LOCAL ORDER, POLICING AND BRIBES: EVIDENCE FROM INDIA

JUAN FERNANDO TELLEZ, ERIK WIBBELS AND ANIRUDH KRISHNA

ABSTRACT. Day-to-day policing represents a fundamental interface between citizens and states. Yet even in the most capable states, local policing varies enormously from one community to the next. We seek to understand that variation, and in doing so make three contributions: First, we conceptualize communities and individuals as networks more or less capable of demanding high-quality policing. Second, we present original survey data and semi-structured interviews on local policing from well over 160 slums, 8,000 households and 171 informal neighborhood leaders in India that contributes to the nascent empirical work on comparative policing and order. Third and finally, we find evidence that well-connected individuals and densely connected neighborhoods express greater confidence in and satisfaction with local policing. Critically, these differences do not appear to be a function of a lower propensity for local conflict but rather an increased capacity to leverage neighborhood leaders to mediate relations with the police. The combination of our analytics and empirics provide insight into the conditions under which individuals and communities experience the police as expropriators of rents or neutral providers of order.

WORD COUNT: 11907

1

The first responsibility of modern states is the construction of order. Ultimately, "order" comes down to how citizens interact with the police, which is the local manifestation of the state's coercive capacity. Yet local order is uneven across even the most developed states, and different individuals and communities have very different experiences with the police. Across rich and poor countries alike, the urban poor often live in neighborhoods characterized by insecurity. As evident from settings as diverse as Ferguson, Missouri and Rio's favelas, the police in many neighborhoods are either absent or predatory. Local police—the front-line of any state's attempt to provide order—often ignore these neighborhoods or use their authority to extract from local citizens. Yet police play varied, and often supportive, roles in the communities in which they operate, even in broader contexts where abuses by police are relatively common[1]. We seek to provide insight into this variation in policing across individuals and communities.

In this paper we aim to answer three questions bearing on these broad issues: What are the conditions under which citizens are willing to go to the police as a solution to insecurity? What explains variation in the corresponding price (in bribes) of police services when such services are provided? And how do individual and community-level characteristics bear on citizen experiences of, and satisfaction with, policing? In answering these questions, we theorize the individual and neighborhood characteristics that define the interactions between citizens and police. We do so by building on mostly segregated bodies of research on state capacity, community-based policing, and social networks. Our argument conceptualizes local citizens as more-or-less central members of neighborhood-based social networks that vary in their capacity to demand less expropriative and more accountable local policing. From the argument we derive hypotheses indicating that more politically and socially central *individuals* will benefit from better policing; we suspect that this results from the information, connections and resources such individuals bring to their interactions with police. Likewise,

---

[1]Skogan 2006; Goldstein 1987.

we hypothesize that more politically and socially organized *communities* will experience better policing as a result of their capacity to coordinate support for local brokers and politicians who mediate relationships with the police and local government more generally. We subsequently explore two mechanisms–the extent of local conflicts and the role of neighborhood leaders–through which individual and neighborhood networks might impact the nature and quality of local order and policing.

Our hypotheses operate at the level of individual citizens and the neighborhoods in which they live. We test these hypotheses by bringing to bear a large, original data collection effort from over 8,000 citizens and 170 informal neighborhood leaders in more than 160 poor neighborhoods of urban India. Using a combination of sample and full network surveys, we test how both individual and neighborhood characteristics condition citizen perception of local conflicts, satisfaction with police, and the cost of police services as measured in what citizens expect to pay in bribes. Since good outcomes in our context work through mediated relationships and the willingness of citizens to engage with police agents, these opinion-based measures provide important insight into the foundations for accountable policing. Thereby do we make a distinctive contribution to a rich body of work in sociology and criminology on policing in India[2].

Relying on two related operationalizations of individual centrality and neighborhood organizational density, we find evidence that more socially central *individuals* – which we define in relation to neighborhood networks – are more likely to express willingness to report theft to the police, expect to pay a lower bribe price when they do report and are more satisfied with policing. We also find that *neighborhoods* that are more socially and politically dense experience improved relations with local police. Our analysis of mechanisms indicates that these results are not a function of reduced local conflicts in densely organized neighborhoods, but might instead run through their increased capacity to rely on neighborhood leaders to mediate relations with the police. This latter point speaks to a growing literature on the role

---

[2]Brass 1997a; Jauregui 2014; Jauregui 2016; Dhillon 2005.

of "brokers" in clientelistic exchange in the developing world, particularly India[3]. In robustness tests, we do not find substantial evidence that individual centrality and neighborhood density condition each other.[4]

These findings have important implications for a nascent research agenda on policing[5], the geography of state capacity more generally, and the prospects for the widespread push for community-based policing across much of the developing world. In doing so, we provide insight into a desperately understudied public service often denied to the poor—honest, effective policing—which serves to protect personal property, maintain public order, and resolve private disputes. While a growing literature has examined how communities address security challenges in armed conflicts[6], much less attention has been paid to the more common, day-in and day-out security challenges the poor face from neighbors, individual criminals, organized gangs, and predatory police. We show that the poor face these challenges in varied ways that are mediated by their individual and community networks. Thus, our findings speak to the conditions under which the poor can achieve security from both criminals and agents of the state.

Local Order: Police, Communities and Citizens

From Somalia to urban Detroit and Delhi, weak states that fail to control their territory are faced with a host of domestic and international problems. These areas can be breeding grounds for civil conflict, staging grounds for narco-traffickers, and islands of insecurity. In such settings, governments lack the capacity or institutions to monopolize the use of force across at least some of their territory. The challenge of extending order across geography is one that even the most capable of today's states have had to address at some point in their histories[7]. Ultimately, governing effectively across geography rests on the capacity of

---

[3]Auerbach and Thachil 2018.

[4]To the extent there are results on an interaction term between individual centrality and overall neighborhood network density, it indicates that dense neighborhoods reduce the benefits of social centrality, meaning that it makes access to policing more equitable.

[5]Eterno et al. 2017.

[6]La Serna 2012; Bateson 2013.

[7]Tilly 1992; Boone 2003; Herbst 2000.

street-level bureaucrats –and particularly the police – to provide security in the communities and neighborhoods where citizens live. In this article we focus on the distinctly local politics of policing.

The frontline providers of peace and law enforcement are the police. Yet across the world we see that the quality of policing varies hugely across regions, cities and even neighborhoods within cities. The incidence of policing often works against the poor, and particularly minorities among the urban poor[8]. The challenge of low incomes aside, poor, urban neighborhoods tend to have higher incidence of crime, drugs and gang activity. Likewise, housing is much less secure, either because property rights are themselves tenuous in poor neighborhoods[9] or rental markets are regulated in favor of landlords[10]. Our own data from the slums of India shows a population that has very insecure access to work, health care, property rights, and the like.

In some cases, the insecurity of the poor is rooted in the *absence* of the police, but in others it is rooted in the exploitative *presence* of the police. In the former case, citizens and communities rely on self-help or traditional modes of conflict mediation[11]. In the latter case, the police themselves are the root of insecurity. In such settings, weak oversight of the policing bureaucracy results in agents using their power of coercion to extract bribes from citizens in return for security. Citizens are thus forced to spend considerable resources avoiding the police. For instance, the U.S. Department of Justice report on the riots in Ferguson, Missouri summarizes how this kind of extractive policing can work: "Partly as a consequence of City and FPD [Ferguson Police Department] priorities, many officers appear to see some residents, especially those who live in Ferguson's predominantly African-American neighborhoods, less as constituents to be protected than as potential offenders and *sources of revenue*....This culture within FPD influences officer activities in all areas of policing, beyond just ticketing. Officers expect and demand compliance even when they lack legal authority. They are inclined to interpret the exercise of free-speech rights as unlawful disobedience, innocent

---

[8]Lum and Isaac 2016.

[9]Rains, Krishna, and Wibbels Forthcoming; Glaeser, Ponzetto, and Shleifer 2016; UN Habitat 2004.

[10]Desmond and Gershenson 2016.

[11]Cooper 2017.

movements as physical threats, indications of mental or physical illness as belligerence"[12]. The report goes on to enumerate the myriad and creative ways that local police trapped citizens in a never-ending cycle of fines and court fees, often in the absence of any wrongdoing. Many citizens of Liberia or the slums of Bangalore would recognize these practices. Indeed, Figure 1 uses World Values Survey data to show that citizens across a swath of countries vary dramatically in their views of the police. In countries like China, Singapore and Taiwan substantial majorities voice confidence in the police, while in others like India and Thailand, about half of respondents have little confidence in them. In fact, as a detailed report by the international rights watchdog, Human Rights Watch, reveals, the situation in India may be much like that portrayed in the report on Ferguson[13].Since successful policing requires citizens to trust police enough to go to them in the event of theft, violence or insecurity, the level of confidence in the police provides useful insight into the foundations for effective, accountable policing.

[Figure 1 about here.]

Yet trust, distrust and the policing behaviors associated with them are incredibly uneven across neighborhoods even within the same city, and a growing body of work on "state capacity" has recognized the heterogeneity of the state's presence across geography within countries. While scholars have focused on everything from electrification to census-taking to the number and quality of bureaucrats across agencies, it has paid little attention to policing, despite its fundamental importance to the rule of law.

Nevertheless a growing body of rigorous work is emerging around policing. One body of research, heavily inspired by U.S. practice and policy evaluations, examines how the *intensity* of policing (i.e. its frequency) impacts the incidence of crime. Chalfin and McCrary[14] review a corpus of related work in the U.S. and find generally positive effects of increased policing in response to crime "hot spots", though recent work on the growing use of algorithmic approaches to hot spot policing show evidence of intense bias[15]. Moreover, recent

---

[12]Shaw 2015.
[13]*India: Overhaul Abusive, Failing Police System* 2015.
[14]Chalfin and McCrary 2013.
[15]Lum and Isaac 2016.

field experiments in India[16], Colombia[17] and Papua New Guinea[18] find little to no effect of additional policing, in several cases because increased police activity simply relocates crime to neighboring areas - or because more police officers may lead to more, and not less, extortion. Other efforts to impact the incentives of police officers themselves via managerial reforms show that practices and routines are very to hard change, particularly when they are undertaken without the complicity of middle managers[19]. This research helps explain how resilient crime and police bureaucracies are, but they don't explain why communities vary in their security and quality of policing.

Of greater relevance to our own research is the work on twin themes of ethnic targeting and community policing. A large body of work on the U.S. and elsewhere shows that minority groups are often targeted by police[20] and have less trust in, and cooperation with, police[21]. A recent body of work shows that better integrating police forces with the people they serve can have positive effects on both trust and peace[22]. Beyond integrating police forces, community policing aims to improve outcomes by providing decentralized mechanisms for: a) citizens to communicate local information and needs to the police; and b) accountability of the police to local citizens.[23] summarizes the goal in this way, "...to the extent that citizens are provided with a channel to communicate information and demands, they can help police officials make decisions about how best to allocate scarce resources and design police operations." Community policing has come into vogue – it is popular in wealthy countries, and a growing share of international donor programming is promoting it as a means for improving local security in communities impacted by crime and violence.

Unfortunately, policymakers have rarely designed community policing programs with evaluation in mind, and thus, we have little rigorous evidence on its efficacy. A brief survey of the mostly qualitative, case-based evidence provides mixed results and a sense that the impact

---

[16]Banerjee et al. 2012.

[17]Blattman et al. 2017.

[18]Cooper 2017.

[19]Banerjee et al. 2012.

[20]Lundman and Kaufman 2003.

[21]Tyler 2005.

[22]Nanes 2017.

[23]Gonzalez 2016, p. 133.

of community policing depends both on the nature of the community being policed and the incentives of police officers. Most importantly, communities seem to vary in their capacity and/or willingness to monitor themselves, aggregate useful information for police, and hold police accountable[24]. This variation is useful for understanding a fundamentally important question: Why do some people and communities receive better policing than others?

Communities and Local Policing

An important instantiation of a well-functioning social order is that citizens are willing to report crimes to the police. Yet that is often not the case, either because the police are unavailable or viewed as extortionary. In many settings, it is simply expected that any interaction with the police will involve a side payment. Side payments may be the result of chronic underfunding of police officers, who rely on these informal payments as income supplements or to finance their police work, and/or weak administrative oversight that facilitates corrupt behavior. One can think of these informal payments as the price of engaging with the police, and it obviously has implications for the willingness of citizens to solicit the help of police officers. In light of these barriers to effective policing, we conceptualize the quality of local policing as a function of the interactions between front-line police officers and the individuals and communities where they police. Individuals vary in characteristics that render them more or less willing to engage with the police, while communities vary in their capacity for collective action. Thus, our initial aims are two-fold: to understand why some individuals are willing to report crimes while others are not, and how the practices and the price of everyday policing vary with individual and neighborhood characteristics.

We conceptualize neighborhood police officers as income maximizing agents constrained by administrative oversight (which is common to all officers in a jurisdiction), the incentives of their administrative and political bosses to engage in oversight (which might vary across officers in a jurisdiction, conditional on the organization of city government), and the characteristics of the individuals and communities that they police. In most settings, imperfect oversight provides police officers the discretion to treat citizens and neighborhoods

---

[24]Commonwealth Human Rights Initiative 2005; Krishna 2002.

differently, and there is considerable evidence that just as other public officials are price discriminators who charge higher bribes to firms and citizens who can afford it[25], policing is highly provisional and contextual. This provisional effort can be reflected in variation in everything from the length of wait times to the bribe prices that officers charge citizens, to how much time and effort they exert in investigating particular complaints.

If police officers discriminate in the effort they provide, what features of individuals and communities condition that effort? Communities are characterized by the nature of interactions among individuals who live within them. We conceptualize the nature of these interactions in terms of social networks, where *individuals* vary in their social or political connectedness (an individual characteristic) and *communities* vary in their overall social or political density (a neighborhood characteristic). Network connected *individuals* are those with many political or social connections to other individuals. Densely networked *communities* are those in which there are many individuals connected with each other. We argue that both of these characteristics matter for how poor citizens experience policing.

Network connected individuals are those with many connections to others in their community. We argue that the capacity to draw on those connections impact interactions with the police through several mechanisms. First, well connected individuals have access to more, and higher quality, information about the nature of police officers in their community and community policing more generally. Indeed, by virtue of broader connections both within and outside their communities, they likely have better information about how to negotiate all manner of bureaucracies. Second, socially central individuals can bring broader community monitoring and observation to bear on their interactions with the police; because these individuals are engaged with more people, their interactions with the police can be subject to greater oversight. Third, socially connected citizens have access to a broader range of relationships–be they with locally-influential informal leaders, elected officials, wealthy friends, police captains, etc.–that can help hold police accountable. These friends and intermediaries might intercede on behalf of well-connected citizens through follow-up calls to

---

[25]Svensson 2003; Olken and Barron 2009; Malomo 2013.

ensure reports are filed, calls to superiors to report bad policing behavior, interventions with local officials, and other strategies. In sum, such individuals can leverage their social and political centrality vis-a-vis fellow residents, local leaders, and the police to demand better policing and constrain expropriative behavior. One possibility is that socially central individuals are also more likely to have other resources, including money, which they can bring to bear on interactions with the police. One advantage of our empirical setting (described below) is that it is made up of a relatively homogeneous set of poor people who vary considerably in their social centrality, which provides the opportunity to distinguish the effect of social centrality from that of income.

If network connected *individuals* are those with many social ties, *densely networked neighborhoods* are those with an abundance of strong social and political ties among many residents–one can think of these as communities with lots of social capital, which provides the means for community monitoring, efficient delivery of information, and the organizational tools to hold beat police officers and their bosses accountable. The capacity of socially dense neighborhoods to attain better policing flows through several potential mechanisms. First, socially dense neighborhoods likely have stronger informal neighborhood leaders to intermediate relationships with the police bureaucracy and their political bosses. There is growing evidence on the important role of informal neighborhood fixers in banking votes for candidates, providing solutions for local citizens, and lobbying city government on behalf of neighborhoods[26]. There is also growing evidence that informal leaders are stronger and more effective in densely organized communities that are able to solve the collective action problems inherent in coordinating behind a single leader[27]. Thus, these leaders might serve as a crucial intermediary for demanding better policing from precinct captains and city officials more broadly. If so, socially and politically dense neighborhoods should show evidence of greater intermediation of relations with police by neighborhood leaders as well as better experiences with the police. Indeed, this points to a fundamental link between better organized local communities and the mediated nature of accessing the state for many poor citizens.

---

[26]Auerbach and Thachil 2016; Auerbach 2016.

[27]Wibbels, Krishna, and Sriram 2016.

Second, more densely networked communities are better able to hold police accountable via collective action. This collective action might involve everything from a broad cross-section of residents turning out when a crime is being reported in the street to a capacity to protest perceived injustices, expropriative bribes, or unresponsiveness by the police. See Auerbach[28] on the important role of social protest and other forms of collective action among the urban poor in India. Third, it could be that citizens in socially dense neighborhoods have better opinions of the police simply because they interact with them less frequently. To the extent that dense neighborhoods are able to solve community problems on their own, such communities should have less need for police services. Per Shleifer and Vishny[29], when consumers of public services (such as policing) have substitutes, their demand for those public agents will be more elastic. In the face of that elasticity, public agents will have less capacity to extract bribes. In our setting, densely networked neighborhoods may have more non-police alternatives for reducing and solving local conflicts. Indeed, local conflicts themselves, i.e. the kinds of conflicts likely to create demands for policing, are likely to be lower in densely organized neighborhoods. To the extent one thinks of these as substitutes for policing, they should reduce the cost of bribes. More specifically, this mechanism should work to reduce the price of bribes but not the willingness of citizens to report in the first place.

Obviously, this kind of social currency can only be valuable when police officers know individuals and communities well enough to recognize it. Thus, our argument on individual and neighborhood networks should best cover empirical settings where policing has an important community focus, i.e. where frontline policing offers constables/officers the opportunity to get to know citizens and neighborhoods. This is generally so in our empirical setting of urban India, even if regular rotation limits the investment individual constables are willing to make in the communities they police.

---

[28]Auerbach 2016.

[29]Shleifer and Vishny 1993.

Above and beyond chronic underfunding, policing in India shares a number of challenges with other post-colonial, developing countries. The Indian Police Service (IPS) combines a great deal of centralization and hierarchy – in terms of organization, pay scales and promotion rules, for instance – with considerable discretion for station chiefs, who have considerable liberty with (for example) the scheduling and placement of officers[30].[31] The elite leadership of the IPS is recruited nationally, and in the spirit of national integration, officers are often stationed far from their home regions. On the other hand, junior officers are recruited by states, and street-level officers in particular are drawn largely from the populations that they serve[32]. Given stark boundaries across ranks, there are very limited prospects for significant upward mobility within the police[33]. This combination of centralized management, hierarchy and local hiring produces a police force that is sometimes unresponsive to local citizens in favor of administrative superiors, even as it also lends itself to local political capture. Krishna[34] suggests that this mix of centralization and politicization produces local bureaucratic agents, and constables in particular, that are rarely accountable to the citizens and communities they police, with the result being that satisfaction and trust in the police is relatively low.

More specifically, the combination of poor funding and weak administrative oversight means that frontline officers have considerable discretion in their interactions with citizens, which results in highly contextualized and provisional local orders. In her excellent sociological study of police in Uttar Pradesh, Jauregui describes an everyday practice "...in which manipulable rules of evidence, personal relationships, gut feelings, longstanding systems of patronage, culture conflict and local power plays must be navigated and managed on a minute-to-minute basis"[35] and results in "...a social order of interconnected official governance and unofficial

---

[30]Sidhu 2003; Verma 2005; Banerjee et al. 2012.

[31]Operational command of the police is held by state governments, but their organization across states is defined by national law.

[32]Verma 2005; Jauregui 2016.

[33]Bayley 1983.

[34]Krishna 2017a.

[35]Jauregui 2016, p. 68.

power relations that is not just continually in motion, but mutating in both content and form"[36]. The prominent role of contingency and interpersonal relationships in her characterization is consistent with, and helps motivate, our analytical focus on the role of social centrality and community density in deploying tools for promoting accountable policing,

One area in which Indian police have extensive discretion is in the solicitation of bribes. There is considerable evidence that police sometimes charge payments across a broad range of activities, including to help people avoid legitimate traffic violations, extorting small shops for protection, and charging fees to provide private security[37]. These informal payments have no set price schedule, are illegal and thus qualify as bribes, even when they are actually used to contribute to the costs of policing rather than entering the pockets of officers.[38] These kinds of experiences with police bribery contribute to the high levels of citizen dissatisfaction, low levels of trust, and shared perceptions about high levels of corruption in the police found in surveys[39]. Obviously, if citizens are required to pay bribes for police to either take action in the case of legitimate crimes or to head off exploitative behavior, they are less likely to report crimes to police, the police are less likely to have good information on the needs of communities, and the foundation for high quality local policing will not exist.

Some citizens and communities, of course, are able to demand accountability of police and thereby provide the social foundations for successful community policing. Among the urban poor in India, the most important mechanisms through which accountability works are informal and underscore the contingency and discretion that characterize citizen-police interactions. While there are formal complaint mechanisms, including advertised phone numbers for registering complaints and opportunities to meet with senior officials to complain about a junior officer, they are rarely used. Instead, citizens are more likely try to influence policing via connections and citizen action[40]. One common mechanism, for instance, involves aggrieved citizens going to a local newspaper or television stringer to get an article published

---

[36]Jauregui 2016, p. 10.

[37]Brass 1997b; Corbridge et al. 2005; Gupta 2012; Jauregui 2016; Jayal 2013.

[38]See Jauregui 2014 and Jauregui 2016 for accounts of bribes being used to finance everyday police business.

[39]Common Cause 2018.

[40]Dhillon 2005.

that exposes some form of police misbehavior[41]. These kinds of exposes are often taken very seriously by higher officials and can have important implications for police careers. Unfortunately, many amongst the urban poor do not have the skills or connections that allow for this possibility. A second, and in our research the most common, strategy involves approaching local elected officials. Since police are career officials who are rotated at the discretion of political leaders, the threat of transfer to "unattractive" communities or districts gives political leaders tremendous leverage over police officials. Thus, getting a political leader to make a call or, even better, to represent a citizen at the *thana* (police station) is the most immediate option for citizens that can bring such connections to bear[42]. Both of these accountability strategies – placing a newspaper piece or gaining entry into the orbit of local political officials – require intermediation and connections for most of the poor[43].

In our empirics below, we focus on one particularly important source of discretion, i.e. whether officers actually register crimes. Crime rates in India are derived from police reports rather than victimization surveys. As such, officers and police captains can reduce crime rates simply by failing to report crimes. Moreover, opening cases takes time and resources that are in short supply. These facts have important implications, because they produce a standard expectation that the police must be paid for opening a case.[44] Since there is not an extensive system for reporting crimes to beat officers, most "first information reports" (FIRs) or initial citizen reports are filed directly by citizens at police stations[45], and as one police officer told us "we are more reactive now, and less proactive."[46] This fact alone underscores the importance of trust in, and attitudes toward, the police for the provision of law and order in India.

That bribes are often required to open cases has three important implications. First, they dissuade citizens from reporting cases; second, it allows officers to price discriminate across

---

[41]Jauregui 2014.

[42]Fuller and Harriss 2001; Krishna 2017b.

[43]Krishna 2002.

[44]Jauregui 2014 describes police who do not have to ask for payments, because it is simply offered as a matter of course.

[45]Dhillon 2005; Verma 2005.

[46]Author interviews.

citizens in the amount they charge for opening a case; and third, it encourages informal, discretionary resolution of cases by front-line police. Below, we exploit the discretion of officers to open cases to understand which citizens are willing to report thefts and the prices they expect to pay for opening those cases. There is both theoretical[47] and empirical[48] work showing how national institutions[49] and sectoral policies and firm characteristics[50] impact the incidence of bribe paying, but ours is some of the only systematic evidence on the cost of bribing police above and beyond the path-breaking work of Olken and Barron[51].[52]

Data and Empirical Setting

We draw on original household surveys fielded in 163 slums across three cities in India: Jaipur, Rajasthan; Patna, Bihar; and Bangalore, Karnataka. Data collection took place in Jaipur and Patna between 2015-2016 and in Bangalore between 2016-2017. These cities provide a sample frame that reflects the diversity of urban poverty in India. The three cities span India's land mass, with Bangalore in the south, Jaipur in the northwest, and Patna in the northeast. They also reflect a broad range of development contexts for slums: Bangalore is one of the wealthiest cities in the country while Patna is among the poorest and Jaipur in between.

Given the absence of accurate government census of slums and difficulties in determining the boundaries of neighborhoods, surveying slum households presents a significant methodological challenge. To overcome this challenge, the survey team thoroughly enumerated slum areas using a combination of algorithmic and human analyses of satellite imagery, field teams, government lists of slums and households, and lists provided by NGOs. This process produced a list of 517 slums across the three cities (273 for Jaipur, 132 for Bangalore, and 112 for

---

[47]Shleifer and Vishny 1993.

[48]Svensson 2003; Olken and Barron 2009; Malomo 2013.

[49]Goel and Rich 1989.

[50]Svensson 2003; Malomo 2013.

[51]Olken and Barron 2009.

[52]Police can also improve public safety and engage in valuable problem-solving even in countries experiencing significant levels of police corruption and bribe-taking, as with India (Common Cause 2018). Indeed, in our sample more than two-thirds of respondents indicate being broadly satisfied with the quality of local policing in their neighborhood and many respondents report not expecting to have to pay a bribe to receive police services.

Patna). To ensure a representative cross-section of slum conditions, we sample across slum "types" which we defined with reference to the quality of housing and availability of services. We then randomly select approximately 40 slums per survey wave (one wave from Patna, one from Jaipur, and two from Bangalore) to preserve the distribution of slum types. In total, the current study leverages data from approximately 40 household interviews across 163 slums. We also conducted interviews with 171 informal neighborhood leaders across more than 80 slums in Jaipur and Patna, which we draw on to provide qualitative evidence on the link between brokerage and policing. [53]

We draw on a wide variety of survey questions to measure citizen experiences with local security and citizen-police relations. These include items that ask whether the respondent would be willing to report the theft of three different household items to the police (a stove, television, and motorcycle), and how much they would expect to have to pay in order to have the theft investigated.[54] We also explore items that ask whether the respondent would ask a local leader to assist them in the theft of an item, how often they observe social conflicts in the neighborhood; and their overall satisfaction with policing in the settlement.[55]

Measuring network connectedness is challenging, especially when sampling on networks[56]. To test our hypotheses about the relationship between individual connectedness, neighborhood density, and outcomes bearing on security we construct indices out of several questions in the household survey bearing on social and political interactions. We are theoretically uncertain as to which precise features of individual networks and neighborhood organizational density are most likely to impact policing. On one hand, a great deal of analytical work has focused explicitly on *social* networks, i.e. the interpersonal ties that connect individuals and

---

[53]We asked household respondents the names of the most important neighborhood leaders. Thereafter, we contacted the 2-3 most popular leaders and tried to arrange open-ended interviews with them.

[54]Previous survey waves showed these assets to be representative of relatively poor (stove), moderate (television), and wealthy (motorcycle) households in our empirical setting.

[55]We acknowledge that there is prior work suggesting citizens may be more prone to assign blame for bad police behavior than to offer credit for good service, which can create challenges for measuring perceptions of the police (Skogan 2006). A different concern is that we ask respondents about their *perceptions* or *expectations* of police treatment and these might differ from actual, lived experience. Our expectation is that perceptions of police matter for actual behavior (e.g., citizens, in part, do not engage with police because of how they perceive them). Moreover, we chose to frame some policing items as expectations or 'hypotheticals' to shield participants from the sensitive parts of the question.

[56]Handcock and Gile 2010.

communities. Clearly, some of our theoretical discussion above implies the importance of social ties–particularly as they bear on informal information sharing and the monitoring of friends and police. On the other hand, some of the mechanisms work more explicitly through *political* interactions and networks, i.e. the capacity to engage in collective action and co-ordinate support for efficacious political brokers. As an empirical matter, and as described below, the survey questions bearing on social interactions and social density are fairly weakly correlated with those bearing on explicitly political interactions and organization. Thus, we develop measures and present results for both social and political networks. Though both types of networks have the same observable implications for our outcome measures, they do point to slightly different mechanisms. Distinctly *social* networks speak most directly to the role of within-slum information, monitoring and sanctioning, while *political* networks focus more explicitly on exchanges between slum residents and outside leaders and bureaucracies in shaping the quality of policing.

To measure individual *social* connectedness, we construct a measure based on principal component analysis (PCA) using two questions that are common across survey waves and our validation strategy (see below). These questions measure the respondent's experience of social cohesion within the slum and are as follows: a) 'Suppose that 10 of your neighbors were invited to help in community work, such as a community water project, cleaning of gutters, or weeding on the side of the road. How many do you think would show up?'; b) 'How often do people in your neighborhood help each other with problems (e.g. taking care of a sick family member, finding a job, lending money)?'. We use the first principal component as our measure of the social connectedness of individuals.[57] Our expectation is that individuals who perceive greater cooperation in their neighborhood will be more socially connected than those who perceive lower cooperation.

We validate this approach to measuring social connectedness using a separate survey that captures the social networks of *all* households in 8 slums in Jaipur and Patna; in these eight settlements, we first enumerated the names of all adults, programmed them into a survey,

---

[57]The first component accounts for 67% of the shared variance. Results are also substantively the same when we simply normalize and sum scores across the questions.

and then returned to the settlement to ask every household the names of the individuals they interact with across 23 different social, political and economic networks. Ties in the *social* network are built out of questions bearing on social contact, and include who the respondent socialize with, ask favors from and lend help to. Figure 2 below depicts the social networks of three selected slums in the network sample. We observe variation in individual-level social connectedness, i.e., the number of edges each node/person has, ranging from social isolates (i.e. nodes that have no connections at all) to individuals with many social connections. We also observe considerable variation in overall slum-level density (i.e., the density of connections among all the nodes in the slum), with the middle slum, for instance, showing a much more dense set of relationships than the other two.

Moreover, the two questions we use to construct the social connectedness measure in the sample surveys are also available in the network surveys. This allows us to test whether individuals who score high on our social connectedness measure are, in fact, more socially connected when we have the slum's full social network. We calculate the respondent's in-degree in the social network and regress this against the social connectedness measure. Table A.1 in the Appendix demonstrates that the measure significantly predicts in-degree in the network census, even after including a variety of controls. We take this as evidence that our sample-based measure of an individual's social connectedness does capture their connectedness to the slum's social network. The Appendix includes more details on the network census.

[Figure 2 about here.]

To measure individual *political* connectedness we take the first principal component of four items: whether the respondent's acquaintances usually vote for the same party; how often the respondent attends community meetings; how many times the respondent has received assistance from a slum leader over the past year; and whether the respondent has recently contacted officials to resolve a personal problem.[58] We expect that people who are more active in their community's politics and political organizations are more politically connected

---

[58]The first component accounts for 47% of shared variance. Note that results are substantively the same when we simply normalize and sum scores across the questions.

than people who are less active and can contribute to, and draw upon, networks of political intermediation. The distribution of each pair of social and political variables is available in Appendix Figure A.1.[59]

Finally, per our discussion above, we make a theoretical distinction between individual connectedness and neighborhood-level connectedness, or *density*. To measure the latter we simply take an average of individual-level connectedness at the neighborhood level for both social and political variables. These neighborhood density measures should be high (low) in neighborhoods where many (few) people have high individual connections. Indeed, we find that the correlation between individual connectedness (social or political) and slum-level density (social or political) is between .4 and .5, respectively.

Below we report results of regressions with slum-clustered standard errors and controls for age, gender, and education. We also control for economic status, using an index of reported household assets. We further include indicator variables for socially salient identity categories, including whether the respondent is Muslim and whether the they belong to a scheduled caste or tribe.[60] To account for research linking social heterogeneity to weakened capacity for collective action, we also include two measures on the level of religious and caste-based fractionalization in the slum; the measure ranges from zero (all slum residents belong to the same religion or caste, respectively) to one (slum residents belong to separate religions or castes in equal proportion).[61] Finally, we include wave fixed effects to account for differences across cities in the sample.

Our controls and use of a variety of theoretically-linked outcomes are intended to address for potential confounding between our connectedness and density variables and citizen experiences with the police.[62] Of course, since we do not have access to experimental or

---

[59]Unfortunately, these questions were not asked in the network survey, so we are unable to validate them in the same way we can with the social network ones above. We also lack data on other, potentially relevant political connectedness measures, such as whether respondents have a friend or family member who holds office for a political party (Auerbach 2016).

[60]The Scheduled Castes (SCs) and Scheduled Tribes (STs) are officially designated groups of historically disadvantaged people in India.

[61]In addition to Hindus and Muslims, there are significant numbers of Christians and other religions in some Indian slums.

[62]We also look at predictors of (neighborhood) density and (individual) connectedness in Appendix Tables A.5 and A.4, respectively.

quasi-experimental variation in our social and political connection variables, it is always possible that confounding remains. This is a problem that impacts the broader literature on social networks, given the difficulty of experimentally manipulating social ties or finding "as-if random" variation in ties with observational data. Our results should be interpreted with this caveat in mind. We discuss the implications of this limitation further in the conclusion.

Results

Reporting Theft. Figure 3 portrays the relationship between citizens reporting theft to the police and the level of social density in a neighborhood. Clearly, we observe a trend in which neighborhoods with higher levels of social density tend to be more willing to report theft to the police. The increase is larger moving from very low to moderate levels of social density.

[Figure 3 about here.]

Turning to the models, Table 1 presents results from regressing individual connectedness and neighborhood density against citizens' willingness to report theft to the police; column 1 reports results for *social* networks, while column 2 reports them for political networks. The dependent variables is the number of hypothetical stolen items (out of the 3 we ask about: a stove, television, and motorcycle) that the respondent is willing to report to the police.[63] We find evidence that individual-level social connectedness as well as neighborhood-level political density are associated with an increased willingness of respondents to report thefts to the police. The effect is particularly large for slum political density. As seen in Figure 4 which plots expected values across the range of the individual connectedness and neighborhood density variables.[64]

[Table 1 about here.]

---

[63]Results are largely consistent if we regress the independent variables against willingness to report each individual item (Table A.2 in the Appendix).

[64]To address concern that respondents are failing to understand the hypothetical nature of the question we also fit the models conditioning on the respondent owning the asset in question. Results are substantively unchanged.

[Figure 4 about here.]

Bribes. Next, we turn to bribe payments. Here the outcome is the amount the respondent would expect to pay in order to have the theft of an asset registered and investigated by the police. Respondents were only asked this question if they indicated they would be *willing* to report the item, which has a couple of implications for the analysis. First, we have a very small sample to work with for less commonly reported items. As a result, we focus only on bribes paid for motorcycles, where we have the most available data. Second, the selection process into who reports a bribe might be correlated with the expected bribe amount; for example, citizens might be less willing to report thefts in neighborhoods where the expected bribe cost is higher. We cannot fully model this selection process; however, the distribution of bribe prices (Figure A.2) looks largely similar across neighborhoods, with substantially more intra-neighborhood variation. Finally, given the distribution of the data and the fact that reported bribe payments are integers, we rely on zero-inflated negative binomial models. We find that more socially connected individuals, but not slums overall, expect to pay lower bribes than their less socially connected counterparts. Figure 5 visualizes the relationship, plotting the expected bribe payment against the respondent's level of individual social connectedness. The effect of being socially connected is substantial: at the extremes, the most socially connected slum-dwellers expect to pay close to 60% less than those who are socially isolated. By contrast, we find no support for political connections at either the individual level or slum level impacting expected bribe payments. Table A.3 in the Appendix presents regression results for the models.[65]

[Figure 5 about here.]

Police Satisfaction. Next, we test whether individual- and slum-level networks impact overall satisfaction with policing. To the extent individual connections and neighborhood density translate into better, more accountable policing, this should be reflected in higher

---

[65]Expected bribe payments and satisfaction with local policing are weakly negatively correlated (i.e., citizens who expect larger bribes have worse perceptions of the police).

levels of satisfaction with police services. More concretely, the same factors that lead individuals and communities to be more willing to report crimes and the expect lower bribes should also lead to greater satisfaction with the police. Table 2 below shows a consistent pattern between both social and political neighborhood density and individual social connectedness in overall evaluations of local policing. Socially connected citizens, socially dense slums, and politically dense slums tend to report higher levels of satisfaction with the nature of local policing in their slum (Table 2). As Figure 6 demonstrates, the effect is consistent across the three measures, and particularly strong for politically density.

[Table 2 about here.]

[Figure 6 about here.]

Mechanisms and Robustness. We now explore two potential mechanisms linking the nature of social and political ties in slums to relations with the police. The first pertains to the incidence of local conflict in the community: dense slums may have more and better informal means for resolving internal disputes and security concerns (without turning to the police) than their socially fragmented counterparts. If so, less frequent engagement with the police might, for instance, induce greater satisfaction with policing. The second relates to the role of community leaders in mediating interactions between citizens and the state: connected citizens or dense slums may be better able to leverage the influence of slum leaders in interacting with the police.

To test whether there are slum-level differences in propensity for conflict we aggregate a survey item asking respondents how often there were serious disagreements in the slum, explanatory variables, and controls to the slum-level. We find no support for the notion that socially or politically dense slums experience less overall conflict in their communities (Table 3). Importantly, the null result also assuages concern that connectedness is simply capturing individual-level differences in how "optimistically" citizens view relations in their neighborhood; if this were true, we would expect connected individuals to perceive *less* conflict in their neighborhood.

[Table 3 about here.]

We do, however, find strong support for the idea that connected citizens and densely connected slums experience better relations with the police because of their access to community leaders. Both connectedness (i.e. individual-level) variables and density (i.e. slum-level) density are positive and significant (Table 4). The effects (depicted in Figure 7) are substantial, in some cases doubling or even tripling the likelihood of a slum-dweller asking the leader for help in resolving a major theft.

[Table 4 about here.]

[Figure 7 about here.]

Semi-structured interviews with 169 slum-leaders support the notion that leaders are a key mechanism linking strong informal networks to improved police services and security. Of the 169 leaders that were interviewed, approximately 60% report having residents come to them for help with the police. One leader of a settlement in Bangalore described his role this way: "If you see in a slum, the maximum problems are with the police. Even if it's a petty problem, they barge into people's houses and drag people away and beat them up. We try and solve it by going to the Commissioner's office."[66] Other communities describe better, albeit still leader-mediated, relationships with police. Describing insecurity that emerged from surrounding neighborhoods when a local leader helped a slum attain water service, a local resident said, "The police gave us security for one week and observed the area. Before the water connection was given, the police anticipated trouble and were around to give us security."[67] When asked how they help residents with the police, nearly all leaders indicate connecting or personally accompanying residents to the police station. And provision of order extends beyond thefts. One slum resident in Bangalore explained how a local leader protected the community from outsiders in these terms: "No one is allowed to come inside, no one is allowed to create trouble, because he looks after it. If they hear his name they will run away."[68]

---

[66]Field team interview on October 10th, 2018.

[67]Field team interview on October 9th, 2018.

[68]Field team interview on October 5th, 2018.

Finally, about half indicated helping resolve local disputes between neighbors (Appendix Figure A.3). One leader explained their role this way: "Different people would have different problems. We look at who is on the right side and sort it out by saying we will beat up the other person if they do these things. If not, we take it to the police....Usually, it doesn't go to the police and it gets sorted here by us."[69] In this case, the dual roles of leaders as internal peacemakers and external mediators is clear. The leader survey also highlights the role of electoral politics in public service provision, in that leaders, as brokers, trade electoral support for public goods[70], including policing. Indeed, in exchange for help with the police, security and other services for the slum, over 60% of leaders admit to providing something key in return: slum support during elections. This phenomenon is well-documented in India, yet by focusing on social ties our analysis also points to the social and political foundations of these clientelistic relationship.

Finally, we explore the possibility that the impact of an individual's social and/or political centrality could be conditioned by a community's overall social and/or political density. As described above, socially dense communities can demand better policing; this improved policing will apply to all neighborhood citizens and reduce the individual contingency in interactions with the police–policing will be better and more equitably distributed across all neighborhood citizens, not just the better connected ones. One implication could be that the policing returns to socially central *individuals* will be declining in *neighborhood* social density.

To test this possibility we interact individual connectedness and neighborhood density in all of our outcome models. Overall, we find little evidence of a conditional relationship between connectedness and density. Where slum-level density does modify individual connectedness we find that the effect tends to be negative: that is, the improvement in local policing experienced by those who are socially connected decreases in neighborhood density. This could be because, as more people in the slum are socially connected, access to policing

[69]Field team interview on October 5th, 2018.
[70]Auerbach 2016; Auerbach and Thachil 2018.

becomes more equitable. Nevertheless, the results across the models suggest that individual- and neighborhood-level network measures are generally *not* conditioning each other.

CONCLUSION

In contexts of weak state capacity, the quality of policing is determined at the local level and in the interactions between individuals, communities and police officers. We have characterized those interactions as conditioned by a set of network ties that bind citizens to police. We argue that socially and politically central individuals and dense neighborhoods bring information, monitoring and organizational resources to interactions with front-line police officers that improve the quality of policing. Our argument provides insight into why policing is so contextualized across different individuals and communities. Our analysis is broadly inspired by widespread accounts emphasizing how contingent and context-dependent policing is, particularly for the world's poor.

To test our claims, we rely on rich, original survey data on the security challenges, social networks, and interactions with police of over 7,500 Indian slum-dwellers. We find some evidence that individual network position and community network density are both correlated with willingness to engage with the police (i.e. willingness to report theft to them), the expected cost of bribing police and overall satisfaction with policing. We also find that these results are *not* the result of more networked communities experiencing fewer conflicts; we do find that they are much more likely to rely on political mediators in their interactions with police. This last finding underscores the important role of political intermediation in how many of the world's poor interact with the formal institutions of the state.

The project points to a number of avenues for future research. First, more work is needed that explicitly considers ethnic, racial, or religious dimensions to policing in multi-ethnic societies. In general, the quality of public goods provision in such societies often follows distinct ethnic lines, and there is a growing body of evidence on police bias against minority groups. Second, given the observational nature of our evidence and of much extant research, we see great need for experimental research bearing on the quality of local policing. While identifying

exogenous changes in the nature of an individual or community's social network is difficult, development programs often involve interventions aimed at building social capital within communities as a means of improving service delivery. Building rigorous impact evaluations into community-policing programs, or other programs aimed at improving relations between communities and the police, would go a long way to building our understanding of how citizens navigate insecurity.

Juan F. Tellez: Department of Political Science

Current address: University of South Carolina, Columbia, SC, 29205, USA

Email address: juan.f.tellez@gmail.com

Trust in the Police in Select Countries
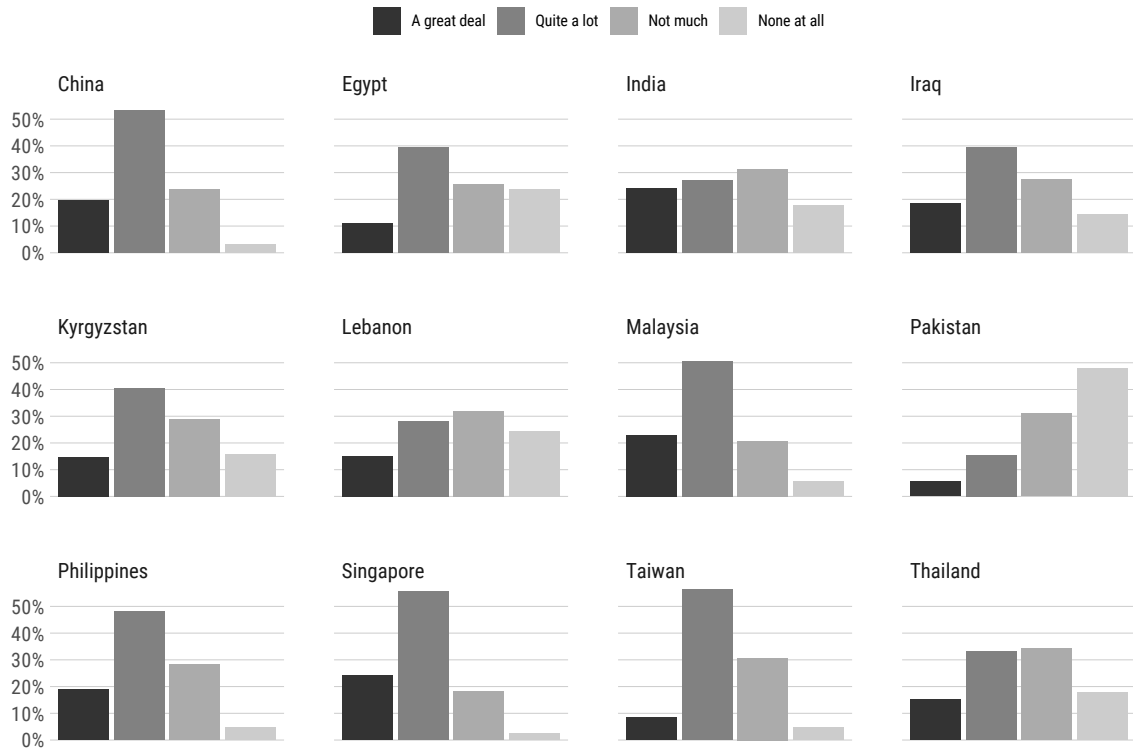
Source: World Values Survey.

Figure 1. Level of confidence in the police by country. World Values Survey Database (2010-2014).
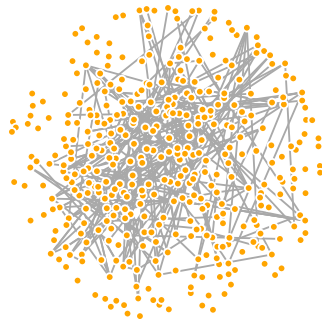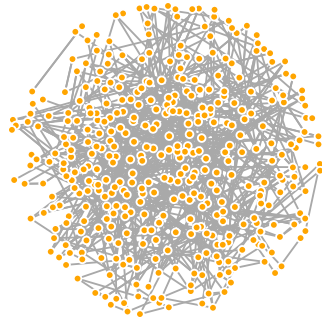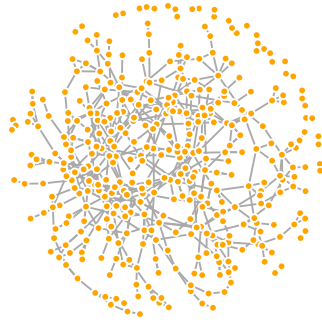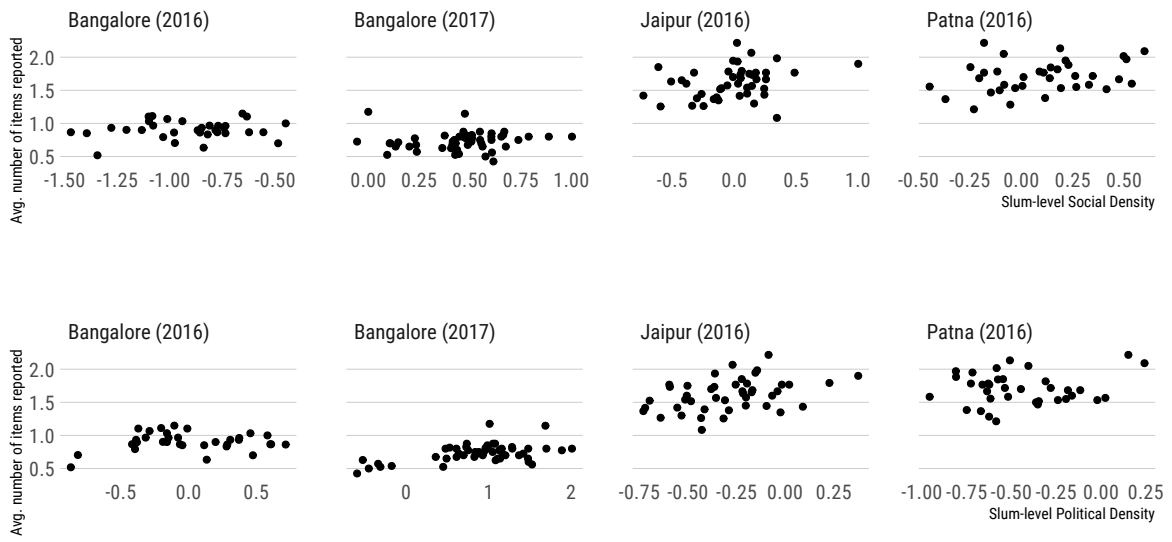
Figure 2. Full Network of Social Ties in 3 Slums.

Figure 3. Average number of items respondent willing to report to the police across levels of slum-level social (top) and political (bottom) density.

Marginal Effect on Willingness to Report Theft
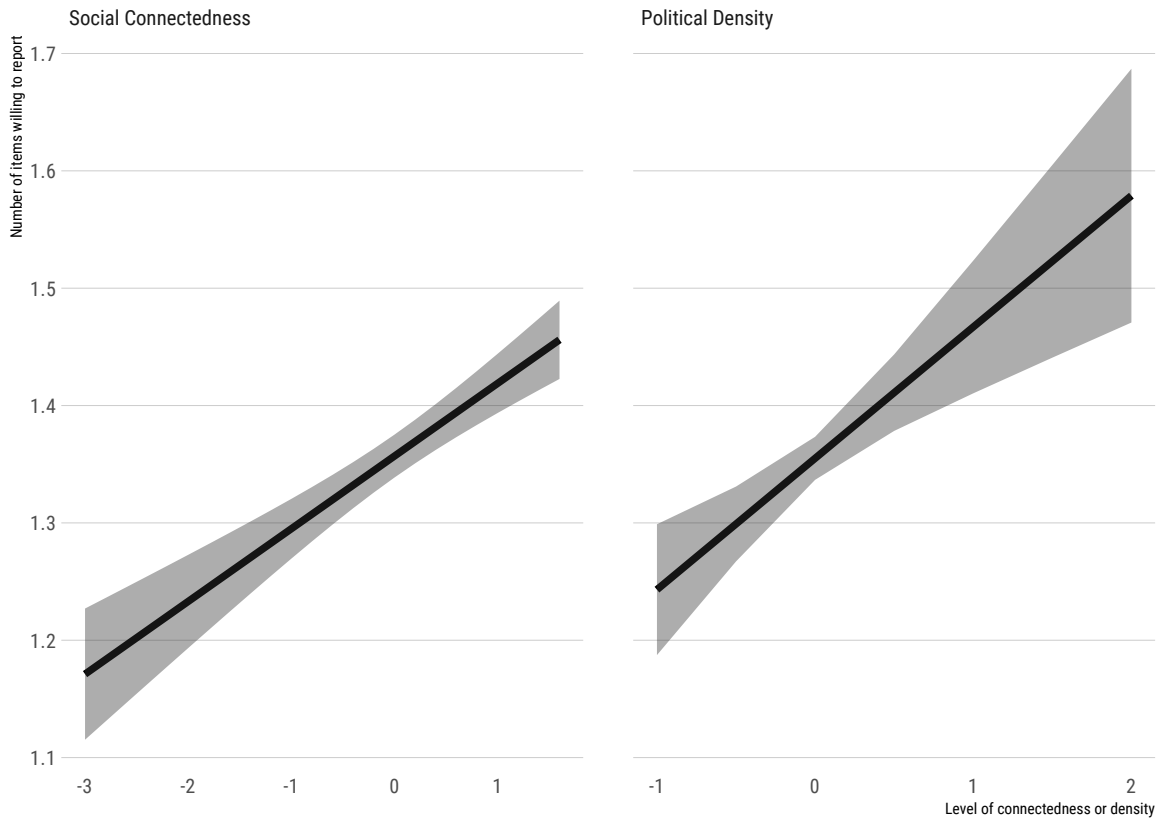
Figure 4. Expected number of items that respondent is willing to report to police at varying levels of connectedness and density.
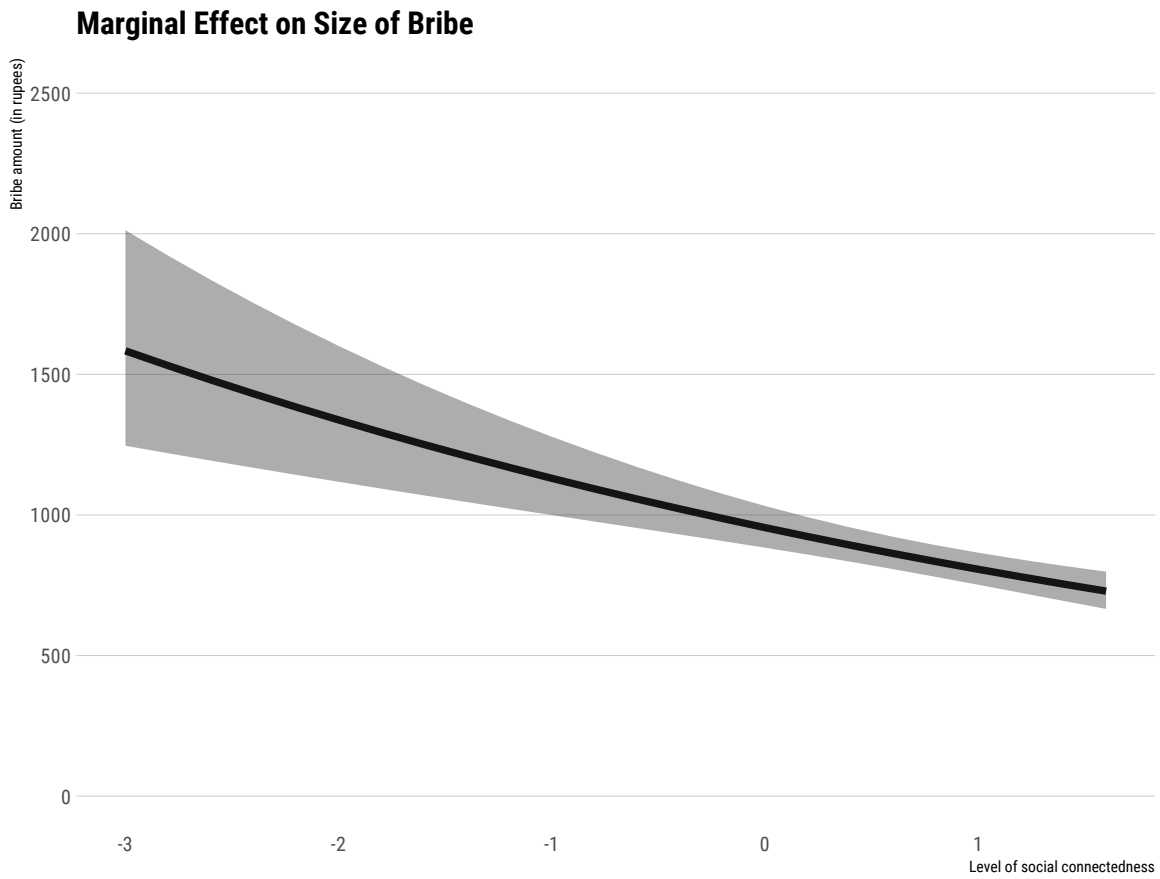
Figure 5. Expected bribe payment across levels of social connectedness.

Marginal Effect on Satisfaction with Local Policing

Figure 6. Expected level of satisfaction with the police (ranging from -4 to 0) across connectedness and density.

Figure 7. Likelihood of asking slum leader for help with a major theft across levels of connectedness and density.

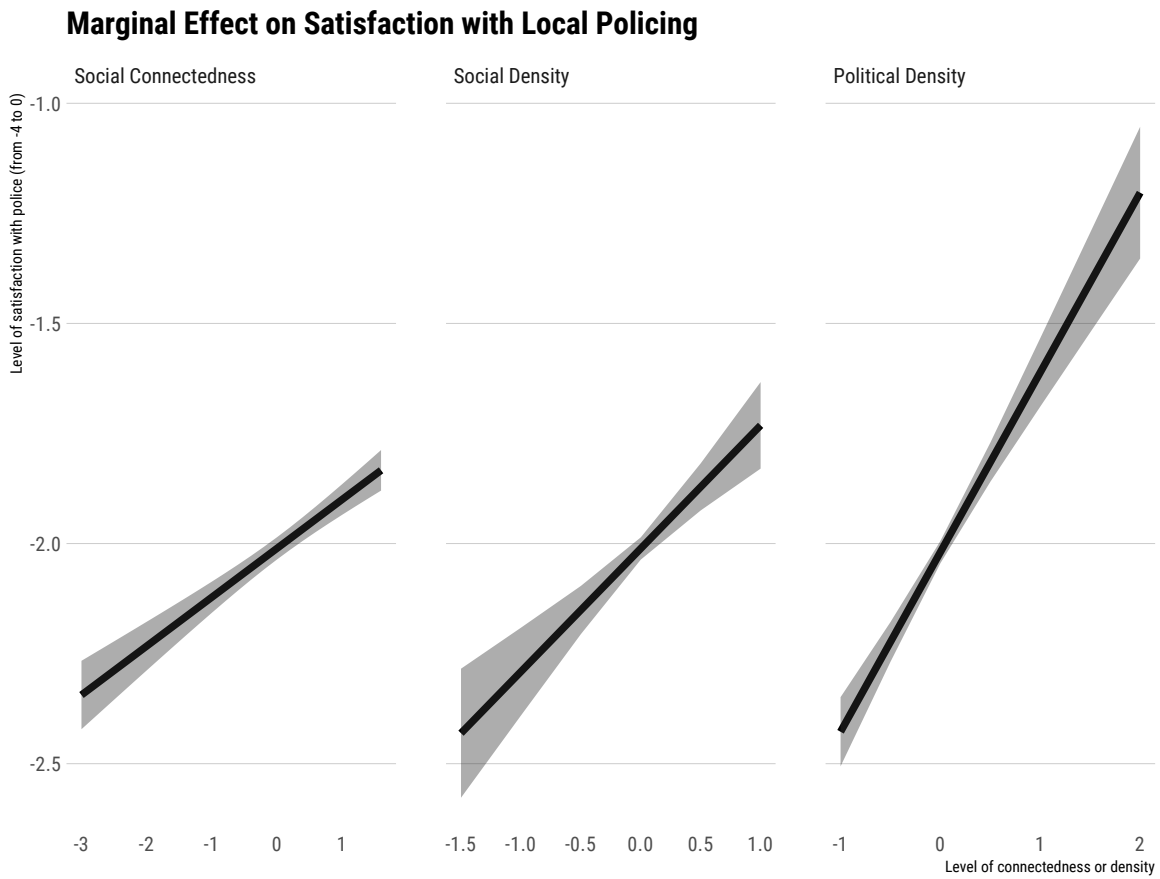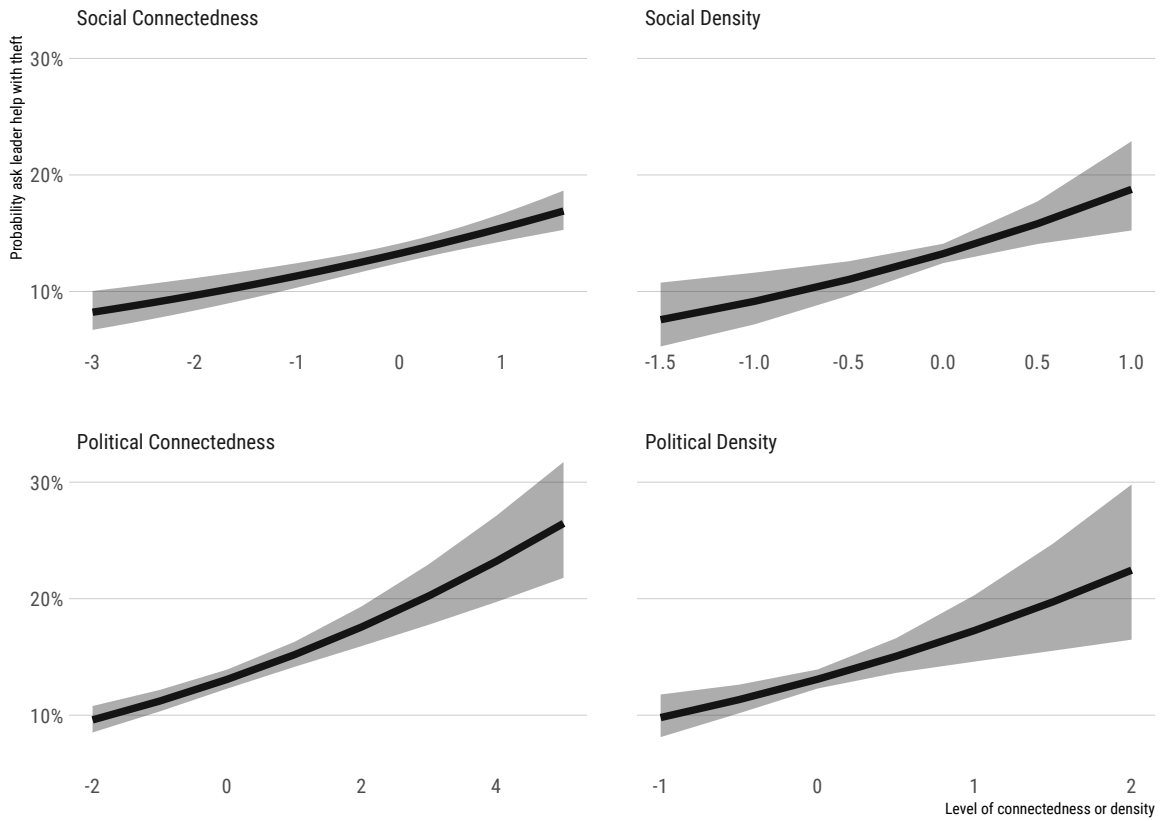**Table 1.** Effect of individual connectedness and neighborhood density on willingness to report theft. Errors clustered at slum-level.

	Dependent variable:	
	Number of items willing to report	
	(1)	(2)
Intercept	1.578***	1.652***
	(0.078)	(0.082)
Social connectedness	0.062***	
	(0.012)	
Social density	0.008	
	(0.066)	
Political connectedness		−0.004
		(0.010)
Political density		0.112***
		(0.032)
Age	−0.0004	−0.001
	(0.001)	(0.001)
Gender = man	−0.001	−0.018
	(0.020)	(0.019)
Low caste	−0.030	−0.031
	(0.030)	(0.030)
Tribal caste	0.012	0.026
	(0.073)	(0.074)
Education	0.005**	0.005**
	(0.002)	(0.002)
Religious fractionalization	0.039	−0.012
	(0.083)	(0.080)
Caste fractionalization	−0.020	0.003
	(0.079)	(0.081)
Muslim	−0.099**	−0.099**
	(0.041)	(0.039)
Asset index	0.032***	0.032***
	(0.005)	(0.005)
N:	7247	7325
Note:	*p<0.1; **p<0.05; ***p<0.01	

Table 2. Effect of individual connectedness and neighborhood density on satisfaction with local policing. Errors clustered at slum-level.

	Dependent variable:	
	Satisfaction with local policing	
	(1)	(2)
Intercept	−2.816***	−2.562***
	(0.128)	(0.115)
Social connectedness	0.111***	
	(0.017)	
Social density	0.280**	
	(0.115)	
Political connectedness		−0.005
		(0.013)
Political density		0.408***
		(0.099)
Age	0.001	0.001
	(0.001)	(0.001)
Gender = man	0.010	0.002
	(0.035)	(0.035)
Low caste	−0.032	−0.053
	(0.042)	(0.041)
Tribal caste	−0.158*	−0.140
	(0.085)	(0.091)
Education	0.0004	0.002
	(0.004)	(0.004)
Religious fractionalization	0.047	−0.126
	(0.160)	(0.170)
Caste fractionalization	0.002	0.022
	(0.151)	(0.149)
Muslim	−0.032	−0.018
	(0.052)	(0.056)
Asset index	0.055***	0.051***
	(0.009)	(0.007)
N:	6982	7053

Note:	*p<0.1; **p<0.05; ***p<0.01

Table 3. Effect of neighborhood density on incidence of local conflict.

	Dependent variable:	
	Average frequency of conflict in slum	
	(1)	(2)
Intercept	2.292***	2.352***
	(0.345)	(0.360)
Social density	0.114	
	(0.075)	
Political density		0.042
		(0.052)
Age	0.005	0.005
	(0.008)	(0.008)
Gender = man	0.494**	0.497**
	(0.217)	(0.221)
Low caste	−0.026	−0.043
	(0.126)	(0.129)
Tribal caste	−0.369	−0.308
	(0.228)	(0.225)
Education	−0.024	−0.025
	(0.019)	(0.019)
Religious fractionalization	0.182	0.170
	(0.128)	(0.130)
Caste fractionalization	−0.089	−0.113
	(0.147)	(0.147)
Muslim	−0.162	−0.175
	(0.136)	(0.136)
Asset index	−0.019	−0.020
	(0.020)	(0.021)
Observations	159	159
Adjusted R^2	0.543	0.537
Note:	$^*p<0.1$; $^{**}p<0.05$; $^{***}p<0.01$	

Table 4. Effect of individual connectedness and neighborhood density on probability of asking leader for help with a major theft. Errors clustered at slum-level.

| | *Dependent variable:* | |
| | Ask Leader for Help with Major Theft | |
	(1)	(2)
Intercept	−2.840***	−2.435***
	(0.290)	(0.306)
Social connectedness	0.178***	
	(0.042)	
Social density	0.415**	
	(0.189)	
Political connectedness		0.174***
		(0.029)
Political density		0.327***
		(0.125)
Age	−0.003	−0.003
	(0.003)	(0.003)
Gender = man	−0.183**	−0.211***
	(0.076)	(0.076)
Low caste	0.197*	0.154
	(0.105)	(0.108)
Tribal caste	0.103	0.180
	(0.203)	(0.211)
Education	0.009	0.009
	(0.009)	(0.009)
Religious fractionalization	−0.459	−0.701**
	(0.308)	(0.301)
Caste fractionalization	0.302	0.356
	(0.297)	(0.311)
Muslim	0.004	0.038
	(0.127)	(0.133)
Asset index	0.018	0.004
	(0.018)	(0.017)
N:	7239	7317
Note:	*p<0.1; **p<0.05; ***p<0.01	