Who Bears the Cost of Corruption?
The Impacts of Political Connections, Socioeconomic Status, and Shared Ethnicity *

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March 3, 2015

*We are grateful to many colleagues for providing ideas and guidance on this project, especially Clark Gibson, Paul Lagunes, and Nicholas Obradovich. We wish to thank the dedicated and thoughtful team of research assistants in Malawi, who we will not list by name here for their protection. Their innovative ideas, honest feedback, and quick thinking greatly improved this project in many ways. Finally, we appreciate many helpful comments received from the Ohio State University Human Research Protection Program (HRPP), the University of California, San Diego’s Institutional Review Board, and the Malawi National Commission for Science and Technology’s (NCST) Committee on Research in the Social Sciences and Humanities. A pre-analysis plan for this study was filed with Open Science Framework and is available at http://goo.gl/OQRBWw.
Abstract

Corruption is costly for developing nations’ economies, but scholars and policy makers do not fully understand who bears the cost of corruption. We conduct a field experiment in Malawi to determine the impacts of political connections, socioeconomic status, and shared ethnicity on the degree of corruption a citizen encounters across two contexts – police roadblocks and electricity service offices – that vary the risk borne by corrupt officials. By disentangling wealth and political power, we show that political connections reduce exposure to corruption, while wealth only insulates one from corruption when it is seen as a proxy for political power. Coethnicty with a corrupt official increases corruption, but only under high risk, since trust in such contexts is crucial. These findings indicate that officials make strategic decisions about when to engage in corruption, which leaves certain individuals, particularly the poor and politically powerless, disproportionately bearing the costs.
Who Bears the Cost of Corruption?

Corruption, defined as “the use of public office for private gain,” is prevalent across societies worldwide. One of the most commonly studied manifestations of corruption is a public official accepting a bribe in exchange for providing a public good or service, or what Transparency International (2009) refers to as petty corruption: “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.”

It is well established that corruption is costly for developing nations’ economies by introducing inefficiency into an already disadvantaged system (Bardhan 1997). And while we also know that such corruption is more common in countries with greater inequality (Jong-Sung and Khagram 2005), we do not yet fully understand which sectors of society bear the costs of corruption and whether the costs are distributed equally. On the one hand, several observational studies demonstrate that wealthier individuals are more likely to encounter corruption, partially because they interact with officials more often than do the poor (Hunt 2007; Hunt and Laszlo 2012). On the other hand, there is also ample evidence that in unequal societies the rich and powerful are better able to insulate themselves and their wealth from corruption (Nielsen 2006). Using a field experimental approach in which socioeconomic status is randomly assigned to research assistants making illegal left turns, Fried, Lagunes, and Venkataramani (2010) find that poor drivers in Mexico paid bribes to Traffic Police more often than rich drivers, and that their total corruption burden was larger, even though the average bribe payment demanded from rich drivers was higher.

One of the reasons it is so difficult to interpret corruption patterns across socioeconomic strata is that wealth in highly unequal societies sends two different signals to corrupt officials. Visible wealth suggests the ability to pay, making rich individuals particularly valuable targets for corruption by allowing corrupt officials to extract more money per interaction. However, 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. In the Fried, Lagunes, and Venkataramani (2010) study, for example, the authors attribute the finding that the rich are less frequently asked for a bribe to the fact that “officers associate wealth with the capacity to exact retribution and therefore are more likely to demand bribes from poorer individuals.” The impact of wealth on vulnerability to corruption is difficult to determine because conspicuous wealth conlates socioeconomic status with political power. We attempt to disentangle these two characteristics experimentally.

We also consider the role of ethnicity in shaping corruption patterns. Past research has shown that corruption is more prevalent in ethnically diverse societies (Alesina et al. 2003), but the mechanism behind this finding is not clear. Others show that shared ethnicity facilitates cooperation (Habyarimana et al. 2009), which could conceivably reduce bribery extracted from coethnics. On the other hand, coethnics tend to be trusted at higher rates than non-coethnics (Fershtman and Gneezy 2001; Robinson 2015), which would suggest corruption among coethnics is more likely, particularly in high-risk situations.

To study the effects of wealth, political power, and coethnicity on corruption, we carry out a field experiment in which confederate researchers interact with two different types of public officials in Malawi, a country with widespread low-level corruption. First, research assistants pass through police roadblocks without displaying evidence of insurance coverage. Second, research assistants attempted to receive expedited service for a residential electricity connection at offices of the Electricity Supply Corporation of Malawi (ESCOM). The critical difference between the two contexts is that the risks of detection, retribution, and reneging are much higher for ESCOM officials than the Traffic Police.

To estimate the impact of socioeconomic status, research assistants were randomly assigned to high or low socioeconomic conditions, conveyed to officials through attire, stated occupation and vehicle (Traffic Police context only). To estimate the impact of political connections separately from wealth, we independently assigned research assistants to be either political connected, conveyed by wearing a ruling party button and demeanor associated with power in the Malawian context, or not. Finally, the ethnicity of each official was coded
by research assistants, and coethnicity was randomly assigned through driving route.

We find that randomly assigned political connections result in lower rates of bribery, lower bribe amounts, and lower overall cost when interacting with the Traffic Police. In the ESCOM context, the politically connected were not only subject to lower rates of bribery, but were actually given preferential treatment without requiring a bribe. In contrast, we find that wealth has very little impact on exposure to corruption except when direct information about political connections is absent. Wealth did decrease the total amount paid per Traffic Police roadblock, but only because vehicles signaling wealth (and, thus, power) were less likely to be stopped. In the ESCOM context, wealth has no independent effect after controlling for political connections. These findings suggest that wealthy individuals’ ability to shield themselves from corruption may be due to the conflation of wealth and political power.

Finally, we expected that shared ethnicity would have different effects across the two contexts given the differential risks to corrupt officials. In the lower-risk Traffic Police context, we expected in-group favoritism to reduce the corruption burden for officers’ coethnics. In contrast, in the higher-risk ESCOM context, we anticipated that reliance on coethnicity-based trust would counteract coethnic favoritism, resulting in higher rates of bribery among coethnics. While we find no impact of shared ethnicity on corrupt interactions with Traffic Police, coethnicity does indeed increase exposure to corruption in the ESCOM context.

Together, these results indicate that there is an unequal distribution of the costs of corruption in Malawian society. This inequality is magnified by the fact that those marginalized by corrupt practices - the poor and unconnected - are the same as those marginalized in Malawian society more broadly. The findings offer three important contributions. First, we disentangle the effects of wealth and power on exposure to corruption, showing that wealth protects only when it serves as a proxy for political power. Second, we identify another dimension of discrimination for corruption; coethnics are targeted by corrupt officials in risky contexts. Third, we show corruption prevalence and patterns of discrimination vary across contexts based on corrupt officials’ strategic responses to the level of risk they face.
Research Context

To examine the impact of socioeconomic status, political connections, and coethnicity on corruption, we carried out a field experiment in Malawi, a country which suffers from endemic corruption at all levels of government (Kaufmann, Kraay, and Mastruzzi 2012). While attention has historically focused on high-level corruption (e.g., the ongoing “Cashgate” scandal (Economist 2014)), a more mundane form of corruption – the solicitation of small bribes in exchange for service provision – is also widespread and directly impacts regular citizens on a daily basis. In 2010, 79% of Malawians felt that corruption was a major constraint on development, and 83% expressed concern over the level of corruption in Malawi (Centre for Social Research 2010). While to our knowledge ours is the first systematic study of discrimination in the practice of corruption in Malawi, anecdotal evidence suggests that Malawians expect to receive differential treatment by corrupt officials based on background.

We study low-level corruption within two institutions in Malawi: Traffic Police and the government-owned electricity provider, ESCOM. Traffic Police are one of the most corrupt institutions in Malawi; 95% of surveyed Malawians believe that the police are corrupt (Transparency International 2013). We evaluate one of the most common types of corruption among police officers: bribes paid by drivers at the ubiquitous traffic roadblocks throughout Malawi.¹

When a driver approaches a roadblock, officers first determine whether or not to stop the vehicle. If a vehicle is stopped, the officer will inspect the vehicle and driver’s license and then decide whether to release the driver, issue a citation for any violations, or demand a bribe from the driver to avoid a citation. We study corruption induced by one particular (simulated) infraction - driving without insurance. The law permits fines for this infraction between 3000 and 5000 MWK, and the officer has discretion to determine the amount.

¹Drivers in our study passed through a roadblock every 34 km on average.
ration of Malawi (ESCOM). Like the Traffic Police, ESCOM is notoriously corrupt, and was in fact deemed the most corrupt institution in Malawi (Anti-Corruption Bureau 2012). In particular, we evaluate the role of corruption when a citizen attempts to obtain a residence-based electricity connection. Since the capacity of ESCOM limits the number of people who can be newly connected to the electrical grid on any given day, citizens often pay a bribe to receive a connection faster. Refusing to pay a bribe can result in a wait time of months or years: including those who paid a bribe, it took 222 days on average to receive a connection in Malawi in 2009 (Kaufmann, Kraay, and Mastruzzi 2012).

We study these two contexts because, while both institutions are perceived to be highly corrupt, the risks associated with corruption are greater for ESCOM officials than for the Traffic Police. First, officials at ESCOM face a greater risk of traceability. ESCOM is a highly centralized institution. It falls under both the Ministry of Energy and Mines and the Ministry of Finance, and appointments of ESCOM officials are done by these central ministries. This centralized structure results in a robust chain of accountability from the low-level ESCOM officials to the central government. ESCOM is also highly institutionalized; officials are appointed to a specific office with standard business hours, financial reports are published online, and contact information for ESCOM offices is widely available. This combination of centralization and institutionalization means that corruption is traceable at ESCOM and that officials far up the chain of accountability may follow the trail. In contrast, the Traffic Police are more decentralized and less institutionalized. The Malawi Chief of Police is autonomous from government ministries and personnel decisions are made independently at lower levels. There are no publicly available records on Traffic Police operations, and Traffic Police officers rarely wear name tags. Traffic Police officers operate autonomously, without set schedules or set locations. Corruption is not as traceable in the Traffic Police, and is thus lower risk.

ESCOM officials also face a higher risk of retribution. Victims of corruption at ESCOM are more likely to take action against it due to the different magnitude and nature of the bribe. The average bribe paid to the Traffic Police is an order of magnitude less than the
average bribe negotiated at ESCOM. Further, the bribe at ESCOM is given in exchange for providing a government service (setting up electricity connections) that should be free, whereas the bribe at the Traffic Police is given in exchange for being let out of a citation (which would often have been even more money). We heard in our interviews that this perceived difference in the fairness of the situation can translate into citizens being more willing to bear costs and take risks themselves in order to punish the corrupt officials at ESCOM. Retribution from higher-level officials is also more likely. Due to the traceability and perceived unfairness of corruption at ESCOM, high-level officials often take care to distance themselves from it by harshly punishing those involved.

Finally, ESCOM officials face a greater risk of bribe payers reneging. Few citizens arrive at ESCOM with money in-hand. It is a negotiation tactic to claim that the funds are not available yet, and citizens often must raise the amount required through their network. Sometimes the funds cannot be raised and an individual will simply never return to complete the electricity connection. Sometimes a citizen will return but will give the money to another officer. These circumstances mean that ESCOM officials bear the risks of corruption today but receive the benefits far in the future, if ever. In contrast, Traffic Police officers receive their bribe immediately, reducing the risk of not receiving the money to effectively zero. We expect these risk differences between the institutions to condition patterns of corruption.

Hypotheses

In both Traffic Police and ESCOM contexts, we theorize that government officials use limited information about a citizen to decide whether to solicit a bribe and, if so, how much. We anticipate that officers are particularly attentive to information about a citizen’s ability to pay (conveyed through socioeconomic status), the likelihood of experiencing retribution for engaging in bribery (conveyed through political connections), and whether or not a citizen can be trusted (conveyed through coethnicity). In developing the hypotheses below, we bear in mind the information available to officials in our study at each decision point.
In the Traffic Police component of the study, when a car with a visible infraction passes through a roadblock, the first decision that a police officer makes is whether or not to stop the vehicle. In making this decision, the officer has very little information about the driver except the make, model, age, and condition of the vehicle, all of which are strongly associated with socioeconomic status. While rich drivers might be seen as valuable targets for corruption given their perceived ability to pay, we anticipate that officers will be hesitant to stop high socioeconomic status vehicles for fear that the driver may be politically connected, given the strong correlation between wealth and political connections. We anticipate that:

H1: High socioeconomic status reduces the likelihood of being stopped.

Because political connections and ethnicity cannot be observed prior to stopping the vehicle, we do not expect those factors to have any impact on the likelihood of being stopped.

If an officer does decide to stop a vehicle with a visible infraction, there are three possible outcomes to the interaction: the driver is released with a warning, the driver pays the full fine and receives a receipt, or the driver pays a bribe at a lower rate than the official fine, subject to negotiation. At this point, however, the officer has much more information about the driver, as he or she will typically ask to see the driver’s license, as well as inquire about the driver’s origin, destination, and purpose of the trip. During this initial interaction, the Traffic Police officer is likely to ascertain the socioeconomic status, political connectedness, and ethnicity of the driver. We expect that politically connected drivers will be more likely to be released without paying a bribe or a fine, since officers are likely to fear repercussions for “bothering” a powerful person. However, because an officer may fear being reported by a powerful person for failing to enforce the law, they may also be more likely to require that the full fine is paid. We thus expect, conditional on being stopped, that:

H2: Political connections decrease the likelihood of being asked to pay a bribe.

Controlling for political connections, we expect that high socioeconomic status decreases the likelihood of being released with only a warning, since the officer believes that a wealthy driver has the ability to pay. Similarly, controlling for political connections, high socioe-
conomic status should increase the likelihood of being required to pay the full fine, since the perception is that a wealthy individual is able to afford it. We expect an interaction effect between socioeconomic status and political connections, in that socioeconomic status increases the likelihood of being asked to pay a bribe, but only among those without political connections. Thus, conditional on being stopped, we expect:

H3: *High socioeconomic status increases the likelihood of being asked to pay a bribe, but only in the absence of political connections.*

We expect that shared ethnicity will increase altruism and cooperation toward the driver and thus decrease the likelihood of paying either a bribe or a fine. Often, when negotiating a bribe with a Traffic Police officer, an individual will try to find common ground, and salient dimensions on which to do so include ethnicity, tribe, or regional background. Given that bribe solicitation is not particularly risky in the Traffic Police context, we do not expect that a coethnic trust gap would counteract this effect. Thus, we hypothesize that:

H4: *Ethnic match decreases the likelihood of paying a bribe.*

If a driver *is* asked to pay a bribe, we anticipate that political connections, socioeconomic status, and ethnic match all influence the *amount* of bribe that is solicited. We assert that political connections reduce the amount of the bribe solicited, as the officer aims to minimize the possibility of facing repercussions. High socioeconomic status in the absence of political connections should increase the amount of the bribe solicited, as the officer aims to maximize profit. Given the altruism induced by shared ethnicity, we expect that ethnic match reduces the amount of the bribe solicited. Thus, conditional on being stopped and being asked to pay a bribe, we expect that:

H5: *Political connections decrease the amount of the bribe paid.*

H6: *High socioeconomic status increases the amount of the bribe paid, but only in the absence of political connections.*

H7: *Ethnic match decreases the amount of the bribe paid.*

Many of our expectations are similar in the ESCOM context, except where the higher
risk of ESCOM corruption plausibly changes corrupt officials’ behavior. The first decision an ESCOM official makes when interacting with a customer asking for expedited service is to decide whether to refuse to expedite service, offer expedited service without a bribe, or to solicit a bribe in exchange for expedited service. Similar to the Traffic Police, we expect that political connections will reduce the likelihood of a bribe solicitation, given potential repercussions by powerful individuals. We also expect that political connections should increase the probability that the ESCOM official will offer expedited service without soliciting a bribe. Controlling for political connections, we expect high socioeconomic status should increase the likelihood of soliciting a bribe, since a high socioeconomic status signals the ability to pay a large bribe. We do not anticipate that coethnicity is a strong enough bond to allow the connection to be expedited in the absence of a bribe. In fact, because the solicitation of a bribe by an ESCOM official entails greater risk than for Traffic Police, we expect that the increased level of trust among co-ethnics in Malawi (Robinson 2015) will lead to higher rates of bribe solicitation among research assistants with an ethnic match to the ESCOM official. This is the opposite of expectations in the Traffic Police component.\(^2\)

Thus, in terms of bribe solicitation, we expect:

H8: Political connections decrease the likelihood of being asked to pay a bribe.

H9: Political connections increase the likelihood that expedited service is offered without a bribe.

H10: High socioeconomic status increases the likelihood of being asked to pay a bribe.

H11: Coethnicity increases the likelihood of being asked to pay a bribe.

The next decision made by an ESCOM official who has solicited a bribe is to determine the bribe amount. Because ESCOM officials will fear repercussions from politically connected customers, we expect smaller bribes in this population. Controlling for political connections, we expect that high socioeconomic status will result in larger bribes, as ESCOM officials

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\(^2\)Our pre-analysis plan, filed before data collection began, further explained our logic in anticipating this result.
will expect richer customers to be able to pay more. Finally, while we expected higher rates of bribery among coethnics above, given increased altruism towards coethnics, we anticipate that the amount of the bribe solicited is lower when the research assistant and ESCOM official are ethnically matched. Thus, we anticipate that:

H12: **Political connections decrease the amount of the bribe solicited.**

H13: **High socioeconomic status increases the amount of the bribe solicited.**

H14: **Coethnicity decreases the amount of the bribe solicited.**

Finally, we anticipate differences across the two contexts in terms of the rates of corruption, as well as the degree of discrimination exercised based on socioeconomic status, political connections, and shared ethnicity. We expect that all of these factors have a larger effect on the less centralized context (Traffic Police) compared to the more centralized context (ESCOM). We also expect that bribe solicitation is less likely in the ESCOM context compared to the Traffic Police context.

H15: **The effect of SES, political connections, and coethnicity is greater for petty corruption among the Traffic Police than for petty corruption among ESCOM officials.**

H16: **The rate of petty corruption is lower for interactions with ESCOM officials than the rate of petty corruption for interactions with Traffic Police.**

A table summarizing our hypotheses linking individual characteristics to corruption outcomes appears in Table 1.

[Table 1 about here.]

**Research Design and Protocol**

Following other research on when and why public officials solicit bribes (Fried, Lagunes, and Venkataramani 2010), we use a field experimental approach to address the hypotheses laid out above. This approach overcomes two principal limitations to the use of observational data. First, self-reported data (e.g., within a survey) on corruption may not be reliable because individuals are unlikely to report corrupt behavior accurately, due to social desirability
bias or fear of retribution. In the context of our study, this meant that surveying Traffic Police and ESCOM officials in Malawi about their strategic decisions regarding targeting of corruption was not a viable option. Second, since our objective was to understand the behavioral decision making of the public officials, rather than just base rates of corruption, we needed to be able to carefully control characteristics of the “citizens” they interacted with. If certain types of individuals (e.g., connected citizens, rich citizens, or members of the largest ethnic group) are better able or more likely to pay a bribe, then observational data would exhibit a positive correlation between individual traits and rates of corruption, even if public officials are not targeting certain citizens. In short, without an experimental design, we cannot identify the causal impact of political connections, socioeconomic status, or ethnicity on who is targeted for bribes by public officials.\(^3\)

We employed six Malawian research assistants in this study in order to be able to manipulate treatment status and to exact as much control as possible over the interactions, both necessary for isolating the causal impact of citizen characteristics. These research assistants came from six different ethnic groups and three different regions in Malawi (a Tumbuka and a Nkhonde from the north, a Chewa and an Ngoni from the centre, and a Yao and a Lomwe from the south) and all six were male. The research assistants were employed for five consecutive days, driving approximately 4-5 hours per day and visiting ESCOM offices along their driving routes. For safety reasons, research assistants were randomly paired. The two members of a pair drove the same route each day separated by around two hours.

During the course of the study, each research assistant passed through roughly 30 permanent roadblocks, in addition to any temporary (shifting) roadblocks. Figure 1 shows a map of the police roadblocks and ESCOM offices included in this study, and Table 2 outlines

\(^3\)Field experiments present unique ethical challenges (McClendon 2012). We discuss the ethical issues and mitigation strategies extensively in the Online Appendices. We also obtained ethical approval from all authors’ institutions’ ethical review boards and included a thorough ethical discussion in our pre-analysis plan.
the route segments that were driven. Note that each of the five segments can be completed in either direction, resulting in ten unique segments. Given the sequencing necessary to avoid any research assistant driving the same road more than once, there were eight possible combinations of segments over the five days of driving. We randomly assigned each of three pairs of research assistants to one of the eight possible route sequences.

[Figure 1 about here.]

[Table 2 about here.]

Each research assistant also visited approximately 10 ESCOM offices, determined through driving route and based on their data collection schedule (since ESCOM offices were not open on weekends). The locations of ESCOM offices visited are presented in Figure 1.

**Traffic Police Roadblock Protocol**

When interacting with Traffic Police, there is typically only an opportunity for corruption to take place when there “appears” to be a traffic infraction. Past studies have created this context by having research assistants actually break traffic laws (e.g. making illegal left turns in the Fried, Lagunes, and Venkataramani (2010) study), but we were concerned with asking research assistants to break laws that exist for safety reasons. In order to create a context with the Traffic Police where bribes were likely to take place but where our research assistants did not put themselves at risk, we chose to remove the highly visible marker of liability insurance (referred to locally as the “disc,” which is a round sticker typically placed on the windshield) from the vehicles in our study. Removing the insurance sticker from the windscreen and placing it inside the vehicle allowed our research assistants to appear to violate the law without actually violating it.\(^4\) Because the missing disc is visible from far

\(^4\)Proof of compliance, in the form of the insurance disc was present in all study vehicles so that research assistants could present them if they were facing a punishment more serious than a fine or if they needed it following an accident.
away, we assume that any Traffic Police officer who looked at one of our research vehicles would notice the missing disc. If the research assistant’s vehicle was stopped, and he was asked about 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 assistants, 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 research assistant would then observe whether the officer solicited a bribe or issued a citation. If a citation was issued, then the research assistant paid the fine as required by law and was given an official government receipt. If the officer solicited a bribe, the research assistant was trained to negotiate to the lowest bribe he could, including being excused without paying a bribe. Once the amount was negotiated, the research assistant paid the requested bribe and completed the interaction. Research assistants never initiated bribes, and were trained to negotiate only once the officer had initiated negotiations.5

For every roadblock passed through, regardless of whether the vehicle was stopped, we collected information about geolocation, treatments, roadblock type (permanent or temporary), and number of officers present. For interactions with Traffic Police after being stopped, we 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.

5This pattern of interaction - the officer noting an infraction, the driver conveying he was in a hurry, the negotiation process the research assistants pursued - is the most common interaction pattern with the Traffic Police in Malawi. Therefore, the findings regarding treatment effects across groups are generalizable to other infractions.
ESCOM Protocol

For each ESCOM office visited, the research assistant went into the ESCOM office and began (but did not complete) the forms to request a connection for residential electricity on an urban, undeveloped plot. When obtaining the forms, the research assistant was trained to say that he needed the connection very quickly. If at any point in an ESCOM official asked for a small payment, token of gratification, or extra money, the research assistant waited for the official to suggest an amount, said that he or she will gather and return with the money, and then left the office. If no bribe was solicited, the research assistant pretended to be missing one key piece of information (e.g., plot number) and would inform the ESCOM official that he would return at a later date.

For every ESCOM office visited, in addition to data on the outcome of the interaction, we collected information about geolocation, treatments, details discussed during the interaction, the sequencing of events, information about the official’s ethnicity, the presence of others, and the length of the interaction. The complete list of questions included in the data collection forms are in the Online Appendices. Data were collected via Open Data Kit (ODK) on 3G-connected mobile devices.

Treatments

There were three “treatments” in this experiment: 1) socioeconomic status (high or low); 2) political connectedness (politically connected or not politically connected); and 3) ethnic match with the public official (matched or unmatched). Daily random assignments for each research assistant to socioeconomic status and political connectedness were independently

6In this context, the research assistant paid neither bribe nor fee.

7As with the Traffic Police context, this pattern of interaction - collecting the connection forms, determining the bribe, leaving to raise the money, returning with the fee, bribe money, and completed forms - is the most common interaction with ESCOM in Malawi, increasing this study’s generalizability.
determined by a random number generator prior to data collection. The ethnic match between the research assistant and the officer is not truly randomised, since ethnicity of the research assistant could not be randomly assigned. However, the random assignment of route and natural variation in placement of officers of different ethnicities served to generate variation in the ethnic match, both within and across research assistants. The same treatments were implemented in both the Traffic Police and ESCOM components.

The first treatment was the level of socioeconomic status: low or high. In the Traffic Police component of the study, socioeconomic status was randomly assigned by day. High socioeconomic status was conveyed using a new and expensive car (e.g. Audi or Mercedes), an expensive executive suit, a wrist watch, sunglasses, cologne, and a smart phone. Low socioeconomic status was conveyed by an older and less expensive model of car (e.g. late model Toyota Tercel), and a casual dress of worn jeans, a second-hand T-shirt, and worn sandals. In addition to these two signals, high socioeconomic status individuals also stated that they were businessmen buying and selling imported goods, while low socioeconomic status individuals stated that they were businessmen buying and selling foodstuffs. In the ESCOM component of the study, socioeconomic status was operationalized in the same way, although the ESCOM official was less likely to observe the vehicle driven. Random assignment resulted in 51% of Traffic Police interactions and 40% of ESCOM interactions occurring with high socioeconomic individuals.

The second treatment was whether the research assistant appeared to politically connected or not. In both components of the study, political connections were signaled through appearance, demeanor, and script. Research assistants signaling political connections wore a ruling party (DPP) pin and behaved in ways consistent with powerful individuals in the Malawian context, including stopping the car in the road rather than pulling off when signaled to stop, talking on the phone during the interaction, and maintaining a “smug” demeanor. In contrast, non-politically connected individuals did not wear a political party pin and behaved obsequiously towards Traffic Police officers and ESCOM officials. Research
assistants were politically connected for 42% of observations in the Traffic Police study and 50% of observations in the ESCOM study.

The final treatment we consider is the ethnic match between the research confederate and the public official, which was only randomized to the degree that route sequencing was randomized. Each of our research assistants were coded by their ethnicity and region of origin, and they in turn coded the ethnicity and region of origin of the public officials with whom they interacted. Officials were coded as a member of one of the three most politically relevant groups (Ferree and Horowitz 2010) – Chewa, Tumbuka, or Yao – or as a member of an “other group.”⁸ The coding of officials’ ethnicities and regions of origin by our research assistants was accomplished using surname (when available), language or accent, appearance, and information shared by the official.⁹ We use this data to construct two different measures of ethnic match: “strong coethnicity” – belonging to the same ethnic group; and “weak coethnicity” – coming from the same region but perhaps not belonging to the same ethnic group.¹⁰ For the Traffic Police, 17% of the interactions were between strong coethnics and 29% were between weak coethnics. Among ESCOM officials, 22% interacted with a strong coethnic and 31% with a weak coethnic. We report results for both degrees of

⁸Ideally, we would have coded public officials into all ethnic categories. However, we collapse all minority groups into an “other” category in order to reduce the chance that a public official in our study could be identified based on the combination of geolocation and ethnicity in the event of compromised data.

⁹We understand that this coding of ethnicity will be quite noisy. Ethnicity is more identifiable when both physical appearance and speech are observable (Habyarimana et al. 2009) and for individuals who feel a stronger connection to their ethnic identity (Harris and Findley 2014), both conditions that were likely fulfilled in our study. Still, research assistants were uncertain about the official’s ethnicity and region approximately 45% of the time.

¹⁰In Malawi, individuals often express loyalty to their region in addition to ethnic group (Ferree and Horowitz 2010), though this affinity is arguably weaker.
shared ethnicity, but typically focus on weak ethnicity due to greater data availability.\textsuperscript{11}

These three treatments, with two levels each, result in a factorial design with eight possible types of individuals interacting Traffic Police and ESCOM officials around Malawi: a rich, connected coethnic; rich, connected non-coethnic; a poor, connected coethnic; a poor, connected non-coethnic; a rich, not connected coethnic; rich, not connected non-coethic; a poor, not connected coethnic; and a poor, not connected non-coethnic. In evaluating the construct validity of this study, it is important to consider the plausibility of these different types of individuals in Malawi. Individuals representing both socioeconomic strata and many levels of political connections exist in every ethnicity, so the division between coethnics and non-coethnics across types does not detract from the validity of this design. Individuals that are rich and connected are plausible: these are the government officials, business executives, and attorneys of the country. Individuals that are poor and not connected are similarly plausible: these are the farmers, the teachers, and the laborers. While considerably less common, poor and connected individuals are also plausible, since politically powerful individuals are often able channel opportunities to poorer relatives through low-level positions. Finally, individuals that are rich and not connected are least common, but do still exist. Some health workers, nonprofit managers, and business managers will have obtained their positions through education and experience while remaining outside the political arena. As part of the data collection after each interaction, research assistants recorded the degree to which they felt that the official believed the treatments conveyed. Fewer than 20\% of officials in each component were judged to be “a bit suspicious” and this distribution was uniform across treatment assignments. Therefore, we believe that all of these assigned roles are plausible in Malawi and that our research assistants generally portrayed them in a believable way, aided to a great extent by the Anti-Corruption Bureau officer that conducted

\textsuperscript{11}While we have data on weak coethnicity for all Traffic Police interactions, we have data on strong coethnicity for only 90\% of observations due to the use of the “other” category in coding the ethnicity of the officials.
Results

In this section, we evaluate the impact of our treatments in each context and then compare the two contexts. As outlined in the pre-analysis plan, we test our hypotheses using simple comparisons of means and a series of linear regressions. The unit of analysis in all regressions is the research assistant-official interaction. For each dependent variable, we first evaluate the effect individually in a bivariate regression. Then, we include the socioeconomic and political connections variables in the same regression, followed by a regression with an interaction term combining these two variables. We report here only a single model for each outcome, which includes all relevant treatment and control variables. Results from the full set of models outlined in the pre-analysis plan, as well as summary statistics for treatment, outcome, and control variables, are presented in the Online Appendices.

Traffic Police Results

Over the course of the study, research assistants passed through approximately 40 roadblocks for a total of 339 roadblock observations, an average of 57 roadblocks per research assistant. Figure 2 outlines the decision tree for Traffic Police officers in our study and shows the proportion of observations for each outcome. Even though we used a highly visible (simulated) infraction, and 97% of the roadblocks were manned and 66% with more than two officers, the vehicles in our study were only stopped about half of the times that they passed through.

12In the Traffic Police component of the study, we include research assistant fixed-effects and control for whether the roadblock was permanent or temporary, the number of officers present, whether other officers and/or superiors were present or consulted during negotiations. In evaluating ESCOM interactions, we control for whether other officials and/or superiors were present or consulted during negotiations, but the low number of observations per research assistant (6-13) do not permit the use of research assistant fixed effects.
police roadblocks. For those vehicles that were stopped, only 3% of interactions resulted in payment of an official fine. Of those remaining, 10% were released with a warning while 90% were required to pay a bribe, with the average bribe amount being 2379 MWK (approximately $6). If we include interactions where the vehicle was not stopped, or was stopped but merely released with a warning, then the average overall cost of driving through a roadblock with a visible infraction is 1186 MWK, with a range of 0 to 10000 MWK.

Research assistants who were assigned to the high socioeconomic condition were stopped less often (47 percent) than in the low socioeconomic condition (56 percent) \((t = 1.69, p < 0.10)\) for the same visible infraction. However, as can be seen in Model 1 of Table 3, this effect is not statistically distinguishable from zero once we account for research assistant fixed effects and control for roadblock type and the number of officers at the roadblock. Thus, we find weak evidence for H1, that socioeconomic status reduces a driver’s likelihood of being stopped by Traffic Police, even with a visible infraction.

We next evaluate who is required to pay a bribe in the interactions where the vehicle was stopped. While rates of bribery were similar across rich and poor (87 and 88 percent, respectively), politically connected drivers were significantly less likely to pay a bribe (81 percent) compared to politically unconnected drivers (91 percent) \((t = 2.05, p < 0.05)\). Thus, we find evidence consistent with H2: politically connected individuals are significantly less likely to pay a bribe. However, this effect is just shy of statistical significance \((p = 0.15)\) once we interact political connections with socioeconomic status (Model 2 of Table 3). We do not find evidence that the rich are targeted more in the absence of political connections (H3): if we calculate predicted probabilities, we find that the poor and unconnected are almost certain to pay a bribe (96 percent), followed by the rich and unconnected (91 percent), the
rich and connected (89 percent), and the poor and connected, who are predicted to pay a bribe only 82 percent of the time. Finally, there is no evidence that shared ethnicity, weak or strong, has any bearing on the likelihood of being asked to pay a bribe to the Traffic Police (H4).

Among the 151 interactions resulting in a bribe, we next analyze the impact of our treatments on the amount of the bribe. In H5, H6, and H7, we hypothesized that political connections would decrease the amount of the bribe, socioeconomic status in the absence of political connections would increase it, and ethnic match would decrease it, respectively. However, politically connected drivers paid lower bribes (by 549 MWK, on average) only if they were of low socioeconomic status (Model 3 of Table 3). We do not find evidence that high socioeconomic status individuals are targeted in the absence of political connections (H6), but the coefficient on the interaction term between SES and political connections is significant. Thus, it seems that while political connections may reduce the likelihood of being asked for a bribe, once a bribe is solicited from a politically connected individual, higher bribes are demanded from rich politically connected individuals than from poor ones. We find no evidence supporting H7, our expectation that coethnics would pay less per bribe.

What do these findings say overall about the impact of corruption across our treatment categories? Figure 3 graphs the average cost across all outcomes by treatment status. Again we see that the poor, unconnected individuals bear the brunt of the corruption, paying the most despite having the least ability (in the real world) to pay. Political connections among the poor drastically reduce overall cost, while having little effect among the rich (who pay more, on average than the poor connected, but less than the poor unconnected).

[Figure 3 about here.]

These impacts on overall cost are also estimated in the regression framework and the results are presented in Model 4 (among those stopped) and Model 5 (among the full sample) of Table 3. Here we see that, in the absence of political connections, high socioeconomic status still reduces the overall cost of passing through the roadblock, largely because they
are less likely to be stopped in the first place. In the absence of wealth, political connections drastically reduce the overall cost, but these politically connected savings do not extend to the rich. There is no meaningful impact of shared ethnicity on the overall cost.

**ESCOM Results**

Research assistants visited 52 ESCOM offices to request a new electricity connection: Figure 2 summarizes the outcome of those interactions. In 36% of interactions, the “customer” was told that there was no way to speed up the connection process. When an ESCOM official did signal that such expedited service was possible, a bribe was solicited only 48% of the time, meaning that the rest of the time such preferential service was promised without demanding a bribe (31% of all interactions). When a bribe was solicited, the average amount was 25560 MWK (approximately $65), ranging from 15000 MWK to 40000 MWK. For those not offered expedited service and those offered expedited service for free, the total cost of the connection (above and beyond official charges) was 0 MWK. Across the 52 observations including all outcomes, the average extra cost of securing a connection was 7668 MWK.

We first evaluate the impact of our treatments on exposure to bribery at ESCOM using both simple comparison of means, as well as the regression that is reported in Model 1 of Table 4. Rates of bribe solicitation were lower among the rich (29 percent) compared to the poor (36 percent), a difference that held across both politically connected and unconnected. Thus, we find no support for H10, our expectation that high socioeconomic status would increase the likelihood of bribe solicitation. We do find limited evidence that political connections reduce the chance of bribe solicitation (H8), with politically connected paying bribes only 23 percent of the time compared to 42 percent for politically unconnected ($t = 1.49, p = 0.07$). While this effect is quite large – almost 20 percentage points – it is driven by differences among the poor and is not statistically significant once controls are included (Model 2 of Table 4). Finally, consistent with our expectation (H11), strong coethnics are 29 percentage points more likely to be asked for a bribe, all else equal (Model 1). As stated
in the hypotheses section, we attribute this finding to the greater risk faced by ESCOM officials coupled with the higher rates of trust among coethnics.

[Table 4 about here.]

Conditional on paying a bribe, we next evaluate the amount of the bribe solicited as a function of our treatments (Model 2 of Table 4). We have very, very few observations here \((n = 15)\), so results must be interpreted with caution. Nevertheless, we find that among those asked for a bribe, the rich are asked, on average, for a 7,170 MWK larger bribe than the poor \((t = 1.91, p = 0.04)\). However, in contrast to our expectation that political connections would reduce the size of the bribe \((H12)\), we instead find that political connections actually increase bribe amount by 6,660 MWK, on average. While both effects remain substantively large, neither maintain statistical significance when their interaction and covariates are included (Model 2). While the sign is in the expected direction, we find no statistically significant evidence that coethnicity reduces bribe amount \((H14)\).

Finally, consistent with our expectations \((H9)\), we find strong evidence that political connections increase the likelihood that one is offered an expedited connection without paying a bribe. While politically unconnected individuals are offered expedited connections without a bribe 15 percent of the time, politically connected individuals are promised such service 46 percent of the time \((t = 2.5, p < 0.01)\). This result is robust to the inclusion of control variables, as shown in Model 3 of Table 4.

Again, we consider how these different effects combine to condition the overall cost of securing an electricity connection. Figure 4 shows raw data on the total cost of the electricity connection by socioeconomic status and political connectedness. The poor, politically connected individuals pay the least, while the poor, unconnected pay the most. In general, political connections reduce the overall cost, mostly by making the solicitation of a bribe less likely. These differences do not reach standard levels of statistical significance, however, as can be seen in the regression results presented in Model 4 of Table 4. What does emerge as a strong predictor of overall cost is shared ethnicity between the applicant and official:
coethnics of ESCOM officials can expect to pay 8664 MWK extra in order to secure a fast connection. This effect may be driven by the fact that ESCOM officials are more likely to ask coethnics for a bribe, and not by asking coethnics for more money per bribe.

[Figure 4 about here.]

Context Comparison

Finally, we compare the rates of corruption and discriminatory discretion across our two contexts. First, in support of H16, we find that the rate of corruption is much lower in the ESCOM context compared to in the Traffic Police study. For ESCOM customers hoping to secure a new connection quickly, bribes were solicited about a third of the time (33 percent). In contrast, 87 percent of our drivers were asked to pay a bribe when passing through roadblocks without an insurance disc. Under conditions of greater risk to officials, the chances of encountering petty corruption are significantly lower.

Second, we hypothesized that the impact of our treatments – socioeconomic status, political connections, and shared ethnicity – would be stronger in the low-risk context (Traffic Police) than in the high-risk one (ESCOM) (H15). This is a difficult expectation to test rigorously, given the very different sample sizes in the two studies. However, qualitatively, the results seem to contradict this expectation, with significant discrimination occurring in both settings. Thus, it seems that while raising the risks of corruption may shift corruption discrimination patterns, discrimination occurs in both low-risk and high-risk environments.

While the scope of discrimination may be similar, the comparison of findings across bribery contexts suggests that corruption arenas vary in who is targeted to subsidize the corruption. The most dramatic difference pertains to the effect of coethnicity. Coethnicity increases the likelihood of bribe solicitation in the ESCOM setting, but does not have an effect in the Traffic Police setting. We assert this difference is driven by the difference in risk across the two contexts: because bribery in the ESCOM setting is much riskier, officials may wish to share this risk with coethnics rather than non-coethnics.
Conclusion

Our study examined the effect of political connections, socioeconomic status, and shared ethnicity on experiences with petty corruption in two contexts in the highly corrupt country of Malawi. In an experimental design using trained enumerators, we find evidence that these three individual characteristics significantly affect the rate of bribery and amount of bribes. Discrimination is alive and well among both Traffic Police officers and officials at Malawi’s electricity authority, ESCOM. We find these effects despite having extremely limited statistical power because of the low number of observations we were able to collect.

Specifically, our results suggest that political connections are the primary characteristic that insulates citizens from corruption in Malawi. In both contexts under study, we found that political connections significantly reduced the likelihood of being asked to pay a bribe. Where information about individuals’ political connections is unavailable – as it is for police officers deciding whether or not to stop a vehicle, for example – government officials may use wealth as a proxy indicator for political power: this is consistent with previous findings that the rich are less targeted than the poor (Fried, Lagunes, and Venkataramani 2010).

Explicitly introducing information about political connections drastically reduces the protective effect of socioeconomic status. In both contexts studied here, political connections were particularly effective at reducing exposure to corruption among the poor. We believe this is due to the contradictory impacts of wealth on corruption in highly unequal societies: wealthy individuals are may increase the benefit of corruption by paying higher bribes, but they may also increase its costs if they are better able to sanction corrupt officials via their 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 inform the literature regarding who subsidizes corruption in a given society.

We also find evidence that shared ethnicity could increase one’s exposure to corruption, especially in contexts where corruption is especially risky. We believe this effect is driven by higher levels of trust among coethnics, as has been documented in many studies (Fershtman
and Gneezy 2001; Robinson 2013). This interpersonal trust makes officials more likely to risk asking for a bribe among coethnics. If this is indeed the case, it is another context in which higher social capital can have negative implications for individuals, similar to the higher rates of taxation for coethnics documented in Kenya (Kasara 2007). The perverse effects of social capital is a compelling avenue for future research.

This research contributes to an infant but growing literature that documents petty corruption by collecting real-world behavioral data. There are many challenges in obtaining unbiased data on corruption while complying with ethical standards. We hope this protocol struck a balance between academic rigour and ethical mindfulness, and more importantly, that this study can contribute to an ongoing dialogue about how to manage ethical constraints regarding field research on corruption.

Our findings reveal that the costs of corruption are borne by some segments of the population more than others. Such discriminatory practices do great harm to the social fabric of any society, much less one already combatting underdevelopment, inequality, and ethnic divisions (Robinson 2015). As we disseminate these findings to assist anti-corruption efforts in Malawi, we hope that rigorous documentation of corruption discrimination will aid in mitigating it. More broadly, this research informs the literature, programs, and policies that attempt to document and address discrimination against the poor and powerless in society. Although discrimination patterns regarding corruption in Malawi may not generalize to other contexts, our study suggests that petty corruption is a compelling discrimination arena to consider. Future research could examine other corruption contexts and other individual traits that may condition discrimination.
References


Table 1: Hypotheses Summary

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<th>ESCOM</th>
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<td></td>
<td>Stopped</td>
<td>Fine</td>
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<tr>
<td>High SES</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Connections</td>
<td>+</td>
<td>-</td>
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<td>Coethnicity</td>
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### Table 2: Driving Routes

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<th>Time (hours)</th>
<th>Road Blocks</th>
<th>ESCOM Offices</th>
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### Table 3: Traffic Police Results

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<td>Bribe</td>
<td>Total Cost</td>
<td>Total Cost</td>
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<td>(0.02)</td>
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Observations: 333 167 151 173 339

Adjusted $R^2$: 0.06 0.14 0.39 0.18 0.03

All models are estimated using linear regression and include research assistant fixed-effects. Robust standard errors in are reported in parentheses. *$p < 0.10$
Table 4: ESCOM Results

<table>
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<td>I(Paid Bribe)</td>
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All models are estimated using linear regression.
Robust standard errors in are reported in parentheses. *$p < 0.10$
Figure 1: Location of Police Roadblocks and ESCOM Offices in Malawi

Note: Permanent roadblocks are shown as black bars and temporary roadblocks are shown as red dots in the map on the left, and ESCOM offices are shown as red diamonds.
Figure 2: Decision Trees for Traffic Police and ESCOM Officers

Traffic Police Officer Stops Vehicle?
  - no 49%
  - yes 51%

Vehicle Passes
  - Issue Citation?
    - no 97%
    - yes 3%

Request Bribe?
  - no 10%
  - yes 90%

Driver Issued Warning
  - How much?
    - 2378 MWK

Driver Pays Bribe

ESCOM Officer Expedites Service?
  - no 36%
  - yes 64%

Normal Service

Request Bribe?
  - no 52%
  - yes 48%

Expedited Service
  - How much?
    - 7668 MWK

Pays Bribe, Expedited Service
Figure 3: Average Cost by Treatment in Traffic Police Context
Figure 4: Average Cost by Treatment in ESCOM Context