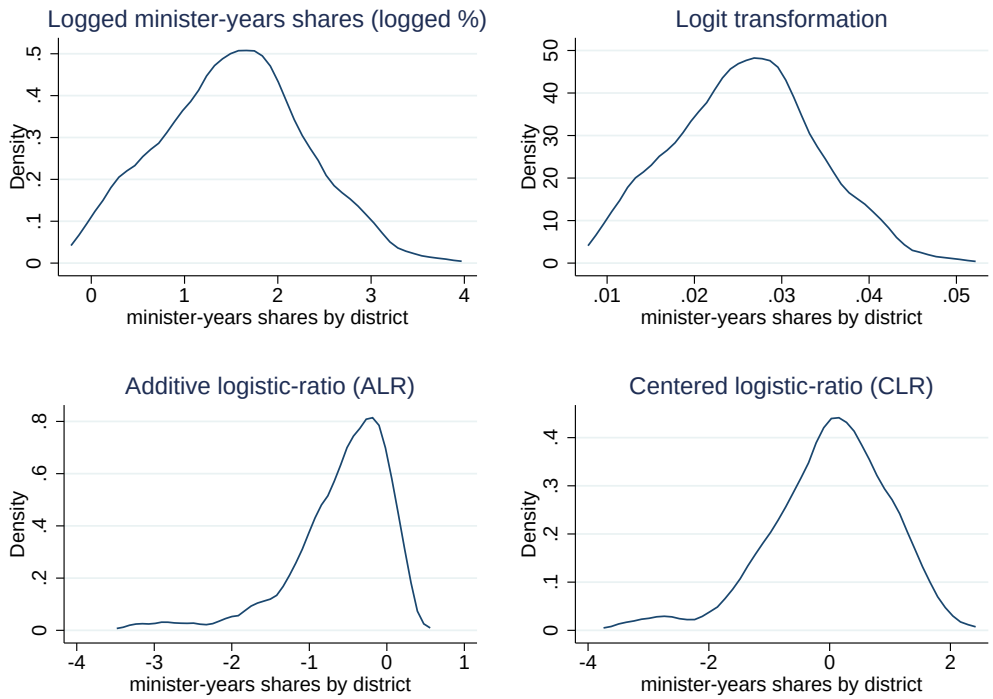
Colonial Education, Political Elites, and Regional Political Inequality in Africa - Joan Ricart-Huguet

Online Appendix

A Models using log-ratios

The models in the article favor simplicity but contain a shortcoming: observations within each country are not independent and identically distributed (i.i.d.). When we know $N-1$ shares of ministers for a country, we know that the last share of ministers is $100-\sum_{i=1}^{N-1}\%min_{ik}$. The problem is common in geology (e.g. soil composition), among other fields, and is known as compositional data, since we have certain parts or shares that compose a whole (Egozcue and Pawlowsky-Glahn, 2011). This section uses three common transformations in the compositional data literature that involve log-ratios: the logit transformation, the additive logistic-ratio, and the centered logistic-ratio (Figure A.1). By taking the logarithm of two ratios we are much more likely to satisfy the i.i.d. assumption (Katz and King, 1999).

Figure A.1: Distributions of transformations to minister-shares by district



Notes: The top-left represents the logged share of minister-years by district and is the main outcome measure in the article. The other three densities are logistic transformations.

The logit transformation is the simplest one and is widely used. If Y_{ik} are shares of district i in country k, then the logit is $logit(Y_{ik}) = ln\left(\frac{y_{ik}}{100-y_{ik}}\right)$. The additive-log-ratio transformation (ALR)

determines a baseline district D and is the log-ratio of each district with respect to that baseline district. I use the capital of each colony as the baseline district and hence have 16 compositions, departing from a simple ALR transformation in which only one district acts as the baseline. The dependent variable becomes $alr(Y_{ik}) = ln\left(\frac{y_{ik}}{y_{D_k}}\right)$. A centered logistic ratio (CLR) is similar to ALR except that the denominator is the geometric mean of all districts i in that country k: $clr(Y_{ik}) = ln\left(\frac{y_{ik}}{g_m(Y_k)}\right)$, where $g_m(Y_k) = \left(\prod_{i=1}^{D_k} y_{ik}\right)^{1/D_k}$. Table A.1 presents the results of applying these log-ratio transformations to the outcome variable.

Table A.1: Models using log-ratios (1960-2010)

	British colonies			French colonies		
	(1) Logit	(2) ALR	(3) CLR	(4) Logit	(5) ALR	(6) CLR
Teachers/missionaries (pre-1940), logged	0.15**	0.11**	0.20**	0.60**	0.18	0.56*
	(0.04)	(0.04)	(0.06)	(0.19)	(0.16)	(0.26)
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Population, logged (1960-2010)	Yes	Yes	Yes	Yes	Yes	Yes
Geographic controls	Yes	Yes	Yes	Yes	Yes	Yes
Pre-colonial ethnic and socioeconomic controls	Yes	Yes	Yes	Yes	Yes	Yes
Other colonial investments	Yes	Yes	Yes	Yes	Yes	Yes
Districts (N)	191	191	191	104	104	104
Adj. R^2	0.53	0.38	0.35	0.57	0.38	0.42

Notes: †$p < 0.10$, * $p < 0.05$, ** $p < 0.01$. Robust standard errors in parentheses. The models presented here are equivalent to the main specifications (Table 1) but now the outcomes become the three log-ratio transformations.

B Causality and model dependence

Regions in a country might differ in some unobserved characteristic. For instance, districts populated by the main ethnic group in the colony (e.g. Mossi in Burkina Faso, Baganda in Uganda) could differ in some unobservable way from the rest. I include 58 regional fixed effects to account for this possibility. In Guinea, for example, I create indicators for the four regions that share geographic and cultural characteristics (Maritime, Middle, Upper, and Forested Guinea). Regional fixed effects are demanding in this cross-sectional setting but useful to reduce bias. Table B.1 shows that the size of the education effect varies little and the adjusted R^2 *decreases* slightly, suggesting that unobserved regional variation is already captured by the long list of controls.

Table B.1: Minister-shares by district (1960-2010 average) with region fixed effects

	All colonies		British colonies		French colonies	
	(1)	(2)	(3)	(4)	(5)	(6)
Teachers/missionaries, logged	0.19**	0.16**	0.13**	0.11*	0.72**	0.73**
	(0.04)	(0.04)	(0.04)	(0.05)	(0.17)	(0.18)
Population, logged (1960-2010)	Yes	Yes	Yes	Yes	Yes	Yes
Geographic controls	Yes	Yes	Yes	Yes	Yes	Yes
Pre-colonial ethnic and socioeconomic controls	Yes	Yes	Yes	Yes	Yes	Yes
Other colonial investments	Yes	Yes	Yes	Yes	Yes	Yes
Country Fixed Effects	Yes	No	Yes	No	Yes	No
Region Fixed Effects	No	Yes	No	Yes	No	Yes
Districts (N)	311	311	199	199	112	112
R^2	0.63	0.68	0.63	0.68	0.74	0.75
Adj. R^2	0.59	0.57	0.57	0.56	0.65	0.60

Notes: $\dagger p < 0.10$, * $p < 0.05$, ** $p < 0.01$. Robust standard errors in parentheses. The models include 35 regional fixed effects in British colonies and 23 in French colonies, which make up a total of 58 variables. For instance, the 15 colonial districts of Uganda are divided between the Central, Eastern, Northern and Western regions.

A second way to assess whether unobserved confounders could account for the effect of education is provided by Oster (2019). Oster's test computes the share of variation that unobservables would need to explain, relative to the observables included in the model, in order to reduce the coefficient of interest to zero. This share is denoted by δ. For instance, $\delta = 2$ indicates that unobservables would need to be twice as important as observables for the coefficient to be zero.

The implementation of the Oster (2019) test requires specifying a value of R^2_{max}, which denotes the R^2 from a hypothetical regression that included both observed and unobserved controls. For

example, $R^2_{max} = 1.2R^2$ means that including unobservables would increase the observed R^2 by 20%. Table B.2 shows the results using the main specification (model 1 in Table B.1) where $R^2 = 0.63$. We see that $\delta > 1$ for $R^2_{max} \leq 1.2R^2$. I also calculate the bounds on the education effect assuming $\delta = 1$ and find that the range excludes 0 for all values of R^2_{max} less than or equal to $1.2R^2$. The two results convey the same idea: unobservables would need to be more important than observables for the effect to become zero. Given the list of observables, this is not impossible but it is unlikely.

Table B.2: Assessing possible bias from unobservables

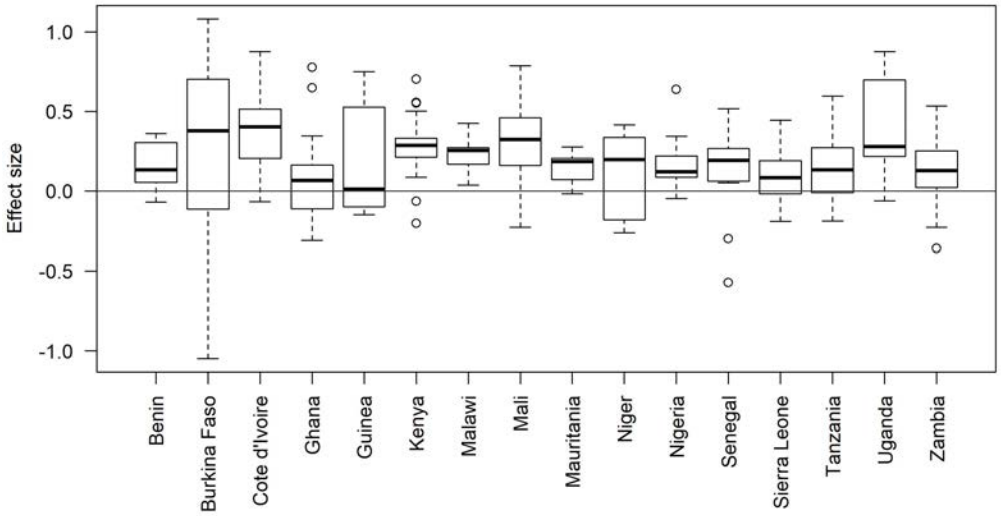
	$R^2_{max} = 1.1R^2$	$R^2_{max} = 1.2R^2$	$R^2_{max} = 1.3R^2$
Bounds on the treatment effect ($\delta = 1$)	(0.19, 0.13)	(0.19, 0.06)	(0.19, -0.023)
δ (unobservables/observables)	2.14	1.30	0.93

Notes: The bounds are (β, β'), where β is the effect estimated from the main regression model and β' is the effect with $\delta = 1$ and the R^2_{max} specified in the column. Bounds are calculated using Stata's `psacalc` (Oster, 2019). The main results would hold even if we increased R^2 by over 20% (specifically 27%) to account for unobserved variables. Put differently, the table shows that the confidence interval only includes 0 if unobserved variables were more important than observed variables ($\delta < 1$).

Finally, I employ a new machine learning matching method devised by Ratkovic and Tingley (2017). The causal effect of a treatment on an outcome requires comparing the outcome for an observed value of the treatment to a value for the same observation, but with a treatment level just slightly above (or below) the observed treatment value. These two values would allow us calculate the effect of a change in the treatment on the outcome. The problem is that we do not observe the counterfactual outcome (Holland, 1986) and that therefore it must be estimated. Like other matching methods, direct estimation adjusts for observed covariates but cannot eliminate omitted variable bias. Unlike standard matching methods, which are restricted to binary treatments and require an estimated propensity score as an intermediate step, this method estimates each observation-level counterfactual outcome directly by using a high-dimensional regression model,

specifically an extension of a Bayesian Lasso to non-parametric causal inference.[22] Under the assumption of no unobserved confounders, discussed above, we obtain consistent causal estimates while making minimal assumptions about the potential outcome functions and the data generating process, thereby minimizing model dependence and bias from model misspeficiation.

Figure B.1: Effect of education on district minister-shares using the method of direct estimation



Notes: The boxplots present the education effect size for each district, grouped by country, compared to its counterfactual, an equivalent district with slightly less colonial education.

The model still includes all standard controls and, additionally, all significant interactions among them. Remarkably, the average effect of education across the 312 districts remains 0.19 (0.06, 0.32).[23] Because we are directly estimating the counterfactual for each observation, we can also observe the causal effect of a small (δ) increase in education for each district, uncovering heterogeneity that is obscured by standard average treatment effects. The effect size is greater than 0 for most districts in all countries (Figure B.1).

[22] Ratkovic and Tingley (2017) use cubic splines capturing main effects and interactions between the treatment and covariates to estimate the difference between the observation with a treatment of value t, namely the level of education, and a treatment increased by an arbitrarily small amount (ϵ) at value $t+\epsilon$. With the fitted and predicted values, we can estimate the partial derivative of the outcome with respect to the treatment for each observation in the data.

[23] I obtain the 95% confidence interval by bootstrapping the estimation for each observation 100 times.

C Additional tables and figures

C.1 Summary statistics

Table C.1: District summary statistics in British colonies

Variable	Obs	Mean	Std. Dev.	Min	Max
Minister-years share	199	3.93	3.64	0	23.74
Protestant missionaries (Woodberry)	199	7.47	11.86	0	75
Missions	199	2.69	3.35	0	26
Students	184	1131.25	2388.09	0	13764
Public health staff	199	11.69	25.52	0	232
Infrastructure expenditures	199	44042.96	153846.5	0	1551032
Pre-colonial trading post	199	.07	.25	0	1
Pre-colonial political centralization	199	2.36	.82	.04	4
District ELF (based on Murdock)	199	.42	.24	0	.94
Colonial population	199	189177.3	343810.6	4309	3443207
District area, in km2	199	18794.81	24740.01	138.26	248403

Table C.2: District summary statistics in French colonies

Variable	Obs	Mean	Std. Dev.	Min	Max
Minister-years share	112	7.14	6.89	0	41.71
Protestant missionaries (Woodberry)	112	.41	1.48	0	10
Missions	112	.31	.74	0	3
Teachers	112	6.18	8.54	.43	71.43
Public health staff	112	9.79	12.38	0	70.8
Infrastructure expenditures	112	51240.38	130562	0	1150341
Pre-colonial trading post	112	.08	.27	0	1
Pre-colonial political centralization	112	2.56	.66	1	4
District ELF (based on Murdock)	112	.46	.21	0	.87
Colonial population	112	116481.1	95748.38	2361	533000
District area, in km2	112	41319.36	79381.05	41.29	523825

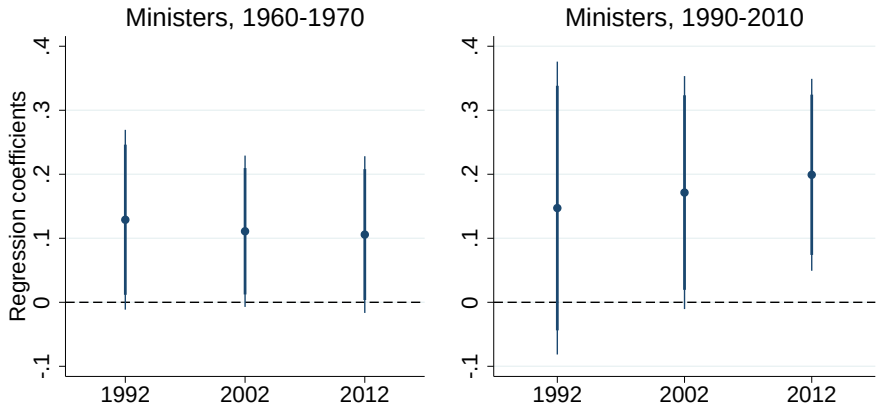
Table C.3: Individual data on cabinet members (1960-2010)

	ministers	minister-years	average cabinet size
Former French colonies	2,432	9,545	23.39
Former British colonies	2,507	10,541	25.84

Notes: Most political elites are ministers, but the data also include the president or prime minister, state ministers (when listed as cabinet members), and the president of the legislature. I use ministers and cabinet members indistinguishably because over 90% of the sample is composed of ministers. The number of minister-years is about four times larger in each set of countries because the average minister tenure is 4.20 years in former British colonies and 3.92 years in former French colonies. 3.4% of minister-years are excluded from the analysis because they were born in other countries. Some were colonial administrators born in France, the United Kingdom, and elsewhere that became ministers after independence. Others were born in African countries (e.g. Togo, Southern Rhodesia) other than the one they served as ministers.

C.2 Results

Figure C.1: Effects of ministers on economic development by district



Notes: Districts are the unit of analysis. Confidence intervals shown at the 90% and 95% confidence levels. The left and right graphs consider the effect of first and second generation district minister-shares, respectively, on nightlight intensity. The list of controls is identical to Table 1.

Table C.4: Minister-shares by district (1960-2010 average): results by type of education

	British colonies		French colonies	
	(1)	(2)	(3)	(4)
Educational colonial investments				
Missionaries (1923), logged	0.14**			
	(0.04)			
Public teachers (pre-1940), logged			0.65**	
			(0.18)	
Public students (pre-1940), logged		0.03†		
		(0.02)		
Missions (1923), logged				0.01
				(0.18)
Other colonial investments				
Infrastructure expenditures				
(pre-1940), logged	-0.01	-0.01	0.02	0.04†
	(0.01)	(0.01)	(0.02)	(0.02)
Colonial railroad indicator	-0.17*	-0.12	0.23†	0.34*
	(0.09)	(0.09)	(0.14)	(0.14)
Public health staff (pre-1940), logged	0.06	0.04	-0.03	0.23*
	(0.04)	(0.04)	(0.11)	(0.10)
Population, logged (1960-2010)	0.44**	0.51**	0.42**	0.59**
	(0.06)	(0.07)	(0.09)	(0.08)
Country fixed effects (FE)	Yes	Yes	Yes	Yes
Geographic controls	Yes	Yes	Yes	Yes
Pre-colonial ethnic and socioeconomic controls	Yes	Yes	Yes	Yes
Districts (N)	199	184	112	112
Adj. R^2	0.58	0.54	0.65	0.60

Notes: †$p < 0.10$, * $p < 0.05$, ** $p < 0.01$. Robust standard errors in parentheses. This table is identical to Table 1 but shows that the political effect of education comes from public education only in French districts and from private education only in British districts. British data lack students for Malawi, hence n=184.

Table C.5: Minister-shares by district (1960-2010): excluding capital districts

	All colonies		British colonies		French colonies	
	(1)	(2)	(3)	(4)	(5)	(6)
Educational colonial investments						
Missionaries (1923)/Public teachers (pre-1940), logged	0.21**	0.19**				
	(0.04)	(0.04)				
Missionaries (1923), logged			0.16**	0.14**		
			(0.04)	(0.04)		
Public teachers (pre-1940), logged					0.67**	0.57**
					(0.08)	(0.18)
Other colonial investments						
Infrastructure expenditures (pre-1940), logged		-0.00		-0.01		0.02
		(0.01)		(0.01)		(0.02)
Colonial railroad indicator		-0.04		-0.17†		0.29*
		(0.08)		(0.09)		(0.14)
Public health staff (pre-1940), logged		0.07†		0.05		0.01
		(0.04)		(0.04)		(0.13)
Population, logged (1960-2010)	0.41**	0.41**	0.40**	0.43**	0.35**	0.41**
	(0.04)	(0.05)	(0.05)	(0.06)	(0.05)	(0.10)
Country fixed effects (FE)	Yes	Yes	Yes	Yes	Yes	Yes
Geographic controls	No	Yes	No	Yes	No	Yes
Pre-colonial ethnic and socioeconomic controls	No	Yes	No	Yes	No	Yes
Districts (N)	295	295	191	191	104	104
Adj. R^2	0.52	0.51	0.52	0.53	0.56	0.57

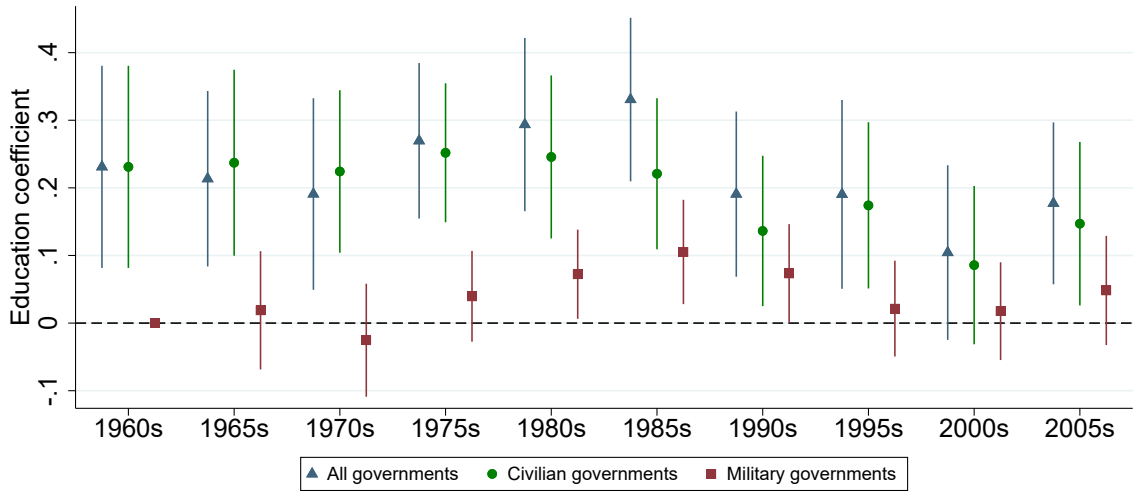
Notes: †$p < 0.10$, * $p < 0.05$, ** $p < 0.01$. Robust standard errors in parentheses. This table is identical to Table 1 but excludes the 16 capital districts at independence as a robustness check.

Table C.6: Minister-shares by district (1960-2010): excluding districts without colonial education

	All colonies		British colonies		French colonies	
	(1)	(2)	(3)	(4)	(5)	(6)
Educational colonial investments						
Teachers/missionaries, logged	0.23**	0.29**				
	(0.03)	(0.06)				
Missionaries (1923), logged			0.17**	0.17**		
			(0.03)	(0.06)		
Public teachers (pre-1940), logged					0.65**	0.65**
					(0.08)	(0.18)
Other colonial investments						
Infrastructure expenditures (pre-1940), logged		-0.01		-0.02		0.02
		(0.02)		(0.02)		(0.02)
Colonial railroad indicator		-0.02		-0.16		0.23†
		(0.09)		(0.10)		(0.14)
Public health staff (pre-1940), logged		0.11**		0.10*		-0.03
		(0.04)		(0.05)		(0.11)
Population, logged (1960-2010)	0.44**	0.44**	0.42**	0.42**	0.36**	0.42**
	(0.04)	(0.06)	(0.05)	(0.08)	(0.05)	(0.09)
Country fixed effects (FE)	Yes	Yes	Yes	Yes	Yes	Yes
Geographic controls	No	Yes	No	Yes	No	Yes
Pre-colonial ethnic and socioeconomic controls	No	Yes	No	Yes	No	Yes
Districts (N)	311	244	199	132	112	112
Adj. R^2	0.59	0.53	0.56	0.49	0.64	0.65

Notes: †$p < 0.10$, * $p < 0.05$, ** $p < 0.01$. Robust standard errors in parentheses. This table is identical to Table 1 but excludes colonial districts that did not have missionaries as recorded in Woodberry (2012) as a robustness check. All French districts had at least one teacher before 1940, even if not all years in some remote districts, and hence all values are greater than 0.

Figure C.2: Effect of education on district minister-shares by lustrum and type of government



Notes: Districts are the unit of analysis. Models include the same controls as in Table 1. The "All governments" coefficient can be larger than the other two because the figure presents 30 separate models. Overall, this figure presents the same results as Figure 5: there is no colonial education effect for country-years under military governments and the main difference in effect size for civilian governments is pre-1990 vs. post-1990.

C.3 Alternative explanations and determinants of colonial education

Table C.7: Alternative explanations: institutional and fiscal development

	All	French colonies				
	(1)	(2)	(3)	(4)	(5)	(6)
Teachers/missionaries (pre-1940), logged	0.19**	0.92**	0.92**	0.71**	0.61**	0.71**
	(0.04)	(0.17)	(0.20)	(0.16)	(0.19)	(0.15)
European population (pre-1940), logged	0.01					
	(0.03)					
Institutional development proxies						
African administrators (pre-1940), logged		-0.53**				
		(0.18)				
European administrators (pre-1940), logged			-0.39*			
			(0.18)			
Fiscal development proxies						
Head taxes collected (pre-1940), logged				-0.05		
				(0.03)		
Taxes on trading licenses collected (pre-1940), logged					0.09	
					(0.06)	
Trade taxes per capita (pre-1940), logged						0.62†
						(0.34)
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Population, logged (1960-2010)	Yes	Yes	Yes	Yes	Yes	Yes
Geographic controls	Yes	Yes	Yes	Yes	Yes	Yes
Pre-colonial ethnic and socioeconomic controls	Yes	Yes	Yes	Yes	Yes	Yes
Districts (N)	300	83	83	112	112	112
Adj. R^2	0.57	0.77	0.76	0.66	0.66	0.66

Notes: †$p < 0.10$, * $p < 0.05$, ** $p < 0.01$. Robust standard errors in parentheses. The set of controls is identical to Table 1. European population data are missing for Benin in model 1. Models 2-6 are restricted to French colonies because of data availability, and data on administrators (models 2 and 3) covers only six French colonies. The variables capture the number of African and European administrators concern the number of administrators *serving* in the district, arguably a proxy for local state capacity (the size of the colonial state administration varied widely between districts (Cohen, 1973; Kirk-Greene, 2006)). Data on the number of administrators *born* in each district, by contrast, should be positive and would provide a quantitative test of my main mechanism. The partial effect of such a variable would be positive, according to my theory. Unfortunately, I am not aware of systematic data, either in raw or processed form, that provides the birthplace of African administrators. The table only shows that the partial effect of the number of African and European administrators serving in a district on minister-shares is negative.

Table C.8: Alternative explanations: pre-colonial ethnic characteristics

	(1)	(2)	(3)	(4)	(5)
Teachers/missionaries (pre-1940), logged	0.22**	0.22**	0.22**	0.22**	0.22**
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Pre-colonial ethnic diversity proxies					
Number of ethnic homelands	0.00				
	(0.01)				
Ethnic fractionalization		0.02			
		(0.12)			
Pre-colonial political centralization					
Jurisdictional hierarchy (Murdock)			-0.04		
			(0.04)		
Kingdom indicator				0.04	
				(0.07)	
Acephalous society indicator					-0.12
					(0.08)
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes
Population, logged (1960-2010)	Yes	Yes	Yes	Yes	Yes
Geographic Controls	Yes	Yes	Yes	Yes	Yes
Districts (N)	311	311	311	311	311
Adj. R^2	0.58	0.58	0.58	0.58	0.59

Notes: †$p < 0.10$, * $p < 0.05$, ** $p < 0.01$. Robust standard errors in parentheses. Models favor the significance of ethnic variables because they purposely omit pre-colonial socioeconomic controls and colonial-era variables to avoid collinearity and post-treatment bias. The null pattern of results remains either way. I rely on area to match ethnic homelands to colonial districts via weighted averages because ethnic group population estimates are unreliable. Hence, if group A's homeland in Murdock's map is a pre-colonial kingdom and occupies 70% of the district while group B is not a pre-colonial kingdom and occupies 30%, the values of the indicator would be 0.7. The same applies to all Ethnographic Atlas variables and to the ethnic fractionalization index.

Table C.9: Determinants of colonial education by district (1919-1939)

	(1) All colonies	(2) British	(3) French
Pre-colonial trading post indicator	0.95**	0.63	1.41**
	(0.32)	(0.41)	(0.30)
Distance from the first trading post in the colony, in 100km	-0.08*	-0.09*	-0.04
	(0.03)	(0.04)	(0.03)
African population, logged	0.39**	0.42*	0.37**
	(0.10)	(0.15)	(0.05)
Geography			
Area in km2, logged	0.00	-0.00	0.03
	(0.10)	(0.15)	(0.05)
Distance from the coast, in 100km	0.02	0.02	-0.02
	(0.03)	(0.04)	(0.02)
Navigable river indicator (1910)	0.07	-0.09	0.19
	(0.13)	(0.24)	(0.13)
Terrain ruggedness	0.13	0.06	0.82
	(0.31)	(0.37)	(0.49)
Malaria prevalence index (1900)	-0.12	0.04	-0.20*
	(0.08)	(0.08)	(0.08)
Tsetse fly prevalence index (1970)	0.11	0.27	-0.04
	(0.10)	(0.15)	(0.14)
Natural resources and soil quality			
Gold, silver or diamonds indicator (1920)	-0.20	-0.34	-0.04
	(0.14)	(0.23)	(0.12)
Base metals indicator (1920)	0.10	0.36	-0.18†
	(0.17)	(0.28)	(0.08)
Soil quality index (2000)	0.02	0.05	0.05
	(0.08)	(0.16)	(0.04)
Pre-colonial characteristics			
Ethnic Fractionalization Index	-0.14	-0.17	0.07
	(0.29)	(0.32)	(0.38)
Prevalence of Islam (1910)	-0.14	-0.16	-0.06
	(0.11)	(0.11)	(0.14)
Agriculture (none to irrigation)	0.20*	0.23	0.08
	(0.08)	(0.13)	(0.10)
Settlements (nomadic to complex)	0.04	0.02	-0.02
	(0.04)	(0.06)	(0.08)
Pre-colonial political centralization	-0.02	-0.05	-0.09
	(0.10)	(0.12)	(0.16)
Slavery (absence to prevalent)	-0.07	-0.19	0.09
	(0.11)	(0.16)	(0.11)
Constant	-2.76*	-3.36	-2.49*
	(1.26)	(2.01)	(0.71)
Observations	312	200	112
Adjusted R^2	0.38	0.35	0.61

Notes: †$p < 0.10$, * $p < 0.05$, ** $p < 0.01$. Robust standard errors in parentheses. The model is equivalent to equation 1 in page 18 but the outcome is now colonial education (logged for normality). Pre-colonial trade and district population are the only consistently significant determinants of public (missionary) education in French (British) districts.

I examine whether pre-colonial coastal trade increases district minister-shares given its importance. While we know that trade has a long-term effect on socioeconomic outcomes (Curtin et al., 1995; Gaikwad, 2014), I estimate its effect on minister-shares, a political outcome (Table C.10). I exclude colonial-era variables to examine the total effect of trade. We see null results in British districts. In French districts, distance from pre-colonial posts does not decrease minister-shares either but pre-colonial trading posts (e.g. Saint Louis in Senegal, Ouidah in Benin) may increase them (model 3). Colonial education is not simply a mechanism because, unlike coastal trading posts, education extended beyond the coast for myriad reasons beyond trade patterns. Pre-colonial trade has at best a moderate and indirect effect in French colonies.

Table C.10: Alternative explanations: minister-shares by district as a function of pre-colonial trade

	British colonies		French colonies	
	(1)	(2)	(3)	(4)
Teachers/missionaries (pre-1940), logged		0.17**		0.79**
		(0.03)		(0.11)
Pre-colonial trading post	0.18	0.10	0.41*	-0.41†
	(0.17)	(0.17)	(0.19)	(0.21)
Distance from nearest post, in 100km	0.01	0.02	0.02	0.01
	(0.02)	(0.02)	(0.06)	(0.05)
Country Fixed Effects	Yes	Yes	Yes	Yes
Population, logged (1960-2010)	Yes	Yes	Yes	Yes
Geographic controls	Yes	Yes	Yes	Yes
Districts (N)	199	199	112	112
Adj. R^2	0.50	0.55	0.46	0.63

Notes: $\dagger p < 0.10$, * $p < 0.05$, ** $p < 0.01$. Robust standard errors in parentheses.

C.4 Heads of government and colonial education

The models in Tables C.11 and C.12 are analogous to the baseline models (Table 1). The two differences are that results in this section include region fixed effects, denoted by γ_j, and that models 2, 4, and 6 include an indicator for whether a post-colonial head of government was born in that district. This is represented by the equation below, which is a slightly modified version of equation 1:

$$Y_{ijk} = \beta_0 + \beta_1 education_{ijk} + other\ investments^T \beta_2 + X^T \beta_3 + \eta_k + \gamma_j + \epsilon_{ijk} \quad (2)$$

I create an interaction term to test whether the importance of education is lower (presumably not higher) in districts where a government head was born (Table C.13. That would be the case if presidents systematically favored their district via ministerial patronage. While there is some qualitative evidence to this effect (e.g., presidents Houphouët-Boigny, Sékou Touré, or Museveni favored their own areas), I do not find systematic support for this hypothesis. This may be counterintuitive if we look at African elite politics exclusively through the lenses of patronage but is in line with my argument and with Brierley's (2020) evidence from Ghana.

Table C.11: Minister-shares by district (1960-2010 average): effect of districts with a head of government

	All colonies		British colonies		French colonies	
	(1)	(2)	(3)	(4)	(5)	(6)
Teachers/missionaries (pre-1940), logged	0.16**	0.12**	0.11*	0.07	0.77**	0.68**
	(0.04)	(0.04)	(0.05)	(0.04)	(0.18)	(0.21)
Head(s) of government born in that district		0.39**		0.40**		0.23†
		(0.07)		(0.10)		(0.13)
Population, logged (1960-2010)	Yes	Yes	Yes	Yes	Yes	Yes
Geographic controls	Yes	Yes	Yes	Yes	Yes	Yes
Pre-colonial ethnic and socioeconomic controls	Yes	Yes	Yes	Yes	Yes	Yes
Other colonial investments	Yes	Yes	Yes	Yes	Yes	Yes
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Region Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Districts (N)	311	311	199	199	112	112
R^2	0.68	0.71	0.68	0.72	0.76	0.77
Adj. R^2	0.57	0.61	0.56	0.61	0.60	0.61

Notes: †$p < 0.10$, * $p < 0.05$, ** $p < 0.01$. Robust standard errors in parentheses. These models are equivalent to the models in Table B.1 but include an indicator that equals one in the 74 districts where one or more heads of government were born.

Table C.12: Minister-shares by district (1960-2010 average): effect of districts with a civilian head of government

	All colonies		British colonies		French colonies	
	(1)	(2)	(3)	(4)	(5)	(6)
Teachers/missionaries (pre-1940), logged	0.16**	0.13**	0.11*	0.08†	0.77**	0.73**
	(0.04)	(0.04)	(0.05)	(0.04)	(0.18)	(0.20)
Civilian head(s) of government born in that district		0.37**		0.44**		0.19
		(0.09)		(0.12)		(0.13)
Population, logged (1960-2010)	Yes	Yes	Yes	Yes	Yes	Yes
Geographic controls	Yes	Yes	Yes	Yes	Yes	Yes
Pre-colonial ethnic and socioeconomic controls	Yes	Yes	Yes	Yes	Yes	Yes
Other colonial investments	Yes	Yes	Yes	Yes	Yes	Yes
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Region Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Districts (N)	311	311	199	199	112	112
R^2	0.68	0.70	0.68	0.71	0.76	0.77
Adj. R^2	0.57	0.60	0.56	0.60	0.60	0.61

Notes: †$p < 0.10$, * $p < 0.05$, ** $p < 0.01$. Robust standard errors in parentheses. These models are equivalent to the models in Table B.1 but include an indicator that equals one in the 47 districts where one or more *civilian* heads of government were born.

Table C.13: Minister-shares by district (1960-2010 average): interaction between education and head of government

	All colonies		British colonies		French colonies	
	(1) All	(2) Civ.	(3) All	(4) Civ.	(5) All	(6) Civ.
Teachers/missionaries, logged	0.13**	0.12*	0.09†	0.07	0.70**	0.68**
	(0.05)	(0.05)	(0.05)	(0.05)	(0.20)	(0.21)
Head(s) of government born in that district	0.50**	0.38**	0.52**	0.41**	0.57†	0.18
	(0.13)	(0.09)	(0.16)	(0.12)	(0.32)	(0.19)
Education x head interaction	-0.06		-0.07		-0.18	
	(0.06)		(0.07)		(0.17)	
Education x civilian head interaction		0.01		-0.00		0.04
		(0.05)		(0.06)		(0.09)
Population, logged (1960-2010)	Yes	Yes	Yes	Yes	Yes	Yes
Geographic controls	Yes	Yes	Yes	Yes	Yes	Yes
Pre-colonial ethnic and socioeconomic controls	Yes	Yes	Yes	Yes	Yes	Yes
Other colonial investments	Yes	Yes	Yes	Yes	Yes	Yes
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Region Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Districts (N)	311	311	199	199	112	112
R^2	0.71	0.71	0.72	0.72	0.77	0.77
Adj. R^2	0.61	0.61	0.61	0.60	0.61	0.61

Notes: †$p < 0.10$, * $p < 0.05$, ** $p < 0.01$. Robust standard errors in parentheses. These models are equivalent to the models in Tables C.11 and C.12 above but include an interaction between colonial education and the leader birth district indicator.

Table C.14: Minister-shares by district (1960-2010 average): effect of colonial education including post-colonial educational achievement

	All colonies		British colonies		French colonies	
	(1)	(2)	(3)	(4)	(5)	(6)
Teachers/missionaries, logged	0.16**	0.14**	0.10*	0.10*	0.73**	0.53*
	(0.04)	(0.04)	(0.04)	(0.05)	(0.17)	(0.22)
Post-colonial educational achievement		0.19*		0.12		0.26
		(0.08)		(0.09)		(0.16)
Population, logged (1960-2010)	Yes	Yes	Yes	Yes	Yes	Yes
Geographic controls	Yes	Yes	Yes	Yes	Yes	Yes
Pre-colonial ethnic and socioeconomic controls	Yes	Yes	Yes	Yes	Yes	Yes
Other colonial investments	Yes	Yes	Yes	Yes	Yes	Yes
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Region Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Districts (N)	311	295	199	194	112	101
R^2	0.69	0.68	0.69	0.69	0.76	0.74
Adj. R^2	0.58	0.56	0.57	0.56	0.60	0.55

Notes: $\dagger p < 0.10$, * $p < 0.05$, ** $p < 0.01$. Robust standard errors in parentheses. These models are equivalent to the models in Table B.1 but include a variable that measures contemporary educational achievement among adults surveyed by the round 5 of the Afrobarometer (2011), where 0 equals no formal schooling and 6 equals post-secondary education).

C.5 Minister-shares in each country

See the following four pages.

Figure C.3: Minister-shares by district in British colonies I (1960-2010)

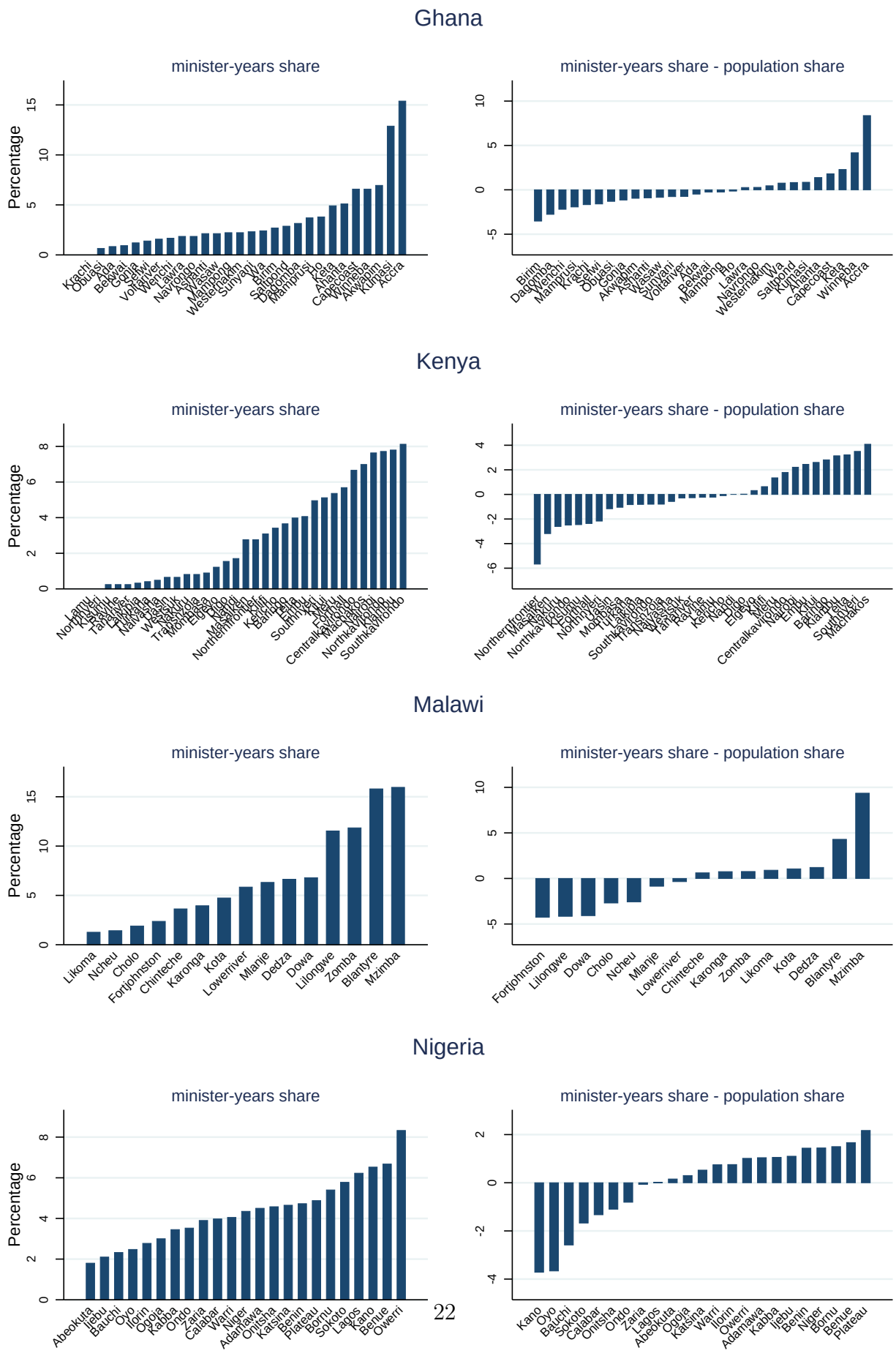


Figure C.4: Minister-shares by district in British colonies II (1960-2010)

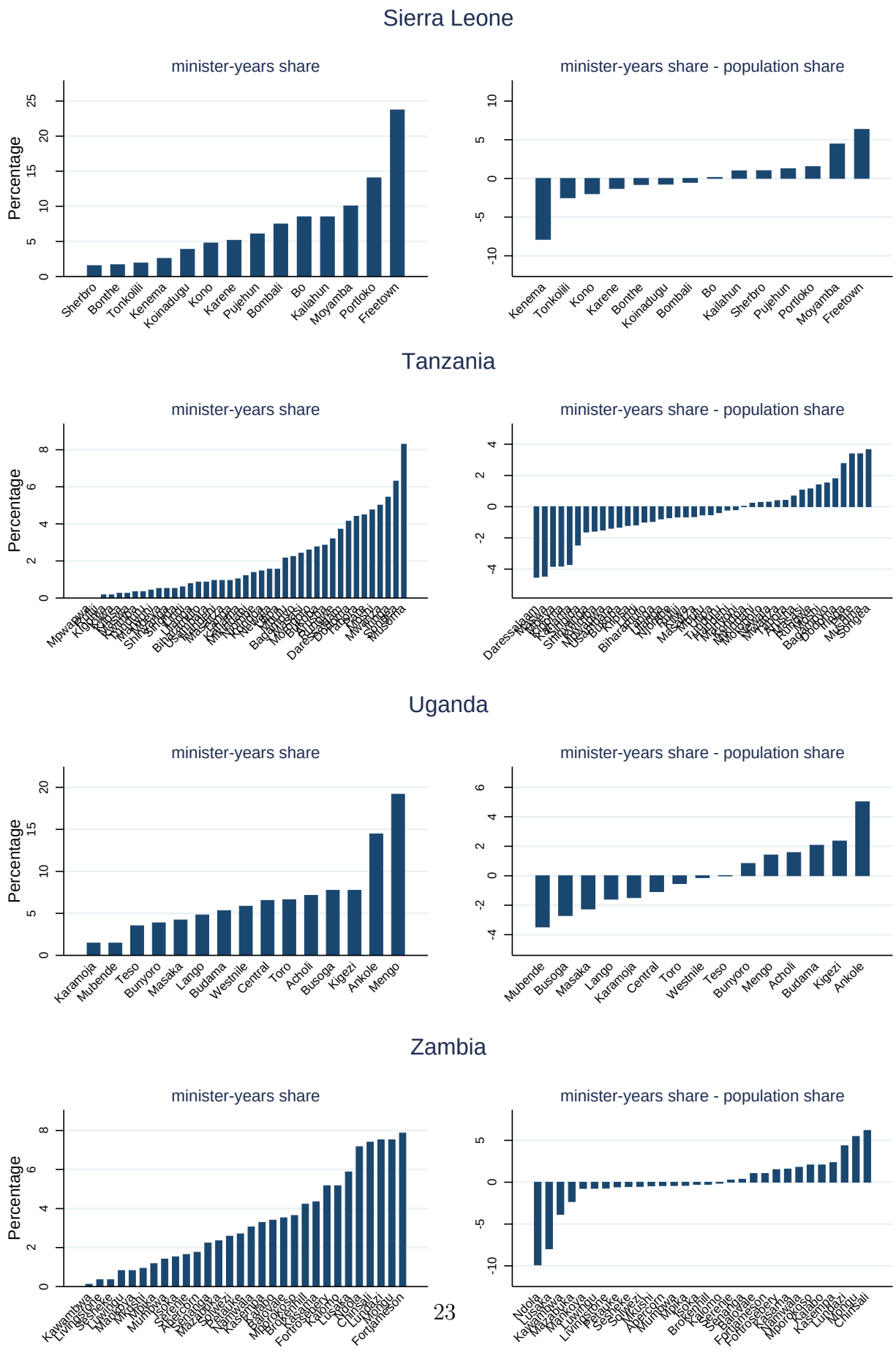


Figure C.5: Minister-shares by district in French colonies I (1960-2010)

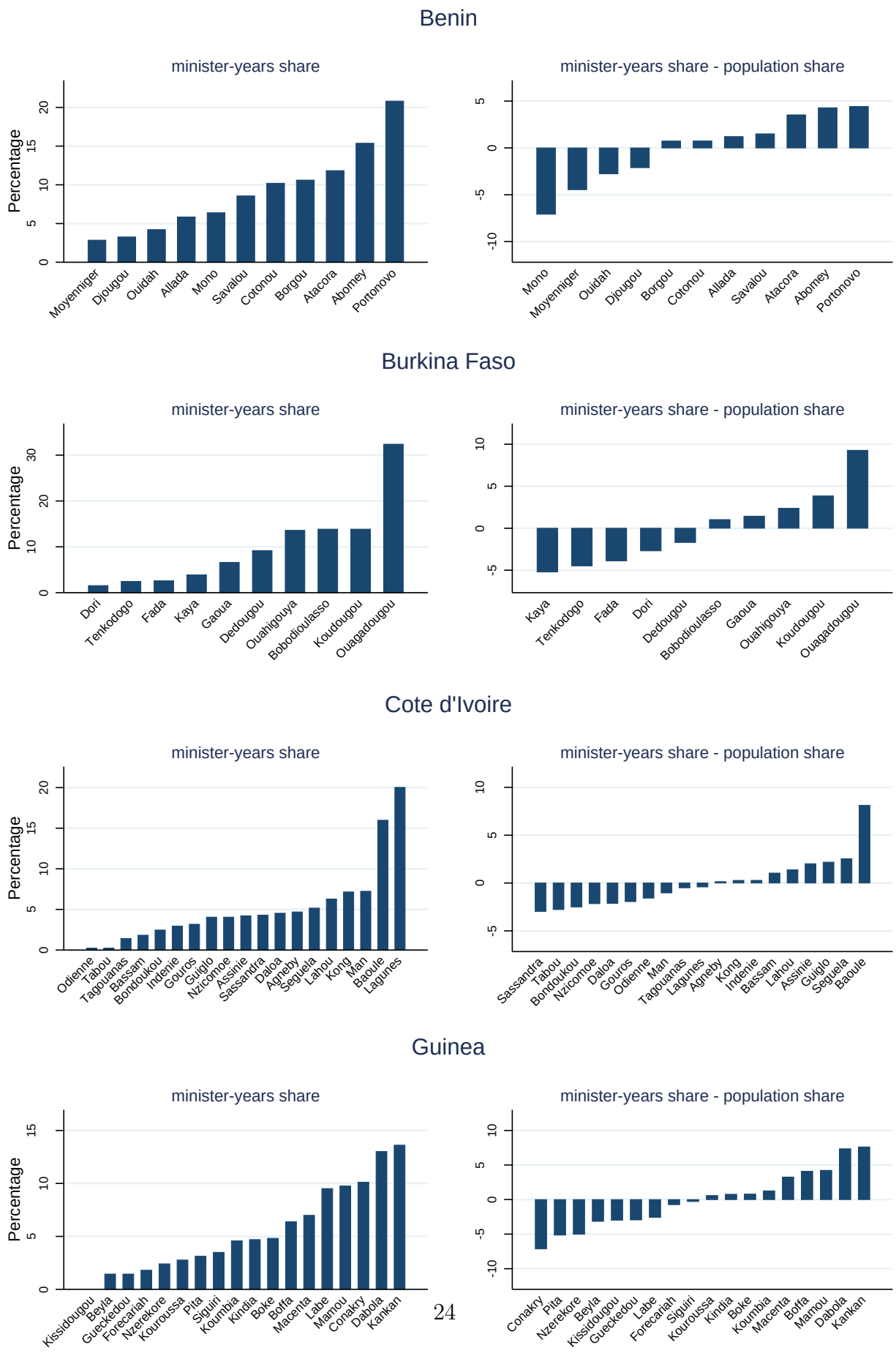
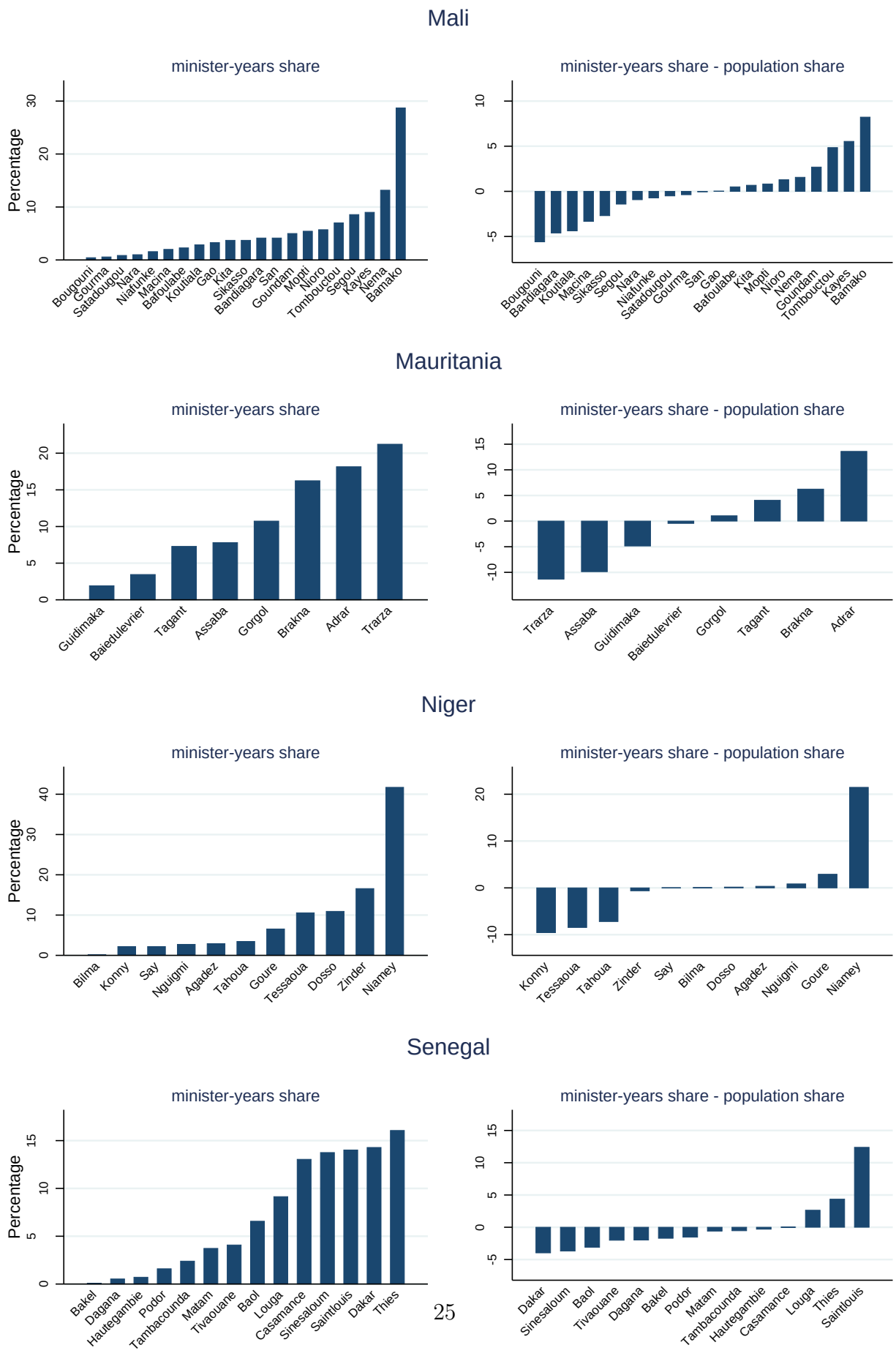


Figure C.6: Minister-shares by district in French colonies II (1960-2010)



D Districts vs. ethnic groups as the unit of analysis

At first, ethnicity may appear as an additional viable unit of analysis.[24] However, several reasons advise using colonial districts rather than ethnic groups as the units of analysis for the purposes of this study:

1. Colonies were divided into districts and thus colonial records are sometimes aggregated at that level. These districts overlap with ethnic groups in some countries (e.g. Uganda) but not in others (e.g. Benin). Coercing district-level data into approximate ethnic homelands introduces measurement error, a source of endogeneity. Districts sometimes tried to reflect the colonizer's understanding of ethnic social organization in British colonies and occasionally in French colonies. In that case, districts would just be a proxy for ethnicity. However, this is not true in many French colonies (e.g. Senegal, Benin) or even in some British colonies (e.g. Tanzania). Superimposing Murdock's (1959) map of ethnic homelands with colonial district maps shows that the two spatial units do not overlap in many countries.

2. Most colonial districts remain in existence today, even if often subdivided into smaller districts, and thus they remain relevant units. Around 80% of colonial district boundaries remain in place as of 2015. By contrast, most scholars would argue that ethnicity is either fluid (Posner, 2005) or at least allows for "constrained change" (Chandra, 2006).[25] Using districts avoids Brubaker's (2002) critique that ethnicity is too often reified, a critique that applies to African politics scholarship even though ethnic cleavages are not important in some countries such as Senegal and Mali (Koter, 2016), which leads to the next point.

3. Ethnicity is an important cleavage in some countries in the sample (e.g. Kenya, Uganda) but not in others (e.g. Tanzania, Senegal). Religion, region, pre-colonial leadership or other

[24] Horowitz (1985, p. 150), quoting Kasfir (1972), argues that traditional ethnic leadership during colonialism "sanctioned the notion that an ethnic group was a valid basis for an administrative unit [...] and provided an institutional expression for cultural unity."

[25] The debate around primordialism and constructivism shows the difficulties of determining ethnicity (Hale, 2004). Brubaker (2002, p. 164) explains that "groupism" is the "tendency to take discrete, sharply differentiated, internally homogeneous and externally bounded groups as [...] fundamental units of social analysis." Groups rarely have such strict characterization, Brubaker argues, but such practice leads to reifying ethnic groups in an attempt to turn Anderson's (1983) imagined communities into concrete units.

cleavages may matter more (Koter, 2016). Districts sidestep this problem and provide a consistent unit of analysis.

4. The list of districts in a country is public knowledge. By contrast, there is no agreement among scholars on what the "list of ethnic groups" should be (Fearon, 2003), on how to define ethnic identity to begin with (Chandra, 2006), or on whether we should consider all of them (assuming we agreed on a list) or only the "politically-relevant" ones.

5. A person is born in only one district. By contrast, assigning ethnically mixed leaders to only one group is not straightforward, and elites are more often the result of mixed marriages than the average population, so it is unclear whether to assign the father's or mother's ethnicity in such cases. Similar to strategic marriages between to-be monarchs in European history, Adida et al. (2016, p. 638) show that "cross-ethnic marriages at the leadership level are prevalent" in Africa. Creoles are a special category of this problem and, while not as common as in Central and South America, they were an important group already in the 19th century in Sierra Leone. In brief, an individual may have multiple ethnic identities but only one birth place.[26]

Collectively, I believe these five reasons are compelling for preferring districts as the unit of analysis. However, I assign district-level variables to ethnic homelands based on the percentages of the district within an ethnic homeland to examine ethnicity as a second unit of analysis (see the caption in Table C.15 for an explanation on the procedure). The main takeaway doesn't change: colonial education increases district minister-shares also using ethnic homelands as the unit of analysis. This makes sense insofar as districts and ethnic homelands partially overlap. If anything, the effect of education is more statistically robust. However, the effect size of some variables such as colonial education and model fit are inflated as a result of systematic measurement error—after all the overlap between the two units is modest in some areas. For example, the coastal districts of Dakar, Kayes, and Saint Louis (where many of the elites were born) are all part of the Wolof ethnic

[26]Migration at a very young age into a district with more primary education was very uncommon until the late colonial period and, in any case, it would bias the importance of education downward, since the coding of birth place is unaffected by later migration.

homeland in Murdock—even if not everyone in those districts was Wolof. Similarly, Freetown in Sierra Leone is part of the Temne homeland although the creole elite enjoyed an outsized influence during and after colonial rule (Cohen, 1981). The district-level map captures that by distinguishing the Freetown colony/district from inland districts. Conversely, the Murdock map includes many small ethnic homelands in Nigeria of little historical or administrative relevance for the colonial state. These and other homelands are near-zeroes in the data because of their small spatial size, thereby inflating the results. By comparison, district-level data is better distributed.

Table C.15: Minister-shares by district (1960-2010 average): using ethnic homelands as the units of analysis

	All colonies		British colonies		French colonies	
	(1)	(2)	(3)	(4)	(5)	(6)
Educational colonial investments						
Missionaries (1923)/Public teachers (pre-1940), logged	0.36**	0.22**				
	(0.04)	(0.05)				
Missionaries (1923), logged			0.29**	0.21**		
			(0.05)	(0.06)		
Public teachers (pre-1940), logged					0.38**	0.84**
					(0.09)	(0.28)
Other colonial investments						
Infrastructure expenditures (pre-1940), logged		-0.02		0.01		-0.01
		(0.02)		(0.02)		(0.03)
Colonial railroad indicator		-0.24*		-0.28**		0.05
		(0.10)		(0.11)		(0.17)
Public health staff (pre-1940), logged		0.08†		0.03		-0.00
		(0.05)		(0.04)		(0.15)
Population, logged (1960-2010)	0.08**	0.18**	0.08**	0.14**	0.09**	0.29**
	(0.01)	(0.04)	(0.01)	(0.05)	(0.02)	(0.09)
Country fixed effects (FE)	Yes	Yes	Yes	Yes	Yes	Yes
Geographic controls	No	Yes	No	Yes	No	Yes
Pre-colonial ethnic and socioeconomic controls	No	Yes	No	Yes	No	Yes
Ethnic groups (N)	531	531	346	346	185	185
Adj. R^2	0.93	0.96	0.92	0.96	0.95	0.98

Notes: †$p < 0.10$, * $p < 0.05$, ** $p < 0.01$. Robust standard errors in parentheses. This table is identical to Table 1 but uses the ethnic homelands in the Ethnographic Atlas (Murdock, 1959) as the units of analysis. To transform the data, I use the share of the district's area occupied by each group. Thus, if a total of 10 ministers hail from district 1 that is split between ethnic group A (40% of the area) and ethnic group B (60% of the area), ethnic group A is allocated 4 ministers and ethnic group B is allocated 6 ministers. Large ethnic homelands span multiple colonial districts. If a total of 5 ministers hail from district 2 and district 2 is composed by ethnic group A once again (20% of the area) and ethnic group C (80%), then ethnic group A is assigned 1 more minister for a total of $4 + 1 = 5$. The same logic applies to all right-hand side variables.

Table C.16: Minister-shares by district (1960-2010): using ethnic ethnic homelands as the units of analysis and excluding capital districts

	All colonies		British colonies		French colonies	
	(1)	(2)	(3)	(4)	(5)	(6)
Educational colonial investments						
Missionaries (1923)/Public teachers (pre-1940), logged	0.36**	0.22**				
	(0.05)	(0.05)				
Missionaries (1923), logged			0.29**	0.22**		
			(0.05)	(0.06)		
Public teachers (pre-1940), logged					0.39**	1.17**
					(0.09)	(0.37)
Other colonial investments						
Infrastructure expenditures (pre-1940), logged		-0.03		0.01		-0.03
		(0.02)		(0.02)		(0.04)
Colonial railroad indicator		-0.28**		-0.30**		0.01
		(0.10)		(0.11)		(0.19)
Public health staff (pre-1940), logged		0.12*		0.07		-0.22
		(0.05)		(0.05)		(0.22)
Population, logged (1960-2010)	0.08**	0.18**	0.08**	0.14**	0.09**	0.26**
	(0.01)	(0.04)	(0.01)	(0.05)	(0.02)	(0.10)
Country fixed effects (FE)	Yes	Yes	Yes	Yes	Yes	Yes
Geographic controls	No	Yes	No	Yes	No	Yes
Pre-colonial ethnic and socioeconomic controls	No	Yes	No	Yes	No	Yes
Ethnic groups (N)	508	508	340	340	168	168
Adj. R^2	0.93	0.96	0.92	0.96	0.95	0.98

Notes: $\dagger p < 0.10$, * $p < 0.05$, ** $p < 0.01$. Robust standard errors in parentheses. This table is identical to the table above but excludes the 16 capital districts at independence as a robustness check.

E Education: quantity vs. quality, human capital vs. connections

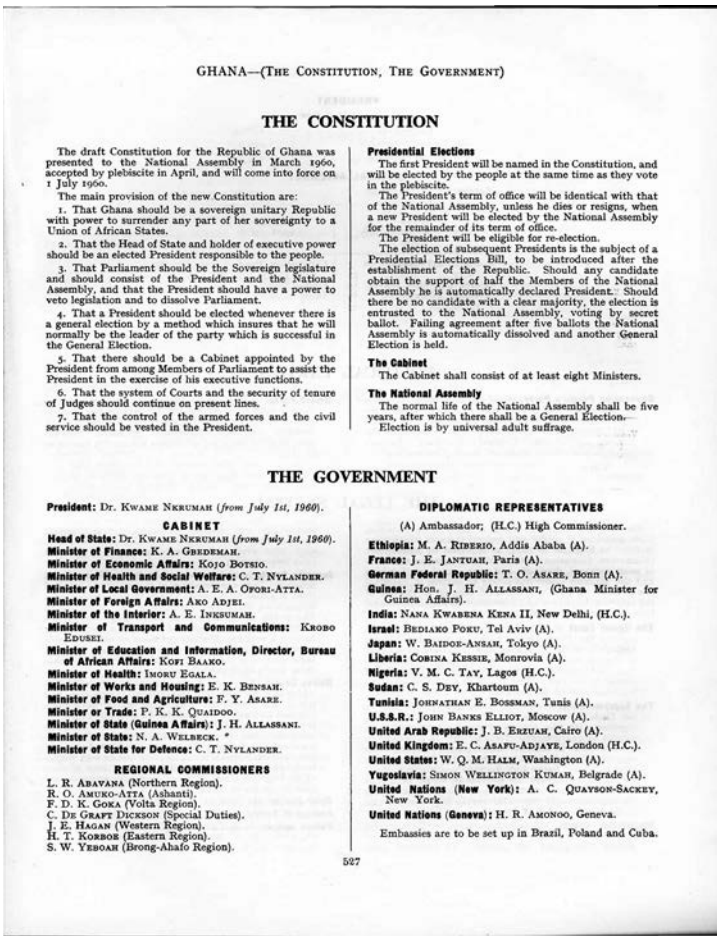
The article does not include a proxy for *quality* of education. However, two points are worth mentioning. First, the data I use on teachers and missionaries includes high(er) quality schools. The data by Woodberry does not include lower quality or "sundry missions", as they are sometimes termed in British colonial records. The French data comprises teachers in public schools, which had higher standards (just like the Christian Missionary Society had higher standards than small informal missions). In this sense, then, I capture a quantitative effect of (relatively) high quality colonial education. Second, the split between first- and second-generation ministers indirectly tells us something about the hard vs. soft skills that education provides. First-generation ministers benefited only to a limited extent from soft skills and connections: Africans were often selected to join the colonial state based on educational performance by self-interested colonial administrators who paid Africans a fraction of the European administrator salary. Before 1945, African "modern" elites were just emerging in most colonies under study (Senegal and Ghana are exceptions). By contrast, would-be second-generation ministers most likely benefited from attending schools with powerful alumni.

F Sources and historical materials

Geographic variables include distance between the district capital and the coast, altitude, a map of navigable rivers and natural harbors, capes, and terrain ruggedness (C.S. Hammond, 1921; Ramsar, 2016; Ports.com, 2016). Besides geography, disease environment could also have affected settlement and investment decisions. Tropical Africa was "often referred to as 'the white man's grave' [and where] malaria, yellow fever and dysentery could wipe out an army with appalling efficiency" (Darwin, 2012, p. 138). Altitude is only a rough proxy for diseases such as malaria, so I also use a geocoded map of malaria prevalence around 1900 (Lysenko and Semashko, 1968) and tse-tse fly data (Alsan, 2015). I also geocode two historical natural resource maps (Hubert, 1922; Kuhne, 1927) because they could confound the effect of investments.

The data also include the main pre-colonial trading posts (Curtin et al., 1995; Slave Voyages, 2013) because they increased colonial investments and early development. Murdock (1959) provides pre-colonial ethnic group characteristics that proxy for early economic and political development, such as intensity of agriculture, settlement patterns, size of local communities, and level of political centralization. Finally, I code the approximate prevalence of Islam (Bartholomew, 1913) and whether the district was part of a pre-colonial kingdom or an acephalous society (Olson, 1996; *Encyclopedia Britannica*, 2020).

Figure F.1: Government of Ghana, 1960



GHANA—(THE CONSTITUTION, THE GOVERNMENT)

THE CONSTITUTION

The draft Constitution for the Republic of Ghana was presented to the National Assembly in March 1960, accepted by plebiscite in April, and will come into force on 1 July 1960.

The main provision of the new Constitution are:

1. That Ghana should be a sovereign unitary Republic with power to surrender any part of her sovereignty to a Union of African States.

2. That the Head of State and holder of executive power should be an elected President responsible to the people.

3. That Parliament should be the Sovereign legislature and should consist of the President and the National Assembly, and that the President should have a power to veto legislation and to dissolve Parliament.

4. That a President should be elected whenever there is a general election by a method which insures that he will normally be the leader of the party which is successful in the General Election.

5. That there should be a Cabinet appointed by the President from among Members of Parliament to assist the President in the exercise of his executive functions.

6. That the system of Courts and the security of tenure of Judges should continue on present lines.

7. That the control of the armed forces and the civil service should be vested in the President.

Presidential Elections

The first President will be named in the Constitution, and will be elected by the people at the same time as they vote in the plebiscite.

The President's term of office will be identical with that of the National Assembly, unless he dies or resigns, when a new President will be elected by the National Assembly for the remainder of its term of office.

The President will be eligible for re-election.

The election of subsequent Presidents is the subject of a Presidential Elections Bill, to be introduced after the establishment of the Republic. Should any candidate obtain the support of half the Members of the National Assembly he is automatically declared President. Should there be no candidate with a clear majority, the election is entrusted to the National Assembly, voting by secret ballot. Failing agreement after five ballots the National Assembly is automatically dissolved and another General Election is held.

The Cabinet

The Cabinet shall consist of at least eight Ministers.

The National Assembly

The normal life of the National Assembly shall be five years, after which there shall be a General Election. Election is by universal adult suffrage.

THE GOVERNMENT

President: Dr. KWAME NKRUMAH *(from July 1st, 1960)*.

CABINET

Head of State: Dr. KWAME NKRUMAH *(from July 1st, 1960)*.
Minister of Finance: K. A. GBEDEMAH.
Minister of Economic Affairs: KOJO BOTSIO.
Minister of Health and Social Welfare: C. T. NYLANDER.
Minister of Local Government: A. E. A. OFORI-ATTA.
Minister of Foreign Affairs: AKO ADJEI.
Minister of the Interior: A. E. INKUMAH.
Minister of Transport and Communications: KROBO EDUSEI.
Minister of Education and Information, Director, Bureau of African Affairs: KOFI BAAKO.
Minister of Health: IMORU EGALA.
Minister of Works and Housing: E. K. BENSAH.
Minister of Food and Agriculture: F. Y. ASARE.
Minister or Trade: P. K. K. QUAIDOO.
Minister of State (Guinea Affairs): J. H. ALLASSANI.
Minister of State: N. A. WELBECK. *
Minister of State for Defence: C. T. NYLANDER.

REGIONAL COMMISSIONERS

L. R. ABAVANA (Northern Region).
R. O. AMUKO-ATTA (Ashanti).
F. D. K. GOKA (Volta Region).
C. DE GRAFT DICKSON (Special Duties).
J. E. HAGAN (Western Region).
H. T. KORBOR (Eastern Region).
S. W. YEBOAH (Brong-Ahafo Region).

DIPLOMATIC REPRESENTATIVES

(A) Ambassador; (H.C.) High Commissioner.

Ethiopia: M. A. RIBEIRO, Addis Ababa (A).
France: J. E. JANTUAH, Paris (A).
German Federal Republic: T. O. ASARE, Bonn (A).
Guinea: Hon. J. H. ALLASSANI, (Ghana Minister for Guinea Affairs).
India: NANA KWABENA KENA II, New Delhi, (H.C.).
Israel: BEDIAKO POKU, Tel Aviv (A).
Japan: W. BAIDOE-ANSAH, Tokyo (A).
Liberia: COBINA KESSIE, Monrovia (A).
Nigeria: V. M. C. TAY, Lagos (H.C.).
Sudan: C. S. DEY, Khartoum (A).
Tunisia: JOHNATHAN E. BOSSMAN, Tunis (A).
U.S.S.R.: JOHN BANKS ELLIOT, Moscow (A).
United Arab Republic: J. B. ERZUAH, Cairo (A).
United Kingdom: E. C. ASAFU-ADJAYE, London (H.C.).
United States: W. Q. M. HALM, Washington (A).
Yugoslavia: SIMON WELLINGTON KUMAH, Belgrade (A).
United Nations (New York): A. C. QUAYSON-SACKEY, New York.
United Nations (Geneva): H. R. AMONOO, Geneva.

Embassies are to be set up in Brazil, Poland and Cuba.

527

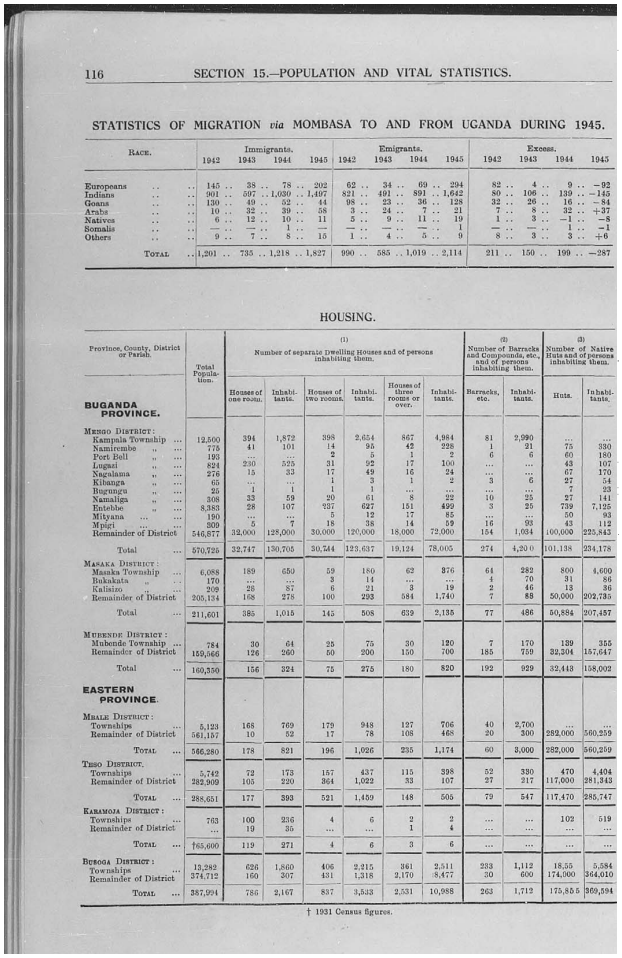
Figure F.2: Biography of Nkrumah

Nkrumah, Francis Nwia Kofie (Kwame)

President of Ghana.
Born in September 1909 at Nkroful in the Western Province of Ghana (then known as the Gold Coast), near the Ivory Coast border, a member of the Nzima tribe and the son of a goldsmith, he was educated at Catholic mission schools and then became a pupil teacher. In 1926 he went to the Government Training College in Accra (later incorporated into Achimota College), where he took a teaching diploma, and then taught at a variety of schools until in 1935 an uncle helped to pay his passage to the United States. In 1939 he graduated from Lincoln University with a major in Economics and Sociology, staying on to study Theology. Having obtained post-graduate degrees in Education and Philosophy from the University of Pennsylvania, he was appointed Lecturer in Political Science at Lincoln University and, while there, was elected President of the African Students Organization of America and Canada. Coming across the works of Marcus Garvey, he became fired with the idea of Pan-Africanism. In June 1945 he went to London to read Law and write a thesis. Becoming Vice-President of the West African Students Union, he worked closely with George Padmore and in October was one of the joint Secretaries of the 5th Pan-African Conference at

190

Figure F.3: Pages of a Blue Book for Uganda, 1945 (left) and of a Compte Définif for Benin, 1928 (right)



116 SECTION 15.—POPULATION AND VITAL STATISTICS.

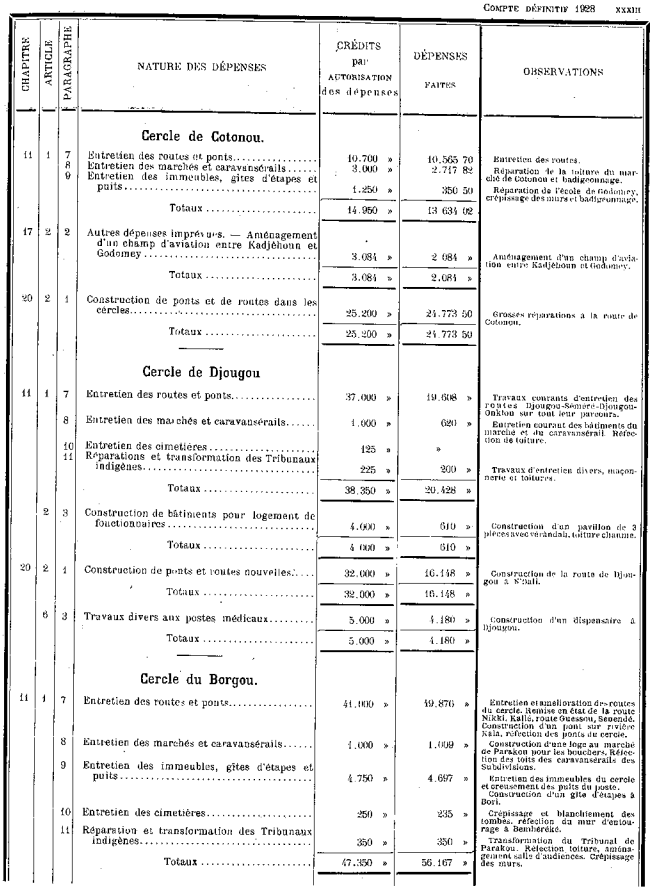
STATISTICS OF MIGRATION *via* MOMBASA TO AND FROM UGANDA DURING 1945.

Race.	Immigrants. 1942	1943	1944	1945	Emigrants. 1942	1943	1944	1945	Excess. 1942	1943	1944	1945
Europeans	145	38	78	202	52	34	69	294	82	4	9	−92
Indians	901	597	1,030	1,497	821	491	891	1,642	80	106	139	−145
Goans	130	49	52	44	98	23	36	128	32	26	16	−84
Arabs	10	32	39	58	3	24	7	21	7	8	32	+37
Natives	6	12	10	11	5	9	11	19	1	3	−1	−8
Somalis	—	—	1	—	—	—	—	1	—	—	1	−1
Others	9	7	8	15	1	4	5	9	8	3	3	+6
TOTAL ..	1,201	735	1,218	1,827	990	585	1,019	2,114	211	150	199	−287

HOUSING.

Province, County, District or Parish.	Total Population.	(1) Number of separate Dwelling Houses and of persons inhabiting them. Houses of one room.	Inhabitants.	Houses of two rooms.	Inhabitants.	Houses of three rooms or over.	Inhabitants.	(2) Number of Barracks and Compounds, etc., and of persons inhabiting them. Barracks, etc.	Inhabitants.	(3) Number of Native Huts and of persons inhabiting them. Huts.	Inhabitants.
BUGANDA PROVINCE.											
MENGO DISTRICT:											
Kampala Township ...	12,500	394	1,872	398	2,654	867	4,984	81	2,990	...	...
Namirembe ,, ...	778	41	101	14	95	43	228	1	21	75	330
Port Bell ,, ...	193	...	...	2	5	1	2	6	6	60	180
Lugazi ,, ...	824	230	525	31	92	17	100	...	...	43	107
Nagalama ,, ...	576	15	33	17	49	16	24	...	...	67	170
Kibanga ,, ...	65	...	...	1	3	1	2	3	6	27	54
Bugungu ,, ...	25	1	1	1	1	...	...	...	...	7	23
Namaliga ,, ...	308	33	59	20	61	8	22	10	25	27	141
Entebbe ,, ...	8,383	28	107	237	627	151	499	3	25	739	7,125
Mityana	190	...	...	5	12	17	85	...	...	50	93
Mpigi	309	5	7	18	38	14	59	16	93	43	112
Remainder of District	546,877	32,000	128,000	30,000	120,000	18,000	72,000	154	1,034	100,600	225,843
Total ...	570,726	32,747	130,705	30,544	123,637	19,124	78,005	274	4,200	101,138	234,178
MASAKA DISTRICT:											
Masaka Township ...	6,088	189	650	59	180	62	376	64	282	800	4,600
Bukakata ,, ...	170	...	...	3	14	...	...	4	70	31	86
Kalisizo ,, ...	209	26	87	6	21	3	19	2	46	13	36
Remainder of District	205,134	168	278	100	293	584	1,740	7	88	50,000	202,735
Total ...	211,601	385	1,015	145	508	639	2,135	77	486	50,884	207,457
MUBENDE DISTRICT:											
Mubende Township ...	784	30	64	25	75	30	120	7	170	129	355
Remainder of District	159,566	126	260	50	200	150	700	185	759	32,304	157,647
Total ...	160,350	156	324	75	275	180	820	192	929	32,443	158,002
EASTERN PROVINCE.											
MBALE DISTRICT:											
Townships ...	5,123	168	769	179	948	127	706	40	2,700	...	...
Remainder of District	561,157	10	52	17	78	108	468	20	300	282,000	560,259
Total ...	566,280	178	821	196	1,026	235	1,174	60	3,000	282,000	560,259
TESO DISTRICT.											
Townships ...	5,742	72	173	157	437	115	398	52	330	470	4,404
Remainder of District	282,909	105	220	364	1,022	33	107	27	217	117,000	281,343
Total ...	288,651	177	393	521	1,459	148	505	79	547	117,470	285,747
KARAMOJA DISTRICT:											
Townships ...	763	100	236	4	6	2	2	...	...	102	519
Remainder of District	...	19	35	...	...	1	4	...	...	...	...
Total ...	†65,000	119	271	4	6	3	6	...	...	...	...
BUSOGA DISTRICT:											
Townships ...	13,282	626	1,860	406	2,215	361	2,511	233	1,112	18,55	5,584
Remainder of District	374,712	160	307	431	1,318	2,170	8,477	30	600	174,000	364,010
Total ...	387,994	786	2,167	837	3,533	2,531	10,988	263	1,712	175,85 5	369,594

† 1931 Census figures.

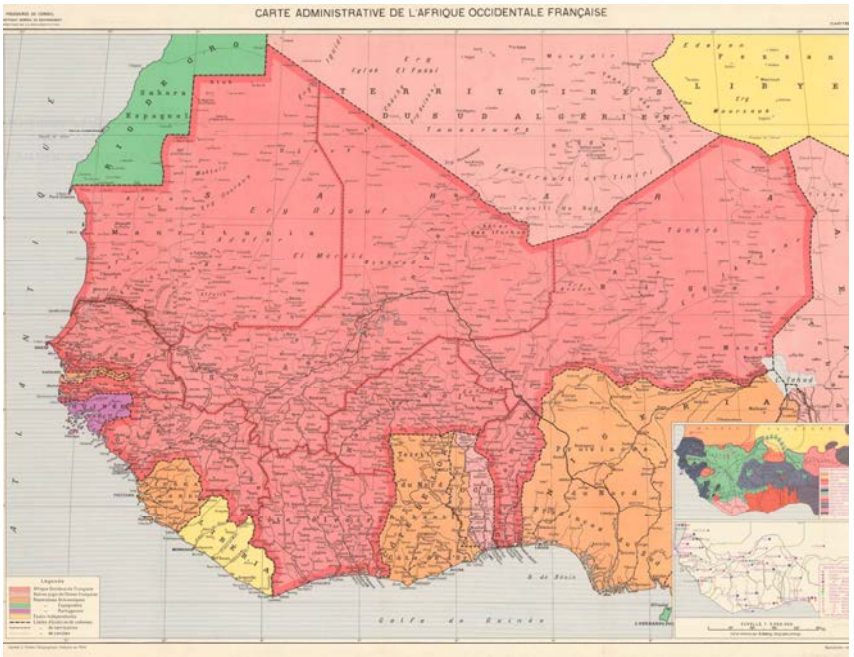


COMPTE DÉFINITIF 1928 XXXIII

CHAPITRE	ARTICLE	PARAGRAPHE	NATURE DES DÉPENSES	CRÉDITS par AUTORISATION des dépenses	DÉPENSES FAITES	OBSERVATIONS
			Cercle de Cotonou.			
11	1	7	Entretien des routes et ponts	10.700 »	10.565 70	Entretien des routes.
		8	Entretien des marchés et caravansérails	3.000 »	2.717 82	Réparation de la toiture du marché de Cotonou et badigeonnage.
		9	Entretien des immeubles, gîtes d'étapes et puits	1.250 »	350 50	Réparation de l'école de Godomey, crépissage des murs et badigeonnage.
			Totaux	14.950 »	13 634 02	
17	2	2	Autres dépenses imprévues. — Aménagement d'un champ d'aviation entre Kadjèhoun et Godomey	3.084 »	2 084 »	Aménagement d'un champ d'aviation entre Kadjèhoun et Godomey.
			Totaux	3.084 »	2.084 »	
20	2	1	Construction de ponts et de routes dans les cercles	25.200 »	24.773 50	Grosses réparations à la route de Cotonou.
			Totaux	25.200 »	24 773 50	
			Cercle de Djougou			
11	1	7	Entretien des routes et ponts	37.000 »	19.608 »	Travaux courants d'entretien des routes Djougou-Somere-Djougou-Onklou sur tout leur parcours.
		8	Entretien des marchés et caravansérails	1.000 »	620 »	Entretien courant des bâtiments du marché et du caravansérail. Réfection de toiture.
		10	Entretien des cimetières	125 »	»	
		11	Réparations et transformation des Tribunaux indigènes	225 »	200 »	Travaux d'entretien divers, maçonnerie et toitures.
			Totaux	38.350 »	20.428 »	
	2	3	Construction de bâtiments pour logement de fonctionnaires	4.000 »	510 »	Construction d'un pavillon de 3 pièces avec véranda, toiture chaume.
			Totaux	4 000 »	510 »	
20	2	1	Construction de ponts et routes nouvelles	32.000 »	16.148 »	Construction de la route de Djougou à N'Dali.
			Totaux	32.000 »	16.148 »	
	6	3	Travaux divers aux postes médicaux	5.000 »	4.180 »	Construction d'un dispensaire à Djougou.
			Totaux	5.000 »	4.180 »	
			Cercle du Borgou.			
11	1	7	Entretien des routes et ponts	41.000 »	19.876 »	Entretien et amélioration des routes du cercle, tenues en état de la route Nikki, Kalle, route Ouessen, Semendé. Construction d'un pont sur rivière Kaia, réfection des ponts du cercle.
		8	Entretien des marchés et caravansérails	1.000 »	1.009 »	Construction d'une loge au marché de Parakou pour les bouchers. Réfection des toits des caravansérails des Subdivisions.
		9	Entretien des immeubles, gîtes d'étapes et puits	4.750 »	4.697 »	Entretien des immeubles du cercle et creusement des puits du poste. Construction d'un gîte d'étapes à Bori.
		10	Entretien des cimetières	250 »	235 »	Crépissage et blanchiement des tombes, réfection du mur d'entourage à Bembéréké.
		11	Réparation et transformation des Tribunaux indigènes	350 »	350 »	Transformation du Tribunal de Parakou. Réfection toiture, aménagement salle d'audiences. Crépissage des murs.
			Totaux	47.350 »	56.167 »	

Figure F.4: Colonial map of Nigeria (1948)

Figure F.5: Colonial map of French West Africa (1954)



Notes: Map of colonial Nigeria (top). The boundaries of Sokoto in the northwest, for instance, fully remain as of 2014, albeit now split into three smaller districts.

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