PRE-ANALYSIS PLAN FOR
TAX COLLECTION AND BUREAUCRAT PERFORMANCE:
EXPERIMENTAL EVIDENCE FROM THE DRC [†]

AUGUSTIN BERGERON[‡]   GABRIEL TOUREK[§]   JONATHAN L. WEIGEL[¶]

August 10, 2019

Abstract

This project examines how working as a tax collector affects local bureaucrat performance. We exploit random variation in whether local bureaucrats known as avenue chiefs were responsible for property tax collection (treatment), or whether agents of the tax ministry collected taxes within avenue chiefs' jurisdictions instead (control). We estimate the performance of avenue chiefs by measuring how they choose to allocate scarce benefits from a government antipoverty program in their community. The resulting distribution of antipoverty benefits enables us to measure the extent to which chiefs targeted the program toward the neediest families in the community as well as diversion, nepotism, ethnic favoritism, and taxpayer reciprocity. We use additional cross-randomized interventions and survey data to shed light on mechanisms.

1 Introduction

There is growing consensus that governance and state capacity matter for economic growth (Acemoglu and Robinson, 2017; Besley and Persson, 2009; Finan et al., 2017). The importance of taxation in development dates back at least to Kaldor (1963), who noted that a modern tax system is the only way to ensure that the state has sufficient revenues to provide public goods and enforce contracts. Beyond this direct channel through which taxation is good for development is a second, indirect channel: taxation has long been thought to strengthen the accountability of the state to its citizens (Schumpeter, 1918; Tilly, 1985; North and Weingast, 1989), and accountability, in turn, is thought to stimulate development (Acemoglu et al., 2019). The social compact at the root of government is laid bare in taxation. Citizens expect services back for their tax dollars. Recent experimental work has generated support for the catalytic role of taxation in citizen engagement with the government (Paler, 2013; Martin, 2014; Weigel, 2019). But few studies go the next step in examining if taxation renders governments more accountable and responsive to citizens.

This project examines how tax collection affects the performance and responsiveness of local bureaucrats. We exploit random variation in whether local bureaucrats known as avenue chiefs were responsible for property tax collection (treatment), or whether agents of the tax ministry collected taxes within avenue chiefs' jurisdictions instead (control). We primarily estimate the performance of avenue chiefs by measuring how they choose to allocate scarce benefits from a government antipoverty program in their community. The resulting distribution of antipoverty benefits enables us to precisely measure the extent to which chiefs administered the program to the most needy households in the community, as the government intended. It will also enable us to measure diversion, nepotism, ethnic favoritism, and efforts to reciprocate taxpayers.

Tax collection could stimulate accountability through supply or demand side mechanisms. On the supply side, it is possible that tax collection increases bureaucrats' public spiritedness, i.e. their sense of personal responsibility or intrinsic motivation to work on behalf of their community. Alternatively, tax collection could lead bureaucrats to become more responsive to citizens through a sense of reciprocity. That is, they work harder on behalf of citizens, but only when they are asked to do so. On the demand side, it is possible that tax collection improves bureaucrat outcomes by creating a more credible threat of collective action and citizen pressure. Bureaucrats may anticipate that citizens will hold them to account unless they perform better.

Our experimental design aims to let us adjudicate between these three possible theoretical mechanisms which may drive the effect, should one exist, of tax collection on the distribution of antipoverty benefits: (1) changes to chiefs' sense of personal responsibility to their constituents, (2) changes to chiefs' responsiveness to citizens' individual demands, or (3) changes to chiefs' responsiveness to citizen collective action. To do this, we cross-randomize two additional interventions. First, in one treatment arm, we provide information to randomly selected households about the antipoverty program

as an encouragement for individuals to seek out the chief and ask for a share of the benefits. If these informed individuals succeed at accessing more of the antipoverty benefits compared to uninformed citizens, this observation would suggest that chiefs are responsive to citizens' individual demands. Comparing chiefs who taxed to chiefs who did not tax, we can assess if the former are more responsive to their constituents, consistent with taxation-based social compact theories. Second, in randomly chosen neighborhoods, citizens will have a chance to vote for audits of the chief or the provincial government; audits will occur in the neighborhoods with a highest percentage of voters. This treatment arm will enable us to see if it is the threat of collective action that induces greater responsiveness on the part of the avenue chief, and whether this varies by a chief's experience with tax collection.

To our knowledge, this project will be the first to examine experimentally how bureaucrats' performance changes when the state requires them to collect taxes. Often, scholars assume that broad-based taxation induces more accountable politics through the emergence of inclusive, representative institutions (Schumpeter, 1918; Tilly, 1985; North and Weingast, 1989; Ross, 2004; Moore, 2008; Prichard, 2015). Citizens engage in tax bargaining until they achieve a level of political representation that justifies the taxes they pay (Bates and Lien, 1985). In turn, the government becomes accountable to its citizens through electoral mechanisms. However, in addition to this 'long route' to accountability, there exists a shorter route: tax collection conducted by bureaucrats could render those bureaucrats themselves more accountable to their constituents (Bank, 2004). This 'short route' of the tax-accountability hypothesis is widely relevant since tax collection is an integral activity of the state, and bureaucrats at even the lowest levels possess substantial authority over the delivery of government benefits and services. Moreover, in many countries, such as Pakistan, civil servants are required first to work as tax collectors before they can move up the bureaucracy to higher posts. So if tax collection makes bureaucrats more responsive to citizens, it could have longer-run ripple effects throughout the civil service.

The paper will also contribute to the growing empirical literature on bureaucrat performance. This literature has chiefly compared the effectiveness of financial incentives and professional autonomy in promoting bureaucrat performance (Van Rijckeghem and Weder, 2001; Khan et al., 2015; Rasul and Rogger, 2018), as well as the selection of bureaucrats and whether high wages attracts less prosocial civil servants (Dal Bó et al., 2013; Ashraf et al., 2014). In addition, a growing literature examines when politicians do and do not have incentives to monitor bureaucrat performance (Fujiwara, 2015; Callen et al., 2013; Gulzar and Pasquale, 2017; Raffler, 2016). The paper is closest to Xu et al. (2018), who examine the effects of social proximity between bureaucrats and their constituents.

2   Context

The study takes place in the city of Kananga, in the Democratic Republic of Congo (DRC). Kananga, a city of roughly 1 million (the fourth largest in Congo), is the seat of the Provincial Government of Kasai Central. Like many provincial governments in Congo and elsewhere in sub-Saharan Africa, state

capacity is weak, and the citizen tax base very small. With nearly 6 million people in the province, one of the poorest in the D.R. Congo, provincial tax receipts from 2010-2015 averaged around USD $2 million per year, with the greatest share being paid by firms — such as mobile phone and mining companies — located in downtown Kananga. The majority of government revenues instead come from national transfers and resource rents.

2.1 Underlying variation in chief tax collection

A large ongoing field experiment in collaboration with the Provincial Government of Kasai Central investigates centralized and decentralized property tax collection (Balán et al., 2019).[1] The experiment is set in the context of the 2018 property tax campaign in the city of Kananga. The unit of randomization is the neighborhood of Kananga (364 in total). In neighborhoods assigned to central tax collection, agents of the provincial tax ministry collected the property tax. In neighborhoods assigned to local tax collection, local bureaucrats known as avenue chiefs were charged with the same task. Finally, five 'pure control' neighborhoods received tax fliers instructing them how to pay at the tax ministry, but no field-based tax collectors conducted door to door collection.

In all neighborhoods, the assigned collectors completed two steps for the tax campaign. First, they completed a register of all taxpayers in the neighborhood, during which they distributed tax letters that showed the amount of taxes due. Second, they collected taxes in the field using portable printers to issue receipts. Central and local collectors had identical training and collection procedures during the campaign; they also received identical financial compensation. What varies across tax collection arms is the fact that local collectors are avenue chiefs that live in the neighborhoods in which they collect taxes, while central collectors are government agents that do not.

It is also worth noting that systematic formal tax collection was rare in the past. Fewer than 10% of a random sample of citizens collected in 2016 in Kananga reported every paying formal taxes in the past. Similarly, only a handful of avenue chiefs report ever having been charged with formal tax collection in the past. The government asking them to collect property taxes for this program thus represents a shock to their responsibilities that could impact their sense of duty and their responsiveness to citizens.

2.2 Antipoverty program

A key component of this study is a partnership with the Division of Social Affairs (DIVAS), an arm of the Provincial Government of Kasai Central. Every year the DIVAS administers programs to help vulnerable households in Kananga. These programs often involve providing nutritional or financial support to the handicapped, the elderly, and disadvantaged children. Other programs seek to help with the reintegration of young people acting as combatants in a recent conflict.

---

[1]For a detailed description of this experiment, see the pre-analysis plan located on the AEA registry under the reference number AEARCTR-0003308.

We are partnering with DIVAS in the administration of a cash transfer program in 2019. Specifically, DIVAS is organizing a series of lotteries to allocate cash transfers to needy households in Kananga. Importantly, avenue chiefs across Kananga are in charge of distributing lottery tickets to the most needy households in their communities. DIVAS chose the avenue chiefs for this task given their local knowledge about the economic means of the different families living in the community. Indeed, governments engaging local chiefs to help in the distribution of such programs occurs in a number of sub-Saharan African contexts (Baldwin, 2015; Basurto et al., 2017).

Specifically, the program works as follows:

1. Chiefs attend a training for the program, in which they learn the purpose of the program and details of its administration.[2]

2. Chiefs receive a set of lottery tickets (the average number is 25 tickets, scaled by the population of the neighborhood).

3. Chiefs can give up to a limit of 3 per household in their neighborhood.

4. Chiefs have roughly ten days to distribute all of their tickets. They give half of a ticket slip to the household, and keep the other half of the ticket, writing the citizen's name and address on it.

5. A public lottery conducted by DIVAS chooses five winners of 10,000 Congolese Francs (CF), about $8 or the cost of two chickens in Kananga.

6. The cash is delivered to the winners. Chiefs deliver the cash to winners accompanied by a DIVAS representative for the first two winners, to model the correct protocol and attribute the program to the provincial government. Then the chief delivers the remaining three winners himself.

We are working with DIVAS in order to measure the outcomes from this lottery. Specifically, we will be able to record all of the lottery tickets and match them to household survey data. This enables us to characterize the distribution of ticket recipients across neighborhoods: the average neediness of recipients, whether there are errors of inclusion or exclusion, and whether recipients have connections or are relatives of the chief, etc. We also cross-randomize three experimental arms discussed in the next section.

3 Design

The current project builds on the experimental variation in tax collection responsibilities in Balán et al. (2019) to evaluate how collecting taxes affects the performance of local bureaucrats. Because the

---

[2]Specifically, they receive a paper census list of the property owners in the neighborhood, showing their name, household ID, and address.

mode of collection is assigned on the neighborhood level, there is random variation in whether chiefs (whose jurisdictions are roughly coterminous with neighborhoods) have been charged with tax collection in 2018. The experience of tax collection represents a shift in chief responsibilities, which before the campaign mainly involved dispute resolution and organizing an informal tax, "salongo" in which citizens help provide local public goods (Olken and Singhal, 2011). Very few chiefs have ever collected taxes before. In a random sample of individuals in Kananga, only 7% reported their chief ever collecting taxes in the past. That said, to be conservative, in the random assignment of tax treatments, we stratified on the experience of avenue chiefs with tax collection. Our treatment and control groups of chiefs are thus balanced in the extent to which they have ever been asked by the government to collect taxes in the past.

In addition to the underlying random variation in whether avenue chiefs collected property taxes in 2018, we cross-randomize three experimental arms specific to this study in bureaucrat performance. The first arm has no additional intervention. This arm will enable us to measure the first possible mechanism through which tax collection could impact chief performance: altering chiefs' public spiritedness. This is one channel consistent with the classic tax-accountability hypothesis.

In the second arm, we will randomly select 20% of households within a selected neighborhood to receive information about the lottery.[3] This treatment will create variation across neighborhoods in whether citizens have received information, but also within neighborhoods among citizens. Through door-to-door visits to households in selected neighborhoods, citizens will receive written and oral information about (a) the name and rank of the chief who will be responsible for distributing lottery tickets on the avenue, (b) the time period during which the chief will be distributing lottery tickets, (c) the total number of winners per neighborhood. The flier also notes that citizens can "see the chief for more information." An example flier is shown in Figure 1.

This treatment will enable us to test the second theoretical mechanism: that chiefs will be more responsive to individual demands made by citizens. The information treatments function as an encouragement for citizens to talk to the chief and, if eligible, ask for lottery tickets. Although we expect that information about the program will spread in all neighborhoods (and thus citizens will seek out their chiefs to ask for tickets), this treatment should randomly shock the number of citizens who know about when the chief will be distributing tickets to make such individual demands more likely.

Finally, in a third arm, we seek to shock the capacity of citizens in the neighborhood to engage in collective action and exert pressure on their chief. The motivation for this arm is one of the main channels through which taxation may induce accountable governance: citizens are thought to be better able to monitor their leaders and hold them accountable (Moore, 2008; Prichard, 2015). For instance, tax collection could stimulate collective action more broadly by stimulating communication and generating common objectives in accessing state-provided resources and public goods. Chiefs may be more likely

---

[3]Although many citizens may have some level of knowledge about the lottery, they are unlikely to know precisely when the chief has received the tickets and is distributing them in the community.

to distribute the antipoverty program benefits widely, or at least according to the preferences of their constituents, in anticipation of such collective action or in response to it.

To shock the collective action potential of neighborhoods, we will randomly give citizens an opportunity to vote for community audits of the chief who worked on the program as well as DIVAS itself. The audits will be conducted by well-known and respected local civil society organizations: RIAC (the Network for Transparency and Anti-corruption), which specializes in promoting transparency and fighting corruption, and SOCICO (the Civil Society of Congo), which focuses on government accountability in the areas of violence, conflict, and elections. RIAC and SOCICO frequently conduct community meetings investigating the comportment of officials in different government programs. For the audits of this antipoverty program, RIAC and SOCICO staff will bring together citizens, the chief, and/or the DIVAS representatives to discuss the details of the antipoverty program: who received the lottery tickets, how many tickets each, who technically won the lottery, who actually received the goods, etc.[4] RIAC and SOCICO will organize audits in the neighborhoods that submit the most votes (as a share of the population).

Thus, before the chief begins distributing lottery tickets, 20% of citizens in neighborhoods selected into this treatment will receive information fliers (as in the previous arm) plus audit meeting request forms.[5] An example form is shown in Figure 2. This form informs citizens that they have the ability to request an audit meeting to investigate if the program was implemented properly and fairly. Importantly, citizens can separately request audits of the chief or DIVAS, the two key actors involved with the program. They receive two different forms and to vote they must drop these forms in two different drop box located in different locations in the city center. They are also free to submit both meeting request forms.[6]

Importantly, citizens will request the audit meeting one week before the actual distribution of lottery tickets begins. The outcome of the vote (whether the community will receive a meeting due to high participation) will not be revealed to the chief until after the lottery winners have received their goods. Thus, when distributing lottery tickets, the chief in a selected neighborhood will know that the citizens have had the opportunity to demand a monitoring meeting, but not whether the meeting will occur with certainty. He or she will simply know that there is a higher probability of community pressure than in the No Information arm, for instance. This treatment arm enables us to test the validity of the third theoretical mechanism, namely that the higher threat of citizen collective action impacts how the chief chooses to distribute lottery tickets.

---

[4]Such community meetings are common in the DRC. Although there are few formal avenues of engagement with the state, local meetings at the avenue or quartier level were the principal form of political expression discussed by participants in focus group meetings held in Kananga in 2016.

[5]Thus this treatment can be thought of as information plus a shock to the neighborhood's collective action capacity.

[6]The fact that it is independently costly for citizens to request meetings of both entities means that we will be able to analyze whether chief tax collection increases demand for audits of chiefs and simultaneously erodes demand for audits of the provincial government, implying that demand for local and central government accountability are substitutes. This question will be the subject of a companion paper (Bergeron et al., 2019).

The experimental design is shown in Table 1.

Table 1: Experimental design: treatment cells

	No Information	**Information**	**Information + Community Audit**
Chiefs do not collect taxes	T1 (30)	T2 (31)	T3 (45)
Chiefs collect taxes	T4 (71)	T5 (68)	T6 (111)

The number of clusters (neighborhoods) is shown in parentheses.

We randomly assign the entirety of chiefs' jurisdictions — which can comprise multiple neighborhoods — to the sub-treatment arms, within tax collection groups. Because the taxation interventions were randomized at the neighborhood-level, there exists variation at the chief level in whether a chief who collected taxes during the campaign collected in a particular neighborhood within his or her jurisdiction or not.[7] Due to the design of the tax collection experiment, a greater proportion of chiefs were enlisted in tax collection than not, accounting for a higher proportion belonging to the "Chiefs collect taxes" group.[8] For the purposes of this study, we take as given the random variation in whether a chief collected taxes. We define strata according to two characteristics of chief jurisdiction: geographic proximity of the jurisdiction to the city center and the median of average tax compliance (within jurisdiction) in the context of the 2018 campaign. We then randomize the sub-treatments with groups defined by chiefs' collection status and strata.

We also have a small "pure control" tax collection group of five neighborhoods from Balán et al. (2019), in which citizens were informed about the tax campaign, but received no visits from tax collectors and were expected to pay the tax themselves at the tax ministry (as was the status quo system until 2016). All of these cells are assigned to the Information + Community Audit arm.[9]

Comparing outcomes across these experimental cells will estimate the relative strength of the hypothesized mechanisms. Comparing T1 to T4 measures whether tax collection enhances bureaucrats' sense of personal responsibility and improves overall performance. Comparing T1 to T2 and to T3 will measure how individual citizen pressure and citizen collective action (absent enhancements to chief responsibilities) impact performance. Comparing T5 to T2 and T6 to T3 will show whether, tax collector chiefs appear more responsive to individual citizen demands, or to collective demands, compared to chiefs who did not collect taxes. Moreover, we will compare whether the impacts of individual citizen

---

[7]We will exploit this variation to address alternative explanations. See Section 4.4.

[8]This is because Balán et al. (2019) implemented a hybrid treatment arm that paired chiefs with central collectors, in addition to the main chief collection treatment in which chiefs collected by themselves, with the help of an assistant drawn from the neighborhood.

[9]This arm is not shown in Table 1. Chiefs whose jurisdictions encompass neighborhoods within this control group of five neighborhoods but also neighborhoods in which central or local tax collection were conducted will be randomly assigned to the treatment groups described above. However, regardless of the treatment assignment of chiefs' non-control group neighborhoods, the Information + Community Audit intervention will be conducted in the control neighborhoods by the relevant chief. If the treatment status of a chief's non-control neighborhoods is not the Information + Community Audit treatment, then these chiefs' will be tasked with distribution in the control polygons only after completing distribution in the non-control polygons, so that exposure to the audit treatment does not affect chief's behavior in neighborhoods assigned to alternative treatments.

pressure in neighborhoods where chiefs did not collect taxes (T2-T1) are the same as the gains from citizen pressure in neighborhoods where they did collect taxes (T5-T4), and likewise for the gains for collective action (T3-T1 versus T6-T4). These comparisons will indicate whether taxation by chiefs strengthens the extent to which citizens can hold them accountable, and whether this operates more through increased responsiveness to individuals, or in response to the threat of collective action. If we see no difference across these margins, we can be more confident that observed differences in performance among chief tax collectors reflects the enhancement of personal responsibility and public-spiritedness.

3.1 Other experimental manipulations

In addition to our main treatment arms, we add two other sources of experimental variation.

First, as noted above, during the chief training, all chiefs receive a census list noting information about the property owners in their neighborhood. On randomly selected census lists, the employment information of each property owner will also be provided, since employment is correlated with need. This information will be randomized at the chief-level, within the two chief collection treatments and strata. The goal of this intervention is to test if simple informational advantages cold explain observed differences in the distribution of lottery tickets across collector and non-collector chiefs, as discussed more on p. 18.

Second, although there is no explicit link between taxation and the antipoverty program, in collaboration with the government we also introduce a tax prime among randomly selected citizens in the community audit arm only. Specifically, we randomly vary on the individual level whether citizens are referred to as 'citizens' or 'taxpayers' in the community audit request form (see Figure 2). This in essence functions as a tax prime. We will examine the tax prime chiefly in a companion paper on citizens' decisions to submit these audit request forms (Bergeron et al., 2019).

4 Measuring chief performance

For our primary measure of local bureaucrat performance, we partner with the Division of Social Affairs (DIVAS) of the provincial government in the administration of the antipoverty program discussed above. As noted, chiefs are responsible for distributing tickets to a lottery in their neighborhoods to determine which inhabitants receive cash transfers. Chiefs are instructed by DIVAS to target the neediest households on the avenue.

Importantly, the part of the lottery process over which the chief exerts discretion is the distribution of tickets. The chief cannot influence the lottery or the distribution of the antipoverty benefits once the lottery has occurred.[10] Moreover, we can observe perfectly the distribution of the tickets due to the

---

[10]There is one small exception, which is that the chief is charged with distributing the last 3 cash transfers. But he does

presence of the unique household number on both parts of the lottery ticket. We can match this number to household surveys and administrative tax compliance data. This will enable us to characterize the chief's targeting function, i.e. to test if he targets the neediest inhabitants in the neighborhood.

Chiefs' chosen distribution of lottery tickets will provide a real-world measure of performance in a task that bureaucrats frequently face: the distribution of scarce government resources. Indeed, the distribution of government aid or other social safety net programs often falls to local bureaucrats who exercise considerable discretion in how they allocate desirable benefits (Alatas et al., 2012, 2016; Basurto et al., 2017). Moreover, the use of lotteries is not unusual in Kananga and elsewhere. In Kananga, the provincial government has used lotteries for this and similar programs on several occasions in the past decade. Outside of the DRC, lotteries are commonly used by governments to allocate scarce benefits like scholarships, to incentivize tax compliance (e.g. VAT receipt lotteries (Naritomi, 2019)), or even to provide public goods (e.g. provision of sidewalks using a taxpayer lottery Carrillo et al. (2017)).

4.1 Outcome variables

The primary outcomes of interest concern chiefs' chosen distribution of lottery tickets in the antipoverty program. We operationalize this as follows.

Variables on the individual level:

1. *Need*. This is a measure of economic need among households that received tickets for the antipoverty program in different neighborhoods. The analysis will be on the level of all ticket recipients. We will measure need using survey data on assets and household characteristics.

2. *Error of inclusion*. Following Alatas et al. (2012), we would estimate the 20% neediest compounds in each neighborhood using data on the household characteristics, job, and ethnicity of the property owner. Specifically, we will follow a two-step procedure. First, we will take the endline sample from Balán et al. (2019) ($N = 4400$) and regress a more detailed set of measures of economic hardship on the aforementioned variables (household characteristics, job, ethnicity) that we observe for all compounds in Kananga. We will keep only those variables that are predictive at minimum at the 10% level. Second, we will use those variables to predict the neediness of all households on which we observe this set of variables (roughly 48,000). Having estimated the 20% neediest compounds, we can then estimate inclusion errors (people who are not poor enough to warrant getting tickets) on the individual level.[11] Additionally, following Basurto et al. (2017),

---

not know this in advance.

[11]One issue with this measure is that we have missing data on certain household characteristics, especially the job and ethnicity of the property owner. Assuming data are missing at random, this will lead us to underestimate errors of inclusion and exclusion. However, such measurement error should be constant across arms, given that the survey procedures were identical. Thus, such measurement error should not induce systematic bias in our estimates of inclusion or exclusion errors.

we will implement this exercise within the endline sample alone, which though a smaller set of observations, possesses richer data and comprises a random sample of citizens within neighborhoods.

3. *Error of exclusion*. Following the same procedure as above, we can measure exclusion errors, i.e. people who are in the 20% of poorest compounds but did not get tickets. We anticipate that exclusion rates will be high, which will be consistent with most of the targeting literature in developing countries.[12]

4. *Any error*. This outcome is an indicator for either type of error. Because the data requirements in estimating errors of inclusion and exclusion are high, we view these as secondary measures compared to *Need*, for which we will have more complete data.

5. *Received ticket*. This is an indicator that a household received a lottery ticket. We principally examine this outcome when estimating heterogeneous treatment effects among key subgroups, such as poor households, coethnics of the chief, and family members of the chiefs[13], and taxpayer status.

Although these individual-level variables are our main outcomes, we will also consider several neighborhood-level outcomes (for which we will likely be less powered).

Variables on the neighborhood level:

1. *Diversion*. Because the chief will have discretion over the delivery of the last 3 cash transfers, we can leverage this aspect of the program as a test of his integrity. We will interview lottery winners 1-3 weeks later to ask how much they received, so we can measure if the chief delivered the correct amount of money to the winners. This outcome, measured on the level of households that won the lottery and for which the chief is responsible for delivering the cash transfers, will simply be the amount of money households should have received (10,000 CF) minus the amount they report having received.[14]

2. *Nepotism*. Although we will examine *Received ticket* with heterogeneous effects by family member status (of the chief), we will also construct a neighborhood-level measure equal to the share

---

[12]For instance, Alatas et al. (2016) found that 84 percent of the estimated poorest households were excluded in the more successful of two targeting strategies (self-targeting through ordeals).

[13]For households in our endline sample for the tax collection RCT, we observe if the citizens self reports being a family member of the chief, having the phone number of the chief, and whether the two attend the same church. We observe a similar set of data about all ticket recipients in the endline survey for this project.

[14]Another measure of corruption is a dummy for tickets that are issued to abandoned compounds, fake individuals in real compounds, or compound codes that do not exist. Although it is possible the latter could indicate incompetence, repeated instances of codes greater than the maximum code in the neighborhood is unlikely to arise by accident and thus offers another measure of chief attempts at corruption. In the endline survey, we will validate for each ticket that there is a real individual of that name living in the compound. In negative cases, we will code this as a case of attempted diversion.

of tickets received by the chief's family divided by the share of family in neighborhood.[15] We will have self reported information by the chief and by the ticket recipients about any familial links between the two parties.

3. *Ethnic bias*. This variable will be constructed similarly to the previous variable: the share of tickets to coethnics / share of coethnics in neighborhood. We will explore different measures of co-ethnicity: (i) whether the chief and ticket receiver come from the same tribe (our preferred measure), (ii) whether they come from the same territory (a finer kin-based unit), or (iii) whether they come from the same subtribe (a still finer kin-based unit). The advantage of the first measure is that it is measured precisely; the disadvantage is it may have little variation within neighborhoods. The advantage of the last measure is it has the most variation within neighborhoods, but it is measured imprecisely.[16] The territorial measure is, to some extent, a compromise between these tradeoffs. Still, given the evidence of ethnic bias in the literature on African politics, our preferred measure will be self-reported tribe match, followed by territory match and subtribe match.

4. *Taxpayer bias*. This variable is also measured as the share of tickets to taxpayers / share of taxpayers in neighborhood. Although distributing tickets to taxpayers would likely run against the objective of the program — chiefs are supposed to target the most economically needy households who are unlikely to have paid taxes — it is possible that chiefs seek to reciprocate taxpayers by giving them lottery tickets.

Moreover, we will supplement the outcomes from the chief's revealed distribution of lottery tickets using several outcomes from survey data. First, we will use a 4,400 pre-lottery survey from Balán et al. (2019) to elicit citizens' attitudes about chiefs who taxed and did not tax. We will measure citizens' perceived responsiveness of chiefs, importance of work done by chiefs, corruption of chiefs, ethnic bias of chiefs, trust in chiefs, and evaluation of chiefs. We will also use this survey data to measure the activities of chiefs, based on citizens' reports. Specifically, we will ask citizens how often the chief has organized salongo, helped with dispute resolution, and advocated on behalf of the community to higher authorities. Second, we will use baseline and endline surveys with chiefs from Balán et al. (2019) to measures changes in chiefs' own perceptions of their responsiveness, activities, and preferences for redistribution.

Another form of survey data is a short endline survey that we will conduct after the distribution of tickets and prizes to lottery winners. For this survey, we will take a random sample of 8-10 households per neighborhood, supplemented by 3-4 randomly selected ticket recipients. In this survey, we will ask a similar set of outcomes as noted in the previous paragraph. Specifically, we will ask more detail

---

[15]So for instance, if a chief gives 15 of 20 tickets to family, but his family represent 15/100 total households, then the variable would be (15/20)/(15/100) = 5. Compare that to an area if only 1 of 20 tickets went to family and family represent 15/100 = 0.33.

[16]Subtribes often have multiple names, and often young people in Kananga do not know or remember their subtribe.

about recent participation in salongo to test whether chiefs demand more informal tax from households that receive tickets (a quid pro quo). We will also ask citizens their perceptions of the chiefs' chosen allocation of tickets: to what extent citizens think the chief gave tickets to needy people versus family members, coethnics, and friends. Finally, we will ask overall satisfaction and perceptions of the fairness of the program.

Finally, we will also conduct a short survey with all chiefs before the distribution of tickets (but after tax collection). This survey will permit us to examine if the experience of collecting taxes changed chiefs' self-reported beliefs about their roles and responsibilities. Additionally, to obtain a behavioral measure of chiefs' sense of duty toward their constituents, we will give each chief the chance to contribute a portion of his transport payment to the lottery money that will be distributed to citizens in the neighborhood. Contributing more indicates willingness to make costly sacrifices for one's constituents. Finally, we will measure to what extent chiefs feel a responsibility to obey the government, especially when its orders are not consistent with the interests of their constituents. This measure will help us examine if chiefs' distribution of tickets changes because tax collection makes them more obedient to the government.

4.2   Estimation

The simplest analysis is a graphical comparison of the distribution of estimated need among recipients of tickets across treatment cells. We will plot the CDFs and use Kolmogorov-Smirnov tests of equality to determine if these distributions are statistically different. We will also use non-parametric Fan regressions of the probability of receiving a ticket as a function of estimated need, constructing bootstrapped confidence intervals.[17]

Then, we will estimate effects using an intent-to-treat framework. For outcome Y_{ijkl} (such as the estimated economic need of a household), where i indexes the individual, j the neighborhood, k the chief jurisdiction, and l the randomization stratum, we will estimate the following equation.

$$Y_{ijkl} = \beta_1 CHIEFTAX_{jkl} + \alpha_l + \mathbf{X}_{ijkl}\mathbf{\Gamma} + \mathbf{X}_{jkl}\mathbf{\Phi} + \mathbf{X}_{kl}\mathbf{\Omega} + \epsilon_{ijkl} \qquad (1)$$

$\mathbf{X}_{ijkl}$, $\mathbf{X}_{jkl}$, and $\mathbf{X}_{kl}$ are vectors of individual-, polygon-, and chief jurisdiction-level covariates, and the α_l are strata fixed effects. This estimation collapses the information and community monitoring treatments and examines if the experience of collecting taxes affects the extent to which chiefs targeted economically needy households. In addition to estimating average treatment effects, we will explore heterogeneous treatment effects based on certain pre-treatment characteristics of households, as discussed on p 11.

---

[17]This analysis is inspired by Alatas et al. (2016).

13

To explore mechanisms, we estimate a second equation leveraging our main treatment arms.

$$Y_{ijkl} = \beta_1 CHIEFTAX_{jkl} + \beta_2 CHIEFTAX_{jkl} * INFO_{kl} + \beta_3 INFO_{kl} + \quad (2)$$
$$\beta_4 CHIEFTAX_{jkl} * AUDIT_{kl} + \beta_5 AUDIT_{kl}$$
$$\alpha_l + \mathbf{X}_{ijkl}\mathbf{\Gamma} + \mathbf{X}_{jkl}\mathbf{\Phi} + \mathbf{X}_{kl}\mathbf{\Omega} + \epsilon_{ijkl}$$

In this equation, β_3 recovers the average change in the probability of receiving a lottery ticket associated with informing a random sample of citizens about the development program, in neighborhoods in which chiefs did not collect taxes. Then, β_2 captures if informing chiefs triggers a larger change among collector chiefs. Similarly, β_5 estimates the effect of informing the chief about the possibility of community audit meetings in neighborhood without chief tax collection, while β_4 estimates if this treatment has a bigger impact where chiefs did collect taxes.

The average (neighborhood-level) effect of the information treatment could operate through two channels. First, the individuals who receive informational fliers could respond to this encouragement and go lobby the chief for tickets. If this chief shifts from distributing fewer tickets to himself and his family, and more tickets to informed households, then this *responsiveness to individual demands* channel could lead to an average increase in the probability that households in the neighborhood receive tickets. Second, chiefs will learn that some individuals have received informational fliers, and even though they have received specific instructions that they are under no obligation to give tickets to citizens with fliers (who have been randomly assigned without regard to their neediness), they might still increase their effort in distributing tickets (and/or decrease nepotism) to all citizens because they anticipate citizen pressure. This *anticipation of citizen pressure* channel would predict an average increase in the probability that all households receive tickets, not just those that receive informational fliers.

Thus, to distinguish between these alternatives, we will estimate the following equation *within neighborhoods assigned to the information treatment.*

$$Y_{ijkl} = \beta_1 CHIEFTAX_{jkl} + \beta_2 CHIEFTAX_{jkl} * INFO_{ijkl} + \beta_3 INFO_{ijkl} + \quad (3)$$
$$\alpha_l + \mathbf{X}_{ijkl}\mathbf{\Gamma} + \mathbf{X}_{jkl}\mathbf{\Phi} + \mathbf{X}_{kl}\mathbf{\Omega} + \epsilon_{ijkl}$$

This estimation leverages the random assignment of the information treatment on the individual compound level. β_3 estimates the change in probability of receiving a lottery ticket among households that receive an informational flier relative to households that do not receive a flier but are also in a neighborhood assigned to information. According to the first channel, responsiveness to individual demands, households receiving fliers would be more likely to receive tickets than those not receiving

fliers ($\beta_3 > 0$). According to the second channel, anticipation of citizen pressure, there should be no difference on this dimension ($\beta_3 = 0$). The predictions for chief tax areas are analogous.

One would also observe a $\beta_3 = 0$ in the presence of informational spillovers from the fliers: neighbors of treated households would learn about the program and also lobby their chief for tickets. To investigate this possibility, we will exploit the (random) variation between households receiving fliers in neighborhoods in the information arm. Specifically, we will compare households adjacent to flier receivers to households (i.e. neighbors) that are not adjacent to flier receivers (i.e. neighbors of neighbors). In the presence of informational spillovers, the farther a household is from a treated household, the less likely it would be to receive a ticket. Conversely, if chiefs are distributing more widely due to anticipation of citizen pressure (the second channel), there should be no difference between un-treated households that are closer to and farther from treated households.

Chiefs could also substitute from distributing tickets to one type of household in the no-information treatment arm to distributing to informed households in the information treatment arm. In that case, we would observe no average effect of the information treatment on the neighborhood level (in Equation 2), but a positive β_3 (and β_2) in Equation 3.

4.3   Hypotheses

Our main hypotheses are as follows.

1. *Tax collector chiefs will target more economically needy households.* In Equation 1, we therefore anticipate $\beta_1 > 0$ when examining outcomes like the economic needs of ticket recipients. In words, we hypothesize that chiefs who worked as tax collectors will better target lottery tickets to economically disadvantaged households. We thus similarly expect that they will commit fewer errors of inclusion and exclusion.

2. *Tax collector chiefs will be less corrupt.* Again consistent with the experience of tax collection making government officials more accountable to their constituents, we expect that chiefs who have collected taxes will divert less of the antipoverty program benefits to themselves and their families. We therefore anticipate $\beta_1 < 0$ (in Equation 1) if a measure of *Diversion*, such as (i) the amount of winnings the chief appears to have pocketed, or (ii) or the number of abandoned compounds / unknown individuals in compounds who received tickets. We hypothesize that collecting taxes increases avenue chiefs' distribution of lottery tickets to their constituents, relative to keeping them for themselves or family members: $\beta_1 > 0$.

3. *Tax collector chiefs will exhibit less favoritism based on kin and ethnicity.* We expect that the experience of collecting taxes will lead chiefs from targeting coethnics and kin toward targeting the economically needy. In other words, in addition to our first hypothesis, we expect a substitution

of chief targeting away from coethnics in the neighborhood. If *Nepotism* or *Ethnic bias* is the outcome, we therefore expect $\beta_1 < 0$ in Equation 1.[18]

These hypotheses are based on the tax-accountability literature, which finds that when governments expand the tax base, citizens exert more effort to participate and hold the government to account, resulting in more responsive governance in the long run.[19] That said, it is theoretically possible that despite overall effects on the government, the effects of tax collection on local bureaucrats could be different. Specifically, one could imagine that through the tax campaign, the state coopted avenue chiefs, and they will feel a *weaker* sense of personal responsibility to their constituents and thus be more corrupt.[20] However, we believe the theoretical literature provides stronger reason to expect the opposite, hence the sign of our hypotheses.

In addition, we have several hypotheses specific to our cross-randomized treatments.

4. *Information decreases corruption, nepotism, and ethnic favoritism.* Overall, we anticipate that chiefs will exhibit less corruption in neighborhoods assigned to the Information arm (compared to the No Information arm). Thus, we expect $\beta_3 < 0$ in Equation 2 with *Diversion, Nepotism,* or *Ethnic bias* as the outcome.

5. *Community audits decrease corruption, nepotism, and ethnic favoritism.* Similarly, we anticipate that chiefs will exhibit less corruption in neighborhoods assigned to the Community Audit (compared to the No Information arm). Thus, we expect $\beta_5 < 0$ in Equation 2 with *Diversion, Nepotism,* or *Ethnic bias* as the outcome. We do not take a stand on the comparison between β_3 and β_5; this is an empirical question.

We will further examine the interactions between these treatments and the tax collector treatments to shed light on mechanisms through which being charged with tax collector could impact bureaucrat performance and accountability (discussed in Section 1). As discussed in Section 4.2, Equation 2 lets us examine if the Information or Community Audit treatments have a more pronounced effects in neighborhoods where chiefs collected taxes. For instance, if we find support for our main hypotheses, then we will examine in which cross-randomized arms the estimated effects are more pronounced. If for instance, we observe a large effect of chief tax collection in the No Information arm (i.e. $\beta_1 > 0$ in Equation 2), this would support a public spiritedness mechanism. If we observe a more pronounced

---

[18]We do not have a strong prior about whether tax collector chiefs will target taxpayers more than non-collector chiefs. In fact, it would likely contradict the government's intent with the program, since taxpayers are on average wealthier and more likely to have gainful employment. Thus, while plan to examine the targeting to taxpayers, we do not take a stand on the direction of the effect.

[19]As noted above, classic references in this literature include (Schumpeter, 1918; Tilly, 1985; North and Weingast, 1989; Ross, 2004; Moore, 2008), and more recent empirical support comes from (Paler, 2013; Martin, 2014; Prichard, 2015; Weigel, 2019).

[20]Although a very different context, this cooptation channel has echoes of the classic argument in Mamdani (2018) about indirect rule undermining the accountability of traditional chiefs in sub-Saharan Africa.

response among collector chiefs in the Information arm ($\beta_2 > 0$ in Equation 2), this would support a mechanism in which collector chiefs are more responsive to individual demands.[21] If we observe a more pronounced response in the Community Audit arm ($\beta_4 > 0$ in Equation 2), then this would support a mechanism in which collector chiefs are exhibiting higher performance because they anticipate being held to account by citizens engaging in collective action.

We do not take a stand ex ante on which mechanism is most likely, and thus likewise for the interaction coefficients in Equation 2 ($\beta 1, \beta_2, \beta_4$). Although the tax-accountability literature motivates the reduced-form hypotheses above, it provides little guidance on the mechanisms. These are thus empirical questions.

4.4 Alternative explanations

In this section, we anticipate a number of alternative explanations one could imagine if we observe empirical support for the hypotheses noted in the previous section. Below each, we detail plans to test these alternatives.

1. *Tax collector chiefs have better information.* Tax collector chiefs have recently worked on the tax campaign and thus they may be more familiar with the official borders of neighborhoods and with the unique household ID numbers compared to control chiefs. It is therefore possible that the collector chiefs will allocate lottery tickets more widely and more fairly simply because they have more such administrative knowledge. This would be more of a mechanical effect related to the particular context, rather than reflecting the underlying theories we are hoping to test.

   We believe this informational channel is unlikely because all chiefs receive a training before distributing the lottery tickets, in which they learn all necessary details about the household codes and neighborhood boundaries. All chiefs will also receive a paper census list of the property owners in the neighborhood, showing their name, household ID, and address. The training and the census list will provide more relevant information than what collector chiefs acquired working on the 2018 tax campaign. It should therefore neutralize any informational advantages possessed by chiefs who collected taxes.

   However, it is still possible that collector chiefs became better informed about the inhabitants of their neighborhoods while working as collectors. Perhaps a distribution of tickets more in line

---

[21]This statement refers to the diversion, nepotism, and coethnic bias outcomes. With the targeting outcomes (regarding the economic need of households), it is less straightforward. To see this, consider Equation 3, in which we expect that $\beta_3 > 0$: individuals who receive informational fliers will be more likely to receive lottery tickets from non-collector chiefs. Even though the fliers do not provide any guarantee of receipt of a ticket—because they are randomly distributed, whereas tickets are intended to be given to needy households—we suspect that they will give citizens bargaining power relative to the chief. However, while generally we expect tax collector chiefs to be more responsive to citizens, we also expect them to have stronger public spiritedness and thus to seek to target the economically needy. If only moved by public spiritedness, then the collector chiefs would respond less to citizens who have informational fliers (on average) compared to non-collector chiefs. Thus these two forces point in opposite directions, and we believe the theoretical prediction is ambiguous. The same principle (and theoretical ambiguity) applies in thinking about our hypothesis for β_2 in Equation 2 when *Need* is the outcome.

with household need reflects this information about the actual neediness of different households, which they learned while going door to door on the campaign. Or, if collector chiefs are found to target taxpayers this could also reflect specific knowledge that they would have learned during the tax campaign. To rule out these possibilities, we have three strategies:

- We will exploit the fact that some chiefs collected taxes in only part of their jurisdiction, but they will be responsible for distributing lottery tickets in the entire jurisdiction. If changes to the chiefs' chosen distribution of lottery tickets stems from information gained during collection, then this should only apply to areas that they taxed in. On the other hand, if it reflects a sense of personal responsibility or changes in intrinsic motivation, then these would likely apply even in areas they did not collect taxes.

- We will conduct a short survey module with all treated and control chiefs before distribution in which they (i) respond to simple factual questions about a random sample of people in their community, and (ii) estimate the relative neediness of those random households. Specifically, they will be presented with photographs of the houses of a random sample of their neighborhood's inhabitants. For each, they will be asked to provide the name, occupation, and schooling. Then they will assess the relative neediness of that person compared to others in the neighborhood. Using household survey data, we can then assess the accuracy of the chief's estimations to test if tax collector chiefs truly have more information about the inhabitants of their jurisdictions and in particular whether they have a better sense of the neediest inhabitants.

- We will randomly (across chiefs) provide employment information about property owners, since this is a coarse but interpretable piece of information that is highly correlated with need. If collector chiefs have an informational advantage about household liquidity and need, then providing this information to non-collector chiefs would presumably neutralize that advantage. We would thus anticipate that any difference in allocation to needy households between collector and non-collector chiefs would vanish once both are provided with information about the employment status of the property owner.[22]

2. *Tax collector chiefs are more obedient to the government.* Another alternative explanation that we seek to rule out is that chiefs have simply become more obedient to the government, not to their constituents, when they worked as tax collectors. Chief responsiveness to the government channel could explain an increase in the average neediness of ticket recipients (especially if this increase is driven in the No Information arm) if chiefs are just more careful to do the government's bidding.

   To test this possibility, the government has agree to share the results of a standard task it asks of chiefs: to provide certain pieces of information about the neighborhood's current residents in

---

[22]In a similar vein, we will also randomly provide taxpayer information on the census lists, to equalize knowledge of taxpayers in the neighborhood.

the form of a census-like document. This will function as a placebo in the context of the project. Because this activity does not involve citizens, how collector and non-collector chiefs perform in the activity isolates responsiveness to the government. We will be able to observe if chiefs who collected taxes are more responsive to the government by measuring (a) the comprehensiveness of the census list (we can validate this using existing survey data conducted with all of the city's residents), and (b) the turnaround time in submitting the document to the government. Additionally, we will examine chiefs' self-reported sense of responsibility to citizens, the government, and how they choose to navigate cases in which the interests of citizens and the government conflict.

3. *Tax collector chiefs acquired management skills during tax collection.* According to this explanation, any differences in the distribution of lottery tickets simply reflect the fact that tax collector chiefs are more organized or hired on unobserved helpers to assist them in executing their tasks as chief. We will assess this potential explanation by recording whether chiefs arrive late to trainings and the lottery, whether they perform errors in the program (for instance, writing codes incorrectly, or forgetting to write codes on the tickets), and again their performance in the 'placebo' task for the government noted above.

4. *Tax collector chiefs have their intrinsic motivation crowded out by doing wage work for the tax campaign.* This hypothesis would contradict our main hypotheses above, and in particular the notion that tax collection could increase the public spiritedness of chiefs. Nevertheless, we will collect survey data from chiefs and from citizens in their neighborhoods to assess the chiefs' sense of duty, morale, and effort in the tasks with which he is charged by the government.

5. *Tax collector chiefs feel that they 'earned the right' to be nepotistic and corrupt.* This is another hypothesis with very different empirical implications from our main hypotheses. We will address it by examining survey questions about the responsibilities and obligations of bureaucrats/chiefs. Moreover, one implication is that if the above proposition is true, then chiefs who worked harder on the tax campaign (conducted more visits, collected more money) should be the most nepotistic and corrupt. This is a clear testable implication of this hypothesis.

6. *Citizens avoid talking to the chief about the antipoverty program they worry being known to the chief could lead to tax obligations in the future.* This hypothesis would predict that the information treatments would have less of a first stage (in triggering citizens to make individualistic demands of the chief for tickets) in collector chief neighborhoods. We will be able to shed light on this hypothesis using endline data in which citizens report whether they sought out the chief about the program — as well as their broader trust in and satisfaction with the chief. One way to test this is that randomly we will vary whether citizens are referred to as 'citizens' or 'taxpayers' in the community audit request form (see Figure 2). This in essence functions as a tax prime. If taxation sews mistrust of the chief, then the tax prime should depress, not increase, citizens efforts to go and ask the chief for tickets (which we measure in the endline survey).

7. *Collector chiefs may have higher incomes because of their work as tax collectors.* Ex ante, this possibility appears unlikely, given that collector chiefs only earned a small bonus (proportional to how much they collected) during the tax campaign. A different version of this story is that chiefs' will have more leverage after tax collection which means they can extract more in bribes and informal taxes from their population. This would again manifest in higher income, which could change their comportment in distributing lottery tickets because they could face different costs of exerting effort to administer the antipoverty program. We will test this possibility using self-reported income measures from chiefs. We can also measure if citizens report paying more bribes or participating in more informal taxation in chief-tax neighborhoods.

8. *Chiefs who collect the tax have their time endowment reduced, thus the treatment also affects their optimal choice of effort and leisure.* Although plausible if tax collection occurred at the same time as distribution of the tickets for the antipoverty program, this is unlikely to be a concern given that chiefs' responsibilities as tax collectors ended in December of 2018, while they only were asked to distribute tickets starting in May 2019.[23] Nonetheless, we will be able to estimate how much effort chiefs put into the program using citizens' self reports about the number of visits they received and the amount of time elapsed with the chief.

---

[23]Moreover, most chiefs worked as tax collectors for 2-4 weeks only.

References

Acemoglu, Daron and James A Robinson, "The Emergence of Weak, Despotic and Inclusive States," *Working Paper*, 2017.

_ , **Suresh Naidu, Pascual Restrepo, and James A Robinson**, "Democracy does cause growth," *Journal of Political Economy*, 2019, *127* (1), 47–100.

Alatas, Vivi, Abhijit Banerjee, Rema Hanna, Benjamin A Olken, and Julia Tobias, "Targeting the poor: evidence from a field experiment in Indonesia," *The American economic review*, 2012, *102* (4), 1206–1240.

_ , **Ririn Purnamasari, Matthew Wai-Poi, Abhijit Banerjee, Benjamin A Olken, and Rema Hanna**, "Self-targeting: Evidence from a field experiment in Indonesia," *Journal of Political Economy*, 2016, *124* (2), 371–427.

Ashraf, Nava, Oriana Bandiera, and Scott S Lee, "Do-gooders and Ladderclimbers: Career incentives, Selection, and Performance in Public Service Delivery," 2014.

Balán, Pablo, Augustin Bergeron, Gabriel Tourek, and Jonathan Weigel, "Local vs. Central Taxation: Evidence from Property Tax Collection in Congo," *Working Paper*, 2019.

Baldwin, Kate, *The paradox of traditional chiefs in democratic Africa*, Cambridge University Press, 2015.

Bank, World, *World Development Report 2004: Making Services Work for Poor People*, World Bank, 2004.

Basurto, Pia M, Pascaline Dupas, and Jonathan Robinson, "Decentralization and efficiency of subsidy targeting: Evidence from chiefs in rural Malawi," Technical Report, National Bureau of Economic Research 2017.

Bates, Robert H and Da-Hsiang Donald Lien, "A note on taxation, development, and representative government," *Politics & Society*, 1985, *14* (1), 53–70.

Bergeron, Augustin, Laura Paler, Gabriel Tourek, and Jonathan Weigel, "Effects of Decentralized Tax Collection on Citizen Engagement," 2019.

Besley, Timothy and Torsten Persson, "The origins of state capacity: Property rights, taxation and policy," *The American Economic Review*, 2009, *99* (4), 1218–1244.

Bó, Ernesto Dal, Frederico Finan, and Martín A Rossi, "Strengthening state capabilities: The role of financial incentives in the call to public service," *The Quarterly Journal of Economics*, 2013, *128* (3), 1169–1218.

Callen, Michael Joseph, Saad Gulzar, Syed Ali Hasanain, and Muhammad Yasir Khan, "The political economy of public employee absence: Experimental evidence from Pakistan," *Available at SSRN 2316245*, 2013.

Carrillo, Paul, Dina Pomeranz, and Monica Singhal, "Dodging the taxman: Firm misreporting and limits to tax enforcement," *American Economic Journal: Applied Economics*, 2017, *9* (2), 144–164.

Finan, Frederico, Benjamin A Olken, and Rohini Pande, "The personnel economics of the developing state," in "Handbook of Economic Field Experiments," Vol. 2, Elsevier, 2017, pp. 467–514.

Fujiwara, Thomas, "Voting technology, political responsiveness, and infant health: Evidence from Brazil," *Econometrica*, 2015, *83* (2), 423–464.

Gulzar, Saad and Benjamin J Pasquale, "Politicians, bureaucrats, and development: Evidence from India," *American Political Science Review*, 2017, *111* (1), 162–183.

Kaldor, Nicholas, "Will underdeveloped countries learn to tax?," *Foreign Affairs*, 1963, *41* (2), 410–419.

Khan, Adnan Q, Asim I Khwaja, and Benjamin A Olken, "Tax farming redux: Experimental evidence on performance pay for tax collectors," *The Quarterly Journal of Economics*, 2015, *131* (1), 219–271.

Mamdani, Mahmood, *Citizen and subject: Contemporary Africa and the legacy of late colonialism*, Princeton University Press, 2018.

Martin, Lucy, "Taxation, loss aversion, and accountability: theory and experimental evidence for taxation's effect on citizen behavior," *Working Paper*, 2014.

Moore, Mick, "Between coercion and contract: competing narratives on taxation and governance," 2008.

Naritomi, Joana, "Consumers as Tax Auditors," *American Economic Review*, 2019.

North, Douglass C and Barry R Weingast, "Constitutions and commitment: the evolution of institutions governing public choice in seventeenth-century England," *The Journal of Economic History*, 1989, *49* (4), 803–832.

Olken, Benjamin A and Monica Singhal, "Informal taxation," *American Economic Journal: Applied Economics*, 2011, *3* (4), 1–28.

Paler, Laura, "Keeping the public purse: An experiment in windfalls, taxes, and the incentives to restrain government," *American Political Science Review*, 2013, *107* (4), 706–725.

Prichard, Wilson, *Taxation, responsiveness and accountability in Sub-Saharan Africa: the dynamics of tax bargaining*, Cambridge University Press, 2015.

Raffler, Pia, "Does political oversight of the bureaucracy increase accountability? Field experimental evidence from an electoral autocracy," Technical Report, Working paper, Yale University 2016.

Rasul, Imran and Daniel Rogger, "Management of bureaucrats and public service delivery: Evidence from the nigerian civil service," *The Economic Journal*, 2018, *128* (608), 413–446.

Rijckeghem, Caroline Van and Beatrice Weder, "Bureaucratic corruption and the rate of temptation: do wages in the civil service affect corruption, and by how much?," *Journal of development economics*, 2001, *65* (2), 307–331.

Ross, Michael L, "Does taxation lead to representation?," *British Journal of Political Science*, 2004, *34* (2), 229–249.

Schumpeter, Joseph A, "The crisis of the tax state," *International Economic Papers*, 1918, *4*, 5–38.

Tilly, Charles, "War making and state making as organized crime," *Violence: A reader*, 1985, pp. 35–60.

Weigel, Jonathan L, "The Participation Dividend Of Taxation: How Citizens In Congo Engage More With The State When It Tries To Tax Them," *Working Paper*, 2019.

Xu, Guo, Marianne Bertrand, and Robin Burgess, "Social Proximity and Bureaucrat Performance: Evidence from India," Technical Report, National Bureau of Economic Research 2018.

5 Appendix

REPUBLIQUE DEMOCRATIQUE DU CONGO
PROVINCE DU KASAÏ OCCIDENTAL
MINISTERE DES AFFAIRES SOCIALES, ACTION HUMANITAIRE ET
SOLIDARITE NATIONALE (DIVAS)

Announcement : Development Program

The Ministry of Social Affairs of the Provincial Government of Kasaï Central has the honor of announcing a development program that will take place in this avenue in the coming weeks. For this program, several residents will receive cash transfers with the aim of boosting local development. Unfortunately, there is not enough for everyone. Thus, there will a lottery to choose 5 winners on this avenue.

[Chief] will distribute lottery tickets to inhabitants of this avenue from [date training] to [date_draw]. See the chief for more information.

Informational flier for property owner [name] in the compound [compound]. Note : this flier does not guarantee receipt of a ticket.

Figure 1: Example informational flier (translated into English).

Do you want an audit and verification meeting?

As part of this program, you and other people in your avenue can **request an audit and verification meeting** organized by a civil society organization in Kananga. This is an opportunity for you as a [citizen/taxpayer] to learn more about this program and whether it was implemented properly and fairly. The meeting can focus on the actions taken by the **Division of Social Affairs**, by your **avenue chief**, or **both** in this development program.

IMPORTANT : The civil society organization will only organize a meeting for your avenue if many residents request one.

➤ To **request an audit meeting of [Actor1]**, submit the [COLOR] form to the [COLOR] drop box located at [ADDRESS1].
➤ To **request an audit meeting of [Actor2]**, submit the [COLOR] form to the [COLOR] drop box located at [ADDRESS2].

To request meetings involving **both** actors, submit both forms to the correct boxes. Everything you write will be kept confidential from the concerned parties. All forms must be submitted by **[date]**.

The avenues that submit the most requests (as a share of all households) will get top priority to receive an audit meeting. Your action is important!

REQUEST MEETING of the **[DIVAS/Chef].**	**REQUEST MEETING** of the **[DIVAS/Chef].**
To request a meeting of the [DIVAS/Chef], please **deposit this form into the locked box at :**	To request a meeting of the [DIVAS/Chef], please **deposit this form into the locked box at :**
[LOCATION].	**[LOCATION]**.
The box will have show this colored stamp:	The box will have show this colored stamp:
[COLOR STAMP]	[COLOR STAMP]
Request of the compound: [Code]	Request of the compound: [Code]

Figure 2: Example community audit meeting request form (translated into English).