

Research Note

Who is Targeted in Corruption? Disentangling the Effects of Wealth and Power on Exposure to Bribery

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ABSTRACT

Corrupt government officials must weigh the potential costs and benefits of soliciting a bribe using limited information about a citizen's ability to pay but also to punish. We conduct a field experiment in Malawi to determine the effects of political connections and socioeconomic status on a citizen's exposure to corruption at traffic police roadblocks. We find that political connections reduce exposure to bribery, while relative wealth only insulates citizens from corruption when wealth serves as a proxy for political power. These findings indicate that officials make strategic decisions about when to engage in corruption, disproportionately targeting the politically powerless.

Keywords: Corruption; bribery; inequality; Malawi; police; political connections

Corruption, defined as the use of public office for private gain, is prevalent worldwide. One of the most commonly studied manifestations of corruption is

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a public official accepting a bribe in exchange for providing a good or service. Transparency International (2009) characterizes such petty corruption as the “everyday abuse of entrusted power by low- or mid-level public officials in their interactions with ordinary citizens, who are often trying to access basic goods or services in places like hospitals, schools, police departments, and other agencies” (p. 33). However, even where levels of corruption are high, not every official solicits a bribe from every encountered citizen; corrupt public officials are often able to choose whom they target. As a result, certain segments of society may be subjected to more corruption than others. But which citizens are targeted?

Several observational studies demonstrate that wealthier individuals experience more corruption, both because their relative wealth makes them more attractive targets and because they interact with government officials more frequently than the poor (Hunt and Laszlo, 2012; Mocan, 2008; Rose and Peiffer, 2013). However, there is also evidence that rich citizens are better able to insulate themselves (and their wealth) from corruption (Peiffer and Rose, 2014). For example, Fried *et al.* (2010) find that rich drivers in Mexico are *less* likely to pay bribes to traffic police than poor drivers, and that therefore their total corruption burden is smaller, even though the average bribe payment demanded from rich drivers is higher.

It is difficult to determine corruption patterns across socioeconomic strata in part because wealth in highly unequal societies sends two conflicting signals to corrupt officials. On the one hand, visible wealth suggests a greater ability or willingness to pay, making rich individuals particularly *valuable* targets for corruption. On the other hand, relative wealth also serves as a strong indicator of political connections, making wealthy individuals particularly *risky* targets for corrupt officials who fear repercussions for targeting the powerful. Indeed, Fried *et al.* (2010) attribute lower rates of bribe solicitation from rich drivers to the fact that “officers associate wealth with the capacity to exact retribution and therefore are more likely to demand bribes from poorer individuals” (p. 1). The effect of relative wealth on vulnerability to corruption is therefore difficult to determine, especially with observational data.

We disentangle the effects of socioeconomic status and political connections on exposure to corruption through a field experiment in which confederates interact with real traffic police officers in Malawi, a country with widespread

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low-level corruption. In particular, confederates drive through police roadblocks without displaying evidence of insurance coverage, providing the opportunity for traffic police officers to solicit a bribe. To estimate the effect of socioeconomic status on rates of bribe solicitation, confederates are randomly assigned to appear as either high or low socioeconomic status, conveyed to officials through attire, accessories, and vehicle make and model. To estimate the effect of political connections, we *independently* assign confederates to signal political connections, conveyed by wearing a ruling party pin — a rare and strong signal of party connections in Malawi — and assuming a demeanor associated with power. The strength of this design is that, unlike observational studies of exposure to bribery, it allows us to isolate the effect of each of these treatments while holding constant the type and frequency of interaction with officials.

We find that bribe solicitation is extremely common among traffic police — officers solicited bribes from 87% of stopped drivers, constituting 45% of all observations. However, we also find evidence that police officers target some types of drivers more than others. In particular, political connections insulate citizens from bribery, particularly among low socioeconomic status drivers. Signaling political connections significantly reduces the rate of bribe solicitation (from 91% to 81%) among stopped drivers, and reduces the size of the bribe solicited by 15% (from 2197 MWK to 1868 MWK).

With regards to socioeconomic status, we find that signals of relative wealth have no effect on the likelihood of bribe solicitation or the size of solicited bribes after a vehicle is stopped. However, signals of relative wealth do reduce the rate at which traffic police officers stop vehicles; vehicles signaling high socioeconomic class are stopped less often for a visible infraction (47% of the time) compared to vehicles signaling low SES (57%). We interpret this as evidence that, absent any direct information about political connections, traffic police officers use relative wealth as a proxy for power. Thus, our findings suggest that wealthy citizens' ability to shield themselves from corruption, as seen in many observational studies, is most likely due to the conflation of wealth and political power in the real world.

Together, these results suggest that corrupt public officials in Malawi target certain citizens more than others. Our experimental approach allows us to disentangle — at least in part — the influence of wealth and power, and our findings suggest that relative wealth protects citizens from corruption largely because it serves as a proxy for political power. Endowing less wealthy citizens with political clout produces a dramatic reduction in bribe solicitation, while doing so for richer citizens is largely ineffective, perhaps because of the perceived benefits of asking a wealthy target for a bribe. These findings have both normative and policy implications. Normatively, it is objectionable for those who have the fewest resources and the least political influence to be subjected to higher government malfeasance. Furthermore, having the powerless — who are almost always the poorest — bear the brunt of the corruption burden

exacerbates social inequalities. In terms of policy prescriptions, our results suggest that interventions designed to reduce corruption should be aimed at increasing the ability of the least powerful to hold public officials accountable for corruption.

Citizen Characteristics and Exposure to Corruption

Existing research tends to focus on three factors that condition government officials' willingness to engage in corruption: the potential costs, the expected benefits, and the frequency of opportunities to solicit bribes. These factors are linked to rates of corruption across countries (e.g., Cameron *et al.*, 2009; Fisman and Gatti, 2002; Treisman, 2000), across institutional structures (e.g., Abbink, 2004; Barr *et al.*, 2009; Olken, 2009a), and across officials in the same institutional context (e.g., Armantier and Boly, 2008; Barr and Serra, 2010; Fisman and Miguel, 2007; Rivas, 2013). We build on this literature by studying whether and how *citizens' characteristics*¹ influence exposure to corruption, while controlling for country-, institution-, and official-level factors. We theorize that government officials use limited information about a citizen to decide whether to target this citizen with corruption — particularly information concerning the likelihood of retribution for soliciting a bribe (cost) and a citizen's willingness and ability to pay (benefit).

First, citizens vary in their ability to impose costs on public officials: for example, in the degree of their political power or influence. While observational studies find that political connections may increase exposure to corruption (e.g., Jagger and Shively, 2014; Ufere *et al.*, 2012), such studies do not account for the possibility that politically connected individuals simply interact with government officials more often, or that they are more likely to offer bribes. Instead, we examine how the perception that a citizen is politically connected affects a public official's propensity to solicit a bribe, holding constant the opportunity for such solicitation. Because political connections can be wielded to punish, public officials avoid soliciting bribes from those they perceive to be powerful (Fried *et al.*, 2010; Peiffer and Rose, 2014). Powerful individuals typically threaten or enact punishment for bribe solicitation not in order to combat corruption in general, but to shield themselves from having to pay. They can either pressure higher-ranking officials to discipline an official (e.g., by transferring the official to a less desirable post or demoting the official) or use their influence to apply anti-corruption laws and judicial institutions selectively (Fried *et al.*, 2010; Zimmerman, 2014). We therefore expect that *political connections reduce exposure to corruption (H1)*.

¹In this article, we focus on two citizen characteristics: wealth and power. The full study includes a third characteristic: shared ethnicity between citizen and official. The full study design, hypotheses, and findings regarding shared ethnicity can be found in Online Appendix Section D.

Second, because wealth is associated with power, corrupt officials may hesitate to engage the wealthy in corruption (Bai *et al.*, 2013; Fadahunsi and Rosa, 2002; Fried *et al.*, 2010; Nielsen, 2006). Indeed, a host of empirical studies suggests that rich individuals are exposed to corruption less often than the poor (Justesen and Bjørnskov, 2014; Kaufmann *et al.*, 2008; Peiffer and Rose, 2014; Tchewonpi and Ventelou, 2016). Therefore, where information about political connections is absent, we anticipate that wealth is used as a proxy, and thus reduces exposure to corruption, in line with **H1**. However, all else equal, wealthy individuals should also be perceived as valuable sources of revenue for corrupt officials (Guerrero and Rodríguez-Oreggia, 2008; Hunt, 2007; Hunt and Laszlo, 2012; Mocan, 2008; Olken, 2009b; Pande, 2007; Seligson, 2006). This could be because officials anticipate being able to extract a larger bribe from a wealthy individual, or because they expect the solicitation of a bribe to be faster and easier, because wealthier citizens have a greater ability to pay. Considering these opposing forces, when wealth is not needed as an indicator of power because information about political connections is directly available, we expect that *wealthy individuals experience greater exposure to corruption than do poorer individuals* (**H2**).

Police Corruption in Malawi

To examine the effects of socioeconomic status and political connections on exposure to corruption, we carry out a field experiment in Malawi. Malawi is one of the ten poorest countries in the world (United States Government, 2015), and like most other poor countries (Treisman, 2007), it suffers from endemic corruption at all levels of government (Kaufmann *et al.*, 2012). Various factors contribute to widespread corruption in Malawi, including ongoing democratization (Treisman, 2007) and poor public service provision (World Health Organization, UNDP, 2009), which encourages bribery in exchange for access to goods and services. While attention has tended to focus on high-level corruption (e.g., the Cashgate scandal in which high-ranking public officials defrauded the government of over 32 million dollars (The Economist, 2014)), a more mundane form of corruption — the solicitation of small bribes by public officials — is also widespread and directly affects citizens on a daily basis. The University of Malawi's Centre for Social Research (2010) finds that 79% of Malawians feel corruption is a major constraint on development, and 83% express concern over the level of corruption in their country.

We study low-level corruption in one highly corrupt Malawian institution: the police service.² The Malawi Police Service is invariably listed as one of the three most corrupt institutions in Malawi (Nawaz, 2012), and sometimes

²The full study includes a second corruption context, in which confederates visited state-owned electricity service offices (ESCOM) to request new connections. We report the

as the *most* corrupt (Chingaipe, 2013). Chingaipe (2013) finds that 95% of surveyed citizens had paid a bribe to the police in the previous year, despite police being bound to a Disciplinary Code of Conduct that states “no officer shall accept any gift from the public in respect of anything he has done in the course of his employment.” The police service has a disciplinary committee, but this committee faces a perpetual lack of resources (Nawaz, 2012).

We focus on the most common type of police corruption: the solicitation of bribes from drivers at Malawi’s ubiquitous traffic roadblocks.³ In the tollbooth analogy Shleifer and Vishny (1993) offer, traffic police officers in Malawi operate as independent monopolists, able to act with incredibly high discretion to erect roadblocks and extract bribes. When a driver approaches a roadblock, traffic police officers first determine whether or not to stop the vehicle. If a vehicle is stopped, an officer inspects the vehicle and the driver’s documents and then decides whether to release the driver, issue a citation for any violations, or solicit a bribe from the driver in lieu of a citation. As a corruption context, the lack of *a priori* information available to traffic police officers about potential bribe payers beyond their appearance and body language (sometimes observed from quite far away) conditions the interaction by forcing a reliance on observable characteristics and corresponding stereotypes. The fact that these are low risk and one-shot exchanges minimizes both material and psychological consequences for engaging in this stereotyping. In brief, interactions with Malawian traffic police constitutes a low-risk and relatively unmonitored petty corruption context that results in high rates of bribe solicitation.

Research Design

Our research design centers on a field experiment in which confederate researchers interact in an undercover capacity with real police officers in Malawi, and we observe real bribe solicitation. We use this approach for two reasons. First, our aim is to observe real behavior in a natural context. Self-reported data on corruption — especially questions about discrimination in the application of corrupt practices — would likely be subject to self-censoring and social desirability bias. Second, because our objective is to understand the targeted extraction of bribes by public officials rather than aggregate rates of corruption, we need to carefully control the characteristics of the citizens with whom they interact. If certain types of individuals (e.g., politically connected or rich citizens) are more likely to interact with public officials or more willing to pay a bribe, then observational data would reveal an association

findings from the ESCOM portion of the study in a companion paper (Robinson and Seim, 2018).

³Drivers in our study pass through a roadblock every 34 km, on average.

between individual traits and rates of corruption, even if public officials are not targeting certain citizens. In short, an experimental design is necessary to determine how political connections and socioeconomic status affect whom public officials target for bribes.⁴ Our design parallels other audit studies that have manipulated confederate characteristics to measure discriminatory behavior (e.g., Fried *et al.*, 2010; Grossman and Honig, 2017; McClendon, 2016; Michelitch, 2015).

We employ six Malawian confederates in order to be able to manipulate treatment status and to exact as much control as possible over the interactions, both of which are necessary for isolating the causal effect of citizen characteristics. These confederates, all males, hail from six different ethnic groups and three different regions within Malawi, and each completed 20 hours of training for the study. Data were collected over five consecutive days, with each confederate driving approximately 4–5 hours per day. The short duration of data collection helps to hold constant any temporal variation in bribe solicitation (e.g., proximity to officials' pay day).⁵ Over the course of the experiment, each confederate passed through 41 and 75 roadblocks, with about 41% of those being temporary (shifting) roadblocks. Online Appendix Figure A.1 shows a map of all traffic police roadblocks and Table A.1 outlines the driving routes.⁶ Data were collected after passing through every roadblock, whether the vehicle was stopped or not.

Protocol for Traffic Police Interactions

When interacting with traffic police, there is typically only an opportunity for corruption to take place when there appears to be a traffic infraction. To avoid asking confederates to break laws that exist for safety reasons, we simulate a traffic infraction by removing the highly visible marker of liability insurance from the vehicles. Proof of insurance in Malawi is conveyed by a sticker, locally referred to as a *disc*, placed on the windshield, as shown in Online Appendix Figure A.2. Moving the sticker inside the vehicle allowed our confederates to appear to violate the law without actually violating it.⁷ Because a missing disc is visible from far away, we assume that traffic police officers easily noticed the missing disc. If the confederate's vehicle was stopped and he was asked about

⁴Though strong in causal identification, running an experiment of this nature presented ethical challenges, including informed consent, the use of deception, and potential risks to our researchers. We discuss these challenges in greater depth in Online Appendix Section E.

⁵Indeed, we find that study day has no effect on corruption outcomes.

⁶For safety reasons, confederates worked in pairs. Within each pair, the two drivers drove separate vehicles but along the same route each day, departing approximately 2 hours apart and checking in with each other in the evening. Though confederates traveled routes in pairs, they were assigned to different treatment conditions.

⁷Proof of insurance was present in all study vehicles so that confederates could present it if they faced punishment more serious than a fine or if they needed it following an accident.

the disc, he was trained to appear surprised and then explain to the officer that he had lent his vehicle to a family member — a very common occurrence in Malawi — and had not noticed the disc was missing.

Upon being stopped, all research confederates, regardless of treatment status, were trained to say that they were rushing to a meeting and needed to hurry their interaction with the officer. The confederate then observed whether the officer solicited a bribe or issued a citation. If a citation was issued, then the confederate paid the fine as required by law and was given an official government receipt. If the officer solicited a bribe, the confederate negotiated to the lowest possible bribe, including being released without paying a bribe. Once the amount was negotiated, the confederate paid the requested bribe and completed the interaction. This pattern of interaction — the officer noting an infraction, the driver conveying he is in a hurry, the traffic police officer soliciting a bribe, and the driver negotiating the amount — constitutes a typical interaction with a Malawian traffic police officer following an infraction.

For every roadblock our confederates passed through, regardless of whether the vehicle was stopped, they collected information about geolocation, treatments, roadblock type (permanent or temporary), and the number of officers present. For interactions with traffic police after being stopped, they also collected data on the details discussed during the interaction, the sequencing of events, information about the officer's ethnicity, the presence of others, and the length of the interaction.⁸

When a car with a visible infraction passes through a roadblock, a traffic police officer must first decide whether to stop the vehicle. Because the officer has little information about whether a driver is politically connected prior to stopping a vehicle, we anticipated that relative wealth (as conveyed by the type of vehicle) would be used as a proxy indicator of power, and therefore reduce the likelihood of being stopped (**H1**).⁹ If an officer does stop a vehicle, there are three possible outcomes: the driver pays the full fine and receives a receipt, the driver is released without paying anything, or the driver pays a bribe at a lower rate than the official fine, subject to negotiation.¹⁰ We thus have two main outcomes of interest: being stopped and being asked to pay a bribe. We can also operationalize exposure to corruption as the amount of the bribe paid. Conditional on being stopped, we anticipate that political

⁸Section F of the Online Appendix provides the full list of information collected.

⁹The expectation that wealth would be used as a proxy for political connections, and therefore reduce the likelihood of a vehicle being stopped, was pre-specified in our pre-analysis plan. However, in retrospect, we realize that this expectation relies on an assumption that the deterrent effect of political connections will outweigh the potential gains of a wealthy target. While this turns out to be the case, as we show below, it is equally plausible *ex-ante* that wealthy drivers could be targeted in order to extract a larger bribe.

¹⁰Because we do not observe these outcomes for vehicles that were not stopped, we also present the results of model estimations that take such selection into account.

connections will reduce the likelihood and amount of a bribe (**H1**) and high socioeconomic status will increase the likelihood and amount of a bribe (**H2**).

Treatments

The experiment has two main treatments: socioeconomic status (high or low) and political connections (politically connected or not politically connected).¹¹ Daily random assignments for each confederate to socioeconomic status and political connections were independently determined by a random number generator prior to data collection.¹²

The first treatment is the level of socioeconomic status. High socioeconomic status was conveyed using a new and expensive car (e.g., a late model Audi or Mercedes), an expensive executive suit, a wristwatch, sunglasses, cologne, and a smartphone. Low socioeconomic status was conveyed by an older and less expensive car (e.g., an older Toyota Tercel) and a casual dress of jeans, a secondhand T-shirt, and plastic sandals or no shoes at all. Figure 1 provides photos of the same confederate in the low and high socioeconomic conditions. In addition to these two signals, high socioeconomic status individuals also stated they were businessmen buying and selling imported goods, while low socioeconomic status individuals stated that they were businessmen buying and selling foodstuffs.¹³

The second treatment is whether the confederate appears to be politically connected. Political connections were signaled through appearance, demeanor, and script. Based on discussions with our Malawian confederates and our own observations at traffic police roadblocks throughout the country, confederates signaling political connections were trained to behave in ways consistent with powerful individuals in the Malawian context. Such behavior includes stopping the car in the road rather than pulling off when signaled to stop by traffic police officers, talking on the phone during the interaction, and maintaining a smug

¹¹Our pre-registered research design also varied a third factor: shared ethnicity with the public official. Ethnic match between the confederate and the officer was not truly randomized, because the ethnicity of the confederate is not malleable. However, we generated exogenous variation in shared ethnicity through the random assignment of driving routes, and variation in the ethnic identities of both confederates and traffic police officers. A discussion of this treatment, and its implications for bribe solicitation, appears in Online Appendix Section D.

¹²With only six confederates assuming a different role on each of five days, randomization did not result in full orthogonality of the two treatments. In particular, there were slightly more observations in the poor-not connected (33%) conditions than in the rich-connected (26%), rich-not connected (24%), and the poor-connected (16%) conditions. However, our regression analyses of bribe solicitation include indicators for both treatments, so the correlation across treatments only potentially biases bivariate analyses.

¹³While we sometimes use *poor* as shorthand for low socioeconomic status, we note that our confederates of low socioeconomic status represent relatively rich individuals by Malawian standards. However, among Malawians who drive, confederates assigned to the low socioeconomic condition did signal the lower end of the income distribution.



Figure 1: Photographs of two treatment conditions. (a) Low socioeconomic status, not politically connected. (b) High socioeconomic status, politically connected.

demeanor. This *performance of power* was given a political frame by having the confederate wear a ruling party pin. In Malawi, party paraphernalia such as pins and buttons are typically only accessible to high-level party officials, and thus it constitutes a strong signal of connection to the party.¹⁴ In contrast, non-politically connected individuals wore no pin and they behaved obsequiously towards traffic police officers.

These two treatments, with two levels each, result in a factorial design with four possible types of individuals interacting with traffic police officers around Malawi.¹⁵ Random assignment resulted in confederates of high socioeconomic

¹⁴The party pins in the study were available because the authors approached a delegation of ruling party officials, encountered by coincidence at a restaurant, and asked to have three pins. Members of the delegation provided the pins to the authors free of charge, without question as to how they would be used. We note that our ease in acquiring this strong signal of political party connections is owed to the fact that we are Westerners rather than Malawians.

¹⁵In evaluating the construct validity of this study, it is important to consider the plausibility of these different types of individuals in Malawi, which we discuss in Online Appendix Section A.3.

status in 50% of road block observations and confederates who signaled political connections in 42% of observations.

Results

The pre-analysis plan filed prior to data collection (available at <http://goo.gl/OQRbWW>) guides our analysis, but we deviate from that plan in the following ways. First, while our pre-analysis plan specified parametric sample comparison tests, we utilize non-parametric alternatives given our relatively small sample size. Second, our pre-analysis plan specified the inclusion of some variables directly affected by treatments, which potentially introduces post-treatment bias: we now include only pre-treatment covariates.¹⁶ Neither of these deviations change the substantive results reported below, and we summarize the results from the full set of pre-specified analyses in Online Appendix Table E.1. Third, we only report and discuss a subset of the full pre-specified analyses. In particular, we omit analyses of paying a citation because it was exceedingly rare, occurring only six times (3% of interactions).¹⁷ In addition, we do not discuss here the effects of shared ethnicity between confederates and officials, which are reported in Online Appendix Section D, or the solicitation of bribes in government electricity service offices, which we report elsewhere (Robinson and Seim, 2018).

On average, confederates passed through 56 different traffic police roadblocks each (59% permanent, 41% temporary) for a total of 333 observations.¹⁸ Online Appendix Figure B.1 outlines the decision tree for traffic police officers and shows the proportion of observations for each outcome, and Online Appendix Table B.1 provides summary statistics. Even though we use a highly visible (simulated) infraction, and 98.5% of the roadblocks were manned, the vehicles in our study were only stopped about half of the time (52%). Of the vehicles that were stopped, drivers were asked to pay the official fine and received an official receipt in only six cases (3%).¹⁹ Of those stopped but not fined, officers release 10% without requiring them to pay anything while

¹⁶To guard against the selective inclusion of covariates, we include all pre-treatment covariates that were collected. Tables B.2 and B.3 show the covariate balance across treatments.

¹⁷These six citations were given to five different confederate researchers and are not systematically related to any of our treatments; half were issued to high socioeconomic status confederates and half were given to politically connected confederates.

¹⁸Interactions occurred across 40 permanent roadblocks and 83 temporary road blocks. Given that four officers, on average, man each roadblock, and officers are regularly rotated among roadblocks, we did not anticipate significant roadblock-specific effects and none of our confederates reported interacting with the same officer more than once in the course of the study.

¹⁹Officers appear to practice discretion over the fine amount; one confederate was fined 3,000 MWK, two were fined 5,000 MWK, and three were fined 10,000 MWK. At the time

requiring 90% to pay a bribe. The average bribe amount for all those stopped (including those who pay nothing) is 2,068 MWK, while the average among only those required to pay a bribe is 2,369 MWK, which is considerably less than the official fine of 3,000–10,000 MWK (see Online Appendix Figure B.2).

How do socioeconomic status and political connections influence exposure to corruption? In order to solicit a bribe, a traffic police officer must first choose to stop a vehicle with a visible infraction. While officers may sometimes miss a vehicle due to engaging with other drivers or other distractions, we anticipate that officers choose to stop vehicles with the same visible infraction at different rates depending on what a vehicle signals about the driver's relative wealth. In particular, we expect that because wealth and power are closely related in Malawi, vehicles signaling relative wealth are stopped less often (**H1**).²⁰ Indeed, confederates assigned to the high socioeconomic condition, and thus driving newer and more expensive vehicles, are stopped less often (47%) than those in the low socioeconomic condition (58%) (Fischer's exact test, one-sided $p = 0.035$). Model 1 of Table 1 estimates the effect of high socioeconomic status on the likelihood of being stopped, controlling for whether the roadblock was temporary, the number of traffic police officers manning the roadblock, the time of day (hours since 5 a.m.), and confederate fixed-effects using a linear probability model.²¹ The regression results show that vehicles signaling relative wealth are 10 percentage points less likely to be stopped by traffic police officers.

We next evaluate who is required to pay a bribe in interactions in which the vehicle is stopped. Contrary to (**H2**), rates of bribe solicitation are similar across high and low socioeconomic treatments (92% vs 89%, Fischer's exact test, one-sided $p = 0.362$). However, consistent with (**H1**), politically connected drivers are significantly less likely to pay a bribe than politically unconnected drivers (85% vs 94%, Fischer's exact test, one-sided $p = 0.040$). Model 2 of Table 1 confirms that political connections reduce the likelihood of paying a bribe by 10 percentage points, even after controlling for socioeconomic status and other covariates.²² When we interact socioeconomic status and political connections (Model 3 of Table 1), we find that the protective power of political connections is largely driven by poor drivers. While the coefficient on the interaction is not statistically significant at conventional levels, it is positive, meaning that the protective effect of political connections is weaker among rich drivers. Based on this estimation, the politically unconnected are the

of data collection, GDP per capita in Malawi was US \$355 (The World Bank, 2014), or approximately 139,830 MWK, so these fines equate to 2%–7% of GDP per capita.

²⁰Because the political connections treatment is not observable prior to stopping a vehicle, we do not analyze its effect on being stopped.

²¹We present linear probability models for ease of interpretation but present the results of conditional logistic models in Online Appendix Table C.2.

²²We present the results of conditional logistic models in Online Appendix Table C.2.

Table 1: The effects of socioeconomic status and political connections on bribe solicitation by traffic police officers.

	Stopped		Paid a bribe		
	(1)	(2)	(3)	(4)	(5)
High SES	-0.104 (0.055)	0.007 (0.049)	-0.017 (0.062)	0.050 (0.049)	-0.007 (0.061)
Political connections		-0.100 (0.049)	-0.134 (0.072)	-0.114 (0.047)	-0.187 (0.067)
High SES × connections			0.064 (0.098)		0.144 (0.094)
Coethnicity		0.030 (0.050)	0.031 (0.050)	-0.004 (0.051)	0.000 (0.051)
Temporary road block	0.014 (0.055)	-0.020 (0.045)	-0.021 (0.045)	-0.033 (0.048)	-0.034 (0.047)
No. of officials	0.055 (0.018)	-0.001 (0.014)	-0.002 (0.014)	-0.015 (0.015)	-0.017 (0.015)
Hours since 5 a.m.	-0.032 (0.009)				
Constant	0.733 (0.113)	0.997 (0.071)	1.002 (0.071)	0.963 (0.095)	0.994 (0.100)
Selection: DV = stopped					
High SES				-0.289 (0.142)	-0.288 (0.142)
Temporary road block				0.081 (0.148)	0.082 (0.148)
No. of officials				0.122 (0.044)	0.121 (0.044)
Hours since 5 a.m.				-0.091 (0.025)	-0.091 (0.025)
Constant				0.386 (0.279)	0.383 (0.279)
Observations	333	167	167	327	327
Censored observations				160	160
ρ				0.17	0.15
Prob. χ^2				0.55	0.62

Note: The dependent variable in Model 1 is an indicator for whether or not the vehicle is stopped at the roadblock (stopped). The dependent variable in Models 2–5 is an indicator for whether or not a bribe is solicited from a driver who is stopped (paid a bribe). Models 1–3 are estimated linearly and include confederate fixed-effects. Models 4 and 5 account for selection using a Heckman model in which time of day (hours since 5 a.m.) is used as an instrument for being stopped. Standard errors are reported in parentheses.

most likely to have to pay a bribe, regardless of socioeconomic status (94%), followed by the rich and politically connected (90%). In contrast, the poor and connected are predicted to pay a bribe in only 76% of interactions. We see similar patterns when we consider a continuous measure of exposure to corruption — the overall amount of the bribe — which ranged from 0 to 5,000 MWK in our sample. In particular, political connections are associated with significantly lower bribe amounts (Model 1 of Online Appendix Table C.1), but this effect is the largest for confederates signaling low socioeconomic status (Model 2 of Online Appendix Table C.1). Among drivers who are stopped, the predicted bribe amount is 2,343 MWK for the rich and unconnected, 2,219 MWK for the poor and unconnected, 2,187 MWK for the rich and connected, and only 1,580 MWK for the poor and connected.

These pre-specified linear probability models do not account for the potential selection effects resulting from some vehicles not being stopped. This is particularly problematic because we know from Model 1 that treatment assignment is correlated with selection into an interaction with traffic police officers. As a result, estimates in Models 2 and 3 are potentially biased. To account for this possibility, we also estimate the likelihood of paying a bribe using a Heckman selection model, which was not pre-specified, with results presented in Models 4 and 5 of Table C.1. In these selection models, we rely on the time of day (hours since 5 a.m.) as an instrument, assuming that time of day only affects corruption outcomes through its effect on whether or not a vehicle is stopped.²³ The other two covariates — type of roadblock and the number of traffic police officers manning the roadblock — are included in both the stages of the model. The results of Models 4 and 5 are substantively similar to those in Models 2 and 3, and the insignificance of ρ suggests that selection is not significantly biasing the estimates for bribe solicitation. Selection is more problematic in the bribe amount analyses presented in Online Appendix Table C.1, and predicted bribe amounts are much lower after taking selection into account, but the overall treatment effects persist; political connections result in smaller bribes, especially among the poor.²⁴

Taken together, these patterns suggest that political clout is the strongest deterrent of corruption, consistent with **H1**. We attribute this to officers' fear

²³Time of day is significantly correlated with whether or not a vehicle is stopped (vehicles are less likely to be stopped later in the day), but there is no observed relationship between time of day and the likelihood of paying a bribe or the amount of bribe requested among stopped vehicles.

²⁴In Online Appendix Table C.3, we estimate the effect of socioeconomic status and political connections on the likelihood of all possible outcomes — and consider the failure to stop a vehicle as one potential outcome — using a multinomial logit. This estimation strategy does not account for potential selection effects, nor was it pre-specified, but it most closely maps on to the experimental design. The results are substantively similar; relative wealth makes it less likely that a vehicle is stopped, while political connections reduce the likelihood of being asked for a bribe.

of retribution from powerful citizens, rather than attempts to curry favor, because none of our confederates were asked for any such favors during the course of their interactions. Socioeconomic status affects the likelihood of being stopped at a roadblock, but does not appear to affect the likelihood of bribe solicitation once a vehicle is stopped. In particular, we do not observe rich but politically unconnected individuals being asked for more bribes or larger bribes, as **H2** predicts. This may be due, however, to the difficulty of credibly signaling a rich but politically unconnected citizen. We do find evidence indicating that wealth attracts bribery; if we look at the effect of socioeconomic status among the politically powerful, the rich are targeted at much higher rates than the poor. The insulating effect of political connections particularly among the poor suggests that the deterrent power of political clout may be counteracted by the benefits of a wealthy target.

Conclusion

The results of this field experiment suggest that public officials in Malawi strategically target citizens for bribery using limited information about the expected costs and benefits of doing so. We find that perceived political connections significantly reduce the likelihood of being asked to pay a bribe to the traffic police. Where information about individuals' political connections is unavailable — as it is for traffic police officers deciding whether to stop a vehicle — government officials may use wealth as a proxy indicator of political power, which is consistent with previous research (Fried *et al.*, 2010). Explicitly introducing information about political connections, however, complicates this picture. Political connections reduce exposure to corruption, but this effect is observed primarily among the poor in the traffic police interactions. We believe this is due to the contradictory signals implied by wealth in highly unequal societies; wealthy individuals may increase the benefit of corruption by paying bribes more willingly or in higher amounts, but they may also increase its costs if they are better equipped to sanction corrupt officials via political connections. Thus, when an individual appears to be poor and politically connected, the risks of engaging in corruption outweigh the potential benefits. These findings contribute to the study of corruption by helping to explain contradictory findings concerning the influence of socioeconomic status on exposure to corruption.

While further research must determine the generalizability of these findings, we offer tentative evidence that the patterns we report are not specific to interactions with traffic police. In particular, our full study includes data on bribe solicitation by a different type of Malawian public official. Our confederates — with the same variation in socioeconomic status and political influence — also visited state-owned electricity service offices (ESCOM) to

request new connections, a point at which officials often solicit a bribe. The patterns of bribe solicitation in this second context are similar to our main findings. In particular, political connections are associated with promises of expedited service without a bribe, while confederates posing as less powerful individuals are more likely to be asked to pay a bribe in order to secure a connection.²⁵ While results from the ESCOM portion of the study must be treated cautiously due to limitations in sample size, they do suggest that the protective power of political connections in Malawi is not specific to traffic police corruption.

We also expect that our findings generalize beyond Malawi, but the nature of the political and economic context does suggest limits to such generalization. In particular, Malawi is extremely poor, and economic development is robustly linked to levels of corruption (Treisman, 2007). In addition, Malawi is still democratizing, another feature that is associated with greater prevalence of corruption (Treisman, 2007). Finally, public service provision is weak in Malawi; 59% of the population has no access to sanitation facilities, 44% of the population is illiterate, and only 9% of the population is connected to the electricity grid (United States Government, 2015; World Health Organization, UNDP, 2009). This effectively creates a market for bribery in exchange for public services. For these reasons, our findings are most likely be relevant in other developing, democratizing countries with weak public service provision.

Our results may have implications for the functioning and stability of democracy amid corruption in Malawi and similar countries. While democracy is expected to reduce the prevalence of corruption via increased accountability (Treisman, 2000, 2007), our results indicate that those with the most power and influence within a democratic system — and, thus, those most well-equipped to curb corrupt practices — are the least affected by petty corruption, and therefore may not be incentivized to support policies and institutions that shield others from it. Further, although we might expect political decentralization to reduce corruption by bringing officials closer to their constituents (Fisman and Gatti, 2002; Ivanyina and Shah, 2011), we find prevalent corruption even among low-level officials. Finally, exposure to corruption reduces citizens' belief in the legitimacy of the political system (Seligson, 2006) and decreases their support for democracy (Mishler and Rose, 2001). As a result, targeted bribery may erode democratic support the most among the very citizens democracy is designed to benefit: the poor and the powerless.

²⁵See Robinson and Seim (2018) for full analyses and results in the ESCOM context.

References

- Abbinck, K. 2004. "Staff Rotation as an Anti-Corruption Policy: An Experimental Study". *European Journal of Political Economy* 20 (November): 877–906.
- Armantier, O. and A. Boly. 2008. "Can Corruption Be Studied in the Lab? Comparing a Field and a Lab Experiment". CIRANO Scientific Publications No. 2008s-26.
- Bai, J., S. Jayachandran, E. J. Malesky, and B. A. Olken. 2013. "Does Economic Growth Reduce Corruption? Theory and Evidence from Vietnam". National Bureau of Economic Research Working Paper No. 19483.
- Barr, A., M. Linelow, and P. Serneels. 2009. "Corruption in Public Service Delivery: An Experimental Analysis". *Journal of Economic Behavior and Organization* 72 (October): 225–39.
- Barr, A. and D. Serra. 2010. "Corruption and Culture: An Experimental Analysis". *Journal of Public Economics* 94 (December): 862–9.
- Cameron, L., A. Chaudhuri, N. Erkal, and L. Gangadharan. 2009. "Propensities to Engage in and Punish Corrupt Behavior: Experimental Evidence from Australia, India, Indonesia and Singapore". *Journal of Public Economics* 93 (August): 843–51.
- Centre for Social Research. 2010. "The Malawi Governance and Corruption Survey 2010". Available from: [http://www.eldis.org/vfile/upload/1/document/1105/ACB-Survey-Report\(24\).pdf](http://www.eldis.org/vfile/upload/1/document/1105/ACB-Survey-Report(24).pdf) (Accessed October 7, 2017).
- Chingaipe, H. 2013. "Malawi National Integrity System Assessment Report". Available from: https://www.transparency.org/whatwedo/nisarticle/malawi_2013 (accessed October 7, 2017).
- Fadahunsi, A. and P. Rosa. 2002. "Entrepreneurship and Illegality: Insights from the Nigerian Cross-Border Trade". *Journal of Business Venturing* 17 (September): 397–429.
- Fisman, R. and R. Gatti. 2002. "Decentralization and Corruption: Evidence Across Countries". *Journal of Public Economics* 83 (March): 325–45.
- Fisman, R. and E. Miguel. 2007. "Corruption, Norms, and Legal Enforcement: Evidence from Diplomatic Parking Tickets". *Journal of Political Economy* 115 (December): 1020–48.
- Fried, B. J., P. Lagunes, and A. Venkataramani. 2010. "Corruption and Inequality at the Crossroad: A Multimethod Study of Bribery and Discrimination in Latin America". *Latin American Research Review* 45(1): 76–97.
- Grossman, S. and D. Honig. 2017. "Evidence from Lagos on Discrimination across Ethnic and Class Identities in Informal Trade". *World Development* 96: 520–8.
- Guerrero, M. A. and E. Rodríguez-Oreggia. 2008. "On the Individual Decisions to Commit Corruption: A Methodological Complement". *Journal of Economic Behavior and Organization* 65 (February): 357–72.

- Hunt, J. 2007. "Bribery in Health Care in Uganda". *Journal of Health Economics* 29 (September): 699–707.
- Hunt, J. and S. Laszlo. 2012. "Is Bribery Really Regressive? Bribery's Costs, Benefits, and Mechanisms". *World Development* 40 (February): 355–72.
- Ivanyna, M. and A. Shah. 2011. "Decentralization and Corruption: New Cross-Country Evidence". *Environment and Planning C: Government and Policy* 29 (April): 344–62.
- Jagger, P. and G. Shively. 2014. "Taxes and Bribes in Uganda". *The Journal of Development Studies* 51 (December): 66–79.
- Justesen, M. K. and C. Bjørnskov. 2014. "Exploiting the Poor: Bureaucratic Corruption and Poverty in Africa". *World Development* 58 (June): 106–15.
- Kaufmann, D., A. Kraay, and M. Mastruzzi. 2012. "Worldwide Governance Indicators (WGI) Project". Available from: <http://info.worldbank.org/governance/wgi/index.aspx#home> (accessed October 7, 2017).
- Kaufmann, D., J. Montoriol-Garriga, and F. Recanatini. 2008. "How Does Bribery Affect Public Service Delivery? Micro-evidence from Service Users and Public Officials in Peru". World Bank Policy Research Working Paper No. WPS4492.
- McCleendon, G. 2016. "Race and Responsiveness: An Experiment with South African Politicians". *Journal of Experimental Political Science* 3(1): 60–74.
- Michelitch, K. 2015. "Does Electoral Competition Exacerbate Interethnic or Interpartisan Economic Discrimination? Evidence from a Field Experiment in Market Price Bargaining". *American Political Science Review* 109(1): 43–61.
- Mishler, W. and R. Rose. 2001. "What Are the Origins of Political Trust? Testing Institutional and Cultural Theories in Post-communist Societies". *Comparative Political Studies* 34 (February): 30–62.
- Mocan, N. 2008. "What Determines Corruption? International Evidence from Microdata". *Economic Inquiry* 46 (October): 493–510.
- Nawaz, F. 2012. "Overview of Corruption and Anti-Corruption in Malawi". Technical report U4 Expert Answers.
- Nielsen, V. L. 2006. "Are Street-Level Bureaucrats Compelled or Enticed to Cope?" *Public Administration* 84 (December): 861–89.
- Olken, B. A. 2009a. "Corruption Perceptions vs. Corruption Reality". *Journal of Public Economics* 93 (August): 950–64.
- Olken, B. A. . P. B. 2009b. "The Simple Economics of Extortion: Evidence from Trucking in Aceh". *Journal of Political Economy* 117 (June): 417–52.
- Pande, R. 2007. "Understanding Political Corruption in Low Income Countries". *Handbook of Development Economics* 4: 3155–84.
- Peiffer, C. and R. Rose. 2014. "Why Do Some Africans Pay Bribes While Other Africans Don't?" Afrobarometer Working Paper No. 148.
- Rivas, M. F. 2013. "An Experiment on Corruption and Gender". *Bulletin of Economic Research* 65 (January): 10–42.

- Robinson, A. and B. Seim. 2018. "Coethnicity and Corruption". Working Paper.
- Rose, R. and C. Peiffer. 2013. "Contact Comes First: A Two-Step Model of Paying Bribes". University of Strathclyde Studies in Public Policy Working Paper No. 508.
- Seligson, M. A. 2006. "The Measurement and Impact of Corruption Victimization: Survey Evidence from Latin America". *World Development* 34 (February): 381–404.
- Shleifer, A. and R. W. Vishny. 1993. "Corruption". *The Quarterly Journal of Economics* 108 (August): 599–617.
- Tchewonpi, H. K. and B. Ventelou. 2016. "Socioeconomic Inequalities in Informal Payments for Health Care: An Assessment of the Robin Hood Hypothesis in 33 African Countries". *Social Science & Medicine* 151 (February): 173–86.
- The Economist. 2014. "The \$32m Heist." February 27". Available from: <https://www.economist.com/blogs/baobab/2014/02/malawi-s-cashgate-scandal> (accessed October 7, 2017).
- The World Bank. 2014. "GDP Per Capita". Available from: <https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=MW> (accessed October 7, 2017).
- Transparency International. 2009. "The Anti-Corruption Plain Language Guide". Available from: https://www.transparency.org/whatwedo/publication/the_anti_corruption_plain_language_guide (accessed October 7, 2017).
- Treisman, D. 2000. "The Causes of Corruption: A Cross-National Study". *Journal of Public Economics* 76 (June): 399–457.
- Treisman, D. 2007. "What Have We Learned about the Causes of Corruption from Ten Years of Cross-National Empirical Research?" *Annual Review of Political Science* 10 (June): 211–44.
- Ufere, N., S. Perelli, R. Boland, and B. Carlsson. 2012. "Merchants of Corruption: How Entrepreneurs Manufacture and Supply Bribes". *World Development* 40 (December): 2440–53.
- United States Government. 2015. "CIA World Factbook". Available from: <https://www.cia.gov/library/publications/download/download-2015/index.html> (accessed October 7, 2017).
- World Health Organization, UNDP. 2009. "The Energy Access Situation in Developing Countries". Available from: <http://www.undp.org/content/dam/undp/library/Environment%20and%20Energy/Sustainable%20Energy/energy-access-situation-in-developing-countries.pdf> (accessed October 7, 2017).
- Zimmerman, B. 2014. "Transparency, Accountability, and Corruption Displacement: Multi-Method Evidence from Local Government in Malawi". Ph.D. diss. University of California, San Diego.