Appendix for
"Who Gets Hired? Political Patronage and Bureaucratic Favoritism"

Contents

A Model of Public Sector Hiring **2**

B Additional Information on Kenyan Local Authorities **4**

C Interviews **5**

D Summary statistics **5**

E Local authority descriptives **6**

E.1 Council preferences for co-ethnic clerks 6

E.2 Ethnic diversity in local authorities 6

E.3 Ethnic groups in the council majority 7

E.4 Hiring in local authorities 8

F Sources of variation **9**

G Alternative specifications and extensions **11**

G.1 Main results iteratively adding independent variables 11

G.2 Main results with employment levels 12

G.3 Main results interacted with president's ethnicity 13

G.4 Main results interacted with Minister of Local Government's ethnicity 14

G.5 Main results interacted with MP ethnicity 15

G.6 Main results interacted with clerk's first year 16

H Robustness checks **20**

H.1 Main results with treatment leads 20

H.2 Main results subset to five largest ethnic groups 21

H.3 Main results with ethnic group weights 22

H.4 Main results iteratively dropping each local authority 23

H.5 Main results iteratively dropping each ethnicity 26

I Magnitude of effects **27**

A Model of Public Sector Hiring

Consider the following stylized model of public sector hiring. There are two distinct actors – a bureaucratic manager and a local politician – who need to decide how to fill a number of higher-level professional positions, N^H, and lower-level menial jobs, N^L. Both actors want these positions allocated to individuals of their choice. Formally, the preferences of the bureaucratic manager b and the politician p are respectively given by

$$u_b\left(N_b^H, N_b^L\right) = N_b^H + \beta_b N_b^L, \tag{6}$$

and

$$u_p\left(N_p^H, N_p^L\right) = N_p^H + \beta_p N_p^L \tag{7}$$

such that they have relative preferences β_b and β_p over lower-level menial jobs, where $\beta_b, \beta_p < 1$, if they care more about higher-level professional jobs, or vice versa. Crucially, we say that managers find lower-level menial positions relatively less valuable than managers if $\beta_b < \beta_p$.

Public sector hiring occurs through the bureaucracy and a bureaucratic manager ultimately oversees the actual recruitment and hiring procedures. We thus model the manager as maximizing her utility subject to budget constraints – $N_b^H + N_p^H \leq N^H$ and $N_b^L + N_p^L \leq N^L$ – and that the allocation of positions is acceptable to the politician.

Formally, a bureaucratic manager solves,

$$\max_{\left\{N_b^H, N_p^H, N_b^L, N_p^L\right\}} \left\{N_b^H + \beta_b N_b^L\right\} \tag{8}$$

$$s.t. \tag{9}$$

$$N_b^H + N_p^H \leq N^H \tag{10}$$

$$N_b^L + N_p^L \leq N^L \tag{11}$$

$$N_p^H + \beta_p N_p^L \geq \underline{u_p} \tag{12}$$

where the last constraint captures that the manager needs to allocate sufficient positions for the politician, or else the politician will reject the proposal. More importantly, it captures the relative institutional authority or informal leverage that a politician has over the bureaucratic manager. The greater $\underline{u_p}$, the lower the relative leverage the manager has over the politician.

We assume that

$$N^H + \beta_p N^L \geq \underline{u_p}, \tag{13}$$

which means that the manager can always find an allocation of positions that satisfies the politician, but not necessarily that

$$N^H, \beta_p N^L \geq \underline{u_p}, \tag{14}$$

which means that if $\underline{u_p}$ is sufficiently high, either allocating all higher-level professional jobs, N^H, or lower-level menial ones, N^L, to the politician is insufficient to satisfy the politician. Conversely, if $\underline{u_p}$ is sufficiently low, the manager will propose an allocation in which she distributes at least all of the higher-level

professional jobs, N^H, or lower-level menial ones, N^L.

In equilibrium all constraints need to hold with equality, and thus they can be aggregated into a single constraint:

$$N^H - N_b^H + \beta_p \left(N^L - N_b^L\right) = \underline{u_p} \tag{15}$$

and the maximization problem in (8) can be rewritten as

$$\max_{N_b^L} \left\{ N^H - \underline{u_p} + \beta_p N^L + \left(\beta_b - \beta_p\right) N_b^L \right\}. \tag{16}$$

It is then quite straightforward to show that in equilibrium

$$\left(N_b^{H*}, N_b^{L*}\right) = \begin{cases} \left(N^H, N^L - \frac{\underline{u_p}}{\beta_p}\right) & \text{if } \beta_b < \beta_p \text{ and } \beta_p N^L > \underline{u_p} \quad \text{(bottom-right of Table 1)} \\ \left(N^H - \underline{u_p} - \beta_p N^L, 0\right) & \text{if } \beta_b < \beta_p \text{ and } \beta_p N^L < \underline{u_p} \quad \text{(top-left of Table 1)} \\ \left(N^H - \underline{u_p}, N^L\right) & \text{if } \beta_b > \beta_p \text{ and } N^H > \underline{u_p} \quad \text{(top-right of Table 1)} \\ \left(0, N^L - \frac{\underline{u_p} - N^H}{\beta_p}\right) & \text{if } \beta_b > \beta_p \text{ and } N^H < \underline{u_p} \quad \text{(bottom-left of Table 1)} \end{cases} \tag{17}$$

$$\left(N_p^{H*}, N_p^{L*}\right) = \begin{cases} \left(0, \frac{\underline{u_p}}{\beta_p}\right) & \text{if } \beta_b < \beta_p \text{ and } \beta_p N^L \geq \underline{u_p} \quad \text{(bottom-right of Table 1)} \\ \left(\underline{u_p} - \beta_p N^L, N^L\right) & \text{if } \beta_b < \beta_p \text{ and } \beta_p N^L < \underline{u_p} \quad \text{(top-left of Table 1)} \\ \left(\underline{u_p}, 0\right) & \text{if } \beta_b > \beta_p \text{ and } N^H > \underline{u_p} \quad \text{(top-right of Table 1)} \\ \left(N^H, \frac{\underline{u_p} - N^H}{\beta_p}\right) & \text{if } \beta_b > \beta_p \text{ and } N^H < \underline{u_p} \quad \text{(bottom-left of Table 1)} \end{cases} \tag{18}$$

In words, these four cases capture scenarios that toggle the institutional authority or informal relative leverage that the politician has over the bureaucratic manager (i.e., whether $\underline{u_p}$ is high or low) and whether the stronger actor has a stronger or weaker preference over low-level menial positions than high-level professional positions relative to the weaker actor (i.e., whether $\beta_b > \beta_p$ or vice versa).

The two quadrants in the top row represent empirical contexts in which lower-level menial jobs are deemed relatively more valuable than higher-level professional for whoever is stronger. The top-left quadrant represents cases in which the local politician is relatively stronger than the bureaucratic manager. As a result, the politician will receive an allocation that includes all of the low-level menial positions (N^L), as well as some higher-level professional jobs ($\underline{u_p} - \beta_p N^L$), while the bureaucratic manager only keeps some higher-level professional jobs for herself ($N^H - \underline{u_p} - \beta_p N^L$).

The top-right quadrant represents cases in which the bureaucratic manager is relatively stronger ($N^H > \underline{u_p}$) and in which she finds menial positions to be more valuable than the politician ($\beta_b > \beta_p$). In these contexts, the manager will propose an allocation in which she keeps all the low-level menial positions (N^L) as well as some higher-level professional jobs ($N^H - \underline{u_p}$). The allocation she proposes to the politician will only include some higher-level professional jobs ($\underline{u_p}$,).

The bottom-left and bottom-right quadrants represent contexts in which higher-level professional jobs are deemed relatively more valuable than lower-level menial ones for whoever is stronger. The bottom-left

quadrant represents contexts in which the local politician is relatively stronger ($N^H < \underline{u_p}$) and he prefers higher-level professional job to low-level menial positions ones more than managers ($\beta_b > \beta_p$). As a result, the politician will only accept an allocation in which he distributes all of the higher-level professional jobs (N^H) alongside some low-level menial positions ($\frac{\underline{u_p} - N^H}{\beta_p}$), while the bureaucratic manager only keeps some low-level menial positions for herself ($N^L - \frac{\underline{u_p} - N^H}{\beta_p}$).

Finally, the bottom-right quadrant represents contexts in which the bureaucratic manager is relatively stronger ($\beta_p N^L \geq \underline{u_p}$) and she prefers higher-level professional jobs to low-level menial positions ones moreso than politicians ($\beta_b < \beta_p$). This quadrant most accurately fits our empirical context of Kenyan local authorities. In this case, the manager will keep all higher-level professional jobs (N^H) for herself as well as some low-level menial positions ($N^L - \frac{\underline{u_p}}{\beta_p}$), while she will confer only some low-level menial positions to the local politician ($\frac{\underline{u_p}}{\beta_p}$).

B Additional Information on Kenyan Local Authorities

Each Kenyan locality is classified as either a "municipality", "township", or "county" based on its population and level of urban-ness. Nairobi and Mombasa are classified as cities. The government oversees these two localities in a manner distinct from the country's other local authorities, so we exclude them from our analyses. We use the present tense given that our period of study is before the disbandment of local authorities (see Footnote 5 in the main text).

We provide additional information to under-gird our assertions that Kenyan local authorities are sites of extraction. Our period of study overlaps with a period in which the central government was implementing the 1998 Local Authority Transfer Fund Act, which formally prescribes how each local authority is supposed to regulate its internal finances, including a cap on personnel expenditures at 60% of total expenditures within the locality by 2002. This was adjusted to 55% of expenditures in 2006, 50% in 2007, and 45% for the remainder of our study period. In effect, this cap on spending was not strictly held by the center.

That said, clerks still had personal incentives to limit personnel expenditure and thus there were a grass-roots' push to rein in the extreme levels of biased hiring that local authorities had seen in the past. Clerks are evaluated for their own promotions within the Ministry of Local Government based, at least partially, on the level of personnel spending within the locality they oversee.[37] Discussions with clerks indicated that they saw other professional benefits in limiting biased hiring. For instance, one former clerk laid out how unnecessary hires "compromised service delivery" and "bloated the workforce."[38] Another explained how patronage hiring today had downstream implications for his ability to fulfill his responsibilities tomorrow: if he did not have enough money to create sufficient local public goods, then residents would refuse to pay taxes the coming year because there would be nothing to show for them. And in turn, the lower level of internally-generated revenue would negatively effect his chances of promotion.[39]

[37] Interview 4.
[38] Interview 3.
[39] Interview 5.

C Interviews

This paper draws on interviews conducted with individuals who worked within the Ministry of Local Government during our period of study. These interviews were conducted in 2015 in Nairobi 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.

Below, we list and enumerate the interviews for reference from the main text.

Table C.1: Interviews

Date	Position	Number
10/15/2015	Director for Local Authorities	1
10/15/2015	Former Clerk	2
10/15/2015	Former Clerk	3
10/19/2015	Inspector of Local Authorities	4
10/19/2015	Former Clerk	5
10/28/2015	Former Clerk	6
10/29/2015	Former Clerk	7
10/29/2015	Former Clerk	8

D Summary statistics

Table D.1: Dependent variable summary statistics

Dependent variable	Count	Mean	Standard deviation	Minimum	Maximum
Hiring	24588	0.049	0.203	0.000	1.000
Hiring (1-9)	24588	0.037	0.178	0.000	1.000
Hiring (10-20)	24588	0.038	0.184	0.000	1.000

Table D.2: Independent variable summary statistics

Independent variable	Count	Mean	Standard deviation	Minimum	Maximum
Majority	24588	0.054	0.225	0.000	1.000
Clerk presence	24588	0.627	0.484	0.000	1.000
Clerk ethnicity	24588	0.035	0.183	0.000	1.000
MP ethnicity	24588	0.058	0.234	0.000	1.000
Clerk's first year	24588	0.324	0.468	0.000	1.000

E Local authority descriptives

E.1 Council preferences for co-ethnic clerks

We show in Figure E.1 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. The red line in the figure represents the *true number* of local authority-years where the clerk is co-ethnic with the council. The distribution is created by randomizing the list of clerks across localities 1,000 times and, for each iteration, summing the number of clerks co-ethnic with the council. The dark gray bars therefore represent a distribution of the expected number of clerks co-ethnic with the council majority if clerks were randomly assigned to councils. Clearly, the true number of clerks co-ethnic with the council majority is much greater. This suggests the very real ability of local councilors to lobby the Ministry of Local Government for a co-ethnic clerk.

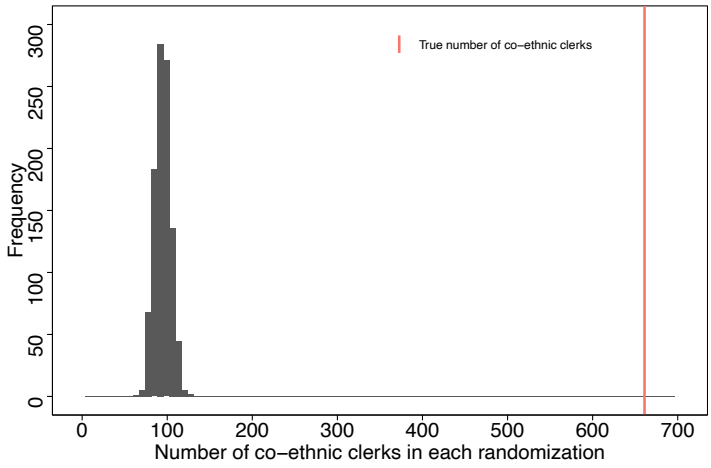

Figure E.1: *Randomization of clerks across local authorities.* The figure plots the results of an exercise to test whether clerks are randomly distributed across local authorities. The red line represents the number of locality-years where the clerk is co-ethnic with the council majority. The dark gray distribution is calculated by randomizing the list of clerks 1,000 times and, for each iteration, summing the number of clerks co-ethnic with the council.

E.2 Ethnic diversity in local authorities

Section 3.3 of the paper highlights that Kenyan local authorities are ethnically segregated, but do not have outright ethnic homogeneity. Figure E.2 further demonstrates the point. Each jittered point on the plot is a unique ethnic group-locality-year. The consolidation of points in the bottom left and top right corners of the plot suggests a strong relationship between the percent of a group in a local authority population and the percent of a group on the council. That said, the correlation is not perfect and there are many ethnic groups off the 45-degree line.

Figure E.2: *Ethnic group representation on the local council versus in the population.* Each point is a ethnic group-locality-year. The points are jittered.

E.3 Ethnic groups in the council majority

Figure E.3 plots the percent of local authority-years with different ethnic groups in the council majority. Only 1.2% of the 1,366 locality-years feature a local authority without an ethnic majority. The figure shows that the five largest ethnic groups in Kenya (Kikuyu, Luhya, Kalenjin, Luo, and Kamba) are among the ethnic groups with the most council majorities. Figure E.4 similarly emphasizes that the groups with the most locality-years in the council majority are also the largest ethnic groups in the country. The plot compares the share of locality-years with a group in the majority and the share of that group in the overall population.

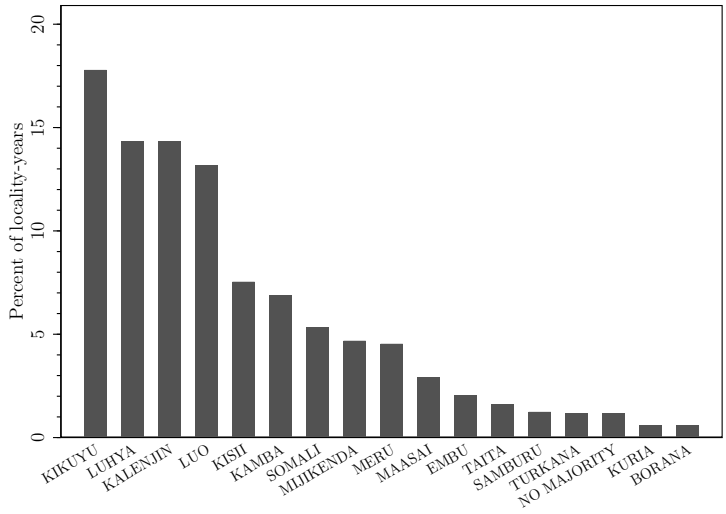

Figure E.3: *Percent of locality-years with ethnic groups in the council majority.*

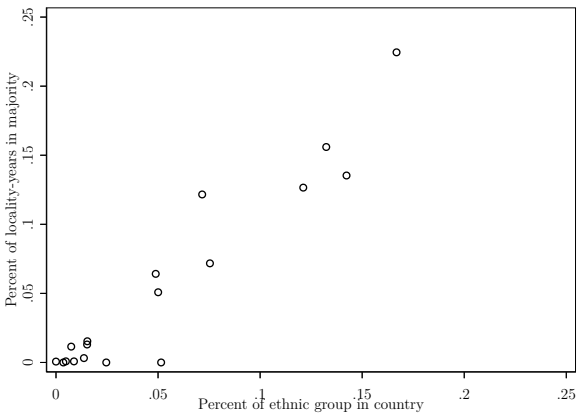

Figure E.4: *Percent of ethnic group in the country and percent of locality-years in the majority.* The plot compares the representation of ethnic groups in the Kenyan population to the representation of ethnic groups among council majorities. Each point is one of the sixteen ethnic groups in the data. The x-axis plots the share of the population identifying with that ethnic group according to a local-level 2.5% sample of the 1989 census. The y-axis plots the share of locality-years where the group holds a council majority.

E.4 Hiring in local authorities

Figure E.5 further describes hiring dynamics in Kenyan local bureaucracies. The left panel is a histogram plotting the number of bureaucrats (of any position) *on the payroll* in any given locality-year. The right panel is a histogram plotting the number of bureaucrats (of any position) *hired* in any given locality-year.

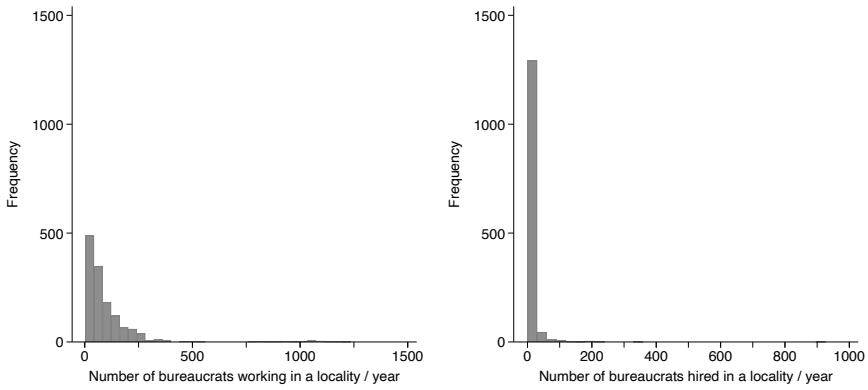

Figure E.5: *"Stock" and "flow" of bureaucrats in localities in any given year.* The left panel is a histogram of the number of bureaucrats *on the payroll* in local bureaucracies in any given locality-year. The right panel is a histogram of the number of bureaucrats *hired* in local bureaucracies in any given locality-year.

F Sources of variation

There are two potential sources of variation on the right-hand side of Equation 5. First, the local elections in 2007 produced variation in the local council's majority ethnic group before and after the election. $Majority_{ijt}$ in Equation 5 captures this variation. However, while there is some turnover in *individual* politicians, there is relatively little turnover in the majority *ethnic group* on the council. Only 9 local councils (.05% of the 173 local authorities) observed a change in the council's majority ethnic group. This is because – as Figure E.2 indicates – Kenyan local authorities are relatively ethnically segregated.

Second, the rotation of clerks across local authorities produces variation in both the presence of a clerk and the ethnic match between the clerk and the local council's ethnic majority. $Clerk\ presence_{ijt}$, $Majority\ x\ Clerk\ presence_{ijt}$, $Clerk\ ethnicity_{ijt}$, and $Majority\ x\ Clerk\ ethnicity_{ijt}$ in Equation 5 captures this variation. The rotation of the clerks creates three potential statuses for any given locality: the absence of a clerk, the presence of a clerk's co-ethnic with the council majority, and the presence of a clerk non-co-ethnic with the council majority. 21.4% of the 173 localities only have one of these three statuses in the period of study. 58.4% of the localities have two statuses and 20.2% have three different statuses.

Figure F.1 displays this variation graphically. The y-axis presents the 173 local authorities arranged alphabetically, and the x-axis is the time period of the dataset. To save space, only a unique id for every 5th authority is listed on the y-axis. For each locality's row, the year cell is shaded one of three colors that represent the clerk's status relative to the council in that year. There are a small number of white cells that represent missing data for particular locality-years. The figure shows significant switching between the three statuses based on the rotations of the clerks.

Table F.1 displays the same information in a different way. The table shows the percent of localities (out of 173) for which there is at least one instance of the listed switch in status. Note that these percentages do not sum to 100 because each locality may have multiple different switches in the period of study. The table shows that it is most common for localities to switch from either having no clerk to having a clerk's co-ethnic with the council majority (42.8%) or the reverse (47.4%).

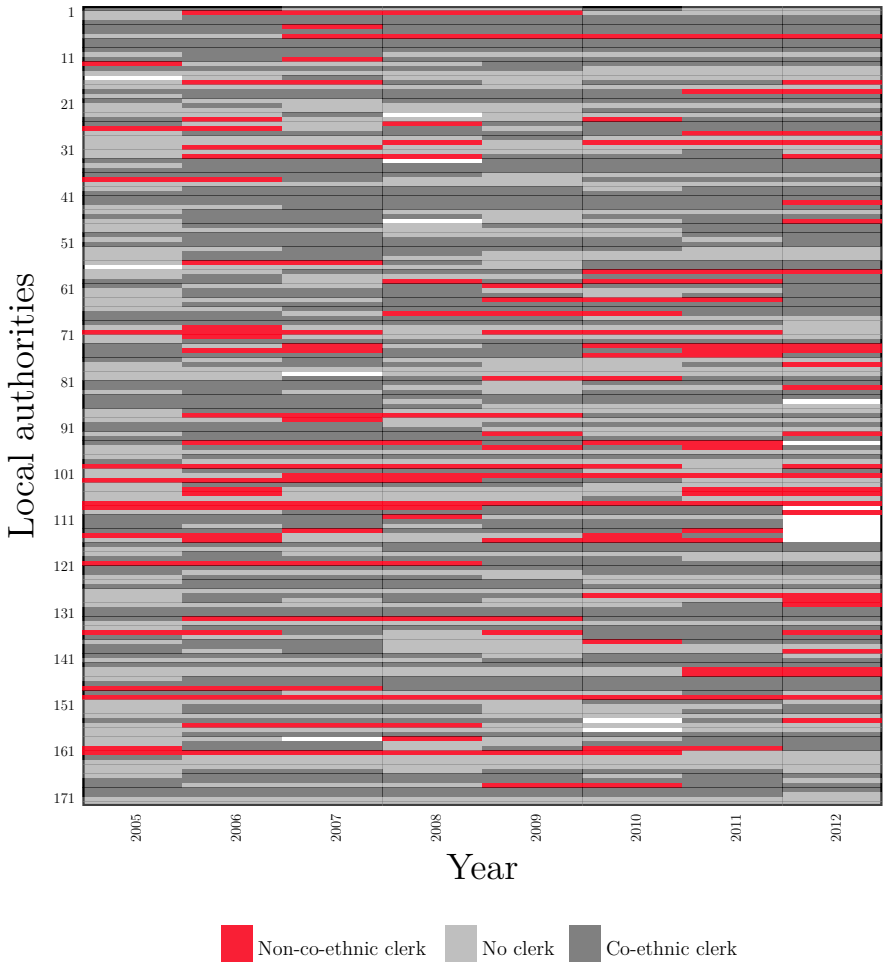

Figure F.1: *Ethnic relationship between council majorities and clerks.* The figure plots the status between clerks and council majorities for each local authority in each year. The y-axis presents the 173 local authorities arranged alphabetically, and the x-axis is the time period of the dataset. To save space, only a unique id for every 5th authority is listed on the y-axis. For each locality's row, the year cell is shaded one of three colors that represent the clerk's status relative to the council in that year. There are a small number of white cells that represent missing data for particular locality-years.

Switch in status from year t to year $t+1$	**Percent of localities with *at least* one instance of the switch**
No switch	21.4%
Co-ethnic clerk to non-co-ethnic clerk	16.8%
Non-co-ethnic clerk to co-ethnic clerk	17.3%
No clerk to co-ethnic clerk	42.8%
No clerk to non-co-ethnic clerk	12.1%
Co-ethnic clerk to no clerk	47.4%
Non-co-ethnic clerk to no clerk	19.7%

Table F.1: Variation in clerk and council majority relationship

G Alternative specifications and extensions

G.1 Main results iteratively adding independent variables

Outcome:	Hiring (1)	Hiring (2)	Hiring (3)
Majority (β_1)	0.102	0.101	0.183**
	(0.079)	(0.079)	(0.074)
Clerk presence (β_2)		-0.007***	-0.002**
		(0.001)	(0.001)
Majority x Clerk presence (β_3)			-0.181***
			(0.031)
Clerk ethnicity (β_4)		0.132***	0.190***
		(0.017)	(0.027)
Majority x Clerk ethnicity (β_5)			0.028
			(0.023)
Outcome Mean	0.049	0.049	0.049
Omitted Category	0.008	0.008	0.008
Observations	24588	24588	24588
R-Squared	0.903	0.910	0.914
Locality-ethnicity FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Ethnicity-year FE	No	No	No
Locality-year FE	No	No	No

Standard errors in parentheses

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

Table G.1: *Hiring iteratively adding independent variables*

G.2 Main results with employment levels

Outcome:	Number of hires (1)	Number of hires (2)
Majority (β_1)	-3.014	-2.854
	(4.430)	(4.373)
Clerk presence (β_2)	0.147**	
	(0.061)	
Majority x Clerk presence (β_3)	0.560	0.565
	(4.616)	(4.549)
Clerk ethnicity (β_4)	-0.200	-0.093
	(0.641)	(0.663)
Majority x Clerk ethnicity (β_5)	-4.066	-4.020
	(5.840)	(5.756)
Outcome Mean	0.497	0.497
Omitted Category	0.062	0.062
Observations	24588	24588
R-Squared	0.258	0.306
No clerk and j is co-ethnic with the council (β_1)	-3.014	-2.854
	(4.430)	(4.373)
j is non-co-ethnic with the clerk and the council (β_2)	0.147**	
	(0.061)	
j is non-co-ethnic with the clerk, but co-ethnic with the council ($\beta_1 + \beta_2 + \beta_3$)	-2.307	-2.289
	(5.038)	(4.992)
j is co-ethnic with the clerk, but non-co-ethnic with the council ($\beta_2 + \beta_4$)	-0.054	-0.093
	(.636)	(.663)
j is co-ethnic with the clerk and the council ($\beta_1 + \beta_2 + \beta_3 + \beta_4 + \beta_5$)	-6.573	-6.402
	(5.061)	(5.021)
p-values for the following null hypotheses:		
$H_0 : \beta_1 = \beta_1 + \beta_2 + \beta_3$	0.879	0.901
$H_0 : \beta_1 + \beta_2 + \beta_3 = \beta_1 + \beta_2 + \beta_3 + \beta_4 + \beta_5$	0.464	0.476
$H_0 : \beta_1 = \beta_1 + \beta_2 + \beta_3 + \beta_4 + \beta_5$	0.092	0.099
$H_0 : \beta_2 = \beta_2 + \beta_4$	0.755	0.889
Locality-ethnicity FE	Yes	Yes
Year FE	Yes	No
Ethnicity-year FE	No	Yes
Locality-year FE	No	Yes

Standard errors in parentheses

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

Table G.2: *Number of hires (i.e., levels instead of percents)*

G.3 Main results interacted with president's ethnicity

Outcome:	Hiring (1)	Hiring (2)
Majority (β_1)	0.171*	0.174*
	(0.086)	(0.089)
Clerk presence (β_2)	-0.002**	
	(0.001)	
Majority x Clerk presence β_3)	-0.184***	-0.185***
	(0.035)	(0.035)
Clerk ethnicity (β_4)	0.199***	0.198***
	(0.029)	(0.030)
Majority x Clerk ethnicity (β_5)	0.026	0.028
	(0.025)	(0.028)
President's ethnicity	-0.006*	
	(0.003)	
Majority x President's ethnicity'	0.089	0.095
	(0.094)	(0.095)
Clerk presence x President's ethnicity	0.001	
	(0.002)	
Majority x Clerk presence x President's ethnicity	0.018	0.019
	(0.076)	(0.078)
Clerk ethnicity x President's ethnicity	-0.079	-0.083
	(0.052)	(0.052)
Majority x Clerk ethnicity x President's ethnicity	0.036	0.037
	(0.060)	(0.065)
Outcome Mean	0.049	0.049
Omitted Category	0.008	0.008
Observations	24588	24588
R-Squared	0.914	0.915
LA-ethnicity FE	Yes	Yes
Year FE	Yes	No
Ethnicity-year FE	No	Yes
LA-year FE	No	Yes

Standard errors in parentheses

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

Table G.3: *Interaction with president's ethnicity (Kikuyu)*

G.4 Main results interacted with Minister of Local Government's ethnicity

Outcome:	Hiring (1)	Hiring (2)
Majority (β_1)	0.183**	0.187**
	(0.077)	(0.080)
Clerk presence (β_2)	-0.002**	
	(0.001)	
Majority x Clerk presence (β_3)	-0.194***	-0.196***
	(0.035)	(0.036)
Clerk ethnicity (β_4)	0.203***	0.201***
	(0.029)	(0.029)
Majority x Clerk ethnicity (β_5)	0.030	0.033
	(0.025)	(0.028)
Minister's ethnicity	0.001	
	(0.002)	
Majority x Minister's ethnicity	-0.008	-0.005
	(0.032)	(0.032)
Clerk presence x Minister's ethnicity	-0.000	
	(0.002)	
Majority x Clerk presence x Minister's ethnicity	0.095	0.098
	(0.066)	(0.066)
Clerk ethnicity x Minister's ethnicity	-0.108*	-0.104*
	(0.058)	(0.058)
Majority x Clerk ethnicity x Minister's ethnicity	0.006	-0.002
	(0.038)	(0.041)
Outcome Mean	0.049	0.049
Omitted Category	0.008	0.008
Observations	24588	24588
R-Squared	0.914	0.915
LA-ethnicity FE	Yes	Yes
Year FE	Yes	No
Ethnicity-year FE	No	Yes
LA-year FE	No	Yes

Standard errors in parentheses

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

Table G.4: *Interaction with Minister of Local Government's ethnicity*

G.5 Main results interacted with MP ethnicity

Outcome:	Hiring (1)	Hiring (2)
Majority (β_1)	0.197***	0.204***
	(0.075)	(0.078)
Clerk presence (β_2)	-0.002**	
	(0.001)	
Majority x Clerk presence (β_3)	-0.201**	-0.210**
	(0.086)	(0.092)
Clerk ethnicity (β_4)	0.182***	0.181***
	(0.027)	(0.028)
Majority x Clerk ethnicity (β_5)	0.052	0.055
	(0.109)	(0.116)
MP ethnicity	-0.010	-0.010
	(0.042)	(0.045)
Majority x MP ethnicity	-0.017	-0.018
	(0.054)	(0.058)
Clerk presence x MP ethnicity	-0.018	-0.017
	(0.040)	(0.041)
Majority x Clerk presence x MP ethnicity	0.040	0.047
	(0.096)	(0.102)
Clerk ethnicity x MP ethnicity	0.055	0.061
	(0.085)	(0.090)
Majority x Clerk ethnicity x MP ethnicity	-0.072	-0.078
	(0.137)	(0.146)
Outcome Mean	0.049	0.049
Omitted Category	0.008	0.008
Observations	24588	24588
R-Squared	0.915	0.916
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 G.5: *Interaction with MP ethnicity*

G.6 Main results interacted with clerk's first year

As discussed in Section 5.4 of the paper, one alternative explanation for the main results is that clerks and local politicians simply have different preferences and prefer to hire their co-ethnics to different positions within the bureaucracy. According to this explanation, the two actors would not need to bargain over the salary scale.

We study heterogeneity in the main result by contexts under which clerks are likely more powerful in order to test the validity of that explanation. If clerks are indeed the stronger actor, then they should be more likely to realize their preferences when they have the most power. Similarly, if clerks and local councils *both* have an absolute preference for hiring professional positions rather menial ones, then local councils should be able to make relatively more professional hires as clerks become less power.

We use clerk tenure as a proxy for clerk strength. When clerks are in their first year serving in a given locality, they are less likely to be influenced by local politics and more likely to be independent of the council. We therefore assume that clerks in their first year of service in a given local authority are stronger than clerks in their second, third, or fourth year. Figure G.1 displays the distribution of clerk tenure in years across ethnic group-local authority-year observations. The plurality of clerks serve only one term in a given authority and the average tenure is 1.8 years. We thus create a dummy variable $Clerk's\ first\ year_{ijt}$ equal to 1 when a clerk is in their first year and 0 otherwise.

Table G.6 presents results using Equation 5 but including $Clerk's\ first\ year_{ijt}$ and all relevant interactions. The negative and statistically significant coefficient on $Majority \times Clerk's\ first\ year_{ijt}$ suggests that non-co-ethnic clerks are able to pull rank as soon as they arrive at a local authority and diminish patronage. Conversely, the positive and statistically significant coefficient $Clerk\ ethnicity \times Clerk's\ first\ year_{ijt}$ indicates that newly appointed clerks are also more successful at hiring their co-ethnics in the same time period. These two opposing forces indicate that clerks are indeed most powerful just after arriving at a LA.

Tables G.7 and G.8 then present results for the same specification, but with $Hiring_{ijt}$ subset to either professional positions in the 1-9 salary scale or the menial positions in the 10-20 salary scale. The effects in Table G.6 are driven by the professional positions in Table G.7. The same effects are absent in Table G.8. Taken together, these results indicate that clerks are able to hire co-ethnics to the positions they care the most about – i.e., the professional positions – when they are most powerful at the start of an appointment. As they lose influence after their first year, local councils regain control over both professional and menial positions. These results therefore suggest that the two actors do not have divergent preferences, but instead both have an absolute preference to hire their in-group to professional positions.

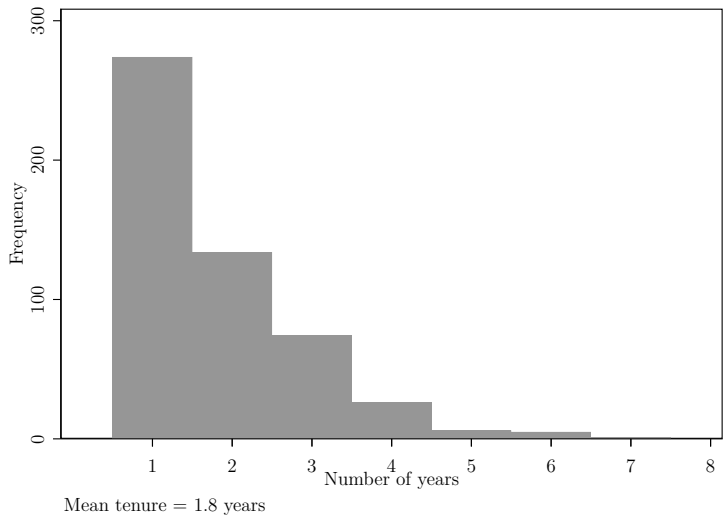

Figure G.1: *Clerk tenure in local authorities.*

Outcome:	Hiring (1)	Hiring (2)	Hiring (3)	Hiring (4)
Majority (β_1)	0.183**	0.188**	0.140*	0.145*
	(0.074)	(0.077)	(0.074)	(0.077)
Clerk presence (β_2)	-0.002**		-0.001	
	(0.001)		(0.001)	
Majority x Clerk presence (β_3)	-0.181***	-0.182***	-0.097**	-0.099**
	(0.031)	(0.032)	(0.038)	(0.039)
Clerk ethnicity (β_4)	0.190***	0.189***	0.134***	0.132***
	(0.027)	(0.027)	(0.023)	(0.024)
Majority x Clerk ethnicity (β_5)	0.028	0.031	0.039	0.043
	(0.023)	(0.025)	(0.029)	(0.031)
Clerk's first year			-0.001	
			(0.001)	
Majority x Clerk's first year			-0.131***	-0.130***
			(0.045)	(0.046)
Clerk ethnicity x Clerk's first year			0.178***	0.181***
			(0.032)	(0.032)
Majority x Clerk ethnicity x Clerk's first year			-0.033	-0.038
			(0.035)	(0.039)
Outcome Mean	0.049	0.049	0.049	0.049
Omitted Category	0.008	0.008	0.008	0.008
Observations	24588	24588	24588	24588
R-Squared	0.914	0.915	0.916	0.916
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 G.6: *Table 3 interacted with clerk's first year in a LA.*

Outcome:	Hiring (1-9) (1)	Hiring (1-9) (2)	Hiring (1-9) (3)	Hiring (1-9) (4)
Majority (β_1)	0.462***	0.474***	0.381***	0.394***
	(0.084)	(0.087)	(0.088)	(0.091)
Clerk presence (β_2)	-0.005***		-0.002	
	(0.001)		(0.002)	
Majority x Clerk presence (β_3)	-0.415***	-0.419***	-0.253***	-0.260***
	(0.040)	(0.040)	(0.074)	(0.076)
Clerk ethnicity (β_4)	0.442***	0.441***	0.290***	0.286***
	(0.037)	(0.038)	(0.040)	(0.042)
Majority x Clerk ethnicity (β_5)	0.057	0.061	0.094	0.103
	(0.037)	(0.040)	(0.062)	(0.067)
Clerk's first year			-0.005***	
			(0.001)	
Majority x Clerk's first year			-0.221***	-0.216***
			(0.076)	(0.078)
Clerk ethnicity x Clerk's first year			0.387***	0.393***
			(0.061)	(0.063)
Majority x Clerk ethnicity x Clerk's first year			-0.102	-0.115
			(0.080)	(0.087)
Outcome Mean	0.037	0.037	0.037	0.037
Omitted Category	0.007	0.007	0.007	0.007
Observations	24588	24588	24588	24588
R-Squared	0.830	0.832	0.838	0.839
Ethnic group-locality FE	Yes	Yes	Yes	Yes
Year FE	Yes	No	Yes	No
Ethnic group-year FE	No	Yes	No	Yes
LA-year FE	No	Yes	No	Yes

Standard errors in parentheses

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

Table G.7: *Table 3 interacted with clerk's first year in a local authority (salary scale 1-9).*

Outcome:	Hiring (10-20) (1)	Hiring (10-20) (2)	Hiring (10-20) (3)	Hiring (10-20) (4)
Majority (β_1)	0.241***	0.241***	0.256***	0.256***
	(0.043)	(0.044)	(0.046)	(0.046)
Clerk presence (β_2)	-0.001		-0.002**	
	(0.001)		(0.001)	
Majority x Clerk presence (β_3)	-0.049*	-0.048*	-0.073*	-0.073*
	(0.028)	(0.029)	(0.042)	(0.042)
Clerk ethnicity (β_4)	0.070***	0.070***	0.082***	0.081**
	(0.027)	(0.027)	(0.031)	(0.031)
Majority x Clerk ethnicity (β_5)	-0.014	-0.013	-0.011	-0.011
	(0.023)	(0.025)	(0.022)	(0.023)
Clerk's first year			0.002**	
			(0.001)	
Majority x Clerk's first year			0.041	0.042
			(0.043)	(0.044)
Clerk ethnicity x Clerk's first year			-0.041	-0.041
			(0.034)	(0.035)
Majority x Clerk ethnicity x Clerk's first year			-0.015	-0.016
			(0.030)	(0.033)
Outcome Mean	0.038	0.038	0.038	0.038
Omitted Category	0.004	0.004	0.004	0.004
Observations	24588	24588	24588	24588
R-Squared	0.932	0.933	0.932	0.933
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 G.8: *Table 3 interacted with clerk's first year in a local authority (salary scale 10-20).*

H Robustness checks

H.1 Main results with treatment leads

Outcome:	Hired (1)	Hired (2)	Hired (3)	Hired (4)
Majority (β_1)	0.164**	0.168**	0.170**	0.175**
	(0.082)	(0.072)	(0.085)	(0.075)
Clerk presence (β_2)	-0.002**	-0.003**		
	(0.001)	(0.001)		
Majority x Clerk presence (β_3)	-0.152***	-0.140***	-0.153***	-0.139***
	(0.033)	(0.035)	(0.033)	(0.035)
Clerk ethnicity (β_4)	0.160***	0.169***	0.158***	0.167***
	(0.029)	(0.029)	(0.029)	(0.029)
Majority x Clerk ethnicity (β_5)	0.032	0.020	0.034	0.021
	(0.026)	(0.029)	(0.028)	(0.032)
Clerk presence lead 1	-0.001	-0.001		
	(0.001)	(0.001)		
Majority x Clerk presence lead 1	0.016	0.030	0.018	0.032
	(0.030)	(0.033)	(0.030)	(0.034)
Clerk ethnicity lead 1	0.025	0.011	0.029	0.015
	(0.018)	(0.020)	(0.018)	(0.020)
Majority x Clerk ethnicity lead 1	-0.024	-0.026	-0.029	-0.032
	(0.023)	(0.029)	(0.025)	(0.032)
Clerk presence lead 2		-0.001		
		(0.001)		
Majority x Clerk presence lead 2		-0.023		-0.024
		(0.034)		(0.035)
Clerk ethnicity lead 2		0.008		0.006
		(0.017)		(0.018)
Majority x Clerk ethnicity lead 2		0.044		0.049
		(0.034)		(0.037)
Outcome Mean	0.049	0.049	0.049	0.049
Omitted Category	0.008	0.008	0.008	0.008
Observations	21474	18360	21474	18360
R-Squared	0.920	0.921	0.921	0.922
Locality-ethnicity FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	No	No
Ethnicity-year FE	No	No	Yes	Yes
Locality-year FE	No	No	Yes	Yes

Standard errors in parentheses

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

Table H.1: *Hiring with leads*

H.2 Main results subset to five largest ethnic groups

Outcome:	Hiring (1)	Hiring (2)
Majority (β_1)	0.132*	0.132*
	(0.078)	(0.076)
Clerk presence (β_2)	-0.005*	
	(0.003)	
Majority x Clerk presence (β_3)	-0.148***	-0.142***
	(0.037)	(0.040)
Clerk ethnicity (β_4)	0.217***	0.218***
	(0.037)	(0.041)
Majority x Clerk ethnicity (β_5)	-0.038	-0.044
	(0.036)	(0.045)
Outcome Mean	0.121	0.121
Omitted Category	0.020	0.020
Observations	6830	6830
R-Squared	0.905	0.912
No clerk and j is co-ethnic with the council (β_1)	0.132*	0.132*
	(0.078)	(0.076)
j is non-co-ethnic with the clerk and the council (β_2)	-0.005*	
	(0.001)	
j is non-co-ethnic with the clerk, but co-ethnic with the council ($\beta_1 + \beta_2 + \beta_3$)	-0.020	-0.009
	(0.073)	(0.074)
j is co-ethnic with the clerk, but non-co-ethnic with the council ($\beta_2 + \beta_4$)	0.212***	0.218***
	(0.037)	(0.041)
j is co-ethnic with the clerk and the council ($\beta_1 + \beta_2 + \beta_3 + \beta_4 + \beta_5$)	0.158**	0.164**
	(0.077)	(0.075)
p-values for the following null hypotheses:		
$H_0 : \beta_1 = \beta_1 + \beta_2 + \beta_3$	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
$H_0 : \beta_1 = \beta_1 + \beta_2 + \beta_3 + \beta_4 + \beta_5$	0.093	0.087
$H_0 : \beta_2 = \beta_2 + \beta_4$	0.000	0.000
Locality-ethnicity FE	Yes	Yes
Year FE	Yes	No
Ethnicity-year FE	No	Yes
Locality-year FE	No	Yes

Standard errors in parentheses

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

Table H.2: *Table 3 subset to the five largest ethnic groups in the country.* The five largest ethnic groups are the the Kalenjin, the Kikuyu, the Kamba, the Luhya, and the Luo.

H.3 Main results with ethnic group weights

Outcome:	Hiring (1)	Hiring (2)
Majority (β_1)	0.174*	0.095
	(0.089)	(0.093)
Clerk presence (β_2)	-0.017	
	(0.014)	
Majority x Clerk presence (β_3)	-0.163***	-0.121***
	(0.039)	(0.042)
Clerk ethnicity (β_4)	0.256***	0.205***
	(0.068)	(0.075)
Majority x Clerk ethnicity (β_5)	-0.046	-0.039
	(0.071)	(0.085)
Outcome Mean	0.095	0.095
Omitted Category	0.008	0.008
Observations	11415	11415
R-Squared	0.883	0.979
No clerk and j is co-ethnic with the council (β_1)	0.174*	0.095
	(0.089)	(.093)
j is non-co-ethnic with the clerk and the council (β_2)	-0.017	
	(0.014)	
j is non-co-ethnic with the clerk, but co-ethnic with the council ($\beta_1 + \beta_2 + \beta_3$)	-0.007	-0.027
	(0.089)	(0.094)
j is co-ethnic with the clerk, but non-co-ethnic with the council ($\beta_2 + \beta_4$)	0.239***	0.206***
	(.067)	(0.075)
j is co-ethnic with the clerk and the council ($\beta_1 + \beta_2 + \beta_3 + \beta_4 + \beta_5$)	0.204**	0.141
	(.088)	0.093
p-values for the following null hypotheses:		
$H_0 : \beta_1 = \beta_1 + \beta_2 + \beta_3$	0.000	0.005
$H_0 : \beta_1 + \beta_2 + \beta_3 = \beta_1 + \beta_2 + \beta_3 + \beta_4 + \beta_5$	0.000	0.000
$H_0 : \beta_1 = \beta_1 + \beta_2 + \beta_3 + \beta_4 + \beta_5$	0.032	0.048
$H_0 : \beta_2 = \beta_2 + \beta_4$	0.000	0.007
Locality-ethnicity FE	Yes	Yes
Year FE	Yes	No
Ethnicity-year FE	No	Yes
Locality-year FE	No	Yes

Standard errors in parentheses

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

Table H.3: *Table 3 weighted by the share of each ethnic group in the local authority.*

H.4 Main results iteratively dropping each local authority

The results presented above may be driven by a small number of local authorities. To probe the sensitivity of the main results to each locality, we iteratively run the main specification in Equation 5 but drop one local authority each iteration. For each iteration, we again calculate the same linear combinations presented throughout the paper. Figures H.1-H.5 present the results. The x-axis in these figures displays a unique identification number for the local authority that was dropped in that specific iteration. The y-axis represents the magnitude of the relevant linear combination as well as 95% confidence interval. The consistency of the main results suggests that the main results are not driven by a small number of localities.

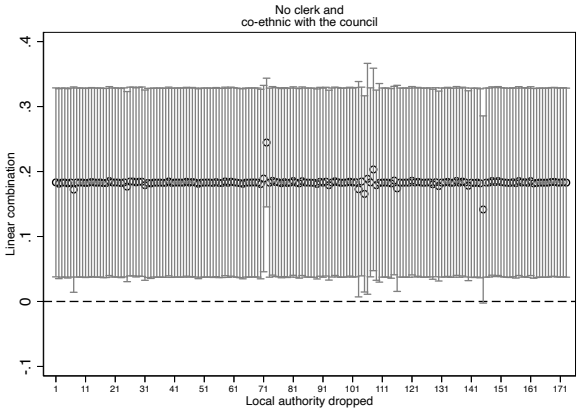

Figure H.1: *No clerk and ethnic group j is co-ethnic with the council (β_1), iteratively dropping each local authority.*

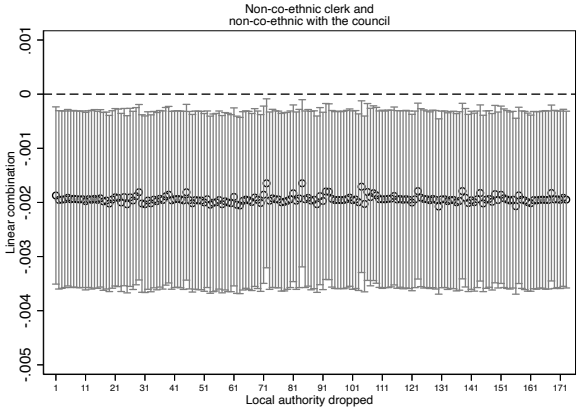

Figure H.2: *Ethnic group j is non-co-ethnic with the clerk and the council (β_2), iteratively dropping each local authority.*

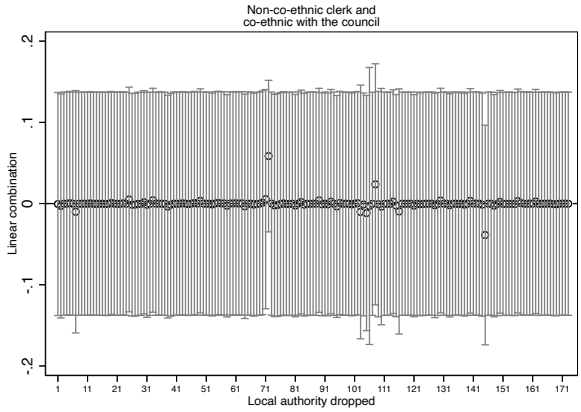

Figure H.3: *Ethnic group j is non-co-ethnic with the clerk, but co-ethnic with the council ($\beta_1 + \beta_2 + \beta_3$), iteratively dropping each local authority.*

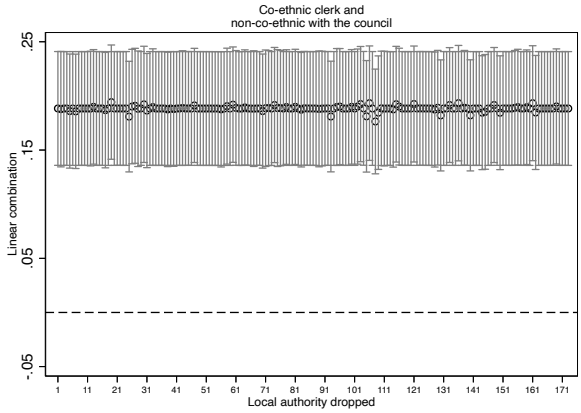

Figure H.4: *Ethnic group j is co-ethnic with the clerk, but non-co-ethnic with the council ($\beta_2 + \beta_3$), iteratively dropping each local authority.*

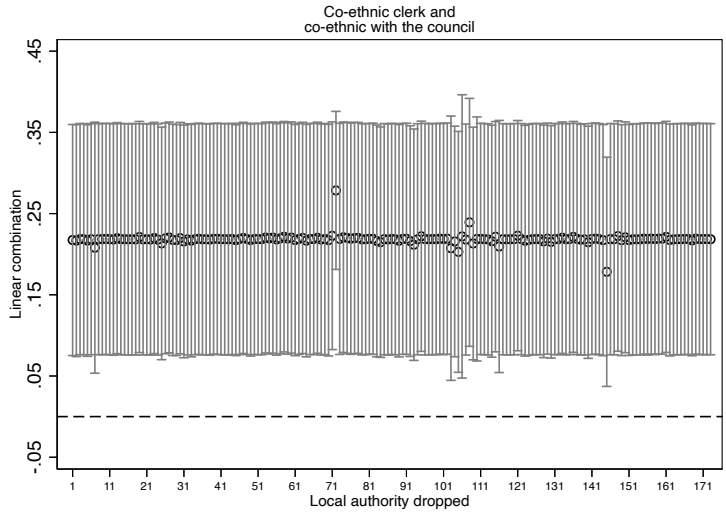

Figure H.5: Ethnic group j *is co-ethnic with the clerk and the council (*$\beta_1 + \beta_2 + \beta_3 + \beta_4 + \beta_5$*), iteratively dropping each local authority.*

H.5 Main results iteratively dropping each ethnicity

As noted above, the results may also be driven by a subset of powerful ethnicities. To probe the sensitivity of the main results to each ethnicity, we run the same exercise as in Appendix H.4 but now drop one ethnicity in each iteration. For each iteration, we calculate the same linear combinations presented throughout the paper. Figure H.6 presents the results. The x-axis in the figure displays the ethnicity that was dropped for that specific iteration. The y-axis represents the magnitude of the relevant linear combination as well as 95% confidence interval. Again, the consistency of the main results across the five panels of the figure suggests that the results are not driven by only a portion of the ethnicities.

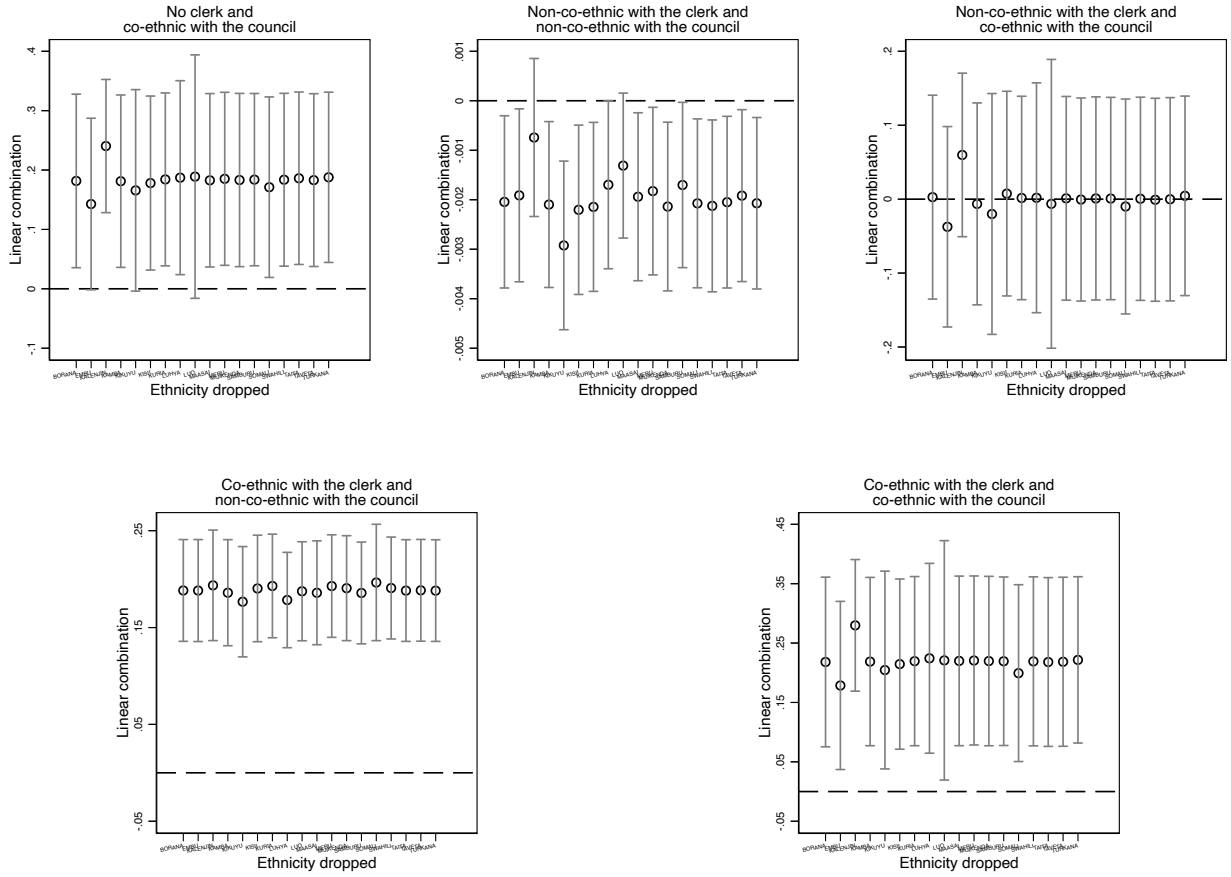

Figure H.6: *Linear combinations iteratively dropping each ethnicity.*

I Magnitude of effects

Below are back-of-the envelope calculations of the magnitude of the Table 1 effects for the average ethnic group-locality-year.

- 10.04 bureaucrats are hired in the average locality-year.
- For groups co-ethnic with the majority, 7.90 bureaucrats are hired from the average ethnic group in the average locality-year.
- When an ethnic group enters the council majority, the percent of bureaucrats in that ethnic group among new hires increases by 18.3%.
- 18.43% of 10.04 is 1.85 bureaucrats.