

Who Gets Hired?

Political Patronage and Bureaucratic Favoritism *

Mai Hassan[†]

Horacio Larreguy[‡]

Stuart Russell[§]

July 2023

Abstract

Most research on hiring in the public sector highlights the incentives of local politicians to distribute government positions to partisan supporters. Other studies separately point to the role of bureaucratic managers in allocating government jobs to close contacts. We jointly consider the relative importance of each source of biased hiring as an allocation problem between bureaucratic managers and politicians who have different preferences over public sector hiring and different abilities to realize them. We develop a theoretical model of both the relative preferences for different types of public sector positions and the relative leverage of each actor. We examine the theory empirically on the universe of payroll data in Kenyan local governments from 2004 to 2013. We find evidence of both patronage and bureaucratic favoritism, but with different types of bias concentrated in different types of government jobs, as predicted by our theory for the Kenyan case. Together, this paper suggests the inadequacy of examining political patronage alone without incorporating the preferences and leverage of the bureaucratic managers who are intricately involved in hiring processes.

*We thank Guy Grossman, Evgeniia Mitrokhina, Evgenia Olimpieva, and Noah Nathan as well as seminar participants at Harvard University, ITAM, the University of Chicago, University of Copenhagen, and the University of Wisconsin-Madison for helpful comments. We thank Daniel Posner for providing us with raw data and Teresa Lezcano Cadwallader and Tavneet Suri for assisting with the coordination of research assistants in Kenya. We also thank Khalid Hassan, Timothy Jones, Kirill Kalinin, Thomas O'Mealia, Michael Thompson-Brusstar, and Nicole Wu for research assistance. Larreguy gratefully acknowledges funding from the French Agence Nationale de la Recherche under the Investissement d'Avenir program ANR-17-EURE-0010.

[†]Associate Professor, MIT. mhass@mit.edu

[‡]Associate Professor, ITAM. horacio.larreguy@itam.mx

[§]PhD Candidate, MIT. sruss@mit.edu

1 Introduction

The work done by public sector employees is critical for basic government functions – ranging from infrastructure investments (Rogger, 2018), to the provision of public services (Toral, 2022a), to the basic administration and registration of the population (Rasul, Rogger and Williams, 2021) – and thus the dynamics of public sector hiring have consequences for the quantity and quality of public service delivery. In addition, who staffs the bureaucracy matters for descriptive and representative reasons (Kingsley, 1944, Krislov, 2012). As such, understanding who is hired to fill state positions is a first-order policy question with important governance implications. What biases, if any, are present in public sector hiring? And to the extent that bias exists, what explains it?

Because of the individualized benefits of a public sector job (Finan, Olken and Pande, 2017), past work highlights the incentives of political elites to distribute positions to preferred recipients such as brokers and clients. Most of this research examines how politicians influence the distribution of government jobs as patronage (Geddes, 1994, Grindle, 2012, Brierley, 2021).¹ However, the literature on patronage generally overlooks the role of the high-ranking bureaucrats who actually oversee and implement the hiring process. These “bureaucratic managers” also have their own incentives to bias public sector hiring (Meyer-Sahling, Schuster and Mikkelsen, 2018, Johnson-Kanu, 2021, Riano, 2022), some of which may align with those of political elites but others may not. We consider the efforts of bureaucratic managers to bias hiring to be bureaucratic favoritism, which we broadly define as the practice of managers granting special favors to help preferred individuals over others.

The co-existence of a hiring bias through politicians or managers can be difficult to disentangle empirically. Political patronage hiring may be observationally equivalent to bureaucratic favoritism in hiring if politicians and bureaucratic managers share observable preferences. That is, what studies measure as patronage (or bureaucratic favoritism) may actually be the result of a different process and driven by a different actor altogether. To the extent that research has not empirically validated each process in tandem with the other, claims about the extent of political patronage in the public sector may be overstated relative to – and at the expense of – bureaucratic favoritism.

In this paper, we begin from the premise that politicians and bureaucratic managers may have different preferences towards public sector hiring and different abilities to implement those preferences. We model the hiring of public sector positions as an allocation problem between politicians and managers. We expect bias *both* in favor of politician preferences and managerial preferences when each actor has some power – albeit stemming formal authority or informal leverage – over the hiring process. Our theoretical model thus incorporates actors’ both relative leverage and preferences over the types of positions available in the local public sector. We predict hiring bias to manifest in different concentrations and in different parts of the public sector based on each actor’s relative preferences and relative power over the other. In particular, we expect a sufficiently relatively stronger actor to see the hiring of their preferred individuals into their preferred type of positions as well as some of their less preferred positions. The relatively weaker actor is, in turn, allowed to hire their preferred individuals into the positions that remain.

¹The political distribution of public sector jobs is thought to be central to the practice of clientelism in new democracies (Oliveros, 2021, Sigman, 2022).

We study these dynamics from 2004 to 2013 across local governments, also known as local authorities (about equivalent to a U.S. county), in Kenya – a country of highly ethnicized politics. Local governments have long been considered “employment bureaus” (Owolabi, 2011) in which limited revenues are funneled towards the hiring of personnel, as opposed to the creation of local public goods or investment in development projects (Menon and Macharia, 2008). Each local authority is governed by both politicians elected to the local council and bureaucrats appointed by the central government. The most important of these bureaucrats, and the most integral individual within the locality as a whole, is the “clerk” – a highly-trained bureaucratic manager who serves as the locality’s chief executive but is appointed and managed by the Ministry of Local Government in the central administration. Both local councils and clerks have some leverage over the other: clerks have significant formal authority as they officially oversee the entire hiring process and are largely considered the most important decision-maker in the locality, but local councils have informal weight with the Ministry of Local Government to request a clerk’s transfer if they are displeased with the clerk’s performance.

We examine the interplay between political patronage and bureaucratic favoritism in hiring through an analysis of payroll data on the universe of local bureaucrats – from clerks to menial staff – in all Kenyan local authorities. We create a panel dataset at the local authority level with our payroll information, which we combine with local-level election results and data on ethnic identity given the high salience of ethnicity in Kenyan politics. The ethnicity of the clerk and that of the council majority serve as a proxy for the incentives of these actors towards the hiring of different ethnic groups within the local authority.

The assignment of clerks across localities is not random. Local politicians vastly prefer that the Ministry of Local Government assign them a co-ethnic clerk, precisely so as to align hiring incentives, thus exacerbating the observational equivalence problem discussed above. We use a fixed-effects design that exploits within-local government variation in the clerk’s ethnicity relative to that of the council majority to distinguish the hiring of co-ethnics of the council versus co-ethnics of the clerk as patronage versus bureaucratic favoritism. Importantly for our research design, we are able to identify the revealed preference of the council majority in the absence of a clerk of any ethnicity because 37.4% of locality-years are transitioning between clerks, leaving the clerk position temporarily vacant.

We find evidence of *both* political patronage and bureaucratic favoritism in the distribution of public sector positions, demonstrating the problem of studying patronage without simultaneously paying attention to the often overlooked incentives and power of the bureaucratic managers who also control critical elements of the hiring process. To begin, we see clear evidence of patronage. Ethnic groups that are co-ethnic with the council majority receive about four new hires for every one new hire among groups that are non-co-ethnic with the council majority. We also see clear evidence of bureaucratic favoritism as clerks are similarly able to hire their own co-ethnics into the local bureaucracy. Groups co-ethnic with a clerk receive some seven new hires for every one new hire among groups not co-ethnic with a clerk. These findings are robust to a battery of fixed effects. We also find that there is no statistically significant increase in hiring of a clerk’s co-ethnics in periods prior to the clerk’s assignment. The absence of these “leading” effects suggests that it is clerk assignment – and not another omitted factor driving both clerk assignment and ethnic hiring such as over time changes in the power of local politicians – that causes observed shifts in hiring patterns.

We then examine how patronage and bureaucratic favoritism interact when local politicians and bureaucratic managers have conflicting preferences. Sub-sample analyses reveal that patronage and bureaucratic favoritism are concentrated in different ranks of local governments, suggesting that the allocation problem gets resolved through the distribution of different types of jobs to the different actors. In the absence of a clerk, local councils see high levels of co-ethnic patronage hiring across high and low-level positions. The presence of a non-co-ethnic clerk barely affects the council majority's ability to make patronage hires among low-level positions. However, it eliminates the council majority's ability to make patronage hires to high-level, professional positions. In turn, we find that clerks who are non-co-ethnic with the local council are still able to make co-ethnic hires, mostly concentrated among the locality's high-level positions.

We expect our general theory – about the co-existence of patronage and bureaucratic favoritism in contexts where both politicians and managers must coordinate hiring – to hold across numerous contexts. Our model illustrates how the positions over which politicians versus managers focus their favoritism should vary based on institutional context. For instance, in cases where public service jobs wield actual control over purse strings and in which local politicians are relatively strong, the model predicts that politicians will focus their patronage hiring on professional positions that allow them to fill party coffers instead of employing foot soldiers (Brierley, 2021, Sigman, 2022).

The paper makes several contributions. First, while much of the comparative literature on bureaucracy has focused on frontline service providers (Pepinsky, Pierskalla and Sacks, 2017, Brierley et al., 2023), we join a growing body of work that takes the behavior and incentives of mid-level bureaucratic managers seriously. The management practices these mid-level bureaucrats pursue clearly have direct implications for public service delivery (Rasul and Rogger, 2018, Rasul, Rogger and Williams, 2021). This paper suggests that the preferences and characteristics of these managers matter for who else staffs public agencies, and thus potentially the nature of service delivery more generally.

Second, the paper has implications for debates on civil service reform. Much of this rich literature assumes that political party or politician can easily stack local bureaucracies upon coming to power (e.g., Grindle (2012), Pierskalla and Sacks (2020), Oliveros (2021), Sigman (2022)). Indeed, research on civil service reform has made important strides in enumerating the incentives that politicians face to stymie such reform (Geddes, 1994, Cruz and Keefer, 2015, Schuster, 2016, Huber and Ting, 2021). However, by showing that the preferences of bureaucratic managers also drive bias in public sector hiring, and at times that their preferences are more consequential than those of local politicians for public hiring, our findings suggest that effective civil service reform needs to address the incentives of *both* politicians and bureaucratic managers.

Third, we contribute to the lengthy literature on public sector patronage. Most of the literature on patronage understands bias in public sector hiring as a function of politician preferences (Colonnelli, Prem and Teso, 2020, Oliveros, 2021). However, the framework we propose implies that previous estimates of patronage may be exaggerated if the incentives of politicians and bureaucratic managers are aligned. When politicians and managers share the same preferences, there is no allocation problem to resolve. Some combination of both patronage and bureaucratic favoritism drives any ensuing hiring bias in these contexts. Prior research in this literature that has attributed all of that bias to patronage has likely overstated the phenomenon and is understating the role of bureaucratic management in contributing to public sector bloat.

2 Bias in Public Sector Hiring: Patronage or Bureaucratic Favoritism

We study favoritism in public sector hiring. We consider favoritism driven by two distinct actors – politicians and bureaucratic managers – that each has some influence, whether formal or informal, over who gets hired in the public sector.

Following a long literature in political science, we define patronage as the distribution of public sector jobs by politicians to political brokers, party workers, or other supporters. Prior research has documented the large electoral benefits that politicians can accrue from engaging in patronage hiring (Calvo and Murillo, 2004, Folke, Hirano and Snyder, 2011). This has been shown to occur through numerous mechanisms. Politicians can make appointments with an eye towards mobilizing voters in upcoming elections (Kitschelt and Wilkinson, 2007). Other times, politicians can distribute public sector positions in such a manner as to entrap recipients in clientelistic relationships in which recipients are beholden to using the authority of their position for their patron (Robinson and Verdier, 2013, Larreguy, Montiel and Querubin, 2017, Mares and Young, 2019, Oliveros, 2021, Cornell and Grimes, 2022). In other cases still, politicians can distribute jobs to party brokers or foot soldiers (Bowles, Larreguy and Liu, 2020, Sigman, 2022).

Given the vast benefits that accrue to politicians from patronage hiring, previous studies have examined which institutional contexts allow politicians to hire more or less of their supporters. For example, we may see patronage rise or fall due to election cycles as politicians feel pressure to hire supporters before an election or soon afterwards (Pierskalla and Sacks, 2020, Toral, 2022*b*). Or politicians may feel compelled to provide patronage positions according to the level of political competition they face in their constituency (O’Dwyer, 2006, Grzymała-Busse, 2007, Hassan and Sheely, 2017, Driscoll, 2018). Patronage may also depend on the level of credit-claiming that a politician can expect in return for pushing through hires (Gulzar and Pasquale, 2017). These studies focus explicitly on the incentives of politicians and downplay the constraints that other (non-political) actors may impose due to those other actors’ own incentives and power to bias public sector hiring.

Much of this research therefore overlooks bureaucratic favoritism, a separate and distinct type of bias in public sector hiring. Lower-level personnel decisions generally happen through the bureaucracy itself, meaning that higher-level bureaucratic managers oversee and implement hiring.² We define bureaucratic favoritism as the practice of public sector managers granting preference when conferring a position or job.³ Bureaucratic favoritism, importantly, is conducted by unelected bureaucrats, thus distinguishing it from patronage by elected politicians. Further, unlike patronage, bureaucratic favoritism does not necessarily follow an electoral logic but instead follows managers’ varying incentives.

²Existing research has numerous names for these types of positions, such as appointed mayors (Brierley, 2021) or public sector managers and supervisors (Riano, 2022). Our conceptualization is perhaps closest to the definition of civil servants found in Rogger (2017, 6): “the middle layer of government, sandwiched between the politically appointed leadership [i.e., ministers] and frontline staff.”

³Much of the recent literature on bureaucratic favoritism looks at nepotism in particular, a much narrower form of bureaucratic favoritism in which managers favor close relatives (Brassiolo et al., 2021, Riano, 2022). Beyond familial relationships though, others demonstrate how top-level state agents favor hiring mid-level bureaucrats with which they have a personal history, a shared identity, a common education, or any sort of prior relationship (Xu, 2018, Salgado, 2021). These examples thus extend narrow conceptions of nepotism towards one’s family to bureaucratic favoritism towards a broader category of those with whom a manager shares some form of social connection.

Research has posited numerous reasons as to why managers may bias hiring towards social connections. Perhaps most obviously, managers may feel stronger social obligations towards individuals within their jurisdiction with whom they have personal ties (Pepinsky, Pierskalla and Sacks, 2017, Hassan, 2020, Johnson-Kanu, 2021). Further, and similar to politicians, bureaucratic managers may prefer to hire in-group individuals because of an easier ability to extract rents or kick-backs from these positions (Pellegrino and Zingales, 2017, Brassiolo et al., 2021, Riano, 2022). Moreover, prior studies in organizational economics highlight how social connections shape how agents interact within organizations (Ashraf and Bandiera, 2018). That is, bureaucratic managers may prefer hiring those with whom they have a personal history or a shared identity because it is more productive to do so. Especially in contexts where teamwork or coordination is necessary, discrimination against out-group co-workers may decrease productivity (Hjort, 2014).

3 Favoritism in the Public Sector as an Allocation Problem

We build on these two distinct literatures and highlight that public sector hiring, particularly at the local level, often requires agreement between both local politicians and bureaucratic managers (Martin and Raffler, 2021). We follow Brierley (2021) in distinguishing between higher-level professional jobs and lower-level menial ones in local bureaucracies, though our model could just as easily have incorporated positions across two different agencies or sectors of the public sector instead. Our main intuition is that local-level hiring in the public sector is best construed as an allocation problem in which area politicians and bureaucratic managers have to agree on how to divide a given set of new hires subject to a budget constraint. In this way, our theoretical framework stresses not only the hiring preferences of each actor, but each actor’s ability to see those preferences through.

We formalize our logic in the Appendix and verbally explain the main elements and intuition of the model here. We consider two distinct actors, a bureaucratic manager and a politician, who need to agree on how to fill a number of higher-level professional positions, N^H , and lower-level menial jobs, N^L . The eventual allocation of public sector positions is subject to a budget constraint whereby $N_p^H + N_b^H \leq N^H$ and $N_p^L + N_b^L \leq N^L$.

Both actors want to allocate each type of position to individuals of their choice. The bureaucratic managers and politician both benefit from distributing higher-level positions as they pay well and come with some control over local resources or policy decisions. In turn, professional bureaucrats might be pressured to concentrate local public goods in a particular area, to siphon off development funds for their patron, or to provide “kickbacks” for their position or cuts of government contracts that the professional bureaucrat approves. At the same time, characteristics of lower-level positions make them attractive for distribution as well. Namely, the low education requirements of menial jobs mean that these positions can go to almost anyone. And though these positions pay less than professional ones, they might be politically valuable, and their salaries may be more meaningful individually or in the aggregate. We expect institutional context to determine whether a bureaucratic manager prefers the distribution of higher-level professional positions over lower-level menial ones relatively more than the politician.

Formally, the preferences of the bureaucratic manager b and politician p and are respectively given by:

$$u_b(N_b^H, N_b^L) = N_b^H + \beta_b N_b^L, \quad (1)$$

and

$$u_p(N_p^H, N_p^L) = N_p^H + \beta_p N_p^L \quad (2)$$

such that β_b and β_p are relative preferences for lower-level menial jobs. Where $\beta_b, \beta_p < 1$, the actor cares relatively more about distributing higher-level professional jobs than menial positions.

In moving to the actual allocation of positions, we consider the potential power that each actor has in pushing for their hiring preferences. Managers and politicians often both have some formal institutional authority or informal leverage in the hiring process. For instance, a local politician may control and allocate funds for new hires, while the manager may ultimately oversee actual recruitment procedures. In other contexts, political alignment with national elites may informally allow one actor more leeway in terms of hiring.

Since managers are often formally in charge of hiring, we model the bureaucratic manager as the actor that proposes an allocation of jobs to the politician, who then needs to agree or reject the proposed allocation. We then formally specify the relative institutional authority or informal leverage that the politician has over the bureaucrat in forcing a better allocation for himself as \underline{u}_p such that:

$$N_p^H + \beta_p N_p^L \geq \underline{u}_p, \quad (3)$$

which means that the manager should propose an allocation that provides sufficient utility \underline{u}_p for the politician to agree. The smaller \underline{u}_p , the lower the relative leverage the politician has over the bureaucratic manager.

Our model therefore considers the bias in public sector hiring to be dependent on the two factors described above – (1) the benefits of different types of public sector jobs to the local politician and bureaucratic manager (β_b and β_p), and (2) the potential sources of institutional authority or informal leverage that each actor has over the other \underline{u}_p . We solve the optimal allocation problem by the bureaucratic manager, who maximizes her utility subject to the constraint captured by equation 3 (Appendix). Recall that this equation captures the manager’s need to provide an allocation acceptable to the politician, given the latter’s leverage over the former. Doing so leads to four scenarios in equilibrium, dependent on the relative values of β_b and β_p on the one hand, and \underline{u}_p on the other. We specify these four equilibria in Table 1.

Following the theoretical contours we outline above, the columns of Table 1 differentiate between contexts in which the bureaucratic manager is relatively weaker or relatively stronger than the local politician (i.e., \underline{u}_p is relatively low or high, respectively). We also differentiate between contexts in which higher-level appointees are relatively more or less valuable to the stronger actor. Formally, this means that $\beta_b < \beta_p$ in the bottom-right and top-left quadrants, and $\beta_b > \beta_p$ in the top-right and bottom-left quadrants.⁴

The combination of these factors produces four general institutional contexts and enables us to make predictions about the level of political patronage relative to bureaucratic favoritism that we should expect in

⁴Table 1 concerns only instances when the hiring preferences of these elites differ. Note that if preferences align, then we cannot differentiate the extent to which either the politician or manager is responsible for any observed hiring bias.

	Bureaucratic manager relatively weaker than local politician (Relatively high \underline{u}_p)	Local politician relatively weaker than bureaucratic manager (Relatively low \underline{u}_p)
Professional positions relatively less valuable than menial positions for stronger actor	$\left(N^H - \underline{u}_p - \beta_p N^L, 0 \right)$ $\left(\underline{u}_p - \beta_p N^L, N^L \right)$	$\left(N^H - \underline{u}_p, N^L \right)$ $\left(\underline{u}_p, 0 \right)$
Professional positions relatively more valuable than menial positions for stronger actor	$\left(0, N^L - \frac{\underline{u}_p - N^H}{\beta_p} \right)$ $\left(N^H, \frac{\underline{u}_p - N^H}{\beta_p} \right)$	$\left(N^H, N^L - \frac{\underline{u}_p}{\beta_p} \right)$ $\left(0, \frac{\underline{u}_p}{\beta_p} \right)$

Table 1: *Elites' relative power over and benefits from public sector hiring.* The table depicts possible combinations of relative strength and the potential benefits of different types of jobs to the stronger actor. These combinations produce four general types of contexts predicted by the model. Each cell displays the payoffs for the bureaucratic manager (the first set of parentheses) and politician (the second set). Within each set of parentheses, the first payoff represents the number of high-level professional positions and the second payoff represents the number of low-level menial positions. The case this paper studies – Kenya – is in the bottom right cell. Note the table only shows instances in which the incentives of the manager and politician are not aligned.

each. In Table 1, we list the payoffs for each actor in each scenario, with the bureaucratic manager's payoff listed first. Contexts in the top-left quadrant are those in which the local politician is relatively stronger than the bureaucratic manager and prefers low-level menial positions to high-level professional ones more than the bureaucratic manager. This box is most representative of contexts in which clientelism is pervasive. Here, we should expect a politician to focus his efforts relatively more on distributing menial positions rather than professional ones – like in Brierley (2021) – and to be successful in doing so. One interesting result from the model is that the stronger actor is not satisfied with amassing all of their jobs in the relatively more valuable position. They require some of the relatively less valued position as well. In this quadrant, that amounts to the politician, as the stronger actor, requiring all of the menial hires as well as some professional hires to satisfy \underline{u}_p .

The top-right quadrant instead represents cases in which the bureaucratic manager is relatively stronger and in which she finds menial positions to be more valuable than the local politician. This box is also representative of clientelistic contexts, but ones in which managers have politicized incentives on behalf of political elites other than local politicians. For instance, this may be representative of opposition strongholds in dominant-party systems in which particular managers are instructed to build the ruling party's strength against the local opposition. Unlike in the first quadrant, we should observe favoritism among hires for menial jobs to be more aligned with the manager's hiring preferences as opposed to the politician's.

On the other hand, the bottom-left and bottom-right quadrants represent contexts in which clientelism is less pervasive, or rather, in which clientelism is not the main impetus behind public sector hiring within a particular agency. These are at least environments in which professional bureaucrats have sufficient resources under their control that they are deemed more valuable than an army of menial foot soldiers by the relatively stronger actor. For example, these dynamics are likely to occur if local professional bureaucrats

have sufficient discretion over the placement of local public goods or procurement contracts. The bottom-left quadrant represents contexts in which the local politician is relatively stronger, whereas the bottom-right quadrant represents contexts in which the bureaucratic manager is relatively stronger. As we describe below, the bottom-right quadrant most accurately fits Kenyan local authorities. In these contexts, we should expect relatively more valuable professional positions to be distributed to the manager's preferred individuals. Moreover, paralleling the model results from the other quadrants, we expect that the manager will allocate all of the professional positions to herself and extract some menial positions as well.

4 Background on the Kenyan Case

We apply the theory to Kenyan local authorities from 2004 to 2013, the country's primary channel of decentralized government during this time.⁵ As this section makes clear, Kenya's institutional context places it squarely in the bottom-right quadrant of Table 1. Below we first provide information about local authorities, including the formal hiring processes. Next, we discuss the relative authority and leverage that each actor has over the other. We then describe the hiring incentives of the relevant politicians and bureaucratic managers within local authorities.⁶

4.1 Kenyan Local Authorities

Though initially conceived as engines of local development at independence, Kenya's 175 local authorities have largely become sites of local extraction. Each locality's budget is mostly comprised of disbursements from the Ministry of Local Government. In turn, localities are meant to use their budget to fulfill local-level governance duties: the building and maintenance of new capital expenditures and development projects. In practice, however, the majority of funds are spent on payrolls. For our study period (2004 - 2013), councils spent a yearly average of 56% to 63% of their revenues on personnel, with some councils spending in excess of 90% in certain years. Local authorities are largely perceived as vehicles for local employment (Muia, 2008, Mboga, 2009, Owolabi, 2011).⁷

The hiring decisions of each local authority are shaped by non-elected (appointed and elected officers). The most important appointed official in the locality as a whole is the clerk. These bureaucratic managers serve as the "chief executive" (Owolabi, 2011) and must sign-off on all expenditure decisions within the local authority, including hiring for all other positions. Clerks are part of the Ministry of Local Government. Though they serve locally, clerks are recruited, hired, and managed by the central government in Nairobi. They can be deployed to nearly any local authority across the country and frequently rotate between councils.

⁵Kenya promulgated a new constitution in 2013 which created a more devolved government structure, and with it, overhauled much of the local authority system.

⁶This section draws, in part, from interviews conducted with individuals who worked within the Ministry of Local Government, including bureaucratic managers ("clerks"), during our period of study. These interviews were conducted in 2015 and were drawn from a convenience sample. All interview subjects gave their voluntary and informed consent before the interview began, and interviews were only conducted after obtaining official approval from the Ministry of Local Government. See Appendix 3 for the enumerated list of interviews.

⁷See Appendix B for additional information about local authorities and their perception as employment bureaus among the population.

Each locality also has a council comprised of between 4 and 26 individual electoral wards (the average for our period of study is 11). Each ward elects a councilor through partisan first-past-the-post elections held concurrently with national elections.⁸ Local councilors wield significant formal and informal power, attempting to shape decisions in the locality to benefit those living in their particular ward (Odhiambo, Mitullah and Akivaga, 2005, Sheely, 2015).

Every bureaucratic position in a locality, from clerks to menial staff, has a corresponding salary scale ranging from 1 to 20. Lower numbers in the range correspond to higher-ranking positions. The ladder is standardized for different positions across local authorities and other agencies in the Kenyan state. Within local authorities, clerks occupy the highest-ranking position (salary groups 2-4).

Public sector positions of different ranks are formally managed differently. The authority to hire public sector positions between salary scales 10 and 20 has been formally delegated to each local authority. Members of the local bureaucracy and especially the clerk jointly determine what and how many of these lower-level, menial positions are needed within their local authority.

Besides clerks, the central government, and in particular the Public Service Commission (PSC), is also formally in charge of managing other high-skill bureaucrats whose job groups fall between 5 and 9, such as engineers, land surveyors, and public health officers. PSC runs national recruitment drives for these positions, such as through the country's largest newspapers and across universities, then conducts placement exams and interviews to hire a new batch of recruits. Once a professional bureaucrat has been hired by PSC, they go into a pool of available bureaucrats. However, these bureaucrats do not receive their full salary and benefits until they are deployed to an actual post. Thus professional bureaucrats have a strong incentive to be sent to a locality, where they can also enjoy the associated benefits of their position (e.g., engage in graft). Deployments are based on local demand, where the clerk is the lead person of this process and the primary point of contact between the Ministry and the locality.

Figure 1 displays the distribution of salary scales across all local authorities and years within our sample. As the figure illustrates, the vast majority of positions (95.3%) within each local authority are between 10 and 20 on the salary scale. Most positions are, therefore, what we classify as menial. Menial positions are often specific to the geography and environment of the specific locality (e.g., local authorities that abut wildlife preserves tend to have game officers), but other positions are fairly ubiquitous across localities (e.g., market attendants, drivers, and guards). Menial positions have fairly low education and experience requirements.⁹

The median salary differential across salary scales in our sample is large and it is substantially more expensive to employ professional positions than menial ones.¹⁰ For instance, the median annual salary for a bureaucrat with salary scale 7 is about 385,000 Kenyan Shillings (around \$3,350 in 2010), whereas it is 120,000 KSH (around \$1,050) for those with salary scale 17. This means that it is substantially cheaper to

⁸In addition, the Ministry of Local Government appoints a minority of councilors in proportion to each council's elected party representation. Parties in Kenya are highly ethnicized, meaning the ethnic breakdown of appointed councilors is similar to elected ones in practice.

⁹Even in cases where a secondary degree is formally required for a menial position, many local authorities waive this requirement in practice (Interview 4).

¹⁰Salaries for any particular salary scale vary across local authorities since they are adjusted for cost of living.

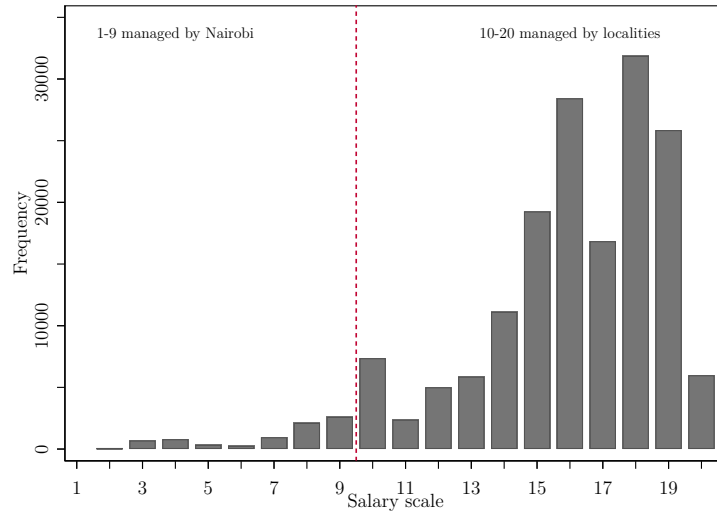


Figure 1: *Distribution of salary scales across local authorities, 2004 - 2013.* The figure plots the number of bureaucrats working in different salary scales across all local authority-years. The red line separates salary scales formally managed by the central government in Nairobi from salary scales managed by local councils.

maneuver the council’s limited budget to hire menial positions than professional ones.¹¹

4.2 Clerk and Politician Leverage Over Each Other

Clerks are the single most important person in each local authority. This is because of their formal authority. They are the chief administrator with executive authority over locality decisions, including those pertaining to personnel. For instance, Muia (2008, 149) writes that even the “chairman of the councils are more or less ceremonial with no powers over the central government appointed executive clerks.”¹² With regards to menial hiring, they oversee the decision to advertise for a new position (including through their involvement to budget for the position) and oversee the actual hiring process.

With regards to high-ranking bureaucrats, even though PSC formally hires and fixes the pool of professional bureaucrats, clerks play an important role in their *de facto* hiring. Given clerks’ official position within the Ministry of Local Government, they have a direct line to Nairobi to petition the center for the hiring of particular professional positions. The clerk may increase efforts to ensure the deployment of a professional bureaucrat – for instance, by drawing up additional reports about the necessity of the position, making continuous requests, and following-up until a deployment has been made. Therefore, and even

¹¹We do not have relevant information about Kenya’s overall labor market, including factors such as relative pay in the private and public sectors. However our field research suggests that public sector positions are highly sought after since they often come with government benefits and opportunities for graft.

¹²At first, the power and authority of the central government through the clerk within Kenya’s primary channel for devolved governance may seem surprising. However, the central government’s authority is due to historical legacies. At independence, local authorities were initially devised as strong local governments that were meant to check the central government. However, the country’s first president effectively neutered their authority in a quest to concentrate authority and turn Kenya into an autocracy. This was in part precisely because elected councilors from local authorities in opposition areas effectively challenged the power of the central government (Archive Folio KA/1/78 within the Kenyan National Archives, Nairobi, Kenya).

though PSC formally hires and fixes the pool of professional bureaucrats, a clerk is both the main petitioner to the Ministry of Local Government in the deployment of a specific professional position to the locality, as well the main point of contact in the assignment of the specific professional position that is to be deployed. At times, the clerk even requests individual professional bureaucrats by name.¹³

At the same time, local councilors still hold some informal weight over clerks even if clerks formally oversee the hiring process. This authority is derived from the council's ability to request clerk transfers. The assignment of clerks across local authorities is determined through a mix of formal regulations and informal political appeals. The Ministry of Local Government explicitly prohibits clerks from serving in their home locality to prevent the negative repercussions of bureaucratic embeddedness (Hassan, 2020). Aside from this formal policy on clerk assignments, officials in the Ministry of Local Government consider the requests of local councilors. Since councilors are tied to a geographic constituency while clerks are mobile by design, poor relations between the clerk and the council often leads to conflict and the clerk's eventual transfer (Muia, 2008).¹⁴ As explained in one case study, a clerk "who [does] not pander to the whims of the politicians, cannot survive for long in a local authority" (Odhiambo, Mitullah and Akivaga, 2005, 114). Similar to the context described in Brierley (2020), clerks reiterated that those who are considered too "strict" with the appropriation of funds asked for by the council are those who are most likely to be transferred. This is even in spite of the fact that the Ministry of Local Government demands financial discipline from clerks.¹⁵

While a number of personal factors might affect the relationship between the clerk and local councilors,¹⁶ numerous officials in the Ministry of Local Government confirmed that councilors have a strong preference for co-ethnic clerks.¹⁷ The country's largest ethnic groups are well represented among clerks *and* represent the ethnic majority in multiple local authorities. Indeed, Kenya's largest five ethnic groups comprise about two-thirds of the population,¹⁸ represent the majority in 74% of localities, and constitute more than 69% of clerk-years in our data. It is, therefore, quite possible for a clerk to serve in a local authority that is not her home and yet in which her ethnic group is in the majority.

A clerk's co-ethnicity with the council allows local politicians to place informal pressure on the clerk to increase co-ethnic hiring. For instance, the Director for Local Authorities from 2008 to 2013, and a former clerk himself, claimed that a clerk who is co-ethnic with local politicians has a hard time pulling rank. Elites in the area make complaints such as "how can our son rule us?" if the clerk refuses appeals for more hires.¹⁹ One clerk explained that she was not taken as seriously in local authorities where her ethnic group was in the council majority because it was expected that she could be cajoled.²⁰ Another clerk explicitly said that his hardest clerkship was in a locality in which his co-ethnics were the dominant group precisely because of the social pressure placed on him by councilors and locals alike to increase local employment through the public

¹³Interviews 4, 8.

¹⁴Interview 1.

¹⁵Interview 6.

¹⁶For instance, one clerk had to be transferred because he and a local councilor were vying for the affections of the same woman (Interview 1).

¹⁷Interviews 1, 2, 6, 7.

¹⁸They collectively comprised 70% of the population according to the 1989 census and 64% in 2009.

¹⁹Interview 1.

²⁰Interview 2.

sector.²¹ That said, other clerks were explicit about the benefits of being in a co-ethnic local authority for biased hiring and graft more generally: one clerk described being in a co-ethnic council as similar to being in a “family organization” in which all are willing to scratch each other’s back for all manner of operations.²²

The summary statistics from our data on clerk postings are in line with the interview evidence. Figure 2 illustrates the three possible clerk assignments relative to the ethnic group in the council majority. Overall, 48.4% of local authority-years within our sample (see below in data) have a clerk that is co-ethnic with the council majority. That is substantially more than the 14.2% of local authority-years in which the clerk is a non-co-ethnic of the majority. Ethnic groups in the council majority are then significantly more likely to have a co-ethnic clerk.²³ Clerks are also rotated between local authorities often and frequently called back to Nairobi for training or workshops. As such, a local authority may be transitioning between clerks and might not have a clerk every single year (37.4% of local authority-years in our data). Together, these summary statistics strongly point to the very real ability of local councilors to lobby the Ministry of Local Government for a co-ethnic clerk.

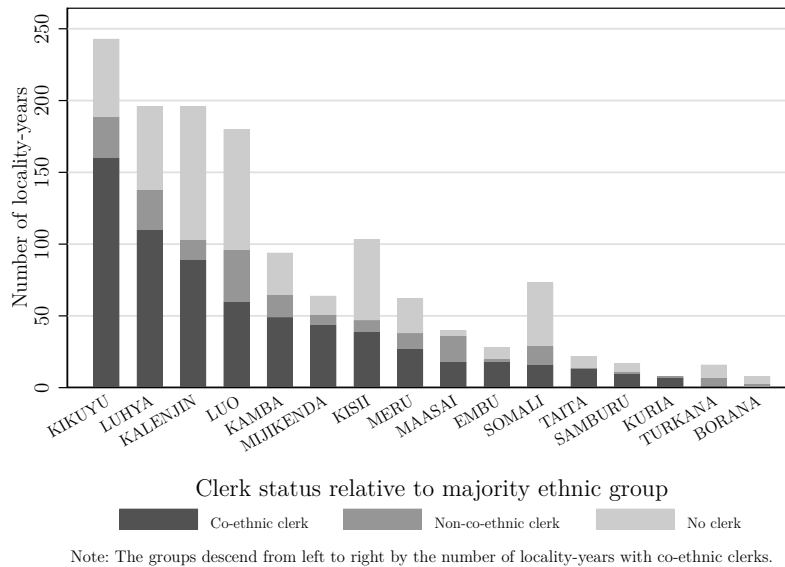


Figure 2: *Clerk assignment by ethnic group in the council majority.* The figure plots the number of local authority-years in which each group on the x-axis holds the majority on the local council. The bars are shared by the clerk status with respect to the council majority: locality-years with no clerk are light gray, locality-years with a non-co-ethnic clerk are dark gray, and locality-years with a co-ethnic clerk are black. The groups on the x-axis are ordered from left to right according to the number of locality-years with with co-ethnic clerks.

²¹Interview 3.

²²Interview 2.

²³We can statistically reject the hypothesis that the probability an ethnic group j has a co-ethnic clerk and the probability that a group j has a co-ethnic clerk if j holds the local council majority are the same (test statistic of 35.77). In Appendix E.1, we also randomized the vector of co-ethnic clerks 1,000 times to show that the true number of co-ethnic clerk assignments is significantly larger than the expected number of co-ethnic clerk assignments if clerks were randomly assigned to councils.

4.3 Hiring Preferences of Politicians (Councilors) and Bureaucratic Managers (Clerks)

The most salient political cleavage in Kenya is ethnicity (Elischer, 2013, Horowitz, 2019). Kenyan local authorities display ethnic dominance, but not outright homogeneity: 89% of Kenyan local authorities have a clear ethnic majority in the population, but the average size of the largest group is only 75%. This means that there is sufficient local-level diversity that there are members of many ethnic groups, including Kenya's largest, within most localities.

The incentives of elected councilors within their local authority are clear: they want to employ co-ethnic constituents in public sector positions. Citizens largely perceive local authorities as avenues for menial employment as opposed to channels for development,²⁴ and council members are evaluated on their ability to deliver jobs to local residents. Local councilors thus see the benefit in distributing numerous lower-level positions that are recruited from the locality. That said, politicians also have incentives to employ co-ethnics who are willing to engage in graft on their behalf into high-ranking professional positions. For instance, one clerk explained how councilors constantly asked for their preferred individuals to be hired as revenue collectors.²⁵

Clerk preferences are more complex. They have conflicting incentives to both limit and accommodate politicians' patronage hiring, as well as to engage in favoritism hiring of their own.

On the one hand, clerks have some incentives to accommodate the patronage inclinations of politicians. As we describe in Section 4.2, clerks are more likely to be subject to frequent transfers – a taxing, and bothersome ordeal for civil servants – when they resist the council's will. Even if a clerk is not transferred for standing up to the council's demands, local politicians can make the work of strict clerks unpleasant. For example, one clerk discussed how the local council would lock him out of important meetings, while another recounted an incident when a councilor threw a chair at him.²⁶

On the other hand, clerks also juggle their proclivity towards hiring their co-ethnics. This is true among all positions, but especially so for professional, higher salary-scale positions. Their incentives to recruit their co-ethnics for these jobs are multi-faceted. First, clerks prefer to work with co-ethnic bureaucrats with whom they are more likely to have a rapport. Clerks are explicitly prohibited from serving in their home locality, but they feel some sense of comfort when working with other top bureaucrats, who tend to work in the locality's central office with them, and who have a better sense of their culture and background.²⁷ Second, and more insidiously, a clerk's co-ethnicity with other professional bureaucrats could facilitate kick-backs. Kick-backs of all types are rampant within local authorities and, in many cases, include the collusion of the clerk with other professional positions from procurement to land grabs.²⁸ While this type of collusion

²⁴ For instance, Odhiambo, Mitullah and Akivaga (2005) sample 356 Kenyans across five local authorities in 2004 about how their locality uses its resources. The highest response was "payment of salaries and wages."

²⁵ Interview 6.

²⁶ Interviews 2, 5.

²⁷ Interview 8.

²⁸ Consider individual cases of clerk's corruption listed within annual reports of the country's anti-corruption agency. The 2007-2008 report lists a case in which the clerk, working with two other professional bureaucrats within the local authority, engaged in improper procurement procedures. The 2011-2012 report describes another "willful failure to comply with the law relating to procurement" by a clerk and a procurement manager. In fact, one of the case studies that the anti-corruption committee describes of common corruption within Kenya involves a fictionalized example in which a town clerk "orders" a bureaucrat involved with procurement to help the clerk's preferred vendor.

could occur among professional bureaucrats of any rank, it was perceived as more likely to occur among the clerk's co-ethnics.²⁹ Third, these incentives are compounded by the law of numbers. Though clerks are the most powerful person in a locality, politicians' leverage over them limits the total amount of bias they can implement in hiring; with up to 26 political councilors to please in order to avoid the council's ire, clerks do not have much room to bias the hiring of a large number of individuals. As one clerk explained, "if there are 20-30 new [hires], you as clerk make sure that ... two are your own picks."³⁰ With the ability to affect only a minority of new hires, clerks have an incentive to focus on professional positions.

5 Data and Descriptives

We describe the administrative data on Kenyan local authorities that we use to examine the theory. We then provide basic descriptive statistics on important variables and illustrate the presence of both patronage and bureaucratic favoritism in local authority hiring.

5.1 Data

We rely on annual payroll information across Kenyan local authorities from 2004 to 2013.³¹ These data contain the name, position, and salary scale of every local public sector employee, including centrally-appointed clerks. We scraped and merged these payroll records to create a single dataset with the universe of bureaucrats working in local authorities during the study period. In this format, the data thus allow us to observe the year in which an individual bureaucrat was hired in the local authority. Unfortunately, the payroll information does not include employee ethnicity. We therefore rely on the strong association between last names and particular ethnic groups in Kenya to manually back out the ethnicity of each bureaucrat. We employed a team of Kenyan research assistants to manually code the ethnicity of each individual bureaucrat.

We merge this payroll information with election and demographic data for each local authority. The election data are from Kenyan elections in 2002 and 2007. We use the same coding strategy described above to manually code the ethnicity of councilor names and determine the ethnic composition of each council. We determine the population and ethnic composition of local authorities using a local-level 2.5% sample of the 1989 census, the most recent census before 2004 in which sub-national ethnicity data was released.³² We then collapse the merged data to the ethnic group-locality-year level, yielding 24,588 observations in the period from 2005 to 2012.³³

The average local authority has 108.9 public servants on payroll and hires about 8.9 new individuals each year. Of these new hires, approximately 1.3 a year are in the 1-9 salary group and 7.6 a year are from the 10-20 salary group. We measure favoritism in the bureaucracy through the percentage of new hires from a particular ethnic group in a local authority in a given year. We code individual bureaucrats as new

²⁹Interview 1.

³⁰Interview 2.

³¹The Kenyan fiscal year begins July 1. This means the data covers nine years, i.e., fiscal year 2004-05 through fiscal year 2012-13.

³²Updated shape files of local authority boundaries do not exist. We relied on written government documents on local authority boundaries to match and aggregate local-level census units into their respective locality.

³³We necessarily begin our analysis during FY 2005-06, since we use payroll information from FY 2004-05 as a baseline.

hires in the first year that their name appears in a given local authority’s payroll data. We then calculate the dependent variable $Hiring_{ijt}$ as the percent of bureaucrats hired in local authority i and year t who belong to ethnic group j .

5.2 Descriptive Statistics

Figures 3 and 4 present descriptive evidence of patronage and bureaucratic favoritism, respectively in the hiring of local bureaucrats.³⁴ Both figures present the bias or premium that an ethnic group enjoys in the bureaucracy relative to the group’s share of the locality’s population. Formally, we define the ethnic bias in hiring for ethnic group j in local authority i and year t as:

$$Bias\ in\ hiring_{ijt} = \frac{Percent\ of\ new\ hires\ in\ local\ authority\ i\ and\ year\ t\ from\ ethnic\ group\ j}{Percent\ of\ total\ population\ in\ local\ authority\ i\ from\ ethnic\ group\ j} \quad (4)$$

If there is no ethnic bias, the percent of new hires belonging to a particular ethnic group weighted by their share in the population will be 1. The more an ethnic group is over-represented in new hires relative to the group’s representation in the locality’s population, the larger the premium will be. If some groups are over-represented in the bureaucracy, then others will be under-represented. These under-represented groups will then have values less than 1.

Figure 3 presents the premium disaggregated by whether an ethnic group holds the majority of seats in a local authority council. Each bar represents the bias statistic averaged over all ethnic group-locality-year combinations, separated by whether or not the ethnic group holds the local council majority in that year. Ethnic groups with a council majority enjoy a hiring premium of 1.31 relative to a premium of .32 for ethnic groups without a majority. Since the premium is above 1 for groups with the majority, the figure suggests patronage hiring because ethnic majorities distort local hiring in favor of their co-ethnics.

Figure 4 similarly shows the premium disaggregated by the presence and ethnicity of a clerk. Like groups with a council majority, groups co-ethnic with a clerk enjoy a large ethnic premium in hiring. The premium for groups in localities with no clerk or group with a non-co-ethnic clerk is .228 and .073, respectively. For ethnic groups with a co-ethnic clerk, the premium jumps to 1.39. While Figure 3 is suggestive of patronage, Figure 4 is indicative of bureaucratic favoritism and indicates the critical importance of the clerk.

6 Estimation and Results

6.1 Estimation

We more rigorously test the implications of Figures 3 and 4 using a fixed-effects design. We estimate a two-way fixed effects OLS regression at the ethnic group-locality-year level as follows:

³⁴Note that both figures are calculated to include bureaucrats of all salary scales.

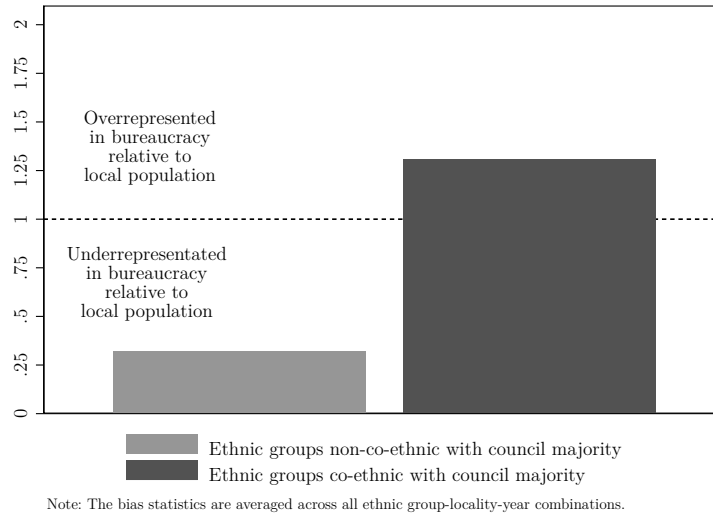


Figure 3: *Hiring bias suggestive of patronage.* The figure plots the average bias in hiring for ethnic groups not co-ethnic with the council majority and ethnic groups co-ethnic with the majority. Hiring bias greater than one suggests that the group is overrepresented in the local authority bureaucracy relative to the local population, while bias less than one suggests the group is underrepresented.

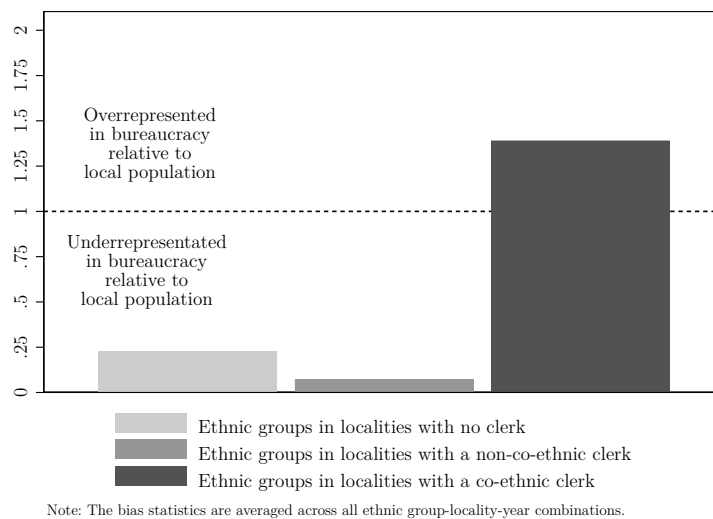


Figure 4: *Hiring bias suggestive of bureaucratic favoritism.* The figure plots the average bias in hiring for ethnic groups in localities with no clerk, ethnic groups in localities with a non-co-ethnic clerk, and ethnic groups in localities with a co-ethnic clerk. Like in Figure 3, hiring bias greater than one suggests that the group is overrepresented in the local authority bureaucracy relative to the local population, while bias less than one suggests the group is underrepresented.

$$Hiring_{ijt} = \beta_0 + \beta_1 Majority_{ijt} + \beta_2 Clerk\ presence_{it} + \beta_3 (Majority_{ijt} \times Clerk\ presence_{it}) + \beta_4 Clerk\ ethnicity_{ijt} + \beta_5 (Majority_{ijt} \times Clerk\ ethnicity_{ijt}) + \mathbf{X}_{ijt}\gamma + \alpha_{ij} + \delta_t \quad (5)$$

where i indexes local authorities, t indexes years, and j indexes ethnic groups. We relate the outcome variable $Hiring_{ijt}$, which is the share of hires that belong to ethnic group j over the total number of hires in a local authority-year $i - t$,³⁵ to three principal independent variables. First, we define $Majority_{ijt}$ as an indicator equal to 1 if ethnic group j holds a majority of council seats in local authority i and year t . The coefficient β_1 therefore represents – all else equal – the difference between the average value of the dependent variable for ethnic groups in the majority and ethnic groups not in the majority when the locality-year has no clerk. Positive and significant values on this coefficient would confirm the previous literature that local politicians favor their supporters with patronage. Note the omitted category or β_0 in Equation 5 is ethnic groups not in the majority for locality-years when there is no clerk.

Second, $Clerk\ presence_{it}$ is an indicator equal to 1 if local authority i is assigned a clerk of any ethnicity in year t . The coefficient β_2 captures the difference between the average value of the dependent value for locality-years with a non-co-ethnic clerk and no ethnic majority on the council and the omitted category. Since 96.5% of locality-years have a council majority, the coefficient on β_2 is not of much substantive interest. Third, $Clerk\ ethnicity_{ijt}$ is an indicator equal to a 1 if local authority i is assigned a clerk of ethnicity j in year t . The coefficient β_4 , therefore, represents the difference between the average value of the dependent variable for groups co-ethnic with the clerk and groups not co-ethnic with the clerk when ethnic group j is not in the majority. Positive and significant values of β_4 would confirm our prediction that clerks are able to pursue favoritism in hiring.

We also introduce two interactions to model how the effect of the local majority changes based on whether local authority i in year t has a clerk and whether that clerk is co-ethnic with the majority. The coefficient β_3 on the interaction $Majority_{ijt} \times Clerk\ presence_{it}$ represents the effect of a non-co-ethnic clerk's presence relative to no clerk for the group in the council majority. Negative and significant values on this coefficient would indicate that non-co-ethnic clerks diminish the majority's ability to bias hiring. Similarly, the coefficient β_5 on the interaction $Majority_{ijt} \times Clerk\ ethnicity_{ijt}$ represents the effect of a co-ethnic clerk's presence relative to a non-co-ethnic clerk on hiring for the group in the council majority.

Finally, α_{ij} represents ethnic group-local authority fixed effects and δ_t represents year fixed effects. In alternative specifications, we substitute δ_t for ethnic group-year fixed effects and local authority-year fixed effects. These two sets of fixed effects allow us to control for a large number of possible confounders. First, the ethnic group-local authority fixed effects α_{ij} control for any time-invariant characteristics unique

³⁵One issue with the definition of $Hiring_{ijt}$ is that when a local authority does not make any hires in a given year, as in the case of 11.0% of our observations, the denominator is zero and therefore $Hiring_{ijt}$ is undefined. We replace the missing values of $Hiring_{ijt}$ with zeros and introduce as a control an indicator variable equal to one for these observations and zero otherwise. This method has been suggested, even if missingness is not random (Groenwold et al., 2012). We also interact the indicator variable with every other variable in Equation 5 to produce a fully saturated model. \mathbf{X}_{ijt} represents the indicator variable and the ensuing interactions. Note that we do not report the coefficients in the vector γ in the tables that follow. These coefficients do not have much practical significance.

	Ethnic group j is non co-ethnic with the council	Ethnic group j is co-ethnic with the council
No clerk	No clerk and j is non co-ethnic with the council, i.e., omitted category (β_0)	No clerk and j is co-ethnic with the council (β_1)
Ethnic group j is non co-ethnic with the clerk	j is non co-ethnic with the clerk and the council (β_2)	j is non co-ethnic with the clerk, but co-ethnic with the council ($\beta_1 + \beta_2 + \beta_3$)
Ethnic group j is co-ethnic with the clerk	j is co-ethnic with the clerk, but not the council ($\beta_2 + \beta_4$)	j is co-ethnic with the clerk and council ($\beta_1 + \beta_2 + \beta_3 + \beta_4 + \beta_5$)

Table 2: Relationships between ethnic group j , the clerk, and the council

to a particular ethnic group in a given locality. Second, the ethnic group-year fixed effects δ_t account for annual shocks that affect every ethnic group, but independently of their locality. Taken together, the granularity of the fixed effects in Equation 5 enables us to rule out alternative explanations based on variables invariant across year- or ethnic group-locality pairs. Given these fixed effects, Equation 5 relies on one important identification assumption: the absence of time-varying confounders. This assumption also entails the absence of reverse causality. In other words, we assume the values of any dependent variables from prior periods should not affect the values of independent variables in the current period. As mentioned in the next section, we directly test for the presence of reverse causality in Table H.1 of the appendix.

For ease of interpretation, we are primarily interested in particular linear combinations of the coefficients rather than their base values. In particular, we focus on the six possible relationships between a given ethnic group j , the council majority, and the clerk. First, locality-years may or may not have a clerk. Next, for locality-years with a clerk, a given ethnic group j may be co-ethnic with only the clerk, co-ethnic with only the council, co-ethnic with neither the clerk nor the council, or co-ethnic with both the clerk and the council. Table 2 presents the six different relationships and how the coefficients in Equation 5 map onto those categories. Each of the linear combinations represent the difference between the average value of the dependent variable for that category and the average value of the dependent variable for the omitted category β_0 . Recall that the omitted category represents ethnic groups who are not in the majority for locality-years where there is no clerk.

6.2 Patronage and Bureaucratic Favoritism in Hiring

Table 3 presents the main results that disentangle hiring bias due to political patronage and bias due to bureaucratic favoritism.³⁶ The first column has ethnic group-locality and year fixed effects, while the second column has the more stringent ethnic group-year and locality-year fixed effects. As expected, the β_1 coefficient on $Majority_{ijt}$ is positive and statistically significant across the two specifications. This confirms that the ethnic group in the majority council is able to pursue patronage hiring in the absence of a clerk. However, the β_4 coefficient on $Clerk\ ethnicity_{ijt}$ is also consistently positive and significant. This suggests that, in addition to politicians, clerks engage in favoritism and bring their own bias to hiring.

The third panel of Table 3 presents the linear combinations from Table 2 and their standard errors. First,

³⁶Recall that the outcome is the *share* of new hires in a locality-year that belong to ethnic group j . The *number* of new hires that the average ethnic group receives in a locality-year is, therefore, $0.049 \times 8 \text{ years} = 0.392$ new hires.

ethnic groups in the majority without a clerk enjoy a statistically significant hiring premium. When an ethnic group is in the majority, the percent of new hires belonging to that group increases by 18.3 percentage points (β_1) relative to groups not in the majority. Given the absence of the clerk, we can think of this first category as representing the “revealed preference” of the council majority for patronage.

Second, ethnic groups who are not co-ethnic with the clerk nor the council do not receive any real change in hiring relative to the omitted category (β_2). The values here are either zero or very small. Third, ethnic groups co-ethnic with a clerk but not with a council majority receive a boost roughly similar to those co-ethnic with the council majority ($\beta_2 + \beta_4$). When an ethnic group faces a co-ethnic clerk but not a co-ethnic council, the percent of new hires belonging to that group increases by 18.8 percentage points. This suggests that clerks engage in favoritism that is separate from the council’s patronage.

Fourth, ethnic groups who are co-ethnic with both the clerk and the council enjoy a large hiring premium ($\beta_1 + \beta_2 + \beta_3 + \beta_4 + \beta_5$). These groups see their hiring increase by 21.9 percentage points. This makes sense because, in these contexts, the preferences of the clerk and the council are aligned. We note, however, that this linear combination can not disentangle the incentives of the clerk from the council – muddying the picture as to how much each actor biases hiring.

On the other hand, the final category reveals what happens when the preferences are not aligned and thus allows this paper to empirically separate the incentives of the two main actors. Ethnic groups who are not co-ethnic with the clerk but are co-ethnic with the council do not see an increase in hiring that is statistically different than zero ($\beta_1 + \beta_2 + \beta_3$). In other words, the assignment of a non-co-ethnic clerk dampens the premium that an ethnic group co-ethnic with the council enjoys when there is no clerk (β_1) ($p < 0.01$) or when there is a co-ethnic clerk ($\beta_1 + \beta_2 + \beta_3 + \beta_4 + \beta_5$) ($p < 0.01$).

Overall, these results document how bureaucratic managers affect patronage. Consistent with both the existing literature on patronage and bureaucratic favoritism, there is an ethnic premium in terms of new hires for bureaucrats co-ethnic with the local council majority and for bureaucrats co-ethnic with the clerk. Moreover, Table 3 suggests that these two effects interact: while clerks who are co-ethnic with the council majority do not bolster the hiring of co-ethnics further, the presence of a clerk who is not co-ethnic with the council majority effectively neuters the bias in hiring. Perhaps most importantly, the third and fourth linear combinations of Table 3 document how hiring changes when the incentives of the two main hiring actors are not aligned. The differences between each of these linear combinations highlight the importance of studying the incentives and relative leverage of both bureaucratic managers and politicians.

The most direct threat to causal inference in Table 3 is that of reverse causality, which would violate the absence of time-varying confounders assumption. For example, the current specification assumes that the arrival of a clerk non-co-ethnic with the council in a locality previously without a clerk causes the estimated negative effect on the interaction $Majority_{ijt} \times Clerk\ presence_{it}$ (β_3). In the presence of reverse causality, the effect could instead be driven by local authorities without a clerk being assigned a non-co-ethnic clerk after they start reducing their political patronage and start hiring more co-ethnics of the future clerk. Testing for reverse causality in this context equates testing for the presence of leads for $Clerk\ presence_{it}$ and $Clerk\ ethnicity_{ijt}$ as well as their interactions with $Majority_{ijt}$. Table H.1 in the appendix presents the results of Equation 5 after including one and two-year leads for these two variables and their interactions

Outcome:	Hiring (1)	Hiring (2)
Majority (β_1)	0.183** (0.074)	0.188** (0.077)
Clerk presence (β_2)	-0.002** (0.001)	
Majority x Clerk presence (β_3)	-0.181*** (0.031)	-0.182*** (0.032)
Clerk ethnicity (β_4)	0.190*** (0.027)	0.189*** (0.027)
Majority x Clerk ethnicity (β_5)	0.028 (0.023)	0.031 (0.025)
Outcome Mean	0.049	0.049
Omitted Category	0.008	0.008
Observations	24588	24588
R-Squared	0.914	0.915
No clerk and j is co-ethnic with the council (β_1)	0.183*** (0.074)	0.188*** (0.077)
j is non-co-ethnic with the clerk and the council (β_2)	-0.002** (0.001)	
j is non-co-ethnic with the clerk, but co-ethnic with the council ($\beta_1 + \beta_2 + \beta_3$)	-0.000 (0.070)	0.006 (0.073)
j is co-ethnic with the clerk, but non-co-ethnic with the council ($\beta_2 + \beta_4$)	0.188*** (0.027)	0.189*** (0.027)
j is co-ethnic with the clerk and the council ($\beta_1 + \beta_2 + \beta_3 + \beta_4 + \beta_5$)	0.219*** (0.073)	0.226*** (0.075)
<i>p-values for the following null hypotheses:</i>		
$H_0 : \beta_1 = \beta_1 + \beta_2 + \beta_3$	0.000	0.000
$H_0 : \beta_1 + \beta_2 + \beta_3 = \beta_1 + \beta_2 + \beta_3 + \beta_4 + \beta_5$	0.000	0.000
$H_0 : \beta_1 = \beta_1 + \beta_2 + \beta_3 + \beta_4 + \beta_5$	0.015	0.014
$H_0 : \beta_2 = \beta_2 + \beta_4$	0.000	0.000
Ethnic group-locality FE	Yes	Yes
Year FE	Yes	No
Ethnic group-year FE	No	Yes
Locality-year FE	No	Yes
Standard errors in parentheses		
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$		

Table 3: *Patronage and bureaucratic favoritism in hiring*

with $Majority_{ijt}$. All of the coefficients on the leading variables in Tables H.1 are small and statistically insignificant. Reassuringly, the coefficients of interest from Table 3 remain significant and maintain the same direction as in Table 3.³⁷

³⁷It is worth noticing that our two-way fixed effect strategy is not a standard generalized differences-in-differences, given that

6.3 Allocations Across Positions

Section 6.2 demonstrates the hiring bias of politicians versus that of the local clerk by capitalizing on cases in which their incentives diverge. Here, we conduct sub-sample analyses to determine *how* a clerk and local council solve the allocation problem when their incentives are misaligned.

When a local public bureaucracy is comprised of two different types of jobs that the two actors value differently, our model suggests that the relatively stronger actor will receive an allocation that includes more of their preferred type of position. The prediction for our specific empirical case is that clerks will favor individuals from their in-group for professional positions as well as some menial positions, while allocating other menial jobs to politicians.

Table 4 confirms this prediction. The first two columns of Table 4 present the results only for professional bureaucrats, i.e., those with salary scales 1-9. The coefficients β_4 on $Majority_{ijt}$ and $Clerk\ ethnicity_{ijt}$ is again positive and statistically significant. The β_3 coefficient on the interaction $Majority \times Clerk\ presence_{ijt}$ is also negative and statistically significant, similar to Table 3. The third and fourth columns of Table 4 present the results only for more menial, lower-salary scale bureaucrats in salary scales 10-20. The β_1 and β_4 coefficients on $Majority_{ijt}$ and $Clerk\ ethnicity_{ijt}$ are once again positive and significant. However, unlike Table 3, the β_3 coefficient on $Majority \times Clerk\ presence_{ijt}$ is no longer significant.

For ease of interpretation, Figure 5 plots the linear combinations shown in the first and third columns of the third panel from Table 4. The rectangular points represent linear combinations from the 1-9 salary group (Column 1 of Table 4) and the circular points represent combinations from the 10-20 group (Column 3 of Table 4). The bars represent 95% confidence intervals, so the points and bars in red indicate statistical significance at the 95% confidence level.

Figure 5 highlights that groups co-ethnic with the council enjoy a hiring premium in the absence of a clerk for both the 1-9 and 10-20 salary groups (β_1). The same is true for groups co-ethnic with a clerk, but not co-ethnic with a council ($\beta_2 + \beta_4$) and groups co-ethnic with both the clerk and the council ($\beta_1 + \beta_2 + \beta_3 + \beta_4 + \beta_5$). The hiring premium is larger for the 1-9 salary group for all three of these cases, suggesting that both clerks and the council place higher importance on placing their in-group in professional positions. Unsurprisingly, groups that are non-co-ethnic with both the clerk and the council receive little or no hiring premium (β_2). When there is a non-co-ethnic clerk and the incentives of the clerk and the council majority do not align, the clerk removes the local majority's ethnic premium with respect to hiring ($\beta_1 + \beta_2 + \beta_3$). Importantly though, this is *only* true for the 1-9 group but not for the 10-20 salary group.

Overall, these results document how managers and politicians solve the allocation problem by hiring their in-group to different parts of the salary scale. This is especially important because it helps resolve the tension that arises when these two actors are from different ethnic groups and thus have divergent preferences.

clerk's co-ethnicity switches on and off. Moreover, the share of clerk's co-ethnics is 0.035, and thus the estimates are unlikely to be biased due to negative weights originating from staggered treatment adoption and heterogeneous treatment effects (Goodman-Bacon, 2021).

Outcome:	Hiring (1-9) (1)	Hiring (1-9) (2)	Hiring (10-20) (3)	Hiring (10-20) (4)
Majority (β_1)	0.462*** (0.084)	0.474*** (0.087)	0.241*** (0.043)	0.241*** (0.044)
Clerk presence (β_2)	-0.005*** (0.001)		-0.001 (0.001)	
Majority x Clerk presence (β_3)	-0.415*** (0.040)	-0.419*** (0.040)	-0.049* (0.028)	-0.048* (0.029)
Clerk ethnicity (β_4)	0.442*** (0.037)	0.441*** (0.038)	0.070*** (0.027)	0.070*** (0.027)
Majority x Clerk ethnicity (β_5)	0.057 (0.037)	0.061 (0.040)	-0.014 (0.023)	-0.013 (0.025)
Outcome Mean	0.037	0.037	0.038	0.038
Omitted category	0.007	0.007	0.004	0.004
Observations	24588	24588	24588	24588
R-Squared	0.830	0.832	0.932	0.933
No clerk and j is co-ethnic with the council (β_1)	0.462*** (0.084)	0.474*** (0.087)	0.241*** (0.043)	0.241*** (0.044)
j is non-co-ethnic with the clerk and the council (β_2)	-0.005*** (0.001)		-0.001 (0.001)	
j is non-co-ethnic with the clerk, but co-ethnic with the council ($\beta_1 + \beta_2 + \beta_3$)	0.042 (0.076)	0.055 (0.080)	0.192*** (0.044)	0.192*** (0.045)
j is co-ethnic with the clerk, but non-co-ethnic with the council ($\beta_2 + \beta_4$)	0.438*** (0.037)	0.441*** (0.038)	0.070*** (0.027)	0.070*** (0.027)
j is co-ethnic with the clerk and the council ($\beta_1 + \beta_2 + \beta_3 + \beta_4 + \beta_5$)	0.541*** (0.081)	0.557*** (0.084)	0.248*** (0.042)	0.249*** (0.042)
<i>p-values for the following null hypotheses:</i>				
$H_0 : \beta_1 = \beta_1 + \beta_2 + \beta_3$	0.000	0.000	0.080	0.095
$H_0 : \beta_1 + \beta_2 + \beta_3 = \beta_1 + \beta_2 + \beta_3 + \beta_4 + \beta_5$	0.000	0.000	0.045	0.050
$H_0 : \beta_1 = \beta_1 + \beta_2 + \beta_3 + \beta_4 + \beta_5$	0.001	0.001	0.579	0.533
$H_0 : \beta_2 = \beta_2 + \beta_4$	0.000	0.000	0.009	0.010
Ethnic group-locality FE	Yes	Yes	Yes	Yes
Year FE	Yes	No	Yes	No
Ethnic group-year FE	No	Yes	No	Yes
Locality-year FE	No	Yes	No	Yes

Standard errors in parentheses

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

Table 4: *Hiring by salary groups*

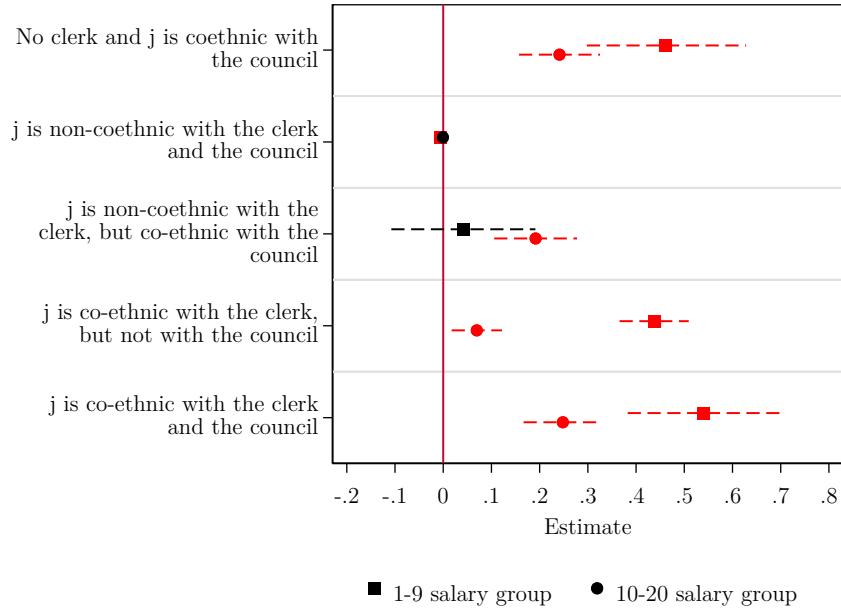


Figure 5: *Linear combinations from Table 4, Columns 1 and 3.* The bars represent 95% confidence intervals and the red coefficients depict statistically significant point estimates.

6.4 Alternative explanations

We next probe alternative interpretations of the results. First, in the context of Kenyan local authorities, the conceptual distinction between patronage and bureaucratic favoritism would be lost if clerks are themselves agents of political actors. In Section 6.2, we show that managers with preferences distinct from council majorities do not implement the patronage inclinations of local politicians and, in fact, hinder their attempts at patronage. Here, we consider the possibility that clerks hiring their co-ethnics are not pursuing their own interests but instead implementing the interests of national-level politicians such as local Members of Parliament (MPs). Indeed, past research on Kenya has shown that MPs and other national-level elites can exert influence over important bureaucrats to ensure that those bureaucrats implement the national-level politicians’ interests (Hassan and Sheely, 2017). Following this alternative, clerk influence over hiring may therefore be a mechanism the Ministry of Local Government wields to politically bolster favored MPs.

We explore whether clerks are indeed political agents of national-level politicians by examining additional interactions with the ethnicity of the relevant member of parliament. MP elections were held in 2002 and 2007. Local authorities are not necessarily congruent with or nested within constituencies, so most sit within two to four parliamentary constituencies. However, while 53% of localities overlap with multiple MP constituencies, there are no local authorities with multiple overlapping constituencies in which the elected MPs belong to different ethnic groups. We, therefore, define $MP\ ethnicity_{ijt}$ as an indicator equal to 1 if local authority i has a MP (or MPs in the case of overlapping constituencies) of ethnic group j in year t .

We modify Equation 5 to include the ethnicity of the relevant MP as well as the complete set of interactions with other variables. If clerks are indeed pawns of national politics, the same dynamics observed

between the clerk and the council majority should be driven by the MP's ethnicity. Most importantly, the coefficient on $Clerk\ ethnicity_{ij} \times MP\ ethnicity_{ijt}$ – which represents the effect of a clerk's co-ethnic with the relevant MP but non-co-ethnic with the council majority – should be positive and statistically significant. Table G.5 in the appendix displays the results from the specification and the results reassuringly indicate that MP ethnicity does not affect hiring at the locality-level. The coefficients for the base term and each of the interactions are not significant, while the primary coefficients of interest from Table 3 retain their statistical significance and direction. These results therefore ease concerns that the clerks are pawns of national-level political elites.

Second, we address the concern that our findings capturing the leverage of local elites are driven by particularly politically relevant or well-connected ethnic groups. In particular, past work on Kenya suggests that presidents' co-ethnics see more goods and services than other groups (Kramon and Posner, 2016, Burgess et al., 2015), so we investigate whether localities that are co-ethnic with the president see different hiring outcomes by interacting our main explanatory variables with an indicator for localities whose politicians are majority Kikuyu. In addition, since the Ministry of Local Government oversees local authorities, we re-run this analysis with an indicator for localities whose politicians are aligned with the Minister of Local Government (majority Luhya until 2008, majority Luo afterward). We run similar specification as those for the first alternative argument after replacing MP ethnicity with either that of the president or Minister of Local Government, and list the results in Tables G.3 and G.4 respectively. The coefficients for each new base term and its interactions are not significant. Further, the main coefficients of interest from Table 3 retain their statistical significance. Taken together, we are less concerned with the alternative that our results are being driven by particularly well-connected ethnic groups.

Third, another alternative interpretation of the results in Table 4 is that local councils have more political weight than clerks and simply prefer hiring their in-group to low-level positions rather than more professional ones (e.g., as in Brierley (2021)). If true, the Kenyan context would fit in the top left cell of Table 1. We assess the feasibility of such an interpretation by studying heterogeneity in the results by clerk tenure. The mean tenure for a clerk at any given local authority is only 1.8 years, indicating that clerks rotate often across jurisdictions and are frequently switched between positions in Nairobi and local governments.

We specifically focus on whether clerks are serving in their first year at a given local authority. 32% of all ethnic group-locality-year observations have a clerk who is serving in their first year of service. We assume that clerks in their first year are relatively more powerful than other years because they are more independent from the council and, therefore, can more easily pull rank. If our interpretation of the results is correct, we should observe that clerks are more likely to realize their preferences in the first year.

We again modify Equation 5 to include an indicator $Clerk's\ first\ year_{it}$ as well as the complete set of interactions with other variables. We re-run Equation 5 for the complete range of salary groups, only for professional positions in salary groups 1-9, and only for menial positions in salary groups 10-20. The results of these specifications are shown in Tables G.6-G.8 of the appendix. Overall, these results reinforce the interpretation that clerks are the more powerful actor. In Table G.6 of the appendix, the coefficient on $Majority_{ijt} \times Clerk's\ first\ year_{ijt}$ is negative and significant, while the coefficient on $Clerk\ ethnicity_{ijt} \times Clerk's\ first\ year_{ijt}$ is positive and significant. This indicates that first-year clerks

are better able to stifle politicians' efforts to hire their in-group, but can also more easily favor their own co-ethnics. Splitting by salary groups, Tables G.7 and G.8 indicate that these effects are entirely driven by the 1-9 salary group. The coefficients on the *Clerk's first year_{ijt}* indicator are either much smaller or not significant for the 10-20 salary group. In other words, clerks are more capable of executing their preferences when they are strongest in their first year at a local authority.

7 Conclusion

Public sector jobs confer individualized benefits to recipients. Past literature has found ample evidence that local elites have strong incentives to distribute these positions to their preferred individuals as private goods (Geddes, 1994, Grindle, 2012, Meyer-Sahling, Schuster and Mikkelsen, 2018). However, existing research tends to separately examine the role of elected politicians in distributing positions as political patronage or appointed bureaucratic managers in doling out jobs through bureaucratic favoritism or nepotism. Past approaches can thus only give us a partial picture of hiring dynamics and risk over-interpreting the role of either form of biased hiring at the expense of the other.

We braid together these two approaches to build a theoretic model in which we consider local public sector hiring as an allocation problem between bureaucratic managers and politicians. Since managers tend to oversee the recruitment and hiring process, we model their ability to maximize their hiring preferences given the formal or informal leverage they hold vis-à-vis local politicians, as well as their relative preference over different types of positions. Our model predicts that hiring will reflect *both* political patronage and bureaucratic favoritism but that the level of each is a factor of the specific institutional environment: when the hiring preferences of these actors differ, the relatively stronger actor is able to bias hiring in the type of position it prefers more than the relatively weaker actor.

We examine the empirical implications of the model by analyzing who gets hired through a micro-level analysis of Kenyan payroll data. We use nearly a decade of individual-level administrative records across Kenya's 175 local authorities to construct a dataset of almost 170,000 person-years. The results document clear evidence of both patronage and bureaucratic favoritism since both the local council majority and the clerk are able to hire their co-ethnics. As the theory predicts, when the two actors have conflicting preferences, these new hires are concentrated in different parts of the local bureaucracy. Local council majorities enjoy co-ethnic patronage hiring in both professional and menial positions when there is no clerk. The assignment of a co-ethnic clerk does not significantly change these dynamics. In contrast, the assignment of a clerk not co-ethnic with the local council majority eliminates the majority's ability to hire their own co-ethnics to high-level positions. The local council majority concentrates co-ethnic hires in low-level positions, while the clerk focuses on hiring their own in-group to professional positions.

These results have implications for public policy and public administration. While many policymakers look to craft public sector reforms that reign in politicians – sometimes by empowering appointed bureaucrats that are painted as impartial – the findings suggest that future reforms must also temper the abilities of appointed officials to place their preferred individuals into government. Addressing favoritism in public sector hiring requires addressing the incentives of *both* politicians and appointed officials, not just one actor or

the other. Simply put, bureaucratic incentives matter and can not be assumed to always follow the rational-legal Weberian ideal. The incentives and capacities of unelected officials can have profound consequences on politics, and must be considered by future research on clientelism.

This paper shows the effects of bureaucratic managers on patronage. However, our results stop short of discussing the effects of biased hiring on service delivery. That is, while our qualitative evidence suggests that co-ethnicity facilitates corruption, it is unclear if co-ethnicity among bureaucrats leads to efficiency gains that surmount the losses from corruption. We leave it to future work to evaluate the conditions under which bias in public sector hiring leads to efficiency losses or gains in service delivery.

References

- Ashraf, Nava and Oriana Bandiera. 2018. "Social Incentives in Organizations." *Annual Review of Economics* 10:439–463.
- Bowles, Jeremy, Horacio Larreguy and Shelley Liu. 2020. "How Weakly Institutionalized Parties Monitor Brokers in Developing Democracies: Evidence from Post-Conflict Liberia." *American Journal of Political Science* 64(4):952–967.
- Brassiolo, Paglo, Ricardo Estrada, Gustavo Fajardo and Julian Martinez-Correa. 2021. Family Rules: Nepotism in the Mexican Judiciary System. CAF Working Paper 2021/09. <http://scioteca.caf.com/handle/123456789/1798>.
- Brierley, Sarah. 2020. "Unprincipled principals: Co-opted bureaucrats and corruption in Ghana." *American Journal of Political Science* 64(2):209–222.
- Brierley, Sarah. 2021. "Combining Patronage and Merit in Public Sector Recruitment." *Journal of Politics* 83(1):182–197.
- Brierley, Sarah, Kenneth Lowande, Rachel Augustine Potter and Guillermo Toral. 2023. "Bureaucratic Politics: Blindspots and Opportunities in Political Science." *Annual Review of Political Science* .
- Burgess, Robin, Remi Jedwab, Edward Miguel and Ameet Morjaria. 2015. "The Value of Democracy: Evidence from Road Building in Kenya." *American Economic Review* 105(6):1817–1851.
- Calvo, Ernesto and Maria Victoria Murillo. 2004. "Who Delivers? Partisan Clients in the Argentine Electoral Market." *American Journal of Political Science* 48(4):742–757.
- Colonnelli, Emanuele, Mounu Prem and Edorado Teso. 2020. "Patronage and Selection in Public Sector Organizations." *American Economic Review* 110:3071 – 3099.
- Cornell, Agnes and Marcia Grimes. 2022. "Brokering Bureaucrats: How Bureaucrats and Civil Society Facilitate Clientelism Where Parties are Weak." *Comparative Political Studies* .
- Cruz, Cesi and Philip Keefer. 2015. "Political Parties, Clientelism, and Bureaucratic Reform." *Comparative Political Studies* 48(14):1942–1973.
- Driscoll, Barry. 2018. "Why Political Competition Can Increase Patronage." *Studies in Comparative International Development* 53:404–427.
- Elischer, Sebastian. 2013. *Political Parties in Africa: Ethnicity and Party Formation*. Cambridge University Press.
- Finan, Frederico, Benjamin Olken and Rohini Pande. 2017. "The Personnel Economics of the Developing State." *Handbook of Economic Field Experiments* 2:467–514.

- Folke, Olle, Shigeo Hirano and James M Snyder. 2011. "Patronage and Elections in US States." *American Political Science Review* 105(3):567–585.
- Geddes, Barbara. 1994. *Politician's Dilemma: Building State Capacity in Latin America*. University of California Press.
- Goodman-Bacon, Andrew. 2021. "Difference-in-differences with variation in treatment timing." *Journal of Econometrics* 225(2):254–277.
- Grindle, Merilee. 2012. *Jobs for the Boys: Patronage and the State in Comparative Perspective*. Harvard University Press.
- Groenwold, Rolf, Ian White, Rogier Donders, James Carpenter, Douglas Altman and Karel Moons. 2012. "Missing Covariate Data in Clinical Research: When and When not to Use the Missing-Indicator method for Analysis." *Canadian Medical Association Journal* 184(11):1265–1269.
- Grzymała-Busse, Anna. 2007. *Rebuilding Leviathan: Party Competition and State Exploitation in Post-Communist Democracies*. Cambridge University Press.
- Gulzar, Saad and Benjamin J. Pasquale. 2017. "Politicians, Bureaucrats, and Development: Evidence from India." *American Political Science Review* 111(1):162 – 183.
- Hassan, Mai. 2020. *Regime Threats and State Solutions: Bureaucratic Loyalty and Embeddedness in Kenya*. Cambridge University Press.
- Hassan, Mai and Ryan Sheely. 2017. "Executive-Legislative Relations, Party Defections, and Lower-Level Administrative Unit Proliferation: Evidence from Kenya." *Comparative Political Studies* 50(12):1595 – 1631.
- Hjort, Jonas. 2014. "Ethnic Divisions and Production in Firms." *Quarterly Journal of Economics* 129(4):1899–1946.
- Horowitz, Jeremy. 2019. "Ethnicity and the Swing Vote in Africa's Emerging Democracies: Evidence from Kenya." *British Journal of Political Science* 49(3):901–921.
- Huber, John and Michael Ting. 2021. "Civil Service and Patronage in Bureaucracies." *Journal of Politics* 83(3).
- Johnson-Kanu, Ada. 2021. "Colonial Legacies in State Building: Ethnicity and Bureaucratic Representation in Nigeria."
- Kingsley, John Donald. 1944. *Representative Bureaucracy*. Antioch Press.
- Kitschelt, Herbert and Steven Wilkinson. 2007. *Patrons, Clients, and Policies: Patterns of Democratic Accountability and Political Competition*. Cambridge University Press.

- Kramon, Eric and Daniel N. Posner. 2016. "Ethnic Favoritism in Primary Education in Kenya." *Quarterly Journal of Political Science* 11(1):1–58.
- Krislov, Samuel. 2012. *Representative Bureaucracy*. Quid Pro Books.
- Larreguy, Horacio, Cesar Montiel and Pablo Querubin. 2017. "Political Brokers: Partisans or Agents? Evidence from the Mexican Teacher's Union." *American Journal of Political Science* 61(24):877–891.
- Mares, Isabela and Lauren Young. 2019. *Conditionality and Coercion: Electoral Clientelism in Eastern Europe*. Oxford University Press.
- Martin, Lucy and Pia Raffler. 2021. "Fault Lines: The Effects of Bureaucratic Power on Electoral Accountability." *American Journal of Political Science* 65(1):210–224.
- Mboga, Hamisi. 2009. *Understanding the Local Government System in Kenya: A Citizen's Handbook*. Institute of Economic Affairs.
- Menon, Balakrishna, James Mutero and Simon Macharia. 2008. *Decentralization and Local Governments in Kenya*. International Studies Program Working Paper 08-32. George State University.
- Meyer-Sahling, Jan-Hinrik, Christian Schuster and Kim Sass Mikkelsen. 2018. *Civil Service Management in Developing Countries: What Works? Evidence from a Survey With 23,000 Civil Servants in Africa, Asia, Eastern Europe and Latin America*. UK Department for International Development Report.
- Muia, Daniel. 2008. *Devolution: Which Way for Local Authorities?* University of Nairobi Press.
- Odhiambo, Morris, Winnie Mitullah and Kichamu Akivaga. 2005. *Management of Resources by Local Authorities: The Case of Local Authority Transfer Fund in Kenya*. Claripress.
- O'Dwyer, Conor. 2006. *Runaway State-Building: Patronage Politics and Democratic Development*. Johns Hopkins University Press.
- Oliveros, Virginia. 2021. *Patronage at Work: Public Jobs and Political Services in Argentina*. Cambridge University Press.
- Owolabi, Sade. 2011. *Shifted Responsibilities: Case Studies of Kenya's Participatory Local Authority Service Delivery Action Plan (LASDAP)*. Cornell University Dissertation Thesis.
- Pellegrino, Bruno and Luigi Zingales. 2017. *Diagnosing the Italian Disease*. National Bureau of Economic Research Working Paper 23964. <https://www.nber.org/papers/w23964>.
- Pepinsky, Thomas, Jan Pierskalla and Audrey Sacks. 2017. "Bureaucracy and Service Delivery." *Annual Review of Political Science* 20:249 – 268.
- Pierskalla, Jan and Audrey Sacks. 2020. "Personnel Politics: Elections, Clientelistic Competition and Teacher Hiring in Indonesia." *British Journal of Political Science* 50(4):1283–1305.

- Rasul, Imran and Daniel Rogger. 2018. "Management of Bureaucrats and Public Service Delivery: Evidence from the Nigerian Civil Service." *The Economic Journal* 128(608):413–446.
- Rasul, Imran, Daniel Rogger and Martin Williams. 2021. "Management, Organizational Performance, and Task Clarity: Evidence from Ghana's Civil Service." *Journal of Public Administration Research and Theory* 31(2):259–277.
- Riano, Juan Felipe. 2022. "Bureaucratic Nepotism." <https://bit.ly/JMPRiano>.
- Robinson, James and Thierry Verdier. 2013. "The Political Economy of Clientelism." *Scandinavian Journal of Economics* 115(2):260 – 291.
- Rogger, Daniel. 2017. Who Serves the Poor? Surveying Civil Servants in the Developing World. World Bank Policy Research Working Paper 8051. <http://hdl.handle.net/10986/26503>.
- Rogger, Daniel. 2018. The Consequences of Political Interference in Bureaucratic Decision-Making: Evidence from Nigeria. World Bank Policy Research Working Paper 8554. <https://bit.ly/3PCHStH>.
- Salgado, Marcos. 2021. Building Loyalty through Personal Connections: Evidence from the Spanish Empire. Working Paper. <https://bit.ly/3oG6RA1>.
- Schuster, Christian. 2016. "What causes patronage reform? It depends on the type of civil service reform." *Public Administration* 94(4):1094–1104.
- Sheely, Ryan. 2015. "Mobilization, Participatory Planning Institutions, and Elite Capture: Evidence from a Field Experiment in Rural Kenya." *World Development* 67:251 – 266.
- Sigman, Rachel. 2022. "Which Jobs for which Boys? Party Finance and the Politics of State Job Distribution in Africa." *Comparative Political Studies* 55(3):351–385.
- Toral, Guillermo. 2022a. "How Patronage Delivers: Political Appointments, Bureaucratic Accountability, and Service Delivery in Brazil." https://www.guillermotoral.com/benefits_of_patronage.pdf.
- Toral, Guillermo. 2022b. "Turnover: How Lame-Duck Governments Disrupt the Bureaucracy and Service Delivery before Leaving Office." <https://www.guillermotoral.com/turnover.pdf>.
- Xu, Guo. 2018. "The Costs of Patronage: Evidence from the British Empire." *American Economic Review* 108(11):3170–98.