"Social Density, Clientelism and Vote Banking"

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Much research on the politics of the poor has focused on the exchange of individual votes for individual private goods at election time (see, for instance, Levitsky 2003, Calvo and Murillo 2004, Stokes 2005, Kitschelt and Wilkinson 2007, Stokes et al. 2013). In some cases, this exchange is characterized as "vote buying", while in others it is an exchange aimed at "turnout buying" (Nichter 2008; Gans-Morse et al. 2014). While traditional models of clientelism emphasize the one-off, individual exchange of private benefits for votes between parties and citizens, a growing body of recent work emphasizes that clientelistic relations are often characterized by persistent problem-solving networks (Calvo and Murillo 2013; Nichter and Peress 2016).

We expand on these individual-level arguments by emphasizing neighborhood-level needs and citizen organization as key determinants of political exchanges between poor voters and politicians. In doing so, we build on recent research showing that resource-constrained parties are more likely to target socially central individuals who are efficient sources of information and persuasion in neighborhoods (Cruz 2013; Schaffer and Baker 2015). We innovate on that literature by showing how neighborhood level social density and electoral coordination impact the distributive strategies of parties and particularly whether they target individual voters with private benefits and/or entire neighborhoods with locally targetable public goods.

We conceptualize clientelism as an exchange between vote-maximizing, budget-constrained parties and voters *in neighborhoods*. Parties can deliver private, electioneering benefits to individual voters or local public goods, such as a water pump, a public toilet, trash pickup, etc. to neighborhoods. Since local public goods are more expensive than private, election-day gifts, parties consider both the social or political centrality of individual voters and the social density of neighborhoods as a whole when deciding how to spend. Socially dense neighborhoods are those where relationships exist among voters and informal local leaders that help coordinate neighborhood-level vote banks. Only when neighborhoods can credibly commit to delivering a large pool of votes to parties will parties invest in local public goods. We refer to the trade of neighborhood-level votes for local public goods as "collective clientelism" and distinguish it analytically from pork-barrel spending.

Consistent with recent work, we hypothesize that socially central individuals are more likely to receive private clientelistic benefits. Our addition of neighborhood social and electoral context provides an additional hypothesis, namely that those communities with the capacity to coordinate votes are more likely to receive local public goods. We hypothesize that communities with higher levels of social capital, tighter interpersonal relations and coordinated leadership are more likely to coordinate votes, experience collective forms of clientelism, and benefit from local public goods. Our account integrates voter and neighborhood characteristics to provide insight into the incidence of individual- and neighborhood-level political exchanges.

Testing this (indeed, any) argument bearing on clientelism is difficult because the corresponding behaviors are difficult to directly observe, and participants in both private and neighborhood-level clientelistic relations have incentives to mis- or under-report the extent of clientelism. We bring to this challenge a rich set of original survey data from thousands of households in hundreds of slums in three Indian cities--Bangalore, Jaipur and Patna. We deploy survey experimental techniques to assess the extent to which both private, election day exchange and more coordinated, neighborhood-level exchange take place. The former mirror related survey experimental efforts in Nicaragua, Lebanon and beyond, while the latter is an original attempt to assess neighborhood-level vote banking. Together, the two survey experiments provide the first experimental insight into the incidence of *both* types of clientelism in a single empirical setting. We complement this survey experimental evidence with a rich array of network data and traditional survey data on the leadership centrality, social density and voting behavior of individuals and neighborhoods.

Our experimental results show that the incidence of election-day vote selling is 8 percent. The experimental results also show for the first time that collective clientelism, or the neighborhood delivery of votes, is a real phenomenon. Consistent with our argument, we also find that individuals who are more socially connected are more likely to be influenced by the provision of individually targeted clientelistic transfers. Moreover, we show that socially denser *neighborhoods* tend to be better organized politically: they have more centralized neighborhood leadership, their residents are more unified in their party support, and are more likely to report that their neighborhood is a “vote bank”. These results are consistent with our hypotheses that more socially connected individuals tend to be the ones targeted for individual transfers, and that neighborhood social density is conducive to local political organization and vote banking. We find mixed evidence that socially dense neighborhoods are correlated with better local public goods--vote banking is not significantly related with an index of neighborhood public goods, but it is significantly correlated with slum “notification”, a government status that legally precedes the provision of local public goods. We suspect this mixed result reflects the limitations of our cross-sectional data to distinguish the impact of neighborhood-level transactions on incentives for vote coordination; once key local public goods are available, the incentives to coordinate neighborhood votes might go down. We would need panel data to observe services improving over time in more politically centralized neighborhoods.

In the following section we review the relevant literature. Thereafter, we develop our argument linking voter and neighborhood characteristics to the incidence of individual and collective clientelism. In the third section we describe our extensive original data collection effort and empirical strategy. The fourth section provides results, and the concluding section summarizes our contribution and provides direction for future work.

II. Poor Voters, Clientelism and Social Networks

Studies on clientelism emphasize the direct exchange of material benefits for political support between voters and politicians (Auyero 1999, 2000; Brusco, Nazareno and Stokes 2004; Calvo

and Murillo 2004; Chandra 2007; Kitschelt 2000; Kitschelt and Wilkinson 2007; Krishna 2007; Levitsky 2003; Magaloni and Estevez 2007; Nichter 2008; Remmer 2007; Stokes 2005, among many other authors). Thus, one influential work defines clientelism as a "durable, face-to-face, hierarchical and thus asymmetrical exchange relation . . . supported by a normative framework" (Kitschelt and Wilkinson 2007). Extant work offers insight into *which* voters will be targeted for clientelistic exchange. Building on Dixit and Londregan (1996), most work posits voters who maximize a joint function of ideological proximity to their preferred party and private, excludable benefits. Due to diminishing returns of consumption, low-income voters are expected to be the principal targets of clientelism because they derive higher marginal utility from handouts. There is now a substantial body of supporting evidence supportive of this claim (Brusco, Nazareno and Stokes 2004; Calvo and Murillo 2004; Remmer 2007; Keefer 2007).

Income aside, there are important theoretical disagreements as to the role of ideology. While Dixit and Londregan (1996) and Stokes (2005) suggests that ideologically indifferent voters represent the best investments in private benefits, Cox and McCubbins (1986) suggest that core supporters should receive the most benefits, and Nichter (2010) echoes that argument with the suggestion that election campaigns are primarily aimed at motivating turnout amongst the like-minded rather than convincing the swing voter. Despite some evidence to the contrary (Lindbeck and Weibull, 1987; Stokes, 2005), the evidence is generally supportive of the core voter hypothesis (Hsieh et al. 2011; Calvo and Murillo 2004; Bickers and Stein 2000).

One of the biggest analytical challenges has been understanding the conditions under which clientelism is time consistent.[1] Beginning with Scott (1969, 1972), researchers conceptualized clientelistic exchange as an instrumental-rational practice of "market corruption," consisting of intermittent, single-shot exchanges on a spot market. The contingency of benefits on voting behavior necessitates a mechanism by which parties can be sure that voters keep their side of the exchange. As it became clear that any one-off clientelistic exchange suffered from dynamic inconsistency, work has modeled clientelism as a repeated game in which voters provide political support and participation in rallies in exchange for handouts, access to subsidies, welfare programs, etc. These linkages are part of a problem-solving network, and the ongoing nature of the relationship serves to resolve crucial information problems inherent to clientelistic exchange (Calvo and Murillo 2013). In this account, clientelistic relations are ongoing, durable and "relational" (Nichter 2010). As summarized by Björkman (2014: pg 618), clientelistic gifts "work much like any other gifted good in producing relations of debt and obligation" and are "constitutive of enduring networks of trust, sociality, and accountability".

Recent work has identified three mechanisms through which networks facilitate clientelism. The first mechanism is *monitoring*. In contexts characterized by a secret ballot, it is necessary for

[1] Most importantly, there is a time inconsistency problem inherent in the exchange of private benefits for votes. If parties deliver benefits before the election, they require some means of observing how voters actually vote in order to hold them accountable. If parties promise to deliver benefits after the election, the voter must have some confidence that they will do so if, in fact, the voter votes as dictated by the exchange. Both problems can be resolved by iterated relationships.

parties to have some assurance that the individual votes as desired. In Stokes et al. (2013) local brokers serve as key nodes in partisan networks and serve to monitor voters. Alternatively, social networks provide a means for voters to monitor each other. Well-connected individuals are easier to monitor simply because they have more contact with others and are more likely to reveal their votes; by virtue of having more social contact, their vote choice is more likely to be known and diffused through the network. This is the reason Cruz (2013: 5) cites when she notes that "having a large social network makes it more likely that others will know how the individual voted."

Second, individuals embedded in persistent clientelistic networks might also be more likely to engage in *intrinsic reciprocity* (Finan and Schechter 2012). Intrinsic reciprocity is the tendency for individuals to repay a good turn, even at personal expense. People who are reciprocal are particularly good targets for clientelism, because they tend to hold their end of a bargain even when there is no clear material benefit to doing so. They can be trusted (more so than non-reciprocators) to faithfully vote the way the party offering benefits wants them to, in appreciation for the gifts they have received.

Third, social networks provide a means for clientelistic exchanges to *persuade* voters to vote for parties. According to Schaffer and Baker (2015), parties "target citizens who are opinion-leading epicenters in informal conversation networks." Parties tend to target individuals who can influence the way other people vote, and hope that these "persuaders" will, in turn, convince other people in their networks to vote for the party. Schaffer and Baker call this phenomenon a "social multiplier effect," whereby the party can influence the preferences even of voters who do not themselves receive any direct benefits.[2] Unlike monitoring, which relies on an implicit threat of social censure or worse, persuasion implies that individuals cast their votes because they believe the persuader has their best interests in mind and can help them select the right candidate.[3] This mechanism implies that parties should target socially-connected individuals, whose embeddedness in social networks means that they are able to exercise persuasion.

Collectively, these mechanisms suggest that dense networks of social interaction "tie voters together and bring them into contingent exchange relationships with political parties" (Holland and Palmer-Rubin 2015) and serve as a crucial glue for sustaining clientelism over time. There is, however, scant empirical work testing the relationship between the properties of social networks and clientelism. Indeed, to the extent such tests exist, they have focused on the hypothesis that socially central *individuals* will be targets of the excludable benefits that define traditional notions of clientelism. Cruz (2013), for instance, finds that individuals with a large number of network connections tend to be disproportionately targeted for clientelistic exchange,

[2] The same logic can be found in Downs (1957, pg 140), who writes that "some men [*sic*] are more important than others politically, because they can influence more votes than they themselves cast. Since it takes scarce resources to provide information to hesitant citizens, men who command such resources are able to wield more than proportional political influence, *ceteris paribus*."
[3] See Björkman (2014, page 623) for an excellent ethnographic example.

and Shaffer and Baker (2015) find evidence that "persuasive" individuals (those who converse with neighbors about politics with the aim of changing their views) are more likely to be targeted.

We build on this growing attention to the social centrality of individuals in two ways. First, we emphasize that voters, and particularly poor voters, tend to live in geographically-defined neighborhoods that define social networks. Because these networks have a spatial component, the social aspects of clientelism tie into a well-developed literature on the effects of neighborhood context on voting behavior. Huckfeldt and Sprague (1991) and Pattie and Johnson (2000) find that individuals' vote choice is frequently influenced by the opinions of their discussants, who are often their neighbors, and Baybeck and Huckfeldt (2002) show that discussants who are geographically proximate to one another are likely to be situated in dense and homogeneous social networks. Second, the problems that voters want politicians to solve are oftentimes collective in nature and can be addressed by local public goods. Whereas traditional models of clientelism emphasize private transfers, we suggest that neighborhood benefits--be they a water pump, a local clinic, or a public toilet--are also subject to explicit political exchange. Understanding these exchanges, however, requires shifting the analysis from individual voters or voter centrality to the social and political characteristics of whole neighborhoods.

III. Social Density and Clientelism: The Argument

We begin with the simple observation that poor voters tend to be clustered together in neighborhoods, and this simple fact has important implications for how politics operates. We conceptualize neighborhoods as social networks characterized by voters and local political brokers who know each other (Huckfeldt 1983). That clientelism is embedded in a neighborhood context means that important dynamics operate at the slum level rather than as a series of aspatial, individual-level exchanges: an entire neighborhood receives water, electricity or a public toilet at the same time; no individuals can be rewarded for their political behavior by receiving them earlier. If we understand neighborhoods as social networks, their political and social organization is very much relevant for the study of clientelism and has important implications for who among the poor will receive access to basic public services.

We elaborate on the definition of clientelism from Holland and Palmer-Rubin (2013: pg 1188) as "any distribution of particularistic or club goods conditioned on the political behavior of an individual or group" to distinguish between two types of clientelism, as defined below:

> *Individual clientelism*: the contingent exchange of an individual vote in return for material goods to be consumed by that individual's household.
>
> *Collective clientelism*: the provision of a club good or local public good to the inhabitants of a neighborhood, conditional on the voting behavior of the neighborhood's inhabitants.

Our definition of collective clientelism is subtly, but importantly, distinct from pork barrel spending. Evans 2011 (p. 316) defines pork barrel projects as "discrete, highly divisible benefits targeted to specific populations such as states and congressional districts". Pork barrel spending implies that incumbents will deliver club goods or local public goods if they keep winning elections; the incumbent does not distinguish between supporting and opposing voters, since the goal is to bring benefits to the district as a whole and the spending results from legislative bargaining. The definition of pork hinges on the geographical concentration of the benefits, rather than on the contingency of their provision on individual or community voting behavior. Collective clientelism, on the other hand, implies that benefits will only come to a group of voters if they vote for the clientelistic politician. Thus while pork barrel spending is contingent on *election outcomes*, collective clientelism is contingent on the *voting behavior* of neighborhoods.[4] Pork barrel spending benefits all voters within an electoral constituency, and is therefore *not* contingent upon voting behavior. By contrast, collective clientelism is targeted to *particular* vote banks within an electoral constituency, and is contingent upon the coordinated voting behavior of those groups.[5]

The recognition that many clientelistic exchanges involve local public goods accommodates the fact that the needs of the poor, and particularly the urban poor, are often for a public toilet, clean water, or a solution to open sewage. This more social characterization of clientelism also overcomes some of the technical problems that characterize one-off exchanges of private benefits for votes. Notably, parties need not observe individual vote choice in the face of time inconsistency problems, since they can easily and legally observe neighborhood-level voting outcomes at the booth or precinct level (Chandra 2007; Hale 2007; Kitschelt and Wilkinson 2007; Levitsky 2007; Scheiner 2007; Smith and Bueno De Mesquita 2012; Rueda 2015).

But why would individuals and neighborhoods be targeted with individual and/or collective clientelism? Political parties face a budget constraint; they cannot offer unlimited clientelistic benefits to all potential voters. They must make a decision on how best to disburse their limited budget, and in particular which voters should be offered private benefits at low cost and which voters to target with neighborhood-level public goods, which are more expensive.
Consistent with the arguments outlined above, we claim that parties and brokers tend to target individual clientelism to voters who are *socially central*, which we define (drawing on Putnam 2007) as the extent to which individuals are embedded in intra-neighborhood social networks and are bound by the associated norms of reciprocity and trustworthiness. These individual

[4] In a related line of argumentation, Kitschelt and Wilkinson (2007: pg 12) note that club goods can be distributed either programmatically or clientelistically. "If they go the programmatic route, they frame the disbursement of resources in terms of general rules with highly specific stipulations for policy implementation by which both administrators of the policies and recipients of the benefits have to abide, regardless of their personal party preferences." Whereas "clientelistic politicians, by contrast, prefer rules and regulations . . . that leave maximum political discretion to the implementation phase."
[5] Stokes et al (2013) separate pork from clientelism by characterizing the latter by contingency on *individual* voting behavior, and characterize pork as a particular type of "non-contingent partisan bias." By contrast, we allow for the possibility of benefits being contingent upon *group* voting behavior.

investments are sensible for the three reasons noted above: First, because social connections make these voters' intentions and activities an open book to neighbors (and to party operatives working in the neighborhood), socially central individuals are easy to monitor; second, because of their tendencies toward intrinsic reciprocity such voters are more likely to spontaneously comply with their agreement to vote for a patron's party; and third, these socially connected individuals are likely to be Downsian "persuaders" with the capacity and inclination to bring other voters (who may or may not have also received individual-clientelistic benefits[6]) into the fold.

Because the provision of collective clientelism is more expensive, parties will only provide it when they can be sure of gathering a large share of support from any given neighborhood consistently over years. Yet serving as a neighborhood-level vote bank for a party represents a collective action problem from the point of view of individual residents. We argue that neighborhoods that are characterized by high levels of social density, which we define as being home to residents with a high average level of social connectedness, are more likely to overcome this collective action problem. Consistent with theorizing on networks (Huckfeldt 1983; Ward et al. 2011), dense networks provide two mechanisms for coordinating collective action. First, they provide a social technology that provides information on how other members of the neighborhood network behave. While it is very difficult for formal parties and other outsides to know whether neighborhood residents have voted in a manner consistent with collective clientelism, it is easier for tightly-knit neighbors and local leaders who live in those communities to know these things about each other. In short, a dense neighborhood network internalizes the cost of monitoring clientelistic exchanges; it does this, in part, because residents know they will not receive the local public good if the neighborhood as a whole does not deliver the votes. Second, dense neighborhood networks provide a mechanism for sanctioning community members who deviate from socially expected behavior, i.e. voting for the machine. In the context of neighborhood politics, this might involve an inability to draw on local, informal social insurance (Nichter and Peress 2017) or extract household benefits from neighborhood leaders. Together, the augmented capacity to monitor and sanction fellow citizens provides dense neighborhood networks the tools to overcome collective action problems and coordinate votes for the sake of collective clientelistic benefits. Thus, we hypothesize that collective clientelism will be targeted at socially dense neighborhoods. In summary, we have two hypotheses:

H1. Neighborhoods with high social density are more likely to be targets of collective clientelism.

H2. Individuals with high social connectedness are more likely to be targets of individual clientelism.

[6] Another possible mechanism is that socially connected voters who have received clientelistic benefits are instrumental in monitoring and enforcing the individual-clientelist bargain that *others* have entered into, i.e. making sure that other clients are voting as they are supposed to. They might do this by reifying and appealing to the norms of reciprocity and trustworthiness, or they might conceivably use other means.

As far as we know, ours is the first research that analytically distinguishes neighborhood social density and individual social centrality, collective clientelism and individual clientelism, and brings the appropriate data to bear to test the relationship among these variables.

Our argument echoes several threads in recent work on clientelism. Auerbach (2016) shows that denser slum-level partisan networks provide a means for the poor to successfully articulate their demands vis-a-vis government. While he is focused on how parties organize slums, we focus on how social relationships among voters condition the capacity of communities to bargain with parties. Similarly, Rueda (2015), finds that smaller polling stations invite more clientelism because they allow for aggregate monitoring that overcomes the challenge of monitoring individual voters. We specify how that aggregate monitoring might take place and link it to different kinds of clientelism. Finally, Holland and Palmer-Rubin (2015) find that participation in civic organizations is the primary determinant of clientelistic targeting; our own conceptualization of social density provides insight into where such organizations are most likely to emerge and emphasizes that they are often neighborhood-based.[7]

IV. Empirical Setting and Approach

To test our argument we draw on original household and neighborhood data collected in 2015-16 in Jaipur, Rajasthan; Patna, Bihar; and Bengaluru, Karnataka. These cities provide a sample frame that reflects the diversity of Indian conurbations. The three cities are located at the three corners of India's land mass, with Bengaluru in the south, Patna in the northeast and Jaipur in the northwest. They span the range of development outcomes; Bengaluru is considered the epicenter of India's IT revolution (Nair 2005) and is among the richest India cities in terms of GDP per capita, while Patna is among the poorest, with Jaipur in between.

Given the clear evidence linking poverty to clientelism, within each city we enumerated slum areas. In the absence of accurate government lists of slums, we went through an onerous process of identifying them that included a combination of satellite imagery, field teams, government lists and NGO-generated lists. This process produced a non-exhaustive list of 517 slums across the three cities (273 for Jaipur, 132 for Bangalore, and 112 for Patna). To ensure a cross-section of slum conditions we sampled across slum "types" which we defined with reference to the quality of housing, availability of services and the haphazardness of the layout. We then randomly selected 40 slums per survey wave (one each if Patna and Jaipur and two in Bangalore) to preserve the distribution across slum types. We conducted household interviews and neighborhood surveys in a total of 160 slums.

From each neighborhood, we randomly sampled between 30 and 60 households. The total number of household respondents across cities and slums is 7,452. The interviews lasted approximately 45 minutes, and typically took place in the respondents' homes. The interviews

[7] Holland and Palmer-Rubin emphasize the importance of functional organization, such as street vending organizations, whereas we emphasize neighborhood organization.

were collected on tablet computers running the Open Data Kit (ODK) platform, and contained questions including basic demographic information, such as age, caste, and religion; economic information, such as education, employment, incomes, and expenditures; and political attitudes, including political engagement, party support, and neighborhood leadership. We complemented these sample surveys with a full network survey (i.e. the enumeration and interview of each household) in 8 slums and neighborhood surveys that gathered key information on housing and public goods characteristics.

Our initial slice at the evidence relies on a list experiment to measure the incidence of clientelism among our respondents. List experiments are a survey method that can be used to measure sensitive behaviors or attitudes that survey respondents might be reluctant to admit to if asked directly. Respondents are randomly assigned to control or treatment group(s). Those in the control group are shown a list with a few (e.g. 3) items, and asked how many of the items apply to them. Those in the treatment group are shown the same list, but with one additional, sensitive item that is of particular interest to the researcher; and likewise are asked how many of the items apply to them, without identifying which of the items. By comparing mean counts between treatment and control groups, the researcher is able to calculate the aggregate incidence of the sensitive attitude or behavior in the sample (Blair and Imai 2012).

Consistent with research showing a social desirability bias in responses to questions about vote buying (Gonzalez-Ocantos et al. 2012; Corstange 2018), we treat clientelism as a sensitive item. We randomly assign respondents to the control group or to one of two treatment groups. Echoing similar list experiments, respondents are asked, “People decide who to vote for based on many different considerations. I will read you some of the reasons people have told us. Please tell me how many of these influence your vote choice. Don’t tell me which ones, just tell me how many.” The control group is shown the following list:

- Party took me at Delhi party office.
- Listening to radio coverage of the campaign.
- Discussing the election with friends or family.

The first treatment group is shown the same options, plus an additional item (below) that we use to measure the incidence of collective clientelism, which requires coordinating neighborhood votes:

- *The suggestions of your neighborhood leader because he/she has made arrangements with a political party.*

We recognize that neighborhood-level vote coordination can happen without a neighborhood leader and that our approach likely underreports the incidence of collective clientelism. In emphasizing them, our design relies on insights on the crucial role of local vote brokers (Stokes et al. 2013), particularly amongst the urban poor in India (Auerbach and Thachil 2017).

To assess individual-level clientelism, we supplement the original list of three with the option:

- *One party promising more favors, such as clothes or food, to you or your family.*

This design closely echoes that in Gonzalez-Ocantos et al. (2012), which emphasizes excludable individual or household benefits. Ours is more demanding in the sense that it

assesses the role of private benefits in actual voting behavior rather than whether or not the respondent was simply offered a gift or favor.

We designed the list experiment to minimize ceiling effects and floor effects, which can potentially occur if all or none, respectively, of the non-sensitive items are applicable to the respondent. This would lead the respondent to not count the sensitive item, because doing so would break the respondent's anonymity.[8]

Table B1 in Appendix B shows the results of balance tests between the control group and the two treatment groups in the list experiment. The tests show that the treatment group is balanced on observables with respect to the control group, with the exception of neighborhood social density (see below), which is slightly lower in the treatment group for individual clientelism. Because the imbalance is of the wrong sign to produce our hypothesized result (we expect that *lower* neighborhood social density should *decrease* the rate of clientelism), this does not constitute a threat to our identification strategy.

To test our hypothesis about the relationship between individual connectedness, neighborhood social density and clientelism, we construct indices out of several questions in the household survey. Our individual measure, which we call *individual connectedness*, is based on a principal component analysis (PCA) of individual responses to the three survey questions that are common across survey waves. They are as follows: "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?"; "How often are there serious disagreements among people who live in this neighborhood?"; and "Have you attended a community meeting in your neighborhood in the past 12 months?" The details of the PCA are shown in Appendix A.

Measuring social connectedness is notoriously difficult in a sample survey (Handcock and Gile 2010). In order to validate our approach, we draw on a parallel network survey effort that maps the social networks of *all* households in 8 slums in Jaipur and Patna. In collecting these data we pursued a demanding process of, first, conducting a census of all residents of the community, gathering the names of residents, and programming those names for subsequent use; and second, asking household respondents a set of 23 questions bearing on social, political and economic ties with individuals in their settlement; these questions asked respondents to provide the names of individuals they socialized with, talked politics with, would go to with problems, who helped them find jobs, etc. This process resulted in 2581 respondents (one per household) in the 8 settlements and allows us to map their full social and political networks. To assess the relationship between our individual-connectedness questions and the social network density of respondents, we regress the network attributes of individuals, including

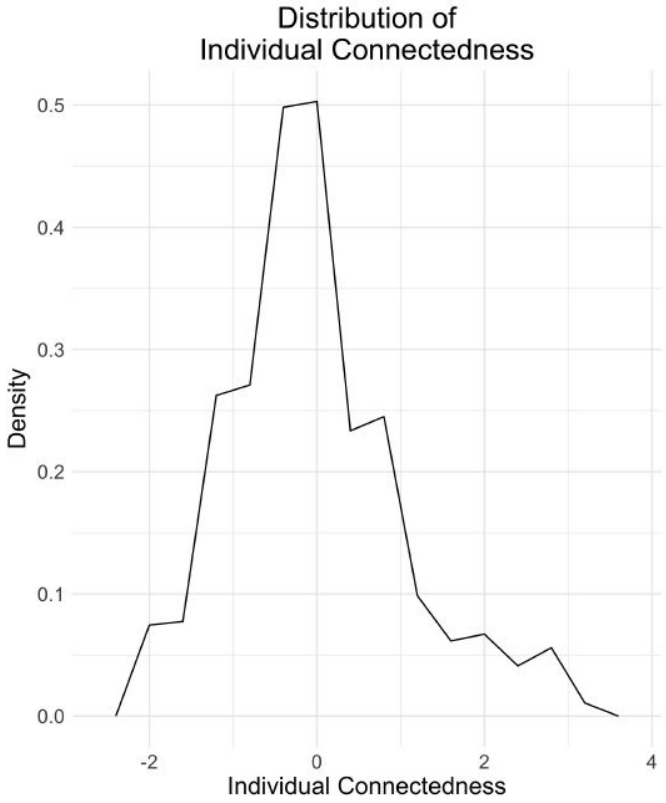
[8] We can assess whether ceiling or floor effects are affecting our results by checking the proportion of respondents in the control group who respond with the maximum (3) and minimum (0) number of items, respectively. In our sample, approximately 11% of the control group responded with 3 items, and 8% with zero items. This indicates that the possible prevalence of ceiling and floor effects is relatively low.

their in-degree, out-degree, and total degree on responses to each of the three questions that constitute our individual connectedness measure. The results are shown in Appendix C. For the question about community work and community meetings, the relationship with all three network measures is positive and significant with or without neighborhood fixed effects. For the question about neighborhood disagreements, the relationship with out-degree is positive and significant with and without fixed effects. These results indicate that the three questions in our sample survey are doing a good job of capturing social network connectivity.

Figure 1 shows the distribution of our individual connectedness metric. To provide some intuitive meaning to the values of the individual connectedness scores, we can compare respondents whose connectedness are more than one standard deviation above the mean to those who are more than one standard deviation below. The modal respondent among the well-connected group responded that 10 out of 10 neighbors would respond to a call for community work; that there are sometimes serious disagreements among people living in the neighborhood; and that they themselves have attended a community meeting in the neighborhood within the last 12 months. By contrast, the modal respondent among the less-connected group responded that only 5 out of 10 neighbors would show up for community work; that there are never serious disagreements in the neighborhood;[9] and that they have not been to a meeting in the last 12 months.

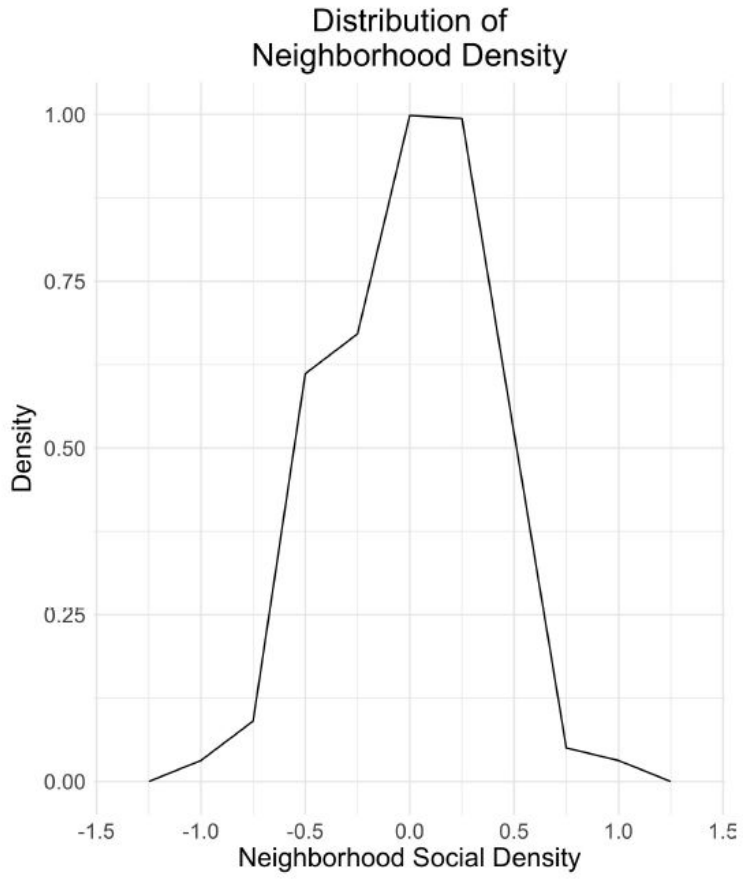
[9] The reported frequency of disagreements loads positively on the social density metric. The substantive interpretation is that neighborhoods with little contact between residents are unlikely to have disagreements. We also constructed an alternative social connectedness metric that omits the question about disagreements, discussed below, with substantively similar results.

Figure 1: Histogram showing distribution of individual connectedness scores.



Our neighborhood-level measure, which we term *neighborhood social density*, is simply the average individual connectedness score for all the respondents in each neighborhood. Figure 2 shows the distribution (with neighborhoods as the unit of analysis) of our neighborhood social density metric. To provide an intuitive interpretation of this metric, we compare respondents who live in neighborhoods with social density scores that are at least one standard deviation above the mean to residents of neighborhoods with scores at least one standard deviation below. The modal respondent of a socially dense neighborhood reported that 10 out of 10 neighbors would turn out for community work, and that disagreements sometimes occur within the neighborhood. By contrast, the modal respondent of a socially sparse neighborhood reported that only 5 out of 10 neighbors would turn up for community work, and that disagreements never happen within the neighborhood. Moreover, 22% of respondents in socially dense neighborhoods report having attended a community meeting in the last year, whereas only 7% of respondents of socially sparse neighborhoods report having done so.

Figure 2: Histogram showing distribution of individual connectedness scores.



V. Results

V.1 List Experiments

Table 1 shows the basic result of our list experiment. The treatment effect of the list item "The suggestions of your neighborhood leader . . .", which we term the *collective clientelism treatment*, is estimated to be 0.096, which corresponds to 9.6% of our sample being influenced by collective clientelism. The treatment effect of the list item "One party promising more favors . . ." is estimated to be 0.084, which corresponds to 8.4% of our sample's vote being influenced by individual clientelism.

Table 1: List experiment: Basic results

	Collective Clientelism	Individual Clientelism
	(1)	(2)
Treatment	0.096***	0.084***
	(0.023)	(0.024)
N	2374	2458
Note:		*p<0.1; **p<0.05; ***p<0.01

Our first hypothesis is that individuals with higher levels of social connectedness are more likely to be targeted for individual clientelism. We test this hypothesis by interacting the individual clientelism treatment in the list experiment with the individual connectedness score for each individual. Our hypothesis implies that the coefficient on this interaction term should be positive. The results are shown in Table 2. The left-hand column shows the results for a basic specification with no demographic controls, while the right-hand column includes demographic controls (age, gender, assets, education, migrant status, caste, mother-tongue, and religion); these controls are excluded from the table--see Appendix D for the full results. Results are estimated using OLS, with standard errors clustered at the neighborhood level. For both specifications, the interaction term between the individual clientelism treatment and individual connectedness is positive and statistically significant (at the 5% level without controls, and at the 10% level when demographic controls are included).

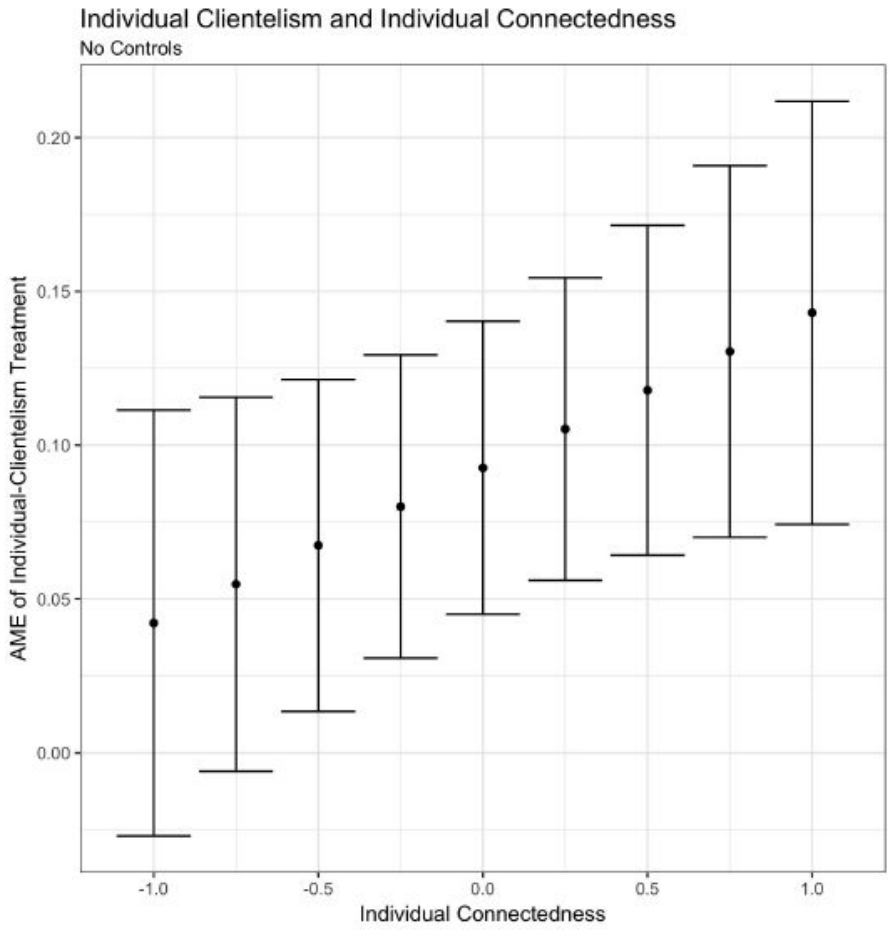
Table 2: List experiment: Individual social connectedness and individual clientelism

	(1)	(2)
Individual Favors Treatment	0.093***	−0.021
	(0.024)	(0.540)
Individual Social Connectedness	−0.066***	−0.043**
	(0.021)	(0.020)
Treatment * Connectedness	0.050**	0.045*
	(0.025)	(0.025)
Demographic Controls	No	Yes
N	4523	4500
Note:		*p<0.1; **p<0.05; ***p<0.01

Figure 3 shows a marginal effects plot of the individual-clientelism treatment effect as a function of individual connectedness. The marginal effects plot shows that the treatment effect (i.e. the incidence of individual clientelism) is close to zero for the least socially connected individuals, but increases to nearly 15% for the most socially connected individuals. Measuring social

connectedness in a sample survey is not easy, but robustness checks suggest that these results are broadly consistent with alternative measures.[10]

Figure 3: Marginal effects plot showing the relationship between individual social connectedness and the individual clientelism treatment effect.



Our second hypothesis is that collective clientelism should increase with *neighborhood-level* social density. We test this by estimating the interaction term between the collective clientelism survey treatment and neighborhood-level social density. In this case, we have a null result: the estimated interaction term is close to zero and not statistically significant. This result does not provide support for the hypothesis that collective clientelism is increasing with neighborhood-level social density. This null is robust to alternative measures of neighborhood

[10] The alternate measure of social density omits the question about disagreements in the neighborhood, and includes only the two questions about neighborhood work and neighborhood meetings. The result of using this alternate measure is that the estimated interaction term between the treatment and social connectedness is slightly smaller and noisier, and thus is no longer quite statistically significant at conventional levels.

social density.[11] Though we do not have a hypothesis about the relationship between *individual* social connectedness and exposure to *collective* clientelism separate analysis shows that the two are not related. The provides further confidence in the evidence linking individual connectedness to individual clientelism, but the mysterious null between our measure of neighborhood-level social density and the collective clientelism treatment requires further attention.

V.2 Sample survey results

Our null result on the interaction of the treatment in the list experiment with neighborhood-level social density could be the result of several factors. One is power: because the neighborhood-level social density varies only at the neighborhood level, and our standard errors are clustered by neighborhood, the number of effective observations is closer to the number of neighborhoods (160) than it is to the number of individuals surveyed (7,452). Second, our treatment text in the list experiment makes restrictive assumptions about the *form* of collective clientelism. The treatment measures whether respondents' votes are influenced by "the suggestions of your neighborhood leader because he/she has made arrangements with a political party." This assumes that the clientelistic bargain is mediated by the same person whom the respondent identifies as the neighborhood leader, and furthermore that the respondent considers the counterparty to be a *political party* per se. There is evidence of these dynamics in urban India, but neither of these assumptions are exhaustive of the possibilities of collective clientelism. It could be, for example, that the transaction is mediated by a political broker who is different from the neighborhood leader, and/or that the respondent perceives the counterparty to be an individual candidate or elected official rather than a party. While the result of our list experiment demonstrates that roughly ten percent of respondents are influenced by transactions that they identify as occurring between the neighborhood leader and a political party, this is likely an underestimate of the incidence of collective clientelism, because the latter could take place through other means than the narrow set of circumstances we specify in the list experiment.

Luckily, our survey data provides a rich set of additional data bearing on practices associated with vote banking and collective clientelism. The term "vote bank" was coined by Srinivas (1955: 31): "Each patron may be said to have a 'vote bank' which he can place at the disposal of a provincial or national party for a consideration which is not mentioned but implied." Vote banking is a relationship between parties and voters, mediated by local leaders, in which voters express support for a party in exchange for material benefits (Breeding 2011, Auerbach 2016). As such, the incidence of neighborhood-level vote banking can be proxied by the organization of a slum

[11] The alternate measure of social density omits the question about disagreements in the neighborhood, and includes the two other questions about neighborhood work and neighborhood meetings. When this alternate measure is used, the interaction term remains close to zero and not significant. Moreover, when we replace our social density metric with measures of vote banking, neighborhood leadership centrality, and fractionalization of party support, the interaction terms are likewise null.

around a central leader, and by unified support around a single political party, in addition to the self-reported incidence of vote banking.

Qualitatively, our interviews with neighborhood focus groups confirm that this conception of vote-banking is familiar to the individuals in our sample, and that neighborhood services are the main objective. The interviews emphasize neighborhood unity, support for a particular party, and coordination through local organizations. For illustrative purposes, we present focus-group responses, as paraphrased by our local enumeration teams, to the question "Why is your neighborhood an effective vote bank?" Here are some representative responses: "If we vote for the same person and win, he will provide us the government facilities." "We want to be united." "For development." "Better services." "For notification and we want to be united."[12] "They are [sic] provide facility, e.g. health and water facility." "We can receive facilities only if we vote collectively." "People here were well organized by Ambedkhar sangha [neighborhood association]." These interviews demonstrate that vote banking is understood to involve collective voting in contingent exchange for neighborhood-level services, and that coordination is a necessary ingredient.

To examine this dynamic more rigorously, we take several slices at our survey data. First, our survey instrument in the Bangalore 2015 and 2016 survey waves asked respondents to name the most important leader in their neighborhood.[13] This allows us to construct an index for each neighborhood's leadership fractionalization:

$$F = 1 - \sum_{i=1}^{n} s_i^2$$

where *F* is the fractionalization score; *n* is the number of leaders named by respondents in one neighborhood; and *s* is the proportion of respondents in the neighborhood naming each leader. The fractionalization score takes on a value from 0 to 1, with 0 corresponding to everyone in the neighborhood naming the same leader. Low values indicate that people in the neighborhood agree on the most important leader, which indicates a higher level of political coordination. High levels of political coordination by neighborhood leaders is consistent with accounts of neighborhood vote banking. At the very least, highly fragmented neighborhood leadership would seem to militate against coordinating slum-level voting.

Figure 4 shows network graphs, in which each arrow indicates a node being named as a leader, from four slums in our household sample. These graphs given some sense of the variation in leadership centrality among the slums in our sample: some slums have many respondents who do not name a leader; some have several leaders; and some have one or two dominant leaders.

[12] "Notification" refers to a status conveyed by city and/or state officials which provides residents with assurance that their settlement is legal and, therefore, qualifies for public services.
[13] Identifying and harmonizing leader names was not trivial. We, the field managers and the enumerators developed a system for harmonizing the spelling of leader names the morning after field work in each settlement.

Figure 4: Network graphs showing variation across neighborhoods in leadership centrality.

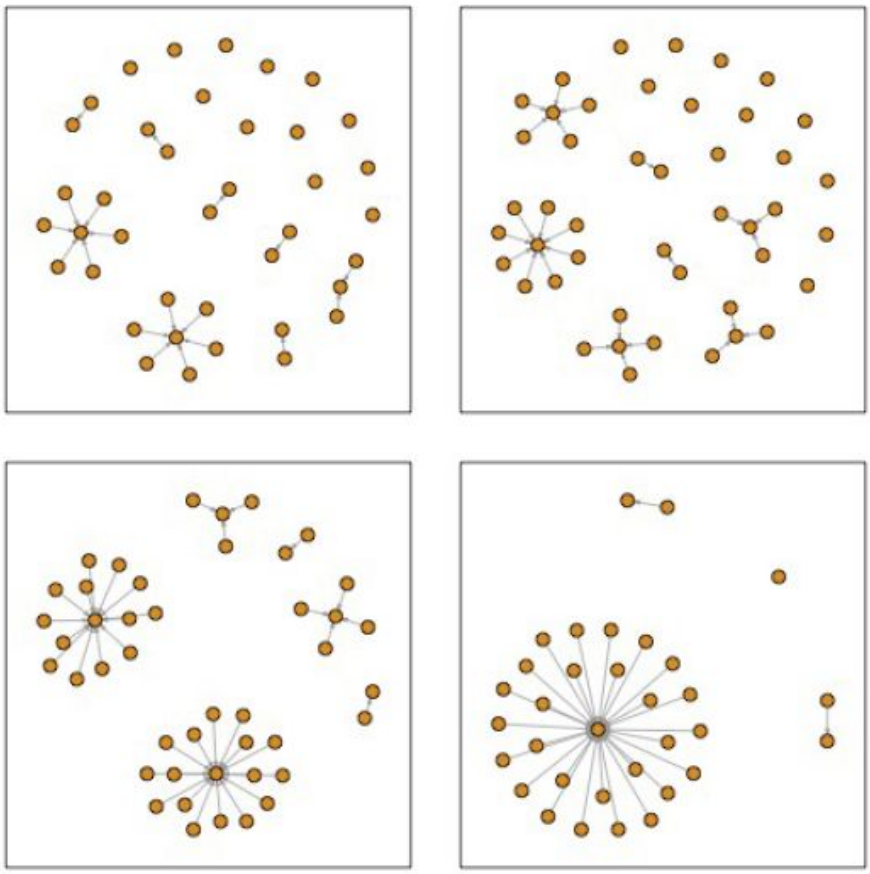


Table 3 shows the results of an OLS regression of leadership centrality on neighborhood-level social density, with the right-hand column also controlling for the average assets of the individuals in the neighborhood. These results show a significantly higher level of leadership centrality (lower fractionalization) in more socially dense neighborhoods. When the units are normalized, the coefficient in Column 2 indicates that a one-SD increase in neighborhood social density is correlated with approximately a 0.3-SD decrease in leadership fractionalization. Separate analysis confirms these results with an alternative dependent variable, namely the proportion of the respondents in the neighborhood who named the most frequently named leader.

Table 3: Leadership fractionalization and social density

	Dependent variable:	
	Leadership Fractionalization	
	(1)	(2)
Neighborhood Density	−0.201***	−0.174***
	(0.057)	(0.056)
Asset Score		−0.015***
		(0.005)
Constant	0.691***	0.858***
	(0.023)	(0.060)
City	Bangalore	Bangalore
Observations	83	83
R^2	0.132	0.220
Adjusted R^2	0.121	0.201
Residual Std. Error	0.137 (df = 81)	0.131 (df = 80)
F Statistic	12.321*** (df = 1; 81)	11.295*** (df = 2; 80)
Note:		*p<0.1; **p<0.05; ***p<0.01

In addition to local leadership centrality, we also examine the extent of shared party identification within slums. To the extent collective clientelism relies on vote banking, residents should identify with the same party. Harmonized responses could reflect the efforts of local leaders, local social norms or simply a great deal of overlap in citizen attitudes and preferences. Table 4 shows the results of an analysis based on the question “In your opinion, which party is doing good?”[14] As with the evidence above on leadership centrality, party centrality is positively and significantly correlated with neighborhood-level social density. When the units are normalized, the coefficient in Column 2 reflects that a one-SD increase in neighborhood social density is correlated with approximately a 0.25-SD decrease in party fractionalization.

[14] In the Indian context, this is the equivalent to the standard party ID question in the U.S. and beyond.

Table 4: Party fractionalization and social density

	Dependent variable:	
	Party Fractionalization	
	(1)	(2)
Neighborhood Density	0.037	−0.123***
	(0.036)	(0.043)
Asset Score		−0.005
		(0.005)
Jaipur Dummy		0.176***
		(0.035)
Patna Dummy		0.172***
		(0.040)
Constant	0.619***	0.568***
	(0.013)	(0.053)
City	All	All
Observations	167	167
R^2	0.006	0.186
Adjusted R^2	0.0001	0.166
Residual Std. Error	0.168 (df = 165)	0.154 (df = 162)
F Statistic	1.022 (df = 1; 165)	9.233*** (df = 4; 162)
Note:		*p<0.1; **p<0.05; ***p<0.01

Next, we turn to voting itself. To the extent social density contributes to the capacity of a community to coordinate politically, this should result in successful vote banking. The geography of voting precincts do not map onto neighborhoods and thus preclude an analysis of actual voting booth results. Thus, we asked respondents: “Do you think your neighborhood is an effective vote bank?” Responses to this question provide another indication of political coordination at the slum level. Table 5 shows the relationship between neighborhood-level social density and the proportion of individuals in the neighborhood who claimed it was an effective vote bank. Once again, social density is positively and significantly correlated with neighborhood-level political coordination. When the units are normalized, the coefficient in Column 2 reflects that a one-SD increase in neighborhood social density is correlated with approximately a 0.27-SD (or four-percentage-point) increase in reported vote banking.

Table 5: Vote banking and social density

	Dependent variable:	
	Proportion Claiming Vote Bank	
	(1)	(2)
Neighborhood Density	0.080***	0.124***
	(0.026)	(0.034)
Asset Score		0.002
		(0.004)
Jaipur Dummy		−0.037
		(0.027)
Patna Dummy		−0.056*
		(0.031)
Constant	0.286***	0.288***
	(0.010)	(0.041)
City	All	All
Observations	167	167
R^2	0.055	0.087
Adjusted R^2	0.049	0.065
Residual Std. Error	0.121 (df = 165)	0.120 (df = 162)
F Statistic	9.620*** (df = 1; 165)	3.883*** (df = 4; 162)
Note:		*p<0.1; **p<0.05; ***p<0.01

Finally, we consider the relationship between neighborhood political coordination, in the form of unified party support and vote banking, on the likelihood of neighborhoods being "notified". "Notification" refers to a status conveyed by city and/or state officials which provides residents with assurance that their settlement is legal and, therefore, qualifies for public services. In separate work (cite withheld), we show that notification, while nominally subject to legal definition, is in fact highly mediated by neighborhood politics. On one hand, legal definitions are amenable to alternative interpretations and shifting administrative priorities.[15] On the other hand, state and city officials who manage the process of notification suffer from an excess of demands and report that the prioritization of cases is responsive to political pressure from elected ward leaders and members of legislative assemblies.

Table 6 shows the results of regressions at the neighborhood level, where the dependent variable is whether or not the slum has been notified. Assessing notification status is not as straightforward as it sounds. Given the value of notification to residents, many politicians provide "papers" to local residents that actually have no legal status; this can generate

[15] See, for instance, p. 8 of the 1973 Karnataka Slum Act and note how open to interpretation the statute is: http://ksdb.kar.nic.in/docs/Board_Docs/Karnataka%20Slum%20Development%20Act.pdf

confusion among residents and government officials. Here with operationalize notification status as the proportion of respondents in the neighborhood who report that the slum has been notified, though separate analysis on the basis of (incomplete) government lists provides similar results. The independent variables of interest are party fractionalization and reported vote banking, respectively. These results show that neighborhoods with more unified (i.e. less fractionalized) party support, and with a higher proportion of residents reporting that the neighborhood is a vote bank, also tend to have the legal status that makes them eligible for government services. Subsequently attaining services is itself politically mediated, but official notification is an important step in receiving them.

Table 6: Neighborhood recognition, vote banking, and party fractionalization

	Dependent variable:					
	Neighborhood Recognition					
	(1)	(2)	(3)	(4)	(5)	(6)
Party Fractionalization	−0.670***	−0.638***	−0.557***			
	(0.113)	(0.120)	(0.103)			
Vote Bank				0.600***	0.590***	0.515***
				(0.163)	(0.158)	(0.135)
Asset Score			0.048***			0.050***
			(0.006)			(0.006)
Jaipur Dummy		0.038	0.005		−0.049	−0.072*
		(0.047)	(0.040)		(0.047)	(0.040)
Patna Dummy		−0.094*	0.056		−0.174***	−0.009
		(0.050)	(0.046)		(0.049)	(0.047)
Constant	0.944***	0.935***	0.389***	0.363***	0.420***	−0.078
	(0.072)	(0.072)	(0.092)	(0.050)	(0.052)	(0.077)
City	All	All	All	All	All	All
Observations	167	167	167	167	167	167
R^2	0.175	0.207	0.427	0.076	0.143	0.379
Adjusted R^2	0.170	0.192	0.413	0.071	0.127	0.364
Note:						*p<0.1; **p<0.05; ***p<0.01

All told, these results are supportive of the notion that socially dense neighborhoods are better able to coordinate their votes. Given the cross-sectional nature of our data, we are unable to investigate the relationship between vote banking and the delivery of collective clientelistic benefits, because social density likely responds to the potential gains from organization. Thus, social density and vote banking might well decline once a public toilet, connection to a water main, or slum notification are achieved. Nevertheless, our qualitative work in these cities strongly suggests that vote banking is a crucial ingredient for achieving local services.

Conclusion

Building on a massive data collection effort, we have provided evidence--both survey experimental and otherwise--for the practice of individual and collective clientelism among the urban poor in India. The practice of collective clientelism reflects the demands of the urban poor for key, neighborhood-level public goods and the prevalence of vote banking in urban slums. Collective clientelism also overcomes the observability challenge inherent in monitoring private exchanges, since parties can observe how neighborhoods vote by looking at booth-level returns. We argue that social density further ameliorates the technical challenges inherent in political exchanges because it outsources the monitoring and coordinating of voters to neighbors and their leaders. In also showing that socially central individuals are more likely to be targeted with private clientelism, we are the first to provide direct evidence on the incidence of both types of clientelism. Many scholars (e.g. Stokes 2005) underscore the exploitative aspect of the asymmetric relationship between voters and politicians. At the same time, Auyero (1999) and Nichter and Peress (2017) have drawn attention to the mutually beneficial side of clientelism. Here we have shown that clientelism is consistent with both individual exploitation and neighborhood-wide benefits.

These findings point to two challenges for future research. First, while we show evidence of a link between vote banking and slum notification, we are unable to bring the evidence all the way to public services themselves. This is challenging for several reasons. On one hand, we do not have an exhaustive census of neighborhood services, and the neighborhood services ostensibly supplied by city and state governments vary across time, city and state. Even more challenging is that vote banking is likely to be endogenous to service quality. A high level of services today might simply reflect the outcome of successful organizing in years past, and extensive vote banking today might reflect the absence of services today and a hope for getting them soon. To resolve the relationship between political coordination and neighborhood-level service provision, one would need panel data rather than the cross-sectional data at our disposal. Given the effort involved in gathering the cross-section we have, this is not a trivial challenge.

Second and relatedly, we face the very difficult challenge that bedevils most work on social networks and social capital, namely that we do not know from whence dense networks and social cooperation emerge. Do dense political leadership networks and successful vote banking emerge from some ideal, primordial social conditions early in a slum's history? Or do good leaders, i.e. successful political entrepreneurs, produce densely organized communities and vote banks by din of organizing, constituency service, and the continuous application of hard work. Considerable research on ethnic and religious heterogeneity suggests that caste- and religious-based diversity should play an important role in conditioning the capacity of local communities to engage in collective action, but in separate analysis we do not even find correlational evidence supportive of such a notion in our 160 slums. Progress on this front will require sustained analytical engagement with an emergent (mostly formal) work on leadership, sustained panel data collection on a large number of slums, and substantial sociological work reconstructing the histories of those communities. Given the growing evidence on the social nature of clientelism and its role in mediating the poor's access to government, such efforts strike us as important.

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Appendix A: Construction of Social Connectedness Metric

To test our hypothesis about the relationship between social capital and clientelism, we construct indices to measure social capital at the individual and neighborhood level. Our individual measure, which we call individual connectedness, is based on a principal component analysis (PCA) of individual responses to the three survey questions that are common across our survey waves that address social capital. They are as follows: “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?”; “How often are there serious disagreements among people who live in this neighborhood?”; and “Have you attended a community meeting in your neighborhood in the past 12 months?”

First, we drop from the analysis any individuals living in neighborhoods from whom fewer than 20 respondents were surveyed. We also drop respondents whose neighborhood is unknown, due to geolocation errors. This cleaning step reduces our sample from 7452 to 7258 observations.

We then create a social connectedness metric by performing a primary component analysis (PCA) on individual responses to the three questions listed above. The responses are scaled, so that the difference in scales across questions, and differing levels of variation in responses across questions, does not affect the result.

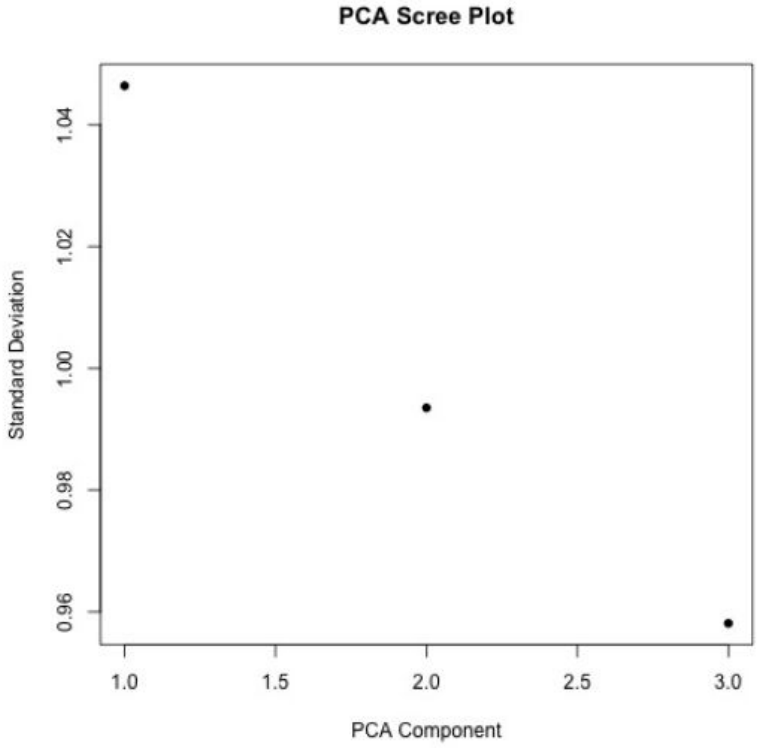
Table A1 shows the proportions of variance captured by the three components of the PCA. Based on a common rule of thumb, we retain the components corresponding to eigenvalues (square of standard deviation) higher than 1; in this case, this means retaining only the first component.

Table A1: PCA summary: importance of components.

	First	Second	Third
Standard deviation	1.046	0.9935	0.9581
Proportion of variation	0.365	0.329	0.306
Cumulative Proportion	0.365	0.694	1

Figure A1 shows a scree plot of the three PCA components.

Figure A1: Scree plot for PCA.



Appendix B: Balance Tables for List Experiment

Table B1: Balance table: Individual Clientelism Treatment

	Mean (Control)	Mean (Favors Treatment)	p
Age	39.34	39.71	0.33
Male	0.46	0.46	0.96
Assets	9.67	9.61	0.63
Education	4.21	4.27	0.61
Permanent Resident	0.74	0.72	0.15
General Caste	0.13	0.13	0.47
Hindu	0.81	0.80	0.37
Connectedness	0.01	-0.02	0.27
Neigh. Density	0	-0.02	0.02
N	2,404	2,458	

Table B2: Balance table: Collective Clientelism Treatment

	Mean (Control)	Mean (Leader Treatment)	p
Age	39.34	39.09	0.51
Male	0.46	0.47	0.56
Assets	9.67	9.76	0.45
Education	4.21	4.37	0.23
Permanent Resident	0.74	0.75	0.19
General Caste	0.13	0.13	0.81
Hindu	0.81	0.83	0.13
Connectedness	0.01	0.01	0.87
Neigh. Density	0	0	0.94
N	2,404	2,374	

Appendix C: Regression Tables from Network Data

Table C1

	Dependent variable:					
	In-degree		Out-degree		Total-degree	
	(1)	(2)	(3)	(4)	(5)	(6)
Community Work	0.217***	0.233***	0.067***	0.079***	0.284***	0.312***
	(0.077)	(0.080)	(0.012)	(0.012)	(0.078)	(0.081)
Constant	2.534***	2.305***	3.753***	3.546***	6.288***	5.851***
	(0.551)	(0.710)	(0.083)	(0.103)	(0.559)	(0.719)
Neighborhood dummies?	No	Yes	No	Yes	No	Yes
Observations	2,581	2,581	2,581	2,581	2,581	2,581
R^2	0.003	0.005	0.013	0.079	0.005	0.011
Adjusted R^2	0.003	0.002	0.012	0.076	0.005	0.008
Note:					*p<0.1; **p<0.05; ***p<0.01	

Table C1 shows that individuals who give higher responses to the question “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?” tend to have significantly higher numbers of social contacts (in-degree, out-degree, and total-degree) in our network data set.

Table C2

	Dependent variable:					
	In-degree		Out-degree		Total-degree	
	(1)	(2)	(3)	(4)	(5)	(6)
Neighborhood Disagreements	0.209	0.123	0.205***	0.146***	0.414**	0.269
	(0.199)	(0.213)	(0.030)	(0.031)	(0.202)	(0.215)
Constant	3.535***	3.454***	3.739***	3.759***	7.274***	7.213***
	(0.503)	(0.662)	(0.074)	(0.095)	(0.510)	(0.671)
Neighborhood dummies?	No	Yes	No	Yes	No	Yes
Observations	2,546	2,546	2,546	2,546	2,546	2,546
R^2	0.0004	0.002	0.019	0.071	0.002	0.006
Adjusted R^2	0.00004	−0.001	0.018	0.068	0.001	0.003
Note:						*p<0.1; **p<0.05; ***p<0.01

Table C2 shows that individuals who give higher responses to the question “How often are there serious disagreements among people who live in this neighborhood?” (where numerically higher responses correspond to more frequent disagreements) tend to have significantly higher numbers of out-degree social contacts in our network data set.

Table C3

	Dependent variable:					
	In-degree		Out-degree		Total-degree	
	(1)	(2)	(3)	(4)	(5)	(6)
Neighborhood Meeting	2.909***	2.886***	0.975***	0.727***	3.884***	3.612***
	(0.878)	(0.963)	(0.124)	(0.131)	(0.889)	(0.973)
Constant	3.893***	3.629***	4.142***	3.774***	8.036***	7.403***
	(0.230)	(0.614)	(0.032)	(0.084)	(0.233)	(0.621)
Neighborhood dummies?	No	Yes	No	Yes	No	Yes
Observations	2,359	2,359	2,359	2,359	2,359	2,359
R^2	0.005	0.006	0.026	0.093	0.008	0.013
Adjusted R^2	0.004	0.003	0.025	0.090	0.008	0.010
Note:					*p<0.1; **p<0.05; ***p<0.01	

Table C3 shows that individuals who respond affirmatively to “Have you attended a community meeting in your neighborhood in the past 12 months?” tend to have significantly higher numbers of social contacts (in-degree, out-degree, and total-degree) in our network data set.

Appendix D. Individual connectedness and individual clientelism, with controls included

Table D1: List experiment: Individual social connectedness and individual clientelism

	(1)	(2)
Individual Favors Treatment	0.093***	−0.021
	(0.024)	(0.540)
Individual Social Connectedness	−0.066***	−0.043**
	(0.021)	(0.020)
Age		0.003**
		(0.001)
Male		−0.053
		(0.035)
Assets		0.013**
		(0.005)
Education		0.005
		(0.005)
Permanent Resident		0.038
		(0.039)
Treatment * Connectedness	0.050**	0.045*
	(0.025)	(0.025)
Treatment * Age		−0.001
		(0.002)
Treatment * Male		0.028
		(0.048)
Treatment * Assets		0.007
		(0.007)
Treatment * Education		0.0001
		(0.007)
Treatment * Perm. Res.		−0.002
		(0.061)
Caste, Religion, and Language	No	Yes
N	4523	4500
Note:	*p<0.1; **p<0.05; ***p<0.01	