Unpacking Bribery: Petty Corruption and Favor Exchanges

Diego Romero

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Abstract

The incidence of petty corruption in public service delivery varies greatly across citizens and geography. This paper proposes a novel explanation for citizen engagement in collusive forms of petty corruption. It is rooted in the social context in which citizen-public official interactions take place. I argue that social proximity and network centrality provide the two key enforcement mechanisms that sustain favor exchanges among socially connected individuals. Bribery, as a collusive arrangement between a citizen and a public official, relies on the same enforcement mechanisms. Using an original dataset from a household survey conducted in Guatemala, the analysis shows that social proximity and centrality allow citizens to obtain privileges through implicit favor exchanges and illicit payments. These effects go beyond simply increasing the frequency of contact with public officials and are not driven by better access to information about the bribery market.

1 Introduction

Across most of the world, public officials often use their positions to extract illicit payments from some of their fellow citizens and to grant unfair advantages and privileges to others. The incidence and cost of these illicit payments seem to vary across citizens and geographical locations. The social context in which interactions between public officials and citizens take place plays a crucial role in determining whether extralegal exchanges can occur. Social ties provide a mechanism of enforcement for these exchanges which is often overlooked in empirical work on bribery in the context of public service delivery (Rose-Ackerman, 1998). A proper understanding of the terms in which citizens interact with public officials, and in particular, of how social ties contribute to sustaining extralegal exchanges, has far-reaching implications for the quality of public goods and local governance, and the success of anti-corruption programs (Tellez, Wibbels and Krishna, 2020; Bauhr, 2017).

In this paper, I develop an explanation for why some citizens participate in *collusive* forms of corruption in the context of public service delivery, which focuses on the social context in which interactions between citizens and public officials take place. My argument focuses on two specific forms of collusive corruption, namely bribery and implicit favor exchanges. In fact, these two can be seen as two types of favor exchanges among socially connected individuals. When a favor exchange involves a citizen and a public official, the latter grants a privilege or advantage to the citizen which she is not legally entitled to, such as speeding up bureaucratic procedures, skipping red tape or obtaining unlawful special treatment. The citizen, in turn, may provide a monetary payment or the promise of reciprocating the favor in a different context and at a later time. The former constitutes bribery, while the latter entails an implicit favor exchange. I argue that a citizen's relative position vis-à-vis a public official, within their community or town's social network, determines whether an extralegal exchange may go ahead. This relative position is a function of two elements. First, the social distance between a citizen and a public

official, which determines how strong their relation is. Lower social distance between two individuals increases the value of their relationship, thereby ensuring that norms of reciprocity apply between them. Second, the citizen's centrality within the community or town's social network. Socially central individuals are, by virtue of their position within their community's network, more capable of influencing the behavior and opinions of others, which increases their capacity to exact retribution when aggrieved. Thus, individuals with stronger connections (i.e., lower social distance) to public officials, as well as those who are socially central, are more likely to engage in collusive forms of corruption when dealing with public officials. I argue that these enforcement mechanisms, rather than access to superior information regarding the state of the bribery market, account for a higher exposure to corruption among well connected individuals.

The existing research on corruption in the context of public service delivery focuses, more often than not, on a predatory class of exchanges which Lambsdorff (2007) appropriately defines as "extortion," whereby a public official conditions the delivery of a legally-obligated public service on a payment from the citizen (Fried, Lagunes and Venkataramani, 2010; Lupu, 2017; Robinson, Seim et al., 2018). Additionally, it tends to overlook the social context in which transactions between citizens and public officials take place. Researchers have hitherto dealt with the question of why the incidence of illicit payments in exchange for public services varies across individual transactions by focusing on issues of bureaucratic organization (Becker and Stigler, 1974; Shleifer and Vishny, 1993), state capacity to monitor its workers (Di Tella and Schargrodsky, 2003; Olken, 2007), the ability of public officials to engage in price discrimination based on observable characteristics (Fried, Lagunes and Venkataramani, 2010; Olken and Barron, 2009; Robinson, Seim et al., 2018), or the role of expectations in fostering corruption (Corbacho et al., 2016). The prevailing approach has been to model transactions between citizens and public officials, as potentially corrupt agents of the state, while assuming that there is no social link between them (Banerjee, 1997; Cadot, 1987; Manion, 1996; Shleifer and Vishny, 1993). As a result, the dynamics of favor exchanges between citizens and public officials, and

forms of non-pecuniary corruption –exchanges that do not require a monetary payment– have gone largely understudied.[1] Therefore, this paper makes a theoretical contribution to the literature on petty corruption by focusing on these largely overlooked collusive exchanges.

This paper contributes to the understanding of how preexisting social relations enable extra legal exchanges in three important ways. First, it posits that bribery is a favor exchange with money as repayment, and therefore, depends on the same enforcement mechanisms that sustain implicit favor exchanges among socially connected individuals. Thus, it builds upon and complements existing studies that recognize the importance of norms, trust, reciprocity and repeated interactions to sustain contracts in the absence of third-party enforcement (Abbink, 2004; Barr and Serra, 2010; Chandrasekhar, Kinnan and Larreguy, 2018; Fehr, Gächter and Kirchsteiger, 1997; Ferrali, 2020; Rose-Ackerman, 1998). Second, it argues that individual citizens take advantage of their personal connections in the context of public service delivery, just as firms may do when obtaining permits or competing for public contracts. There is a wealth of recent studies emphasizing the importance of firms' personal relations with bureaucrats and politicians to obtain favorable treatment in exchange for bribes, especially to secure procurement contracts (Broms, Dahlström and Fazekas, 2019; De Jong, Tu and van Ees, 2015; Goldman, Rocholl and So, 2013; Lehne, Shapiro and Eynde, 2018; Xu, Bertrand and Burgess, 2018). Third, by focusing on interactions between socially connected individuals, this paper complements a growing body of work on ethnic favoritism and corruption in service delivery (Isaksson, 2015; Seim and Robinson, 2020), local governance (Bhavnani and Lee, 2018; Xu, Bertrand and Burgess, 2018), and anthropological studies of informal payments and gifts (Polese, 2014). Finally, this paper relates to extensive research on clientelism, which show the importance of preexisting networks (e.g., based on kinship or problem-solving networks) in the selection of political candidates, the construction of networks of brokers, and the development of strategies to target voters (Cruz, Labonne and Querubin, 2017; Cruz, 2019; Ravanilla and

[1]Some important exceptions include Coffman and Anderson (2018) and Hunt (2004).

Hicken, 2021; Szwarcberg, 2012).

I rely on an original dataset gathered through two modules included in a household survey with 18,715 respondents that was conducted in Guatemala. The data contains representative samples of each municipality included. An important aspect of this data collection effort sets my study apart from previous work: implicit favor exchanges and bribery are measured separately from extortion, taking important steps to mitigate concerns regarding underreporting due to social desirability bias. To check whether such concerns were indeed mitigated, the survey also measured the incidence of favor exchanges, bribery and extortion employing three list experiments.[2] Findings suggest that, in accordance with the argument presented, respondents who are socially proximate to public officials are more likely to engage in implicit favor exchanges and bribery. There is also tentative evidence that social centrality increases the likelihood of engaging in bribery. While these results cannot be taken as evidence of a causal relation, I do control for key potential confounders which may determine the likelihood of engaging in collusive forms of petty corruption. Taken together, these findings suggest that social proximity and centrality, by providing enforcement mechanisms that sustain corrupt transactions, allow citizens to obtain illegal advantages through implicit favor exchanges and bribery. This effect goes beyond simply increasing the frequency of contact with public officials and is not driven by better information about the bribery market (Abbink, 2004; Rose and Peiffer, 2015).

2 The Argument

The dominant approach in the literature on corruption in public service delivery is to model public officials as agents of the state with monopoly power over the provision of a specific public good or service (Banerjee, 1997; Cadot, 1987; Shleifer and Vishny, 1993). Public officials are

[2]This is, to my knowledge, the first time this technique has been employed to study bribery in the context of public service provision. Malesky, Gueorguiev and Jensen (2015) employed this technique to study foreign firms' decisions to utilize bribes to enter particular industries in Vietnam.

assumed to have some information about the citizen that they come into contact with, which most often consists of signals regarding willingness and capacity to pay, potential political contacts, or moral character. In an alternative set up, a potential briber may be assumed to have some information regarding how clean the public official is (Manion, 1996). Key to this understanding is the implicit assumption that the social distance between the citizen and public official is effectively infinite, i.e., these individuals have no relationship whatsoever. In this framework, corrupt public officials may abuse their office by withholding a legally obliged service until an illegal fee has been paid. In other words, they may engage in extortion Lambsdorff (2007). Furthermore, collusion between the citizen and the public official is only possible in a setting where the two interact repeatedly (Abbink, 2004). In the context of public service provision, however, transactions often involve individuals who are connected within their town's social network. Taking this into account allows us to examine a more complete set of exchanges, in particular, collusive extra-legal exchanges such as bribery and implicit favor exchanges, and to understand how a citizen's relative position vis-à-vis a public official, within their community or town's social network, determines whether these exchanges may take place.

Collusive forms of corruption such as bribery can be understood as favor exchanges among socially connected people. Individuals who live in the same town or neighborhood may help each other in a variety of ways, with a tacit understanding that one's gestures will be reciprocated (Ellickson, 1991). In particular, as the bond that unites two individuals grows stronger (i.e., the social distance between them decreases), the likelihood of reciprocity increases. Reciprocity is certain when the bond is defined by friendship or kinship, which guarantees frequent interactions in different settings. Socially connected individuals often trade favors in a quid pro quo fashion. In the context of public service provision, a favor exchange between a citizen and a public official necessarily involves a transaction over essentially two different services; the public service that originated the contact, and a privilege or advantage the citizen is not legally entitled to, which is the favor to be exchanged. The public official and the citizen engage in an *implicit favor*

exchange when the former receives from the latter either a promise or the realization of a favor or gift in a different context as payment for the advantage granted. In contrast, *bribery* occurs as a type of favor exchange between socially connected individuals in which money is exchanged for access to illegal advantages. Note that this definition of bribery is in line with the one proposed by Lambsdorff (2007). [3]

A citizen's position in the network, with respect to the public official, is determined by two characteristics: the social distance between the citizen and the public official and the citizen's centrality within the town's social network. These are attributes which are typically known to the public official, or can be signaled by the citizen at the moment when the exchange takes place. In general, individuals with stronger connections to public officials, as well as those who are socially central, are more likely to have access to favor exchanges in dealings with public officials. It has previously been observed that frequent interactions with public officials increase the likelihood of bribery (Abbink, 2004; De Jong, Tu and van Ees, 2015; Rose and Peiffer, 2015). Instead, I argue that social distance and centrality provide two important mechanisms of enforcement of extralegal exchanges that go beyond increasing the frequency of interactions between citizens and public officials, which they also do. These are reciprocity and the capacity to influence the behavior of others, respectively.

The concept of social distance between an individual citizen and a public official refers to the strength of the relationship between them. A citizen with a strong and direct bond to a public official, based on friendship or family ties, is more proximate to them than a citizen who lacks a direct bond. Formally, social distance may be defined as the sum of the inverse weights of each of the ties in the shortest path between the two individuals, multiplied by the length of the shortest path. The weights assigned to each tie give a sense of the strength of the direct relationship; higher weights represent stronger relationships. On the other hand, centrality –

[3] Lambsdorff (2007) also distinguishes bribery, a collusive exchange, from cases of extortion, where the public official uses its power over access to a given public good or service to extract an extra payment from the citizen.

particularly closeness centrality– is a concept that captures the importance of a given individual within a network (Chandrasekhar, Kinnan and Larreguy, 2018).[4] Socially central individuals are in a better position to receive and disseminate information and influence other people within the network (Cruz, Labonne and Querubin, 2017). Furthermore, the social distance between a central individual and a public official is likely to be low, assuming that a path between the two exists, which is not always guaranteed. There are often occasions when public officials do not belong to the towns to which they are assigned, making them less likely to have local connections. Such assignments may be the result of an explicit strategy to combat corruption or may reflect spatial inequalities in the provision of public goods and the distribution of qualified public servants (Abbink, 2004; Krishna and Schober, 2014).

Granting unfair advantages to an individual, whether in exchange for money or a favor, is an unlawful practice throughout the world. Thus, enforcement of such transactions requires alternative mechanisms. Reciprocal behavior, whereby individuals reward kind gestures and punish unfair treatment, allows for the enforcement of transactions absent an external enforcer (Fehr, Gächter and Kirchsteiger, 1997). Social distance affects the likelihood of reciprocity and trust between individuals. The number of interactions between any two individuals, and the number of different contexts in which those interactions take place, increases as the social distance between them decreases (Chandrasekhar, Kinnan and Larreguy, 2018). Furthermore, as the strength of the relationship between two individuals increases, so does the number of common connections they have. Thus, a stronger bond places both individuals in a situation where norms of reciprocity in multiplex relations, similar to those described by Ellickson (1991), regulate their interactions. The reciprocity that a stronger relation fosters, entails that as the social distance between a citizen and a public official decreases, the latter can be sure that taking the gamble of participating in corrupt behavior will pay off. This is so because the citizen will

[4] An individual is said to be socially central, in terms of closeness centrality, if the total social distance between them and all other individuals in their common network is low (Opsahl, Agneessens and Skvoretz, 2010).

surely return the favor in future interactions or immediately with a monetary payment, and can be trusted with maintaining the secrecy of the exchange. Thus, citizens that are socially proximate to public officials are more likely to participate with them in bribery and implicit favor exchanges, where repayment takes the form of a favor.[5] Additionally, absent any connection, the bribe required to sustain an illegal exchange would be large. Therefore, favor exchanges of this sort can seldom take place when a citizen and a public official have no network connection whatsoever.[6] The following testable hypothesis derives from the preceding argument:

Hypothesis $\mathbf{H_1}$: A citizen that is socially proximate to a public official is more likely to participate in favor exchanges (both implicit favor exchanges and bribery) with public officials.

By virtue of their position within the network, socially central citizens can more easily spread information and influence the behavior of others. Local notables, community leaders and organizers are able to provide a more valuable repayment to the public official in exchange for an illegal privilege (e.g., by granting them access to new and potentially lucrative connections outside of the public sector). The value of the potential repayment stems not from these individuals' wealth but from how well-connected they are to the rest of the people in their town. Thus, it is important not to confuse the local importance social centrality entails with wealth as a proxy for social stature.[7] Additionally, Chandrasekhar, Kinnan and Larreguy (2018) argue that socially central individuals can compel others to cooperate through the threat of large reputational punishments facilitated by their capacity to spread information within the network. Socially central individuals may, for example, influence hiring, firing and promotion decisions, even if they do not hold any position in local government themselves. Thus, either

[5]Similarly, Rose-Ackerman (1998) argues that gift-giving between an agent of the state and a citizen, which requires an unenforceable (by legal means) quid pro quo, is more likely to take place when the parties to the exchange have a preexisting relationship based on friendship or kinship.

[6]Seim and Robinson (2020) show that in places where ethnicity is salient, altruism and norms of reciprocity among co-ethnics may foster illegal exchanges as well.

[7]Previous research has found that wealthier individuals are more likely to bribe and less likely to be extorted (Bohn, 2012; Fried, Lagunes and Venkataramani, 2010; Robinson, Seim et al., 2018). These findings are attributed to the fact that wealth may be interpreted by public officials as a proxy for political connections.

by the promise of great rewards or fear of reputational punishments, it should be expected that socially central individuals are more likely to have access to favor exchanges.

Hypothesis H_2: A citizen who is central within their town's social network is more likely to participate in favor exchanges (both implicit favor exchanges and bribery) with public officials.

3 Empirical Context: Petty Corruption Across Guatemala

In order to test whether the argument developed thus far can explain the observed variation of the incidence of bribery across individuals, I set the empirical focus of this paper on favor exchanges in service provision in Guatemala. Latin America in general, and Guatemala in particular, are fertile grounds for the study of corruption. Transparency International places Guatemala as the fourth most corrupt country in the region, with a progressively deteriorating score of 25 out of 100 points on its expert survey-based Corruption Perception Index[8]. According to the 2016-17 wave of the Latin American Public Opinion Project (LAPOP) survey, which among other things, measures corruption victimization in seven public services, around 20.6 percent of respondents in the region reported having been asked to pay a "bribe" (translated as "mordida" in Guatemala) by a public official. In comparison, 25.1 percent of Guatemalan respondents made one such illicit payment in the same period (Lupu, 2017). Albeit high, these figures likely underestimate the prevalence of petty corruption.[9]

The use of direct questions that include the words "mordida" or "soborno," both of which translate into "bribe," conflates two very different payments (bribes and extortion) and leads to underreporting of the behavior of interest. In the context of Guatemala in particular, these terms refer to a payment issued to a public official, regardless of whether such payment bought

[8]https://www.transparency.org/en/cpi/2021

[9]It is important to recognize that asking 'were you asked to pay' rather than 'did you offer to pay' or 'did you pay' does help in reducing under reporting due to social desirability bias, but it is not enough. See Appendix C.

an illegal advantage or simply prompted the public official to do their job. Additionally, these terms carry with them the connotation of illegality resulting in considerable underreporting due to social desirability bias. An exploratory study that consisted of a household survey (n = 970), conducted in 56 municipalities of 16 of the 22 departments of Guatemala, which was implemented during the summer of 2018, demonstrated precisely that. Among respondents who reported having interacted with at least one of several public officials,[10] only 7.2 percent of them reported paying a bribe within the previous year when asked directly. Employing a common technique to avoid underreporting on questions regarding sensitive behaviors, known as a list experiment, suggests that the true prevalence of bribery in the sample is higher; 16.4 percent (SE 0.0578) and 20.6 percent (0.0576) using a simple difference in means and the combined estimator developed by Aronow et al. (2015), respectively.[11] That same study also showed that the prevalence of implicit favor exchanges is considerably high at 15.7 percent (SE 0.0129). Thus, we can clearly see that favor exchanges in public service delivery are common and widespread in the country.

Networks based on kinship or affiliation to a group play a key role in risk-sharing arrangements, access to financial resources and jobs in developing countries with large informal sectors, such as Guatemala (Fafchamps, 1992; Fafchamps and Lund, 2003; Wydick, Hayes and Kempf, 2011). Furthermore, connections to public officials are an important asset to citizens in a variety of institutional environments, from Italy to Vietnam (Cingano and Pinotti, 2013; De Jong, Tu and van Ees, 2015). These connections are particularly useful in weak institutional environments where the lines between duties to one's family and the responsibilities of public office are blurred. Guatemala is a young democracy with the least institutionalized political party

[10]The list was comprised of the following public officials: a police agent, a municipal clerk, a public school teacher or principal, a public healthcare worker and a National Registry (RENAP) clerk. Note that, unlike LAPOP, the list did not include judges and soldiers and did not attempt to measure bribery at the workplace. These omissions, and the fact that this exploratory study was not designed as a nationally representative survey, may account for the large difference in estimates.

[11]Appendix C contains details about the exploratory study and the list experiment employed.

system in Latin America (Mainwaring, 2018) and a large informal sector which employs 70.2 percent of the country's workforce (INE, 2019). Public employment is often used by candidates to national and municipal office as a tool to increase political and financial support, and the public office itself, as a platform to benefit one's circle (CICIG, 2019). Therefore, it presents an ideal empirical setting to study how citizens use their personal connections to obtain preferential treatment through bribery and implicit favor exchanges in the context of public service provision.

4 Data

This study relies on an original dataset gathered through 2 modules included in a household survey with 18,715 respondents. The survey was conducted in the summer of 2019, in 64 municipalities of 14 of the 22 departments of Guatemala, and it was primarily designed to study the impact of the Model Police Precinct (MPP) project. The MPP project was implemented by RTI International between June 2016 and June 2019 with funding from the United States Department of State's Bureau of International Narcotics and Law Enforcement. Importantly, the dataset contains representative samples of the adult population of each municipality included.

The target population of the survey was Guatemalan male and female heads of a nuclear family aged 18 years and above. All adults living in urban and rural areas of the selected municipalities, depicted in Appendix Figure A1, were taken as the universe to elaborate the sample. The choice of respondents was made in two stages. First, populated places were chosen with a probability that is proportional to the number of adults living within them.[12] Specifically, the number of adults in the populated place divided by the municipality's adult population gives the probability that a primary sampling unit will be assigned to that populated place. Estimates of the number of adults in each populated place are based on the latest published

[12] "Populated Places" are defined by the Guatemalan National Statistics Institute (INE), and correspond to villages in rural areas and to neighborhoods or zones in urban areas.

projections elaborated by the National Statistics Institute (INE), which in turn are based on the 2002 census. The secondary sampling units are the dwellings chosen by means of a systematic walk with a randomly chosen starting point located within the selected populated place. The final unit of sampling is the adult person, who is the head of the nuclear family that inhabits the dwelling. The sample of municipalities is not random because inclusion in the sample is is predicated on participation in the MPP program. However, our sample of respondents does resemble the Guatemalan population as a whole.[13] Moreover, the *municipalities* included in the survey are similar those excluded in measures such as levels of poverty, inequality and insecurity, and but also internet access (very low across the board) and the average size of the municipal economy (see Appendix Table A1).

4.1 Survey-Based Measures of Social Distance and Centrality

To measure the distance between citizens and public officials, respondents were asked whether they personally knew anyone who worked as an agent of the municipal police, an agent of the national police (PNC), and a municipal clerk, as well as the nature or strength of their relationship to them.[14] Note, however, that without a network census of each populated place, it is only possible to measure the strength or weight of the direct tie between the respondent and each of the public officials, rather than the full social distance based on weighted shortest paths. Therefore, in this analysis I employ an average measure of the strength of the respondent's direct ties to public officials as a proxy for their social distance with respect to public officials. I will refer to this measure hereafter as **proximity**, which is based on the question "what is your relationship with the municipal clerk/agent or officer of the national police/agent or officer of

[13]According to the 2018 Census, the average age of the adult Guatemalan population is around 37 years, 52 percent of the population is female, and 41.7 percent identify as Maya and speak a Maya language. These results are available online at https://www.censopoblacion.gt. In comparison, the average age of a survey respondent is 41, 54 percent of respondents are women, and for 36 percent of respondents said Spanish is not their mother tongue.

[14]These questions were only asked to a randomly-chosen half of the sample due to constraints on the duration of the survey.

the municipal police?" The answers correspond to "1" for an acquaintance, "2" for a friend, and "3" for a relative. Thus, the higher the value of the variable, the stronger the bond between the public official and the individual (i.e., the higher the weight of the direct tie), and the less social distance there is between them.[15]

This measure of social proximity is based on the assumption that kinship produces stronger bonds than friendship or acquaintances. This assumption is justified in so far as kinship and extended family networks have been shown to play an important role in risk-sharing arrangements and access to financial resources and jobs in developing countries (Fafchamps, 1992; Fafchamps and Lund, 2003). The approach taken allows us to measure existing relationships, as opposed to perceptions of the quality of personal interactions with public officials (De Jong, Tu and van Ees, 2015). It also provides an improvement over binary measures of connections based on common belonging to a pre-defined network with regards to education, business, or employment, and over measures of embeddedness based on place of origin or ethnicity (Bhavnani and Lee, 2018; Chavis, 2013; Cingano and Pinotti, 2013; Goldman, Rocholl and So, 2013; Lehne, Shapiro and Eynde, 2018; Schoenherr, 2019; Xu, Bertrand and Burgess, 2018).

Absent data on the full network of each populated place, it is impossible to obtain a precise measure of social centrality for each individual surveyed. In light of this, I employ three similar but distinct measures to proxy for social centrality. The main measure of centrality, **centrality**, is based on answers to the question: "how often do people from your neighborhood come to you for help or advice to solve problems?" This question was designed to capture the capacity of individuals to spread information through their network and influence others' behavior, and thus, to map as directly as possible to the definition of centrality presented earlier. The first alternative measure of centrality, **leadership**, is based on whether an individual reports having (or having recently had) a leadership role in any of the organizations they belong to.[16] The

[15]Alternatively, I also use a count of relations to public officials as a measure of proximity.

[16]Measuring centrality in this way captures individuals' (self-reported) standing withing the community.

second alternative measure of centrality, **centrality2**, was computed using item response theory to estimate a latent trait. This was based on the responses to the two questions employed as the main measure and the first alternative measure of centrality, and an additional one: "There are many ways of getting involved in one's community. Do you think you will attend a community meeting in the coming year?"[17] Results using these alternative measures of centrality are contained on Appendix.[18]

4.2 Measuring Favor Exchanges

Favor exchanges, both implicit favor exchanges and bribery, were measured in two different ways, employing direct questions. These questions were designed to assuage concerns of under-reporting due to social desirability bias, and to correctly distinguish bribery from instances of extortion.[19] The word bribe, translated as "mordida" (the culturally relevant term in Guatemala) is absent from the wording of these questions, precisely because people use the same word to describe instances of bribery and extortion as defined in this paper. Instead, I use simple descriptions of what the act of exchanging favors (either for favors or money) entails. In this context, "favors" are understood as speeding up bureaucratic procedures, skipping red tape or obtaining unlawful special treatment. The first set of direct questions, which shall be referred to as "Direct Questions 1," began with a short sentence intended to soften the blunt question that followed. A randomly selected third of respondents in the sample saw one of the following questions:[20]

[17] This was carried out using the command `irt` on Stata 15.

[18] Appendix Table A3 shows that there is no strong correlation between the measures of proximity and centrality. One may worry that central individuals may tend to be wealthier than their neighbors. However, there is no strong correlation between measures of centrality or proximity and measures of wealth (asset count) or income.

[19] Besides direct questions, list experiments were employed to measure implicit favor exchanges and bribery. Since there were no signs of underreporting, these results will not be used in the main analysis presented on the next section. Appendix B contains more details about these experiments.

[20] The direct question that an individual was assigned to was paired with a list experiment, so that the sensitive item of the experiment employed the same wording as the direct question. The remaining third of the sample received a question regarding extortion.

1. Sometimes people receive free favors from public officials (such as a municipal employee or a police officer). When interacting with a public official in the last year, have you received a free favor?

2. Sometimes people pay money to obtain favors from public officials (such as a municipal employee or a police officer). When interacting with a public official in the last year, have you paid money in order to obtain a favor?

Additionally, a randomly selected half of the sample received a set of questions regarding interactions with public officials. Respondents who reported having interacted with an agent of the police (either PNC or municipal police) or a municipal employee were asked two additional questions for each interaction reported. These shall be referred to as "Direct Questions 2." Unlike the previous set of questions, these were only asked of people who reported an interaction and focus exclusively on interactions with two types of public officials.[21] Furthermore, these questions ask directly about the behavior of interest without any priming:

1. Did you receive a favor from the municipal clerk (e.g. obtaining a permit or accelerating a process)/police agent (e.g. avoiding a penalty or accelerating a process)?

2. (If respondent did receive a favor:) Did you give a monetary payment to the municipal clerk/police agent for that favor?

Using Direct Questions 2, I create two dichotomous variables to measure whether a respondent engaged in at least one implicit favor exchange, and one act of bribery, respectively.

[21]Exploratory analysis shows that 77 percent of all bribes and 36 percent of all implicit favor exchanges took place in interactions with agents of the national police (PNC), the municipal police and municipal workers. Appendix C contains more information about this study. Similarly, data from LAPOP shows that respondents in the region reported a higher rate of bribery in transactions with municipal workers and police agents (Lupu, 2017). These findings are in line with Klitgaard (1988) who argued that public officials that provide a service for which the state holds monopoly power are in a better position to be bribed.

5 Methods

Multivariate regression analysis for the previously described dependent variables, which measure implicit favor exchanges and bribery, relies on the following logistic regression model:

$$V_{im} = logit^{-1}\big(\beta_0 + \beta_1 Proximity_{im} + \beta_2 Centrality_{im} + \lambda \mathbf{X}_{im} + \phi_m + \epsilon_{im}\big) \tag{1}$$

Where V_{im} is a binary indicator of whether a respondent participated in at least one implicit favor exchange or received a favor in exchange for a monetary payment (bribe) in her dealings with a series of public officials. X_{im} contains variables that measure individual characteristics, which may confound the relation between the proximity, centrality and participation in collusive exchanges (household size, employment status, gender, age, native language, educational attainment, physical distance to the administrative center of the municipality,[22] and capacity to pay bribes, measured as income and wealth). I also include a second battery of civic engagement controls (reported likelihood of attending community meetings, volunteering at a local organization, protesting and affiliating with a political party) which may determine social proximity, centrality and participation in bribery and implicit favor exchanges, but may also be affected by participation in such exchanges. Finally, ϕ_m stands for municipality fixed effects.

6 Results

Appendix Table A2 displays summary statistics for all variables used in the analysis.[23] Overall, 13.3 percent of the respondents reported, through direct questioning, that they had engaged in implicit favor exchanges in their dealings with public officials within the past 12 months, and

[22] This distance was calculated as the geodesic distance between the precise location where an interview took place and the municipal government building. This measure underestimates the true distances many citizens in rural areas face since it does not take into account the terrain and existing roads.

[23] Appendix Tables A4 through A6 show summary statistics for the randomly selected subsamples that received questions on bribery and implicit favor exchanges (from Direct Questions 1), as well as for the subsample that received Direct Questions 2

6.3 percent reported having been engaged in acts of bribery. Comparing the estimates obtained through direct questioning, and those generated using list experiments embedded in the survey, shows that the precautions taken in choosing the wording of the direct questions sufficed to prevent underreporting; estimates of implicit favor exchanges and bribery are essentially identical across the two methods.[24] When we focus on the subset of respondents who reported having an interaction with at least one public official (police agent or municipal clerk) within the last 12 months, prior to being asked about favor exchanges, the estimate of bribery increases slightly, while the estimate of implicit favor exchanges increases by 5.7 percentage points. Estimates of implicit favor exchanges and bribery obtained by directly asking about interactions with police agents and municipal clerks (Direct Questions 2) are fairly similar, though always lower than those obtained through direct questions about exchanges with public officials in general, as Table 1 shows.

6.1 Social Distance, Centrality and Interactions with Public Officials

The argument developed so far refers to the effect of social proximity and centrality on favor exchanges (both implicit favor exchanges and bribery), taking interaction as given. To test whether these two characteristics do increase the likelihood of interaction in the context of public service delivery, I regress an indicator for whether an individual interacted with a public official within the last 12 months on the measures of proximity and centrality. Table 2 displays these results. The coefficients of the two variables of interest are positive and statistically significant (at the 0.1 percent level) across all specifications. In the fully specified model (Column 3), which includes a set of controls for individual characteristics that may confound the relation between the proximity, centrality and participation in collusive exchanges, an increase of one standard

[24] See Appendix B for more details on the list experiments employed.

Table 1: Estimates of Favor Exchanges

	Implicit Favors	Bribery
Full Sample		
Direct Question 1	0.1328	0.0631
	(0.0043)	(0.0031)
Observations	6,161	6,161
List Experiments	0.1361	0.0679
Difference in means	(0.0202)	(0.0197)
Observations	5,496	5,527
People who interacted with public officials		
Direct Question 1	0.1902	0.0895
	(0.0139)	(0.0099)
Observations	799	816
Direct Question 2*	0.1873	0.0503
	(0.0079)	(0.0044)
Observations	2,451	2,448

*These were only asked to people who had interacted with a public official in the last year.
Standard errors clustered at the Municipality level in parenthesis.

deviation above the mean in the measure of social proximity is associated with a 5.19 percentage point increase in the predicted probability of interacting with a public official, holding all other variables constant. Similarly, for an increase of one standard deviation above the mean in the measure of centrality, we expect a 3.76 percentage point increase in the predicted probability of interacting with a public official, holding all other variables constant. The results remain largely unchanged when using the alternative measures of centrality described above, and when using a count of the number of reported relationships with public officials as the measure of social proximity.[25]

[25]See Appendix Tables A7 and A8.

Table 2: Proximity, Centrality and Interaction with Public Officials

	(1)	(2)	(3)
Proximity	0.824***	0.650***	0.604***
	(0.0806)	(0.0856)	(0.0788)
Centrality	0.310***	0.244***	0.290***
	(0.0425)	(0.0414)	(0.0427)
Demographics			
Asset Count		0.0663**	0.0716***
		(0.0202)	(0.0201)
Enough Income		0.0720	0.126
		(0.0956)	(0.103)
Spanish		0.0717	0.0303
		(0.153)	(0.143)
Male		0.0594	0.0746
		(0.0728)	(0.0746)
Age		0.0119***	0.0117***
		(0.00217)	(0.00224)
Household Size		0.00978	0.0114
		(0.0136)	(0.0129)
Education		0.223***	0.214***
		(0.0373)	(0.0329)
Employment		0.201*	0.191*
		(0.0954)	(0.0954)
Distance		-0.00844	-0.0161***
		(0.00611)	(0.00408)
Civic Engagement			
Attend Meetings		0.0138	0.0103
		(0.0379)	(0.0395)
Volunteer		0.0978**	0.0734
		(0.0359)	(0.0392)
Protest		0.0348	0.0134
		(0.0258)	(0.0256)
Affiliate		0.0328	0.0462
		(0.0303)	(0.0271)
Constant	-1.963***	-3.912***	-3.545***
	(0.125)	(0.257)	(0.230)
Municipality FE			Y
Observations	9271	8370	8370
Pseudo R^2	0.042	0.077	0.128
AIC	10258.2	8963.8	8466.8

Standard errors clustered at the Municipality level. Coefficients are in log-odds. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

6.2 Social Distance, Centrality and Favor Exchanges

To test the hypotheses developed in this paper, I estimate equation 1, making use of the binary measures of implicit favor exchanges and bribery obtained via direct questions since underreporting is of no concern.[26] First, I regress the binary measures of implicit favor exchanges and bribery generated using Direct Questions 1, on the measures of social proximity and centrality. In order to identify the theorized mechanisms, I control for individual characteristics that are likely to confound the relation between the proximity, centrality and participation in collusive exchanges (household size, employment status, gender, age, native language, educational attainment, physical distance to the administrative center of the municipality, and capacity to pay bribes). Also, I include a second battery of civic engagement controls which may determine social proximity, centrality and participation in bribery and implicit favor exchanges in a separate specification. Table 3 contains these results, and Appendix Figure A2 plots the effects of the variables of interest.

According to $\mathbf{H}_1$, social proximity is expected to have a positive effect on the likelihood of participating in implicit favor exchanges and bribery. The results in Table 3 support this hypothesis. Respondents with stronger ties to public officials are more likely to participate in both kinds of favor exchanges. Let us first focus on implicit favor exchanges –those in which the public official grants access to an illicit advantage in exchange for a future favor from the citizen. Note that proximity has a positive and significant effect (at the 1 percent level) on the likelihood of engaging in implicit favor exchanges in the most parsimonious model (Column 1), as well as in the fully specified model in Column 3. Focusing on the latter model, it can be seen that an increase of one standard deviation from the mean in our measure of social proximity is associated with a 2.02 percentage point increase in the predicted probability of engaging in

[26] Multivariate regression estimators for list experiments are available, but they tend to be inefficient (Imai, 2011; Blair and Imai, 2012). Appendix Table A20 displays results obtained by employing the nonlinear least squares estimator proposed by Imai (2011). The effects of proximity and centrality cannot be distinguished from zero.

implicit favor exchanges with a public official at least once within the past 12 months, holding all other variables constant. Having a higher income and speaking Spanish as a first language have a positive and significant effect as well.[27] Next, we focus on bribery, a class of favor exchanges where the citizen makes a payment to obtain an illegal advantage. Proximity has a positive and significant (at the 1 percent level) effect on the likelihood of engaging in bribery across all specifications presented in Columns 5 through 8 of 3. As Column 7 implies, an increase of one standard deviation from the mean in the measure of social proximity is associated with a 2.18 percentage point increase in the predicted probability of bribing a public official, holding all other variables constant.

Centrality has a positive and significant effect on the likelihood of participating in implicit favor exchanges with public officials (at 0.1 percent level), and on the likelihood of participating in bribery (at the 5 percent level). Taken together, these results provide evidence in support of $\mathbf{H}_2$. The results in Column 3 of 3 imply that an increase of one standard deviation from the mean in the measure of centrality is associated with a 3.13 percentage point increase in the predicted probability of participating in implicit favor exchanges with a public official at least once within the past 12 months, holding all other variables constant. Similarly, the results in Column 7 of 3 imply that the same increase in the measure of centrality is associated with a 1.08 percentage points increase in the predicted probability of engaging in bribery. An important concern in the Guatemalan context may be that respondents who reported occupying positions of leadership or high importance within their communities but outside local government, may in fact be antagonized by local public service providers in some municipalities. This may be especially problematic in the case of environmental or indigenous rights activists. To ease these concerns, models in Columns 2, 3, 4, 6, 7 and 8 also include controls for different types of civic engagement, including participating in protests and volunteering. Note, however, that this issue

[27] As a proxy for income, respondents were asked whether their household had difficulties to cover basic expenses within the last year. If a respondent replied having such difficulties less than once a year, she is classified as having enough income.

plays against my hypothesis by biasing the estimates of the effect of centrality downwards.

In order to probe whether social proximity and centrality have the hypothesized effect on favor exchanges, in addition to simply increasing contact with service providers, I first estimate the fully specified model once again, including a binary variable for whether the respondent has been in contact with a public official (in the context of public service delivery) within the past 12 months as an additional control. Results in Table 3, columns 4 and 8, show that including this control decreases the magnitude of the coefficients on proximity and centrality, although they remain statistically significant at conventional levels. However, the effect of centrality on the likelihood of engaging in bribery is only significant at the 10 percent level.

As a second step, I now restrict analysis to the sample of individuals who reported at least one interaction with a public official (police agents or municipal workers) within the past 12 months. The measures of implicit favor exchanges and bribes now come from the second set of direct questions, Direct Questions 2. As detailed above, individuals who reported interacting with a police agent or a municipal worker were subsequently asked whether they had received a favor from these public officials, and whether they gave money to them in exchange for such favors. Therefore, the dependent variables employed in this section are dummies for whether the respondent participated in at least one implicit favor exchange with either a police agent or a municipal worker, and for whether the respondent paid a bribe to least one these public officials. Table 4 displays the results, and Appendix Figure A3 plots the effects of the variables of interest.

Table 3: Proximity, Centrality and Favors Exchanges I

	Implicit Favors (Direct 1)				Bribes (Direct 1)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Proximity	0.563***	0.408***	0.408**	0.314*	0.837***	0.738***	0.694**	0.626**
	(0.104)	(0.117)	(0.128)	(0.136)	(0.169)	(0.203)	(0.211)	(0.221)
Centrality	0.395***	0.390***	0.393***	0.355***	0.261*	0.255*	0.232*	0.207^{+}
	(0.0752)	(0.0820)	(0.0869)	(0.0887)	(0.106)	(0.109)	(0.115)	(0.122)
Interact				0.821***				0.700*
				(0.172)				(0.275)
Constant	-2.995***	-3.448***	-2.730***	-2.581***	-3.728***	-3.162***	-2.212**	-2.012*
	(0.173)	(0.516)	(0.521)	(0.515)	(0.232)	(0.655)	(0.784)	(0.790)
Demographics		Y	Y	Y		Y	Y	Y
Civic Engagement		Y	Y	Y		Y	Y	Y
Muni. FE			Y	Y			Y	Y
Observations	3013	2728	2616	2616	3052	2768	2167	2167
Pseudo R^2	0.030	0.046	0.113	0.129	0.035	0.045	0.142	0.153
AIC	2136.8	1914.1	1755.1	1725.2	1283.8	1173.1	987.6	977.6

Standard errors clustered at the Municipality level. Coefficients are in log-odds.

$^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 4: Proximity, Centrality and Favor Exchanges II

	Implicit Favors (Direct 2)			Bribes (Direct 2)		
	(1)	(2)	(3)	(4)	(5)	(6)
Proximity	0.409***	0.328**	0.399***	0.512*	0.496*	0.428*
	(0.0942)	(0.104)	(0.116)	(0.201)	(0.199)	(0.177)
Centrality	0.230***	0.212**	0.190*	0.103	0.0956	0.0172
	(0.0690)	(0.0741)	(0.0802)	(0.124)	(0.110)	(0.119)
Constant	-2.174***	-2.349***	-1.575*	-3.495***	-3.384***	-3.585***
	(0.179)	(0.595)	(0.642)	(0.298)	(0.705)	(0.615)
Demographics		Y	Y		Y	Y
Civic Engagement		Y	Y		Y	Y
Municipality FE			Y			Y
Observations	2436	2208	2195	2433	2205	1495
Pseudo R^2	0.016	0.031	0.124	0.013	0.038	0.154
AIC	2320.4	2105.7	1899.8	950.2	872.6	694.7

Standard errors clustered at the Municipality level. Coefficients are in log-odds.

$^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Once again, there is clear evidence in support of $\mathbf{H}_1$. Among respondents who reported at least one interaction with a public official in the last 12 months, those with stronger ties to public officials were more likely to participate in favor exchanges. Column 3 of Table 4, which displays results from the fully specified model, shows that proximity has a positive and significant effect (at the 0.1 percent level) on the likelihood of implicit favor exchanges. Thus, an increase of one standard deviation from the mean in the measure of social proximity is associated with a 2.62 percentage point increase in the predicted probability of participating in implicit favor exchanges with a public official, holding all other variables constant. The results displayed in Column 6 of Table 4 show that proximity has a positive and significant effect (at the 5 percent level) on the likelihood of bribery. Specifically, an increase of one standard deviation from the mean in the measure of social proximity is associated with a 1.25 percentage point increase in the predicted probability of engaging in bribery, ceteris paribus.[28]

Evidence in support of $\mathbf{H}_2$ is rather mixed. First, among respondents who reported at least one interaction with a public official in the last 12 months, the measure of centrality has a positive and significant effect (at the 5 percent level) on the likelihood of participating in implicit favor exchanges with public officials. According to the fully specified model in Column 3 of Table 4, a one standard deviation increase from the mean in the measure of centrality is associated with an increase of 1.95 percentage points on the predicted probability of implicit favor exchanges, holding all other variables constant. In contrast, the effect of centrality on bribery cannot be distinguished from zero across the three specifications (Columns 4 to 6) presented in Table 4. Therefore, while social centrality plays a key role in securing access to implicit favor exchanges, the present analysis cannot decisively conclude that it plays a role in

[28]Social proximity makes bribery more likely by increasing both the likelihood of citizen-public official interactions, and the likelihood of reciprocity between the two. The coefficient of social proximity in the models presented in Table 3 captures its effect on bribery through both paths, while the coefficient of social proximity in the models of Table 4 captures its effect on bribery only through latter path. This, and the fact that models presented in both tables use a different measure of bribery, account for the observed difference in the magnitude of the effect of social proximity.

obtaining access to illegal advantages through bribery. These null finding may be a product of measurement error. Depending on the context, certain individuals, from activists to local organized crime bosses, may have incentives to not truthfully report the degree to which they are important within their community (e.g., through their counseling and support to other members of the community) in the context of a survey.

The results presented thus far hold when employing a count of relationships with public officials as the measure of social proximity, instead of the average strength of the reported connections (Appendix Tables A9 and A10). The results remain largely unchanged when employing two alternative measures of centrality as well (Appendix Tables A11 and A12). Hunt (2004) suggests that the time an individual has lived in a given community may serve as a good proxy for the strength of their personal connections within their community.[29] Appendix Table A13 shows that the results presented thus far are robust to the inclusion of reported length of time living in the same community and in the same municipality. The main measure of social proximity may suffer from reverse causality, since the reported friendship between a respondent and a public official could be the result of previous exchanges. To test whether this is the case, I repeat the analysis, dropping all individuals who reported being friends with any public officials and calculating proximity by only taking into account family and acquaintance. Results in Appendix Table A19 lend support to the findings regarding social proximity. Finally, further analysis also shows that social proximity and centrality do not affect the likelihood of extortion (Appendix Table A14). These results highlight how problematic it is to reach conclusions regarding bribery and its correlates while only relying on survey data that does not appropriately distinguish bribery from instances of extortion.

[29]This control variable was left out of the main specification because it is highly correlated with age.

6.3 Alternative Arguments

The argument I put forth in this paper is one of mechanisms of enforcement of extralegal, quid pro quo exchanges. As a special case of favor exchanges among socially connected individuals, bribery relies on the same enforcement mechanisms as implicit favor exchanges (i.e., favor exchanges that require no monetary payment); the reciprocity among socially proximate individuals, and the capacity of socially central individuals to influence the behavior of others by virtue of their position within the network. There are, however, three alternative arguments. The first one is altruism towards one's on kin. Public officials may be more willing to favor family members and would grant them favors with no expectation of reciprocation. Kin altruism is particularly prevalent in situations when helping is costly, such as in the case of instances of petty corruption (Stewart-Williams, 2007). If kin altruism is at play we should expect respondents with personal ties based on family to be less likely to engage in bribery than those whose ties are based only on friendship or acquaintance and those with no ties at all. We should expect individuals whose ties are based only on friendship or acquaintance to be less likely than does with family ties to report having received a favor in exchange for no money. Furthermore, we should expect respondents with ties based on family to be less likely to engage in gift giving in exchange for favors. This is so, because family members –those who benefit from the public official's altruism– would not be required to reciprocate or pay for the favor received. To test whether kin altruism is the relevant mechanism I first replace the measure of proximity with three binary variables, one for respondents whose ties only based on kin, friendship or acquaintance, respectively, and regress these measures and a full set of controls on the binary measures of favor exchanges used thus far. Results in Appendix Table A15 show that the expectations described are not necessarily met. The coefficient on family and friends ties are both positive, but only the friendship ties have a significant effect on bribery (not implicit favor exchanges). For the second test I rely on data from the exploratory study conducted

before the survey that produced the data employed so far, and estimate equation 1 using a binary variable indicating whether the respondent engaged in gift giving in exchange for favors as the outcome of interest. The measures of proximity and centrality included are analogous to those described earlier.[30] I find that proximity –and centrality– has a positive and significant effect on the likelihood of engaging in gift giving in exchange for favors (see Appendix Table A16). Although this evidence suggests that kin altruism may not be the mechanism behind the results presented in the previous section, it cannot be fully ruled out.

A related alternative argument is that bribery is the product of weak ties. As such, we should expect there to be an inverted U-shaped relation between bribery and social proximity. First, a monetary exchange should not be required when ties between two individuals are sufficiently strong (i.e., family members should not pay bribes). However, when the social distance between the citizen and the public official is high enough, we should also expect the likelihood of bribery to decrease, since the enforcement mechanism provided by social proximity dissipates. I test this argument by including the squared term of proximity in equation 1. Results in Appendix Table A17 show that this is not the case: Columns 1 and 2 provide no evidence in support of an inverted U-shaped relation between bribery and social proximity.

Finally, according to the third argument, citizens, by virtue of their direct connections with public officials, or their privileged positions within their community's social network, may be privy to accurate information regarding how and how much to bribe specific public officials. This argument rests on the assumption that there is a market-clearing price for each illegal advantage a citizen may purchase from a public official. Thus, it rules out the possibility that public officials price discriminate based on income or other observable characteristics, or the possibility of negotiating the amount to be paid in bribes.[31] To test this alternative

[30]The exact wording of the question employed is: "Have you ever given a present (e.g., food or some other little detail) to a public official (such as a teacher, a municipal worker, a RENAP worker, or a health worker) in exchange for a favor?" Appendix C contains a description of the exploratory study.

[31]In contrast, previous research has found that richer individuals may have to make larger illicit payments (Hunt and Laszlo, 2012). Similarly, Fried, Lagunes and Venkataramani (2010) found that police officers charge

explanation, I rely on data generated by a question regarding the size of the bribe needed to avoid the consequences of a traffic violation.[32] Respondents were asked the following question: "Sometimes people offer money to the police to avoid a traffic fine. How much do you think a person in your community would have to give a policeman to avoid a traffic fine?" For each individual who provided an estimate for the bribe, I construct a measure of estimate inaccuracy by calculating the absolute difference between that estimate and the median bribe estimate in their municipality and community,[33] and then take the natural logarithm of this amount. Appendix Table A18 contains the results of regressing the measure of inaccuracy on proximity, centrality and a full battery of controls. Those results suggest that proximity and centrality have effect on bribe estimate inaccuracy. Thus, we cannot conclude that the relevant mechanism is, in fact, better access to accurate information regarding how and how much to bribe.

7 Conclusion

This paper has shown that an individual's social proximity to public officials, and her centrality within their town's social network predicts engagement in collusive forms of petty corruption, namely implicit favor exchanges and bribery. While doing so, it contributes to the literature on petty corruption in at least two substantive ways. First, it builds on previous work on the importance of social networks to sustain exchanges in the absence of a third party to enforce agreements (Chandrasekhar, Kinnan and Larreguy, 2018; Fehr, Gächter and Kirchsteiger, 1997; Ferrali, 2020; Rose-Ackerman, 1998) to show how social proximity and centrality provide enforcement mechanisms that sustain extralegal exchanges and allow citizens to obtain advantages through implicit favor exchanges and bribery, in the context of public service delivery. Social

lower bribes to low-income individuals.

[32]Space constraints within the survey instrument prevented the inclusion of additional similar questions.

[33]Communities are established based on the sampling procedure: each populated place within a municipality is assumed to be a community.

proximity enables rules of reciprocity that bind among friends and family members, and which are particularly important in weak institutional environments. Centrality embodies the proverbial carrot and stick in the form of potentially large rewards for a public official that grants extralegal advantages to a socially central citizen, and equally large punishments for a public official that cheats on such a citizen. Therefore, this paper contributes to our understanding of the role of preexisting social relations, whether based on kin, ethnicity or business networks in sustaining corrupt exchanges more generally (De Jong, Tu and van Ees, 2015; Goldman, Rocholl and So, 2013; Isaksson, 2015; Lehne, Shapiro and Eynde, 2018; Seim and Robinson, 2020; Schoenherr, 2019). The second contribution is an empirical one. My argument places bribery in the wider context of favor exchanges among individuals who are connected to each other within a social network, clearly distinguishing it from instances of extortion by public officials. Since bribery is a favor exchange between a citizen and a public official, it depends on the same enforcement mechanisms that sustain implicit favor exchanges among socially connected individuals. Consequentially, the analysis employs direct measures of implicit favor exchanges and bribery that are clearly distinguishable from extortion and mitigate concerns of underreporting due to social desirability bias. In contrast, traditional survey measures of "bribery" do not allow for a distinction between payments that are made in exchange for illegal advantages (i.e., collusive forms of petty corruption) and payments that are made to access legally entitled services.

The findings presented here complement previous work regarding how preexisting networks (e.g., based on kinship) provide a structure through which clientelistic exchanges may take place (Cruz, Labonne and Querubin, 2017; Cruz, 2019; Ravanilla and Hicken, 2021). The kinds of favor exchanges this paper explores are likely broadly related to those observed in places were relational clientelism prevails (Nichter, 2018) and where politicians seek to target central individuals within the community in an effort to gain electoral support more efficiently (Cruz, 2019). The findings with regards to social proximity also have important implications

for the implementation of anti-corruption programs at a local level. Private citizens, this paper suggests, make use of their relationships with public officials in much the same way as firms utilize their political and bureaucratic connections to obtain illegal advantages in licensing, access to loans, and procurement contracts (Broms, Dahlström and Fazekas, 2019; De Jong, Tu and van Ees, 2015; Fisman, 2001; Goldman, Rocholl and So, 2013; Khwaja and Mian, 2005; Lehne, Shapiro and Eynde, 2018; Xu, Bertrand and Burgess, 2018). While efforts to combat extortion should be expected to garner support from aggrieved citizens, as (Bauhr, 2017) suggests, collusive forms of corruption such as bribery, in particular, and favor exchanges more generally, are a more complicated issue to tackle. Favor exchanges generate a constituency that favors the status-quo where unfair advantages may be traded. Investigating bribery and punishing those involved may necessitate that at least some individuals betray the trust of relatives and friends. Therefore, policymakers must be mindful of the existing relations between citizens and public officials in designing anti-corruption policies.

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