# Trickle-Down Ethnic Politics: Drunk and Absent in the Kenya Police Force (1957-1970)

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How does ethnic politics affect the state's ability to provide policing services? Using a panel of administrative personnel data on the full careers of 6,784 police officers, we show how the rise of ethnic politics around Kenya's independence influenced policemen's behavior. We find a significant deterioration in discipline after Kenya's first multiparty election for those police officers of ethnic groups associated with the ruling party. These effects are driven by a behavioral change among these policemen. We find no evidence of favoritism within the police. Instead, our results are consistent with co-ethnic officers experiencing an emboldenment effect. Our findings highlight that the state's security apparatus, at its most granular level, is not insulated from ethnic politics.

The efficient provision of public goods relies on a well-functioning public service, yet many developing countries lack an efficient public sector. For instance, many authors documented widespread absenteeism in the health and education sectors (World Bank, 2004; Banerjee and Duflo, 2006; Duflo, Hanna and Ryan, 2012; Callen et al., 2016), despite the fact that public sector positions are often well-paid and highly prized. Finan, Olken and Pande (2017) emphasize three aspects that are key to understand the behavior of public servants: selection, incentive structures, and monitoring. Our paper highlights a fourth factor: political institutions which can encroach on the day-to-day behavior of public servants.

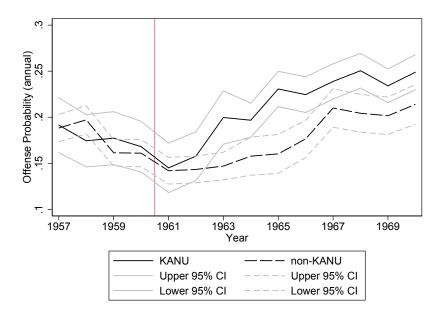
In this paper we use original data obtained from administrative personnel records that allow us to track 6,784 Kenyan police officers over their entire ca-

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<sup>&</sup>lt;sup>1</sup>Finan, Olken and Pande (2017) estimate that public sector workers in Kenya, Malawi, Niger, Nigeria and Tanzania earn more than double the average wage in the private sector. Even when taking into account differences in occupational structures of the two sectors, a premium of about 20 percent remains.

reer. These records track the offenses committed by each police officer on duty, including incidents of absenteeism, untidiness, drunkenness, disobedience, and violence.<sup>2</sup> We use these data to study the period 1957-1970 and investigate how the rise of ethnic politics affected the performance of policemen. Our results show that quickly following the first multi-party elections in 1961 and rising ethnic politics in Kenya, police officers from ethnic groups that were part of the dominant Kenya African National Union (KANU) party started to behave significantly worse.

FIGURE 1. MISCONDUCT BY ETHNIC GROUPS ASSOCIATED WITH THE RULING PARTY (KANU)



Notes: This figure plots the offense rate of police officers in a given year, split by whether the ethnic group of the police officer was affiliated with the Kenya African National Union (KANU). That is the Gema (Kikuyu, Embu, Meru) alliance throughout, the Luo until 1965, and the Kamatusa (Kalenjin, Maasai, Turkana and Samburu) after 1964. The year 1961 marks Kenya's first multiparty election.

Figure 1 visualizes this striking pattern, by comparing offense probabilities for policemen whose ethnicities were represented in the dominant KANU party, with those of ethnic groups in opposition and out of power. In the analysis that follows, we investigate the channels that underlie this pattern, scrutinizing the aspects that the literature put forward as key channels (selection, incentive structures, and monitoring).

We establish three key results. First, the increase in misconduct is driven by

 $<sup>^2</sup>$ Administrative data collected by bureaucracies themselves are rarely used in empirical work (Pepinsky, Pierskalla and Sacks, 2017).

a change in behavior from policemen rather than personnel selection. We also find no evidence that changes in work assignments to particular police divisions might have caused these increases. Second, the effect is strongest for objective offenses, such as absenteeism and drunkenness, but weak for more subjective offenses, such as disobedience. This fact suggests that the change in offence rates does not merely reflect discriminatory reporting. The context in which the original data were generated, as well as the evidence on potential mechanisms, are inconsistent with systematic misreporting. Third, we test whether favoritism distorted incentives. We confirm that policemen with a history of misconduct were less likely to be promoted and more likely to be dismissed. However, KANU policemen were not treated differently in this respect. Therefore, the deterioration of behavior is not a response to changing incentives within the police. Moreover, there is no evidence that KANU policemen are more willing to resign voluntarily, which suggests that improved outside options are unlikely to drive their behavior. However, one explanation consistent with our results is that ethnic politics created a general sense of empowerment, which emboldened the policemen of the ruling ethnic groups. Our results show that civil servants are not insulated from shocks to the political salience of their identities.

Our paper adds to three important strands of literature. First, we contribute to a fast-expanding research area that Finan, Olken and Pande (2017) describe as the "personnel economics of the state." Understanding the determinants of public sector performance is central to this literature. Existing work on high-level bureaucrats has emphasized the role of training and career background (Bertrand et al., 2015), personality traits (Callen et al., 2015), and patronage networks involving politicians (Iyer and Mani, 2012; Lehne, Shapiro and Vanden Eynde, 2018; Nath, 2016; Xu, 2016). Dal Bo, Finan and Rossi (2013) study how advertised work conditions for bureaucratic posts affect the pool of applicants. However, the literature has paid little attention to how ethnic politics shapes the behavior of public servants. Moreover, researchers rarely have access to complete personnel records of "street-level bureaucrats", using the terminology of Lipsky (1969) – like policemen. Relying on detailed historical data, our paper shows that political shocks can affect the day-to-day job performance of the state's rank-and-file.

Second, our work contributes to our understanding of the determinants of police behavior. Compared to other public sectors, there is also a dearth of work on police performance, especially in low income countries.<sup>5</sup> Nevertheless, protecting

<sup>&</sup>lt;sup>3</sup>The police is more complex than other public services. Financially incentivizing easily observable tasks (e.g. arrests made, fines issued) may lead to overzealous and inaccurate enforcement and crowd out other important but non-incentivized tasks. Moreover, in contrast to the health and education sectors that are characterized by a common interest of the state and its citizens – both want public servants (teachers, doctors, nurses) to provide high quality services, there is a tension between the interest of the government and the citizens at the receiving end of the police work (the alleged criminals). Recent innovations rest on such common interest by enlisting the help of citizens (Banerjee and Duflo, 2006; Reinikka and Svensson, 2005).

<sup>&</sup>lt;sup>4</sup>Neggers (2017) provides evidence of own-group favoritism of polling officers influencing election results in India.

<sup>&</sup>lt;sup>5</sup>One paper, not set in a developing country context but relevant for our suggested behavioral mech-

citizens and their property is one of the most fundamental public goods that the state provides, and one that is ripe for abuse under the wrong conditions (Auerbach, 2003; World Bank, 2000). One notable exception is Banerjee et al. (2012), who use an RCT to study the effects of work conditions and monitoring of policemen in Rajasthan. They find that better training and a freeze on transfers improved police effectiveness and its public image. Sierra and Titecay (2016) shed light on illicit rent-sharing agreements between lower and senior ranks of the traffic police in the DRC. Sharing our focus on ethnic politics in Kenya, Hassan (2017) provides evidence on how political interference perverted the purpose of the police. She finds that co-ethnic police officers were strategically placed to swing constituencies in the 1992 and 1997 Kenyan elections. Our paper shows that ethnic politics has impacts that are not limited to the policing of elections. Even without the direct interference of politicians, ethnic affinities can undermine the effectiveness and discipline of police officers.

Third, this paper adds to our understanding of the economic costs of ethnic diversity. Several studies link ethnic diversity to poor economic growth at the macro level (Easterly and Levine, 1997; De Luca et al., 2015; Desmet, Ortuno-Ortin and Wacziarg, 2012; Alesina, Michalopoulos and Papaioannou, 2016). At the local level, ethnic diversity is typically associated with poor public goods provision (Alesina, Baqir and Easterly, 1999; Habyarimana et al., 2007). For Kenya, Miguel and Gugerty (2005) show that ethnic diversity is associated with worse schooling facilities and access to water. Burgess et al. (2015) show how Kenyan road building was concentrated in the districts that share the same ethnicity as the president in power - an effect that disappears during democratic times. Similarly, Kramon and Posner (2016) find positive impacts on education levels for the coethnics of the minister of education, even in periods of multi-party elections.<sup>6</sup> Our paper provides micro-evidence on how the rise of ethnic politics disrupts the functioning of the state's bureaucracy by affecting the performance of its personnel.<sup>7</sup> A small number of recent papers uses similarly fine grained outcomes. For example, Shayo and Zussman (2011, 2017) show that exposure to ethnic conflict increases in-group bias among Israeli judges. Rasul and Rogger (2015) find that ethnic diversity makes Nigerian bureaucrats more productive. Focusing on team performance in the context of Kenyan flower farms, Hjort (2014) shows how ethnic tensions reduce productivity in ethnically heterogeneous production teams. In contrast, we find that it is not ethnic diversity in itself, but the political dominance of certain ethnic groups that drives poor performance. This result could reflect that both the nature of political shocks (violent ethnic conflict versus increased

anism, is Mas (2006). He finds that pay raises below a reference point reduce job performance in the New Jersey Police.

<sup>&</sup>lt;sup>6</sup>François, Rainer and Trebbi (2015) qualify these findings by showing that allocation of minister posts in African governments tends to reflect the population share of ethnic groups.

<sup>&</sup>lt;sup>7</sup>Our paper takes differences between ethnic groups or alliances as given. Posner (2004) studies the conditions under which ethnic cleavages become salient by comparing the same ethnic groups in the different political environments of Zambia and Malawi.

political power) and the nature of the organization (private firms producing in teams versus public service) matter for the relationship between ethnic politics and job performance.

The remainder of the paper is organized as follows. The next section provides background information on ethnic politics and the police in Kenya. Section II and III describe the data and the empirical strategy. Section IV presents the results. Section V studies potential mechanisms, followed by a discussion in section VI. Section VII briefly discusses external validity. Section VIII concludes.

# I. Background

## A. The Rise of Ethnic Politics

Kenya is a multi-ethnic state, made up of more than forty ethnic groups. Prior to British colonial rule boundaries between the groups were fluid (Parsons, 2012); centralized political structures were absent and authority was located at the village level and typically personal, often a function of lineage, age, and wealth rather than ethnic allegiance (Mamdani, 1996; Herbst, 2000; Lynch, 2011).

The roots of ethnic politics lie in the colonial era. The uneven penetration of European settlers created stark economic differences between ethnic groups (Ajulu, 2002; Omolo, 2002). At the same time, the colonial administration discouraged the formation of nation-wide African political activity. Consequentially, ethnic, or at best provincial, political bodies were created (e.g., the Kikuyu Provincial Association), which contributed to the differentiation of ethnicities with distinct political interests (Sanger and Nottingham, 1964; Omolo, 2002). By 1957, the following politically relevant ethnic divisions had emerged: the Kikuyu (19.7 percent), which together with the Meru (5.3 percent) and Embu (1.2 percent) form the ethnic coalition called Gema; the Kalenjin (10.8 percent), which together with the Massai (1.9 percent), Turkana (2.2 percent), and Samburu (0.6 percent) form the ethnic coalition Kamatusa; the Luo (13.8 percent); the Luhya (13.1 percent); and the Kamba (11.2 percent) (Morgan, 2000; Posner, 2004).

After the defeat of the (Kikuyu-led) Mau Mau uprising in 1956, restrictions on political activity were relaxed. In the run-up to the first (although under severely limited franchise) African elections to the legislative council in 1957 the government allowed the formation of district associations, further nourishing tribalism and giving birth to majimboism (i.e., regionalism) (Sanger and Nottingham, 1964; Anderson, 2005). The 1960s marked Kenya's transition towards independence on 12 December 1963. The years 1960-61 were characterized by the electoral run-up to the first open, nation-wide, multi-party election that would determine the transition government and the constitution. African political parties were fully sanctioned at the Lancaster House Conference in January 1960. In May 1960 the Kenya African National Union (KANU) was formed from existing tribal and provincial organizations. KANU headed by Jomo Kenyatta (a Kikuyu) became an intensely anti-colonial and nationalist party but drew most of its leadership,

membership, and support from the Gema coalition and the Luo. Fearing Kikuyu and Luo dominance, minority ethnic groups (the Kamatusa and coastal groups) formed the Kenya African Democratic Union (KADU) (Ndegwa, 1997). Led by Ronald Ngala (a Mijikenda), KADU advocated majimboism, which would give significant powers to the regions (Ajulu, 2002; Anderson, 2005). Ethnic rhetoric and antagonism ran high in the campaign, resulting in ethnic clashes and displacements in Rift Valley Province (Ajulu, 2002). The 1961 election, which KANU won with 67 percent of the votes over KADU's 16 percent, clearly illustrated the parties' relative strength and established Kenyatta as the dominant postindependence figure (Bennett and Rosberg, 1961; Hartmann, 1999). As Manners (1962) commented there was "little reason to believe the next vote will be very different." Indeed when the two parties contested the "independence election" in 1963, KANU won overwhelmingly taking 83 seats against KADU's 33 in the lower house and 18 seats against KADU's 16 in the Senate (Throup, 1993; Hartmann, 1999). Kenyatta became prime minister and later president. In 1964, KADU and KANU merged (Ndegwa, 1997). As a result, Daniel arap Moi, a Kalenjin and the vice-president in KADU at the time, became Home Minister and directly responsible for the police.8

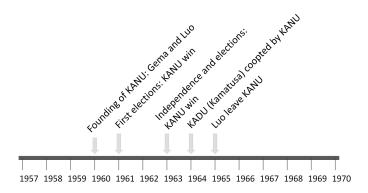
The fusion of KANU and KADU shifted the balance of power in favor of the conservative elements within KANU, which led to the defection of the left-leaning wing led by Odinga (a Luo) in 1965, creating a new opposition party, the Kenya People's Union (KPU). It opposed the perceived growing conservatism and prowestern orientation of the KANU leadership, which by then was composed exclusively of members of the Gema and Kamatusa (Ajulu, 2002). In the subsequent series of by-elections held in 1966, KANU further expanded its majority in both houses of parliament. Following the anti-communist logic of the Cold War, the KPU was banned on national security grounds in 1969, ushering in a more than 20 year period of single party rule. Our study covers the last years of colonial rule 1957-1963 and the first years of independence 1963-1970. Figure 2 summarizes the key political events that mark the inclusion and exclusion of ethnic groups to power. These are the political events we exploit to estimate the impact of ethnic politics on police performance.

#### B. Police Organization and Development

The Kenya Police is Kenya's main law enforcing body. It has always been an instrument of regime protection. During colonial times, the police answered only to the Governor. At independence this unchecked concentration of power passed to the President (Auerbach, 2003). The police is therefore vulnerable to political influence, which may ultimately affect the performance of its personnel.

<sup>&</sup>lt;sup>8</sup>The president and the Home Minister were the two positions in control of the police. Hence, from 1964 onwards, control of the police was in the hands of the Gema-Kamatusa alliance that dominated KANU. Other ministerial portfolios, however, were more broadly shared among ethnic groups at that time (François, Rainer and Trebbi, 2015).

FIGURE 2. TIMELINE OF EVENTS AROUND KENYA'S INDEPENDENCE



Notes: The figure highlights the key political events that mark the changes in the ethnic power coalition of KANU.

During colonial times, British officers hoped to find men of soldierly qualities and whose loyalty could be trusted among the Kamba and Kalenjin (the so-called "martial races"). In contrast, very few Kikuyus entered the Police Force. Only after the end of Mau Mau (in 1956) and in anticipation of Kenya's independence, a deliberate attempt was made to bring the ethnic composition in line with that of the population (Clayton, 1989). Around 1960, Police Commissioner Richard Catling initiated a process of Africanization in the higher ranks (Throup, 1992). Hastily trained, newly-promoted African officers gradually replaced Asian and European senior officers.

After Kenyatta took control in 1963, as Prime Minister and then President, changes in the police followed the same pattern as in the most important ministries (Hornsby, 2012). Kenyatta relied on ethnic loyalties and alliances. He appointed Bernard Hinga, an ethnic Kikuyu, as Police Commissioner in 1964 and by 1967 all but one of its branches and departments were led by an ethnic Kikuyu. Kenyatta particularly relied on the General Service Unit (GSU). The GSU is a paramilitary branch of the police, well-equipped and well-trained, and highly political. It was employed against internal political threats, and specifically formed a counterweight to the army. Kenyatta shifted the GSU's officer corps in favor of the Kikuyu, especially Luo officers had to go.

<sup>&</sup>lt;sup>9</sup>In 1956, 22.6 percent, 21.6 percent and 3.2 percent of police officers were Kalenjin, Kamba and Kikuyus, whereas the 1962 Census population put their share at 10.8 percent, 10.5 percent and 18.8 percent respectively (Kenya Police Annual Reports; Census 1962).

The geographical organization followed a fourfold hierarchy with the headquarter in Nairobi, then police divisions, stations, and finally, police posts that could be as small as a road block. The Kenya Police was not evenly or equally distributed. Reflecting longstanding colonial interests, the police was heavily concentrated in the urban commercial and European residential areas. They also served the "White Highlands", where Europeans owned farms. In 1957, as a legacy of Mau Mau, the police was also well presented in Kikuyu and the bordering Kalenjin areas (Throup, 1992). With the end of violence, however, the number of police posts were reduced in those areas. The majority of African rural areas in contrast were under-served. After independence the policing network expanded, particularly to African areas.

#### II. Data and Measurements

#### A. Collection and Sampling

Our primary data source are the Kenya Police Service Registers. These service records contain systematic and comprehensive information about a police officer over the full length of his career. In particular, the service registers recorded personal details at recruitment (name, ethnicity, height, place of birth and residence), any training beyond the obligatory six months, names of divisions at which the police officer served with dates of transfers, any misconducts/commendations and corresponding punishments/rewards, promotions/demotions and particulars of discharge (date, reason, overall conduct).

These personnel files are from non-active police officers and were sorted out for destruction in 2009. Awaiting appraisal by the Kenya National Archives the files were dumped in a depot at the outskirts of Nairobi. The files did not follow any obvious order and leaks in the roof destroyed a good share of the records. Our sampling strategy was to collect all readable registers of African police officers, with the exception of police officers of Kamba ethnic origin recruited before 1950, whom we deliberately undersampled as they were numerous in the Police Force before 1950.<sup>11</sup> We checked whether the ethnic composition, the organizational structure (units, provinces), and the prevalence of dismissals in our sample follow the official statistics reported in the Kenya Police Annual Reports and the Statistical Abstracts. With the exception of the Kamba before 1950, there is a very strong agreement between the sources.<sup>12</sup> We are therefore confident that our sample is largely representative of the Kenya Police Force, especially for the

<sup>&</sup>lt;sup>10</sup>African reserves were originally policed by the "Administration Police", which dealt with offenses against district council by-laws and customary law. The Kenya Police dealt with offenses against the Penal Code and general legislation (TNA CO1037/41).

 $<sup>^{11}</sup>$ It was easy to identify the year of recruitment as the color of the service registers turned from blue to red in the 1950s.

<sup>&</sup>lt;sup>12</sup>Figures A.2, A.3 and A.4 show these comparisons. The Kamba undersampling is visible in Figure A.2, while different reporting of "others" is probably due to differences in categorization of smaller groups. The administrative data on the ethnic composition ends in 1962.

time period we focus on. The attained sampling rate is about 1:4 throughout the 1957-1970 period (see Appendix Figures A.1 and A.3).<sup>13</sup>

For our purposes, we bring the data into a police officer - service year panel structure. Our panel has 6,784 policemen doing their service between 1957 and 1970.<sup>14</sup> We choose 1957 as the starting point of our conduct sample, as it is the first year after the end of the Mau Mau uprising.<sup>15</sup> This sample still includes four years of data before the 1961 elections that made the KANU party Kenya's dominant political force. Our sample stops in 1970, as we do not have any records of policemen entering service after this year.

#### B. Measurement

For each police officer, we know the dates of entry and exit, family background, ethnic group, <sup>16</sup> education, place of birth, a full promotion record, assignment history, acts of misconduct, punishment for misconduct, good behavior, training undertaken, rewards for good performance, and the character assessment on discharge. Among these variables, the richest information is contained in the conduct and punishment variables. <sup>17</sup> These cover an extremely wide range of misbehavior by policemen, and are recorded at relatively high frequency and great detail. We observe 11,406 offenses in our sample of 44,689 officer-years. One officer, for example, is reported to have stolen a "leopard's skin". We assign these acts of misconduct to a limited number of categories. The most common offenses are failure to attend duty and absence without leave (36 percent), drunkenness (10 percent), being dirty (8 percent), disobedience (8 percent), falling asleep on duty (4 percent), and allowing prisoners to escape (3 percent). 63 percent of policemen commit at least one offense. In the main specifications, we rely on a binary offense

 $^{13}$ Weighting Kamba officers in our sample to correct for undersampling does not change our main result, see Appendix Table B.7.

<sup>14</sup>Policemen enter our sample after the typical training period of six months, or their "promotion" from recruit to constable – whichever occurred earlier.

<sup>15</sup>We do not include the period of the Mau Mau rebellion in the main analysis, because we do not think that it is a valid baseline to compare the rise of ethnic politics to. Policing tasks were very different in nature, in particular in regions affected by the conflict (Throup, 1992).

<sup>16</sup>We code and standardize ethnic groups as follows. We combine Kikuyu, Embu, Meru into "Gema". We defined the Kalenjin (any of the subgroups of Cherangani, Keiyo, Kipsigis, Marakwet, Nandi, Ndorobo, Pokot, Sabaot, Tugen), Maasai, Turkana, Samburu as "Kamatusa". We then have the Kamba, Kisii, Kuria, Abaluhya, Luo, Mijikenda and Somali as relevant players. We grouped all other ethnic groups into one residual category.

<sup>17</sup>Rules and procedures are laid down in Ordinance No. 79 of 1948 "An Ordinance to Provide for the Organization, Discipline, Powers and Duties of the Police Force" (subsequent amendments did not make substantial changes). Oversight of discipline was strictly hierarchical. "Superior officers" (ranks above assistant superintendent) investigated cases of misconduct and if they found officers guilty imposed punishments. To an overwhelming degree the Police Force (and our sample) consisted of "subordinate officers" such as constables, corporals and sergeants. Article 41 lists 44 categories of offenses; Article 43 lists the punishments ranging from reprimands, fines, withdrawal of efficiency allowances, extra drills, confinement to barracks to demotion. Harsher sentences including dismissals could be imposed by the Police Commissioner. Officers had the right to appeal. We do not have information about who provided the evidence or accusation. Many offenses such as absenteeism and disobedience are internal and would let us assume that evidence was put forward by higher ranked officers within the police. Veteran police officers confirmed this in our interviews.

variable, indicating whether an individual has committed any offenses in a given year. This annual offense probability is around 20 percent.

Table 1 presents summary statistics for key variables. About 17 percent of officers were stationed in regions where their own ethnicity is the largest group (i.e., their ethnic homelands). About 33 percent of policemen signed their booklet, whereas the remaining officers provided just a thumbprint. Formal education is limited, with only about 30 percent having any formal education. The rank of every policeman is summarized on a 0 to 3 scale, where 0 corresponds to constables and recruits; 1 to corporals; 2 to sergeants; and 3 to inspectors and above. The average rank is close to 0. The service registers also provide a character assessment at discharge, ranging from "Bad" to "Exemplary", which we code on a scale between 0 and 4, where the sample mean is around 2.

Acts of misconduct can be fined, and conditional on committing an offense the average fine in our sample is about 16 Kenyan Shilling. Fines are by far the most common form of punishment, and imposed in 77 percent of offenses. In another 10 percent of cases the offense is punished in another way, for example with drills, hard labor, suspension, or in extreme cases detention. Not included in this punishment dummy are mere "reprimands", which are the only punishment in about 13 percent of offenses.

## III. Empirical Strategy

## A. Identifying the KANU Treatment Effect

Our paper studies how the behavior of policemen changes when their co-ethnics hold political power. The empirical strategy exploit three shocks to political power: (1) KANU winning Kenya's first multi-party elections in 1961, bringing the Luo and Gema (led by the Kikuyu) to power; (2) KANU absorbing the Kamatusa alliance (headed by the Kalenjin) in 1964, and (3) the Luo leaving KANU in 1965. As different groups gain and lose political power at different points in time, our main treatment varies across time and ethnic groups. Intuitively, our approach amounts to a difference-in-difference strategy, in which we compare an ethnic group that gains power through KANU to a group that does not, and time periods during which this group is in power to when it is out of power. As three groups (Gema, Kamatusa, and the Luo) gain or lose power at three different points in time (1961, 1964, and 1965), we pool three difference-in-difference estimators in our main specification:

(1) Offense<sub>i,e,t</sub> = 
$$\beta * KANU \ power_{i,e,t} + \gamma X_{i,e,t} + \delta_e + \lambda_t + \epsilon_{i,e,t}$$

The dependent variable is an indicator of whether policeman i, of ethnic group

TABLE 1—SUMMARY STATISTICS

	Mean	Standard deviation	Observations
Police officer's conduct			
Offense (0-1)	0.192	0.394	44,689
Absent (0-1)	0.077	0.267	44,689
Drunk (0-1)	0.024	0.153	44,689
Dirty or untidy (0-1)	0.019	0.135	44,689
Disobedient (0-1)	0.020	0.140	44,689
Serious offense (0-1)	0.021	0.144	44,689
Commendable behavior (0-1)	0.004	0.066	44,689
Number of offenses	0.255	0.604	44,689
Police officer's ethnic group			
Gema (0-1)	0.208	0.406	44,689
Kamatusa (0-1)	0.292	0.454	44,689
Luo (0-1)	0.078	0.268	44,689
KANU (0-1)	0.409	0.492	44,689
Kikuyu (0-1)	0.132	0.338	44,689
Kalenjin (0-1)	0.222	0.415	44,689
Police officer's ethnic group and char	acteristic	s of division where s	tationed
Stationed in ethnic homeland (0-1)	0.170	0.376	41,449
Stationed in district of birth (0-1)	0.092	0.289	39,653
Share of co-ethnics in division	0.146	0.110	41,449
Share of co-ethnics in higher ranks	0.146	0.148	41,415
Other background characteristics			
Literate (signed booklet) (0-1)	0.327	0.469	38,917
Any education (0-1)	0.307	0.461	44,689
Tenure	7.318	5.597	44,689
Rank index (0-3)	0.179	0.492	44,689
Character assessment at discharge (0-4)	2.337	0.993	37,969
Promotion and Punishment			
Promotion (0-1)	0.016	0.125	44,689
Dismissal (0-1)	0.031	0.174	38,427
Resignation (0-1)	0.022	0.147	38,427
Fine (Ksh)	16.34	21.91	8,561
Any fine $(0-1)$	0.767	0.424	8,561
Any punishment (0-1)	0.871	0.334	8,561

Notes: This table presents summary statistics for the individual-year panel of 6,784 police officers serving between 1957 and 1970. The offense variables take value 1 if the policeman was found guilty of that offense at least once in that year. Serious offense includes fighting, assaults, theft, discharging a rifle, allowing a prisoner to escape, corruption, and creating a disturbance. Gema (Kamatusa) is a dummy variable indicating whether the policeman's ethnic group belongs to either Kikuyu, Embu, or Meru (Kalenjin, Maasai, Turkana, or Samburu). KANU is a time-varying dummy variable indicating whether the policeman's ethnic group was represented in the KANU party. Stationed in ethnic homeland/home district is a dummy based on the location of an officer's division and his ethnicity/ district of birth. Share of an ethnicity in higher ranks measures the proportion of senior officers (corporal or above) in the division who share the officer's ethnicity. Literate is approximated by whether the individual has signed his service register versus given a thumbprint. Any education refers to attendance of formal schooling. Tenure measures the number of years in service. The rank index takes the values 0, 1, 2, 3 for a constable, corporal, sergeant and inspector or above, respectively. Fines and punishment are conditional on committing an offense.

e, commits an offense in year t.<sup>18</sup> For the main results, we rely on a binary offense measure, for which effects are more precisely estimated than for offense counts.<sup>19</sup>  $KANU\ power_{i,e,t}$  is a dummy equal to one if a policeman's ethnic group is part of KANU and holds political power. It is equal to 1 for the Gema from 1961 onwards, for the Luo between 1961-1965, and for the Kamatusa after 1964.

In our sample, policemen enter and leave on a rolling basis. Hence, our first specification does not allow us to identify whether differences in the offense probabilities of KANU policemen are driven by changing behavior of existing policemen or by selective entry and exit of policemen. Evidence on behavioral change comes from the inclusion of individual fixed effects  $\kappa_i$  in our main specification. The corresponding specification becomes:

(2) Offense<sub>i,e,t</sub> = 
$$\beta * KANU \ power_{i,e,t} + \kappa_i + \epsilon_{i,e,t}$$

In this approach, the estimation of  $\beta$  relies on individuals who served during both regimes: before and while (and/or after) their ethnic group had political power. Causal identification of the difference-in-difference coefficient  $\beta$  requires a common trend assumption: i.e., in the absence of political changes, KANU policemen would have followed the same trends as the other ethnic groups. Figure 3 provides evidence in support of this assumption. It will be corroborated further through a series of placebo tests in which we will shift the treatment one to three years forward.

To study the mechanisms underlying our main effect  $\beta$ , we can test whether the treatment effect is stronger for policemen with particular characteristics, like serving in one's ethnic homeland, belonging to the dominant ethnic group at the police division level, rank, and literacy status. We denote such characteristics as  $X_{i,e,t}$ , and add an interaction term to our main specification:

(3) Offense<sub>i,e,t</sub> = 
$$\beta * KANU \ power_{i,e,t} + \phi * KANU \ power_{i,e,t} * X_{i,e,t} + X_{i,e,t} * X_{i,e,t} * KANU \ ethnic_e + \kappa_i + \epsilon_{i,e,t}$$

 $\phi$  measures the differential effect of KANU power depending on the level of the characteristic  $X_{i,e,t}$ . Identification of  $\phi$  is challenging, because the interaction term risks picking up general time-varying or ethnicity-specific effects of  $X_{i,e,t}$ .

<sup>&</sup>lt;sup>18</sup>The first and last calendar years of service can be incomplete. We control for the share of the year served to account for the mechanical relationship between the time served and the probability of offending in that year. Main results without this control are reported in Table B.6 and are very similar.

<sup>&</sup>lt;sup>19</sup>The main result by ethnic group for offense counts are reported in Appendix Table B.3.

<sup>&</sup>lt;sup>20</sup>It is natural to restrict the analysis to a balanced panel of policemen in this case, even though the resulting sample of policemen is not randomly selected. In the result tables, we report the findings of fixed effects models for both the full sample and a balanced panel.

For example,  $X_{i,e,t}$  is a dummy for serving in one's home region, the estimation of  $\phi$  would be biased if i) Gema officers generally perform worse in their homeland (even before KANU holds political power), or ii) police officers regardless their ethnicity perform increasingly worse in their homeland over time. Therefore, it is important to control flexibly for heterogenous effects of the characteristics  $X_{i.e.t.}$ Time-varying effects of  $X_{i,e,t}$  are captured by  $\lambda_t$ . The coefficient  $\gamma$  captures the time-invariant differential effect of  $X_{i,e,t}$  for the three ethnic groups that were part of KANU (Luo, Kamatusa, and Gema, which we indicate with a dummy KANU ethnic<sub>e</sub>).<sup>21</sup> This flexible control strategy also allows us to test whether these characteristics mediate the treatment effect. For example, the assignment of particular groups to their homelands could respond to the treatment. It also helps us to rule out time-varying effects that lead to violations of the common trend assumption. For example, KANU officers could be more educated, and educated policemen could become less well-behaved after independence, regardless of political power. This concern is relevant, because certain socio-economic differences between ethnic groups existed before 1961.<sup>22</sup>

## B. Reporting concerns

Our reliance on reported rather than independently observed offenses has obvious limitations. It is conceivable that the recording of offenses for politically powerful ethnic groups changes even if actual behavior remains unaltered. While we cannot rule out such a reporting effect a priori, a number of factors support our interpretation of the recorded offenses as a reflection of actual behavior.

- 1) The registers were kept for internal use only. Interviews with retired police officers confirmed that record keeping had been accurate and complete.
- 2) The most senior police officers (who were often European, even after independence) had built up their careers during the colonial period, which ensured consistency in administrative records and reporting practices.
- 3) Systematic misreporting for particular ethnic groups has to be implemented by senior officers, but we find no evidence that the ethnic composition of the senior officer corps matters for the misbehavior we document.
- 4) One would expect reporting bias in the direction that politically powerful groups have *less* recorded offenses for the same behavior. Our findings go in the opposite direction: KANU policemen have *more* recorded offenses.
- 5) There is a certain discretion in how to punish a given offense: fines of varying amounts, dismissal, or delayed promotion. Punishments offer a

 $<sup>^{21}\</sup>mathrm{Note}$  that we can only estimate  $\gamma$  for time-varying characteristics  $X_{i,e,t},$  as time-invariant characteristics like literacy would be absorbed by the individual fixed effects.

 $<sup>^{22}</sup>$ In Appendix Table B.1 we show that before 1961 KANU officers differed significantly from other ethnic groups.

- more effective and powerful instrument for ethnic discrimination. However, we do not find a differential treatment in punishments.
- 6) We can break down the offenses, and compare results for more objective offenses (like absenteeism and drunkenness), and more subjective offenses. Our results are strongest for objective offenses. Similarly, we do not find evidence of differential "commendable behavior", which arguably is even more at the discretion of senior officers.

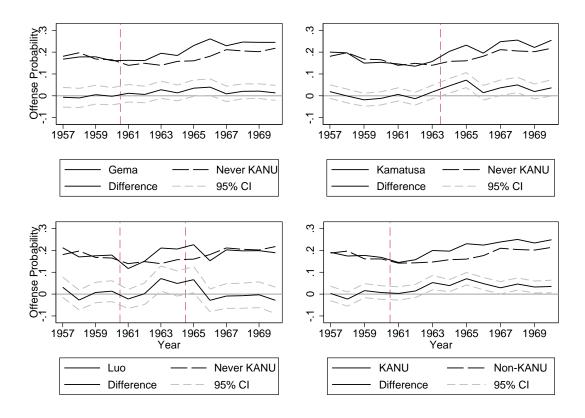
The results referred to in this list are discussed in detail in subsequent sections. Taken together, we think our findings are inconsistent with a view that systematic misreporting generated differential misconduct for KANU policemen.

## IV. Main Results

Figure 3 shows the annual offense probability of KANU officers, non-KANU officers, and the difference together with its 95 percent confidence interval. It nicely illustrates our main result. The top left graph shows the pattern for the Gema, the top right for the Kamatusa, the bottom left for the Luo, and the bottom right for all KANU (i.e., Gema, Kamatusa, and Luo) officers. The dashed vertical lines separate the time periods in which an ethnic group holds to power through KANU, from periods out of power. Between 1957 and the first election in 1961, differences in offense probability between ethnic groups are statistically indistinguishable from and close to zero. After the first election, the difference in offense rates in the Gema, Luo and KANU graphs are greater than zero and the confidence interval includes zero only at the margin. We see a similar pattern for Kamatusa officers: once KANU absorbed KADU in 1964, their offense probability increases compared to non-KANU officers. This difference persists throughout the time period, with the 95 percent confidence interval including zero only at the margin. Moreover, we see a reversal of the pattern when an officer's ethnic group leaves power: the difference in offense probability between Luo and non-KANU officers becomes negative and statistically indistinguishable from zero after 1965. The difference in offense probabilities is substantively meaningful. While the average offense likelihood of all police officers increases after the first election, the increase for KANU officers is considerably larger. Between 1961 and 1970 the probability of a non-KANU officer committing at least one offense in a given year increased from 14 percent to 21 percent per year (i.e., a 40 percent increase), whereas the likelihood of a KANU officer committing at least one offense in a given year rises from 15 percent to 25 percent (i.e., a 67 percent increase) during the same time period.

In Table 2, we move beyond the graphical analysis and employ the regression framework specified in the previous section. KANUpower is a time-varying dummy variable indicating when officers belong to an ethnic group that is in power through KANU. Column 1 presents the results from a simple linear probability model including only year fixed effects and a control for the share of the year

FIGURE 3. OFFENSE PROBABILITY OF KANU GROUPS AND OTHER ETHNICITIES



Notes: This figure plots the offense probability of police officers, split by ethnic groups affiliated versus not affiliated with KANU, and the difference between those groups. The top left graph focuses on the Gema alliance, which came to power in 1961 and remained in power throughout. The top right graph focuses on the Kamatusa alliance, which joined KANU in 1964; the bottom left graph concentrates on the Luo, which were part of KANU between 1961-1965. "Never KANU" includes officers of ethnic groups that were never part of KANU, that is excluding the Gema, Kamatusa, and Luo throughout 1957-1970. The graph at the bottom right focuses on KANU as a whole. "KANU" is a time varying variable including officers of ethnic groups affiliated with KANU in a given year, and "Non-KANU" includes officers of ethnic groups that were not part of KANU in that year.

TABLE 2—DIFFERENCE IN OFFENSE PROBABILITIES BETWEEN KANU AND NON-KANU OFFICERS

	(1)	(2)	(3)	(4)	(5)
KANU ethnic	0.002				
	(0.006)				
KANU power	0.038	0.035	0.028	0.033	0.027
	(0.007)	(0.007)	(0.008)	(0.010)	(0.011)
Ethnic Group FE	No	Yes	Yes	Yes	Yes
Individual FE	No	No	Yes	Yes	Yes
Sample	Full	Full	Full	Stacked	Balancec
Observations	44689	44689	44689	18567	13266
Clusters	6784	6784	6784	2053	1206

Notes: This table reports the effect of a policeman's ethnic affiliation with KANU on offense probabilities. The dependent variable is an indicator for any offense committed by a policeman in a given year. KANU ethnic is a time invariant dummy variable taking the value 1 for ethnic groups that were part of KANU (Luo, Kamatusa, and Gema). KANU power is a time varying variable that switches to 1 for the Gema in 1961, for the Luo between 1961-1965, and for the Kamatusa after 1964. The 'full' panel (Columns 1-3) includes all policemen in the sample serving between 1957 and 1970. The 'stacked' panel (Column 4) takes the union of four balanced panels around each transition: [1958,1968] for the Gema and Luo transition in 1961; [1962,1968] for the Kamatusa transition in 1964; and [1964,1968] for the Luo transition in 1965. The balanced panel (Column 5) takes all policemen serving continuously between 1958 and 1968. All regressions include year fixed effects, and control for the share of the year served. Standard errors are clustered at the individual level.

TABLE 3—PLACEBO REGRESSIONS (FULL SAMPLE)

	Offense			
	(1)	(2)	(3)	
KANU power	0.028	0.028	0.030	
	(0.009)	(0.010)	(0.011)	
KANU power	0.000			
(1 year forward)	(0.012)			
KANU power		-0.001		
(2 year forward)		(0.010)		
KANU power			0.003	
(3 year forward)			(0.010)	
Observations	44689	44689	44689	
Clusters	6784	6784	6784	
Wald Test	0.028	0.028	0.027	
KANU power - Placebo	(0.012)	(0.010)	(0.009)	

Notes: This table presents the results from placebo regression models for the full individual-year panel data of policemen serving between 1957 and 1970. The dependent variable is an indicator for any offense committed by a policeman in a given year. The placebo terms shift the KANU power variable 1, 2 and 3 years forward. KANU power is a time varying variable that switches to 1 for the Gema in 1961, for the Luo between 1961-1965, and for the Kamatusa after 1964. Additional placebo results are reported in tables B.4 and B.5. All regressions include year and individual fixed effects, and control for share of the year served. Standard errors are clustered at the individual level.

Table 4—Difference in Offense Probabilities by Ethnic Groups Within KANU

	Offense					
	(1)	(2)	(3)	(4)	(5)	
Gema (excluding Kam	atusa and Luo	from the samp	ole)			
Gema × Post 61	0.032	0.050	0.051	0.051		
	(0.017)	(0.023)	(0.023)	(0.023)		
Time Period	[1957,1970]	[1958,1968]	[1958,1968]	[1958,1968]		
Sample	Full	Stacked	Balanced	Balanced		
Observations	28134	11700	8503	8503		
Clusters	4358	1298	773	773		
Kamatusa (excluding	Gema and Luo	from the samp	ole)			
Kamatusa × Post 64	0.026	0.024	0.014	0.022		
	(0.012)	(0.015)	(0.017)	(0.017)		
Time Period	[1957,1970]	[1958,1968]	[1958,1968]	[1962,1968]		
Sample	Full	Stacked	Balanced	Balanced		
Observations	31909	13230	10153	8988		
Clusters	4647	1394	923	1284		
Luo (excluding Gema	and Kamatusa	from the samp	ole (Columns 1	-4)		
(including only Luo, C	Gema and Kam	natusa (Column	n 5)			
Luo × Post 61	0.044	0.069	0.063	0.025		
	(0.017)	(0.020)	(0.021)	(0.028)		
Luo $\times$ Post 65	, ,	, ,	, ,	. ,	-0.090 (0.032)	
Time Period	[1957,1970]	[1958,1968]	[1958,1968]	[1958,1963]	[1964,1968	
Sample	Full	Stacked	Balanced	Balanced	Balancec	
Observations	22336	9407	8184	4464	6330	
Clusters	3195	935	744	744	1266	

Notes: This table presents results separately for each of the three ethnic groups and coalitions comprising KANU between 1961 and 1970. The dependent variable is an indicator for any offense committed by a policeman in a given year. The top, middle and lower panel looks at changes in the behavior of policemen ethnically affiliated to the Gema alliance, Kamatusa alliance, and Luo, respectively. The 'full' panel (Column 1) includes all policemen in the sample serving between 1957 and 1970. The 'stacked' panel (Column 2) takes the union of four balanced panels around each transition: [1958,1968] for the Gema and Luo transition in 1961; [1962,1968] for the Kamatusa transition in 1964; and [1964,1968] for the Luo transition in 1965. The balanced panel (Column 3) takes all policemen serving continuously between 1958 and 1968. Column 4 reports the impact of the groups' entry to power in a balanced panel specific to each group. Column 5 estimates the effect of the Luo's exit from power. All regressions include year and individual fixed effects, and control for the share of the year served. Standard errors are clustered at the individual level.

served. Column 2 also includes ethnic fixed effects and Columns 3-5 present the results including individual fixed effects on three different samples: the full sample including all officers serving at any point between 1957 and 1970, the stacked sample including officers serving continuously throughout at least one of three time windows around each political change, and the balanced sample including all officers who have served continuously throughout 1958-1968.

Columns 1-5 confirm the pattern shown in the bottom right graph of Figure 3: on average a KANU officer is between 2.7 and 3.8 percentage points more likely to commit an offense than a non-KANU officer in any given year after 1961. This difference in offense rate is remarkably robust to the inclusion of different fixed effects and changes to the sample. Most importantly, the individual fixed effects results in Columns 3-5 indicate that almost all of the difference in offense rate between KANU and non-KANU officers is due to behavioral changes, i.e. the same officers performing worse. This rules out selection mechanisms, such as the entry of less qualified officers or the existing of the best KANU officers post-independence.<sup>23</sup>

Table 3 presents placebo regressions using the full sample as in Table 2, Column 3.<sup>24</sup> Columns 1-3 move the time-varying KANU power variable forward by one, two and three years respectively. The placebo interactions are statistically indistinguishable from zero and small compared to the size of the coefficient estimates of interest. Moreover, the differences between the KANU power variable and the various placebos are consistently positive and significantly different from zero. These insignificant placebos support the pattern in the bottom left graph of Figure 3: while there is no statistically discernible difference in offense rates between KANU and non-KANU policemen in the years before the first Kenyan multiparty election in 1961, there is a clear difference thereafter.

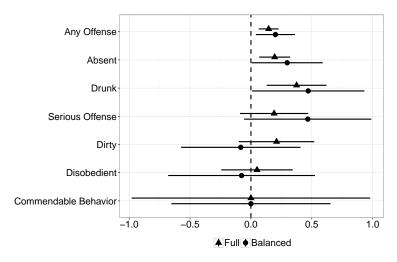
Table 4 presents separate regressions for each of the three main ethnic groups within KANU. Panel A, B, C shows the results for the Gema alliance, the Kamatusa alliance, and the Luo respectively. Columns 1-3 report the results from individual fixed effects regressions on the three different samples we use in Table 2. Column 4 reports the impact of the groups' entry to power in a balanced panel that is specific to each group. Finally, column 5 estimates the effect of the Luo's exit from power. The results confirm the patterns shown in Figure 3. Gema officers are between 3.2 percent and 5.1 percent and significantly more likely to commit offenses than non-KANU officers after the first election. The same holds true for Kamatusa officers: upon joining the KANU coalition in 1964, they are between 1.4 percent and 2.6 percent more likely to commit an offense

<sup>&</sup>lt;sup>23</sup>Appendix Table B.2 re-estimates Columns 1-3 of Table 2 using the extended time period 1950-1980. The sample in our main analysis stops in 1970 because our data does not include any policemen who entered after 1970. The results are qualitatively similar. Appendix Table B.3 re-estimates Columns 1-5 of Table 2 using the number of offenses committed in a year rather than our preferred dichotomous measure. Panel A presents the OLS and Panel B the Poisson regression results. Again, we find that KANU officers are significantly more likely to commit offenses in both specifications.

<sup>&</sup>lt;sup>24</sup>The placebo effects are qualitatively similar using the stacked and balanced samples. These results are reported in Appendix Table B.5, which also includes an alternative placebo measure.

in a given year than non-KANU officers, depending on the specification. Finally, the pattern for Luo officers is a bit more nuanced due to their entrance and exit of power during the time period under investigation. A Luo officer is between 2.5 percent and 4.4 percent more likely to commit an offense than non-KANU officers between 1961 and 1965. But upon leaving the KANU coalition, their probability of committing an offense drops by 9 percent compared to Gema and Kamatusa officers, which is statistically significant at the 1 percent-level. Overall, these results suggest that a behavioral shift accounts for the observed ethnic differentials in discipline. Finally, we investigate whether the effect differs by type of offense.

FIGURE 4. EFFECT OF KANU POWER TREATMENT ON DIFFERENT OFFENSE OUTCOMES



Notes: The figure plots coefficients and their 95 percent confidence intervals from our main specification with individual fixed effects in the full sample of 6784 policemen and the balanced panel of 1206 policemen. Coefficients and confidence intervals are scaled by the sample mean of the corresponding offense type. Unscaled regression results can be found in Appendix Table B.8.

Figure 4 summarizes the effects, relying on an individual fixed effects regression. The increased misbehavior is strongest for more objective acts of misconduct.<sup>25</sup> It appears to be driven by absenteeism and drunkenness. Effects are small for the most subjective offense type: disobedience. In addition, we do not see an effect of the KANU treatment on "commendable behavior". Recorded good behavior is much rarer in our sample than bad behavior (there are just 208 such cases; it includes for example "solving crimes" and "arresting criminals"). It again is an outcome of which the reporting (conditional on behavior) should be more at the discretion of the senior officers than the reporting of bad behavior. The corresponding coefficient is insignificant, so KANU officers do not seem to behave more

<sup>&</sup>lt;sup>25</sup>One caveat to this interpretation is that these types of misbehavior are also easier to observe, and could therefore be more responsive to shocks in general.

"commendably". Overall, these results alleviate concerns of biased reporting by senior officers.

#### V. Mechanisms

#### A. Division and Individual Characteristics

While the fixed effect analysis of Table 2 accounts for a large set of confounding factors, the results could still capture the impact of time-varying characteristics that correlate with ethnicity. In addition, responsiveness to the KANU power treatment may vary with the background and assignment characteristics of policemen. Studying such heterogeneous effects could help us to uncover the mechanism through which political dominance affects behavior. This section explores the role of these division-level and individual-level characteristics, following the empirical strategy described in section III.A (equation 3).

TABLE 5—DIVISION-YEAR FIXED EFFECTS

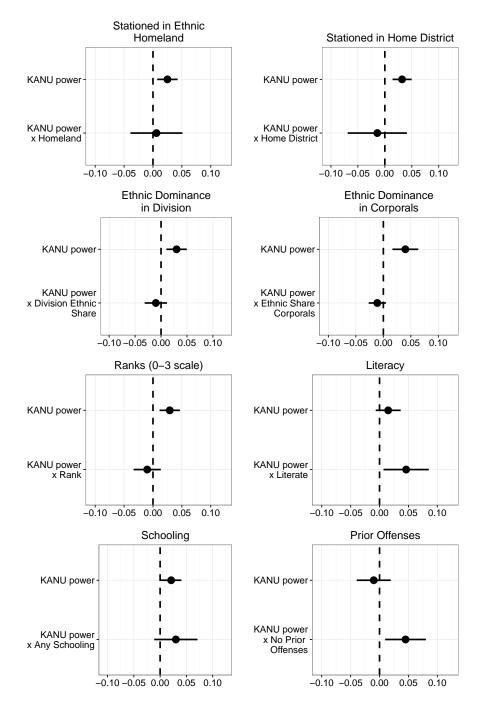
Offense	
(2)	(3)
0.034	0.026
(0.011)	(0.012)
Yes	Yes
Yes	Yes
Stacked	Balanced
17882	13056
1966	1191
_	0.034 (0.011) Yes Yes Stacked 17882

Notes: This table re-estimates the OLS regressions reported in Table 2 Columns 3-5, but includes division-year fixed effects. The dependent variable is an indicator for any offence committed by a policeman in a given year. KANU power is a time varying variable that switches to 1 for the Gema in 1961, for the Luo between 1961-1965, and for the Kamatusa after 1964. The 'full' panel (Column 1) includes all policemen in the sample serving between 1957 and 1970. The 'stacked' panel (Column 2) takes the union of four balanced panels around each transition: [1958,1968] for the Gema and Luo transition in 1961; [1962,1968] for the Kamatusa transition in 1964; and [1964,1968] for the Luo transition in 1965. The balanced panel (Column 3) takes all policemen serving continuously between 1958 and 1968. All regressions include individual and division-year fixed effects, and control for the share of the year served. Observations without division information are dropped from the sample. Standard errors are clustered at the individual level.

First, the changing behavior observed in Table 2 could be the result of peer effects and the assignment of KANU officers to divisions with poorer discipline after 1961. The police records track assignment to 30 police district divisions. Table 5 introduces police division-year fixed effects in addition to individual fixed effects. Even in this demanding specification, using only within-division-year variation, we find that policemen behave worse when their ethnic group holds political power through KANU. <sup>26</sup> Hence, division-level peer effects cannot account for the poor performance of KANU officers.

 $<sup>^{26}</sup>$ Division-level measures of ethnic diversity and the General Service Unit (the most political police

FIGURE 5. HETEROGENEOUS EFFECTS



Notes: This figure shows coefficient estimates and their 95 percent confidence intervals from our main specification and the full sample, interacting KANU power with one of 8 covariates, and adding KANU-ethnicity-covariate effects as well as year-covariate effects (as described in section III.A). The ethnic homeland, home district, ethnic dominance, rank, literacy, and schooling measures are described in section II.B and table 1. Prior offenses is a dummy for whether the officer has committed any offenses before 1961. The ethnic dominance measures are standardized in the corresponding interaction terms. Full regression results can be found in Appendix Tables B.9, B.10, B.11, B.15, B.16, B.17, and B.22.

Second, political dominance could affect the pattern of postings, and being stationed close to home or co-ethnics may matter for performance. A-priori, the effect of serving in one's homeland is not clear-cut. On the one hand, more leisure opportunities could make officers more likely to shirk. The local political power of one's ethnic group will also be stronger in the homelands, which could strengthen the KANU power effect.<sup>27</sup> On the other hand, it might make policemen keener to keep their jobs, and serving far away from one's home might reduce work satisfaction (Dal Bo, Finan and Rossi, 2013).<sup>28</sup> The upper left sub-figure of Figure 5 investigates the role of being stationed in one's ethnic homeland. It shows that the main treatment effect is not larger for KANU officers serving in their homeland, nor driven by time-varying or ethnicity-specific effects of serving in one's homeland (for which we control in the underlying specification). Similarly, the upper right sub-figure finds no evidence of differential effects of being stationed in one's district of birth.<sup>29</sup>

Third, the KANU effect may arise because of the numerical dominance of one's own ethnic group in the workplace, i.e. among officers within the police division. The central subplots in Figure 5 test this. Neither a measure of overall numerical strength, nor measures of dominance of one's ethnic group among the higher officer ranks are significant.<sup>30</sup> There is no evidence of the opposite hypothesis either: that officers misbehave more when they are matched to seniors from other ethnicities, either because such a mismatch is conducive for misbehavior, or because senior officers are more likely to report the offenses of non-co-ethnic juniors when the latter's ethnic group is in power. We also examine the importance of KANU-specific peer effects, by interacting the treatment with the share of KANU officers in the division in a given year. While the coefficient on this interaction term is positive, it is not consistently significant.<sup>31</sup>

Finally, the bottom four plots in Figure 5 examine the role of individual characteristics. A policeman's rank does not affect the KANU power effect. It is interesting to note that the increased offenses are not driven by lower ranks (which would imply a negative interaction). Hence, it seems unlikely for example that

unit) are not driving the results (Appendix Tables B.20 and B.18), nor do they strengthen the KANU power effect. More generally, Figure A.11 shows that our main treatment effect is very similar across divisions – the average treatment effect is always included in the confidence intervals around the division-specific treatment effects.

<sup>27</sup>The ethnic homeland variable proxies for the local political strength of an ethnic group, because ethnicities of elected MPs closely followed the ethnic composition of constituencies already in 1963 (Hornsby, 1989).

<sup>28</sup>Being stationed in homelands could also improve interactions of the police with the local population (Lyall, 2010). Of course, our measure of performance is strictly internal.

<sup>29</sup>The corresponding Appendix Tables B.9 and B.10 include different measures of being posted in one's home region – again, these cannot explain the changing behavior of KANU policemen.

<sup>30</sup>In line with the idea that dominance at the very top of the police organization matters, we also look at the interaction of our treatment variable with an indicator for whether the "Provincial Police Officer" – the officer commanding a police region (combining multiple police divisions) is from the same ethnic group. This interaction is positive, but not significant (Appendix Table B.19). We also do not find consistent evidence for non-linearities in measures of ethnic dominance, as shown in Appendix Table B.12.

 $^{31}$ Results reported in Appendix Tables B.13 and B.14.

KANU policemen are bullied into misbehavior by higher-level officers. In contrast, the KANU power effect is clearly stronger for better educated policemen. We use two measures of educational background. First, the personnel records show whether the recruit signed or thumb-printed his service register, which is a proxy for literacy (Rachal, 1987). We also have information about whether the policeman has any formal schooling, which is the case for about 38 percent of our sample. It is possible that literate policemen are more responsive to the KANU power treatment because they are more politically aware. Alternatively, literate policemen could have better outside options, for real or perceived. The plausibility of outside options as a driver of shirking behavior will be explored further in the next subsection. In the final sub-figure, we show evidence that the KANU effect is driven by officers without prior offenses in the pre-treatment period (1957-1960). So, our results do not appear to be driven by bad officers getting worse.

#### B. Promotion and Punishment

One way to rationalize the increased misconduct of KANU officers is that the police applies different disciplining standards. Members of politically powerful ethnic groups may be punished less for misconduct, through promotion opportunities, fines, or dismissals. We will test if these responses change when ethnic groups lose or gain power through KANU.

In Table 6 Column 1, we test how offenses in a policeman's career affect his promotion prospects. In general, higher past offense rates make promotions less likely and dismissals or resignations more likely. But there is no evidence that KANU officers are promoted or dismissed differently, both when they do and when they do not have an offense history. An additional offense makes promotion 1.5 and 1.7 percentage points less likely for non-KANU and KANU officers respectively, after 1961 (column 1). So KANU officers are punished slightly more for offenses on average, but the 0.2 percentage point difference is small and insignificant. Moreover, the 95 percent confidence interval rules out a sensitivity that is 0.4 percentage points lower for KANU officers. An additional offense increases the dismissal probability by 13 percentage points for non-KANU officers after 1961 (column 3). The 95 percent confidence interval rules out that the dismissal sensitivity for KANU officers is less than 3.4 percentage points lower. Overall, the career punishments for offenses appear very similar regardless of whether an officer's ethnic group holds political power through KANU. One way to reconcile these results with the increased offense probabilities of KANU officers is through better outside options. If KANU policemen easily find a job, e.g. benefitting from political patronage outside the police, the threat of dismissals loses bite. They could be willing to shirk and carry the risk of dismissal. However, the resignation results in columns 5 and 6 do not appear to confirm this interpretation. KANU policemen are not more likely to resign voluntarily.

Finally, Table 7 analyzes punishment. The first two columns focus on fine

Table 6—Career Progression Conditional on Conduct

	Promotion		Disn	Dismissal		Resignation	
	(1)	(2)	(3)	(4)	(5)	(6)	
KANU power	0.003	0.004	0.003	0.002	-0.001	-0.002	
	(0.002)	(0.003)	(0.003)	(0.004)	(0.003)	(0.003)	
Cumulative offense rate	-0.015		0.129		0.014		
(per year)	(0.002)		(0.011)		(0.004)		
KANU power	-0.002	-0.004	-0.007	-0.004	-0.008	-0.004	
$\times$ Cumulative offense rate	(0.003)	(0.004)	(0.013)	(0.019)	(0.005)	(0.009)	
Pre 61 dummy	- 0.004		0.032		0.009		
$\times$ Cumulative offense rate	(0.003)		(0.015)		(0.007)		
Offense-KANU Ethnic FE	No	Yes	No	Yes	No	Yes	
Offense-Year FE	No	Yes	No	Yes	No	Yes	
Observations	44689	44689	38427	38427	38427	38427	
Clusters	6784	6784	5792	5792	5792	5792	

Notes: This table reports the effect of a policeman's past offense rate on promotion, dismissal, and resignation probability in the full individual-year panel data of policemen serving between 1957 and 1970. KANU power is a time varying variable that switches to 1 for the Gema in 1961, for the Luo between 1961-1965, and for the Kamatusa after 1964. The cumulative offense rate is measured as the number of offenses in the past divided by tenure (number of years in service). Offense-KANU ethnic fixed effects interact the cumulative offense rate variable with a dummy equal to one for all ethnicities that were ever part of KANU. The outcome in Columns 1 and 2 is a rank index taking values between 0 and 3, in Columns 3 and 4 it is a dummy for dismissal, and in Columns 5 and 6 it is a dummy for resignation. All regressions include year, tenure, ethnic group fixed effects, and control for the share of the year served. Standard errors are clustered at the individual level.

Table 7—Punishment

	$\operatorname{Log}(\operatorname{Fine})$		Any Punishment	
	(1)	(2)	(3)	(4)
KANU power	0.015 (0.009)	0.011 (0.011)	0.001 (0.003)	-0.001 (0.003)
Ethnic group FE	Yes	No	Yes	No
Individual FE	No	Yes	No	Yes
Observations	44689	44689	44689	44689
Clusters	6784	6784	6784	6784

Notes: This table reports the effect of a policeman's affiliation with KANU on fines and other forms of punishment for the full sample period (1957-1970). KANU power is a time varying variable that switches to 1 for the Gema in 1961, for the Luo between 1961-1965, and for the Kamatusa after 1964. Log(Fine) is calculated as Log(Fine +1). All regressions include tenure fixed effects, year fixed effects, offense type fixed effects (using the types from Figure 5), and interactions of each offense type with a dummy equal to one for all ethnicities that were ever part of KANU. Standard errors are clustered at the individual level.

amounts, while the latter two columns focus on whether an officer was punished at all (fined, reprimanded, demoted, dismissed) immediately after an offense. In both cases, we include a comprehensive set of controls for the number and types of offenses committed as well as officer characteristics, in order to capture differential treatment of KANU officers. For both fine amounts and the punishment indicator, there is no evidence of preferential treatment. The absence of favoritism in the immediate punishments also mitigates the broader concern of reporting bias to some extent. If senior officers try to make life harder for KANU groups, one would expect them to increase punishments conditional on offenses as well. There is no evidence of such discriminatory treatment.

### VI. Discussion

Based on our findings, we can rule out that the KANU effect is driven by worse recruits entering the police force. Instead, specifications with officer fixed effects show that individuals change their behavior when their group comes to power. The results in Table 5 and Figure 5 indicate that the KANU effect cannot be attributed to the place of posting or to the ethnic composition at the division level. The police does not seem to discriminate KANU officers positively or negatively. When KANU policemen offend, they are not promoted, dismissed, or fined differently, as shown in Tables 6 and 7. But then, why would policemen change their behavior when their ethnic group is in power?

If incentives for misbehavior are not internal to the police, they could still be external, through improved outside options. 32 But, the historical context suggests that police jobs were relatively attractive (N'Diaye, 2002; Potholm, 1969). As an illustration, the salary of constables exceeded the one of primary school teachers even though the latter had to fulfil strict educational requirements (Republic of Kenya, 1967). The relative attractiveness of police jobs could have insulated officers from improved outside options. While we lack data on the job market prospects of ex-policemen, we do observe voluntary resignations. If KANU officers fare much better in the general labor market, we would expect them to leave the police more often. Table 6 suggests that this did not happen. This is mild (but not conclusive) evidence against outside career options driving our findings. An alternative explanation is that the improved prospects for KANU officers are linked to their role in the police, for example if they have more opportunities to participate in corrupt activities. Such behavior could explain the increase in absenteeism, but only if policemen are willing to trade off these earning opportunities against the risk of missing promotions or even dismissal. It is also harder to reconcile increased drunkenness with this explanation.

One mechanism that we cannot test directly, but is consistent with all our findings, is an emboldenment effect of political power. Political shocks might

 $<sup>^{32}</sup>$ To assess the potential improvement of outside options, police recruitment patterns are interesting in their own right. Figure A.5 shows that the proportion of ethnic groups in the force are unrelated to the political changes we exploit.

prime ethnic superiority, and lead to worse discipline, even if the objective and material incentives for such behavior do not change. It is hard to prove directly that we are capturing the mere priming of ethnic dominance – we are naturally constrained by our historical data. Still, the historical literature provides useful cues. The organizational continuity of the police in the early independence period was ensured in part by British officers who kept on serving in the Kenyan police throughout the 1960s (Sinclair, 2006). This factor may explain the absence of favoritism towards KANU within the police management. However, ethnic politics encroached Kenyan society at large. The historical literature is very explicit about the effects of political power on the (self)-image of ethnic groups. Describing the Gema group in the 1960s, Hornsby (2012, p. 258) writes: "It was now clear that the Kikuyu and to a lesser extent their Mount Kenya neighbours in Embu and Meru were embedding a sense of pre-eminence in their collective Kenya. There was a growing assumption of their right to rule. Many Kikuyu believed they were smarter, more entrepreneurial and had suffered more under colonialism." As for the Luo, Stubbs (2015, p. 71) describes the impact of their exclusion from KANU in 1965 as follows: "The Luo ethnic group lost significant status among Kenyan society and soon came to be viewed as second-class citizens." These historical references confirm that the political changes we study provoked effects beyond the mere adherence to the KANU party: they altered the self-image and status of ethnic groups. Our results indicate that this increased salience of ethnic identities affected job performance and individual behavior. Interestingly, this mechanism operates in the absence of clear career incentives, so that we can interpret this result as an emboldenment effect triggered by political shocks.

Our preferred interpretation of the results fits well into a set of recent findings in the literature on the economics of ethnic identity. The 2015 World Development Report highlights the importance of 'mental models' in shaping behavior (World Bank, 2015). While mental models are often assumed to be deeply rooted, recent work shows important behavioral effects of priming ethnic identities. For example, in a randomized control trial in India, Hoff and Pandey (2012) find that lower-caste school children perform worse when their caste is mentioned before taking a test – while there is no difference in performance when identities are not primed. Encouraging marginalized groups to contemplate positive identities has also been shown to increase interest in antipoverty programs Cohen et al. (2009).<sup>33</sup> In a recent contribution, Depetris-Chauvin and Durante (2016) find that unexpected football victories prime national identities at the expense of ethnic identities and help to reduce conflict. Our paper adds to this literature, as it shows the costs associated with events that prime (ethnic) political dominance.

 $<sup>^{33}</sup>$ See World Bank (2015) for an overview of work on priming social norms. For example, La Ferrara, Chong and Duryea (2012) find that exposure to soap operas in Brazil affect fertility choices.

# VII. External Validity

Our analysis ends in 1970. Ethnic politics continued to feature prominently in Kenya, although under varying conditions. In 1969, Kenya became a single-party state. After Kenyatta's death in 1978, Daniel arap Moi succeeded and the political coalition shifted. Moi diverted resources and patronage to his own Kalenjin ethnic group and his allies among the Luhya and coastal ethnic groups (Throup, 1993; Burgess et al., 2015). Many senior Kikuyu police officers were replaced by members of ethnic groups loyal to Moi (Widner, 1992; Hornsby, 2012). In 1993, Kenya returned to multi-party elections. Burgess et al. (2015) found that periods of autocracy (1970-1992) exhibited stronger clientilistic allocation of public goods. In our context the transition to autocracy could have amplified feelings of emboldenment. When we extend our analysis to the 1971-1980 period the differential rates of misconducts do not respond to these changes but remain stable (Figure A.6). Unfortunately, our data does not allow us to put much weight on this finding. Our sample lacks new entries of policemen after 1970, and as policemen exit, the sample is subject to increased selection.<sup>34</sup>

The service quality of the Kenya Police Force has demonstrably deteriorated over time while ethnic discord deepened. In 2013, Kenyans perceived the police as the most corrupt among all their state institutions, with 95 percent of survey respondents stating that the police "is corrupt or extremely corrupt" (Transparency International, 2013). At the same time, the police is perceived as highly inefficient in preventing and detecting crime (Anderson, 2002; Ruteere, 2011; Okia, 2011; Akech, 2005). The failure and shortcomings of the police as well as the ethnic dimension are most well-documented for the 2007/08 post-election ethnic clashes that followed after the disputed victory of Kibaki over Odinga that left 1,133 dead and about 350,000 people displaced (Waki, 2008). The Commonwealth Human Rights Initiative has assessed that "police criminality and misconduct are based on impunity" (Hills, 2009). The period shortly after independence may have been special in that the police was still operating under the old regime, but this shows that ethnic politics affect police performance even in contexts where sanction mechanisms are relatively intact and non-discriminatory.

Under which conditions would the results of our paper apply to other contexts? The police may be exceptional compared to other bureaucracies. It is an instrument of regime protection and therefore vulnerable to political interference (Hassan, 2017; Hills, 2009). It may also have a distinct esprit de corps. Nevertheless, we think there are two main scope conditions for our findings: i) security forces - or a bureaucracy - composed of different ethnic groups, and ii) a shock in the perceived political importance of ethnic groups. Many African countries started with an ethnic imbalance in the army and police forces as a legacy of British colonial practices to recruit among so-called "martial races" (Clayton,

 $<sup>^{34}</sup>$ The sample becomes smaller and smaller. The size of our sample is 3,112 in 1960, 3,398 in 1970, and just 1,022 in 1980.

1989; Hills, 2000). But even under representative bureaucracies as documented by François, Rainer and Trebbi (2015), high ethnic fractionalization in African populations means that the first condition is almost always met. There are also several historical accounts of "marginalization", i.e. the loss of political power by particular groups. Dresang (1974) reports survey evidence for Zambia in 1967, when the Bemba ethnic group attained predominance in the ruling party. He shows that roughly 40 percent of the Lozi and other small ethnic groups in the civil service believed that they were mistreated because of their ethnicity. Because there has been no preferential treatments in development expenditures Dresang (1974) concludes that "[W]hat may be relevant (...) is the belief that Bemba dominance exists; not the actual extent of its existence". Similarly, Brown (1999) describes how, after a change in the ethnically based ruling party, mistrust among ethnic groups paralized the civil service in Trinidad and Guyana. These emotive responses to political exclusion are in line with the results we document for the Kenyan police.

#### VIII. Conclusions

During Kenya's political transition, KANU emerged as the dominant political power, absorbing or outlawing its competitors. While favoritism and political patronage have been documented in previous research on Kenya (e.g., Burgess et al., 2015; Kramon and Posner, 2016), our paper leverages unique data on the day-to-day behavior of individual public servants in one of the most important public administrations: the police. Using individual records of 6,784 Kenyan policemen between 1957 and 1970, we find that after the first multiparty election in 1961 police officers from ethnicities associated with KANU start conducting offenses at a significantly higher rate than non-KANU officers. Investigating this result further, we show that this is not due to selecting worse recruits or exiting of particularly good performing officers, but due to a change in behavior of the same individuals after 1961. This shift in behavior does not seem to be driven or strengthened by the characteristics of the divisions in which these policemen were serving, but seems to be more prominent in literate and more highly educated officers. Finding no evidence of differential promotion or punishment between KANU and non-KANU, we dismiss mechanisms relying on outside options based on political patronage appointments. Instead our findings seem to be consistent with an emboldenment effect. The emergence of ethnic politics influenced the behavior of those officers ethnically associated with the ruling party.

The micro-evidence of this paper suggests that ethnic politics shape public service provision, not just through the direct allocation of public goods, but also through the behavior of ethnic groups within the state's bureaucracy. This also means that civil servants are not insulated from political shocks to the salience of their ethnic identities. In the light of these findings, we think that the political environment should be considered among the key determinants of bureaucratic performance, alongside more "classical" determinants like selection, incentives,

and monitoring - the three main factors put forward by Finan, Olken and Pande (2017).

What are the policy implications of our findings? Many African countries aim to rebuild and form the public service into a "representative bureaucracy". <sup>35</sup> In practice, this invariably means in proportion to population shares of ethnicities. François, Rainer and Trebbi (2015) document such proportionality at higher levels of government more generally in Africa. But, in the context of our paper, it is not the uneven representation of different ethnic groups in the police force that drives underperformance. It is behavioral effects triggered by political dominance. These effects may be long-lasting. It is less straightforward to design policies that address an emboldenment effect than policies that curb favoritism. Still, our findings could justify targeted increases in sanctions. They could also lend support to information campaigns that counter-balance images of ethnic superiority. Of course, such policies are unlikely to be implemented by political parties that are organized along ethnic lines. Hence, at a more fundamental level, our results can also be read as an argument in favor of institutional reforms that make the political system more inclusive.

<sup>&</sup>lt;sup>35</sup>Article 232 of Kenya's constitution of 2011 requires that the composition of the civil service is representative of the country's diversity, including Kenya's Police and Army (Article 246/4 and 241/4).

#### REFERENCES

- **Ajulu, Rok.** 2002. "Politicised ethnicity, competitive politics and conflict in Kenya: A historical perspective." *African Studies*, 61(2): 251–268.
- **Akech, Jm Migai.** 2005. "Public Law Values and the Politics of Criminal (In)Justice: Creating A Democratic Framework for Policing in Kenya." Oxford University Commonwealth Law Journal, 5(2): 225–256.
- Alesina, Alberto, Reza Baqir, and William Easterly. 1999. "Public goods and ethnic divisions." Quarterly Journal of Economics, 114(4): 1243-1284.
- Alesina, Alberto, Stelios Michalopoulos, and Elias Papaioannou. 2016. "Ethnic Inequality." *Journal of Political Economy*, 124(2): 428–488.
- **Anderson, David M.** 2002. "Vigilantes, Violence and the Politics of Public Order in Kenya." *African Affairs*, 101: 531–542.
- Anderson, David M. 2005. "Yours in Struggle for Majimbo. Nationalism and the Party Politics of Decolonization in Kenya, 1955-64." Journal of Contemporary History, 40(3): 547-564.
- Auerbach, Joshua N. 2003. "Police Accountability in Kenya." African Human Rights Law Journal, 3(2): 275–313.
- Banerjee, Abhijit, and Esther Duflo. 2006. "Addressing Absence." *Journal of Economic Perspectives*, 20(1): 117–132.
- Banerjee, Abhijit, Raghabendra Chattopadhyay, Esther Duflo, Daniel Keniston, and Nina Singh. 2012. "Can Institutions be Reformed from Within? Evidence from a Randomized Experiment with the Rajasthan Police." *Mimeo*.
- Bennett, George, and Carl G. Rosberg. 1961. The Kenyatta Election: Kenya 1960-1961. London: The Institute of Commonwealth Studies, Oxford University.
- Bertrand, Marianne, Robin Burgess, Arunish Chawla, and Guo Xu. 2015. "The Determinants and Consequences of Bureaucratic Effectiveness: Evidence from the Indian Administrative Service." Working paper.
- **Brown, Deryck R.** 1999. "Ethnic politics and public sector management in Trinidad and Guyana." *Public Administration & Development*, 19(4): 367–379.
- Burgess, Robin, Remi Jedwab, Edward Miguel, Ameet Morjaria, and Gerard Padro-i Miguel. 2015. "The Value of Democracy: Evidence from Road Building in Kenya." *American Economic Review*, 105(6): 1817–1851.
- Callen, Michael, Saad Gulzar, Ali Hasanain, Yasir Khan, and Arman Rezaee. 2015. "Personalities and Public Sector Performance: Evidence from a Health Experiment in Pakistan." NBER Working Paper No. 21180.

- Callen, Michael, Saad Gulzar, Syed Ali Hasanain, and Yasir. 2016. "The Political Economy of Public Sector Absence: Experimental Evidence from Pakistan." NBER Working Paper No. 22340.
- Clayton, Anthony. 1989. "Kenya." Khaki and blue: military and police in British colonial Africa, , ed. Anthony Clayton and David Killingray. Monographs in international studies. Africa series; no. 51 ed., 109–141. Athens, Ohio:Ohio University Center for International Studies.
- Cohen, Geoffrey L., Julio Garcia, Valerie Purdie-Vaughns, Nancy Apfel, and Patricia Brzustoski. 2009. "Recursive Processes in Self-Affirmation: Intervening to Close the Minority Achievement Gap." Science, 5925(324): 400–403.
- Dal Bo, Ernesto, Frederico Finan, and Martin Rossi. 2013. "Strengthening State Capabilities: The Role of Financial Incentives in the Call to Public Service." NBER Working Paper No. 18156.
- De Luca, Giacomo, Roland Hodler, Paul A. Raschky, and Michele Valsecchi. 2015. "Ethnic Favoritism: an Axiom of Politics." *CESIfo Working Paper*, , (5290).
- **Depetris-Chauvin, Emilio, and Ruben Durante.** 2016. "One Team, One Nation: Football, Ethnic Identity, and Conflict in Africa." *Mimeo*.
- Desmet, Klaus, Ignacio Ortuno-Ortin, and Romain Wacziarg. 2012. "The Political Economy of Linguistic Cleavages." *Journal of Development Economics*, 97(2): 322–338.
- **Dresang, Dennis L.** 1974. "Ethnic Politics, Representative Bureaucracy and Development Administration: The Zambian Case." *American Political Science Review*, 68(4): 1605–1617.
- **Duflo, Esther, Rema Hanna, and Stephen P. Ryan.** 2012. "Incentives Work: Getting Teachers to Come to School." *American Economic Review*, 102(4): 1241–1278.
- Easterly, William, and Ross Levine. 1997. "Africa's growth tragedy: policies and ethnic divisions." *Quarterly Journal of Economics*, 1203–1250.
- Finan, F., B.A. Olken, and R. Pande. 2017. "Chapter 6 The Personnel Economics of the Developing State." In *Handbook of Economic Field Experiments*. Vol. 2 of *Handbook of Economic Field Experiments*, , ed. Abhijit Vinayak Banerjee and Esther Duflo, 467 514. North-Holland.
- François, Patrick, Ilia Rainer, and Francesco Trebbi. 2015. "How Is Power Shared in Africa?" *Econometrica*, 83(2): 465–503.

- Habyarimana, James, Macartan Humphreys, Daniel N. Posner, and Jeremy M. Weinstein. 2007. "Why does ethnic diversity undermine public good provision?" *American Political Science Review*, 101(4): 709–725.
- Hartmann, Dirk. 1999. "Elections in Africa.", ed. Dieter Nohlen, Michael Krennerich and Bernard Thibaut, Chapter Kenya, 475–494. Oxford:Oxford University Press.
- **Hassan, Mai.** 2017. "The Strategic Shuffle: Ethnic Geography, the Internal Security Apparatus, and Elections in Kenya." *American Journal of Political Science*, 61(2): 382–395.
- Herbst, Jeffrey. 2000. States and Power in Africa: Comparative Lessons in Authority and Control. Princeton University Press.
- Hills, Alice. 2000. Policing Africa: Internal Security & the Limits of Liberalization. Boulder London:Lynne Rienner Publishers.
- Hills, Alice. 2009. "Policing in Kenya: A Selective Service." *Policing Developing Democracies*, , ed. Mercedes S. Hinton and Tim Newburn, 237–259. London:Routledge.
- **Hjort, Jonas.** 2014. "Ethnic divisions and production in firms." Quarterly Journal of Economics, 94(3): 1899–1946.
- Hoff, Karla, and Priyanka Pandey. 2012. "Making up people the effect of identity on preferences and performance in a modernizing society." World Bank Working Paper Series, 6223.
- Hornsby, Charles. 1989. "The Social Structure of the National Assembly in Kenya, 196383." The Journal of Modern African Studies, 27(2): 275–296.
- **Hornsby, Charles.** 2012. Kenya: a history since independence. London:I.B. Tauris.
- **Iyer, Lakshmi, and Anandi Mani.** 2012. "Traveling Agents: Political Change and Bureaucratic Turnover in India." *Review of Economics and Statistics*, 1203–1250.
- Kramon, Eric, and Daniel Posner. 2016. "Ethnic Favoritism in Education in Kenya." Quarterly Journal of Political Science, 11(1): 1–58.
- La Ferrara, Eliana, Alberto Chong, and Suzanne Duryea. 2012. "One Team, One Nation: Football, Ethnic Identity, and Conflict in Africa." American Economic Journal: Applied Economics, 4(4): 1–31.
- Lehne, Jonathan, Jacob N. Shapiro, and Oliver Vanden Eynde. 2018. "Building Connections: Political Corruption and Road Construction in India." *Journal of Development Economics*, 131: 62–78.

- **Lipsky, Michael.** 1969. "Toward a Theory of Street-Level Bureaucracy". IRP Discussion Papers, University of Wisconsin.
- **Lyall, Jason.** 2010. "Are Coethnics more effectice Counterinsurgents? Evidence from the second Chechen War." *American Political Science Review*, 104(1): 1–20.
- **Lynch, Gabrielle.** 2011. I say to you: ethnic politics and the Kalenjin in Kenya. Chicago, Ill.; London:University of Chicago Press.
- Mamdani, Mahmood. 1996. Citizen and subject: Contemporary Africa and the legacy of late colonialism. Princeton University Press.
- Manners, Robert A. 1962. "The New Tribalism in Kenya." Africa Today, 9(8): 8–14.
- Mas, Alexandre. 2006. "Pay, Reference Points, and Police Performance." The Quarterly Journal of Economics, 121(3): 783–821.
- Miguel, Edward, and Mary Kay Gugerty. 2005. "Ethnic diversity, social sanctions, and public goods in Kenya." *Journal of Public Economics*, 89(1112): 2325–2368.
- Morgan, William T. W. 2000. "The ethnic geography of Kenya on the eve of independence: the 1962 census." *Erdkunde*, 54(1): 76–87.
- Nath, Anousha. 2016. "Bureaucrats and Politicians: Electoral Competition and Dynamic Incentives." *IED Working Paper*.
- Ndegwa, Stephen N. 1997. "Citizenship and ethnicity: An examination of two transition moments in Kenyan politics." *American Political Science Review*, 91(03): 599–616.
- N'Diaye, Boubacar. 2002. "How Not to Institutionalize Civilian Control: Kenya's Coup Prevention Strategies, 1964-1997." Armed Forces & Society, 28(4): 619–640.
- **Neggers, Yusuf.** 2017. "Enfranchising Your Own? Experimental Evidence on Bureaucrat Diversity and Election Bias in India." Working Paper.
- Okia, Opolot. 2011. "The Role of the Police in the Post Election Violence in Kenya 2007/08." Journal of Third World Studies, 28(2): 259–275.
- **Omolo, Ken.** 2002. "Political ethnicity in the democratisation process in Kenya." *African Studies*, 61(2): 209–221.
- **Parsons, Timothy.** 2012. "Being Kikuyu in Meru: Challenging the Tribal Geography of Colonial Kenya." *The Journal of African History*, 53(1): 65–86.

- Pepinsky, Thomas B., Jan H. Pierskalla, and Audrey Sacks. 2017. "Bureaucracy and Service Delivery." *Annual Review of Political Science*, 20(1): 249–268.
- **Posner**, **Daniel N.** 2004. "Measuring ethnic fractionalization in Africa." *American journal of political science*, 48(4): 849–863.
- **Potholm, Christian P.** 1969. "The Multiple Roles of the Police as Seen in the African Context." *The Journal of Developing Areas*, 3(2): 139–158.
- Rachal, John R. 1987. "Measuring English and American historical literacy: A review of methodological approaches." *International Journal of Lifelong Education*, 6(3): 185–198.
- Rasul, Imran, and Daniel Rogger. 2015. "The Impact of Ethnic Diversity in Bureaucracies: Evidence from the Nigerian Civil Service." American Economic Review Papers & Proceedings, 105(5): 457–61.
- Reinikka, Ritva, and Jakob Svensson. 2005. "Fighting Corruption to Improve Schooling: Evidence from a Newspaper Campaign in Uganda." *Journal of the European Economic Association*, 3(2/3): 259–267.
- **Republic of Kenya.** 1967. "Sessional Paper No. 10 of 1967. Proposals by the Government of Kenya for the implementation of the recommendations contained in the report of the Public Service Salaries Review Commission."
- Ruteere, Mutuma. 2011. "More than political tools." African Security Review, 20(4): 11–20.
- Sanger, Clyde, and John Nottingham. 1964. "The Kenya General Election of 1963." The Journal of Modern African Studies, 2(1): 1–40.
- **Shayo, Moses, and Asaf Zussman.** 2011. "Judicial Ingroup Bias in the Shadow of Terrorism." *Quarterly Journal of Economics*, 3(126): 1447–1484.
- **Shayo, Moses, and Asaf Zussman.** 2017. "Conflict and the Persistence of Ethnic Bias." *American Economic Journal: Applied Economics*.
- Sierra, Raul Sanchez de la, and Kristof Titecay. 2016. "The State as Organised Crime: Industrial Organisation of the Police in the Democratic Republic of the Congo." *mimeo*.
- Sinclair, Georgina. 2006. "Remnants of the Empire." At the End of the Line: Colonial Policing and the Imperial Endgame, 1945-80, 210-220. Manchester:Manchester University Press.
- Stubbs, Thomas. 2015. "Ethnopolitics and the Military in Kenya." Forging Military Identity in Culturally Pluralistic Societies: Quasi-Ethnicity, , ed. Daniel Zirker, 69–88. Lanham:Lexington Books.

- **Throup, David.** 1992. "Crime, politics and the police in colonial Kenya, 1939-1963." *Policing and decolonisation: politics, nationalism and the police, 1917-65*, , ed. David Anderson and David Killingray, 127–157. Manchester University Press.
- **Throup, David.** 1993. "Elections and Political Legitimacy in Kenya." Africa: Journal of the International African Institue, 63(3): 371–396.
- Transparency International. 2013. "Global Corruption Barometer 2013."
- Waki, Philip. 2008. "Report of the Commission of Inquiry into Post Election Violence (CIPEV)."
- Widner, Jennifer A. 1992. The Rise of a Party-State in Kenya: From "Harambee!" to "Nyayo!". Berkeley: University of California.
- World Bank. 2000. The Bank's Involvement in Police Assistance: A Review of the Issues. Washington, DC:World Bank.
- World Bank. 2004. World Development Report 2004: Making Services Work for Poor People. Washington, DC:World Bank.
- World Bank. 2015. World Development Report 2015: Mind, Society, and Behavior. Washington, DC: World Bank.
- **Xu, Guo.** 2016. "Social connections and the Performance of Bureaucracies: Evidence from the British Empire." *Mimeo*.