

Making the Right Move: How Effective Matching on the Frontlines Maintains the Market for Bribes*

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Abstract

If individuals don't like bribery but it's widespread, then *how* does bribery happen? The question of *how* people choose to engage in bribery—and what their choices imply for individuals and for the market for bribes—remains unanswered. In a novel analysis of the logic of *first moves*—how invitations to exchange bribes are extended and by whom—I reveal that, in a context where bribery is prevalent and the threat of punishment is weak, service-providers hedge their bets: first moves depend on clients' socioeconomic status. Providers are less likely to extort wealthier clients and more likely to rely on them offering. Indirect asks for bribes are weakly sensitive to client status. The analysis uses unique survey data on bribe flows in the Moroccan healthcare sector, which document solicitation strategies and capture information about givers and takers of bribes. For individuals, status-sensitive first moves create the accommodating exchange partners providers want. For the market, they mute reporting by clients, keeping bribery under principals' radar and making it sticky. The dynamics of first moves cast doubt on standard interpretations of prevalence rates and suggest analytical strategies to (re) consider existing and new policy approaches to bribery.

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Bribery impacts almost half the world's inhabitants ([Transparency International 2019, 2016](#)). Differences in the prevalence of bribery across countries has often been interpreted as differences in how culturally acceptable it is ([Barr and Serra 2010, Fisman and Miguel 2007](#)). While people in these places might say they can't get things done without bribing, they don't mean they find it acceptable. Ethnographies of places where bribery is "banalized" describe it as predatory ([Hoang 2018](#)), violent ([Gupta 2012](#)) and perverting the fabric of society ([Smith 2008](#)). If the prevailing sentiment is that bribery is bad, and the reality is that it is widespread, then *how* does bribery happen?

We have an answer for bribes that flow through thick social ties. For example, Vietnamese entrepreneurs go to great lengths to come up with "creative gift giving strategies, which are highly stressful and intensely personal, to obfuscate the exchanges in their relationships with state officials ([Hoang 2018](#))." Customizing strategies—such as gift exchange, bundling with innocuous transfers, and brokerage—requires repeat interactions ([Lomnitz 1988, Rossman 2014, Hoang 2018](#)). The chosen strategy, coupled with the forged relationship, neutralize the disagreeableness and risk of bribing.

However, the majority of bribes flow through thin social ties. Service-seekers (clients) obtain a driver's permit ([Smith 2008](#)), a land deed ([Gupta 2012](#)) or healthcare ([Vian 2008](#)). In these markets, characterized by short-term and discretionary face-to-face interactions, bribes are spot transactions. Individuals typically don't know each other and payments are primarily about sticking to or improving on existing rules (e.g. [Transparency International 2016](#)). Bribes are predominantly unsanctioned monetary transfers, rather than personalized gifts, from clients to service-providers (providers) to access services or improve their quality. The information thinness of such encounters makes it difficult for individuals to identify an accommodating exchange partner ([Schelling 2011](#)), especially since the modal bribe-giver is not violating the rules. As such, more can go wrong than right. Yet, individuals exchange bribes and rarely challenge these exchanges overtly, even though bribe-givers have good reason to do so.

How individuals manage to seamlessly complete these fraught transactions has been partially answered. To address this question, bribery is theorized in terms of expected value, where the potential reward is worth the potential cost ([Olken and Pande 2012, Becker and Stigler 1974](#)). This leads to a focus on selective targeting—individuals use social information to figure out who is receptive. In theory, this makes sense, but the little ethnographic work that exists suggests that people are quite bad at selective targeting ([Miller et al. 2001, Smith 2008, de Sardan 1999, Gupta 1995](#)). At best, they can identify a type of person who might be receptive, but variance in types is still big enough ([Irlenbusch and Villeval 2015](#)), that in expected value terms, bribery would happen significantly less frequently than it does, if at all. The question of *how* people choose to engage in spot bribe transactions—and what their choices imply for individuals and for the market for bribes—remains unanswered.

While identifying the right target is critical, figuring out the right way to engage with that target is perhaps even more so, to reduce undesirable consequences. In this paper, I argue and demonstrate that how well-matched first moves are to the socioeconomic status of the transacting parties is a decisive micro-mechanism for neutralizing conflict in spot bribe exchange. To this end, I theoretically develop “first moves”: how invitations to exchange bribes are extended and by whom. I then examine how status dynamics between providers and clients condition the choice of first moves. Socioeconomic status, as with status markers in general, captures people’s social image and the way they expect to be treated by others; violating these expectations causes conflict (Bourdieu 2013, Granovetter 2007). The “match” between first moves and status determines the expected value of moving in on the bribe action. For completeness, I look at instances of “ineffective matches,” where neutralization fails and conflict ensues.

–Insert Figure 1–

This study uses survey data on bribe exchanges in the Moroccan healthcare sector. For context, out of 36 African countries covered by Afrobarometer surveys in 2016, Morocco had one of the highest bribery rate at 47% (Figure 1a). About 10% of Moroccans who pay bribes report these payments, a reporting rate that is comparable to other countries (Figure 1b). Morocco is characterized by weak enforcement; the probability of taking action in response to reports is one of the lowest (Figure 1c). It is easy in such a context to dismiss effective matching as a concern for exchange partners. This paper demonstrates such dismissals are misguided and highlights the importance of paying attention to how bribery happens. I analyze how bribes flow between healthcare-providers (providers) and healthcare-seekers (clients) during the provision of care. These data are unique for three reasons: (1) unlike existing survey data on bribery, they contain information on who solicits a bribe first and how that solicitation is conducted; (2) they capture a sizeable number of bribe transactions, which gives us enough variation on solicitation strategy (first moves)—our main outcome of interest—to unpack and understand; (3) they have information about both providers and clients, which enables us to examine the demand and supply sides, respectively, of these transactions in the same context and establish a more complete account of the relational dynamics of these exchanges.

This study is novel in the way it theoretically develops and tests the logic of first-mover behavior in bribe exchange. It makes several contributions to our understanding of bribery. For individuals, status-sensitive first moves comprise a micro-mechanism that creates the accommodating exchange partners sought out by providers. This explains how bribery can be simultaneously distasteful, risky and scalable. For the market, status-sensitive first moves explain the low reporting rates by clients. This muting keeps bribery under the radar of principals and makes bribery sticky. Furthermore, attention to how bribery happens reveals the use-value of a new outcome: first moves. This outcome calls into question standard interpretations of prevalence rates by giving us a more textured account of bribery in a given context. It also furnishes us with analytical tools to (re) consider the effectiveness of existing policy approaches, and suggests new and more targeted ones

for addressing bribery.

Selective Targeting, First Moves and Status

Even where bribery is considered common, figuring out who to ask for or who to offer a bribe is challenging. Qualitative accounts of bribery indicate that in a given context not everyone makes a bribe payment, bribe-takers and bribe-givers are careful to be discreet, and not everyone tells the same story about how they conducted a bribe transaction or were drawn into one (Miller et al. 2001, Smith 2008, de Sardan 1999, Gupta 1995). Selective targeting based on social information is an obvious way to resolve this challenge. For example, traffic police solicit drivers for bribes based on perceived ability to pay and power to retaliate (Robinson et al. 2018, Fried et al. 2010). Similarly, Ugandan firms' ability to pay and refusal power account for the variation with which firms pay bribes (Svensson 2003). An Egyptian policeman recounts how he waits outside the state building for dispensing licenses and offers to speed up routine paperwork: "I find someone who looks like they're in a hurry to get the job done and are willing to pay for it. I have a talent for spotting such people (Saleh 2012)."

Selective targeting does not guarantee results though. A provider deals with a different person in each exchange. Even if providers' actions are conditioned on social information, asking for a bribe is still risky. Individuals need another way to open these transactions. Qualitative evidence reveals three main ways in which invitations to exchange bribes occur: direct demands (extortion), indirect demands and offers.

I classify these *first moves* into provider-initiated (extortion and indirect demands) and client-initiated (offers). To appreciate the substantive import of these different solicitation strategies for exchange outcomes, recognize that the dilemma for providers is that, once they reveal their intent, they have self-identified as bribe-takers. Individuals care about the receptivity of the target, as well as how they look to themselves and to others (Irlenbusch and Villeval 2015, Rossman 2014, Gino et al. 2011, Bénabou and Tirole 2011). For example, an Indian land-records keeper willingly comes out empty-handed from an indirect bribe negotiation with two villagers because they did not know how to give the bribe (Gupta 1995). Thus, the irreversibility of a first move is contingent on how explicit self-identification of interests is on the one hand (Schelling 2011) and, if explicit, how manageable the consequences of the revelation are on the other.

One approach is to ensure plausible deniability. Providers resort to indirect language (Pinker et al. 2008) or suggestive behavior. For example, Nigerian checkpoint police ask for money by saying "We are loyal, sir" or "I salute you" followed by an expecting look, and if the police officer finds a driver's papers are in order, he might ask to look under the hood to check the engine and chassis number (Smith 2008). The exit option afforded by the ambiguity of indirect asks allows providers to hedge their bets. They make money from clients who understand and oblige them, and no money

from those who do not, while simultaneously reducing the possibility of a scandalous confrontation from explicitly propositioning resisters. The confronted would incur reputational costs and may experience punitive consequences. I also consider the use of an intermediary as an indirect demand. While the very existence of the intermediary is an explicit articulation of bribe intent, the social distance created between bribe-givers and bribe-takers retains the plausible deniability transacting parties might care for.

Theoretically, an indirect approach is an optimal strategy. However, unconcealed bribe requests occur with a high enough frequency to warrant attention. Since a fundamental feature of spot bribe interactions is their information thinness, making a first move that is irreversible regarding intent and consequences is often a bad idea. If bribe-takers are more likely to suffer from first-mover disadvantage when they extort, it is important to identify under what circumstances they might choose to make such high-risk invitations. By extension, when clients are first-movers, providers are in their best-case scenario. Because offers unambiguously articulate a willingness to bribe, they eliminate the uncertainty of guesswork and absorb the risk of a sour encounter. Note that even when clients offer, they must also do the relevant analysis to identify and correctly engage with a receptive provider, since not all providers accept bribes (Rasul and Rogger 2018, Pinker et al. 2008, Lomnitz 1988).

To succinctly capture the analytical discussion of first-mover disadvantage from the perspective of the bribe-taker, let us rank the non-material utility uN of the different moves as: $uN_{extortion} < uN_{indirect} \leq uN_{offers}$. An example of uN is saving face—the ability of a provider to save face is smallest with extortion and greatest with offers. On the other hand, directly asking for something, rather than suggesting or waiting to be offered, is a surer strategy to make more money, so the material utility uM of the different moves is ranked as: $uM_{extortion} > uM_{indirect} > uM_{offers}$. Accounting for uM and uN at once, indirect demands should be the go-to strategy for providers who want bribes.

Notice that if selective targeting were enough to solve the identification problem, then extortion would dominate other strategies. Explicit asks will deliver the material rewards desired from $uM_{extortion}$ while netting out the social costs associated with $uN_{extortion}$. If selective targeting is not enough, then indirect asks dominate. Yet qualitative accounts indicate that indirect demands do not. As such, it is important to understand what determines when one solicitation strategy is used over another in bribe encounters, i.e., what determines the choice of the first move in these high-risk, short-lived transactions.

To do so, I consider how status dynamics between providers and clients condition the choice of first moves. Socioeconomic status signals the way individuals expect to be treated in a given context; the violation (or observance) of these expectations is tied to consequential penalties (or rewards) (Bourdieu 2013, Granovetter 2007, Lomnitz 1988). This understanding of positional social significance and its broader ramifications can be strategically leveraged in bribe exchanges. Being

relationally discerning expands the repertoire of first moves available to providers. It allows them to choose plausible deniability over the irreversible self-identification of extortion with some bribe-givers but not others, or forego a first move, leaving it up to the chance of interfacing with a “charitable” client. In this way uN of a given solicitation strategy is more adaptably and profitably defined on a case-by-case basis.

We expect to observe the following patterns in the data. The probability of extortionate advances decreases with client status and the probability of offering increases with client status. Because plausible deniability maintains an exit option for providers, it affords them a broader slice of the client pool to move in on for a bribe opportunity. As such, the probability of resorting to indirect demands, while decreasing with status, will be significantly less sensitive to client status than extortion or offers. For a solicitation strategy to effectively manage the consequences of these fraught transactions, the choice of the first move should be sensitive to social information; this is consistent with the idea that different kinds of people are associated with different kinds of risks (Schelling 2011, Gambetta 2011, Goffman 1982).

1 Empirical Strategy

1.1 Data

The survey data used in this study capture self-reported experiences with bribery during the provision of healthcare services. These data are the result of a 2010/2011 study commissioned by the Moroccan anti-corruption agency, L’Instance centrale de prévention de la corruption (ICPC). At the time, about three-quarters of clients who visited healthcare establishments on an annual basis were not repeat healthcare-seekers (Ministère de la Santé 2011).

A total of 1157 clients from five major cities were surveyed. Surveyors placed themselves in the vicinity of healthcare establishments and randomly selected passers-by for survey administration; see A.1 for text used to solicit survey participation. Surveyors did not keep track of the non-response rate of passers-by. This would have provided a rough approximation of the willingness of Moroccans to discuss corruption. Initiatives such as Transparency Maroc’s Observatoire de la corruption indicate that bribery is a topic that is discussed openly, which should mitigate response bias concerns. Furthermore, the bribe rate documented in these data is consistent with prevalence calculations using Afrobarometer surveys; see B.2 for more information.

Conditional on having sought care in a healthcare establishment within the year prior to the date of the interview, respondents were asked questions about their experience accessing healthcare services; see A.2 for the services covered. Three kinds of establishments deliver healthcare in Morocco: hospitals, community healthcare centers and clinics. Surveys were administered in French and Darija, a colloquial variety of Arabic specific to Morocco.

1.2 Outcome Variables

Bribe Exchange Respondents are asked about how they obtained healthcare services. For example, [To access a health establishment] during your last visit, did you: (1) access normally without corruption or the help of personnel; (2) engage in a corrupt exchange; (3) proceed with the assistance of an influential person: personnel of the establishment; (4) proceed with the assistance of an influential person: an authority; (5) exchange benefits-in-kind; (6) other, please specify; (7) no response. The text in brackets changes depending on the service sought. Respondents are allowed one response. I group responses into four main categories: normal access (items 1 and 6), bribe exchange (items 2 and 5), assistance from influential party (items 3 and 4), and no response (item 7). For the analyses, I recode this variable into a binary outcome, whether respondents provision healthcare services by bribing (Yes, No).

Solicitation Strategy (First Moves) Independent of whether they exchange a bribe during healthcare provision, respondents are asked: In general, how is corruption performed? Respondents are allowed up to two response choices: payment is (1) demanded by personnel directly; (2) offered by you; (3) demanded through a third party; (4) demanded in an implicit/indirect manner. I focus on the first response choice; only 9.5% (110/1157) of respondents specify a second answer. As a robustness check, I replace the first move of clients who report two solicitation strategies with their second choice. I also limit my analyses to respondents who report at least one bribe exchange during healthcare provision. The distribution of solicitation patterns reported by respondents who paid bribes for healthcare services and those who did not is similar. In light of the way the question is phrased, even if a client reports more than one bribe payment she is assigned one solicitation strategy. The estimated models account for this, as I describe below.

1.3 Explanatory Variables

Status of Client I focus on the effects of key socioeconomic characteristics which capture client status: monthly household income, level of education achieved, whether they use influential contacts to obtain care, and whether the client is a poverty certificate carrier.

- Monthly household income is composed of five income brackets (in Moroccan dirhams, where 10 dirhams \approx 1 USD) : $x < 5K$, $5K \leq x < 10K$, $10K \leq x < 15K$, $15K \leq x < 20K$, $x \geq 20K$, and no response (8.38% of respondent sample). For a more interpretable income effect, I transform the categorical specification into a continuous one by calculating the midpoint for the close-ended income intervals and performing a Pareto transformation to calculate the midpoint of the open-ended interval (Hout 2004). The average monthly household income for this sample is 5,737 (SD 6,297) dirhams. I standardize this variable for the regression analyses (Gelman 2008). For a more accurate effect of income in the absence of size of dependents, I use years of age and marital status as controls in the multivariate models.

- Education is composed of seven levels: none, primary, secondary, baccalauréat or equivalent, baccalauréat +2, baccalauréat +3 (bachelor degree), baccalauréat +4/5 or more (graduate degree), and no response (2.59% of respondent sample). I recode the categorical specification in terms of the number of years of education. The average years of education is 10.8 (SD 5.8) years. I also standardize this variable for the regression analyses (Gelman 2008).

The income and education levels of respondents in this survey sample are comparable to national figures at the time (Haut-Commissariat Au Plan 2009).

- A beneficiary may have accessed one service normally but used connections for another, or may have bribed in one service and used connections in another. Respondents who indicate assistance from an influential authority outside the establishment or from personnel inside the healthcare establishment are coded as “Yes,” otherwise they are assigned a “No.” This variable is derived from the same question the bribe exchange outcome variable is derived from (described above). About 7% (83/1157) of clients resort to connections to obtain care.
- The poverty certificate targets households falling below a certain poverty threshold and helps them access public healthcare services at reduced fees. At the time these data were collected, poverty certificate issuance required that beneficiaries visit officials in their municipality and the Ministry of Interior. About 28% (314/1157) of clients are poverty certificate carriers. About 36% (112/314) of carriers in the data paid bribes to obtain their certificate; the analyses account for this.

Table C1 presents descriptive statistics for the respondent sample. Table C2 presents the pairwise correlations between the status variables.

Status of Provider Unique to this dataset is the ability to examine to whom bribes flowed. The occupational category of healthcare workers not only organizes the delivery of care, but also structures the nature of social interactions between healthcare-providers and healthcare-seekers in status-sensitive ways (King and Nembhard 2016, Abbott 2014). Clients are asked to indicate with whom they exchanged a bribe: doctor, nurse, support agent, security agent, other, and no response. This list expresses a decreasing status gradient, moving from doctors (highest) to security agents (lowest).

1.4 Estimation Models

For the analysis of selective targeting (Section 2.2), I estimate logit regression models that predict the probability of exchanging a bribe during healthcare provision. Since clients can exchange more than one bribe throughout their care path, this model captures the probability of making at least one bribe payment, controlling for the number of services sought by the client.

For the analysis of how status conditions first moves (Section 2.3), due to the discrete and unordered nature of first moves, I estimate a multinomial logit model which predicts the log-odds of a given

solicitation strategy as a function of client status. I recode solicitation strategy into three categories because of the few reports of third-party use by respondents. I collapse indirect demand and third-party use into a single category, which results in the outcome categories extortion, indirect demand and offer. An analysis excluding clients who resorted to intermediaries gives similar results. About half of clients who pay bribes make more than one bribe payment, therefore I cluster the standard errors by client. To account for the fact that clients who make more than one bribe payment are assigned one solicitation strategy, I incorporate two controls for robustness. One control variable captures the total number of bribe payments made by a client throughout her care path. The second control variable captures the variability in the occupational status of providers bribed by a client. For this, I construct a status variability score in which the higher the score the greater the status difference in providers bribed. Approximately 70% of clients have no variability in the occupational status of providers they bribed, either because they made only one bribe payment or bribed the same provider types. The full suite of models estimated for this analysis is documented in [Table D1](#).

2 Results

2.1 How Bribes Flow: Variety in Practice

About 46% of clients make at least one bribe payment during services provision. The average number of services sought per client is 4.69 (SD 1.71). Clients make an average of 1.94 (SD 1.13) bribe payments. They pay on average 412 (SD 750) Moroccan dirhams in bribes, which is equivalent to about 12% of clients' monthly household income (unadjusted for household size). [Table A1](#) summarizes reasons for bribing.

–Insert Table 1–

Table 1 gives the distribution of first moves, conditional on paying bribes. About two-thirds of first moves are provider-initiated. The demand-side (providers) for bribes is a significantly stronger push factor compared to the supply-side (clients). A little less than a third of clients are extorted, another third are indirectly asked, and about a quarter offered bribes.¹ Examples of extortion are “scratch your pocket,” “don’t you have anything to give?” or “put something in my pocket;” indirect demands include “I need someone to help me too” in response to a client’s request for help, “your eye is your balance,” “the issue is in your hands,” “coffee,” or “sweets.” Examples of offers include “I told her to approach and slipped the money discreetly in her pocket” or “I told her to look under the pillow.” Intermediaries are rarely used. Even in a country where enforcement is considered weak and where the discourse about corruption is focused on its banalization ([Abouddrar 2014](#), [ICPC 2011](#)), a large portion of providers hedge their bets in these interactions by maintaining plausible deniability and relying on offers. While punishment may not be a credible threat, the disapproval of others and avoiding defining oneself as corrupt—concerns that correspond to social and self-reputation,

respectively—are barriers to complete impunity. These are barriers that have been documented in other distasteful transactions (Rossman 2014, Gino et al. 2011, Bénabou and Tirole 2011, Anteby 2010).

It is noteworthy that hedging bets not only reduces the chances of an unfavorable outcome but is more profitable per exchange. The average bribe size is 164 (SD 401), 225 (SD 507) and 269 (SD 502) dirhams for extortion, indirect demand and offering, respectively.²

2.2 Selective Targeting

To examine who pays bribes, let us turn to Model 3 in Table 2. First, income captures two countervailing effects: clients’ ability to pay and their power to effectively exact retribution through institutional and non-institutional channels (Robinson et al. 2018, Fried et al. 2010). The statistically significant negative coefficient on the squared income term captures these countervailing effects. This indicates the presence of an inflection point, below which the returns from targeting wealthier clients are positive as their ability to pay increases. Above this point, the returns from targeting wealthier clients are negative as their power and ability to exact retribution becomes a greater concern for providers. This tradeoff between what counts as a valuable versus risky target has been replicated in other studies (Robinson et al. 2018, Fried et al. 2010, Svensson 2003). Education, on the other hand, is not statistically significant.

Second, if clients can avoid paying bribes they do. For example, they rely on influential connections. Those who resort to connections during service provision are significantly less likely to pay bribes. This translates to a 0.23 (CI: 0.14, 0.32) probability of paying bribes for clients with contacts versus 0.48 (CI: 0.45, 0.51) for those without connections. Third, the poverty certificate captures the tail end of the socioeconomic status spectrum. Since over a third of poverty certificate carriers paid bribes to obtain their certificate, it also gives us a window into how the quality of prior experience with state institutions shapes future interactions. Clients who obtained their poverty certificates by bribing exhibit a 0.76 (CI: 0.67, 0.85) probability of bribing when seeking healthcare. Contrast this to 0.33 (CI: 0.23, 0.43) for those who did not bribe to get their certificate and 0.44 (CI: 0.41, 0.48) for non-carriers. This finding suggests that strategic choices are learned choices from experience.³

–Insert Table 2–

2.3 First Moves and Status Dynamics

How does client socioeconomic status determine the choice of a first move? Figure 2, which is based off of the multinomial logit estimates of Model 4 in Table D1, gives the predicted probability of a given solicitation strategy as a function of client income, conditional on paying bribes during healthcare provision. The patterns are consistent with predictions.

The probability of extorting drops precipitously from 0.66 (CI: 0.32, 0.99) at an income level of one standard deviation below the mean to 0.10 (CI: 0.03, 0.18) at one standard deviation above the mean, stabilizing thereafter. Indirect demand is weakly sensitive to client status, consistent with the ability to exploit plausible deniability. The probability of resorting to indirect asks modestly drops from 0.43 (0.18, 0.68) at an income level of one standard deviation below the mean to 0.37 (0.25, 0.48) at one standard deviation above the mean, stabilizing thereafter. The likelihood of offers by clients increases substantially from 0.06 (0.00, 0.12) at one standard deviation below the mean to 0.48 (0.35, 0.60) at an income level of one standard deviation above the mean, stabilizing thereafter.

–Insert Figure 2–

Effective matches are a two-sided affair. Out of the 1028 instances of bribe exchange (recall it is possible for a client to make more than one bribe payment), 15.86% is attributable to doctors, 63.04% to nurses, 7.10% to support agents, 9.63% to security agents, and 4.37% to other/no response. The lion’s share of bribes flows to physicians and nurses, the workers with the specialized skills and qualifications to offer healthcare services. Clients are most willing to exchange bribes with doctors, presumably the healthcare workers they believe deliver the most value: doctors are significantly more likely to be offered bribes compared to nurses, while support and security agents are significantly less likely to be offered bribes than nurses (see [Table D2](#)). This sensitivity to provider status is consistent with the price discrimination observed regarding bribe size, which increases with provider status, starting at an average bribe of 27 dirhams for security agents and ending at an average 415 dirhams for doctors (see [Figure D1](#)).

2.4 Ineffective Matches

I find that status conditions the choice of first moves. This strategic work reinforces the risk-reward tradeoff logic of selective targeting. For completeness, I now examine “ineffective matches” by looking at instances of bribery that were reported to the authorities by clients. When a mismatch between the choice of the first move and client status occurs, some form of confrontation is expected to ensue.

Out of 1157 respondents, a mere 1.12% filed a formal complaint, including clients who paid bribes and those who did not. By considering first moves, it is possible to make sense of the low reporting rates.⁴ If about a quarter of solicitations are client offers, then the probability of confrontation is reduced by a quarter. If roughly a third of bribes are indirect demands, then plausible deniability leads to a commensurate reduction in conflict. Finally, if extortion constitutes almost a third of bribe asks, then almost a third of all bribe interactions carry serious potential for conflict. Once factored into the impact of effective matches, the proportion of bribe interactions that results in reporting (and confrontation more generally) is reduced further. I find clients who reported bribe attempts

were predominantly extorted (69%), highly educated (69% with at least a bachelor’s degree) and well-off (85% with a monthly household income of at least 5,000 drihams); see [Table D3](#).

3 Discussion

Individuals who want to engage in spot bribe exchange need to identify and engage with each other effectively. They face a heightened identification problem because of the impersonal and short-term features of their encounters. These individuals do not have the luxury of thick social ties that furnish them with better information and absorb the risk of mishaps ([Hoang 2018](#), [Rossman 2014](#), [Lomnitz 1988](#)). The status-sensitive deployment of first moves is a critical micro-mechanism that creates the accommodating exchange partner they need.

Consistent with prior research, I find that providers selectively target clients by weighing the tradeoff between their riskiness and ability-to-pay. The novelty of this study’s results lies in the theorization and analysis of first moves and how the status of individuals conditions first-mover behavior. I find the choice of a first move depends on client status: extortion is negatively correlated with client status and offers are positively correlated with client status, while indirect demands are significantly less status sensitive. The status sensitivity of first moves absorbs the residual risk from selective targeting to effectively shape and manage exchange outcomes. I find that reported bribery attempts are associated with ineffective matches in which there occurs a mismatch between the choice of the first move and client status.

Morocco suffers from weak institutions (World Bank Governance Indicators 2010, 2016) and human capital shortages in its healthcare sector ([Ministère de la Santé 2011, 2012](#)), a combination which is often theorized as encouraging impunity in behavior. Yet exchange partners are careful despite the low credibility in the threat of punishment. At a bribe exchange probability of roughly 1-in-2, the institutional context should absorb the risk of misbehavior since institutions establish the rules and expectations of recurrent behavior ([Viterna and Robertson 2015](#), [North 1991](#)). However, exercising strategic choice in first moves indicates that providers do not have carte blanche to receive bribes. This is important for two reasons.

First, culture and institutions reinforce each other ([Viterna and Robertson 2015](#), [Alesina and Giuliano 2015](#), [Fisman and Miguel 2007](#)); as such, in equilibrium, their effects should move in the same direction. Yet the strategic logic of status-sensitive first moves in a high prevalence-low enforcement setting indicates otherwise. This suggests that focusing on the micro-mechanisms that undergird bribe exchanges can be a fruitful way to detect the (de) coupling or tension between cultural and institutional factors that shape them. For example, the prevalence of bribery may be treated as a proxy for the rules and expectations of recurrent behavior (i.e. the extent of institutional rootedness) and the pronouncedness of strategic behavior as an expression of the degree to which these transactions have graduated outside the realm of disreputability (i.e. the extent of

cultural rootedness).

Second, the salience of strategic behavior in a low enforcement setting indicates that individuals, and in particular providers, care about the social consequences should their actions be exposed; “[I]f punishment was merely the price tag attached to crime, nobody would feel ashamed when caught (Elster 1989: 105).” The fact that actors care about the social consequences of their actions is good news because it means that policymakers have more levers at their disposal to address bribery. Recent work leverages reputational concerns among healthcare-providers inside hospitals to reduce bribery (Dakhllallah 2021). Interestingly, it also means that anti-corruption awareness campaigns overestimate the extent to which people find bribery acceptable, and are often preaching to the choir.

The status-sensitive deployment of first moves gives us a compelling explanation for why bribe markets are sticky. Since bribery is typically not accessible to third-party observers, reporting by clients plays an important role in mitigating the opacity around this practice. Their voices are an important source of information on which authorities take action (Becker and Stigler 1974, Olken and Pande 2012, Bergemann 2017). For example, policy initiatives introduce devices that facilitate reporting such as corruption hotlines and provider name tags (ICPC 2011). The strategic logic of effective matches neutralizes conflict and explains the low take-up rate of reporting by clients. A hospital director recounts that when he first began his position at his hospital, he knew that bribes were exchanged during service provision and it bothered him, but during his time as director not one patient came forward to complain (field conversations). The fact that news of a bribe payment does not get past the point of exchange reinforces the stickiness of bribery; as such, the status sensitivity of first moves maintains the market for bribes. Furthermore, locating the problem of sustaining bribery at the level of individual interactions reveals that, while bribe extraction networks may exist in some settings (Shleifer and Vishny 1993, Wade 1982), explicit collusion among providers is not necessary to maintain bribe markets. The decentralized mechanism of mitigating risk one interaction at a time by being mindful of how bribe-givers are engaged with is sufficient.

This paper shows how strategic interpersonal dynamics mute reporting in a low enforcement setting. These effects should replicate, and perhaps in a stronger fashion in higher enforcement environments, where confronted individuals would suffer both the reputational and punitive costs of their actions. Furthermore, if muting happens across prevalence environments, sense can now be made of what at first blush is a puzzling observation, that reporting is uncorrelated with prevalence levels (Figure 1b, where $r = 0.14$, $p\text{-value} = 0.19$). Effective matches generate the independent relationship between prevalence and reporting rates.

Policy levers currently deployed to curtail bribery are blunt at best (Fisman and Golden 2017, Mungiu-Pippidi 2015, Olken and Pande 2012). Salvaging reform efforts to improve organizational capabilities requires prioritizing an understanding of the context-specificity of what needs to be reformed to create customized local solutions (Andrews et al. 2017, Viterna and Robertson 2015,

[Schrank 2015](#), [Tendler et al. 1997](#), [Hirschman 2014](#)). This cautions us against the tendency to locate enabling and sustaining factors of bribery in “container” concepts such as culture, institutions and governance that defy precise corrective policies. Container concepts ignore heterogeneity. As such, existing strategies for making sense of bribery do not focus attention on micro-level variation in these transactions. First moves give us a concrete and analytically tractable engagement with context to generate more precise policy interventions. Consider the following two examples.

First, consider the claim that bribe offers by clients capture their willingness to exchange bribes. This suggests that at an aggregate level, the proportion of first moves that are client-initiated is one way to capture social approval of bribery. Theoretically speaking, internalized compliance with a social practice should cut across segments of society. It should not be sensitive to enabling factors such as income, yet it is (Figure 2). To make an argument about a socially accepted practice, offers should be independent of socioeconomic status. The flip-side of this argument is that bribes should not be forced out of clients either, and especially not in a status-sensitive way, as found (Figure 2). Paying attention to how bribery happens is a way to establish whether bribery is culturally-driven behavior or not.

Now, consider the following thought experiment. You are a policy analyst whose task is to recommend possible interventions to reduce bribery. You are presented with two countries, A and B, in which half of clients report bribe exchange during service provision. In A, 70% of exchanges are initiated by providers compared to 20% in B which are initiated by clients. Should you approach bribery in the same way in countries A and B? You are most likely to say no. In reflecting on why you think they are different, you might say that bribery in A appears to be more coercive on average than in B. You might then argue that clients in B appear to disapprove less of bribery than clients in A since they overwhelmingly offer bribes. As such, you might recommend a targeted intervention with providers in A and with clients in B. Suppose you are given more information: three-quarters of provider-initiated exchanges reported in A are based on extortion and one-quarter is due to indirect demands. Contrast this to another state of the world for A, call it A', where the reverse pattern is observed. If you agree that extortion is a solicitation strategy that is more conducive to conflict, you conclude that providers in A enjoy significantly more impunity compared to those in A'. In an attempt to come up with the appropriate intervention in targeting providers, you might want to resolve the first-order issue of trying to understand what it is about the state apparatus or state-society relations that is causing this impunity in A compared to A' which is, in effect, making it costless for providers to extract bribes in such an emboldened manner.

Notice that the simple conceptual exercise of varying the distribution of solicitation strategies gears us toward not only different interpretations of but also different loci of investigation of and intervention in the bribery equilibrium presented. In the absence of the thick descriptive detail that direct observation and ethnographies give us, the distributions and relational dynamics of first moves can be leveraged towards more meaningful cross-context comparisons in lieu of only relying

on prevalence rates. From the outset, they allow us to make comparative statements without assuming cultural or institutional underpinnings for a prevalence rate; rather these “containers” become analysis endpoints.

4 Limitations

This study has several limitations, all of which suggest directions for future research. First, these data give us a unique opportunity to systematically explore the promise of expanding the set of bribery outcomes to first moves and examine what conditions first-mover behavior. A better version of these data would have collected solicitation patterns at the level of the transacting pair, rather than at the respondent-level, since clients make multiple bribe payments. I attempted to mitigate this data limitation through robustness analyses and controls where appropriate. Another limitation of these data—and this is a more general problem in data collection efforts on bribery—is the absence of attempted but unrealized exchanges. This would generate a more complete analysis of relational dynamics in these transactions. Thus, if strategic deployment of first moves is critical to alleviate unpalatability, the observed patterns should hold for both realized and unrealized advances. The worst possible outcome is to be refused and confronted. Third, I do not make causal arguments that link certain distributions of first moves to certain prevalence rates, nor about how certain distributions may make bribery more or less sticky. These are exciting new areas for research that carry implications for how policy efforts may be directed and designed. They reinforce the importance of making first moves and data at the level of transacting pairs routine features of data collected on bribery across contexts. The Afrobarometer and Transparency International’s Global Corruption Barometer are existing platforms that could initially support experimenting with the integration of these data features.

Notes

¹Replacing the first move of clients who report two solicitation strategies with their second choice delivers a slightly different but comparable distribution to what is presented in Table 1: extortion 19.39%, dyadic indirect 39.55%, third party indirect 1.69%, and offers 28.25%. The substantive conclusions drawn remain the same.

²Income and geographic controls do not change these estimates much. While indirect demands and offers are more profitable per exchange, establishing that indirect demands and offers are more profitable overall would require an estimate of unrealized attempts associated with each kind of solicitation strategy. Solicitation data for unrealized attempts are not available.

³This is also consistent with the finding that poverty certificate carriers who bribed to obtain their certificate are more likely to *offer* bribes during healthcare provision compared to non-carriers; see [Table D1](#). However, the possibility cannot be ruled out that the subset of poverty certificate holders who bribed to get their certificate have a higher propensity to bribe compared to those who did not.

⁴Reporting is one form of retribution. The existence of alternative informal forms of retribution, e.g. shaming, is also sure to provide a partial explanation for the low reporting rates observed.

TABLES

Table 1: Bribe exchange: prevalence and distribution of first moves

Outcome	Clients
Paid at Least One Bribe	45.89% (531/1157)
Solicitation Strategy	
1. Provider-Initiated	
a. Direct Demand (Extortion)	28.63% (152/531)
b. Indirect Demand	
.Dyadic	33.15% (176/531)
.Third-party Use	1.69% (9/531)
2. Client-Initiated (Offer)	26.18% (139/531)
No Response	10.36% (55/531)

Data Source: ICPC Survey, Morocco.

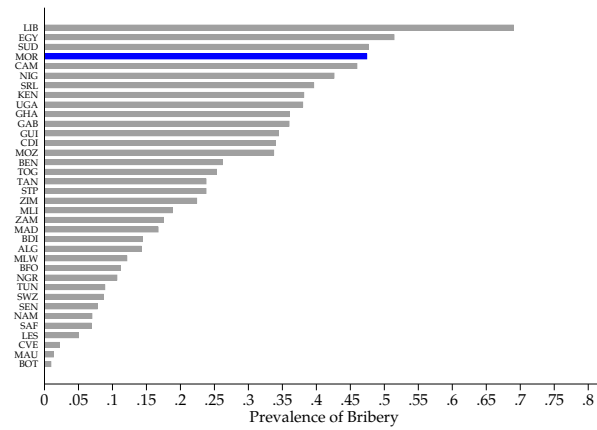
Table 2: Logit models predicting who pays bribes during healthcare services provision

	(1)	(2)	(3)
Education (SD Units)	0.232 (0.937)	0.275 (1.108)	0.202 (0.771)
Education Squared	-0.072 (-0.212)	-0.070 (-0.207)	-0.017 (-0.047)
Income (SD Units)	0.542 (1.505)	0.568 (1.573)	0.599 (1.591)
Income Squared	-0.407** (-2.436)	-0.411** (-2.456)	-0.430** (-2.494)
Used Connections	-1.367*** (-4.522)	-1.337*** (-4.423)	-1.412*** (-4.477)
Poverty Certificate (PC)		0.379** (2.179)	
Bribed for PC			1.636*** (5.475)
Did not bribe for PC			-0.553* (-1.956)
Controls	Suppressed	Suppressed	Suppressed
Constant	-0.099 (-0.229)	-0.192 (-0.440)	-0.686 (-1.433)
Observations	971	971	903
χ^2 (df)	156.189 (16)	160.977 (17)	196.085 (18)

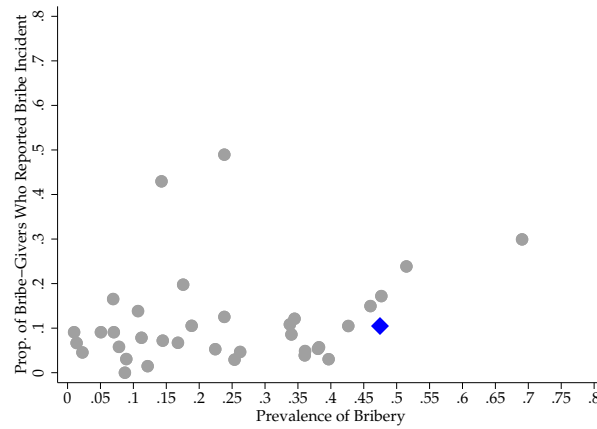
t statistics in parentheses. P-values: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Coefficients in log-odds form. Controls: number of services sought, marital status, years of age, medical coverage, city, urbanicity, and establishment type. The difference in number of observations across models is due to non-responses on whether the poverty certificate was obtained by bribing. Reference categories: unmarried, hospital, not poverty certificate carrier, no medical coverage, Rabat and rural. Data Source: ICPC Survey, Morocco.

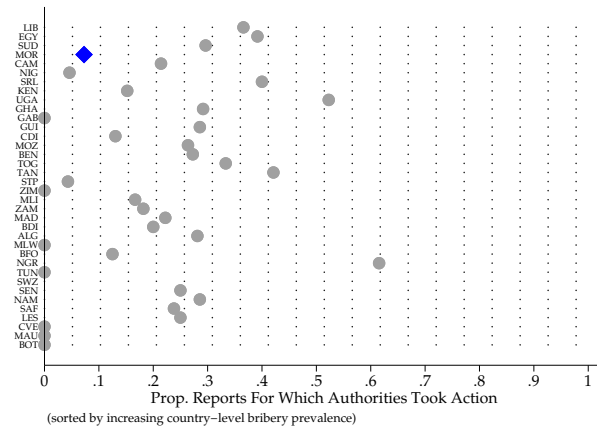
FIGURES



(a)



(b)



(c)

Figure 1: (a) Proportion of respondents surveyed who paid bribes in at least one of six public sectors across 36 African countries, conditional on being in contact with the sector(s) within the past year of the interview; (b) Proportion of bribe-payers who reported their bribe payments to an authority over the country-level prevalence rate; (c) Proportion of reports for which authorities took action, sorted by increasing country-level prevalence. Morocco is in blue; see B.1 for more information. Data Source: Afrobarometer Round 6, 2016.

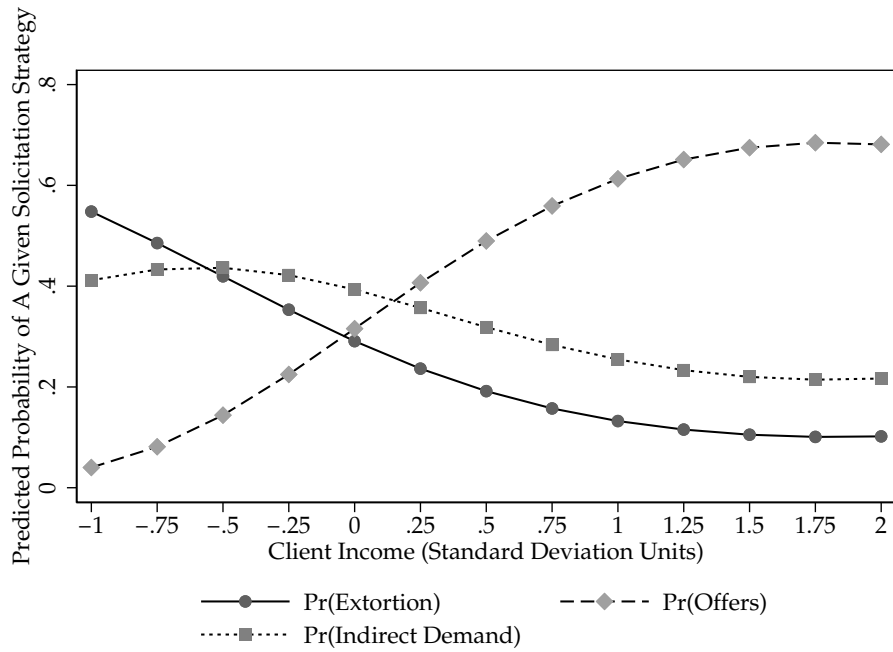


Figure 2: Predicted probabilities of a given solicitation strategy over income level of client, conditional on paying bribes during healthcare provision. Probabilities are derived from the multinomial logit estimates of [Model 4](#) in [Table D1](#). Data Source: ICPC Survey, Morocco.

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Appendices

A Materials

A.1 Solicitation Text Used to Recruit Respondents for Survey

The original text in French reads as:

“Bonjour Monsieur/Madame,

Je suis [nom de l’enquêteur]. Nous sommes mandaté par l’ICPC pour lancer une étude sur le phénomène de la corruption dans le secteur de la santé. Les résultats de cette étude permettront d’émettre les recommandations pour éradiquer ce fléau dans les établissements de santé et par conséquent garantir aux citoyens la disponibilité et la qualité des services de santé dans un cadre d’équité et de transparence.

Compte tenu de l’importance du sujet, permettez-moi de solliciter un peu de votre temps et votre précieuse coopération qui sont plus que nécessaires pour le succès de l’enquête.”

The translated text reads as:

“Good day Sir/Madam,

My name is [surveyor name]. We are mandated by the ICPC to launch a study on the phenomenon of corruption in the healthcare sector. The results of this study will allow us to make recommendations to eradicate this scourge in healthcare establishments and as a consequence guarantee citizens the availability and quality of healthcare services in a framework of equity and transparency.

Given the importance of the subject, permit me to ask for some of your time and your valuable cooperation which are more than necessary for the success of this study.”

A.2 Kinds of Services Covered in Survey

The survey asks about clients’ (i.e., healthcare-seekers’) experiences in eleven kinds of services: access, information and orientation, emergency services, non-urgent specialized consultations, laboratory analysis and radiology, medications, hospitalization, operations planning, operations equipment, blood transfusion, and payment. Different clients have different combinations of services in their care path.

A.3 Reasons for Resorting to Bribe Exchange

See Table A1 on the next page.

Table A1: Reasons cited by respondents for bribing during healthcare services provision. Frequencies correspond to number of respondents. Percentages sum to 100 for each service.

Reasons	Frequency	%
Information and Orientation		
To have information	33	42.31
To be better oriented and accompanied	41	52.56
To avoid the queue	4	5.13
To have supplementary information	0	0.00
Other	0	0.00
Emergency Services		
To avoid the queue	98	48.51
To be seen by a physician	59	29.21
To have an accelerated appointment	33	16.34
To be privileged in the choice of physician	7	3.47
To bypass being transferred to a closer establishment	0	0.00
Other	5	2.48
Non-Urgent Consultations		
To obtain a prescription for supplementary medication for reimbursement	2	2.82
To have a certificate	45	63.38
To have a certificate to use falsely	24	33.80
To be privileged in the choice of physician	0	0.00
Radiology and Analysis		
To have the results in time	34	52.31
To avoid the queue	21	32.31
To not do it elsewhere and more expensively	9	13.85
To have supplementary analyses conducted	0	0.00
Other	1	1.54
Medications		
To obtain free medication	40	86.96
To obtain more medication than prescribed	5	10.87
To avoid the wait for medication that need to be prepared	0	0.00
Other	1	2.17
Hospitalization		
To have a bed	38	24.52
To have a supplementary bed to accompany a patient	28	18.06
To have a higher quality bed, covers etc	34	21.94
To have an individually occupied room	7	4.52
To have food	2	1.29
To have supplementary food for a person accompanying a patient	6	3.87
To have better quality and/or more food	6	3.87
Other	34	21.94
Operations Planning		
To have a date	12	14.63
To have a closer date	48	58.54
To have a physician of your choice	5	6.10
Other	17	20.73

Data Source: ICPC Survey, Morocco

Notes: Surveyors did not ask for reasons for every service which is why the total of this table is less than the total of bribe exchanges reported.

B Afrobarometer Data

The Afrobarometer is a pan-African research institution, established in 1999, that conducts public attitude surveys on social, political and economic issues across African countries on a regular basis. More information can be found here: <https://www.afrobarometer.org/about>. National probability samples are used to ensure that survey respondents are representative of all citizens of voting age in a country.

B.1 Calculations for Figure 1

Figure 1 is derived from Round 6 of the Afrobarometer which was published in 2016.

Figure 1a is derived from the following questions : “And how often, if ever, did you have to pay a bribe, give a gift, or do a favour for a:

- teacher or school official in order to get the services you needed from the schools? (*Question Q55B*)
- health worker or clinic or hospital staff in order to get the medical care you needed? (*Question Q55D*)
- government official in order to get the document you needed [for document or permit]? (*Question Q55F*)
- government official in order to get the document you needed [for water, sanitation or electric services]? (*Question Q55H*)
- police officer in order to get the assistance you needed, or to avoid a problem like passing a checkpoint or avoiding a fine or arrest? (*Question Q55J*)
- judge or court official in order to get the assistance you needed from the courts?" (*Question Q55L*)

To calculate the country-level prevalence rates, I divide the number of respondents who reported paying bribes in any of the six public sectors—education, healthcare, permits, utilities (i.e., water, sanitation and electricity), police, and courts—by the number of respondents who reported having contact with the sectors.

Figure 1b is derived from the question: “If you ever paid a bribe for any of the services discussed above [Q55B, Q55D, Q55F, Q55H, Q55J or Q55L], did you report any of the incidents you mentioned to a government official or someone in authority? (*Question Q56*).” To calculate the proportion who reported bribe payments, I divide the number of respondents who reported the incidents by the number of respondents who paid bribes.

Figure 1c is derived from the question: “Which of the following happened the most recent time that you reported a bribery incident? Authorities took action against the government officials involved (*Question Q57A*).” To calculate the proportion of reports for which authorities took action, I divide the number of respondents who indicated that authorities took action by the number of respondents who reported the incidents.

B.2 Comparing bribe rates during healthcare provision between the ICPC and Afrobarometer data

I compare bribe rates between the ICPC survey data and two rounds of the Afrobarometer surveys, Round 6 (R6, Moroccans were surveyed in 2015) and Round 5 (R5, Moroccans were surveyed in 2013).

The bribery question in R5 is worded slightly differently from R6 (see Q55D above). In R5, respondents are asked “In the past year, how often, if ever, have you had to pay a bribe, give a gift, or do a favor to government officials in order to: Get treatment at a local health clinic or hospital?” (*Question Q61C*).

To calculate the bribe rates for healthcare from Q55D-R6 and Q61C-R5, I divide the number of respondents who report making at least one bribe payment during healthcare provision by the number of respondents who made contact with the healthcare sector. In 2013, 57% of Moroccans who sought healthcare reported making at least one bribe payment, compared to 38% of Moroccans in 2016. In the ICPC survey data, I find that about 46% of clients who sought healthcare services in 2010/2011 made at least one bribe payment (see Table 1 in main text)—a prevalence rate that falls within the range revealed by the Afrobarometer surveys for Morocco.

C Descriptive Statistics of Sample

Table C1: Descriptive statistics for explanatory and control variables

Variables	% or Mean (SD)	Frequency
Explanatory Variables		
Monthly Household Income (in Moroccan dirhams)	5,737 (6,297)	1060
Education (in Years)	10.8 (5.8)	1127
Poverty Certificate Carriers (% Respondents)	27.79	314
Poverty Certificate Obtained by Bribing (% Poverty Certificate Carriers)		
	Yes	35.67
	No Response	26.75
Used Connections (% Respondents)	7.17	83
Control Variables		
No. of Services Sought Per Respondent	4.68 (1.73)	1157
Age (in Years)	35.7 (12)	1150
Female (% Respondents)	42.35	490
Married (% Respondents)	64.86	716
Medical Coverage (% Respondents)	41.83	484
Establishment Type (% Respondents)		
	Hospital (Public)	71.05
	Community Health Center (Public)	10.80
	Clinic (Private or Semi-Private)	18.15
Urban Residence (% Respondents)	93.09	1077
City of Residence (% Respondents)		
	Rabat	27.05
	Casablanca	29.73
	Tangier	16.77
	Marrakech	15.99
	Oujda	10.46
No. of Respondents		1157

Data Source: ICPC Survey, Morocco

Table C2: Pairwise correlations between client status variables

	Income	Education	Poverty Certificate	Used Connections
Income	1			
Education	0.352***	1		
Poverty Certificate	-0.205***	-0.289***	1	
Used Connections	0.0522	0.0562	-0.0125	1

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Note Standardized income and education variables used for the pairwise correlations

D Analyses

D.1 First Moves and Client Status

See Table D1 below, which is the basis for results depicted in Figure 2 of the main text.

Table D1: Multinomial logit model predicting solicitation strategy by client status

Base Outcome: Indirect Demand	(1)		(2)		(3)		(4)	
	Extortion	Offers	Extortion	Offers	Extortion	Offers	Extortion	Offers
Education (SD Units)	0.141 (0.416)	-0.453 (-1.204)	0.144 (0.395)	-0.541 (-1.347)	0.171 (0.467)	-0.527 (-1.312)	0.206 (0.556)	-0.517 (-1.283)
Income (SD Units)	-0.598 (-0.941)	1.806*** (2.809)	-0.556 (-0.865)	1.909*** (2.924)	-0.555 (-0.856)	1.928*** (2.942)	-0.559 (-0.860)	1.931*** (2.936)
Income Squared	0.125 (0.382)	-0.542* (-1.778)	0.144 (0.440)	-0.525* (-1.720)	0.142 (0.428)	-0.533* (-1.743)	0.149 (0.448)	-0.534* (-1.741)
Poverty Certificate (PC)	-0.282 (-0.944)	0.754** (2.380)						
Bribed for PC (Ref = Not Carrier)			-0.743* (-1.850)	0.720* (1.950)	-0.554 (-1.342)	0.746** (1.977)	-0.550 (-1.322)	0.745** (1.975)
Did not Bribe for PC			-1.047* (-1.735)	-0.815 (-1.092)	-1.079* (-1.777)	-0.825 (-1.106)	-1.015* (-1.671)	-0.810 (-1.085)
Total No. of Bribe Payments Made					-0.288** (-2.225)	-0.014 (-0.106)	-0.418*** (-2.746)	-0.066 (-0.441)
Status Variability Score Across Providers Bribed							0.544* (1.795)	0.258 (0.796)
Controls		Suppressed		Suppressed		Suppressed		Suppressed
Constant	-2.341*** (-3.194)	-1.369 (-1.615)	-2.296*** (-2.714)	-1.287 (-1.359)	-1.852** (-2.128)	-1.234 (-1.284)	-1.772** (-2.021)	-1.202 (-1.249)
Observations	413		381		381		381	
χ^2 (df)	123.878 (28)		124.026 (30)		129.819 (32)		133.110 (34)	

t statistics in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Analysis sample limited to clients who pay bribes during healthcare services provision. The functional form of the model is $\log(P(Y = m)/P(Y = n)) = \beta_{m0} + B_m \mathbf{X}$ where m and n are mutually exclusive categories of the dependent variable, β_{m0} is the intercept of category m , B_m is the vector of coefficients relevant to the vector of explanatory and control variables \mathbf{X} . Coefficient in log-odds form. A Wald test for combining alternatives was conducted to test the collapsibility assumption. Test statistics were significant for all pairwise combinations, therefore the criterion is satisfied. Controls: marital status, years of age, medical coverage, city, urbanicity, and establishment type. Reference categories: unmarried, hospital, not poverty certificate carrier, no medical coverage, Rabat, and rural. Data Source: ICPC Survey, Morocco.

D.2 First Moves and Provider Status

In the main text, I write that effective matches are a two-sided affair.

Table D2 reports estimates of multinomial logit models that predict the log-odds of a reported solicitation strategy (extortion, indirect demand and offers) as a function of provider status. Standard errors are clustered by client since a given healthcare-seeker can pay bribes to more than one provider. About half of clients who paid bribes made more than one bribe payment. Of this group, about one-third of them report payments to different types of healthcare-providers. As such, Model 2 includes controls for the number of bribes paid per client and a status variability score that captures variability in the occupational status of healthcare-providers that clients bribed. The substantive conclusions are the same across models.

Table D2: Multinomial logit predicting solicitation strategy by provider status

Base Outcome: Indirect Demand	(1)		(2)	
	Extortion	Offers	Extortion	Offers
Doctor	-0.012 (-0.048)	0.613** (2.556)	-0.157 (-0.624)	0.517** (2.255)
Nurse (= Ref)	—	—	—	—
Support Agent	-0.334 (-0.922)	-0.778* (-1.813)	-0.334 (-0.921)	-0.848** (-2.038)
Security Agent	0.345 (1.287)	-0.620* (-1.654)	-0.030 (-0.127)	-0.874*** (-2.936)
Total No. of Bribe Payments Made			-0.421*** (-3.244)	-0.077 (-0.515)
Status Variability Score Across Providers Bribed			0.513* (1.665)	0.364 (1.073)
Controls	Suppressed		Suppressed	
Constant	-1.949*** (-3.164)	-3.646*** (-4.850)	-0.982 (-1.501)	-3.605*** (-3.945)
Observations (Clusters)	796 (409)		796 (409)	
χ^2 (df)	88.383 (20)		98.807 (24)	

t statistics in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Coefficients in log-odds form. Sample restricted to bribe transactions during healthcare services provision. Standard errors are clustered by client. Respondents who reported "Other/No Response" for the status of the provider were excluded from the analysis since the interpretation of this category is not clear. This amounts to the exclusion of 45 bribe exchanges (40 interactions with "No Response" and 5 interactions with "Other"). The Wald test for non-collapsibility was statistically significant. Controls: city, urbanicity, and establishment type. Reference categories: Rabat, rural, and hospital.

D.3 Bribe Size and Provider Status

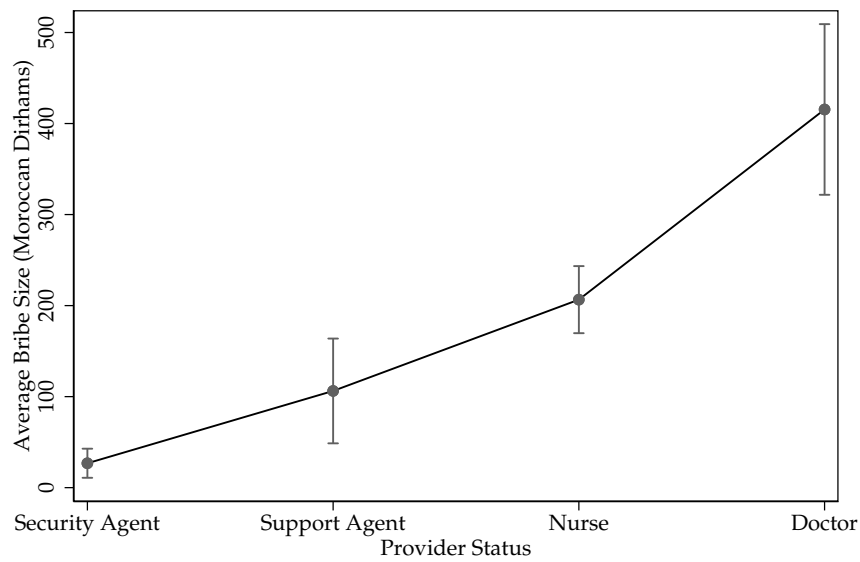


Figure D1: Plotted is the average bribe size (in Moroccan dirhams) by provider status. 10 dirhams \approx 1 USD. These estimates come from an OLS model that predicts bribe size as a function of increasing provider status, controlling for establishment type, city and urbanicity. Standard errors are clustered by client since a client can make more than one bribe payment. Data Source: ICPC Survey, Morocco.

D.4 Ineffective Matches

Table D3: Characteristics of reported interactions. 64 respondents preferred to not provide an answer to whether they reported a corrupt provider. Recall 531 out of 1157 respondents bribed during healthcare provision. Therefore 1.13% (6/531) and 1.12% (7/626) correspond to the reporting rates of those who bribed and those who did not, respectively.

	Frequency	%
<i>Whether Bribed During Healthcare Provision</i>		
Yes	6	46
No	7	54
<i>Education Level</i>		
None	1	7.69
Secondary	1	7.69
Baccalauréat (or Equiv)	1	7.69
Baccalauréat +2	1	7.69
Baccalauréat +3	3	23.08
Baccalauréat +4/5 or Plus	6	46.15
<i>Monthly Household Income (dirhams)</i>		
$x < 5K$	1	7.69
$5K \leq x < 10K$	9	69.23
$10K \leq x < 15K$	1	7.69
$15K \leq x < 20K$	–	–
$x \geq 20K$	1	7.69
No Response	1	7.69
<i>Solicitation Strategy</i>		
Extortion	9	69.23
Indirect Demand	2	15.38
Offers	1	7.69
Not Specified	1	7.69
<i>Provider Status</i>		
Doctor	2	16.67
Nurse	6	50
Support Agent	–	–
Security Agent	1	8.33
Other	3	25
Total	13	100

Data Source: ICPC Survey, Morocco.