichment are usually the first target of anti-corruption activists, and most countries have more or less stringent laws against it. I model penalties for personal corruption through a parameter $\sigma$, which represents the percentage of the bribe that the politician expects to pay as a fine. This percentage can be thought of as the monetary value of the penalty times the probability of getting caught. I restrict analysis to $\sigma \in (0, 1)$, so there is at least a small chance of being fined, and accepting a bribe for personal enrichment does not lead to an expected loss. Again, I begin by discussing the allocation of $m_I$ if $x_I = 1$, and then investigate under what circumstances it is optimal to set $x_I = 1$ or $x_I = 0$.

In the benchmark case, it is never optimal for the politician to accept special interest compensation in the form of a revolving door job. Once there is a system in place where politicians have to expect being caught and fined if they accept a bribe, this is no longer the case. If $x_I = 1$, the compensation $m_I$ can now be in the form of a bribe $b_I$, a campaign donation $c_I$, and/or a revolving door job paying salary $s_I$. The following result, however, establishes that not all combinations are possible and simplifies further analysis considerably:

**Lemma 1.** For $\sigma \in (0, 1)$, it is never the case that $b_I > 0$ and $s_I > 0$ simultaneously.

If politicians accept a bribe, they will not be compensated in the form of a revolving door job; and if they are promised lucrative employment in the future,
they do not take a bribe. In other words, bribery and the revolving door are perfect substitutes. This stark finding is a consequence of the fact that the expected penalty is linearly increasing in the bribe. If it were increasing in a non-linear (convex) way, bribes and the revolving door would still be substitutes, but not perfect ones anymore. However, the substantive insights that the model provides are unaffected by this, so I maintain the linear penalty for ease of exposition.

Bribes and the revolving door being perfect substitutes means that if \( x_I = 1 \), the utilities for the three possible career scenarios from Equations (1.2)-(1.4) if \( \sigma \in (0, 1) \) are as follows: If the politician returns to her original occupation in the case of an election loss, her utility now is

\[
u_I = \ln(1 + (1 - \sigma)b_I + (1 - p(c_I, x_I = 1))r_I) + p(c_I, x_I = 1)\phi \tag{1.15}\]

If she runs for reelection, but moves to the the special interest job if she looses, it is

\[
u_I = \ln(1 + (1 - p(c_I, x_I = 1))s_I) + p(c_I, x_I = 1)\phi \tag{1.16}\]

Finally, if she does not run for reelection and moves to the revolving door job for sure instead, the utility is

\[
u_I = \ln(1 + s_I) \tag{1.17}\]

The equilibrium is found by deriving the allocation for each of those three cases, and then comparing Equations (1.15), (1.16), and (1.17). The following proposition summarizes the effects of the introduction of anti-bribing laws on the allocation of special interest compensation as a function of the ego-rents from holding office \( \phi \) and the severity of the legislation \( \sigma \). The full expressions for the boundaries are given in the proof in Appendix A.

**Proposition 3.** Suppose \( \sigma \in (0, 1) \) and \( x_I = 1 \). If \( \sigma \leq \hat{\sigma} \), I always seeks reelection and \( s_I = 0 \). Then, \( c_I > 0 \) only if \( \phi > \underline{\phi}_\sigma \) and \( b_I > 0 \) only if \( \phi < \overline{\phi}_\sigma \), where it holds
that $\bar{\phi}_\sigma < \bar{\phi}$ and $\bar{\phi}_\sigma < \bar{\phi}$. If $\sigma > \bar{\sigma}$, then $b_I = 0$, $s_I > r_I$, and $c_I > 0$ only if $\phi > \bar{\phi}_\sigma$.

If $\phi \leq \phi'_0$, I does not seek re-election and moves to a revolving door position in the second term for sure.

Figure 1.3 shows the equilibrium allocation of special interest compensation graphically. The horizontal axis displays the ego-rents from holding office $\phi$, and the vertical axis the expected penalty $\sigma$ from zero to one. If the expected penalty is relatively low, the incumbent politician continues to solicit bribes. However, having to expect that one is caught and fined makes a bribe less attractive, and consequently investing in raising the probability of reelection by soliciting a higher campaign contribution more attractive. The amount of bribes if $\sigma > 0$ is thus lower than the amount in the benchmark condition.

The cut points for $\phi$ below which all of the special interest compensation goes towards a bribe and below which none of it goes towards a bribe are lower as well.\(^6\)

This substitution effect is bigger the higher $\sigma$ is. This has important implications for the competitiveness of the political system. If the introduction of a potential penalty for accepting a bribe fails to deter a politician from setting policy to the ideal point of the special interest group and she does not allocate any of the compensation towards a revolving door job, she will invest more in campaigning compared to the benchmark scenario. This increases her probability of winning reelection. Thus, (moderately) stricter anti-bribing legislation can lead to an increase in the incumbency advantage.

If the expected penalty is higher, the effect on the allocation of the special interest compensation is more profound in that bribes are no longer the compensation mechanism of choice. Instead, the politician solicits special interest money in the form of a revolving door job. Note that the equilibrium salary can never be smaller than the reservation wage that $I$ can earn by returning to her original job ($r_I$). If

\(^6\) Naturally, for $\sigma = 0$ it holds that $\bar{\phi}_\sigma = \bar{\phi}$ and $\bar{\phi}_\sigma = \bar{\phi}$.
the value of office is relatively high, some of $m_I$ will still be allocated towards campaigning, but if $\phi \leq \phi'$ the entire special interest compensation happens through a revolving door job. When $\phi' < \phi < \phi''$, the politician still seeks reelection and only takes up the job in case she loses. But if the value of holding office is very low, the optimal strategy for $I$ is to not run for reelection and instead move into the lucrative private sector job with a wage above her “market value” for sure. This has important implications for one of the most widely used assumptions in political science: that politicians are office-maximizers that first and foremost care about winning reelection. If the value of holding office is low, interest groups are financially powerful and the expected penalty for accepting an outright financial bribe is high, politicians are
no longer “single-minded seekers of reelection” (Mayhew, 1974, 5). Instead, they use their political career as a stepping stone to land a lucrative job in the private sector.

The following proposition establishes the effect of setting and enforcing fines for bribing on the policy enacted by \( I \):

**Proposition 4.** If \( \sigma > 0 \), \( I \) sets \( x_I = 1 \) only if \( m_I \geq m_{I\sigma} \), where \( m_{I\sigma} > m_I \) unless \( b_I = 0 \) when \( \sigma = 0 \).

A potential fine for accepting a bribe has the effect of increasing the threshold for the amount of money the interest group needs to spend to induce politicians to set \( x_I = 1 \) (unless there are no bribes in the benchmark equilibrium in the first place). If \( m_I \geq m_{I\sigma} \), the special interest group will continue to be able to influence policy in its favor, and if \( m_I < m_I \), it will still not be able to affect policy. But if \( m_I < m_I < m_{I\sigma} \), the interest group now no longer has the means to influence policy, and the politician will instead set \( x_I = 0 \). Only in this window does a policy that punishes accepting a bribe move policy towards the median voter.

### 1.4.2 Restrictions on Campaign Contributions

Most countries also have a system that regulates the financing of political parties and candidates. What are the impacts of such restrictions? I model penalties in a similar way as the anti-bribery legislation. There is a parameter \( \tau \in (0,1) \) that represents the share of the campaign money the politician expects to have to pay as a fine and is therefore unable to use.\(^7\)

Solving for the optimal allocation of \( m_I \) between \( b_I \), \( c_I \), and \( s_I \) when \( x_I = 1 \) proceeds like above. Utilities are as in Equations (1.15) to (1.17) with \( p = \frac{1}{2} + \)

\(^7\) Note that this means the politician is at risk of being penalized from the first dollar she accepts for campaigning purposes. Most countries allow campaign donations up to a certain amount. I focus on the case where there is a complete ban on campaign contributions to contrast with the the equilibria discussed so far where all donations are legal. Real-world regulation with a partial ban falls somewhere in between the two extremes.
When politicians risk a penalty not just for accepting a bribe, but also for campaign donations, they allocate more towards bribes again. And making the second of three types of special interest compensation also less lucrative has the effect of making the third option even more attractive, and a higher proportion of $m_I$ is solicited in the form of a revolving door job:

**Proposition 5.** Suppose $\sigma \in (0, 1)$, $\tau \in (0, 1)$, and $x_I = 1$. If $\sigma < \hat{\sigma}_\tau$, I always seeks reelection and $s_I = 0$, where it holds that $\hat{\sigma}_\tau \leq \hat{\sigma}$. Then, $c_I > 0$ only if $\phi > \hat{\phi}_\tau$ and $b_I > 0$ only if $\phi < \bar{\phi}_\tau$, where it holds that $\hat{\phi}_\tau > \phi$ and $\bar{\phi}_\tau > \phi$. If $\sigma > \hat{\sigma}_\tau$, then $b_I = 0$, $s_I > 0$, and $c_I > 0$ only if $\phi > \bar{\phi}_\tau$, where it holds that $\bar{\phi}_\tau > \phi$. If $\phi < \hat{\phi}'_\sigma$, I does not seek reelection and moves to a revolving door position in the second term for sure.

Figure 1.4 shows the equilibrium allocation of special interest compensation graphically for a given value $\tau \in (0, 1)$. The horizontal axis displays the ego-rents from holding office $\phi$, and the vertical axis the expected penalty $\sigma$ for accepting a bribe. The dashed lines show the equilibrium allocation from Figure 1.3, where there is only a penalty for bribes. The most important effect is that $\hat{\sigma}_\tau \leq \hat{\sigma}$, so the revolving door is an equilibrium type of special interest compensation in a larger part of the parameter space. This effect is more pronounced the larger $\tau$ is.

The empirical implication of this is that we should see the revolving door phenomenon primarily in countries with strict anti-bribing laws and restrictions on campaign donations, in particular when the value of holding office is relatively low. This squares well with anecdotal evidence about incidences of the revolving door, which primarily come from the United States, Japan, and various countries in Western Europe. If the revolving door is not an equilibrium, campaign donation restrictions again lead politicians to solicit a higher percentage of the special interest compensation in the form of bribes. If $\tau$ is sufficiently large compared to the penalty for
accepting a bribe $\sigma$, the percentage allocated towards a bribe may even be larger than in the benchmark condition.

Introducing restrictions on campaign contributions makes it more difficult for special interest groups to influence policy. It again increases the threshold for the amount of money the interest group needs to spend to induce politicians to set $x_I = 1$, unless campaign contributions are not the equilibrium strategy in the first place:

**Proposition 6.** If $\sigma \in (0,1)$ and $\tau \in (0,1)$, $I$ sets $x_I = 1$ only if $m_I \geq m_{I\tau}$, where $m_{I\tau} > m_{I\sigma}$ for constant $\sigma$ unless $c_I = 0$ when $\tau = 0$. 

---

**Figure 1.4:** Equilibrium for $\sigma \in (0,1)$ and a given $\tau \in (0,1)$: Allocation of $m_I$ between bribes $b_I$, campaign contributions $c_I$, and revolving door job salary $s_I$ as a function of the ego-rents from office $\phi$ (horizontal axis) and the expected penalty $\sigma$ (vertical axis). Dashed lines: equilibrium allocation from Figure 1.3.
1.4.3 Implications

The most prevalent policy prescription of anti-corruption activists is to restrict the ways that special interests can influence politics, and to punish politicians who engage in monetary exchanges with them anyways. There certainly is merit to this position: Proposition 4 and 6 have shown that introducing and enforcing fines for accepting bribes or campaign donations can reduce the influence of special interest groups. However, it was also shown that there are substitution effects, which are again summarized in Figure 1.5. The left column illustrates what happens as the penalty for accepting a bribe increases. If politicians run the risk of being fined when accepting a bribe, they will solicit more campaign donations and potentially take up a revolving door job. The right column illustrates the impact of additionally imposing restrictions on campaign contributions. Most importantly, the revolving door now becomes even more attractive. And in democratic societies that value the freedom of occupation, it is very hard to shut this door.

If there are no effective legal means to prevent politicians from moving into the private sector, special interest influence can never be completely prevented even if other anti-special interest regulations are strictly enforced. Suppose $\sigma \geq 1$ and $\tau \geq 1$, so there is zero or even negative utility from accepting a bribe or a campaign contribution, which means that in equilibrium $b_I = c_I = 0$. A politician will still set $x_I = 1$ if the compensation $m_I$ offered by the interest group is sufficiently large. As long as there are special interest groups who can afford to “buy out” politicians by offering them lucrative jobs, they will continue to influence policy.

\[ m_I \geq \begin{cases} \frac{1}{2}(2 + r_I) e^{\phi/2} - 1 & \text{if } \phi \leq \frac{2h}{h-2} \ln \left( \frac{2h(1+m_I)}{2m_I + h(2+m_I)} \right) \\ \frac{h}{2+r_I} (2 + r_I) e^{\phi/h} - 2 & \text{if } \phi > \frac{2h}{h-2} \ln \left( \frac{2h(1+m_I)}{2m_I + h(2+m_I)} \right) \end{cases} \]

---

8 Sufficiently large means
But not all hope is lost. Since $\lim_{\phi \to \infty} m_I = \infty$,\footnote{$\lim_{\phi \to \infty} m_I = \lim_{\phi \to \infty} \frac{h}{2 + h} ((2 + r_I)e^{\phi/h} - 2) = \infty$} increasing the desirability of holding office raises the threshold amount of money that an interest groups has to spend to influence policy. Thus while sticks for “misbehaving” politicians can be an effective first step, only carrots for “well-behaving” politicians have a shot at 

\begin{align*}
\phi & = \frac{h}{2 + h} ((2 + r_I)e^{\phi/h} - 2) = \infty
\end{align*}
eradicating financially powerful special interest groups completely. This implication of the model goes against the inclination of many anti-corruption activists. But lowering the utility derived from holding office makes it easier for special interests to influence policy, and stricter penalties only succeed in eliminating financially weak groups.

1.5 Political Competitiveness

One of the types of special interest money is not like the others. Bribes and revolving door jobs lead to personal material enrichment of the incumbent. Campaign contributions are an investment that increases the probability of enjoying the ego rents from holding office in the second period. A number of empirical studies show that the degree of “electoral corruption” depends on how competitive an election is likely to be. Golden and Chang (2001) analyze charges of malfeasance against Italian members of parliament and find that political corruption increases with more intra-party competition. Nyblade and Reed (2008) study event data from Japan and find that election law violations, defined as illicit acts for electoral gain, are more common among electorally insecure candidates. How does political competitiveness affect the choice between the different types of special interest money in my model?

I incorporate levels of political competitiveness by varying the expected value of the valence term $\theta$. So far, I have modeled it as a random draw from a triangular distribution with an expected value of zero, so it is equally likely to benefit either candidate. This means that if $I$ sets policy to the ideal point of the median voter and does not receive any special interest money, her probability of winning the election is exactly $\frac{1}{2}$. Quite often, however, one of the candidates is a priori expected to have a valence advantage. For example, the economy may have grown during the incumbent’s tenure, she may be a member of the dominant ethnic group, or be seen
as more charismatic. Conversely, the challenger may have a valence advantage, so
the incumbent has an \textit{a priori} lower chance to win reelection.

Remember that a positive $\theta$ benefits $C$ and a negative $\theta$ benefits $I$. I model
an expected valence advantage for $I$ by $\theta \sim \text{Triangular}(-h, h, -h)$, which means
that $\mathbb{E}(\theta) < 0$ and thus more likely to benefit the incumbent. This means that the
probability of $\theta$ being larger than zero is only $1/4$ now, whereas the probability that
it is smaller than zero is $3/4$. The winning probability, adapted from Equation (1.9)
now is

\begin{align}
    p_{V+}(c_I, x_I) &= \frac{3}{4} \left( \frac{1}{2h^2} (\alpha(1 - \tau)c_I - x_I + h)^2 \right) + \frac{1}{4} \left( 1 - \frac{1}{2h^2} (-\alpha(1 - \tau)c_I + x_I + h)^2 \right) \\
    &= 1 - \frac{1}{4h^2} (h - \alpha(1 - \tau)c_I + x_I)^2
\end{align}

(1.18)

An expected valence advantage for the challenger is modeled as $\theta \sim \text{Triangular}(-h, h, h)$,
which leads to

\begin{equation}
    p_{V-}(c_I, x_I) = \frac{1}{4h^2} (\alpha(1 - \tau)c_I + h - x_I)^2
\end{equation}

(1.19)

The following proposition establishes the effect of valence advantages and disad-
vantages:

\textbf{Proposition 7.} \textit{If I has an expected valence advantage or disadvantage, she solicits a}
lower share of the special interest compensation in the form of campaign contributions
than when the valence term does not benefit either candidate \textit{a priori} (unless $c_I = 0$
when valence does not favor either candidate).

A lower share of the interest group compensation goes towards campaigning both
in case of a valence disadvantage and in case of a valence advantage. This is because
the marginal effect of campaign spending on the probability of winning is highest
when the election is a toss-up. If the incumbent has a 75% chance of winning to begin
with, the same amount of campaign spending goes less far in swaying marginal voters
than when it is 50%. The same is true when the chance is only 25% and winning
is a long shot. When an election is expected to be close, an incumbent will solicit more special interest money in the form of campaign contributions. This is consistent with the empirical findings by both Golden and Chang (2001) and Nyblade and Reed (2008). Conversely, when an election is not expected to be close, the incumbent will solicit more of the special interest money in the form of direct bribes or an offer for a revolving door job.

1.6 Extensions

While the remainder of this dissertation will focus on the effect of legal restrictions and political competitiveness, in this section I present a number of extensions to the model. They explore what happens if incumbents making decisions on whether and how to accept special interest money do not act independently, but instead are part of a political party. In addition, I also examine the effect of term limits.

1.6.1 Intra-Party Conflict and Tougher Penalties

Rarely do politicians run for office and set policy all by themselves. Instead, their electoral fortunes are influenced by what others in their party do. In this section, I examine how this can lead to intra-party conflict about policy and the allocation of special interest compensation, and offer one possible rationale for why politicians might self-impose stricter penalties for accepting bribes and campaign contributions.

Suppose there are two types of incumbent politicians that are members of the same party: leaders and backbenchers. Leaders are modeled as a representative agent $L$, and backbenchers as a representative agent $B$. There are two differences between those types. First, since a leader is more influential within the party, the interest group is willing to pay her more in exchange for setting policy to its ideal point, so $m_L > m_B$. Suppose further that $m_B < m_B$, so a backbencher is sufficiently unimportant for the special interest group that it does not try to influence her policy
position. Second, B’s probability of winning reelection depends on the policy and campaign efforts of L. That is, if the party leaders set policies in favor of the interest group, voters will also punish the backbenchers for it. And if leaders invest heavily into their campaign, this has positive spillover effects for the backbenchers. I model this spillover as \( \alpha c_L - x_L \) affecting the distribution from which the random valence shock \( \theta \) is drawn. If \( \alpha c_L - x_L < 0 \), the leader does not solicit sufficient campaign contributions to outweigh the loss of not setting the policy to the median voter’s ideal point, and \( \mathbb{E}(\theta) > 0 \) where \( \mathbb{E} \) is the expectation operator and a negative \( \theta \) is beneficial for the incumbent. Similarly, if \( \alpha c_L - x_L = 0 \) then \( \mathbb{E}(\theta) = 0 \) and if \( \alpha c_L - x_L < 0 \) then \( \mathbb{E}(\theta) > 0 \). Modifying Equation (1.8), a backbencher B wins only if

\[
\lambda \theta \leq \alpha c_B - x_B
\]

(1.20)

where \( \lambda \) denotes how strongly L’s decisions affect B.

Obviously, B wants L to either take the position of the median voter or to solicit so much of the special interest compensation in the form of campaign contributions that it outweighs the electorally suboptimal policy position. This affects her preferences over the expected penalties for accepting a bribe \( \sigma \) and for accepting campaign contributions \( \tau \). Since \( m_B < m_B \) and we know from Propositions 4 and 6 that \( m_B \leq m_B \sigma \leq m_B \tau \), increasing \( \sigma \) and \( \tau \) does not have a direct negative effect on the utility of B. It does, however, have an indirect one through L. Thus, under most circumstances backbenchers prefer a higher expected penalty for accepting a bribe, which by Proposition 3 will cause the party leadership to solicit a higher percentage of the special interest compensation in the form of campaign contributions. When the ego-rents from holding office \( \phi \) are low, B prefers a modest level for \( \sigma \) because a draconian penalty or very strict enforcement of anti-bribing regulations could lead
to the revolving door opening up, which can lead to lower campaign spending (in particular if $\phi < \phi < \overline{\phi}$).\footnote{Of course, backbenchers may actually prefer if this happens. If the revolving door opens and party leaders leave politics early, backbenchers may have a chance to climb in the party hierarchy and become part of the leadership themselves.}

Because a higher $\tau$ leads to less campaign spending on the part of $L$, backbenchers generally are against more restrictions in this area. The one exception to this is if $\alpha c_L - 1 < 0$ when $\tau = 0$ and $m_{B_\sigma} \leq m_L \leq m_{B_\tau}$. In this case, $B$ is negatively affected by $L$ when $\tau = 0$ because the leader has an electorally suboptimal policy position and does not solicit enough campaign contributions to make up for this. Introducing a penalty for campaign contributions raises the critical value for the compensation the interest group needs to pay to have its preferred policy implemented. If the critical value is sufficiently high the interest groups might be priced out and policy is set to the median voter.

Thus, if the decisions of the party leaders affect the electoral fortunes of the backbenchers, the latter often have an incentive to push for stricter anti-bribing rules, and sometimes even to try to implement restriction on campaign contributions. This incentive is stronger the larger $\lambda$ is, that is the more they are affected by the actions of others in their party. The implication of this is that countries with stronger party brands (and more powerful backbenchers) have more favorable environment for implementing more stringent and effective regulations curbing the influence of special interest groups.

1.6.2 Political Parties and Perverse Effects of Tougher Penalties

Propositions 4 and 6 have shown that tougher penalties for accepting bribes and campaign contributions lead to an increase in the amount of money that the interest group needs to be willing to spend to influence policy. At the level of the individual politician this means that despite the substitution effects, stricter penalties can be
effective in bringing policy to the ideal point of the median voter. But policy is usually not set by individual legislators, but instead by aggregating the policy positions of the members in some way. Furthermore, so far I have assumed that the ideal point of the interest group is \( x_I = 1 \). But interest groups often exist at both extremes, so another group may have an ideal point of \( x_I = -1 \). For example, if \( x_I \) is economic policy, one interest groups could be a labor union which prefers more liberal policies \( (x_I = -1) \), and the other one an employers association which prefers conservative policies \( (x_I = 1) \). Suppose that the amount of money that the two interest groups are able to spend is not equal and without loss of generality \( m_{I,-1} < m_{I,1} \), so the employers association is more financially potent than the union.

Given these two modifications, both of which reflect the policy-making process more accurately, the effect of more stringent penalties for accepting bribes and campaign contributions for democratic representation is quite different than above. To see why this is the case, a simple party consisting of two politicians is sufficient. Suppose that in the benchmark condition \( m_I < m_{I,-1} \), so one politician takes the union’s ideal point and the other takes the employer association’s ideal point. The interests of both groups are represented within the party. From Propositions 4 and 6, we know that introducing penalties for accepting bribes and campaign contributions raises the amount of money that the interest groups needs to spend to induce politicians to take their policy. If these penalties are stringent enough \( (m_{I,1} < m_{I,r}) \), both interest groups are priced out of the political process, and both politicians represent the median voter. However, if the penalties are only modest, the situation where \( m_{I,-1} < m_{I,r} < m_{I,1} \) can arise. In this case, the employers association continues to be able to influence “its” politician, whereas the union is now priced out of the political process and has no representation within the party. The net effect is that the party has shifted away from the median voter and towards the ideal point of the
financially more powerful interest group. In this case, legislation with the goal of bringing policies closer to the median voter has the exact opposite effect.

1.6.3 Term Limits

Finally, activists and think tanks often advocate for term limits as a tool to curb corruption, as it frees legislators from the need to raise money for their reelection campaigns. But of course, these advocates tend to forget that from an accountability point of view, incumbents that do not have to face voters again can pursue any policy they like. And if interest groups can induce politicians through other means than campaign contributions to pursue their preferred policies, term limits are even counterproductive:

Proposition 8. If \( I \) cannot run for reelection, then \( x_I = 1 \) and \( b_I = m_I \) if \( m_I \leq \sigma r_I \)
or \( s_I = m_I \) otherwise.

If the financial power of the special interest groups is limited, the incumbent will solicit a bribe and be employed in her original job in the second period. If the interest groups has more money, the politician will avoid a potential fine and instead move to a revolving door job.

1.7 Discussion

This chapter has started out with the observation that citizens in democratic countries all around the world are frustrated with the influence that special interest groups have on the political process. This is true for countries where bribing high-level officials is rampant and rarely prosecuted (let alone punished), but also for countries that have strict and well-enforced anti-corruption legislation. I have provided a possible reason for this by arguing that there are several ways through which special interest groups can influence policy.
Table 1.1: List of restrictions on political bribery, and campaign financing, and post-tenure agreements in 67 democratic countries.

<table>
<thead>
<tr>
<th>Restriction</th>
<th>Count/Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>MPs prohibited from all paid employment</td>
<td>10/67</td>
</tr>
<tr>
<td>MPs prohibited from holding stock</td>
<td>10/67</td>
</tr>
<tr>
<td>MPs prohibited from being members of boards of directors</td>
<td>26/67</td>
</tr>
<tr>
<td>MPs prohibited from being officers (CEO, CFO)</td>
<td>24/67</td>
</tr>
<tr>
<td>MPs prohibited from being an advisor</td>
<td>19/67</td>
</tr>
<tr>
<td>MPs have other restrictions on activities in private sector</td>
<td>22/67</td>
</tr>
<tr>
<td>MPs have restrictions on accepting gifts</td>
<td>21/67</td>
</tr>
<tr>
<td>MPs required to disclose sponsored travel</td>
<td>12/67</td>
</tr>
<tr>
<td>System of regulation for financing of political parties</td>
<td>51/67</td>
</tr>
<tr>
<td>Provision for disclosure of contributions to political parties</td>
<td>46/67</td>
</tr>
<tr>
<td>Ceiling on contributions to political parties</td>
<td>26/67</td>
</tr>
<tr>
<td>Ban on corporate donations to political parties</td>
<td>16/67</td>
</tr>
<tr>
<td>Ceiling on party election expenditure</td>
<td>19/67</td>
</tr>
<tr>
<td>Direct public funding for political parties</td>
<td>48/67</td>
</tr>
<tr>
<td>Indirect public funding for political parties</td>
<td>56/67</td>
</tr>
<tr>
<td>MPs have restrictions on post-tenure agreements</td>
<td>8/67</td>
</tr>
</tbody>
</table>

I study a simple formal model that endogenously determines whether a politician enacts an interest group’s preferred policy, and if so in what form she solicits the compensation. The model shows that legislation penalizing bribery or restricting campaign donations is often not very effective in reducing the influence of special interest groups on politics. Instead, it mostly causes politicians and interest groups to shift to a different type of exchange. In particular, the more effectively campaign contributions and personal enrichment while in office are regulated, the more likely it is that the revolving door opens up and politicians provide policy favors now for lucrative employment later. If done “properly,” that is as long as it is not an obvious quid pro quo, such exchanges are difficult to restrict in democratic societies that value the freedom of occupation.

One major implication emerging from the model is that to limit the influence of interest groups effectively, an encompassing approach is required. Restricting just
one or a few mechanisms simply leads to a shift to other types that are left untouched. Consider Table 1.1, which summarizes the regulation of political bribery, campaign finance, and the revolving door in a sample of 67 democratic countries, based on data by Austin and Tjernström (2003) and Djankov et al. (2010). While outright monetary payments for political favors are illegal in most countries, more indirect forms of bribery are often possible. For example, only 21 of the 67 surveyed countries restrict their members of parliament from accepting gifts. And while 52 have at least one of the eight restrictions, none of them has all. The campaign financing for parties is widely regulated, with 51 countries having an oversight system in place. However, less than half place a ceiling on contributions to political parties, 19 limit election spending, and only 16 ban corporate donations. The least regulated avenue through which interest groups can potentially remunerate politicians is the revolving door. Only eight of the 67 countries have any restrictions on post-tenure agreements, usually a ban on taking up employment in certain parts of the private sector for a number of months.

What is remarkable is the lack of an encompassing system regulating special interest influence in almost all countries. The first panel in Figure 1.6 shows the distribution of countries according to the number of regulations against bribery that are present. None of them have all eight, and many have only a few or no restrictions at all. The second panel shows the same with campaign finance laws. Here, eight countries have all seven possible regulations, but again there is a lot of variance. Finally, the last panel shows the distribution for all 16 regulations listed in Table 1.1, including on post-tenure agreements. Two countries have 13 regulations in place, but the majority only have between five and nine. This points to a lack of an

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11 Data for the regulation of bribery and post-tenure agreements is taken from the online country appendix to Djankov et al. (2010). The data can be downloaded at http://scholar.harvard.edu/files/shleifer/files/country_annexes.zip. The data for campaign finance regulations comes from Austin and Tjernström (2003).
Figure 1.6: Number of restrictions on political bribery, campaign financing, and post-tenure agreements in 67 democratic countries.
integrated legal approach to limit the influence of special interest groups. In most countries, some avenues for special interest groups to influence politics are closed, but there are few cases where all of them are.

\[\text{Restrictions on Bribes, Campaign Contributions}\]

This leaves the door open for special interests to channel money into politics. The formal model in this chapter has shown under what circumstances each type of special interest money should be present. Figure 1.7 summarizes the two main effects in a simplified manner. The horizontal axis shows the effect of the legal environment. In countries with weak or poorly enforced laws regulating the nexus between politics and special interest groups, bribery and campaign contributions are the main mechanisms. Legislation that penalizes one way of special interest compensation leads to substitution effects and other mechanisms become more prevalent. In particular, the revolving door turns into a common way for politicians to “cash in” on their position in countries that effectively restrict bribery and/or campaign financing. The vertical axis shows the effect of the political environment. When incumbents expect to be in

Figure 1.7: Theoretical effect of restrictions on money in politics and of political competitiveness on types of special interest money.
a close race for reelection, they invest in maximizing their chances to stay in office by soliciting special interest money in the form of campaign contributions. Conversely, if they expect to have an easy path to reelection they have more leeway to personally enrich themselves. The same is true if their chances of winning are very remote. In the next three chapters of this dissertation, I will empirically test these two major implications.
2

Political Competition, Campaign Spending, and Personal Enrichment: Evidence from India

2.1 Introduction

Holding political office can be extremely lucrative. Especially in countries where anti-corruption laws are weak and poorly enforced, we see politicians greatly increasing their wealth time and time again. But continuing to hold political office can also be very expensive. Every few years, incumbents have to face voters and convince a sufficient number of them that they deserve to continue doing their job. Whether they do so through advertising or clientelistic vote-buying, this can be quite costly. We therefore also see many politicians cultivating close connections with special interest groups to fund their reelection campaigns.

In this chapter, I analyze politicians’ choice between using special interest money for personal enrichment or for campaign spending. The formal model in the previous chapter has shown that this trade-off is systematically influenced by whether political competitiveness is high or low. Proposition 7 states that candidates who expect to be in a close race for reelection will spend a high share of “their” special interest money
for campaigning purposes, while those who do not expect to be in a nail-biter have more leeway to use it for personal enrichment (see Figure 2.1). I test this hypothesis using detailed asset disclosure data of members of state assemblies in India, which were made mandatory by a Supreme Court decision in 2002. For candidates who contested in consecutive elections, it is possible to infer how their wealth developed over the course of a legislative period (see Bhavnani, 2012; Fisman, Schulz and Vig, 2014). Because regulations regarding elections and money in politics in India are made at the federal level, I am able to hold them constant while exploiting variation in the competitiveness of the electoral districts. I compare the asset development of incumbents who won their term in office by a narrow margin and can expect to be in a tough fight for reelection to the one of incumbents who won by a wide margin and can expect to have an easier path to reelection.

Of course, there may be unobserved differences between politicians who won by wide and narrow margins, and those might be related to the development of their wealth. To isolate the effect of special interest money, my research design exploits
the fact that one of India’s major political parties, the CPM, is known to not have close (financial) ties to business groups (Sridharan, 2006; Kohli, 2012). I use nearest neighbor matching for the first election to pair CPM members with comparable politicians that represent other major parties and therefore have access to special interest money. Then, I examine the assets stated in their affidavits before the second election. By using CPM politicians as a baseline against which to compare politicians of other major parties, I am able to isolate special interest money and the effect of the competitiveness of a district on incumbents’ asset growth.

I find clear empirical evidence that district competitiveness conditions how politicians allocate their special interest money. Most importantly, I show that candidates who can expect to be reelected easily and have ties to business groups increase their personal wealth (proxied by the number of motor vehicles) substantially over the course of a legislative period compared to their CPM counterparts. Conversely, there are no differences in the development of personal wealth between candidates with and without business ties for those that won office by a narrow margin and can therefore expect to face tough reelection fights, giving them incentives to invest special interest money into campaigning. In India, this primarily means clientelistic handouts such as money or alcohol, which requires cash reserves. Consistent with this, I show that incumbents with access to special interest money who won by a narrow margin hold more cash than their colleagues who won with a clear plurality.

Taken together, this points to marginal candidates investing special interest money to maintain their job, while more secure incumbents have sufficient leeway to enrich themselves. I rule out alternative explanations based on supply-side mechanisms about the “donation” behavior of interest groups by showing that total asset growth is unrelated to the margin of victory. Finally, I use sensitivity analyses to demonstrate the robustness of the findings to violations of the unconfoundedness assumption as well as non-random measurement error.
Having shown that politicians strategically allocate special interest money for different purposes, in the final part of the chapter I show that this matters to voters. Clientelistic competition, in which candidates try to win through vote buying, is not considered a normative ideal and has many negative effects (e.g. Fox, 1994; Transparency International, 2004; Stokes, 2005; Magaloni, 2006). However, in a country where the state provides few public goods, these payments are one of the only tangible benefit that voters, especially poor one’s, get from the political system (see Banégas, 1998; Auyero, 1999; Gonzalez Ocantos, Kiwiet de Jonge and Nickerson, 2014). Are voters more tolerant towards politicians using illicit special interest money for vote buying rather than personal enrichment? To answer this question, I present results from an original survey experiment conducted with voters in Delhi. Respondents were randomly assigned to either receive a vignette describing a politician who accepted money for a political favor and spent it to buy votes in an election, or a vignette in which he used the money for his personal enrichment. While disapproval for both kinds of behavior is high, respondents are consistently more tolerant of vote buying. This supports the idea that special interest money used for campaigning purposes can be seen as normatively preferable to a situation where politicians use it purely for their personal enrichment.

2.2 Background

India currently ranks 94th out of 174 countries in Transparency International’s Corruption Perception Index, and it is widely acknowledged that the influence of special interests has increased greatly since the start of liberalization in the early 1990s (Jalan, 2007; Gowda and Sridharan, 2012; Debroy and Bhandari, 2012). Many politicians are presumed to accept illegal payments in return for legislative favors or the provision of services, and national as well as state politics have been marred by corruption scandals (Gowda and Sridharan, 2012; Bussell, 2012). In recent years,
this has become an important topic in the political debate, and an anti-corruption movement has rapidly gained popularity.

Illegal special interest money serves multiple purposes. One of course is personal enrichment, most egregiously exemplified by A Raja allegedly accepting bribes north of $500 million. Another case is the former Chief Minster of the state of Tamil Nadu, Jayaram Jayalalitha, who recently was convicted and sent to jail for illegally amassing “disproportionate assets” of more than $10 million during her first term in office from 1991 to 1996.¹ As the former Governor or the Reserve Bank of India and ex-member of the upper house of parliament Bimal Jalan writes: “It is no secret that politics is generally regarded as the most lucrative business in the country” (Jalan, 2007, 60).

But special interest money is not just used for personal enrichment. Election campaigns in India are increasingly expensive, and candidates need to invest considerable resources to be a serious contender. There are restrictions on how much each candidate is allowed to spend, but the laws are easily circumvented (Bryan and Baer, 2005). For example, BJP leader Gopinath Munde admitted that his 2009 reelection campaign had cost him 80 million Rupees (more that $1.6 million at the time), vastly exceeding the legal limit of 2.5 million Rupees.² A large part of such expenditures goes towards cash and liquor handouts as well as other clientelistic goods, which are major tools of voter mobilization (Wilkinson, 2007; Krishna, 2007). The rising costs of fighting elections means that “recourse to extra-legal sources of political contributions is now widely accepted as being unavoidable” (Jalan, 2007, 26). While parties and party leaders are key recipients of special interest money, rents are distributed widely among relevant actors (Yadav, 2011; Bussell, 2013). Candidates are also increasingly expected to finance their own campaigns (Bryan and


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Baer, 2005; Vaishnav, 2011), so they “tend to use their term of office to accumulate war chests for future elections” (Gowda and Sridharan, 2012, 236). The fact that special interest regulation is weak and that there is a clear trade-off between personal enrichment and campaign expenditures make India an ideal case to examine the empirical implication of Proposition 7: that personal enrichment is higher when incumbents are more electorally secure, and that marginal candidates set aside more money for campaigning.³

2.3 Data

Since a ruling of India’s Supreme Court in 2002, all candidates in national and state elections are required to submit affidavits with detailed information on the assets held by themselves, their spouse, and any dependents.⁴ The assets need to be itemized in a number of categories: cash; bank deposits; bonds, debentures and shares in companies; national savings scheme and postal savings; life insurance and other insurance policies; personal loans given; motor vehicles; jewelery; agricultural land; non-agricultural land; commercial buildings; residential buildings; as well as other mobile and non-mobile assets. Candidates are also required to provide specific details such as account and policy numbers, make and registration number of vehicles, locations and area measurements of land, addresses and area of buildings, and so on. The affidavits are submitted a few weeks before the election takes place as part of the documents that candidates have to file to formally enter the contest, so the coverage is 100 percent. Figure 2.2 shows a sample page of an affidavit.

The filings are digitized and made available online by the Association for Democratic Reforms (ADR), a non-governmental organization based in New Delhi.⁵ To

³ Because regulation of money in politics in India is weakly enforced, there is no revolving door for politicians to speak of. This is consistent with Proposition 1.

⁴ They also are required to list any criminal convictions or cases pending against them.

⁵ The affidavits can be found at http://myneta.info.
### Figure 2.2: Sample page of an asset declaration affidavit (Sheila Dikshit, Delhi 2013)

<table>
<thead>
<tr>
<th>Description</th>
<th>Self</th>
<th>Spouse</th>
<th>Dependents 1</th>
<th>Dependents 2</th>
<th>Dependents 3</th>
<th>Dependents 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash in hand</td>
<td>20,000.00</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Details of deposit in, Bank accounts (PDA), Term deposits and all other types of deposits, including saving accounts, Deposits with financial institutions, Non-Banking financial Companies and Cooperative societies and the amount in each Such deposit</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td><strong>As on 08.11.2013</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date of Opening</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1) <strong>SBI, Sankar Marg, Delhi</strong></td>
<td>10818721645</td>
<td>14.02.1998</td>
<td>7,15,509.79</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) <strong>Standard Chartered Bank, 525/3334068</strong></td>
<td>08.09.2005</td>
<td>1,06,173.77</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) <strong>HDFC Bank, 9 A, Pheonix Building, Connaught Place, New Delhi</strong></td>
<td>701540148</td>
<td>07.09.2005</td>
<td>61,096.25</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### III Details of investment in Bonds, debentures, shares and units in companies mutual funds and others and the amount

<table>
<thead>
<tr>
<th>Description</th>
<th>FOLIO NO.</th>
<th>PURCHASE DATE</th>
<th>COST Rs.</th>
<th>MARKET VALUE Rs.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Birla SL dividend yield Plan-D</strong></td>
<td>3015431800</td>
<td>27.07.11</td>
<td>399991.50</td>
<td>353881.39</td>
</tr>
<tr>
<td><strong>2. DSPB TIGER Reg-D</strong></td>
<td>77567/7/17</td>
<td>30.11.06</td>
<td>2099999.90</td>
<td>205539.38</td>
</tr>
<tr>
<td><strong>3. DSPB Top 100 Reg-D</strong></td>
<td>18097/35/14</td>
<td>07.07.08</td>
<td>5207999.16</td>
<td>528008.98</td>
</tr>
<tr>
<td><strong>4. DSPB Top 100 Reg-D</strong></td>
<td>18097/35/14</td>
<td>29.09.08</td>
<td>2000000.01</td>
<td>206707.65</td>
</tr>
<tr>
<td><strong>5. Franklin India Bluechip-D</strong></td>
<td>1800275/30101</td>
<td>07.05.08</td>
<td>45000.00</td>
<td>74110.30</td>
</tr>
<tr>
<td><strong>6. HDFC Prudence-D</strong></td>
<td>794521/50</td>
<td>27.07.11</td>
<td>400000.00</td>
<td>399631.02</td>
</tr>
<tr>
<td><strong>7. HDFC Prudence-D</strong></td>
<td>5879945/57</td>
<td>25.03.11</td>
<td>300000.01</td>
<td>327720.32</td>
</tr>
<tr>
<td><strong>8. HDFC Top 100-D</strong></td>
<td>5879345/57</td>
<td>29.09.09</td>
<td>3199999.34</td>
<td>360645.07</td>
</tr>
<tr>
<td><strong>9. IDFC Premier Equity REG-D</strong></td>
<td>822096/34</td>
<td>28.01.08</td>
<td>89999.77</td>
<td>173952.78</td>
</tr>
<tr>
<td><strong>10. Reliance Banking-G</strong></td>
<td>508555/07/02</td>
<td>30.06.11</td>
<td>2625083.50</td>
<td>290716.62</td>
</tr>
<tr>
<td><strong>11. 58th debt fund series 566 days 36 Reg-D</strong></td>
<td>11580446</td>
<td>28.08.13</td>
<td>1000000.00</td>
<td>1072730.20</td>
</tr>
</tbody>
</table>
analyze the development of wealth during one legislative period, I match the affi-
davits of candidates at the state level that won their first election and ran for office
again in the following election. I employ a two-step procedure: First, I use an
automated algorithm that matches candidates’ names. It uses the generalized Lev-
venshtein edit distance and takes name permutations into account. I purposefully set
a high threshold for the distance to minimize the number of false negative matches.
Of course, this leads to a large number of false positives. In a second step, I therefore
check all matches manually, using supplementary information such as age or address
when necessary. I also compare my results with matches provided by ADR, and add
information on the candidates’ parties and constituencies provided by the Election
Commission of India. In total, the sample includes 1745 members of a Legislative
Assembly (MLAs) that ran for reelection in their state.

A general concern about this data is that candidates underreport their assets in
the affidavits. The consensus among experts is that the affidavits are quite accurate,
and they have been used in academic studies examining the effect of holding office
on total asset development (Bhavnani, 2012; Fisman, Schulz and Vig, 2014). The
accuracy of the data is thought to be particularly high for state-level MLAs, who
face intense scrutiny at the local level. V B Singh, a former director of the Delhi-
based Centre for the Study of Developing Societies (CSDS), states that “[i]t is hard
for MLAs to hide details of their assets because of the localised nature of their
politics.” Politicians also have few incentives to underreport their assets even if

6 I include data from 38 elections in 19 states: Arunachal Pradesh (2004 and 2009), Assam (2006
and 2009), Himachal Pradesh (2007 and 2012), Jharkhand (2005 and 2009), Karnataka (2008 and
2011), Uttar Pradesh (2007 and 2012), Uttarakhand (2007 and 2012), and West Bengal (2006 and
2011).

7 See Section 3.5.2 for details about the Levenshtein edit distance.

8 http://www.business-standard.com/article/current-affairs/mlas-getting richer-faster-than-mps-
114110100024_1.html

61
they have enriched themselves to a degree that is not possible in a legal way, since
the affidavits are not used for legal prosecution. For example, an editorial piece
in the national newspaper The Hindu starts out as follows: “Politicians dutifully
disclose their increasing assets at each election but no questions are ever asked about
how they acquired this wealth nor are any explanations provided.”

While there are reasons to believe that the data quite accurately reflect reality, in Section 2.7.3 I
examine the robustness of the findings to systematic underreporting by certain kinds
of candidates.

A second concern with the data is more specific to my research question. The
affidavits are handed in a few weeks before the elections take place, and because
candidates in India often finance at least part of their reelection campaigns out of
their own pockets, they potentially contain assets that are designated to be spent in
the upcoming campaign. So do the assets reflect personal enrichment or money to be
used in reelection campaign? To identify the former, I focus on the category in the
affidavits most cleanly reflecting personal enrichment: the number of motor vehicles
owned by a candidate. Assets stored in bank deposits can be quickly liquidated and
used to finance an election campaign, so from the affidavits it is unclear what purpose
they serve. And even categories such as land or buildings are not reliable indicators
of personal enrichment: Many politicians in India park their assets in real estate,
and then receive cash payments from builders at the time of the election (Kapur
and Vaishnav, 2011). Cars, however, clearly fall into the category of personal wealth
and there is no reason why they would be useful in an election campaign. This is
particularly true since the Election Commission sets a limit on the number of vehicles
that can be used in campaign rallies, which it strictly enforces.

9 Source: http://www.thehindu.com/opinion/lead/article3700211.ece

10 For example, in November 2013 the Election Commission halted a rally by the Aam Aadmi
Party in Delhi since a number of supporters driving auto rikshaws joined the parade, increas-
ing the size of the convoy to more than the allowed ten vehicles. The party instructed the
2.4 Research Design

The hypothesis to be tested is that candidates who are more electorally secure use special interest money to enrich themselves personally to a higher degree than candidates who expect to be in close reelection races and have incentives to invest in campaigning. I proxy electoral security by the margin with which the candidate won office in the first election. All else equal, a candidate that took office after winning by a large margin is more electorally secure than a candidate who won by a small percentage.

The most straightforward way to test the hypothesis would be to simply examine the effect of the margin of victory in the first election on the development of personal wealth. However, while the affidavits allow us to see how politicians’ assets grew over the course of a legislative period, they do not state the sources of the growth. It might be that some MLAs have higher asset because they are more successful in their private financial dealings. This would threaten inference especially if this success is related to the margin of victory – for example if some candidates have unobserved qualities that make them more successful in elections as well as more successful in their private financial dealings. Finding a positive association between the winning margin and subsequent wealth increase would then not reflect the effect of special interest money.

What is needed is a research design that minimizes concerns about unobserved confounders related to the margin of victory and that allows me to isolate the effect of special interest money. Ideally, there would be two groups of politicians with varying winning margins that are similar in every aspect except one is known to supporters to “maintain a distance of 200 metres with the last car in the 10 car-long cavalcade,” and the responsible district election officer declared that “We have got the videography done of the entire rally. We will go through the video footage before taking any action.” See http://articles.economictimes.indiatimes.com/2013-11-10/news/43885853_1_10-vehicles-aam-aadmi-party-aap
not accept special interest money while the other one is. The Indian case provides an opportunity for a research design that comes quite close to this. Most Indian politicians are assumed to accept illegal money for political favors, especially from business groups. But not all of them are: “The only major political party that remains an exemption to this trend is India’s main communist party, the CPM” (Kohli, 2012, 54). The Communist Party of India (Marxist), often also abbreviated as CPI(M), is one of the six nationally recognized parties in India and has more than one million members. Geographically, its support base is concentrated in the states of Kerala, West Bengal, and Tripura, where it has formed the government on several occasions. Despite this success, it has remained relatively loyal to its left-leaning policies, which includes a lack of connections to India’s powerful business sector, especially the large business houses. As Sridharan (2006) expands: “[T]he CPM, which despite two decades in power in West Bengal and long spells in Kerala and Tripura, have been much less involved in large-scale corruption than the Congress and other parties” (Sridharan, 2006, 325).

Thus, legislators that are members of a major Indian party have much less access to special interest money, in particular from the financially powerful business sector, than members of the other major parties. This allows me to isolate the effect of financial connections to special interest groups on the development of personal wealth, with CPM candidates providing a baseline against which to evaluate politicians that are members of other parties. I therefore pre-process the data using a matching approach (Ho et al., 2007) to find a set of non-CPM politicians that is comparable to the CPM candidates on observables such as initial wealth, the margin of victory in the first election, and demographics. Then, I examine the difference in personal wealth at the end of the legislative period between CPM and non-CPM candidates and see how it is conditioned by electoral security.
Of course, this research strategy is only valid if CPM members are not systematically and in unobserved ways different from members of other parties. With respect to this, it is important to note that the CPM is a communist party mostly in name. Its policies are usually described as social-democratic, trying to achieve “mild redistribution within the constraints of democracy and capitalism” (Kohli, 2012, p. 203). In Kerala and West Bengal, the CPM is one of the major parties, just like the Congress or BJP are in other parts of the country. Ambitious politicians in these states are well advised to join the CPM to maximize their chances for a successful career. This mitigates concerns that CPM politicians are different in unobserved ways from politicians that are members of other parties. Instead, the major difference is in their access to special interest group money. However, in Section 2.7.2 I examine how robust the results are to unobserved differences between politicians of the CPM and the other parties.

There are a total of 113 CPM members that were MLAs in the sample. I conduct nearest neighbor matching using a number of important variables from the first election, most importantly the margin of victory and the number of vehicles owned. I also include demographics (age and gender), as well as district characteristics (number of candidates, whether the district is designated for candidates that are member of a scheduled caste or tribe, and the number of electors). Finally, I include whether the candidate’s party was part of the government, whether the candidate competes in a different district in the second election than in the first, and the state’s average rate of per capita GDP growth during the term.

Figure 2.3 shows the standardized differences between the CPM assembly members and all others for the full sample (gray) and for the matched sample (black). Positive values indicate larger mean values for CPM candidates. As a rule of thumb, standardized differences with an absolute value larger than 0.25 indicate serious imbalance. In the full sample, CPM candidates differ markedly from MLAs of other
Figure 2.3: Standardized difference between CPM candidates and non-CPM candidates in the full sample (gray) and the matched sample (black). Positive values indicate larger mean values for CPM candidates. Differences with an absolute value larger than 0.25 indicate serious imbalance.

Parties on a number of characteristics. After nearest neighbor matching, the standardized differences for all variables are within the bounds. In particular, the sample is almost perfectly balanced with respect to the margin of victory in the first election. Other variables where the imbalances are greatly reduced are the number of vehicles reported in the first affidavit, the number of candidates during the first election, and whether the candidate’s party was part of the state government in the period between the two elections.

Figure 2.4 plots the locations of the politicians in the matched sample. The CPM candidates (red) are mostly concentrated in Kerala and West Bengal, two of
Figure 2.4: Locations of districts of CPM candidates (red) and of the matched non-CPM candidates (black).

The CPM formed the government in both states during the period of observation. A handful of CPM candidates are located in Maharashtra and Tamil Nadu, where they were part of the opposition. The matched non-CPM candidates are from several states, with the highest number coming from Bihar, Odisha, and Gujarat. They are mostly members of other major Indian parties such as the Congress, BJP, or Janata Dal (United). Just like the overwhelming majority of CPM members, most MLAs in the matched group were their traditional strongholds (Kohli, 2012).\textsuperscript{11} The CPM has a large support base, Tripura, only recently had its second election and is not included in the sample.

\textsuperscript{11} The third state in which the CPM has a large support base, Tripura, only recently had its second election and is not included in the sample.
part of the government party in their respective states. Detailed descriptive statistics of the sample can be found in Appendix B.

2.4.1 Statistical Approach

I estimate the following model:

\[
y_i \sim \text{Poisson}(\lambda_i)
\]

\[
\lambda_i = g^{-1}(\alpha + \beta_1 x_{1i} + \beta_2 x_{2i} + \beta_3 x_{1i} \times x_{2i} + Z_i \delta)
\]

where \(y_i\) is the number of motor vehicles stated by candidate \(i\) in the second affidavit, \(g(\cdot)\) the exponential link function, \(x_{1i}\) is a dummy indicator whether \(i\) is a member of the CPM, \(x_{2i}\) is the margin of victory in the first election, and \(Z_i\) the vector of control variables that were used for the matching procedure, which includes the number of vehicles in the first affidavit. I estimate a model that allows for overdispersion.

2.5 Results: Personal Enrichment

2.5.1 Descriptive Results

Before presenting the regression results, it is useful to look descriptively at the development of personal wealth during a legislative period. Figure 2.5 plots the distributions of the number of motor vehicles in the first and second affidavits for the CPM candidates (red) and for the matched non-CPM politicians (black). In the first affidavit, the majority of candidates report owning no or just one vehicle. The number of CPM politicians that have no vehicle is somewhat higher than for their matched non-CPM counterparts. A few candidates own two or more cars. Overall, the distributions are relatively similar for both groups. The mean number of vehicles is 0.39 for CPM politicians and 0.50 for non-CPM one’s.

The right panel plots the distributions for the second affidavit. The number of vehicles candidates own has grown, with the average more than doubling from 0.45 to 1.02. But the non-CPM MLAs experienced a much larger increase than those of
the CPM. Many non-CPM politicians now own one or two cars, whereas about half of the CPM candidates still own no vehicles. The mean number of vehicles for CPM candidates now is 0.58, but the mean for non-CPM politicians has almost tripled to 1.47. This provides evidence for the core assumption underlying the research design, namely that politicians of the CPM have less access to special interest money than their counterparts in other parties.

![Histograms](image)

**Figure 2.5**: Distribution of the number of motor vehicles in the first and second affidavit for CPM candidates (red) and for matched non-CPM candidates (black).

### 2.5.2 Regression Results

The theoretical expectation is that this divergence between CPM and non-CPM candidates in the number of vehicles they own at the end of the legislative period is driven by the non-CPM candidates that are electorally secure. Those who won office only by a slim margin have incentives to invest more of the special interest money they receive into their campaigns, leaving less room for personal enrichment. Put another way, the expectation is that the increase in the average number of vehicles of non-CPM candidates is driven by those who won their past election by a wide
Table 2.1: Determinants of the number of motor vehicles reported in the second affidavit. Overdispersed Poisson regression of recontesting CPM MLAs and matched non-CPM MLAs.

|                        | Estimate | Std. Error | t value | Pr(>|t|) |
|------------------------|----------|------------|---------|----------|
| CPM                    | -0.313   | 0.291      | -1.078  | 0.282    |
| Winning Margin t-1     | 1.790    | 0.996      | 1.798   | 0.074    |
| CPM x Winning Margin t-1| -4.470  | 2.078      | -2.151  | 0.033    |
| Number of Vehicles t-1 | 0.375    | 0.079      | 4.760   | 0.000    |
| Age                    | -0.006   | 0.007      | -0.763  | 0.446    |
| Female                 | 0.155    | 0.218      | 0.710   | 0.478    |
| SC/ST Candidate        | 0.551    | 0.190      | 2.907   | 0.004    |
| Number of Candidates t-1| 0.067   | 0.038      | 1.775   | 0.077    |
| Electors in Constituency (log) | 0.243 | 0.337      | 0.720   | 0.473    |
| Change in Constituency | -0.187   | 0.166      | -1.122  | 0.263    |
| Party in Government    | 0.158    | 0.343      | 0.461   | 0.646    |
| Avg. Growth GDPpc      | -0.003   | 0.073      | -0.036  | 0.972    |
| (Intercept)            | -3.395   | 3.810      | -0.891  | 0.374    |
| Observations           | 226      |            |         |          |
| Deviance               | 267.914  |            |         |          |

margin, while there should be little or no difference between CPM and non-CPM candidates that won by a narrow margin.

Table 2.1 shows the results of the overdispersed Poisson regression. The quantity of interest is $\beta_2 - \beta_3$, the difference of the effect of the winning margin on the number of vehicles between non-CPM and CPM incumbents. The larger this difference, the more does the winning margin in the first election affect the number of cars purchased by those with access to special interest money. The point estimate for $\beta_2 - \beta_3$ is 3.44, which has a p-value of < 0.00. This points to a clear conditional effect of the competitiveness of the political environment on personal enrichment from special interest money. The higher the margin of winning, the more cars do incumbents with access to special interest money own, compared to their peers who do not have such access. Of the control variables, the number of vehicles in the first affidavit has a positive effect, and candidates that compete in districts reserved for scheduled castes or tribes own in expectation about half a car more. Finally, candidates that
had more opponents in the first election tend to have more vehicles as well, but the variable is only significant at the 10 percent level.

![Graph showing the effect of non-CPM on the number of cars.](image)

**Figure 2.6**: Difference in predicted number of motor vehicles in the second election between incumbent with and without access to special interest money as a function of the margin of victory in the first election. Point estimates and 95 percent confidence intervals.

Figure 2.6 shows what the interaction means in substantive terms. The vertical axis shows \( E[(y_i|x_{1i} = 0, x_2) - (y_i|x_{1i} = 1, x_2)] \), the difference in the predicted number of vehicles between a candidate being member of a party other than the CPM and therefore having access to special interest money \( (x_{1i} = 0) \) and being a member of the CPM and not having access to special interest money \( (x_{1i} = 1) \), conditional on the winning margin in the first election \( (x_2) \).

When the margin of victory in the first election is less than about 4 percent, the 95 percent confidence intervals include zero. That is, even though one group of legislators had access to special interest money and the other one did not, there is no
difference in the development of their personal wealth over the course of a legislative period. But for MLAs that are more electorally secure, those who have access to special interest money increase their personal wealth to a significantly higher degree than their counterparts in the CPM who do not have connections to the business sector. For politicians that won office by a margin of 20 percent, incumbents with access to special interest money are expected to own about one more motor vehicle than their counterparts without access at the end of the legislative period, having had a similar number at the beginning. This confirms that the higher increase of the number of cars in Figure 2.5 for non-CPM candidates is driven by those who are electorally secure.

2.6 Results: Cash Deposits

Patrick French, a long-time observer of Indian politics, remarks in his book “India: A Portrait” that “[a]fter watching several Indian general elections, I had come to think they were (...) designed for the public to fleece aspiring politicians as payback for the previous years when transactions had gone in the opposite direction. (...) Money that had been stored up for cash in years would be paid out to officials and supporters” (French, 2011, 85). Indeed, cash reserves are of crucial importance for reelection campaigns. At the same time, they are a very inconvenient form to hold wealth designated for personal enrichment. The flip side of the results in the previous section therefore is that incumbents who won by a slim margin should use their special interest money to build up cash reserves that can be dispensed in the upcoming election campaign.

Table 2.2 shows the results of an OLS regression with the dependent variable being the logged amount of cash stated in the second affidavits.\textsuperscript{12} First, CPM members without access to special interest money have much lower cash reserves, controlling

\textsuperscript{12} I add 1000 to avoid taking a log of zero.
Table 2.2: Determinants of logged cash reported in the second affidavit. OLS regression of recontesting CPM MLAs and matched non-CPM MLAs.

|                           | Estimate | Std. Error | t value | Pr(>|t|) |
|---------------------------|----------|------------|---------|----------|
| CPM                       | -2.4500  | 0.3021     | -8.11   | 0.0000   |
| Winning Margin t-1        | -2.7532  | 1.2857     | -2.14   | 0.0334   |
| CPM x Winning Margin t-1  | 3.2401   | 1.8161     | 1.78    | 0.0758   |
| Cash, logged, t-1         | 0.2333   | 0.0536     | 4.36    | 0.0000   |
| Age                       | -0.0029  | 0.0083     | -0.35   | 0.7240   |
| Female                    | -0.2801  | 0.2380     | -1.18   | 0.2405   |
| SC/ST Candidate           | 0.0829   | 0.2189     | 0.38    | 0.7054   |
| Number of Candidates t-1  | 0.0316   | 0.0382     | 0.83    | 0.4082   |
| Electors in Constituency (log) | 0.1625 | 0.3128     | 0.52    | 0.6038   |
| Change in Constituency    | -0.0860  | 0.1662     | -0.52   | 0.6053   |
| Party in Government       | 0.4206   | 0.3800     | 1.11    | 0.2697   |
| Avg. Growth GDPpc         | -0.0321  | 0.0823     | -0.39   | 0.6970   |
| (Intercept)               | 2.0741   | 3.5515     | 0.58    | 0.5598   |

Observations 226
Deviance 291.230

for the amount of cash declared in the first affidavit. The amount of cash in the second affidavit decreases in the margin of victory of the first election for non-CPM candidates, while the positive interaction term shows that this is not the case for CPM incumbents. The point estimate for $\beta_2 - \beta_3$ is -4.67, which again has a p-value of < 0.00.

Figure 2.7 shows the difference in the predicted logged cash holdings between incumbents with and without access to special interest money, conditional on the winning margin in the first election. There is a large difference for incumbents who won by a narrow percentage, where non-CPM politicians with access to special interest money hold much more cash than their CPM counterparts. In contrast, the difference is smaller for incumbents that are more electorally secure. Notice that non-CPM candidates always hold more cash than CPM candidates, no matter the margin of winning. Thus, candidates with access to interest group money who won by a wide margin increase their personal wealth much more than their counterparts.
without access. Candidates with access to interest group money who won by narrow margin, however, increase their cash holdings much more than those without access. Together, these two findings provide clear evidence for a strategic choice in how incumbents allocate their special interest money.

2.7 Alternative Explanation and Sensitivity Analyses

In this section, I investigate the robustness of the results. I test the possibility that the findings can at least partly be explained by supply-side factors. It might be the case that interest groups give strategically more money to electorally safe incumbents, who are then able to purchase expensive cars, whereas incumbents that won by a narrow margin do not receive sufficient special interest money to do so and instead
simply hold a little bit more cash. Then, I conduct two types of sensitivity analysis. First, I examine how robust the results are if there are unmeasured differences between politicians of the CPM and the other parties (unconfoundedness). Second, I assess the sensitivity of the findings to the presence of non-random measurement error in the dependent variables.

2.7.1 Alternative Explanation: Supply-Side Factors

So far I have stressed a demand-side explanation for the different patterns of asset development among incumbents that won with high and low margins. But what about the supply-side? One might expect that special interests strategically give more money to MLAs that won by a larger margin, for example because they expect them to be in office for a longer time, or because they have more influence within their party. This might at least partially explain the observed pattern of asset development: If incumbents that won by a narrow margin received little special interest money, they might not be able to afford the purchase of a car and decide to store what little they receive in the form of cash.

Table 2.3 shows the results of an OLS regression with the dependent variable being the logged total value of all assets stated in the second affidavits, controlling for total assets in the first affidavit. The first thing to realize is that the coefficient for CPM is negative with a high level of statistical significance. The assets of CPM members grow much less than those of their non-CPM counterparts. This validates the research design exploiting the fact that the former are members of a party that traditionally has no connections to big business. The second main result is that neither the coefficient for the winning margin in the first election nor the interaction term are statistically different from zero. The point estimate for $\beta_2 - \beta_3$ is 0.32, which has a p-value of 0.75.

\footnote{Again, I add 1000 to avoid taking the log of zero.}
Table 2.3: Determinants of logged total assets reported in the second affidavit. OLS regression of recontesting CPM MLAs and matched non-CPM MLAs.

|                          | Estimate | Std. Error | t value | Pr(>|t|) |
|--------------------------|----------|------------|---------|----------|
| CPM                      | -0.8043  | 0.2303     | -3.49   | 0.0006   |
| Winning Margin t-1       | -0.0990  | 1.0400     | -0.10   | 0.9242   |
| CPM x Winning Margin t-1 | -0.4224  | 1.4654     | -0.29   | 0.7734   |
| Total Assets, logged, t-1| 0.5277   | 0.0415     | 12.70   | 0.0000   |
| Age                      | -0.0026  | 0.0067     | -0.40   | 0.6928   |
| Female                   | -0.0434  | 0.1916     | -0.23   | 0.8211   |
| SC/ST Candidate          | -0.1276  | 0.1813     | -0.70   | 0.4822   |
| Number of Candidates t-1 | 0.0136   | 0.0307     | 0.44    | 0.6571   |
| Electors in Constituency (log) | 0.4237   | 0.2522     | 1.68    | 0.0945   |
| Change in Constituency   | 0.0965   | 0.1342     | 0.72    | 0.4729   |
| Party in Government      | -0.0080  | 0.3065     | -0.03   | 0.9793   |
| Avg. Growth GDPpc        | 0.0399   | 0.0665     | 0.60    | 0.5495   |
| (Intercept)              | 2.8687   | 2.9430     | 0.97    | 0.3308   |

Observations                | 226
Deviance                    | 189.41

Figure 2.8 shows what this means in substantive terms by plotting the expected difference in logged total assets between incumbents with and without access to special interest money in the second affidavit as a function of the winning margin in the first election, along with the 95 percent confidence intervals. The difference is positive and the interval never contains zero. Most importantly, the line is almost completely flat. The total asset growth of incumbents with access to special interest money is about the same no matter their margin of winning. This strengthens the argument that the findings in the previous sections are not driven by supply-side factors, but instead by the strategic allocation decisions of incumbents.

### 2.7.2 Sensitivity Analysis: Unconfoundedness

Another assumption in the research design of this chapter is that, conditional on the covariates mentioned in Figure 2.3, there are no relevant unobserved differences between incumbents that are members of the CPM and those that are not, so there
Figure 2.8: Difference in predicted logged value of total assets in the second election between incumbent with and without access to special interest money as a function of the margin of victory in the first election. Point estimates and 95 percent confidence intervals.

is no unobserved selection. In this section, I use a sensitivity analysis approach to assess how violations of this unconfoundedness assumption affect the findings (see Imbens, 2003; Blackwell, 2014).

Suppose there was a variable $U = \{u_1, \ldots, u_n\}$ that is related to $X_1 = \{x_{11}, \ldots, x_{1n}\}$ (party membership, the “treatment” assignment) and $Y = \{y_1, \ldots, y_n\}$ (the dependent variable). For example, this variable could reflect systematic differences between CPM members and non-CPM members in how much they value (and therefore buy) a new car. I explicitly model $U$ with different combinations of correlations to $X_1$ and $Y$. Then, I re-estimate the model given in Equation (2.1) but including $U$, and assess how the results change. In particular, I focus on $\beta_2 - \beta_3$, the difference of the
effect of the winning margin on the number of vehicles between non-CPM and CPM incumbents.

The confounder $U$ is generated in a two-step process. First, I assume that a share $\alpha$ of the CPM members ($x_{1i} = 1$) are systematically different in unobserved ways from their non-CPM peers. Denote being systematically different with $d_i = 1$. Then,

$$\Pr(d_i = 1) = \begin{cases} 0 & \text{if } x_{1i} = 0 \\ \alpha & \text{if } x_{1i} = 1 \end{cases}$$

(2.2)

Second, it holds that $\rho(U, Y | d_i = 1) = \delta$, so the correlation between $U$ and $Y$ is $\delta$ for those who are systematically different. For $d_i = 0$, it is always true that $u_i = 0$. Put succinctly, a share $\alpha$ of CPM members are systematically different from everyone else in a way that correlates with the dependent variable at level $\delta$. I simulate possible combinations of $\alpha \in (0, 1)$ and $\delta \in (-1, 1)$ and examine how this affects $\beta_2 - \beta_3$.

![Figure 2.9](image.png)

**Figure 2.9**: Average p-value from 100 regressions of $\beta_2 - \beta_3$ for combinations of $\alpha$ and $\delta$. Dependent variable: number of motor vehicles, second affidavit.
Figure 2.9 plots the average p-value of $\beta_2 - \beta_3$, the slope for how much the margin of winning affects the number of vehicles of non-CPM incumbents compared to their CPM peers, for possible combinations of $\alpha$ and $\delta$. Each cell is based on 100 regressions. The results in Table 2.2 assume $\alpha = \delta = 0$ and yield a positive value for $\beta_2 - \beta_3$ with a p-value of $< 0.00$. That is, there is a significant difference between CPM and non-CPM candidates in the way the winning margin affects the development of the number of motor vehicles. As Figure 2.9 shows, this finding is robust to all combinations of $\alpha$ and $\delta$, as the p-value never goes above 0.05. Figure 2.10 shows the results of doing the same exercise with cash holdings as the dependent variable. For $\alpha = \delta = 0$, the coefficient was negative with a p-value of $< 0.00$. Again, this finding is robust to all combinations of $\alpha$ and $\delta$, as the p-value never goes above 0.05. In fact, it never goes above the 0.01 threshold.

**Figure 2.10**: Average p-value from 100 regressions of $\beta_2 - \beta_3$ for combinations of $\alpha$ and $\delta$. Dependent variable: logged cash holdings, second affidavit.
In summary, both findings are robust to the inclusion of an unobserved confounder that is correlated with party membership as well as the dependent variables. It is unlikely that a violation of the unconfoundedness assumption can explain the finding that the number of motor vehicles of candidates with access to special interest money grows more the higher the margin of victory, and that their cash reserves are larger the smaller the margin.

2.7.3 Sensitivity Analysis: Non-Random Measurement Error

The asset disclosure affidavits allow us to potentially infer actions on the candidates’ part that are objectionable or even illegal. Even though there are good arguments that the self-reports reflect the actual assets quite accurately, the potential for underreporting remains. In particular, there is the danger that underreporting might not be random, but instead systematically related to the main variable of interest: the margin of winning in the first election. While most voters may not be aware of the asset developments of their MLAs, the affidavits do receive a fair amount of pre-election press coverage. If at least some voters punish incumbents for excessive asset growth, there is an incentive to underreport. And of course, this incentive is larger for those who expect to be in a close reelection race.

To assess how the presence of such non-random measurement error would affect the findings, I again turn to sensitivity analysis. There are three steps to this approach. The first step is to quantify the direction and potential magnitude of the non-random measurement error. The second step is to simulate what the data would look like given different levels of measurement error. The final step is to re-estimate the original model using the simulated data instead of the observed variable and assess how this affects inference (see Gallop and Weschle, 2014).

I assume that CPM members, who do not have access to special interest money, correctly report their assets no matter their margin of victory. Non-CPM politicians
with access to special interest money are suspected of underreporting their assets, but less so if they are more electorally secure. Denote the observed number of motor vehicles owned by candidate \( i \) before the second election with \( y_i \), while the true number is \( t_i \). I model the latter as follows:

\[
t_i = \begin{cases} 
    y_i + a_i & \text{if } x_{1i} = 0 \\
    y_i & \text{if } x_{1i} = 1
\end{cases}
\]

where \( a_i \sim \text{Poisson}(\lambda_i) \) and \( \lambda_i = \lambda_{\text{max}} - \frac{x_{2i} \lambda_{\text{max}}}{\max(x_2) - \min(x_2)} \). That is, the true number of vehicles for non-CPM incumbents is their reported number plus an additional number drawn from a Poisson distribution with mean \( \lambda_i \), which is decreasing in the margin of victory in the first election \( x_2 \). The parameter \( \lambda_{\text{max}} \) determines the slope of the decrease.

**Figure 2.11:** Parameter \( \lambda \) as a function of the margin of winning in the first election for \( \lambda_{\text{max}} = 0.5 \) (blue), \( \lambda_{\text{max}} = 1 \) (green), \( \lambda_{\text{max}} = 1.5 \) (orange), and \( \lambda_{\text{max}} = 2 \) (red).
Figure 2.11 shows $\lambda$ for $\lambda_{\text{max}} \in \{0.5, 1, 1.5, 2\}$. This latter parameter can be interpreted as the mean of the Poisson distribution that determines the additional number of vehicles for non-CPM candidates that won office by a margin close to zero. In the most extreme case (red line), incumbents that barely won are in expectation thought to own about two more vehicles than they state in their affidavits. Candidates that won by the sample maximum of around 36 percent are assumed to have no underreporting, and the mean of the Poisson distribution is linearly decreasing between these two extremes. The orange line shows the case of $\lambda_{\text{max}} = 1.5$, the green line of $\lambda_{\text{max}} = 1$, and the blue line gives $\lambda_{\text{max}} = 0.5$. The smaller $\lambda_{\text{max}}$, the lower the systematic underreporting of assets by candidates expecting to be in close reelection races.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure2.12.png}
\caption{Sensitivity analysis for the model in Table 2.1. Effect of non-random measurement error in the number of motor vehicles on $\beta_2 - \beta_3$ (point estimate and 95 percent confidence interval). Black vertical line: no measurement error.}
\end{figure}
The sensitivity analysis investigates $\lambda_{\text{max}} \in (0, 2]$. For each increment in the simulation, I draw $a_i \sim \text{Poisson}(\lambda_i)$ 1000 times and average the regression estimates. Figure 2.12 shows how the point estimate and 95 percent confidence interval of $\beta_2 - \beta_3$ change as a result of different values of $\lambda_{\text{max}}$. The vertical black line on the left shows the effect size when $\lambda_{\text{max}} = 0$, so assuming no measurement error. The larger $\lambda_{\text{max}}$, the higher the underreporting of the dependent variable as a function of the margin of victory is thought to be. The effect size of $\beta_2 - \beta_3$ goes towards zero as $\lambda_{\text{max}}$ increases. However, the 95 confidence interval does not contain zero unless $\lambda_{\text{max}}$ is larger than about 0.7. The finding that incumbents with access to special interest money increased the number of vehicles they own to a higher degree when they are electorally more secure is robust unless underreporting is severe enough that those who won by a very slim margin in expectation omitted 0.7 vehicles from their reports. To put this into perspective, the average number of cars stated by non-CPM candidates in the second affidavit is 1.47, and 1.31 for those who won office by less than 5 percent. The results are thus robust unless there is substantial non-random measurement error in the dependent variable.

Of course, the amount of cash that candidates report is also subject to concerns about non-random measurement error. Again, I assume that CPM members are honest, whereas non-CPM members with access to special interest money underreport more when the margin of victory in the first election was smaller. Let $y_i$ now be the (non-logged) amount of cash reported in the second affidavit, and $t_i$ be the true amount. I model the latter as follows:

$$
    t_i = \begin{cases} 
    y_i \eta_i & \text{if } x_{1i} = 0 \\
    y_i & \text{if } x_{1i} = 1 
    \end{cases} \quad (2.4)
$$

where $\eta_i = \left( \eta_{\text{max}} - \frac{x_{2i} (\eta_{\text{max}} - \eta_{\text{min}})}{\max(x_2) - \min(x_2)} \right)$. Underreporting is now modeled through a multiplicative term, so the true amount of cash is $\eta_i$ times the reported one. Thus,
$\eta_i = 1$ means there is no non-random measurement error. Again, $\eta_i$ is largest for incumbents that won by a margin close to zero, where $\eta_{max} \in [1, 3)$. There is no underreporting for the candidates who won office with the sample maximum margin, so $\eta_{min} = 1$.

Figure 2.13: Sensitivity analysis for the model in Table 2.2. Effect of non-random measurement error in cas holdings on $\beta_2 - \beta_3$ (point estimate and 95 percent confidence interval). Black vertical line: no measurement error.

Figure 2.13 shows how the point estimate and 95 percent confidence interval of $\beta_2 - \beta_3$ change as a result of different values of $\eta_{max}$. Remember that the model in Table 2.2 showed that incumbents with access to special interest money that won by a slim margin hold more cash than their colleagues who cruised into office. Of course, underreporting by the former in this case biases against finding evidence consistent with my hypothesis, so it follows that $\beta_2 - \beta_3$ becomes larger the more non-random measurement error there is.
In summary, while the larger personal enrichment of candidates with better re-election expectations is not robust to very severe underreporting, it does hold up for a substantial amount. Non-random measurement error cannot explain the larger cash holdings of electorally insecure incumbents. The sensitivity analyses in this section thus show it to be unlikely that the findings can be explained by systematic measurement error.

2.8 Discussion

What is effect of holding office on personal enrichment? And what is its effect on campaign contributions? Recently, a number of studies have used regression discontinuity designs (RDD) comparing winners and losers of close elections to gain new insights into both questions. With respect to the former, Bhavnani (2012) uses the Indian affidavit data and finds that the assets of close winners increased by 4-6 percent annually compared to runner-ups. Fisman, Schulz and Vig (2014), using the same data and a very similar approach, find an increase of 3-5 percent per year. Querubin and Snyder (2013) show an effect of 40 percent over a ten-year period for U.S. Congressmen during the Civil War, but no effect for the decades before and after. With respect to the latter, Fouirnaies and Hall (2014) compare the campaign contributions to marginal winners and losers in the U.S. House and state legislatures. They find that incumbency causes a 20 to 25 percent increase in the share of donations to the winner’s party. On the one hand, the magnitude of the personal enrichment effect is surprisingly modest with between 3 and 6 percent annually. On the other hand, a 20 to 25 percent increase in the share of campaign contributions is sizable.

The findings I present in this chapter help put these numbers into perspective and provide important qualifications for the scope of these papers’ findings. Regression discontinuity designs focus on the subset of close election races and argue that their
winners and losers are assigned as if random. This way of exploiting quasi-random assignment in observational data has made them increasingly popular in Political Science in recent years. While RDD does solve the problem of confounding by unobservables, it does so at the cost of focusing on a particular subset of candidates with strategic incentives that may differ from the overall population. In particular, I have shown that candidates who win by a narrow margin have the most incentive to raise campaign money from special interest groups, while they have the least leeway for personal enrichment.

Most studies using regression discontinuity designs do not discuss this fact. Using an alternative research design that does not just focus on a small subset of officeholders, I show that the margin of winning has an important effect on the strategic calculus of politicians. This helps put recent studies using RDD to investigate the effect of political office on personal enrichment and campaign contributions in the appropriate context. The 3-6 percent effect of holding office on personal wealth found by Bhavnani (2012), Querubin and Snyder (2013), and Fisman, Schulz and Vig (2014) should be considered a lower bound, with the private returns to holding office being larger for electorally more secure candidates. Conversely, the 20-25 percent effect of holding office on campaign contributions found by Fouirnaies and Hall (2014) is probably an upper bound, as more secure incumbents can solicit special interest money in ways that is more beneficial to their personal wealth.

A second implication pertains specifically to the other papers that use the Indian asset disclosures (Bhavnani, 2012; Fisman, Schulz and Vig, 2014). Both situate their papers withing the corruption and rent seeking literature and interpret their findings as evidence for “Private Returns to Public Office,” as the title of the latter study suggests. But this winner’s premium may be consumed partly or even entirely by election spending, especially because the papers focus on winners of close elections. Thus, it might be that these studies speak less or at least not exclusively to the
literature on using public office for private gain. However, they may speak more to the literature on the incumbency advantage instead.

2.9 The Normative Consequences of Vote Buying versus Personal Enrichment: A Survey Experiment

How politicians allocate illegal money between bribes and campaign spending is of obvious importance for the academic literature. But it also has real consequences for many Indian voters. The largest part of campaign spending by Indian elections goes towards clientelistic benefits (Wilkinson, 2007; Krishna, 2007; Kapur and Vaishnav, 2011). A recent article in *Bloomberg View* calls Indian general elections a “quasi-Keynesian boost (...) rich with multiplier effects from boardroom to tea shop.”\(^{14}\)

Candidates try to buy the votes especially of poor voters using handouts in various forms, most importantly cash, liquor, and small gifts such as jewelery. An article in the *Wall Street Journal* reports about a street sweeper saying that “people in his neighborhood look forward to elections to help pay for weddings. One of his four daughters was married in this way, he said.”\(^{15}\) Of course, there are many reasons why programmatic political competition is normatively preferable over clientelistic one. But the distribution of “goodies” before an election is often the only way in which voters, especially poor ones, benefit from the political system (Banéegas, 1998; Auyero, 1999; Gonzalez Ocantos, Kiwiet de Jonge and Nickerson, 2014). This raises the question: Are voters more tolerant of politicians illegally taking special interest money when it is used for vote buying instead of their personal enrichment?


\(^{15}\) [http://www.wsj.com/articles/SB10001424052702303417104579545803109504402](http://www.wsj.com/articles/SB10001424052702303417104579545803109504402)
2.9.1 Setup

To answer this question, I conducted a survey experiment among voters in Delhi, India, in which respondents were randomly assigned to one of two vignettes:

- **Vignette 1:** Imagine a politician who received money from a company for a political favor. He used this money to personally enrich himself. What do you think the consequences should be?

- **Vignette 2:** Imagine a politician who received money from a company for a political favor. He used this money to buy votes in an election. What do you think the consequences should be?

Respondents were then given three possible punishments:

- A politician who took money for political favors to [buy votes/enrich himself] should have to resign from his position

- A politician who took money for political favors to [buy votes/enrich himself] should be banned from contesting future elections

- A politician who took money for political favors to [buy votes/enrich himself] should be sentenced to time in jail

For each statement, respondents were asked whether they agreed completely, agreed, neither agreed nor disagreed, disagreed, or disagreed completely.

The experiment was conducted as part of a larger survey in Delhi in January 2014. Respondents were selected from the voter roll in a multi-step process. First, 10 of 70 assembly constituencies in Delhi were selected randomly. Second, from each constituency five polling stations were sampled. This was done by dividing the

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16 Timarpur, Sultanpur Majra, Wazirpur, Patel Nagar, Vikaspuri, Delhi Cantt, Mehrauli, Tughlakabad, Vishwas Nagar, Ghonda
total number of stations in the constituency by five and then randomly drawing a number smaller or equal to that number (sampling interval). This is the number of the first polling station. The other four were then found by adding the sampling interval to the number of the first station. For example, there are 167 polling stations in the Timarpur assembly constituency, so the sampling interval is $167/5 = 33.4$. The first station is a randomly drawn number between 1 and 33, which turned out to be 14. The other stations are found by adding the sampling interval and are 47, 81, 114, 148. Figure 2.14 shows the locations of the chosen polling stations. Finally, for each polling station, an analogous procedure was used to select 20 voters from the official electoral roll published by the Chief Electoral Officer of Delhi.

In each station, odd-numbered respondents received the personal enrichment vignette, while even-numbered one’s received the vote buying vignette. Interviews
Table 2.4: Differences in means or proportions of the demographics between the two treatment vignette groups.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Enrichment</th>
<th>Vote Buying</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>38.368</td>
<td>39.787</td>
<td>0.108</td>
</tr>
<tr>
<td>Female</td>
<td>0.455</td>
<td>0.452</td>
<td>0.931</td>
</tr>
<tr>
<td>Hindu</td>
<td>0.903</td>
<td>0.930</td>
<td>0.129</td>
</tr>
<tr>
<td>Education: Below Primary</td>
<td>0.095</td>
<td>0.139</td>
<td>0.032</td>
</tr>
<tr>
<td>Education: Primary</td>
<td>0.099</td>
<td>0.08</td>
<td>0.303</td>
</tr>
<tr>
<td>Education: Matric</td>
<td>0.554</td>
<td>0.462</td>
<td>0.004</td>
</tr>
<tr>
<td>Education: College</td>
<td>0.253</td>
<td>0.315</td>
<td>0.028</td>
</tr>
<tr>
<td>Caste: SC/ST</td>
<td>0.152</td>
<td>0.139</td>
<td>0.562</td>
</tr>
<tr>
<td>Caste: OBC</td>
<td>0.347</td>
<td>0.390</td>
<td>0.169</td>
</tr>
<tr>
<td>Adults in Household</td>
<td>3.830</td>
<td>3.914</td>
<td>0.295</td>
</tr>
<tr>
<td>Children in Household</td>
<td>2.475</td>
<td>2.647</td>
<td>0.036</td>
</tr>
<tr>
<td>Income</td>
<td>8.667</td>
<td>8.863</td>
<td>0.130</td>
</tr>
</tbody>
</table>

were conducted face-to-face in Hindi by trained interviewers from Cicero Associates & Consultants, a Delhi-based polling company. If sampled respondents were unavailable, a replacement in the same locality and of the same gender and age group was selected. In total, 993 interviews were completed.

Table 2.4 shows the differences in means or proportions of the demographics between the two treatment groups. For most variables, the difference is not statistically significant so the sample is balanced. There are two exceptions. First, the share of respondents with a matriculation (equivalent to high school degree) is somewhat larger in the personal enrichment treatment group, while the opposite is true for respondents with a college degree or higher and people with little or no formal education. Second, the number of children in the household is larger in the vote buying treatment group. In both cases, the substantive differences are relatively small. However, to make sure they do not drive the results, I control for them appropriately in the analysis below.
2.9.2 Results

Because the two treatment vignettes were assigned randomly, the simplest way to analyze the survey experiment is to compare the raw responses. For now, I treat the responses as continuous variables, with 1 being “Agree completely” and 5 “Disagree completely.” The first thing to realize is that tolerance for politicians that accept special interest money for political favors is low, no matter how it is used. The means in the entire sample are 1.43 (the politician should resign), 1.54 (the politician should be banned from contesting future elections) and 1.48 (the politician should be jailed). Most respondents agree or agree completely that a politician who engaged in such behavior should be punished.

This low tolerance is likely due to the location and timing of the survey. In January 2014, the quasi-state of Delhi was governed by the Aam Aadmi Party (AAP), the party that had emerged out of the India Against Corruption movement. The month before, in its very first election, it managed to gather almost 30 percent of the vote (see Chapter 3). AAP’s successful campaign focused almost exclusively on an anti-corruption platform that stressed the negative effects of money in politics – both in terms of personal enrichment and in terms of vote buying. Indeed, this issue dominated the campaign to such a degree that one of the major parties, the BJP, switched its candidate for Chief Minister from Vijay Goel, who has a somewhat mixed public perception, to Harsh Vardhan, a widely respected surgeon with a “clean” image. It is thus not surprising that in this particular survey there is widespread disapproval for politicians accepting money for political favors, perhaps more so than would be the case in another place or at another time. However, this should cause bias against finding anything in the experiment because voters might focus on the

Table 2.5: Differences in means for the three dependent variables between the two treatment vignette groups.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Enrichment</th>
<th>Vote Buying</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resign</td>
<td>1.308</td>
<td>1.555</td>
<td>0.000</td>
</tr>
<tr>
<td>Ban</td>
<td>1.460</td>
<td>1.613</td>
<td>0.006</td>
</tr>
<tr>
<td>Jail</td>
<td>1.417</td>
<td>1.541</td>
<td>0.025</td>
</tr>
</tbody>
</table>

fact that the politician accepted money at all, and because AAP’s anti-corruption message focused both on vote buying and personal enrichment.

Table 2.5 shows the mean values of both groups for the three response variables. They are consistently smaller for respondents who were given the personal enrichment vignette than for those that received the vote buying vignette, with p-values clearly below the 5 percent threshold. Remember that a value of 1 means a respondent agrees completely with the proposed punishment, so a lower number means more punishment. On the scale from 1 to 5, respondents who received the personal enrichment vignette are on average between 0.12 and 0.25 points more supportive of punitive measures. Put the other way around, people are more tolerant of politicians accepting money in exchange for political favors when it is distributed to the population in an attempt to buy their support.

Of course, it is not clear that the response variables can be treated as continuous. Figure 2.15 shows the distribution of the answer categories for the personal enrichment treatment (black) and the vote buying treatment (red). Again, it becomes clear that there is widespread disapproval of the hypothetical politician’s behavior. However, the share of respondents agreeing completely that he should resign, be banned, and be jailed is consistently larger for those who received the personal enrichment vignette. The flip side of this is that the share of respondents who merely agree with the proposed sanctions is larger for those who were assigned the vote buying vignette. As Table 2.6 shows, these differences are statistically significant at the 5
Figure 2.15: Distribution of the answers to the three dependent variables for the personal enrichment treatment (black) and the vote buying treatment (red).
Table 2.6: Differences between the two treatment vignette groups in proportions of respondents choosing each answer for the three dependent variables.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Response</th>
<th>Enrichment</th>
<th>Vote Buying</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resign</td>
<td>Agree completely</td>
<td>0.786</td>
<td>0.629</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Agree</td>
<td>0.145</td>
<td>0.236</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Neither agree nor disagree</td>
<td>0.047</td>
<td>0.098</td>
<td>0.003</td>
</tr>
<tr>
<td></td>
<td>Disagree</td>
<td>0.017</td>
<td>0.026</td>
<td>0.341</td>
</tr>
<tr>
<td></td>
<td>Disagree completely</td>
<td>0.004</td>
<td>0.011</td>
<td>0.243</td>
</tr>
<tr>
<td>Ban</td>
<td>Agree completely</td>
<td>0.695</td>
<td>0.593</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Agree</td>
<td>0.186</td>
<td>0.251</td>
<td>0.017</td>
</tr>
<tr>
<td></td>
<td>Neither agree nor disagree</td>
<td>0.086</td>
<td>0.114</td>
<td>0.159</td>
</tr>
<tr>
<td></td>
<td>Disagree</td>
<td>0.028</td>
<td>0.033</td>
<td>0.667</td>
</tr>
<tr>
<td></td>
<td>Disagree completely</td>
<td>0.004</td>
<td>0.009</td>
<td>0.401</td>
</tr>
<tr>
<td>Jail</td>
<td>Agree completely</td>
<td>0.728</td>
<td>0.656</td>
<td>0.017</td>
</tr>
<tr>
<td></td>
<td>Agree</td>
<td>0.176</td>
<td>0.181</td>
<td>0.846</td>
</tr>
<tr>
<td></td>
<td>Neither agree nor disagree</td>
<td>0.063</td>
<td>0.132</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Disagree</td>
<td>0.015</td>
<td>0.029</td>
<td>0.164</td>
</tr>
<tr>
<td></td>
<td>Disagree completely</td>
<td>0.017</td>
<td>0.002</td>
<td>0.020</td>
</tr>
</tbody>
</table>

percent and often even at the 1 percent level.\textsuperscript{18} Respondents want to punish the money-taking favor-providing politician, but they feel less strongly about it when the money is used for vote buying purposes.

Table 2.4 has shown that education and the number of children in the household are not balanced between the two groups, so it might be that these demographic variables drive the finding. Table 2.7 shows the treatment effect controlling for the demographic variables. I estimate three regressions for each of the three dependent variables: an OLS with standard errors clustered at the treatment level, an OLS with clustered standard errors and a set of constituency fixed effects, and an ordered logistic regression. In all nine cases, the coefficient of the vote buying treatment is positive and significant at the 1 percent level. Again, this shows that respondents who were told the candidate used the special interest money for personal enrichment were more punitive than those who were told he used it to buy votes. The results also

\textsuperscript{18} There are also significant differences for some of the other three categories. However, they are based on small numbers and substantively very small.
hold when first pre-processing the data using nearest neighbor matching to exclude non-comparable cases (see Appendix B).

2.10 Conclusion

In this chapter, I have analyzed politicians’ choice between using special interest money for personal enrichment or for campaign spending. Consistent with Proposition 7, there is a clear and robust effect of the incumbents’ electoral security. Those who won office by a narrow margin and therefore expect to be in a close race for reelection stash special interest money in cash, which is helpful in a campaign. Incumbents who won office by a wide margin and are therefore more electorally secure instead increase their personal wealth, proxied by the number of motor vehicles. I have also provided evidence that this difference matters to voters. In a survey experiment among voters in Delhi, respondents were consistently more in favor of punishments when a politician used special interest money for personal enrichment as opposed to vote buying. The importance of competitive elections for democratic accountability is well known. In this chapter, I have added another reason for the desirability of competitive electoral districts.

The remainder of the dissertation focuses on the second main variable that affects how special interest money is solicited: the legal environment. In the next chapter, I answer the question where rules restricting special interest money in politics come from, who supports them, and under what circumstances they have a chance to be successful. In the last chapter, I examine the effect of restricting bribes and campaign contributions on the newest way in which special interest money enters politics: through the revolving door, which provides lucrative post-office employment to politicians.
Table 2.7: Effect of the vote buying treatment on the three dependent variables, controlling for demographic variables using the full sample. Point estimates with standard errors in parentheses. *p < 0.1; **p < 0.05; ***p < 0.01.

<table>
<thead>
<tr>
<th>Vote Buying Vignette</th>
<th>Resign OLS</th>
<th>Resign Ordered Logit</th>
<th>Resign OLS</th>
<th>Ban OLS</th>
<th>Ban Ordered Logit</th>
<th>Ban OLS</th>
<th>Ban Ordered Logit</th>
<th>Jail OLS</th>
<th>Jail Ordered Logit</th>
<th>Jail OLS</th>
<th>Jail Ordered Logit</th>
<th>Jail OLS</th>
<th>Jail Ordered Logit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.267***</td>
<td>0.296***</td>
<td>0.907***</td>
<td>0.173**</td>
<td>0.205***</td>
<td>0.507***</td>
<td>0.149*</td>
<td>0.185**</td>
<td>0.438***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.073)</td>
<td>(0.067)</td>
<td>(0.161)</td>
<td>(0.077)</td>
<td>(0.079)</td>
<td>(0.149)</td>
<td>(0.076)</td>
<td>(0.072)</td>
<td>(0.155)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-0.0005</td>
<td>0.0003</td>
<td>-0.004</td>
<td>-0.005</td>
<td>0.002</td>
<td>-0.005</td>
<td>0.0002</td>
<td>0.001</td>
<td>0.001</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.003)</td>
<td>(0.002)</td>
<td>(0.006)</td>
<td>(0.003)</td>
<td>(0.003)</td>
<td>(0.006)</td>
<td>(0.003)</td>
<td>(0.003)</td>
<td>(0.006)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>-0.038</td>
<td>-0.035</td>
<td>-0.090</td>
<td>-0.032</td>
<td>-0.057</td>
<td>-0.090</td>
<td>-0.001</td>
<td>-0.017</td>
<td>0.030</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.071)</td>
<td>(0.067)</td>
<td>(0.160)</td>
<td>(0.077)</td>
<td>(0.071)</td>
<td>(0.151)</td>
<td>(0.076)</td>
<td>(0.073)</td>
<td>(0.157)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hindu</td>
<td>0.079</td>
<td>0.076</td>
<td>0.261</td>
<td>0.034</td>
<td>-0.012</td>
<td>0.186</td>
<td>0.107</td>
<td>0.118</td>
<td>0.426</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.114)</td>
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Anti-Corruption Movements and Restrictions on Money in Politics

“Today’s verdict is historic. It is the first time an election has been fought for truth and integrity. Politics was goonda-gardi and corruption. The verdict shows people are tired of this. If these parties don’t change, the people will change these parties.”

– Arvind Kejriwal, December 8, 2013

3.1 Introduction

On December 8, 2013, as more and more election results came in, the mood at 41 Hanuman Road in the center of Delhi went from optimistic to cheerful to overjoyed. On two tiny TV screens, an ever-growing crowd of supporters followed the news channels, which saw their upstart Aam Aadmi Party (AAP) in a neck and neck race with the much older and wealthier Bharatiya Janata Party (BJP), and far ahead of the even older and wealthier Indian National Congress (INC). By the time it became

1 Times of India, December 9, 2013
clear that AAP had gathered almost 30 percent of the votes and would occupy 28 of the 70 seat in the state assembly, the supporters were dancing in the street, handing out sweets, and waving brooms to signal their intent of things to come.

In the months before, the AAP had fought a spirited campaign, positioning itself as the “clean” alternative against the “corrupt” establishment parties. Lead by the former tax inspector Arvind Kejriwal, the party took the major Indian parties head on. The INC-led governments at the national and state levels provided ample room for attack. The national government under Prime Minister Manmohan Singh was caught up in a number of corruption scandals. Coal blocks were allocated in an inefficient manner, creating losses which the Comptroller and Auditor General of India (CAG) estimated to be at least $30 billion. The Central Bureau of Investigation (CBI) started investigations against a number of firms on suspicion of bribery. 2G cellphone spectrum licenses were allocated in an non-transparent way at throwaway prices, leading to the arrest of telecommunications minister A. Raja, who is accused of pocketing bribes in excess of $500 million. The Congress-led state government of Chief Minister Sheila Dikshit was an easy target as well. For example, it had overseen the 2010 Commonwealth Games in Delhi, where there were many irregularities in the allocation of contracts. Construction was severely delayed and often of poor quality, culminating in the collapse of a pedestrian bridge near the main stadium just days before the opening ceremony.

The ubiquity of such scandals, as well as the many experiences of citizens with red tape and corruption in interactions with state officials, had led to the emergence of the India Against Corruption protest movement in 2010, out of which the AAP emerged in late 2012. But despite the strong campaign for the Delhi elections, in which thousands of volunteers went door-to-door, many observers were skeptical about its chances. The party’s members and candidates were idealistic political newcomers and its funding came entirely from small and publicly disclosed donations totaling
Rupees 200 million (about $3 million), a comparatively tiny amount. In addition, the party vowed to not engage in “goonda-gardi” (bully tactics) or the machine politics of clientelistic vote buying.

The fact that such a party could become the second-strongest in the state assembly, with 28 seats compared to 32 for the BJP and only eight for Congress was a shock to many. The *Times of India* described it a “spectacular debut,” and the *Hindustan Times* called it “an epochal moment in India’s robust electoral process.” Many commentators were convinced that the AAP campaign had a profound effect on electoral politics in India. For example, the influential public intellectual Pratap Bhanu Mehta opined that “its performance may define the future of Indian politics far more profoundly than the gladiatorial contest of the two main parties. (...) [I]ts mere presence has been transformative in more ways than one can list.”² And Niharika Mandhana of the *Wall Street Journal* stressed that the party was “upending the longstanding assumption of Indian politics that caste, money and muscle determine electoral results,” and instead managed to assemble a coalition of voters expressing their frustration with the corruption and graft that is so pervasive in Indian politics.³

But the success of the *Aam Aadmi Party* in the 2013 Delhi elections is not just a “David vs. Goliath” story. It can also teach us something about the politics of anti-corruption reforms. At first sight, they are paradoxical. Why would incumbent politicians limit their own ability to profit from holding office? Historically, one of the most important reasons has been that political outsiders promising to “clean up” politics entered the electoral arena (Glaeser and Goldin, 2006). For example, political entrepreneurs associated with the Progressive movement are thought to

have had a major impact on anti-corruption reforms in the early 20th century in the United States (Glaeser and Goldin, 2006; Teachout, 2014). But frustration with the influence of special interest money on politics is rife in countries throughout history and all over the world. And yet, voters return established parties to power more often than not. Under what conditions can anti-corruption political entrepreneurs succeed? In this chapter, I use the example of the Aam Aadmi Party to study this question.

First, I present a simple formal model of electoral competition between a number of status quo parties and an anti-corruption party. I decompose voters’ decision calculus into three components. First, a political entrepreneur promising limitations on the role of money in politics has support among citizens unable to benefit from corrupt exchanges (push factors). In particular, this means the young and the poor are a natural support base for anti-corruption politicians. Second, however, voters are less likely to support an anti-corruption party if they receive clientelistic benefits from the established parties (pull factors). Since the poor (as well as rural voters) are the prime beneficiaries of clientelism, this means they are exposed to countervailing forces. Because the wealthy are able to afford bribes that give them access to government services and do not derive much utility from clientelistic handouts, they are likely to support status quo parties. Finally, anti-corruption candidates are less likely to receive support from voters who place emphasis on other factors in casting their vote, for example descriptive representation in terms of religion or ethnicity.

These implications are then tested for the performance of the Aam Aadmi Party in the 2013 Delhi elections. I use two sources of novel data. First, I look at vote intentions by analyzing three rounds of pre-election surveys with a total of more than 40,000 respondents. The surveys were commissioned by AAP to target their campaign resources, but were conducted by an independent polling company. Second, I analyze the election outcomes at the polling-booth level, using demographic
information derived from the electoral rolls and from GIS data. Both data sources confirm the insights of the formal model. AAP had high levels of support among the poor and uneducated. However, this support was muted among the illiterate as well as in rural areas of Delhi, where the clientelistic machine politics of the status quo parties is more effective. Support for AAP is lower among the educated and wealthy, who have the resources to benefit from corrupt exchanges. AAP did well among the young and members of disadvantaged castes. Finally, it did particularly poorly among Muslims, whose vote decision is crucially influenced by concerns about their status as a religious minority, leading them to overwhelmingly support the secular Congress party.

Using the specific example of a successful anti-corruption party, this chapter takes three steps towards answering the question where stricter anti-corruption rules come from. First, the theoretical model provides a simple framework that makes clear what types of voters are likely to support an anti-corruption political entrepreneur. Second, I use micro-level data to test the hypotheses derived from this model. This provides insights into the support basis of a successful anti-corruption party at a level of detail that has not been possible so far. Finally, combining the theoretical and empirical insights, I am able to put forward a number of structural factors that influence whether a country is likely to sustain a successful campaign to limit the role of money in politics.

3.2 Who Supports Anti-Corruption Efforts? A Theoretical Framework

We know that anti-corruption political entrepreneurs are an important component in the fight for “clean” politics. But such politicians and parties exist around the world, and most of the time are not paid much attention. Who supports anti-corruption
efforts, and when are they likely to succeed? In this section, I consider a simple formal model that provides insights into this question.

3.2.1 Model Setup

Consider a voter $i$, who makes a decision between $J$ political parties. The parties put forward two competing visions of how citizens obtain transfers and benefits from the state. $J - 1$ parties represent the status quo, in which state benefits depend on the amount of bribes a citizen pays. The other competitor is an anti-corruption party, which puts forward an alternative vision of society in which government transfers do not depend upon bribery. In addition, the parties differ in their ability to deliver clientelistic benefits as well as on other policy issues. I proceed in two steps. First, I analyze the benefits a voter derives in the two versions of citizen-state relationships. In a second step, I incorporate this into a probabilistic model of vote choice.

Consider a citizen $i$ with wealth $w_i$ in the status quo condition in which the benefits she receives from the government are conditional upon the size of the bribe she pays. Denote the bribe with $b_i$ and the government transfer received in return with $t(b_i)$. It holds that $t(0) = 0$, $t'(b_i) > 0$, $\lim_{b_i \to \infty} t(b_i) = k_1$ where $k_1 > 0$, and $t''(b_i) > 0$ for $0 \leq b < k_2$ and $t''(b_i) < 0$ for $k_2 < b$ where $k_2 > 0$. These conditions result in an S-shaped relation between bribes and benefits, as displayed in Figure 3.1. This functional form captures a number of important features of corrupt exchanges. If no bribes are paid, the voter gets nothing in return. Transfers are increasing in the amount of the bribe. The marginal effect of a bribe is highest at intermediate levels, so increasing it at very low and very high levels provides only a small return. Finally, there is a finite limit to the transfer as the bribe increases. This formalization captures both “petty corruption,” such as having to pay a bribe to obtain a birth certificate or a driver’s license, as well as “grand corruption,” where very wealthy individuals or groups pay politicians for policy favors. In this chapter,
I do not differentiate between different types of special interest money, so a bribe is defined broadly and could also refer to a campaign contribution.

Figure 3.1: Transfer $t(b)$ as a function of bribe $b$.

What is the optimally chosen bribe? Figure 3.1 shows that a bribe $b$ only yields positive net returns if $\underline{b} < b < \bar{b}$ and that the optimal bribe is $\hat{b}$, which maximizes the distance between $t(b)$ and $b$. However, not every person is in a position to offer $\hat{b}$ or even $\bar{b}$. Being able to pay a bribe requires disposable income. The maximal bribe a person $i$ can pay is $b_{i}^{\text{max}} = f(w_{i})w_{i}$ where $f(0) = 0$, $f'(w) > 0$, and $\lim_{w \to \infty} f(w) = 1$. This means that the share of wealth that a voter can spend on a bribe is increasing in her wealth. Poor people require most of their money for subsistence and can only use a small share, if any, to pay bribes. Wealthy people, on the other hand, can devote a large portion of their wealth to bribes if it benefits them. It is straightforward to incorporate this constraint into the equilibrium bribe:

$$b_{i}^{*} = \begin{cases} 0 & \text{if } \ b > f(w_{i})w_{i} \\ f(w_{i})w_{i} & \text{if } \ b \leq f(w_{i})w_{i} < \hat{b} \\ \hat{b} & \text{if } \ b \leq f(w_{i})w_{i} \end{cases}$$

(3.1)
A voter is not able to pay a bribe if her disposable income is less than $b$. This prevents poor members of society from access to government services. If a voter’s disposable income is larger than $b$, she will either spend her entire disposable income or $\hat{b}$, whichever is smaller.

In the society promised by the anti-corruption party, state transfers do not depend on bribes and are instead distributed to each citizen on an equal basis. That is, everyone can get legal documents for free, public goods replace the targeted benefits handed out on the basis of bribes, and so on. I model this as a lump-sum transfer $\bar{x}$ that is equal for all citizens.

The decision of voter $i$ who to vote for depends not only on the expected net benefits received from the state under the two visions advocated by the parties, but also on other characteristics. The first of these are clientelistic benefits. Many parties try to secure votes through short-term handouts such as cash, alcohol, or other gifts. Denote the clientelistic handout that voter $i$ receives from party $j$ by $c_{ij}$. Her utility is $g(c_{ij})$, where $g(0) = 0$, $\frac{\partial g(\cdot)}{\partial c_{ij}} > 0$, and $\frac{\partial g(\cdot)}{\partial w_{ij}} < 0$, so a fixed handout gives higher utility to a poorer voter. The clientelistic benefits do not necessarily have to be material, they could also include avoiding the negative effects of not voting for the a certain party. For example, a voter might want to avoid being ostracized in peer networks or being the target of physical violence. Voters also evaluate how well the parties represent them programatically and descriptively. I denote the summary assessment of this factor by $Z_{ij}$. Finally, there is a random component $\varepsilon_{ij}$ in $i$’s evaluation of $j$. If $j = 1$ is the anti-corruption party, the utilities of $i$ for voting for each party then are:

$$
\begin{align*}
    u_i(1) &= \bar{x} + g(c_{i1}) + Z_{i1} + \varepsilon_{i1} \\
    u_i(j) &= t(b^*_i) - b^*_i + g(c_{ij}) + Z_{ij} + \varepsilon_{ij} \quad \forall \quad j > 1
\end{align*}
$$

(3.2)

To simplify further, the previous chapter has suggested that special interest money and clientelistic campaign spending are often directly linked. An anti-corruption
party that consistently wants to diminish the role of money in politics will not offer such handouts, so \( c_{i1} = 0 \). For example, in the lead-up to the 2013 Delhi elections, the *Aam Aadmi Party* distributed pamphlets asking voters “not to sell their vote for liquor for the sake of the future of their children.”\(^4\) Furthermore, I normalize \( Z_{i1} = 0 \). Assuming that \( \varepsilon_{ij} \) are independent and identically distributed draws from a Gumbel distribution (also known as the Type-I extreme-value distribution), the utilities in Equation (3.2) can be translated into a probabilistic voting framework (Schofield and Sened, 2006). The probability that voter \( i \) votes for the anti-corruption party is:

\[
p_i(1) = \frac{\exp(\bar{x})}{\exp(\bar{x}) + \exp(t(b_{i}^{*}) - b_{i}^{*}) \sum_{j=2}^{J} \exp(g(c_{ij}) + Z_{ij})}
\]

where \( b_{i}^{*} \) is given in Equation (3.1). For \( j > 1 \), the probability is:

\[
p_i(j) = \frac{\exp(t(b_{i}^{*}) - b_{i}^{*} + g(c_{ij}) + Z_{ij})}{\exp(x) + \exp(t(b_{i}^{*}) - b_{i}^{*}) \sum_{j=2}^{J} \exp(g(c_{ij}) + Z_{ij})}
\]

In the next sections, I use these probabilities to break down the voters’ decision calculus into three components: factors that *pull* them to voting for a *status quo* party, factors that *push* them to vote for the anti-corruption party, and factors that lower the *valence* or importance of the corruption issue for their vote. I then use the results to derive specific predictions in the context of one of the most successful election campaigns of an anti-corruption party of our time: The *Aam Aadmi Party* in the 2013 Delhi Assembly elections.

### 3.2.2 Push Factors

A push factor leads voters to cast their ballot for the anti-corruption party. In Equation (3.3), it holds that \( \frac{\hat{c}_{p}(1)}{c(t(b_{i}^{*}) - b_{i}^{*})} < 0 \). That is, the probability of voting for the

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\(^4\) [Link](http://articles.economictimes.indiatimes.com/2013-12-03/news/44710593_1_aap-arvind-kejriwal-led-party-liquor)
anti-corruption party decreases in \( i \)'s net benefit from the service-for-bribe exchange. As derived in Equation (3.1), this is related to wealth. A poor voter does not have disposable income to be able to afford a sufficiently large bribe, which prevents him or her from receiving government services. For them, receiving the lump-sum payment \( \bar{x} \) is clearly preferable. Poor voters are thus a natural constituency for an anti-corruption party.

The same is true for young people, who also often do not have the necessary means to buy their way into government transfers and services either. An anti-corruption party should therefore receive disproportionate support from them. On the flip side, those who are sufficiently well off to be able to afford paying bribes derive positive net transfers from the government. They are the beneficiaries of the status quo and have an incentive to try to preserve it by voting for parties other than the anti-corruption one.

3.2.3 Pull Factors

A pull factor keeps voters from casting their ballot for the anti-corruption party, even if there might be factors pushing them to vote for it. In the simple model, this is captured by the clientelistic benefits, where is is straightforward to show that 

\[
\frac{\partial p_i(1)}{\partial g(c_{ij})} < 0 \quad \forall \, j > 1.
\]

That is, the probability of voting for the anti-corruption party decreases in the clientelistic benefits offered by other parties. As detailed above, such benefits could be cash or liquor handouts. They could also be the avoidance of harm inflicted for not voting for a certain party. For example, village elders or other local leaders may ostracize voters suspected of not voting the “correct” way, and they may even suffer from physical violence (“goonda-gardi”).

Who is particularly susceptible to pull factors? Since \( \frac{\partial g(1)}{\partial w_i} < 0 \), poor voters derive more utility from a given clientelistic benefit than wealthy one’s. This makes them less inclined to vote for an anti-corruption party. Of course, this is the exact opposite
of the push factors, which identify the poor as benefiting the most from making access to government transfers and benefits free of bribes. Their voting behavior is thus dominated by the balance of these two effects. In the Indian context, this means that there should be a clear difference between rural and urban environments. In the former, traditional societal hierarchies are much more pronounced than is the case in the city. Things should be more up for grabs with urban voters. If the pull factors are strong for the very poor, we should see support for the anti-corruption party follow an inverted U: It is relatively low for the very poor, for whom clientelistic efforts have a large impact. Support then should rise with income as the push factors remain large but the effect of clientelism diminishes. Finally, support should drop again for the wealthy, as they benefit from the status quo arrangement.

3.2.4 Valence Factors

Finally, a valence factor causes voters to have priorities other than corruption when deciding who to cast their ballot for. From Equation (3.3), it follows readily that \( \frac{\hat{v}_{p_j}^{(1)}}{\hat{z}_{ij}} < 0 \forall j > 1 \). The higher a voter values a party \( j > 1 \) on other issues, the less likely he or she is to vote for the anti-corruption party. For example, voters could be drawn to a party because it represents their religious or ethnic community. Political entrepreneurs running on an anti-corruption platform almost by definition do not represent other societal issues, or if they do not as much emphasis is placed on them.

3.3 The Aam Aadmi Party and the 2013 Delhi Elections

3.3.1 Campaign and Election Results

At the end of 2012, the India against Corruption (IAC) leadership split in two groups, centered around two of the movement’s leaders. On the one hand were those who wanted to continue the struggle against corruption from outside politics. On the other hand were lead by the face of IAC, the Gandhian activist Anna Hazare. On the other hand were
those who thought it best to try to reform politics from within. They were lead by the former tax inspector Arvind Kejriwal and founded the *Aam Aadmi Party* (Common Man’s Party) on November 26, 2012. The IAC movement had the strongest support in the capital city of Delhi, so the new party quickly decided that the Delhi assembly elections due in late 2013 would be its electoral debut.

The party began reaching out to the roughly 13 million voters of the National Capital Territory in the Summer of 2013. This was several months before the elections and very early for Indian standards, where campaigns usually happen mostly in the last few weeks or even days before polling takes place. What the party lacked in finances it tried to make up in enthusiasm. One of its major strengths was the large number of mostly young volunteers it attracted from all over India and even from all over the world. Wearing easily identifiable “Gandhi caps,” popularized by Mahatma Gandhi during the Indian independence movement, they went door-to-door in Delhi’s neighborhoods, asking residents about their complaints and grievances, helping them to obtain a voter card if they did not have one, and advocating the party’s anti-corruption policies.

These policies fall under the ideology of “Swaraj” (self-rule), which traces its origins to Mahatma Gandhi. The central pillars of “Swaraj” are a strong and independent anti-corruption ombudsman (*Jan Lokpal*) and the devolution of power to lower levels, where decisions are taken by so-called *Gram Sabhas* (Kejriwal, 2012). But the main promise of AAP was that it would run a “clean” government and stop the ubiquitous corruption in politics. This, Kejriwal promised, would ease the lives of citizens, in particular by lowering the prices of necessities like electricity and water. To achieve a clean government, AAP screened its candidates to try to ensure they were not engaged in dishonest or illegal activities. It mostly nominated political outsiders who had never run for office before. Figure 3.2 shows how the AAP can-
Figure 3.2: Characteristics of the candidates for the 2013 Delhi elections of AAP, BJP, and INC.

AAP candidates stand out in that they are younger, have lower total assets, lower net assets (total assets minus liabilities), and fewer criminal cases registered against them.

Data taken from the mandatory affidavits submitted to the Chief Electoral Officer of Delhi, digitized by the Association for Democratic Reforms and available at http://myneta.info/delhi2013.
In the summer of 2013, observers saw AAP mostly as a noisy upstart that had good intentions but would not be able to compete with the well-oiled clientelistic machines of INC and BJP. This was compounded by a number of what seemed to be strategic blunders by AAP. In particular, the decision to have Arvind Kejriwal, by far its most prominent member, compete directly against Sheila Dikshit, the incumbent Chief Minister of 15 years, was seen as a grave error by many. Even though her government was involved in a number of corruption scandals, Dikshit remained popular with the population. She also contested from the New Delhi constituency, where India’s parliament and the residencies of the President and the Prime Minister are located, and which is home to thousands of government employees.

However, the closer the election, the more did AAP pick up support. Some opinion polls started to project that the party would be able to win a handful of seats. The dynamics of the campaign are demonstrated by donations to the party. To finance its campaign, AAP relied on mostly small donations that it publicly disclosed on its website. Figure 3.3 shows the daily as well as the cumulative donations from November 26, 2012 to November 17, 2013, at which point the party stopped accepting
money because it had reached its goal of raising Rupees 200 million. Daily donations slowly picked up in June and then really increased starting in August. They reached their apex in October, after which they started falling again. This tracks how many observers saw the campaign dynamics. In the weeks before the election took place on December 4, BJP and INC recognized AAP as a contender and started to campaign against it. This included accusations that AAP illegally accepted foreign funding, which lead to a probe by the INC-led national government. In addition, the website Media Sarkar released video footage of a sting operation purporting to show AAP candidates accepting bribes. Finally, the former leader of India Against Corruption Anna Hazare accused the party of misusing remaining funds from the protest movement days and asked Kejriwal to dissolve the party. And of course, the clientelistic machine politics of INC and BJP came into action in the days before the election.

Despite these late obstacles, the Aam Aadmi Party enjoyed a historic electoral debut. It received 2,322,330 votes, which came to a share of around 29.5 percent and resulted in 28 of the 70 seats in the state assembly. This put AAP in second place behind the BJP (33.1 percent and 31 seats) and in front of INC (24.6 percent and 8 seats). Even the gamble to pit Kejriwal directly against Sheila Dikshit in what was considered a safe constituency for her paid off: The AAP leader was given a resounding victory, receiving 44,269 votes compared to only 18,405 for the sitting Chief Minster. In the weeks following the election, the Aam Aadmi Party formed a minority government with the support of INC. However, the tenure of Arvind Kejriwal as Chief Minister only lasted a tumultuous 49 days, after which he abruptly resigned when the anti-corruption Jan Lokpal bill failed to receive a majority in the assembly. While the party increased its vote share in the national elections in 2014, it did not win a single seat in Delhi. After this disappointment, AAP invested heavily in building a party organization and diversified its policies beyond the single issue of corruption. When assembly elections were held again in early 2015, AAP received
a historic 54.3 percent of the vote, resulting in 67 out of 70 seats. Exactly one year after his resignation, Arvind Kejriwal was sworn in again as Delhi’s Chief Minister.

Whether the *Aam Aadmi Party* will succeed in reducing the influence of money in Indian politics of course is an open question. Maybe the party will remain confined to Delhi and a few other pockets around the country, and will be nothing more than a historical footnote in a few years. Or maybe it will represent the starting point of a move towards “cleaner” politics as we have seen in other countries. Either way, the 2013 Delhi election was an occasion where anti-corruption policies were at the center of attention of many voters. It provides a window of opportunity to delve deeper into studying the support basis of an anti-corruption party than has previously been the case.

In the model in Section 3.2, I have broken down voters’ decision calculus into its components: factors that push them to vote for the anti-corruption party, factors that pull them to voting for the *status quo*, and factors that lower the relative importance of the corruption issue for their vote. In the next section, I derive explicit predictions for what groups of voters are most likely to support the *Aam Aadmi Party* in the 2013 Delhi assembly elections. Afterward, I use a wealth of data to test these predictions.

### 3.3.2 Hypotheses

To translate the push, pull, and valence factors that determine support for an anti-corruption party into testable predictions, I focus on a number of factors that are relevant in the Indian context. The social structure of the community that a voter is embedded in plays an important role for their vote choice, and in particular for the effectiveness of clientelistic machine politics. Such politics works with a sticks and carrots approach. While voters are enticed to vote for *status quo* parties by being offered money, liquor, or other handouts, they often are also exerted to pressures to vote in a certain way. These pressures may be social, but can also include the threat
of physical violence. This is more likely to work effectively in traditional, hierarchical communities. In the Indian context, there is a clear divide between urban and rural areas in this respect (Krishna, 2007). Delhi’s geography allows for an examination of this difference. The outer belt in the north, west, and south of the city consists of rural villages with a very traditional, hierarchical societal structure. This is in contrast with the rest of the city, which is urban. While many migrants from India’s rural areas live in Delhi, the social structure of their community is less rigorous. The village elders who traditionally impose hierarchy in the villages are not present in the city, and neither are the quasi-feudal property arrangements of many village farmers. This implies that the anti-corruption AAP should have more support in Delhi’s urban core than in its rural outer belt.

A person’s wealth plays an important role on their propensity to vote for an anti-corruption party. On the one hand, poorer people who cannot afford bribes have more to gain from an arrangement in which access to government benefits is free for everyone. On the other hand, clientelistic benefits are most likely to have an effect on them, keeping them with status quo parties. This has the clear empirical implication that the wealthy will not support AAP to a high degree: they benefit from the current arrangement. For the poor, push and pull factors work in opposite directions. If the pull effect is sufficiently strong, however, they should also be less likely to support AAP as the short-term benefits of clientelism outweigh the long-term benefits of a corruption-free government. Voters with medium wealth are most likely to support AAP: They are too well-off to derive much utility from clientelistic handouts or to be threatened by “goonda-gardi,” but at the same time do not have sufficient means to gain full access to corrupt politicians and government officials. The hypothesis is thus that AAP support follows an inverted U-shape.

But is it not only wealth and the rural/urban distinction that determines to what degree a voter is affected by push and pull factors. Another factor in India is caste.
In some parts of the country, political competition is dominated by it, as many parties specialize in representing a particular one. One of the most famous examples is the *Bahujan Samaj Party* (BSP) in Uttar Pradesh, which tailors to members of the Scheduled Castes (SC), Scheduled Tribes (ST) and Other Backward Castes (OBC). In these places, caste is an important valence factor that should make it hard for an anti-corruption party to gain a foothold. However, in Delhi the importance of caste has receded significantly in recent years and is only a minor direct factor in political competition (Kumar, 2013). But caste is still an important signifier of wealth. Members of the “lower” castes are less well off than members of “higher” castes, even holding constant factors such as education. Accordingly, members of “lower” castes should be more inclined to support the *Aam Aadmi Party*. The same holds true for age: Young voters are more likely to be pulled towards an anti-corruption party as they usually do not have the means or connections to pull strings in government. They are more likely to withstand pressure from the party machines and derive lower benefits from clientelistic goods, since they weight long-term benefits more heavily than short-term one’s.

Finally, while caste is not much of a valence factor in Delhi, religion is. Hindus make up more than 80 percent of the population and Muslims about 11 percent. The latter traditionally support the Congress party heavily. Of the major parties, it stands for an agenda of secularism in the tradition of Mahatma Gandhi and Jawaharlal Nehru. The BJP, on the other hand, defines itself explicitly as a Hindu-nationalist party. It has close ties to the *Rashtriya Swayamsevak Sangh* (RSS), a right-wing “hindutva” volunteer organization with paramilitary elements. For minority Muslims (as well as Sikhs, Jains, and Christians), religion plays an important role in their political choice. This should lower the relevance of concerns about corruption when deciding how to cast their vote, leading to lower support for the *Aam Aadmi Party*. In the remainder of the chapter, I test these hypotheses using two types of data.
3.4 Vote Intention

The first way in which I investigate support for the *Aam Aadmi Party* in the 2013 Delhi elections is by analyzing stated vote intentions in three rounds of pre-election surveys. The big advantage of this data is that it allows for an analysis at the individual level. The major disadvantages are that the surveys were conducted weeks or months before the election, and that a vote intention is not the same as an actual vote. This is particularly relevant with respect to pull factors such as clientelistic handouts or social pressure, which may not take effect until right before election day.

3.4.1 Data

I analyze three rounds of pre-election surveys. The first round was conducted in August 2013, about four months before the election, and interviewed 3372 respondents. The second round interviewed 34,427 voters in September and early October 2013. Finally, the last round was conducted a couple of weeks before the election at the end of November 2013 and had 4125 respondents. The surveys were commissioned by the *Aam Aadmi Party* to inform the strategic targeting of their campaign resources, but were conducted by the independent polling company *Cicero Associates*. The surveys followed a multi-stage stratified random sample design. From each assembly constituency, a number of polling booths were sampled. Then, 20 respondents from that booth were randomly selected by contacting every $n^{th}$ house on the right hand, where $n$ is the number of households in the booth divided by 20. Within each household, a Kish Grid that controlled for age group and gender was used. Interviews were conducted face-to-face using a standard-structured questionnaire. The first two
rounds were publicly released by the *Aam Aadmi Party*, while the third wave was made available to me for research purposes by senior party officials.\(^6\)

Given that the surveys were commissioned by the object to be studied, it is natural to ask whether they were conducted in an unbiased fashion. First, it is important to stress that respondents were not aware that AAP commissioned the surveys. Interviewers stated that they were conducting a poll for *Cicero Associates* and questions were worded in a neutral manner designed to elicit truthful responses. Importantly for my purpose, respondents indicated their intended vote choice using a dummy ballot that looks similar to the electronic voting machines used in the election. The ballot was filled out behind a screen and put into a sealed box. The respondent’s answer was thus unknown to the interviewers and only later matched to the rest of the questionnaire. Furthermore, the vote intention question was asked at the beginning of the interview. Even if respondents were able to infer the AAP connection from later questions that asked specifically about the party, they could not have been aware of it when answering who they intend to vote for.

A second piece of evidence that speaks for the accuracy of the surveys is their estimated support level for the *Aam Aadmi Party*. While all *Cicero* polls saw AAP as a major contender, other surveys saw it gaining only a handful of the 70 seats in the assembly. The *Cicero* polls were closer to estimating the true vote shares than many other surveys released before the election. The unweighted vote share totals for AAP in the three rounds were 27 percent (first) and 36 percent (second and third). The actual percentage in the election was with 29.5 percent somewhat lower than the latter two. However, it is likely that AAP lost ground in the last couple of weeks of the campaign (see above). Either way, the *Cicero* polls compare favorably to those conducted by *ABP News-AC Nielsen, India TV-CVoter-Times Now*, and

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\(^6\) The designation of first, second, and third round refers to the surveys that are available to me. AAP commissioned two additional surveys, one in the spring of 2013 and one just a few days before the election. Thus, what I call the first round is actually the second round and so on.

Since my focus is not on the dynamics of the campaign, I aggregate all three waves together, resulting in a sample of 41,924 respondents. The dependent variable is vote intention. I recode the vote intention variable into four categories: the incumbent INC, the Hindu-nationalist mainstream BJP, the anti-corruption AAP, and all other parties.

3.4.2 Variables

Section 3.3.2 identified wealth as an important determinant of the push and pull factors that govern whether a voter supports AAP. While monthly income was one of the questions asked in the surveys, the variable is characterized by high missingness and a large number of respondents stating that they have no income. In the Indian context, however, wealth is well proxied by education. Respondents’ education is measured in nine categories: non-literate, below primary, passed primary but not middle school, passed middle school but not matriculation (high school degree), passed matriculation, went to college or did intermediate education but did not finish, graduated from college, post-graduate education, and professional degree or higher research.

Caste is measured in three categories: Scheduled castes and scheduled tribes (SC/ST), other backward class (OBC), and Other. The first are the former “un-
touchables,” the historically most disadvantaged groups in India that receive special protection to ensure their representation (see Jensenius, 2013). The second are also castes which are educationally and socially disadvantaged, but do not receive the same degree of protection as scheduled castes and tribes. I also include a variable of the respondents’ age in years. Religion is divided into three categories: Hindu, Muslim, and Other.

As additional controls, I include gender, the number of adults and the number of children in the respondents’ households, and a set of survey wave dummies to control for common time effects. Note that I am unable to include whether the respondent lives in a rural or urban community, as location information was withheld for privacy reasons. However, all surveys were conducted several weeks before the election, when most of the clientelistic pull factors had not been at work yet. I thus expect their effect to be muted in this data and only really come out in the actual election results.

3.4.3 Statistical Model

Because the response is a categorical variable with four categories, I estimate a multinomial logistic regression model where the probabilities that respondent $i$ intends to vote for party $j$ is modeled as follows:

$$
P(Y_i = 1) = \frac{1}{1 + \sum_{j=2}^{J} \exp(X_i \cdot \beta_j)}
$$

$$
P(Y_i = j) = \frac{\exp(X_i \cdot \beta_j)}{1 + \sum_{j=2}^{J} \exp(X_i \cdot \beta_j)} \quad \forall \ j > 1
$$

where INC serves as the baseline category $j = 1$. The vector $X_i$ includes all variables discussed above as well as a set of survey wave dummies to control for common time effects. Table 3.1 shows the results of the multinomial logistic regression. Coefficients for the parties need to be interpreted as the effect of a variable on voting for that party relative to voting for the Congress party. To ease interpretation, I discuss the impact of the different variables using predicted probabilities.
Table 3.1: Multinomial logistic analysis of AAP/Cicero surveys. Baseline: INC.

|                          | Estimate | Std. Error | z value | Pr(>|z|) |
|--------------------------|----------|------------|---------|---------|
| **AAP: Intercept**       | -0.05    | 0.09       | -0.55   | 0.58    |
| Age                      | -0.01    | 0.00       | -6.79   | 0.00    |
| Female                   | -0.10    | 0.03       | -4.04   | 0.00    |
| Education: Below Primary | 0.25     | 0.10       | 2.46    | 0.01    |
| Education: Primary pass/Middle fail | 0.15 | 0.06     | 2.50    | 0.01    |
| Education: Middle pass/Matric fail | 0.39 | 0.06    | 7.05    | 0.00    |
| Education: Matric        | 0.42     | 0.05       | 9.15    | 0.00    |
| Education: Intermediate/College no degree | 0.51 | 0.05    | 11.03   | 0.00    |
| Education: Graduate or equivalent | 0.32 | 0.05    | 6.75    | 0.00    |
| Education: Post Graduate | 0.35     | 0.07       | 4.72    | 0.00    |
| Education: Professional degrees, higher research | 0.16 | 0.11    | 1.48    | 0.14    |
| Caste: OBC               | 0.09     | 0.03       | 3.04    | 0.00    |
| Caste: SC/ST             | 0.14     | 0.04       | 3.72    | 0.00    |
| Religion: Muslim         | -0.76    | 0.04       | -19.67  | 0.00    |
| Religion: Other          | -0.21    | 0.06       | -3.82   | 0.00    |
| Adults in Household      | 0.01     | 0.01       | 1.92    | 0.06    |
| Children in Household    | 0.01     | 0.01       | -0.70   | 0.48    |
| Wave 2                   | 0.17     | 0.06       | 3.00    | 0.00    |
| Wave 3                   | 0.11     | 0.07       | 1.68    | 0.09    |
| **BJP: Intercept**       | -0.00    | 0.09       | -0.01   | 0.99    |
| Age                      | 0.00     | 0.00       | 1.50    | 0.13    |
| Female                   | -0.01    | 0.03       | -0.37   | 0.71    |
| Education: Below Primary | -0.07    | 0.12       | -0.59   | 0.55    |
| Education: Primary pass/Middle fail | 0.00 | 0.07     | 0.01    | 0.99    |
| Education: Middle pass/Matric fail | 0.18 | 0.06    | 2.89    | 0.00    |
| Education: Matric        | 0.34     | 0.05       | 6.89    | 0.00    |
| Education: Intermediate/College no degree | 0.41 | 0.05    | 8.26    | 0.00    |
| Education: Graduate or equivalent | 0.41 | 0.05    | 8.25    | 0.00    |
| Education: Post Graduate | 0.51     | 0.08       | 6.68    | 0.00    |
| Education: Professional degrees, higher research | 0.26 | 0.12    | 2.22    | 0.03    |
| Caste: OBC               | 0.05     | 0.03       | 1.62    | 0.10    |
| Caste: SC/ST             | -0.18    | 0.04       | -4.46   | 0.00    |
| Religion: Muslim         | -1.30    | 0.05       | -26.80  | 0.00    |
| Religion: Other          | 0.06     | 0.06       | 1.02    | 0.31    |
| Adults in Household      | 0.00     | 0.01       | 0.02    | 0.99    |
| Children in Household    | -0.02    | 0.01       | -2.12   | 0.03    |
| Wave 2                   | -0.29    | 0.06       | -5.19   | 0.00    |
| Wave 3                   | -0.41    | 0.07       | -5.92   | 0.00    |
| **Other: Intercept**     | -0.98    | 0.16       | -6.14   | 0.00    |
| Age                      | -0.01    | 0.00       | -2.72   | 0.01    |
| Female                   | -0.06    | 0.05       | -1.15   | 0.25    |
| Education: Below Primary | -0.08    | 0.21       | -0.41   | 0.68    |
| Education: Primary pass/Middle fail | 0.05 | 0.11     | 0.48    | 0.63    |
| Education: Middle pass/Matric fail | -0.00 | 0.11   | -0.03   | 0.98    |
| Education: Matric        | 0.02     | 0.09       | 0.22    | 0.83    |
| Education: Intermediate/College no degree | 0.08 | 0.09    | 0.90    | 0.37    |
| Education: Graduate or equivalent | 0.04 | 0.09    | 0.47    | 0.64    |
| Education: Post Graduate | 0.20     | 0.14       | 1.42    | 0.15    |
| Education: Professional degrees, higher research | -0.31 | 0.25    | -1.25   | 0.21    |
| Caste: OBC               | 0.12     | 0.06       | 1.89    | 0.06    |
| Caste: SC/ST             | 0.75     | 0.07       | 11.19   | 0.00    |
| Religion: Muslim         | -0.39    | 0.08       | -4.98   | 0.00    |
| Religion: Other          | -0.20    | 0.12       | -1.65   | 0.10    |
| Adults in Household      | 0.01     | 0.02       | 0.91    | 0.36    |
| Children in Household    | 0.02     | 0.02       | 1.47    | 0.14    |
| Wave 2                   | -1.04    | 0.08       | -13.09  | 0.00    |
| Wave 3                   | -1.45    | 0.12       | -12.13  | 0.00    |
3.4.4 Results: Education

The relation between wealth, proxied by education, and the probability of voting for the *Aam Aadmi Party* is predicted to have the form of an inverted U. Figure 3.4 plots the predicted probabilities of voting for the different parties as a function of the nine education categories. All other variables are held at their mean or mode, respectively. The probabilities for AAP are in red. They indeed exhibit a slight inverted U-shape. The predicted probability of voting for AAP is highest with around 40 percent for respondents that have a middle school degree, have passed the matriculation, or have attended college. It drops by around 5 percent for those with more education, consistent with the argument that they can afford bribes and thus benefit from the *status quo*. Predicted support for AAP also drops to less than 35 percent for respondents that have low education, in particular illiterate voters. Again, this is consistent with the argument that clientelism is most effective for the poor. The exception to this trend are respondents that are literate but have no formal education. Their high probability of voting for AAP likely stems from the specific efforts made by the party to gather votes among Delhi’s tens of thousands of auto rickshaw drivers. Overall however, these findings for education support the theoretical connection between wealth and push and pull factors.

The relation between wealth/education and support for the other parties is as expected. The Congress Party has the highest expected vote share among the poor and uneducated with almost 40 percent. Support is declining steadily to below 30 percent for those with postgraduate degrees. It increases again for the highest education category, reflecting the strong support the party traditionally enjoys in academic circles. For the BJP, support is low among the poor/uneducated and rises with education, consistent with its traditional standing as a middle-class party. Other parties consistently have a low share of vote intentions.
Figure 3.4: Effect of education on vote intention for the 2013 Delhi elections. Predicted probabilities with all other variables held at their mean or mode.

3.4.5 Results: Caste

For caste, the hypothesis was that members of Scheduled Castes and Scheduled Tribes (SC/ST) as well as of Other Backward Castes (OBC) are more likely to vote for AAP. Figure 3.5 shows the predicted probabilities. Voters that are not members of a disadvantaged caste intend to vote for AAP with a probability of slightly above 35 percent. This rises a few percentage points for those belonging to one of the OBCs. As predicted, support for AAP is highest in the most disadvantaged castes, where the predicted probability of a vote for it is more than 40 percent. Support for INC and BJP exhibits the opposite pattern and decreases for the disadvantaged castes. Other parties play a role only among SC/ST members, where the BSP has some support.
3.4.6 Results: Age

Young people often do not have the means to buy their way into government transfers and services, so they are a natural constituency for an anti-corruption party. As Figure 3.6 shows, AAP does indeed draw a lot of support from young voters. Age has a clear negative effect, with the probability of intending to vote it going from around 40 percent at age 18 to less than 30 percent for those aged 80 or older. The opposite is true for the two established status quo parties, where support rises with age.

3.4.7 Results: Religion

Finally, an anti-corruption party should have difficulty gaining ground among voters who care about other issues that are represented by a status quo party. In India, religion is one of those issues, especially among minority Muslims. I hypothesized
that their traditionally heavy support for the secular INC would make it difficult for AAP to gain a foothold. Figure 3.7 shows the predicted probabilities. Because Hindus are the clear majority, their religion does not seem to determine their vote very much. The BJP and the INC are roughly on par, and both are behind the AAP. For minority Muslims, however, religion plays an important role in their vote intention. All else equal, the predicted probability of voting for Congress is more than 50 percent, while the BJP only achieves about 15 percent. The fact that religion plays such an important role in vote choice among Muslims in Delhi affects the anti-corruption AAP: Despite concerted efforts to woo Muslim voters, their predicted probability of voting for it is only about 30 percent. For members of other religious groups (mainly Sikhs, Jains, and Christians), the three parties have roughly equal support, although AAP also does worse among them compared to Hindus.
3.5 Election Results

The micro-level study of vote intentions has shown that likely AAP voters are poor but not very poor, member of disadvantaged castes, young, and non-Muslim. But even the last poll analyzed in the previous section was done several weeks before the election. In the remaining time, both AAP and INC lost ground, and the BJP emerged as the strongest party from the elections. So what did support for the anti-corruption Aam Aadmi Party in the actual election look like?

3.5.1 Data

To answer this question, I analyze the election results at the polling booth level. There were 11,753 booths for the Delhi elections, each serving an average of 1046...
voters. Results for each polling station\(^9\) are published by the \textit{Chief Electoral Officer of Delhi}.\(^{10}\) This allows for a very fine-grained analysis of the actual election results. Figure 3.8 plots the results for AAP, with booths in the same location aggregated together. Green indicates a high percentage and red a low percentage. In some booths, the party gained more than 75 percent of the votes, while it barely reached 10 percent in others. The vote shares for the other parties also show heterogeneity (see Figure 3.9). Can this variation be explained by push, pull, and valence factors? After excluding cases with incomplete information and extreme outliers, I have a sample of 10,848 polling booths to analyze.

In interpreting the results, it is important to keep in mind the ecological inference problem: Associations at an aggregate level do not always allow us to infer the behavior of individuals (Robinson, 1950; King, 1997). However, if the results from this section point in the same direction as the findings of the pre-election surveys, we can be more certain about the determinants of support for an anti-corruption party.

Data for the independent variables comes from three sources. Information about the demographic composition of the polling booths is taken from the official electoral roll published by the \textit{Chief Electoral Officer of Delhi}.\(^{11}\) They consist of a document for each booth, listing the names of all registered voters as well as their address, age, and gender. The geographical location of each booth is taken from Susewind (2014) based on data provided by the \textit{Election Commission of India}.\(^{12}\) Finally, additional assembly constituency information is taken from official publications of the \textit{Chief Electoral Officer of Delhi}.\(^{13}\)

\(^{9}\) Polling station and polling booth are used interchangeably.
\(^{10}\) \url{http://ceodelhi.gov.in/OnlineERMS/PS-wise%20voters%20polled%20in%20EVM%20(2020)}.aspx
\(^{11}\) \url{http://ceodelhi.gov.in/Content/Erolls.aspx}
\(^{12}\) \url{http://psleci.nic.in}
\(^{13}\) \url{http://ceodelhi.gov.in/Content/Nomi.aspx}
I analyze the election results in a two-step process. First, I investigate the difference between polling stations located in urban and rural areas. The outer belt in the north, west, and south of Delhi consists of rural villages with a very traditional, hierarchical societal structure. This is in contrast with the rest of the city, which is urban. Figure 3.10 shows this by plotting the polling stations in urban (black) and rural (red) constituencies. The red stations are located further away from each other than the black one’s, reflecting the lower population density in the countryside. The green dot marks the location of Connaught Place, considered the center of the city.
The map shows that distance from Connaught Place is a good proxy for how rural the area that a polling station is located in is.

To preview the results, it will become clear that AAP was unable to gain any foothold in the rural parts of Delhi and did not win a single seat. I therefore restrict the analyses after that to the urban constituencies. For the independent variables that measure pull, push, and valence factors, I use a number of demographic indicators of the voters in the polling station. Unfortunately, Census data is not available at the fine-grained polling station level. Instead, I use GPS data as well as information contained in the official electoral roll in innovative ways to derive estimates of the sociodemographic composition of the polling stations.

The best proxy for wealth in the urban Delhi context is population density. In the wealthier areas of Delhi, a few families share an apartment building or even live in their own house. These are sometimes surrounded by a private garden, or at the very least there are a number of well-manicured parks. In slums, thousands of people live together in small huts, with narrow lanes between them, and no amenities such as green spaces to speak of. Because the polling stations are located in close proximity  

\[ \text{There are almost no high-rise buildings in Delhi, especially not of residential nature. This is an important condition for using population density as a proxy of wealth.} \]
proximity to the voters they serve, their density in turn provides information about population density. Using their GPS locations, I compute the average distance of a polling booth to the five nearest stations. The bigger this distance, the less densely populated and wealthier the area.

Information on the age and gender composition of the voters in the polling station is taken from the official electoral rolls. They list the names of all registered voters as well as their age and gender. To capture the age composition of a polling station, I create a variable measuring the percentage of voters aged 25 or younger, and a variable measuring the percentage aged 50 or older. The gender composition is measured as the percentage of voters that are female. I also include an indicator whether the assembly constituency is reserved for candidates that are members of the scheduled castes and tribes. It is important to note that a reserved constituency does
not necessarily have more SC/ST voters than those who are not reserved (Jensenius, 2013). This variable should thus not be interpreted as evidence for caste voting behavior.

Finally, the pre-election surveys have shown that Muslims gravitated overwhelmingly towards the secular INC. Religion plays an important role in their decision who to vote for, trumping concerns about corruption they may have. I use the voter roll to derive an estimate of the prevalence of Muslim voters in a polling station. First, I take a list of common Muslim first names in India from the website www.indiachildnames.com. Then, I compute the similarity between the first name of each voter and the about 4380 common Muslim names and record the highest match. I use a similarity measure based on the Levenshtein distance, which is a string metric for quantifying the difference between two sequences. Intuitively, it is the minimum number of insertions, deletions or substitutions that are required to change one sequence into the other. To make them comparable, I use the following similarity measure:

$$1 - \frac{d(s_1, s_2)}{max(A, B)}$$

where $d$ is the Levenshtein distance function, $s_1$ and $s_2$ are the two strings, and $A$ and $B$ are their lengths. Computation was done using the `levenshteinDist` function in the R package `RecordLinkage` (Sariyar and Borg, 2010). A value of unity indicates a perfect match. A value of zero means that to turn the first name into the second the number of insertions, deletions or substitutions is equal to the number of characters of the longer name. For each polling station, I create a variable with the average highest similarity score.
3.5.3 Statistical Model

The dependent variable is the quadruple of the vote shares of INC, BJP, AAP, and all other parties at the polling booth level. To analyze such compositional data, I estimate a Dirichlet regression model. We model $Y_i \sim D(\mu_i, \phi)$, where $i \in \{1, \ldots, 4\}$ are the vote shares for the four parties with $i = 1$ being INC, $\mu_i$ is the party-specific mean and $\phi$ is the precision. These two parameters are modeled as

$$
\begin{align*}
g_\mu(\mu_i) &= X\beta_i \\
g_\phi(\phi) &= Z\gamma
\end{align*}
$$

(3.7)

where $g_\mu(\cdot)$ and $g_\phi(\cdot)$ are the two link functions. The standard approach is to choose the logit function for $g_\mu(\cdot)$ and the log for $g_\phi(\cdot)$. To make the model identifiable, we set $\beta_1 = 0$. The precision parameter is simply modeled by an intercept. The expected values are

$$
\begin{align*}
\mu_1 &= \frac{1}{1+\sum_{j=2}^{4}\exp(X\beta_i)} \\
\mu_i &= \frac{\exp(X\beta_i)}{1+\sum_{j=2}^{4}\exp(X\beta_i)} \forall \ i \in \{2, 3, 4\}
\end{align*}
$$

(3.8)

For ease of interpretation, I discuss the impact of the different variables using predicted probabilities.

3.5.4 Results: Urban and Rural Constituencies

The biggest drawback of analyzing intended vote in pre-election polls was that factors pulling voters away from voting for an anti-corruption party are not in full effect: clientelistic handouts as well as threats for a “wrong” vote are only made in the last days before the election. I have stressed that voters embedded in a more traditional rural environment should attribute more weight to the pull factors and thus be likely to support one of the status quo parties.

A visual inspection of the AAP vote shares shown in Figure 3.8 already suggests the overwhelming power of pull factors in rural areas, as the dots are red almost
Table 3.2: Dirichlet regression analysis of distance to city center on polling booth results. Baseline: INC.

|          | Estimate | Std. Error | z value | Pr(>|z|) |
|----------|----------|------------|---------|---------|
| **BJP**  | Intercept | -0.45      | 0.02    | -20.31  | 0.00    |
|          | Distance to CP | 4.18      | 0.18    | 23.88   | 0.00    |
| **AAP**  | Intercept | 0.07       | 0.02    | 3.34    | 0.00    |
|          | Distance to CP | 0.79      | 0.17    | 4.77    | 0.00    |
| **Other**| Intercept | -1.24      | 0.02    | -51.10  | 0.00    |
|          | Distance to CP | 4.97      | 0.19    | 25.94   | 0.00    |

throughout. Even though the outskirts of Delhi are mostly inhabited by impoverished farmers that could benefit from a reduction of corruption in government, the *Aam Aadmi Party* was unable to get a foothold there. Table 3.2 shows the results of a Dirichlet regression with just distance to the city center as the independent variable. Figure 3.11 plots the expected vote share as a function of distance to the city center (Connaught Place) in radian degrees.

It shows that AAP performs best in the center of the city and that its vote share decreases the further the polling station is located away from it. All else equal, the expected vote share decreases from 35 percent in the urban center to only about 20 percent in the rural outskirts. The INC also did best in urban localities. The BJP, however, exhibits the exact opposite pattern. As Panel (a) in Figure 3.9 shows, its strongholds were the rural outskirts of the city, where it was able to rely on a well-functioning clientelistic machine. Accordingly, the predicted vote share of the BJP is only around 20 percent in polling stations at the city center, but over 40 percent in the distant rural booths. These findings hold when including a full set of control variables, see Appendix C.

In the rural areas, the results were largely determined by pull factors that left the *Aam Aadmi Party* unable to win a seat in any of the constituencies. All of its 28 seats were won in urban constituencies, where the organization of communities is
Figure 3.11: Effect of distance to Connaught Place (city center) in radian degrees on predicted vote share in the 2013 Delhi elections.

less hierarchical. But Figure 3.8 shows that there still is considerable variance in the performance of AAP in these areas. For example, it did very well in South Delhi, but not well at all in the north-east of the city. To analyze the factors determining the results, I henceforth restrict the sample to the 9,106 urban polling stations marked in black in Figure 3.10.

3.5.5 Results: Population Density

Table 3.3 shows the results of a Dirichlet regression of the results in the urban polling stations. Figure 3.12 shows the predicted vote share as a function of population density, measured by the average distance to the five nearest polling stations. The smaller the distance, the higher the density, and the lower the level of wealth of the voters in that polling station. The effect of population density (as a proxy for wealth) on AAP performance has an inverted U-shape, similar to the effect of education (as
Table 3.3: Dirichlet regression analysis of urban polling booth results. Baseline: INC.

|                | Estimate | Std. Error | z value | Pr(>|z|) |
|----------------|----------|------------|---------|----------|
| **BJP: Intercept** | 10.58    | 0.24       | 43.45   | 0.00     |
| Percent under 25 | -0.27    | 0.26       | -1.02   | 0.31     |
| Percent over 50  | -3.08    | 0.22       | -14.30  | 0.00     |
| Percent Female   | 2.08     | 0.33       | 6.39    | 0.00     |
| Est. Muslim Population | -15.13  | 0.27       | -55.49  | 0.00     |
| SC/ST Constituency | 0.09     | 0.03       | 3.36    | 0.00     |
| Avg. Distance 5 nearest PS | -87.13 | 13.64     | -6.39   | 0.00     |
| **AAP: Intercept** | 9.19     | 0.26       | 35.52   | 0.00     |
| Percent under 25 | 0.46     | 0.26       | 1.76    | 0.08     |
| Percent over 50  | 0.13     | 0.21       | 0.64    | 0.52     |
| Percent Female   | 1.82     | 0.33       | 5.59    | 0.00     |
| Est. Muslim Population | -14.15  | 0.30       | -47.12  | 0.00     |
| SC/ST Constituency | 0.21     | 0.02       | 8.60    | 0.00     |
| Avg. Distance 5 nearest PS | -24.74 | 14.16     | -1.75   | 0.08     |
| **Other: Intercept** | 0.97     | 0.26       | 3.78    | 0.00     |
| Percent under 25 | -0.61    | 0.30       | -2.02   | 0.04     |
| Percent over 50  | -2.41    | 0.25       | -9.75   | 0.00     |
| Percent Female   | 0.08     | 0.37       | 0.23    | 0.82     |
| Est. Muslim Population | -1.37   | 0.29       | -4.80   | 0.00     |
| SC/ST Constituency | 0.05     | 0.03       | 1.74    | 0.08     |
| Avg. Distance 5 nearest PS | -70.27 | 15.61     | -4.50   | 0.00     |
| **Avg. Distance 5 nearest PS Squared** | 6240.94  | 986.96   | 6.32    | 0.00     |

a proxy for wealth) had at the individual level. Support for the anti-corruption party is high in somewhat dense areas, lower for very dense areas, and much lower in urban places where polling stations are located far away from each other. Conversely, support for the BJP is high in areas of low density, consistent with its image as a middle-class party, and in areas of very high density, consistent with the idea that its strong clientelistic machine is able to deliver the votes of the very poor. Again, this mirrors the findings of the pre-election surveys, but in an amplified manner.
Together with the finding that the BJP won almost the entire rural countryside, this supports the theoretical notion that vote choice between the *status quo* and an anti-corruption party is determined by the interplay of push and pull factors.

![Figure 3.12: Effect of population density on polling station vote share for the 2013 Delhi elections. Predicted vote shares with all other variables held at their mean or mode.](image)

3.5.6 Results: Age

The survey has found that support for the *Aam Aadmi Party* is especially large among the young. Figure 3.13 shows the effect of the percentage of people aged 25 and younger on AAP support at the polling station level. The higher that percentage, the larger the expected vote share for the anti-corruption party. All else equal, going from less than 10 percent to more than 40 percent young voters increases the expected vote share by about five percent. Conversely, the expected shares of all other parties decrease when there are more young voters. Interestingly, the percentage of people
aged 50 and older also has a positive effect on AAP performance (not displayed), which is contrary to the findings in the survey. This may be a case of the ecological inference problem. For example, it could be that this finding is driven by the fact that people between 18 and 25 in India often still live with their parents – who are likely to fall into the 50 and older age bracket.

![Figure 3.13](image)

**Figure 3.13**: Effect of age composition on polling station vote share for the 2013 Delhi elections. Predicted vote shares with all other variables held at their mean or mode.

### 3.5.7 Results: Religion

Finally, Figure 3.14 shows the effect of the presence of a large Muslim population. The proxy for this is the average highest similarity score between the names of the voters registered at the polling station and a list of common Muslim first names. The finding of the surveys are confirmed. All else equal, moving from the smallest to the largest average highest similarity score increases the vote share for the secular
INC by around 60 percent. The same move decreases the expected vote share of
the Hindu-nationalist BJP and the anti-corruption AAP by around 40 percent each.
This confirms that besides pull and push factors, the valence effect is also important.
Voters who place emphasis on factors such as religious affinities are less inclined to
support an anti-corruption party.

\[ \begin{array}{cccc}
\text{AAP} & \text{BJP} & \text{INC} & \text{Other} \\
0.60 & 0.65 & 0.70 & 0.75 & 0.80 & 0.85 \\
\end{array} \]

**Figure 3.14**: Effect of presence of Muslim population on polling station vote share
for the 2013 Delhi elections. Predicted vote shares with all other variables held at
their mean or mode.

3.6 Discussion: Prospects for Successful Anti-Corruption Campaigns

In a speech in Mumbai in August 2014, the governor of the Reserve Bank of India
Raghuram Rajan wondered: “Even as our democracy and our economy have be-
come more vibrant, an important issue in the recent election was whether we had
substituted the crony socialism of the past with crony capitalism (...) By killing
transparency and competition, crony capitalism is harmful to free enterprise, oppor-
portunity, and economic growth. And by substituting special interests for the public interest, it is harmful to democratic expression. If there is some truth to these perceptions of crony capitalism, a natural question is why people tolerate it. Why do they vote for the venal politician who perpetuates it? (...) [E]very so often we see the emergence of a group, usually upper middle class professionals, who want to clean up politics. But when these ‘good’ people stand for election, they tend to lose their deposits. Does the electorate really not want squeaky clean government?”

By analyzing the prominent example of the *Aam Aadmi Party*, this chapter has provided some answers to this question. Using pre-election surveys as well as the polling station-wise election results, I have shown that support for an anti-corruption party is determined by a combination of push, pull, and valence factors. In the 2013 Delhi elections, the *Aam Aadmi Party* did best among less wealthy voters and the young, who suffer the most from the *status quo* as they cannot afford to bribe their way into government services and benefits. This pushes them to vote for an anti-corruption alternative. The reason why “squeaky clean” politicians often fare poorly can be explained by push factors being outweighed by pull and valence factors. AAP did not gain much ground among the wealthy, who have the resources to benefit from the current arrangement. They also did less well among the very poor and with rural voters, which is the effect of pull factors: For them, the utility of clientelistic benefits is highest and they are most susceptible to social pressures, so they can be “bought off” or intimidated into supporting *status quo* parties. Finally, voters who care deeply about other issues and therefore attribute lower valence to corruption are less inclined to support a party running on an anti-corruption platform. In Delhi, this shows among Muslims, a religious minority which overwhelmingly supports the party that stands for a secular India.

The findings in this chapter allow for a better understanding of the conditions under which anti-corruption parties can be successful. A first condition is that a big enough segment of the population is negatively affected by the bribes-for-services arrangement. This suggests the countries in which the population thinks their government is largely controlled by special interests (see Figure 1) should provide fertile ground for an anti-corruption movement to emerge. A second condition, however, is that status quo parties are unable to sway a large enough share of voters through clientelistic means. First and foremost, this means an urbanized environment. In rural areas where society is organized in a traditional, hierarchical manner, status quo parties have an easier time to mobilize their vote banks through handouts of cash and goods, but also through fear and intimidation. In cities, these traditional structures are less ingrained. The example of Delhi has shown that an anti-corruption party is able to gain significant support from the urban poor, although with slightly less success among the very poor.

This does not bode well for the chances of the Aam Aadmi Party to expand nationally. Only 32 percent of India’s population currently lives in an urban setting, placing the country 176th out of 211 countries listed in the World Bank data, well below the average of about 59 percent.16 And indeed, after its success in the 2013 Delhi elections, the AAP engaged in an aggressive expansion course for the national elections in 2014. It contested for 432 seats, but ended up winning only four of them. In 414 constituencies, AAP candidates lost their deposits for failing to secure at least one sixth of the votes. Of the countries that have a high level of perceived corruption, chances for anti-corruption parties to make a national impact are better in more urbanized countries such as Brazil (85 percent), Mexico (79 percent), or South Africa (64 percent).

16 http://data.worldbank.org/indicator/SP.URB.TOTL.IN.ZS
Finally, anti-corruption parties can only succeed when sufficiently many voters are open to basing their vote choice at least partly on the corruption issue. That is, if political competition is dominated by long-standing concerns about e.g. descriptive representation in terms of religion or ethnicity, *status quo* parties will have an easier time retaining voters even in the face of dissatisfaction with widespread corruption – something South Africa’s governing *African National Congress (ANC)* surely is very thankful for.

To sum up, in this chapter I have endogenized the move from lenient to strict laws governing money in politics. I have shown that for political entrepreneurs pushing for “clean” politics to be successful, a number of conditions have to be met, explaining why they fail more often than not. But what happens if they do succeed? The formal model in Chapter 1 has suggested that even then, not all is well. In many countries, anti-corruption movements have succeeded in that outright bribes are a thing of the past. However, the formal model suggests that other types of special interest money, in particular lucrative post-office jobs in the private sector, would be more common instead. In the final chapter of the dissertation, I will examine this substitution effect towards the revolving door empirically. To do so, we have to leave the messy, mostly unregulated world of money in Indian politics, and move to a “cleaner,” if not necessarily squeaky clean country.
4

Another Form of Special Interest Influence? The Revolving Door in the U.S. States

4.1 Introduction

In many countries, the flow of money from interest groups to political actors is more effectively regulated than in India. For example, unlike in the Tammany Hall era, suitcases filled with cash are, a few notable exception aside, a thing of the past in the United States and other OECD countries. That, of course, does not mean that interest groups have no influence on politics. Quite the opposite. As Figure 1 in the Introduction has shown, a majority of citizens in countries such as Germany, France, United Kingdom, or the United States think that their government is to a large extent or entirely run by a few big interests. Thus, Fisman and Miguel (2008) wonder: “[H]as this old-fashioned cash-for-favor exchange simply been replaced by a system that trades political influence for campaign financing, international ‘business trips’ on corporate jets, and highly paid post-government employment?” (Fisman and Miguel, 2008, 49-50).
The role that special interest groups play for campaign financing is well documented, especially in American politics (e.g. Richter, Samphantharak and Timmons, 2009; Bonica et al., 2013; Gilens and Page, 2014). There are also still ways in which politicians can use their position to personally “cash in.” Increasingly, this happens *after leaving office* through the so-called “revolving door,” where politicians take up lucrative consulting or lobbying jobs upon exiting office, often for companies that were affected by their decisions in office. Propositions 3 and 5 state that the revolving door acts as a substitute mechanism for bribes and campaign contributions – if there are rules that effectively deter special interest money from entering politics that way, the revolving door becomes more common as a type of special interest money (see Figure 4.1). In this chapter, I test this hypothesis using data from the United States, the country in which the revolving door has been studies most extensively.

Existing work demonstrates that it is common for former politicians and staffers to work for companies or special interest groups upon leaving public service (Etzion
and Davis, 2008), either directly (e.g. as members of the board of directors) or, more frequently, indirectly as lobbyists. These positions are very lucrative, providing compensation many times higher than legislator salaries (Palmer and Schneer, 2015). The revolving door arrangement is also beneficial for interest groups. Existing studies argue that they hire former politicians because of their expertise (Salisbury et al., 1989; Heinz et al., 1993; Esterling, 2004; Parker, 2008) as well as their network of connections (Blanes i Vidal, Draca and Fons-Rosen, 2012; Bertrand, Bombardini and Trebbi, 2014; LaPira and Thomas, 2014).

The literature thus identifies characteristics of legislators – expertise or connections – as the driving force behind the revolving door. However, these existing studies focus on the U.S. Congress in Washington. They are thus unable to examine the role of regulation and institutions, which according to the model in Chapter 1 should play a crucial role in determining which types of special interest money are prevalent. In this chapter, I address this shortcoming by analyzing the revolving door in the 50 state legislatures of the United States. Figure 4.2 shows the state-wise percentage of legislators leaving office between 2000 and 2009 who moved into the lobbying sector (see below for a detailed description of the data). There are large differences between the states. The highest rate can be found in Texas, where almost 28 percent of former legislators moved into the lobbying profession. This is closely followed by Nevada (about 25 percent), Florida (about 24 percent), Ohio (23 percent), and Illinois (22 percent). The state with the lowest rate is New Hampshire, where less than 3 percent of former legislators become lobbyists. Other states in which the revolving door is barely spinning are West Virginia (about 4 percent), Virginia, Mississippi, or Kentucky (each about 6 percent).

In this chapter, I show that state regulations of the flow of special interest money can help explain these differences. For all state-level Senators and Representatives who left office between 2000 and 2009, I use lobbying registration records to deter-
Figure 4.2: State-wise share of legislators who were registered as lobbyists after leaving office.

mine whether they took up a post-politics lobbying position. I combine this with data on state regulations of money in politics based on legal briefs compiled by the National Conference of State Legislatures as well as information on the legislators, their parties, and the legislatures they were members of. Using a series of multilevel regression models, I show that former legislators are more likely to go through the revolving door and become lobbyists in states that make politicians less dependent on campaign contributions from special interests and that make it harder to earn money while in office.

This is consistent with Propositions 3 and 5 and suggests that politicians’ movement into the private sector upon exiting office can act as a substitute for other types of special interest money. The finding complements the existing literature, which has focused on individual characteristics of legislators. While these are important factors
that help explain the revolving door, studies so far have not examined the effect of institutions and regulations on the revolving door. By showing that they also have an effect and that the revolving door spins more often when other avenues through which special interest money enters politics are closed or politicians do not have to rely on them, this chapter raises the concern that the lobbyists from today are rewarded for their policies from yesterday.

4.2 Background

In the United States, incidents of former politicians going through the revolving door to take up lucrative jobs in the private sector receive a lot of media attention. The most popular line of employment is the lobbying sector. Upon completion of their public service, politicians often join lobbying firms or set up their own practice, and then frequently attract clients that were affected by their actions in office. For example, former Democratic House majority leader Dick Gephardt retired from public office in 2005, joined a lobbying firm a few months later, and set up his own practice in 2007. In 2010, he billed his clients (among them Goldman Sachs, Boeing, and Visa) more than $6.5 million. The same year, former Republican representative Billy Tauzin earned more than $11.5 million from his clients, setting a new record for ex-politicians.¹ The revolving door is so common these days that Congress is sometimes described as a “farm league” for the lobbying industry (Lessig, 2011).

Moving to the lobbying profession can be perfectly innocuous. Earlier political science studies find that revolving door lobbyists have more expertise and better knowledge than their career lobbyist counterparts (Salisbury et al., 1989; Heinz et al., 1993; Esterling, 2004; Parker, 2008). This may help in crafting laws that are of higher quality and thus lead to better outcomes for citizens. Recent work, however, presents evidence that politicians instead are mostly sought after because of their extensive

networks of connections within the legislature (Blanes i Vidal, Draca and Fons-Rosen, 2012; Bertrand, Bombardini and Trebbi, 2014; LaPira and Thomas, 2014). These findings point to a less innocuous role of revolving door lobbyists.

The most fervent critics of the revolving door, however, contend that it is just another mechanism for special interest groups to compensate politicians for policy favors. These claims have been substantiated by the admission of former lobbyist Jack Abramoff that he promised Congressional staffers lucrative employment in the future: “Now the moment I said that to them or any of our staff said that to ’em, that was it. We owned them. And what does that mean? Every request from our office, every request of our clients, everything that we want, they’re gonna do. And not only that, they’re gonna think of things we can’t think of to do.”² It is not hard to believe that this logic applies to politicians as well, as expressed in a recent statement of an anonymous member of Congress on vox.com: “Committee assignments are mainly valuable as part of the interview process for a far more lucrative job as a K Street lobbyist. You are considered naïve if you are not currying favor with wealthy corporations under your jurisdiction.”³ But the revolving door does not need to be a more or less explicit quid pro quo to lead to an outsize influence of special interest groups. Citing the cases of Gephardt, Tauzin, and others, a 2011 New York Times editorial worries that “[w]ith examples like this before them, most incumbent members, as they go about their daily routine of casting votes and attending committee meetings, must have in the back of their minds an awareness that they are likely to go into the influence-peddling business in the future. This knowledge inevitably influences – and arguably corrupts – their votes on legislation crucial to the interests most likely to hire them after they leave the halls of Congress.”⁴

³ http://www.vox.com/2015/2/5/7978823/congress-secrets
This fear has so far not been confirmed by systematic empirical evidence. Because the literature has focused overwhelmingly on how politicians turned lobbyists benefit interest groups, few studies have even attempted to address it. Two exceptions are Parker (2008) and Powell (2012), both of which are skeptical about the claim that the revolving door is a form of special interest compensation. Parker uses a survey of 229 former members of Congress and argues that the human capital they develop in office transfers into their post-office employment. Powell uses a survey of current state legislator and studies their self-perceived likelihood of becoming lobbyists. But again, both studies focus on variance between subjects, which makes it likely that differences in skills or connections emerge as the main explanations of revolving door occurrences. Propositions 3 and 5 point to the importance of regulatory variation, suggesting that the revolving door is more common when other avenues through which special interest money enters politics are closed. To date, there is no comparative work on the revolving door that exploits variance in the regulation of money in politics. In the following sections, I provide such a study.

4.3 Data

One major implication of the formal model in Chapter 1 is that the revolving door acts as a substitute mechanism for other types of special interest money. Proposition 3 implies that it becomes more common when restrictions effectively prevent incumbents from taking special interest money. Proposition 5 says that it also becomes more common when there are restrictions on campaign contributions by special interest groups. The 50 U.S. states exhibit large differences in how they regulate different ways for special interests to spend money on politics. In this chapter, I leverage this within-country variation to make comparative inferences and test whether the revolving door acts as a substitute mechanism for other forms of special interest compensation. In this section, I describe the dependent variable.
To determine whether a state-level Senator or Representative who left office went through the revolving door to take up a position as a lobbyist, I match data on legislators with lists of registered lobbyists. The information on legislators comes from the *State Legislative Election Returns (1967-2010)* data set (Klarner et al., 2013). The list of registered lobbyists comes from the *National Institute on Money in State Politics*, which compiled them from state disclosure agencies and is available from 2006 to 2012.\(^5\) To match the legislators with the lobbyists, I employ a two-step procedure. First, I employ an automated algorithm that matches candidates’ names. It uses the generalized Levenshtein edit distance and takes name permutations into account. I set a high threshold for the distance to minimize the number of false negative matches. In a second step, I check all matches manually and delete false positives, using supplementary information from Internet searches where necessary.

Since the lobbyist data span the years 2006 to 2012, I restrict the main analysis to politicians who left office between 2000 and 2009. The 2000 cutoff is chosen because politicians who left politics after that point are likely to still be in the lobbying profession in 2006, and because it is able to capture revolving door politicians in states that prescribe a “cooling off” period between leaving office and registering as a lobbyist. The core results are not affected by choosing earlier or later years (see Section 4.6.2). I use 2009 as a cutoff because the Supreme Court’s decision in *Citizens United v. Federal Election Commission* affected the regulation of campaign financing in many states. If politicians had multiple spells in office, only the most recent one is included.

In total, the sample includes information on 7,558 legislators that left office between 2000 and 2009. Of these, 916 were registered as lobbyists in their state at some point between 2006 and 2012, which is about 12 percent. One important caveat is that these data capture ex-legislators that moved into the lobbying industry, which

\(^5\) See [www.followthemoney.org](http://www.followthemoney.org).
is only one profession through which post-politics employment can work. The dependent variable does not include cases in which a former lawmaker is awarded a directorship or a seat on an advisory board. However, available evidence points to the move into the lobbying sector being the most important path through the revolving door in the United States.

4.4 State Regulations of Special Interest Money and the Revolving Door

If politicians moving into the lobbying sector upon exiting office is a substitute mechanisms, it should be more prevalent when states are more prohibitive of campaign contributions by special interest groups, or if laws make candidates less dependent on them in other ways. For information on the states’ regulations, I rely on legal briefs compiled by the National Conference of State Legislatures. I code the variables in a binary way, so they get a value of one if a certain policy exists and zero otherwise. Table 4.1 provides an overview by listing the policies, how many states have them in place, and their expected impact on the probability that lawmakers become lobbyists upon leaving office. I now discuss the policies in detail.

Table 4.1: Special Interest Regulations in the 50 states: Number of states that have a certain provision or law and theorized impact on the probability that politicians become lobbyists after leaving office.

| Restrictions: Corporate Campaign Donations | 43 + |
| Restrictions: Union Campaign Donations | 40 + |
| Restrictions: PAC Campaign Donations | 35 + |
| Restrictions: Individual Campaign Donations | 36 – |
| Public Campaign Financing | 7 + |
| Term Limits | 21 + |
| Restrictions: Honorariums | 29 + |
| Restrictions: Nepotism | 24 + |
| Restrictions: Revolving Door | 36 – |
State restrictions on campaign donations to candidates differ depending on who the donors are: corporations, unions, political action committees, or individuals. Donations by corporations are regulated most heavily. All but seven states impose some form of restriction, either capping the amount that can be donated or completely prohibiting them. Contributions by unions are also widely regulated, with 40 out of the 50 states imposing a restriction. Donations by political action committees (PACs) are allowed in all states, but 35 of them limit the amount while the other 15 allow unlimited giving. By Proposition 5, I expect states where a restriction is present to have a higher probability that lawmakers move through the revolving door into a lobbying position after leaving office.

In 36 states, there are also caps on the amount individuals can give to candidates. While this is not a direct regulation of special interest money, it does have an impact by affecting how dependent candidates are on it. If a state restricts how much individuals can donate to political causes, it is harder for candidates to finance their election campaigns by relying on a broad donor base where many individuals contribute moderate amounts of money. This means that compared to their colleagues in states where there are no such restrictions, they have to rely to a higher degree on bigger contributions from a more narrow (special interest) donor base. The theoretical expectation is thus that limitations on campaign contributions by individuals lead to a lower probability of legislators going through the revolving door.

A similar logic applies to public campaign finance systems. Seven states provide candidates with matching grants, fixed subsidies, or full funding. Advocates of such systems usually stress their role in limiting the importance of special interest money in elections. However, this may be partly or entirely offset by the substitution

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6 The detailed summary of the laws in each state upon which the coding is based can be found at http://www.ncsl.org/print/legismgt/limits_candidates.pdf.

effect: If lawmakers are not dependent on special interests to finance their reelection campaigns, they have more leeway to “cash in” by taking up a revolving door position after their tenure ends.

Another policy that is often portrayed as a check on entrenchment and corruption are term limits. 21 states restrict lawmakers from running for reelection after a certain number of terms.\(^8\) If legislators cannot run for reelection, they have no need to raise campaign funds. In this way, term limits of course limit the influence of special interest money on politics. But again, this leaves them free to seek compensation from special interests in other forms, which should raise the probability that they go through the revolving door.

Special interests can also remunerate politicians by providing them with direct material benefits while they are in office. With some notable exceptions, straightforward cash bribes do not exist anymore in the United States. However, there are indirect ways for special interest groups to remunerate politicians while they hold office. One way to do so is through honorariums, where lawmakers are paid for activities such as giving a speech, making an appearance, participating on a panel or writing articles. 29 states impose restrictions on honorariums or ban them completely.\(^9\) Legislators can also derive financial benefits from holding office through nepotism. Restrictions that prohibit legislators from hiring, appointing, or voting on the appointment of relatives for positions that are paid with taxpayer money exist in 24 states.\(^10\) In both cases, the expectation is that such restrictions lead to a higher prevalence of the revolving door, as per Proposition 3.

Finally, some states also place restrictions on the revolving door. In a democratic society that values the freedom of occupation, it is impossible to prevent politicians

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from taking up positions in the private sector upon leaving office. But the revolving
doors in the U.S. works mostly through the lobbying sector, rather than through
directorships or memberships on corporate boards as is the case in other countries
(e.g. Eggers and Hainmueller, 2009). This allows for at least a partial regulation of
the revolving door. While no state bans former politicians from becoming lobbyists
outright, 36 require a “cooling-off” period during which they are prohibited from
lobbying their former colleagues. These periods last up to two years.

4.5 Confounders and Statistical Approach

4.5.1 Control Variables

To assess the effect of regulations on legislators’ propensity to move into the lob-
bying sector upon leaving office, it is necessary to control for a variety of possible
confounders. At the level of the legislators, I control for their party as well as
the electoral (dis)advantage this bestows on them because of the party’s state-wide
popularity. To measure this (dis)advantage, I use the two-party vote share of the
Presidential candidate of the politician’s party in the state, averaged for the elections
in 2000, 2004, and 2008.11 Additionally, I include the year of leaving office in case
there is a time trend, and the number of years a politician was in office to control for
differences in expertise and connections. Finally, I account for the way the legislators
left office: by voluntarily retiring or by not being reelected. In the former case, they
did not have to raise campaign money and instead may already have planned ahead
for their “second career.”

Characteristics of the state legislatures may also influence the prevalence of the
revolving door. I control for whether the lawmaker was a member of the House or

11 Outcomes of Presidential elections are better suited as a proxy than state elections since they
are not influenced by the decisions made by the state-level candidates (e.g. campaign efforts)
that are endogenous to the partisan advantage. For legislators that are classified as “Other” in the
party variable, I set the value to 0.5.
Senate as well as the size of the legislature. There are also differences in the way the state legislatures work. Some states have a legislature with professional staff that meets year-round. Others only meet for a few weeks during a two-year term and have no professional staff to speak of. A good proxy for the way a legislature is organized is the basic salary it pays (Squire, 2007).  

Finally, the financial power of the state’s special interest sector could also matter for revolving door prevalence. If interest groups are not willing or able to spend a lot of money trying to influence politics, the revolving door should be less attractive as a post-office career option. I proxy special interest financial power by the mean annual campaign contributions by corporations from the state to federal races between 2000 and 2008, divided by population size. In Section 4.6.2, I check the robustness of the findings to including additional controls or alternative indicators.

4.5.2 Statistical Approach

The unit of observation is the individual legislator, while the main independent variables are differences in state-level regulations. This naturally calls for a multilevel modeling approach, so I estimate generalized linear mixed effect models with random state intercepts. The decision by legislator $i$ in state $j$ to become a registered lobbyist upon exiting office is modeled as:

$$
Pr(y_{ij} = 1) = g^{-1}(\alpha_j + X_i\beta) \sim N(\gamma + U_j\delta, \sigma_{\alpha}^2)
$$

(4.1)

where $g(\cdot)$ is the logit link function, $X_i$ the vector of individual-level variables with the associated coefficient vector $\beta$, $\alpha_j$ the state-level intercept, $\gamma$ the overall intercept, $\sigma_{\alpha}^2$ the variance of the random state intercepts.

12 Because the chamber size as well as the salary variable are skewed, I log them both, adding 1 in the case of salary.

13 I use campaign contributions to federal races rather than state races since, if the substitution argument holds true, the latter are endogenous to differences in regulations between states. Contribution data are taken from Bonica (2013).
$U_j$ is the vector of state-level predictors with associated coefficient vector $\delta$, and $\sigma_\alpha$ the standard deviation of the random intercepts.

4.6 Results

Table 4.2 shows the results of the mixed effects hierarchical model with random state intercepts. The independent variables of interest are highlighted in gray. For ease of interpretation, Figure 4.3 shows the densities of the effect of having a certain policy on the predicted probability that a lawmaker takes up a lobbying position after retiring from office, holding all other variables at their mean or mode. The areas shaded in gray highlight the area that is in line with the theoretical expectations of Table 4.1. There is considerable evidence consistent with the idea that the revolving door acts as a substitute mechanism for other types of special interest money.

Proposition 3 states that it should be more common when it is more difficult for special interest groups to remunerate politicians while they hold office. This is reflected by the significant positive coefficient for restrictions on accepting honorariums. If politicians cannot accept payments for activities such as speeches or appearances, they are about four percent (point estimate) more likely to take up a lobbying position after leaving office. The magnitude of this effect is substantial. For example, all else equal Republicans are more likely than Democrats to take up a lobbying position. This is not surprising given that the Republican party traditionally represents business interests more than the Democratic party. However, the magnitude of that effect is 2 percent, so only about half of the one honorarium restrictions have.

Nepotism restrictions, which prevent incumbents from hiring, appointing, or voting on the appointment of relatives for positions that are paid with taxpayer money, are another way in which returns from office can be limited. While the coefficient is positive as expected, it is not significant at conventional levels. This might reflect the
Table 4.2: Determinants of whether former politicians join the lobbying industry in the U.S. states. Mixed effects hierarchical logit model of politicians leaving office between 2000 and 2009.

|                          | Estimate | Std. Error | z value | Pr(>|z|) |
|--------------------------|----------|------------|---------|----------|
| Party: Other             | 0.261    | 0.285      | 0.917   | 0.359    |
| Party: Republican        | 0.213    | 0.078      | 2.751   | 0.006    |
| Presidential Vote Share Own Party | 0.575 | 0.499      | 1.154   | 0.249    |
| Year of Leaving Office   | -0.028   | 0.013      | -2.136  | 0.033    |
| Years in Office          | 0.021    | 0.006      | 3.594   | 0.000    |
| Lost Last Election       | 0.020    | 0.103      | 0.190   | 0.849    |
| Senate                   | -0.315   | 0.164      | -1.918  | 0.055    |
| Size of Legislature (log)| -0.400   | 0.142      | -2.825  | 0.005    |
| Salary (log)             | 0.154    | 0.042      | 3.643   | 0.000    |
| Federal Campaign Contributions, pc | -0.029 | 0.032      | -0.909  | 0.364    |
| Restrictions: Honorariums| 0.355    | 0.138      | 2.582   | 0.010    |
| Restrictions: Nepotism   | 0.205    | 0.140      | 1.461   | 0.144    |
| Restrictions: Corporate Campaign Donations | -0.374 | 0.356 | -1.052 | 0.293 |
| Restrictions: Union Campaign Donations | 0.521 | 0.395 | 1.319 | 0.187 |
| Restrictions: Individual Campaign Donations | -0.706 | 0.340 | -2.076 | 0.038 |
| Restrictions: PAC Campaign Donations | 0.153 | 0.297 | 0.517 | 0.605 |
| Public Campaign Financing | 0.349 | 0.196 | 1.780 | 0.075 |
| Term Limits              | 0.311    | 0.140      | 2.216   | 0.027    |
| Restrictions: Revolving Door | -0.292 | 0.161 | -1.812 | 0.070 |
| (Intercept)              | 53.966   | 26.282     | 2.053   | 0.040    |

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<th></th>
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<td>-2,673.648</td>
<td>5,389.296</td>
<td>5,534.834</td>
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fact that while nepotism restrictions reduce the financial returns to holding office, special interest groups are not necessarily involved. It is therefore not clear that the substitution logic applies to the same degree as it does for honorarium restrictions.

According to Proposition 5, legislation that make candidates less dependent on special interests to finance their election campaigns should make them more likely to take up lobbying positions upon leaving office. Contribution restrictions differ depending on whether they are made by corporations, unions, PACs, or individuals. The first three do not have a statistically significant effect on the propensity of legislators to go through the revolving door. Contrary to expectations, placing restrictions on corporations, unions or PACs does not lead to a substitution effect.
Figure 4.3: Effect size of regulations on the probability that legislators became lobbyists after leaving office. Estimated change in the predicted probability of a former politician being a registered lobbyist if the regulation is present vs. not present. Gray area are in line with the theoretical expectations from Table 4.1.
towards the revolving door, although the latter two have the expected sign. One potential reason for this non-finding may be that there is not enough variation between the states. For example, 43 states have restrictions on corporate campaign donations, and 40 regulate those made by unions as well.

What does have a clear effect in the expected direction, however, are restrictions on contributions by individuals. If it is harder for candidates to finance their election campaigns by relying on a broad donor base where many individuals give moderate amounts of money, they depend on a more narrow special interest donor base. This means that politicians should be less able to take up a lobbyist job. In line with this substitution logic, restrictions on individual campaign contributions lower the probability that a legislator takes up a lobbying job after leaving office by almost five percent.

Conversely, a public campaign finance system makes politicians less dependent on the population of special interest groups, which is reflected by an about four percent higher probability of them going through the revolving door after their tenure in office (p-value: 0.075). This shows that in questions of institutional design, it is important to take substitution effects into account. Advocates of a public campaign finance system stress that it limits the influence of special interests on politics. However, this effect needs to be weighed against the increase in instances of the revolving door this produces. It may well be that the side effects of turning state legislatures into stepping stones for lucrative post-political employment outweigh the normative benefits of reducing special interest money in elections.

The same is true for term limits. They are another regulation often championed as a check on special interest influence, as they free politicians from the need to raise campaign funds during their final period in office. But as Figure 4.3 shows, term limits increase the probability that an incumbent becomes a registered lobbyist by
about three percent. This effect is larger than the difference between Republicans and Democrats, which was only about two percent.

Finally, many states impose a waiting period before ex-politicians can lobby their former colleagues. Such regulations are at least partially successful, as they decrease the predicted probability that a legislator joins the lobbying industry by about 2.5 percent (p-value 0.07). Note that this seems to be a permanent effect rather than simply a function of legislators in the dataset still being in the “cooling off” period. Even legislators that left office in 2009 were no longer affected by waiting periods in 2012, the last year covered by the lobbying data.

Overall, the results are largely consistent with the view that the revolving door acts as a substitute mechanism. I find support for most predictions laid out in Section 4.4. While there are some null findings, none of the effects are in the “wrong” direction. The main picture is clear: Regulations that make it harder for politicians to earn money while in office, and that make them less dependent upon campaign donations by interest groups, increase the probability that they take up a lobbying position upon exiting office. Rules that make them rely more on special interest campaign money lead to a lower prevalence of the revolving door.

There are also some interesting findings for the control variables. As discussed above, Republican legislators are about 2 percent more likely to become lobbyists after leaving office. This is in the expected direction, but relatively small, especially compared to the effect that some regulations of money in politics have. The revolving door is thus spinning on both sides of the aisle. The number of years in office has a positive effect on the probability of joining the lobbying sector. This is consistent with previous research which has identified expertise and connections (both increasing with experience) as factors for why interest groups hire former politicians as lobbyists. State senators are less likely to become lobbyists than state representatives. Legislature size also plays a role: The revolving door is less common when
there are more seats in a chamber. Finally, salary as a proxy for legislative professionalization has a positive effect, so politicians in more professionalized chambers are more likely to move into a lobbying position.

4.6.1 Substantive Effect

Figure 4.3 has shown that the effects of special interest regulations on the prevalence of the revolving door are sizable. In this section, I demonstrate their magnitude by comparing two states on opposite ends of the spectrum: Nevada and Virginia.

Going back to Figure 4.1, Nevada can be considered an example of a high-regulation state: it places restrictions on honorariums, nepotism, campaign contributions by corporations, unions, PACs, and individuals. It has no public campaign finance system or restrictions on the revolving door, but does have term limits. Virginia, on the other hand, is an example of a comparatively low-regulation state. It only has restrictions on accepting honorariums and the revolving door.

Figure 4.4 plots the density of the predicted probabilities that legislators from the two states who left office between 2000 and 2009 went into the lobbying sector. The solid line in the first panel shows the density for Nevada legislators with Nevada regulation. Their predicted probabilities range between 16 and 30 percent, with a mean of about 22.5 percent. This squares well with the actual observed share of about 25 percent. The dashed line gives the predicted probabilities for Nevada legislators if they had regulations like in Virginia. The mean predicted probability now is only about 16 percent, which is a drop of 6.5 percent. The range is between 11 and 22 percent.

The second panel shows the same exercise for Virginia. The mean predicted probability for Virginia legislators with Virginia regulations is only about 7.5 percent with a range between around 4 and 14 percent. If Virginia had the more stringent rules of Nevada, the revolving door would be more common. The mean predicted
Figure 4.4: Nevada and Virginia: Effect of regulation on the probability that legislators become lobbyists. First panel: Nevada with own regulation and with regulation as in Virginia. Second panel: Virginia with own regulation and with regulation as in Nevada.
probability is more than 11 percent, with a range between 5 and 20 percent. In other words, with existing rules Nevada legislators are much more likely to become registered lobbyists after leaving office than legislators in Virginia. If the two states swapped their regulations, however, this gap would shrink considerably and Nevada legislators would only be slightly more likely to go through the revolving door.

4.6.2 Robustness Checks

In Appendix D, I report a number of additional model specifications to check the robustness of the result in Table 4.2. I estimate models that include as controls the absolute values of legislators’ roll call vote scores as a measure of ideological extremity; an explicit measure of legislative professionalization (Squire, 2007); the number of lobbyists per state legislator as a proxy for the size of the lobbying industry; the “need” for knowledgeable and connected former legislators proxied by the ideological diversity of the political parties and the complexity of legislation as indicated by the median bill length; and logged GDP per capita.

Furthermore, check the robustness of the results using different data samples. I estimate models that include all legislators who left office after 1998, 2002, and 2004, respectively. Finally, exclude all legislators from New Hampshire, because its large citizen legislature provides a considerable share of the observations in the full sample. In all cases, the coefficients and standard errors of the main variables of interest change little. The robustness tests confirm the main finding from Table 4.2 that the revolving door is particularly prevalent when other avenues through which special interest money enters politics are closed or politicians do not have to rely on them.
4.7 Discussion

What is clear is that over the past decades, it has become more common for politicians to move into the private sector or become lobbyists upon leaving office. What is not clear is what effect this has on politics. The optimistic view is that former politicians are hired because of their subject matter expertise and knowledge of the lawmaking process. This implies that the presence of a spinning revolving door can have positive normative consequences. Legislation is necessarily complicated and lawmakers have to rely on lobbyists for advice. If former politicians are better able to communicate technical complexities to current lawmakers, the effectiveness of regulation may be increased (e.g. Che, 1995; Salant, 1995; Dal Bó, 2006). And indeed, early studies of the revolving door in the U.S. that use surveys of ex-politicians stress the importance of their human capital in their decision to become lobbyists. More recent studies, however, find that former politicians are sought after mostly because they have valuable connections within the legislature that career lobbyists do not have. This raises the concern that the politicians of yesterday influence the policies of today, possibly skewing them in favor of special interests.

However, existing studies of the revolving door in the United States have looked at politicians within the single institutional context of the Congress in Washington. They can thus only analyze variance between subjects, which makes it likely that differences in skills or connections emerge as the main explanations of revolving door occurrences. The biggest fear of critics of the revolving door, however, is that it serves as a different type of special interest compensation. In Chapter 1, I have argued that if this is true, then the revolving door should be more common when there are more restrictions on campaign contributions and on ways to receive special interest money while in office. In this chapter, I exploit such regulatory variance by examining the 50 U.S. states. This creates analytical leverage that previous research
designs cannot offer. The results provide evidence for a less benign view of the revolving door: It spins with much greater frequency when other avenues through which special interest money enters politics are closed or politicians do not have to rely on them.

The findings in this chapter do not mean that the human capital acquired by politicians in office is unimportant, nor do they mean that their connections in the legislature are of no value to those who hire them. In fact, the control variables provide support the idea that these factors matter, as lawmakers are more likely to become lobbyists if they have been in office longer. What I have shown that there is an additional institutional effect. Interest groups need skilled and/or connected lobbyists in Virginia just as much as they do in Nevada, but they do not hire ex-politicians nearly as frequently in the former. The results presented in this chapter suggest that a major reason for this is that Nevada has more regulations on other types of special interest money than Virginia.

By hiring former politicians to represent them as lobbyists, companies or interest groups can potentially kill two birds with one stone. If they want to influence policy, they need to hire someone who lobbies current legislators, be it former politicians or career lobbyists. The literature shows that ex-politicians tend to be better at their job than lobbyists who never held office. They can thus be of value to the interest groups by helping to skew today’s legislation in their favor. At the same time, the lobbying jobs can also serve as a form of delayed compensation for policy favors consciously or unconsciously provided while in office. The previous literature has shown the importance of skills, and this chapter has presented evidence consistent with the view that the revolving door is a type of special interest money. The main priority for future research is to determine how important each of these factors is, and what consequences this has for the quality of legislation as well as to what degree is skews it in favor of special interest groups.
Appendix A
Proofs for Chapter 2

Proof of Proposition 1

To show that \( s_I = 0 \) when there are no penalties for accepting a bribe, denote the ideally chosen campaign contribution by \( c^*_I \), and the remainder to allocate is \( m_I - c^*_I \).

If \( I \) solicits a bribe but no promise for a revolving door job, her utility is:

\[
u_I = \ln(1 + m_I - c^*_I + (1 - p(c^*_I))r_I) + p(c^*_I)\phi \quad (A.1)\]

If she solicits all non-campaign remuneration in the form of a promise for a revolving door job in case of an election loss, the utility is

\[
u_I = \ln(1 + (1 - p(c^*_I))(m_I - c^*_I)) + p(c^*_I)\phi \quad (A.2)\]

The former is larger than the latter if \((1 - p(c^*_I))r_I > -p(c^*_I)(m_I - c^*_I)\), which is always true since \( 0 < p(c^*_I) < 1 \) and \( m_I - c^*_I \geq 0 \). If \( I \) does not run for reelection \((c^*_I = 0)\) and takes up a revolving door job for sure, her utility is

\[
u_I = \ln(1 + m_I) \quad (A.3)\]

If she instead solicits \( m_I \) as a bribe, her utility is

\[
u_I = \ln(1 + m_I + (1 - p(0))r_I) + p(0)\phi \quad (A.4)\]
which is clearly larger since $0 < p(0) < 1$. The remainder of the proof is discussed in the paper and therefore omitted.

**Proof of Proposition 2**

The utility for $I$ when setting $x_I = 1$ and allocating $m_I$ as in Equations (1.12) and (1.13) is

$$u_I = \frac{1}{2(h + \alpha r_I)} (h(\phi - 2) + 2(\phi(\alpha(1 + m_I + r_I) - 1) - \alpha r_I)) + \ln \left( \frac{h + \alpha r_I}{\alpha \phi} \right)$$

(A.5)

The utility for $I$ when setting $x_I = 0$ is

$$u_I = \frac{\phi}{2} + \ln \left( 1 + \frac{r_I}{2} \right)$$

(A.6)

The incumbents sets $x_I = 1$ if the former is equal to or larger than the latter, which is the case when

$$m_I \geq \frac{h + \phi}{\alpha \phi} - 1 + \left( \frac{1}{\phi} - \frac{1}{2} \right) r_I + \frac{h + \alpha r_I}{\alpha \phi} \ln \left( \frac{\alpha \phi (2 + r_I)}{2(h + \alpha r_I)} \right) = m_I$$

(A.7)

**Proof of Lemma 1**

There are three possible career trajectories. First, the incumbent $I$ can run for reelection, and go back to her original private sector job in case of a loss. In this case, $s_I = 0$. Second, she can run for reelection, but take up a revolving door job in case of an election loss. Denoting the ideally chosen campaign contribution by $c^*_I$ again, her utility then is

$$u_I = \ln(1 + (1 - \sigma)b_I + (1 - p(c^*_I))s_I) + p(c^*_I)\phi$$

(A.8)
If $\sigma < p(c_I^\sigma)$, it is optimal to set $b_I = m_I - c_I^\sigma$ and $s_I = 0$, and if $\sigma > p(c_I^\sigma)$ it is $s_I = m_I - c_I^\sigma$ and $b_I = 0$. Finally, if $I$ does not run for reelection and takes up a revolving door job for sure, her utility is

$$u_I = \ln(1 + (1 - \sigma)b_I + s_I)$$  \hspace{1cm} (A.9)

Since $\sigma > 0$, it is never optimal to solicit any special interest compensation in the form of a bribe.

**Proof of Proposition 3**

First, if $I$ does not allocate anything to $s_I$, the internal solutions for the optimal allocation of the special interest compensation are:

$$b_{I\sigma}^* = \frac{2h^2(1 - \sigma) - \alpha h(\phi(2 + r_I) - 2r_I) + 2\alpha \phi r_I(\alpha m_I - 1)}{2\alpha \phi(h(1 - \sigma) + \alpha r_I)}$$  \hspace{1cm} (A.10)

$$c_{I\sigma}^* = \frac{-2h^2(1 - \sigma) + \alpha h(\phi(2 + 2m_I(1 - \sigma) + r_I) - 2r_I) + 2\alpha \phi r_I}{2\alpha \phi(h(1 - \sigma) + \alpha r_I)}$$  \hspace{1cm} (A.11)

It follows that $c_{I\sigma}^* \geq 0$ if

$$\frac{2h(h(1 - \sigma) + \alpha r_I)}{\alpha(h(2 + 2m_I(1 - \sigma) + r_I) + 2r_I)} = \frac{\phi}{\sigma}$$  \hspace{1cm} (A.12)

and $b_{I\sigma}^* \geq 0$ if

$$\frac{2h(h(1 - \sigma) + \alpha r_I)}{\alpha(h(2 + r_I) + 2r_I(1 - \alpha m_I))} = \frac{\overline{\phi}}{\sigma}$$  \hspace{1cm} (A.13)

Comparing with $\underline{\phi}$ and $\overline{\phi}$, it is straightforward to show that $\overline{\phi}_\sigma < \phi$ and $\underline{\phi}_\sigma < \overline{\phi}$.

Second, if $I$ does not allocate anything to $b_I$ and moves to a revolving door job in case of an election loss, the internal solutions are

$$s_{I\sigma}^* = \frac{1}{4\alpha \phi}(2\phi(\alpha m_I - 1) + h(4 - \phi)$$

$$+ \sqrt{(2\phi(\alpha m_I - 1))^2 - 4h\phi^2(\alpha(4 + m_I) - 1) + h^2(16 + \phi^2)})$$  \hspace{1cm} (A.14)
\[ c_{I\sigma}^* = \frac{h^2 - 2\phi s_{I\sigma}^* + h(2 - \alpha(\phi(2 + s_{I\sigma}^*) - 2s_{I\sigma}^*))}{2\alpha(h - \alpha s_{I\sigma}^*)} \]  \hspace{1cm} (A.15)

It follows that \( c_{I\sigma}^* \geq 0 \) if

\[ \phi \geq \frac{h(2(1 + \alpha m_I) + h)}{\alpha(2m_I + h(2 + m_I))} = \phi'_{\sigma} \]  \hspace{1cm} (A.16)

Note that any solution where \( s_{I\sigma}^* < r_I \) can never be sustained in equilibrium, as \( I \) is always better off by moving back to her old private sector job and soliciting \( m_I \) in the form of a campaign contribution and/or bribe. This means that the corner solution where \( s_{I\sigma}^* = 0 \) does not need to be considered.

The third possibility is that \( I \) does not run for reelection and moves to a revolving door job in the second period for sure, in which case her utility is \( u_I = \ln(1 + m_I) \). Compare this to the situation from above in which \( s_I = m_I \) but \( I \) runs for reelection and only takes the revolving door job in case of an election loss, in which case the utility is \( u_I = \ln(1 + (1 - p(0))m_I) + p(0)m_I \), where \( p(0) = \frac{h^{2}}{2h} \). The latter utility is higher than the former and not running for reelection is the equilibrium strategy if

\[ \phi \leq \frac{2h}{h - 2} \ln\left(\frac{2h(1 + m_I)}{2m_I + h(2 + m_I)}\right) = \phi''_{\sigma} \]  \hspace{1cm} (A.17)

The utility for \( I \) when \( b_{I\sigma}^* \) as in Equation (A.10) and \( c_{I\sigma}^* \) as in Equation (A.11) is

\[ u_I = \frac{h(\phi - 2)(1 - \sigma) - 2(\alpha r_I + \phi(1 - \sigma - \alpha(1 + m_I(1 - \sigma) + r_I)))}{2(h(1 - \sigma) + \alpha r_I)} \]

\[ + \ln\left(\frac{h(1 - \sigma) + \alpha r_I}{\alpha \phi}\right) \]  \hspace{1cm} (A.18)

Taking the partial derivative with respect to \( \sigma \) gives

\[ \frac{\partial u_I}{\partial \sigma} = \frac{2\alpha(1 - \alpha m_I)\phi r_I + \alpha h(\phi(2 + r_I) - 2r_I) - 2h^2(1 - \sigma)}{2(h(1 - \sigma) + \alpha r_I)^2} \]  \hspace{1cm} (A.19)
It follows that $\frac{\partial u_I}{\partial \sigma} < 0$ if $\phi < \bar{\phi}_\sigma$, so $\sigma$ has a negative effect on the utility. Similarly, $\frac{\partial u_I}{\partial \sigma} < 0$ when $b_I = m_I$. When $s_I > 0$ and therefore $b_I = 0$, the utility is unaffected by $\sigma$. It follows that the revolving door is the equilibrium choice if $\sigma > \bar{\sigma}$, so the penalty for accepting a bribe is sufficiently high. If $c_I = m_I$ when $\sigma = 0$, introducing a penalty has no effect.

**Proof of Proposition 4**

It is straightforward to show that $\frac{\partial u_I}{\partial m_I} > 0$ when $x_I = 1$ and $\frac{\partial u_I}{\partial m_I} = 0$ when $x_I = 0$, so $x_I = 1$ is the equilibrium choice only when $m_I$ is sufficiently high ($m_I \geq m_{I,\sigma}$). In the proof of Proposition 3, it was shown that $\frac{\partial u_I}{\partial \sigma} < 0$ if $b_I > 0$ and $\frac{\partial u_I}{\partial \sigma} = 0$ if $b_I = 0$. It follows that $m_{I,\sigma} > m_I$ when $b_I > 0$. From Proposition 1 it follows that in an equilibrium in which $s_I > 0$, the utility that $I$ derives is smaller than when the compensation occurs through bribes and/or campaign contributions if $\sigma = 0$. It follows that the amount of special interest compensation where $I$ is indifferent between $x_I = 0$ and $x_I = 1$ must be larger when $s_I > 0$ in equilibrium. Finally, if $b_I = 0$ when $\sigma = 0$, both policy choice and allocation of special interest compensation are unaffected when $\sigma > 0$.

**Proof of Proposition 5**

First, if $I$ does not allocate anything to $s_I$, the internal solutions for the optimal allocation of the special interest compensation are:

$$b_{I,\tau}^* = \frac{2h^2(1 - \sigma) - \alpha h(1 - \tau)(\phi(2 + r_I) - 2r_I) + 2\alpha \phi r_I(1 - \tau)(\alpha m_I(1 - \tau) - 1)}{2\alpha \phi(1 - \tau)(h(1 - \sigma) + \alpha r_I(1 - \tau))}$$  \hfill (A.20)

$$c_{I,\tau}^* = \frac{-2h^2(1 - \sigma) + \alpha h(1 - \tau)(\phi(2 + 2m_I(1 - \sigma) + r_I) - 2r_I) + 2\alpha \phi r_I(1 - \tau)}{2\alpha \phi(h(1 - \sigma) + \alpha r_I)}$$  \hfill (A.21)
It follows that \( c_I^* \geq 0 \) if

\[
\phi \geq \frac{2h(1 - \sigma) + \alpha r_I(1 - \tau)}{\alpha(1 - \tau)(h(2 + 2m_I(1 - \sigma) + r_I) + 2r_I)} = \phi^r
\tag{A.22}
\]

and \( b_I^* \geq 0 \) if

\[
\phi \leq \frac{2h(1 - \sigma) + \alpha r_I(1 - \tau)}{\alpha(1 - \tau)(h(2 + r_I) + 2r_I(1 - \alpha m_I(1 - \tau)))} = \phi^r
\tag{A.23}
\]

Comparing with \( \phi^r \) and \( \phi^s \), it is straightforward to show that \( \phi^r < \phi^s \) and \( \phi^s < \phi^r \).

Second, if \( I \) does not allocate anything to \( b_I \) and moves to a revolving door job in case of an election loss, the internal solutions are

\[
s_{I^*} = \frac{1}{4 \alpha \phi(1 - \tau)} (2\phi(\alpha m_I(1 - \tau) - 1) + h(4 - \phi)
+ \sqrt{(2\phi(\alpha m_I(1 - \tau) - 1))^2 - 4h\phi^2(\alpha(4 + m_I)(1 - \tau) - 1) + h^2(16 + \phi^2)})
\tag{A.24}
\]

\[
c_{I^*}^t = \frac{h^2 - 2\alpha \phi s_{I^*}^s(1 - \tau) + h(2 - \alpha(1 - \tau)(\phi(2 + s_{I^*}^s) - 2s_{I^*}^s))}{2\alpha(1 - \tau)(h - \alpha \phi s_{I^*}^s(1 - \tau))}
\tag{A.25}
\]

It follows that \( c_{I^*}^t \geq 0 \) if

\[
\phi \geq \frac{h(2(1 + \alpha m_I(1 - \tau)) + h)}{\alpha(1 - \tau)(2m_I + h(2 + m_I))} = \phi^r
\tag{A.26}
\]

Comparing with \( \phi^r \), it is clear that \( \phi^r > \phi^s \).

Third, the decision whether \( I \) does not run for reelection and moves to a revolving door job in the second period for sure is unaffected by a change in \( \tau \), so she does so if \( \phi \leq \phi^r \).
The utility for $I$ when $b^*_I$, as in Equation (A.20) and $c^*_I$, as in Equation (A.21) is

$$u_I = \frac{h(\phi - 2)(1 - \sigma) - 2(\alpha r_I(1 - \tau) + \phi(1 - \sigma - \alpha(1 - \tau)(1 + m_I(1 - \sigma) + r_I)))}{2(h(1 - \sigma) + \alpha r_I(1 - \tau))} + \ln \left( \frac{h(1 - \sigma) + \alpha r_I(1 - \tau)}{\alpha \phi(1 - \tau)} \right) \quad (A.27)$$

Taking the partial derivative with respect to $\tau$ gives

$$\hat{\partial}u_I \hat{\partial} \tau =$$

$$\frac{(1 - \sigma)(2h^2(1 - \sigma) - 2\alpha \phi r_I(1 - \tau) + \alpha h(1 - \tau)(2r_I - \phi(2 + r_I + 2m_I(1 - \sigma))))}{2(1 - \tau)(h(1 - \sigma) + \alpha r_I(1 - \tau))^2} \quad (A.28)$$

It follows that $\hat{\partial}u_I \hat{\partial} \tau < 0$ if $\phi > \hat{\phi}_r$, so $\tau$ has a negative effect on the utility. Similarly, $\hat{\partial}u_I \hat{\partial} \tau < 0$ when $c_I = m_I$. When $s_I > 0$ and $c_I > 0$, $\hat{\partial}u_I \hat{\partial} \tau < 0$ as well. A penalty for campaign contributions has no effect when $b_I = m_I$ and $s_I = m_I$. It follows that $\hat{\sigma}_r \leq \hat{\sigma}$.

**Proof of Proposition 6**

Omitted. Equivalent to proof of Proposition 4.

**Proof of Proposition 7**

If $I$ has an expected valence disadvantage since $\theta \sim \text{Triangular}(-h, h, h)$, the probability that she wins the election is $p_{V-} = \frac{1}{3h^2} (\alpha(1 - \tau)c_I + h - x_I)^2$. Whereas $\hat{\partial}p \hat{\partial} c_i = \frac{\alpha(1 - \tau)}{h}$, it is the case that $\hat{\partial}p \hat{\partial} c_i = \frac{\alpha(1 - \tau)}{2h^2} (\alpha(1 - \tau)c_I + h - x_I)$. Then $\hat{\partial}p \hat{\partial} c_i > \hat{\partial}p \hat{\partial} c_i$ if $1 > \frac{1}{2} + \frac{1}{2h}(\alpha(1 - \tau)c_I - x_I)$. Because $0 < p < 1$ for any configuration of $p$, we know that $1 > \frac{1}{2} + \frac{1}{2h}(\alpha(1 - \tau)c_I - x_I) > 0$. Since $h > 0$, this means that $1 > \frac{1}{2} + \frac{1}{2h}(\alpha(1 - \tau)c_I - x_I)$ as well, so $\hat{\partial}p \hat{\partial} c_i > \hat{\partial}p \hat{\partial} c_i$. 

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The probability that \( I \) wins the election enters the utility function in two places: \( p\phi \) and \( (1-p)r_I \). Since \( \frac{\partial p}{\partial c_I} > \frac{\partial p_{V-}}{\partial c_I} \), \( \frac{\partial p\phi}{\partial c_I} > \frac{\partial p_{V-}\phi}{\partial c_I} \) but \( \frac{\partial (1-p)r_I}{\partial c_I} < \frac{\partial (1-p_{V-})r_I}{\partial c_I} \). However, since \( \phi > r_I \) by assumption, the marginal effect of \( c_I \) on the utility of \( I \) is larger when there is no valence advantage, which implies that she will solicit a lower share in special interest compensation in the form of campaign contributions.

If \( I \) has an expected valence advantage since \( \theta \sim \text{Triangular}(-h,h,-h) \), the probability that she wins the election is \( p_{V+} = 1 - \frac{1}{4h^2} (h - \alpha (1 - \tau) c_I + x_I)^2 \). \( \frac{\partial p}{\partial c_I} > \frac{\partial p_{V+}}{\partial c_I} \) if \( 1 > \frac{1}{2} + \frac{1}{2h} (-\alpha (1 - \tau) c_I + x_I) \). Because \( 0 < p < 1 \) for any configuration of \( p \), we know that \( 1 > \frac{1}{2} + \frac{1}{h} (-\alpha (1 - \tau) c_I + x_I) > 0 \). Since \( h > 0 \), this means that \( 1 > \frac{1}{2} + \frac{1}{2h} (-\alpha (1 - \tau) c_I + x_I) \) as well, so \( \frac{\partial p}{\partial c_I} > \frac{\partial p_{V+}}{\partial c_I} \). The remainder of the proof is as above.

**Proof of Proposition 8**

If \( x_I = 1 \), either \( u_I = \ln(1 + (1 - \sigma)m_I + r_I) \) or \( u_I = \ln(1 + m_I) \) since it is never simultaneously the case that \( b_I > 0 \) and \( s_I > 0 \). It follows immediately that \( b_I = m_I \) if \( m_I \leq \sigma r_I \) and \( s_I = m_I \) otherwise. Since \( \sigma < 1 \), \( \ln(1 + (1 - \sigma)m_I + r_I) > \ln(1 + r_I) \) so \( x_I = 1 \) is always the dominant strategy.
Appendix B

Supplementary Material for Chapter 2

Table B.1: Descriptive statistics of matched sample: States.

<table>
<thead>
<tr>
<th>State</th>
<th>All</th>
<th>CPM</th>
<th>Non-CPM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assam</td>
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<td>0</td>
<td>15</td>
</tr>
<tr>
<td>Bihar</td>
<td>18</td>
<td>0</td>
<td>18</td>
</tr>
<tr>
<td>Gujarat</td>
<td>17</td>
<td>0</td>
<td>17</td>
</tr>
<tr>
<td>Haryana</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Himachal Pradesh</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Jharkhand</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Karnataka</td>
<td>12</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>Kerala</td>
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<td>40</td>
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</tr>
<tr>
<td>Maharashtra</td>
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<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Manipur</td>
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<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Orissa</td>
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<td>0</td>
<td>17</td>
</tr>
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<td>Punjab</td>
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<td>0</td>
<td>9</td>
</tr>
<tr>
<td>Tamil Nadu</td>
<td>4</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Uttar Pradesh</td>
<td>6</td>
<td>0</td>
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</tr>
<tr>
<td>West Bengal</td>
<td>68</td>
<td>68</td>
<td>0</td>
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Table B.2: Descriptive statistics of matched sample: Parties.

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</tr>
<tr>
<td>BJP</td>
<td>29</td>
</tr>
<tr>
<td>BSP</td>
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<td>DMK</td>
<td>1</td>
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<td>INC</td>
<td>31</td>
</tr>
<tr>
<td>JD(U)</td>
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</tr>
<tr>
<td>JMM</td>
<td>2</td>
</tr>
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<td>KJP</td>
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</tr>
<tr>
<td>ML</td>
<td>1</td>
</tr>
<tr>
<td>SAD</td>
<td>9</td>
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</table>

Table B.3: Descriptive statistics of matched sample: All variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
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<td>Number of Cars t</td>
<td>1.022</td>
<td>1.447</td>
<td>0.000</td>
<td>14.000</td>
</tr>
<tr>
<td>Winning Margin t-1</td>
<td>0.123</td>
<td>0.087</td>
<td>0.001</td>
<td>0.372</td>
</tr>
<tr>
<td>Number of Vehicles t-1</td>
<td>0.447</td>
<td>0.730</td>
<td>0.000</td>
<td>6.000</td>
</tr>
<tr>
<td>Age</td>
<td>51.350</td>
<td>9.938</td>
<td>26.000</td>
<td>82.000</td>
</tr>
<tr>
<td>Female</td>
<td>0.133</td>
<td>0.340</td>
<td>0.000</td>
<td>1.000</td>
</tr>
<tr>
<td>SC/ST Candidate</td>
<td>0.173</td>
<td>0.379</td>
<td>0.000</td>
<td>1.000</td>
</tr>
<tr>
<td>Number of Candidates t-1</td>
<td>6.389</td>
<td>2.385</td>
<td>2.000</td>
<td>16.000</td>
</tr>
<tr>
<td>Electors in Constituency (log)</td>
<td>12.130</td>
<td>0.284</td>
<td>10.140</td>
<td>12.740</td>
</tr>
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<td>Change in Constituency</td>
<td>0.394</td>
<td>0.490</td>
<td>0.000</td>
<td>1.000</td>
</tr>
<tr>
<td>Party in Government</td>
<td>0.951</td>
<td>0.216</td>
<td>0.000</td>
<td>1.000</td>
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</table>
Table B.4: Effect of the vote buying treatment on the three dependent variables, controlling for demographic variables using matched sample. Point estimates with standard errors in parentheses. *p< 0.1; **p< 0.05; ***p< 0.01.

<table>
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<th></th>
<th>Resign OLS</th>
<th>Resign Ordered Logit</th>
<th>Resign OLS</th>
<th>Ban OLS</th>
<th>Ban Ordered Logit</th>
<th>Ban OLS</th>
<th>Ban Ordered Logit</th>
<th>Jail OLS</th>
<th>Jail Ordered Logit</th>
<th>Jail OLS</th>
<th>Jail Ordered Logit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vote Buying Vignette</td>
<td>0.269***</td>
<td>0.301***</td>
<td>0.923***</td>
<td>0.174**</td>
<td>0.207***</td>
<td>0.511***</td>
<td>0.148*</td>
<td>0.184**</td>
<td>0.434***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.073)</td>
<td>(0.067)</td>
<td>(0.162)</td>
<td>(0.077)</td>
<td>(0.070)</td>
<td>(0.149)</td>
<td>(0.076)</td>
<td>(0.073)</td>
<td>(0.155)</td>
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<td></td>
</tr>
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<td>0.0004</td>
<td>-0.004</td>
<td>-0.005</td>
<td>0.002</td>
<td>-0.005</td>
<td>0.0002</td>
<td>0.001</td>
<td>0.001</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.003)</td>
<td>(0.002)</td>
<td>(0.006)</td>
<td>(0.003)</td>
<td>(0.003)</td>
<td>(0.006)</td>
<td>(0.003)</td>
<td>(0.003)</td>
<td>(0.006)</td>
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<td></td>
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<tr>
<td>Female</td>
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</tr>
<tr>
<td></td>
<td>(0.072)</td>
<td>(0.068)</td>
<td>(0.161)</td>
<td>(0.077)</td>
<td>(0.072)</td>
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<td>0.090</td>
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<td>(0.309)</td>
<td>(0.139)</td>
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<td>0.221*</td>
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<td>0.639**</td>
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<td>(0.274)</td>
<td>(0.128)</td>
<td>(0.122)</td>
<td>(0.293)</td>
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<td>0.092</td>
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<tr>
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<tr>
<td>Children in Household</td>
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Appendix C

Supplementary Material for Chapter 3

Table C.1: Descriptive statistics of *AAP/Cicero* surveys.

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<td>1.00</td>
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<td>Vote Intention: Other Parties</td>
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<td>Age</td>
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<td>18.00</td>
<td>98.00</td>
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<td>Female</td>
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<tr>
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<tr>
<td>Education: Middle pass/Matric fail</td>
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<td>0.42</td>
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<tr>
<td>Education: Graduate or equivalent</td>
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<tr>
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<tr>
<td>Education: Professional degrees, higher research</td>
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<td>Caste: OBC</td>
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<td>0.00</td>
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<td>0.38</td>
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<td>Religion: Hindu</td>
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<td>0.39</td>
<td>0.00</td>
<td>1.00</td>
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<tr>
<td>Religion: Muslim</td>
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<td>0.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Religion: Other</td>
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<td>Adults in Household</td>
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<td>9.00</td>
</tr>
<tr>
<td>Children in Household</td>
<td>2.61</td>
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Table C.2: Descriptive statistics of polling station-wise results, full sample (10,848 observations).

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<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent INC</td>
<td>0.25</td>
<td>0.15</td>
<td>0.00</td>
<td>0.95</td>
</tr>
<tr>
<td>Percent AAP</td>
<td>0.30</td>
<td>0.14</td>
<td>0.00</td>
<td>0.77</td>
</tr>
<tr>
<td>Percent BJP</td>
<td>0.32</td>
<td>0.16</td>
<td>0.00</td>
<td>0.85</td>
</tr>
<tr>
<td>Percent Other</td>
<td>0.13</td>
<td>0.15</td>
<td>0.00</td>
<td>0.96</td>
</tr>
<tr>
<td>Percent under 25</td>
<td>0.19</td>
<td>0.05</td>
<td>0.04</td>
<td>0.48</td>
</tr>
<tr>
<td>Percent over 50</td>
<td>0.22</td>
<td>0.08</td>
<td>0.03</td>
<td>0.52</td>
</tr>
<tr>
<td>Percent Female</td>
<td>0.45</td>
<td>0.04</td>
<td>0.21</td>
<td>0.55</td>
</tr>
<tr>
<td>Est. Muslim Population</td>
<td>0.70</td>
<td>0.03</td>
<td>0.56</td>
<td>0.86</td>
</tr>
<tr>
<td>SC/ST Constituency</td>
<td>0.18</td>
<td>0.38</td>
<td>0.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Distance to CP</td>
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<td>0.05</td>
<td>0.01</td>
<td>0.36</td>
</tr>
</tbody>
</table>

Table C.3: Dirichlet regression analysis of distance to city center on polling booth results, including all controls. Baseline: INC.

|                  | Estimate | Std. Error | z value | Pr(>|z|) |
|------------------|----------|------------|---------|---------|
| **BJP:** Intercept | 9.63     | 0.22       | 43.53   | 0.00    |
| Percent under 25 | -0.31    | 0.24       | -1.30   | 0.19    |
| Percent over 50  | -3.05    | 0.20       | -15.35  | 0.00    |
| Percent Female   | 2.56     | 0.30       | 8.57    | 0.00    |
| Est. Muslim Population | -14.63 | 0.26       | -55.36  | 0.00    |
| SC/ST Constituency | 0.04   | 0.02       | 1.86    | 0.06    |
| Distance to CP   | 1.95     | 0.17       | 11.38   | 0.00    |
| **AAP:** Intercept | 9.24     | 0.24       | 39.05   | 0.00    |
| Percent under 25 | 0.41     | 0.24       | 1.71    | 0.09    |
| Percent over 50  | -0.30    | 0.20       | -1.54   | 0.12    |
| Percent Female   | 2.46     | 0.30       | 8.19    | 0.00    |
| Est. Muslim Population | -14.48 | 0.29       | -49.81  | 0.00    |
| SC/ST Constituency | 0.15   | 0.02       | 6.91    | 0.00    |
| Distance to CP   | -0.69    | 0.16       | -4.29   | 0.00    |
| **Other:** Intercept | -0.67    | 0.24       | -2.76   | 0.01    |
| Percent under 25 | -0.40    | 0.27       | -1.46   | 0.14    |
| Percent over 50  | -2.43    | 0.23       | -10.53  | 0.00    |
| Percent Female   | 1.40     | 0.35       | 3.99    | 0.00    |
| Est. Muslim Population | -0.72  | 0.28       | -2.57   | 0.01    |
| SC/ST Constituency | -0.12  | 0.03       | -4.51   | 0.00    |
| Distance to CP   | 4.13     | 0.18       | 22.42   | 0.00    |
Figure C.1: Effect of distance to Connaught Place (city center) in radian degrees on predicted vote share in the 2013 Delhi elections. Based on model with full set of controls in Table C.3

Table C.4: Descriptive statistics of polling station-wise results, urban sample (9,106 observations).

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<tbody>
<tr>
<td>Percent INC</td>
<td>0.26</td>
<td>0.15</td>
<td>0.01</td>
<td>0.95</td>
</tr>
<tr>
<td>Percent AAP</td>
<td>0.31</td>
<td>0.14</td>
<td>0.00</td>
<td>0.77</td>
</tr>
<tr>
<td>Percent BJP</td>
<td>0.32</td>
<td>0.16</td>
<td>0.00</td>
<td>0.85</td>
</tr>
<tr>
<td>Percent Other</td>
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<td>0.00</td>
<td>0.89</td>
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<tr>
<td>Percent under 25</td>
<td>0.19</td>
<td>0.05</td>
<td>0.04</td>
<td>0.48</td>
</tr>
<tr>
<td>Percent over 50</td>
<td>0.22</td>
<td>0.09</td>
<td>0.03</td>
<td>0.52</td>
</tr>
<tr>
<td>Percent Female</td>
<td>0.45</td>
<td>0.04</td>
<td>0.21</td>
<td>0.55</td>
</tr>
<tr>
<td>Est. Muslim Population</td>
<td>0.70</td>
<td>0.04</td>
<td>0.56</td>
<td>0.86</td>
</tr>
<tr>
<td>SC/ST Constituency</td>
<td>0.18</td>
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<td>Avg. Distance 5 nearest PS</td>
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# Appendix D

## Supplementary Material for Chapter 4

Table D.1: Descriptive statistics of U.S. states data.

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<td>Presidential Vote Share Own Party</td>
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</tr>
<tr>
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<td>0.020***</td>
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<td>0.022***</td>
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<td>(0.006)</td>
<td>(0.006)</td>
<td>(0.006)</td>
</tr>
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<td>Size of Legislature (log)</td>
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<td>0.164***</td>
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<td>(0.043)</td>
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</tr>
<tr>
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Professionalization Score: 1.795***

Lobbyists per Legislator: 0.023**

Std Dev Party Roll Call Scores: 0.458

Median Bill Length: −0.001*

GDP per capita (log): 0.652

Observations: 7,276

Log Likelihood: 48,288*

AIC: 5,219,568

BIC: 5,371,199

*p<0.1; **p<0.05; ***p<0.01

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Observations: 8,895
Log Likelihood: -3,131.438
AIC: 6,904.875
BIC: 6,453.833

*p<0.1; **p<0.05; ***p<0.01
Bibliography


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Biography

Simon Werner Weschle was born on May 10, 1984 in Lahr/Schwarzwald, Germany. He holds an M.A. in Political Behaviour (with distinction) from the University of Essex, United Kingdom (2009) and will complete a Ph.D. degree in Political Science at Duke University in 2015. Starting in the fall of 2015, he will be a Junior Research Fellow at the Carlos III-Juan March Institute in Madrid, Spain.

Simon Weschle’s research has been supported by a Summer Research Fellowship and a Research Travel Award from Duke University. He also held scholarships by the German Academic Exchange Service (DAAD) and the Baden-Württemberg Foundation. His research has been published in Electoral Studies (Weschle, 2014), Business and Politics (Barber, Pierskalla and Weschle, 2014), American Journal of Political Science (Metternich et al., 2013), International Studies Review (Ward et al., 2013), and Journal of European Social Policy (Busemeyer, Goerres and Weschle, 2009).