



Elite Persistence in Sierra Leone: What can names tell us?

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Elite persistence in Sierra Leone: what can names tell us?¹

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Abstract. Can name analysis be used to study elite persistence in African contexts? Taking Sierra Leone as a case study, we use surnames to measure how two historical elites (descendants of settlers that comprise Sierra Leone’s Krio community and members of Chiefly Ruling Houses) have fared over the postcolonial period. We find strong and persistent overrepresentation of these groups across a range of postcolonial elites, although decolonisation is associated with a marked decline in political elite persistence. The results also show strong elite compartmentalisation: Chiefly name-holders are more overrepresented in politics and mining, and their overrepresentation falls the more educationally-selective the profession. The Krio, conversely, are increasingly overrepresented the more educationally-selective the sector, and their role in politics diminished rapidly after independence. This speaks to the enduring legacy of the colony-protectorate divide in Sierra Leone, and to different strategies of elite perpetuation, whether through educational investments or political capital. It demonstrates that name-based methods can bring new perspectives to African elite studies.

1 Introduction

Rising inequality in the latter part of the 20th century has brought questions of class and social mobility solidly back onto the academic research agenda. Sub-Saharan Africa remains on the fringes of these inequality and mobility debates due to the dearth of data with which to measure such processes of social change. As elites wield disproportionate influence over political and economic policy, their origins, longevity and competitiveness influences prospects for political

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and economic reform and development. This data gap therefore limits our ability to systematically study the political economy of elite behaviour in African countries.

Quantitative research on elite persistence and social mobility in the African context is slim as there are few administrative sources or surveys containing individual-level outcome data that can be linked across generations. A few studies have used household survey data to look at intergenerational educational and occupational mobility in select African countries, but this data is not granular enough to look at mobility into elite professions or positions (Beegle et al., 2016; Bossuroy & Cogneau, 2013; Narayan et al., 2018). Census data has also been used to study absolute, rather than relative, intergenerational educational mobility (Alesina et al., 2021). Some creative use of parish records allows mobility measures, albeit for very select places and communities (Meier zu Selhausen et al., 2018).

This data lacuna means that there is little evidence with which to determine whether African societies are comparatively mobile or sclerotic, or whether mobility into elite positions has been impacted by the economic and political shocks of the postcolonial period. Some scholars have suggested that African social mobility rates are comparatively high, based largely on self-reported mobility perceptions (Henn & Robinson, 2021). A flourishing of (mostly qualitative) elite studies from the 1960s similarly understood African societies as lacking in rigid class hierarchies, and described African elites as a first-generation of educational high achievers who remained culturally rooted in rural communities (Lloyd, 1966). They pointed to the lack of capital accumulation (in part due to the lack of private land tenure), circumscribed economic opportunities under colonial rule, high birth rates and large extended family obligations, as factors that had inhibited the intergenerational transfer of wealth and reproduction of social privilege. Furthermore, the succession of shocks after independence in many African countries – such as coups, civil war and severe economic crises – might also have buffered against wealth accumulation in the post-independence period. Relatedly, many political economy studies of Africa have pointed to the vulnerability of African elites and ethnic competition for state resources (Burgess et al., 2015; De Luca et al., 2018; Franck & Rainer, 2012; Saul, 1976). Changes in ethnic leadership (whether through coups or ballot box), supposedly shifted income earning opportunities and educational opportunities towards a new set of individuals and communities. Taken literally, this interpretation of African politics would imply a high rate of elite turnover.

However, this picture of comparatively fluid African societies sits awkwardly with the fact that inequality levels are high in much of Africa, compared to other regions at similar levels of economic development, and inequality is typically negatively correlated with social mobility (Alvaredo et al., 2018; Ravallion, 2014). Furthermore, Narayan et al. (2018) find some of the world's highest rates of intergenerational education persistence in Sub-Saharan Africa, albeit based on a small set of surveys. In the political sphere, moreover, there are clear indicators of strong family-level persistence, with a predictable set of political dynasties dominating national-level politics over many decades in countries such as Kenya or the Democratic Republic of Congo, for instance (Daloz, 2018). Furthermore, in many African countries, non-indigenous minorities, such as those of Asian origin in East Africa or Lebanese origin in West Africa, remain markedly overrepresented in commercial and professional elites, which suggests an institutional framework that enables at least some forms of wealth persistence, despite shocks and crises.

Can the use of non-traditional sources allow us to make more headway in understanding how post-colonial elites were formed and how they have persisted? This project charts new ground by exploring whether and how name analysis can be applied in African settings to study social mobility and elite persistence. Name analysis has been used to powerful effect in countries as varied as the United Kingdom, Italy, Colombia and India to study the level of overrepresentation of holders of historical elite names in contemporary elites (Clark & Cummins, 2014; Guell et al., 2015; Güell et al., 2018; Jaramillo-Echeverri et al., 2021). We draw on the methods of Clark and Cummins (2014; see also Clark, 2020), which are the least data intensive, and provide a simple and intuitive perspective on group-level persistence. This methodological subfield is still in its infancy, but review studies of the methods have found that names are valuable indicators of socioeconomic origin and measures of inter-generational persistence based on name-analysis are generally consistent with those obtained from conventional methods using linked outcomes across generations (Santavirta & Stuhler, 2020).

With an initial focus on Sierra Leone, this paper tests and demonstrates how name analysis can be applied in an African setting where naming traditions and data availability differ from the contexts where this tool has previously been used. It identifies a set of surnames associated with Chiefly families and Krio settlers, and then measures how overrepresented these names are across elite types (political, economic and education) and time, relative to their frequency

in the general population. This allows us to examine how two elites that were created or (in the case of Chiefs) empowered during the colonial era fared into the postcolonial period.

Sierra Leone has an atypical history as a site of resettlement for freed slaves in the late 18th and 19th centuries. Today, however, the descendants of these previously enslaved settlers are an upper stratum in Sierra Leone, with considerably higher socioeconomic status than the national average. Consequently, Sierra Leone presents a case where the elite is dominated by descendants of settlers that were of decidedly non-elite origin. Additionally, Sierra Leone's history also presents many features that are typical of the 'African experience', to the extent that such a generic experience exists. Its Krio settler population gave rise to dynamics similar to those in other settler colonies, such as institutional dualism and a political shift at independence from settler to indigenous political dominance. In the larger interior protectorate, moreover, the British established a system of indirect rule that governed through - and formalised the powers of precolonial rulers (which became Paramount Chiefs), while land remained communally owned.

Since independence the country has suffered a tumultuous postcolonial path that has included successive coups, a one-party state, a severe economic collapse and a devastating civil war. Sierra Leone's civil war, moreover, was not obviously ethnic in character, and has been analysed in class terms, as a conflict between 'lumpen', disenfranchised (male) youth, and rural (and to a lesser extent) urban elites (Fanthorpe, 2001). Grievances were often very local in nature, including strong tensions between those who considered themselves 'natives' to a locality (and had stronger claims to land and resources), versus 'strangers' of more recent settlement (Albrecht, 2017; Berry, 1993, with regards to West Africa in general).

Consequently, Sierra Leone combines a colonial history characterised by marked social cleavages (between the Creole and indigenous population, and between the Chiefly families and 'commoners'), with a succession of postcolonial shocks that might – hypothetically – have weakened the pre-existing social hierarchy. This makes it an interesting context in which to study elite reproduction and the mechanisms through which families perpetuate status.

Our findings show that despite Sierra Leone's turbulent postcolonial path, historical elite groups have persisted, and persisted in their colonial-era spheres. Krio and Chiefly families remain strongly overrepresented in elite professions and economic activities, and with the exception on the political sphere, the decline in overrepresentation has been slow. Using

Clark's (2020) method to compute intergenerational elasticities in implied social status, we find that they are comparable to those in other parts of the world, albeit slightly lower. Decolonisation did have a marked impact on representation in the political sphere, however, with a sharp increase in the share of non-elite names in parliament and local governments in the decade after independence.

Krio name holders remain particularly strongly overrepresented in the professions, civil service and business community, and their level of overrepresentation is higher the more educationally-selective the profession. Chiefly name holders in contrast are strongly overrepresented in politics and the mining sector, but less so in the civil service and professions. Their level of overrepresentation falls the more educationally-selective the profession. This evidence speaks not only to considerable elite persistence, but also to strong persistence in the type of career paths pursued by members of different elite communities. The legacy of the bifurcation of the colonial state into a colony and protectorate continue to shape elite dynamics and possibly acts as a break of elite integration and cohesion.

2 Methods

As naming is strongly influenced by social and cultural factors as well as family heritage, names have proved fertile ground for the study of social persistence. In a context where the researcher does not observe parent and child outcomes jointly, but does have access to repeated cross sections of data linking names with socioeconomic outcomes, name analysis can be used to estimate the intergenerational correlation of economic outcomes (Guell et al., 2015; Güell et al., 2018; Olivetti & Paserman, 2015). Instead of regressing child outcome on parent outcome, outcomes are typically averaged at the surname level, and name-averages in a given period are regressed on name averages a generation (usually 30 years) before.

However, in certain historical contexts, like Sierra Leone in the 20th century, representative data giving names and socioeconomic outcomes is also slim, and insufficiently granular to measure persistence at the surname level. We therefore build on the less data-intensive methods developed by Clark et al., by measuring whether groups of names associated with historical elites remain over-represented in contemporary elite occupations or activities (Clark, 2014, 2020; Clark & Cummins, 2014). This approach starts with the identification of a set of elite surnames in some initial period, for instance aristocratic European names (Clark and Cummins, 2014) or names associated with high castes in India (Clark et al., 2014). The second step is to

measure the share of these elite surnames in the general population at a given point in time and compare this to the share of the same surnames in some elite category, such as university graduates, members of parliament, judges or doctors. The ratio of these two shares gives the *relative representation (RR)* of name (group) z in elite category c at time t :

$$RR_{zct} = \frac{\text{Share of } z \text{ in elite population } c \text{ at time } t}{\text{Share of } z \text{ in general population at time } t}$$

Thus, a relative representation of 1 means the name group has an average level of elite representation (no obvious privilege); a value of 2 means the name group has twice the elite representation that their population share would predict. A value between 0 and 1 means the name group is underrepresented within said elite. Note that the level of relative representation is illustrative, but not directly comparable across different name groups, as it is sensitive to how name group z is constructed. Relaxing or tightening the degree of name rareness included in the group, for instance, will tend to lower or raise the relative representation. However, plotting the relative representation across time shows how rapidly the given elite group is converging to the mean, thus providing a measure of the rate of intergenerational persistence, and its inverse, social mobility. Clark (2020) proposes a method for using the evolution of relative representation over time to back out measures of intergenerational elasticity of “implied social status”, to make comparisons across space and time.

The conclusions that Clark (2014) reached based on this approach have generated some controversy. Applying these methods in several European (Britain, Sweden), Asian (China, India) and Latin American (Chile) contexts, he found markedly higher and more consistent levels of group-level persistence across time and space than those in the literature on individual-level measures of intergenerational income and wealth persistence or mobility. Clark (2014) attributed this to conceptual weaknesses in traditional measures of intergenerational persistence, and has, controversially, argued that these results imply an underlying genetic advantage passed down through elite families that explain the long-term success of certain lineages.

Critics of the method have emphasised that these name groupings will capture group- as well as family/individual-level effects (opportunities afforded because said individual belongs to the aristocracy, for instance, or opportunities afforded from belonging to distinct religious or ethnic communities), and will therefore tend to give higher measures of intergenerational

correlation than with individual-level correlation (Guell et al., 2015; Solon, 2018; Torche & Corvalan, 2018). The likely existence of group-level dynamics also shed some doubt on Clark's interpretation, as group-level effects such as discrimination, favouritism, or distinct forms of social capital, could be driving the high rates of intergenerational correlation observed in these studies. Furthermore, replications in other settings (Guell et al. 2018) have found more variation in the implied rates of social mobility than that found by Clark (2014).

Nonetheless, as a method for measuring group-level persistence, Clark's approach still holds value. For political outcomes, it is arguably the relative power and relationships between groups (social, religious, ethnic etc.), rather than individuals as such, that matters. The interaction between within- and between-group mobility is an important dimension of inequality studies (e.g. Clark, 2020 on India). Furthermore, by making the nature and origin of the name groups central to the analysis, these group level trends help to shed light on the mechanisms through which privilege is perpetuated.

Building on these methods therefore, this study identifies a set of rare Chiefly names and a set of Krio names, which indicate an association with two Sierra Leonean elite communities of different social origins. We then compute the relative representation of these two name groups over time and across several difference elite categories.⁴ We focus primarily on these measures of relative representation across time and elite type, and uses them to descriptively discuss elite dynamics in a comparatively understudied country context. This Sierra Leonean case study thereby illustrates alternative ways of using and interpreting name-based mobility measures, and demonstrates that these convergence rates can differ considerably across social spheres and across different types of elite groups within the same society. They therefore help us to think about different drivers of elite perpetuation and their consequences. Furthermore, our study also includes an unusual elite group (the Krio) that has a decidedly non-elite origin, thus shedding light on the role of institutionally constructed opportunities in creating and perpetuating economic opportunities.

⁴ Note that unlike the earlier studies by Clark et al., we are not focusing on name distinctions without a present-day institutional advantage; members of Chiefly lineages to retain some hereditary rights to this day (to stand in Paramount Chief and Section Chief elections).

Name analysis has a track-record in African studies, but has primarily been used to study ethnic difference, predominantly in the political sciences (A. J. Harris, 2015; Hassan, 2017; Posner, 2005). To our knowledge, there is no literature that uses names to study socioeconomic differentiation in Africa, or places ‘ethnic’ categories (such as the Sierra Leonean Krio) in an explicitly socioeconomic framework.

3 History of Sierra Leone

The history of Sierra Leone is strongly shaped by the Atlantic slave trade and its abolition. The first colonial settlement in Sierra Leone was founded in 1787 with the support of the British abolitionist movement, as a site of resettlement for formerly enslaved people of African descent in Britain. The first group of roughly 400 settlers fared poorly, and most died from disease or conflict in the first years of settlement. A second, larger settlement was established in 1792 under the auspices of the Sierra Leone Company, of a group of 1200 ‘black loyalists’. These men and women were formerly enslaved people who had escaped during the American Revolution and aided the British side, and had been resettled in Nova Scotia following the British defeat. The ‘Nova Scotians’ were joined in 1800 by a group of Maroons from Jamaica (slaves who had freed themselves and established free communities in the island’s mountainous interior), and a trickle of other smaller groups from the Americas.

In 1808 company rule ended and Sierra Leone was made a British crown colony and used as a naval base to prevent the slave trade. Freetown subsequently became the main port of disembarkation for people onboard slave ships intercepted by the British. These people, classified at the time as ‘Liberated Africans’, were resettled in the Freetown surroundings, and roughly 100,000 people arrived over the course of a half century. These settlers of diverse origins gradually merged to form what became known as the Creole, or Krio, population, which lived across a stretch of coastal land in and around Freetown and (in smaller numbers) further south along the coast of Sherbro island which was added to the colony in the 1860s.⁵ Some descendants of indigenous Sierra Leoneans in the Freetown vicinity also assumed Krio identity

⁵ The origins and meaning of the terms ‘Creole’ and ‘Krio’ have been extensively debated, and here we treat them as interchangeable (see Bangura, 2017 for a discussion). While some recent literature uses the term Creole, we follow (Wyse, 1989), (D. J. Harris, 2014) and others in using the term ‘Krio’ to designate the community that grew out of the descendants of settlers; this is the term commonly used in government publications (incl. the census ethnic categories) and popular discourse, and has the advantage of being specific to Sierra Leone.

(Fyfe, 1987). Most held or assumed a set of common Anglo-Saxon last names associated with the first settlers from the Americas or with British administrators and settlers, such as Cole, Davies, Johnson and Williams.

Under colonial rule the Krio community had some political voice through local administration and through a vibrant press, and some held high positions in the professions and civil service (D. J. Harris, 2014). Many of the earliest settlers were literate, and educational investments in the colony were considerable. Freetown boasts one of the first universities in Africa, Fourah Bay College, originally founded in 1827. The legal and property rights frameworks in the colony were closely modelled on British law; the Krio could hold freehold land tenure, could write wills, and held inheritance rights similar to those in the metropole.

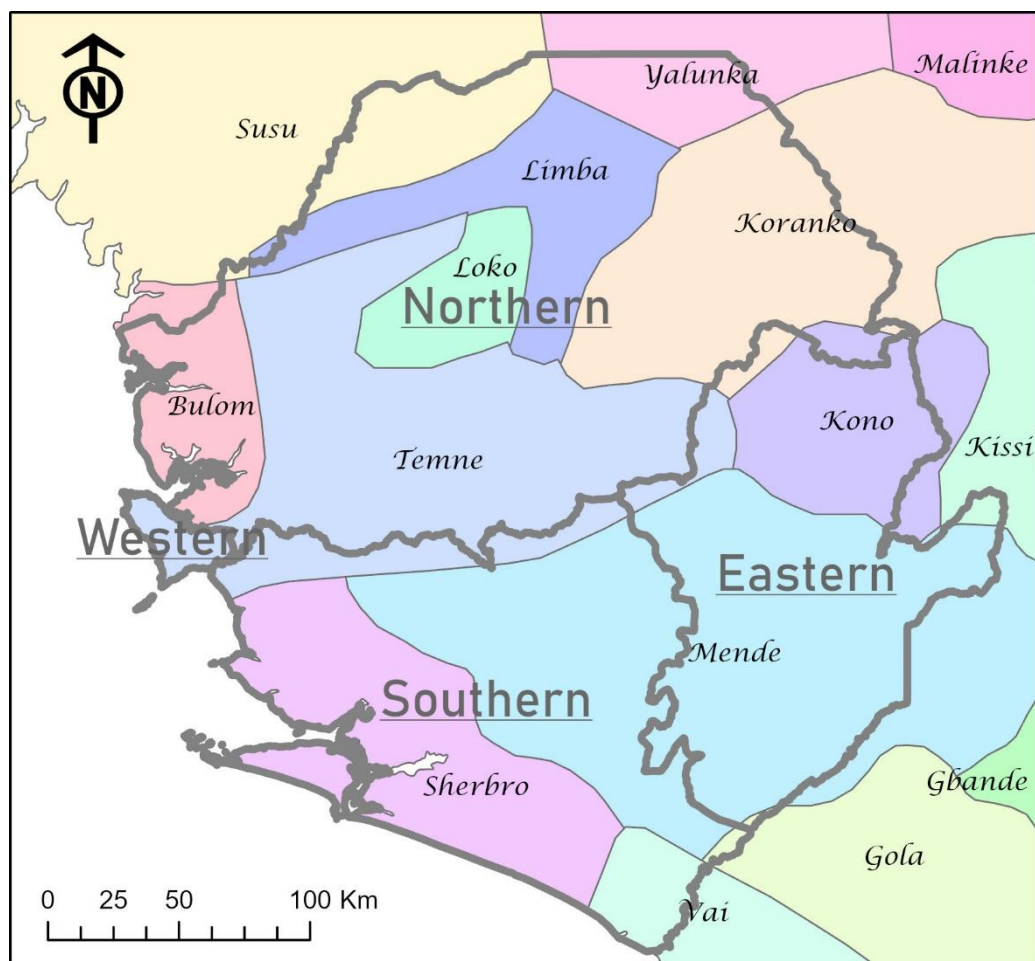
In 1896 the British annexed the Sierra Leonean hinterland, forming a protectorate governed from Freetown. The British signed treaties with local rulers that formalised their roles as Paramount Chiefs, subservient to a network of British District Commissioners. They codified a set of Ruling Houses, families who had claims to be among the original settlers of the chieftaincy, and established the enduring precedent that only members from within these chiefly families could contest the seat of Paramount Chief, an office held for life. The protectorate comprised many different ethnic groups (today Sierra Leone recognizes 16 main groups), with the two largest communities, the Temne (35%) and Mende (31%), dominating the north and south respectively — see Figure 1, where we use the “tribal map” of Murdock (1959) to give a rough impression of the geographical distribution of ethnic groups in Sierra Leone. The colonial-era district map to some degree maps onto these ethnic divisions.

While the Krio population is predominantly Christian, Sierra Leone’s ‘protectorate’ population was and remains predominantly Muslim (78%) and religion cuts across ethnic and social divisions. Islam is the biggest religion across both the northern Temne and southern Mende, and equally prevalent among Chiefly Ruling Houses as across the population at large. Polygamy was widely practiced in colonial Sierra Leone and remains legal under customary law (37% of married women were in polygamous marriages in 2008 (Statistics Sierra Leone et al., 2009)). Chiefly families continue to have higher rates of polygamy and larger numbers of children to this day.

The institutions governing the colony and protectorate remained markedly different under colonial rule. In contrast to the colony, colonial presence in the protectorate remained

exceedingly slim, with day-to-day governance in the hands of the Paramount Chiefs. Legal institutions differed across the two regions, and land rights communal in the protectorate while colonial residents held freehold land tenure. Educational and medical investments in the colony continued to dwarf the slim network of (mostly) missionary schools and clinics outside of Freetown. Within the protectorate moreover, there emerged a north-south divide, with more educational and infrastructural investment in the south, later amplified by the concentration of mining activities in the east and south.

Figure 1: Ethnic Groups and Provinces in Sierra Leone



Note: this figure displays the ethnic groups of Murdock's (1959) "tribal map" along with the boundaries of Sierra Leone's old provinces. In 2017, the Northern province was divided into two provinces (North Western and Northern).

After the annexation of the protectorate, the Krio political influence on the Sierra Leonean colony declined, and their opportunities and rights were circumscribed (Bickford-Smith, 2006; D. J. Harris, 2014). British policy was increasingly focused on the protectorate, it reified 'traditional' elites and sought to insulate them from Krio influences, and erected stronger racial hierarchies within the colony. By the early 20th century the senior ranks of the civil service and

medical services were closed to people of non-European origin (Bickford-Smith, 2006), and Krios were not allowed to hold administrative posts in the protectorate (Harris, 2014).

The late 19th century also brought a further commercial elite community to Sierra Leone, as settlers of Lebanese origin began to arrive in the 1890s, and came to assert themselves in trading networks across the region, in some spheres displacing the Krio. They became particularly important in trade with the protectorate, initially in agricultural products, and later diamonds, as well as in transport, retail trade, hospitality and finance in Freetown (Leighton, 1974). While numerically small (they currently number between 7-9,000), they have continued to retain a strong foothold in trade (including in minerals), retail and hospitality. However, the Lebanese have played little formal role in national politics and were largely barred from holding Sierra Leonean citizenship until the 2000s.⁶

Paramount Chiefs and their families came to form not just a political elite, but also an economic one. The formal and informal income opportunities stemming from chieftaincy during the colonial era was considerable, including high formal salaries, the rights to some share of local taxation, opportunities to extract labour tribute (although some particularly egregious cases of local exploitation by Chiefs were occasionally sanctioned). In 1906 the first government post-primary school was established in the protectorate, explicitly for the training of sons of chiefs, with the aim of strengthening a more efficient chieftom administration. Consequently, members of Chiefly families were also among the first people from the protectorate to reach the upper educational echelons. Many Paramount Chiefs were also personally involved in trade and cash crop production. From the 1930s and onwards, Sierra Leone became a producer of diamonds (centred in the east of the country), and in 1956 the alluvial diamond mining industry came under the prevue of Chiefs. Chiefs had the power to approve licences, control migration into the chieftom, collect surface rents, as well as engaging directly as licence holders or partners in joint ventures (Rosen, 1973).

While the formal powers of Chiefs were gradually reduced as democratic governance structures were established, their political influence was not. Sierra Leone held its first national legislative elections in 1957, and gained independence in 1961. The first ruling party, the Sierra Leone

⁶ They have also faced some restrictions on their economic activity after independence (through immigration restrictions, quotas on foreign employment, citizenship requirements for owning and leasing land, etc.).

People's Party (SLPP), had its support base in the south, and its members were strongly of Sierra Leone's rural elite. Kilson (1966) found that 59% of all candidates for protectorate seats in the 1957 election had chiefly family connections. Sierra Leone's first and second prime ministers of the Sierra Leone People's Party (SLPP) (Milton Margai and his half-brother Albert Margai) were descendants of a chiefly family line, and made active use of Chiefs to suppress political opposition (TRC, 2004). Sierra Leone is something of an outlier in this regard. While many African post-independence governments curtailed the formal powers of traditional authorities and restricted them to ceremonial roles only (for instance Ghana and Uganda), Sierra Leone's chieftancy has retained both formal and informal political powers (Acemoglu et al., 2016; Ferme, 2018; Kilson, 1966).

In the first post-independence election of 1962 the All People's Congress (APC) led by Siaka Stevens, emerged as a credible opposition party. The APC sought a grassroots support base beyond the traditional elites, and drew its support disproportionately from the economically marginalised north of the country (from which Stevens — one of the country's only early politicians of non-Chiefly heritage — heralded). The following election in 1967 was narrowly (and unexpectedly) won by the APC, leading to military coup and rule under a National Reformation Council. In 1968 a counter-coup deposed the NRC and restored civilian rule, bringing Stevens and the APC to the helm.

Although the APC drew much of its support from the non-Chiefly rural majority, with time Stevens also came to co-opt and rely on the collaboration of Paramount Chiefs in the governance of the country (Albrecht, 2017). He also meddled directly in Paramount Chief selection, particularly in the SLPP-supporting south of the country. Stevens's rule grew increasingly authoritarian and by 1973 Sierra Leone was a de-facto one-party state, following the SLPP boycott of the 1973 election. Sierra Leone's economy performed poorly in the 1970s and contracted sharply in the 1980s. Infrastructural development went into reverse with the removal of the railways serving the cash crop producing regions of the South.

Stevens retired and ceded power to Joseph Saidu Momoh in 1985. In 1991 a civil war erupted, following the invasion of the Revolutionary United Front (RUF) from Liberia into Kailahun in eastern Sierra Leone. In 1992 Momoh was deposed in a further military coup led by Valentine Strasser, who was himself deposed in 1996 by Maada Bio. A short-lasting peace agreement and the 1996 elections brought the SLPP, under Ahmad Tejan Kabbah, back to power. His

government lasted for only a year before Johnny Paul Koroma seized power and formed the Armed Forces Revolutionary Council (AFRC). The civil war continued, and international intervention by ECOMOG, and later by the UN and the British, eventually restored Kabbah's rule. Kabbah was re-elected in the first post-war election of 2002. Sierra Leone's economy was decimated in the decades of conflict, amidst rapid inflation and infrastructural destruction.

Some have interpreted Sierra Leone's civil war (1991-2002) as an uprising against the traditional (gerontocratic) rural power structures, and chiefs were targeted during the war (TRC report; see also Harris, 2014). However, attacks on chiefs also helped to turn public opinion against the rebels (Fanthorpe, 2001). Chiefs were also among the more effective organisers of fighting forces against the rebels, which increased their authority in many communities. Despite being blamed for some of the excesses that catalysed the war, postwar opinion surveys have found considerable support for the institution of chieftaincy, which retains considerable authority in rural areas (Manning, 2009). The decentralisation act of 2004 established a rival local government structure of elected district and ward councils, but some studies suggest that the chieftaincy remains the more influential local structure, and in many cases local government elected officials have strong ties to the chiefly Ruling Houses (Manning, 2009).

Sierra Leone's Krio community, meanwhile, remains strongly concentrated in Freetown and has played a comparatively small role in national politics since independence. A Krio birth rate below the national average and higher rates of emigration also means that the Krio population share has fallen from 1.9% in 1963 to 1.3% in 2015. Self-identified Krio people (in the 2004 population census) are primarily found in the Western Areas (86%), specifically the urban areas in and around Freetown. Historically, the Krio have been largely endogamous (in the 2004 census, 59% of Krio marriages were intra-Krio, and this rate rises with educational attainment), but the rate of inter-marriage has increased over time. The Krio are predominantly Christian and (by law) monogamous.

Up until independence, the African members of the civil service and university population were almost exclusively of Krio background, but their footprint has shrunk since. Nonetheless, the educational gulf between the Krio and indigenous populations is large: among Sierra Leonean adults today, 19% of Krios hold tertiary degrees, compared to only 3% of the general population (2015 Census).

4 Naming Practices in Sierra Leone

Personal naming systems differ across societies, in ways that make them more or less conducive to studying persistence of family-level traits. The literature to date has primarily made use of hereditary family names which by definition carry informational content about family origin, although some research has also made use of the informational content in given names (Olivetti & Paserman, 2015). Hereditary names, that are passed down intact from father to children, have been in use for millennia in China and parts of the Middle East and North Africa (Hanks, 2003). In Europe, family names came into use in the medieval period, often emerging in response to the demands of the state for increased recordkeeping and bureaucratic functions and spreading through conquests (Hanks, 2003; Hanks & Parkin, 2016). Alford (1987) has found a strong correlation between naming systems and social/political characteristics, concluding that naming systems that confer parenthood (such as hereditary names) are correlated with society size and complexity (Alford, 1987).

African naming practices vary considerably across time and place, and many communities do not use hereditary family names today. Historically, many societies have used names that changed throughout the life-course, with names given during initiation ceremonies, religious conversion or initiation either replacing or augmenting a birth name. Patronyms, matronyms and teknonyms (names referring to children) are common. Some use clan names to indicate lineage, which in patrilineal societies often function much like a family name, passing intact from father to children. The Zulu people, for instance, have six categories of personal names, but the clan name today serves the bureaucratic function of a surname (Lawson, 2016). In some colonial contexts hereditary names emerged in relation to the demands of colonial state (much as they did in Europe centuries earlier), while others retained or adapted naming systems building on pre-colonial precedents.

The ethnographic and historical literature on Sierra Leonean precolonial and colonial naming practices is limited. The *Ethnographic Atlas*, a compilation of ethnographic data on more than a thousand ethnic groups around the world, initially assembled by George P. Murdock, does not give information on naming practices, but it does provide information on kinship and inheritances rules. Of the eight Sierra Leonian ethnic groups present in the *Ethnographic Atlas* (we use the corrected version by Gray, 1999), all but one (the matrilineal Sherbro) derive family membership and transmit land and moveable property through the father's line (see Appendix

Table A1). Information on the rules of political succession for chiefdoms is missing for most groups, but it is patrilineal for the Mende (the most important group in the South).

Within Sierra Leone, naming traditions vary across regions and ethnic groups. Krio surname practices follow the Anglo-Saxon tradition, with surnames passed down from father to children, and women usually adopt their husband's name upon marriage. The Nova Scotian and Maroon settlers arrived in Sierra Leone with a set of Anglo-Saxon names that have largely been retained with the original spellings (the names of settlers noted in the 1802 census map onto names in circulation today). However, in later periods, it was not uncommon to adopt double-barrelled surnames to indicate descent from both the paternal and maternal lines, giving rise to a number of distinctly named elite dynasties. The liberated Africans in contrast, adopted European names on or after arrival. Many adopted the names of employers, foster families, or administrators. Some of the most common Krio surnames are names of known European settlers (Cole, Coker).

The Temne and other northern groups typically use clan names (passed down through the paternal line) which have come to function as surnames; there were thought to be roughly 25-30 Temne clans and clan names in the 1950s (McCulloch, 1950). Early colonial documents from the late 19th century often referred to people by the same clan names in circulation today. Consequently, there is little name variation in the north, which means that names do not carry strong markers of social status. Northern names are predominantly Muslim names derived from Arabic, with some name variations that are specific to the region. Southern and eastern surnames are more varied in their origins. McCulloch (1950) recorded that the Sherbro, for instance, a matrilineal society, passed names from father to daughter and mother to sons, although these practices were already changing in favour of patronyms by the 1940s. Migeod (1917) claimed that the Mende were typically given a single name at birth (typically by the mother), and a further name at initiation, but that contact with Europeans was giving rise to a practice of adopting a surname of choice, sometimes derived from a European name, a place of travel, or nickname (Migeod, 1917). Clan names also circulate amongst indigenes of the south. Surviving Chiefly names also suggests that the given names of notable rulers (or others) could be adopted as hereditary family names by the next of kin (see examples in Reed & Robinson, 2013). A few European traders and travellers married into Chiefly lines, and their surnames have left a footprint across regions of the south and east (Caulker, Tucker, French etc.). Consequently, surname variation is far greater in the south and east than in the north.

The use of hereditary family names transmitted through the father's line gradually became widespread over the course of the colonial period, at least within the elite. To show this, we use a collection of Sierra Leonian birth records digitized by FamilySearch, giving the name of the parents alongside the name of the child whose birth is registered.⁷ The collection contains about 600,000 records dating 1802-2016, although the bulk of records are from the late colonial and post-independence period. As the terms of use of FamilySearch prevent the scraping of the entire collection, we focus on three smaller samples of birth records: 1/ the birth records of individual with a rare chiefly surname (see below for the source of these names), 2/ the birth records of individuals named "Kanneh" and "Massaquoi", two surnames common in the South and East of Sierra Leone, 3/ the birth records of individuals named "Mohammed Kamara" (the most common first name/surname combination in Sierra Leone).

In the rare chiefly name sample, 96.3% of individuals bear the same surname as their father (Table 1). The percentage is slightly lower (94.2%) for births before 1975 (the median birth year in the rare chiefly name sample), and slightly higher (98.5%) after 1975. This might be an indication that the use of hereditary family names became more widespread over time, but it could also be explained by more transcription errors in older birth records. We also find a high percentage (98%) of father name transmission in the subsample of delayed birth records, where the certificate is obtained after the time of birth (often in adulthood), which suggests that there is negligible name switching in adulthood.⁸ Interestingly, the pattern is the same if we focus on names corresponding to Sherbro chiefdoms, even though the Sherbro are matrilineal. We find very similar results on the sample of birth records with non-elite names: father surname transmission occurs in 96.4% of the Kanneh and Massaquoi birth records, and in 98.9% of the Mohammed Kamara birth records.

⁷https://www.familysearch.org/en/wiki/Sierra_Leone,_Civil_Births_and_Deaths_-_FamilySearch_Historical_Records

⁸ Delayed' birth certificates are classified as those obtained more than 1 year after birth, and incur a small penalty fee. To obtain such a certificate, "the applicant must provide an affidavit from a justice of the peace or a commissioner of oaths; a letter justifying the reasons to request one of these birth certificates; and go through an interview process to substantiate the application" (Immigration and Refugee Board of Canada, 2015, <https://www.refworld.org/category,,IRBC,QUERYRESPONSE,SLE,56af14734,0.html>)

Table 1: Name transmission in different samples of Sierra Leonian birth records

	Same surname as father	Same surname as mother, but not father	Surname different from mother's and father's	Observations
Rare chiefly names				
all births	96.3%	0.7%	3.0%	8,677
births before 1975	94.2%	0.9%	5.0%	4,333
births after 1975	98.5%	0.5%	1.0%	4,344
delayed birth records	98.0%	0.7%	1.3%	2,462
Sherbro chiefly name	97.2%	0.8%	2.0%	1,597
Father had Paramount Chief title	100.0%	0.0%	0.0%	60
Kanneh and Massaquoi				
all births	96.4%	1.2%	2.4%	1,618
births before 1975	93.2%	2.0%	4.8%	692
births after 1975	98.7%	0.5%	0.8%	926
delayed birth records	98.7%	0.8%	0.6%	524
Mohammed Kamara				
all births	98.9%	0.4%	0.7%	1,896
births before 1975	98.3%	0.5%	1.2%	574
births after 1975	99.2%	0.3%	0.5%	1,322
delayed birth records	99.1%	0.4%	0.5%	760

Notes: this table displays descriptive statistics for subsamples of birth records contained in the FamilySearch collection “Sierra Leone, Civil Births and Deaths”. Birth records give the name of the child, father and mother, without explicitly distinguishing between first names and surnames. We take the surname to be the last in the string of names. To account for transcription errors and the presence of several surnames, we consider that a father and his child have the same surname if the last name of the father and the last name of the child have a Levenshtein distance of 2 or lower, or if the last name of the son appears in the name of the father (whatever the position). If we use a stricter criterium (fathers and children must have exactly the same last name), we still find very high father name transmission rates (94% for rare chiefly names, 93.8% for Kanneh and Massaquoi, 98% for Mohammed Kamara).

Clearly a large share of births in Sierra Leone are unrecorded, and that share was larger in the colonial period, thus the sample of birth records involves some social selection. The evidence we have presented shows that in an elite population sufficiently integrated into the state to request a birth record or give birth in a health facility, hereditary family names have been widespread since at least the late colonial period. Since we study social mobility through the lens of elite persistence, it is enough for us to show that the Sierra Leonian elites have used hereditary family names in the period we consider in our study (1957-2020). It is hard to say when exactly during the colonial period the practice became widespread because the FamilySearch collection contains a very limited number of birth records before the 1940s (see Appendix Figure B1).

The fact that some Sierra Leonians adopted hereditary family names on their birth records does not imply that they stopped using traditional naming practices. However, for the sake of our analysis, it is enough that they used hereditary family names in their relationship with the administration, since all the sources we use are official sources of an administrative nature.

5 Sources of Data

5.1 *Distinctive Surnames*

This paper exploits the fact that in southern and eastern Sierra Leone there are a large number of surnames that are reasonably distinct to Chiefly Ruling Houses. These Ruling Houses are lineages that are eligible to stand in Chiefly elections, on account of family links to a recognized ruler in the late 19th or early 20th century. The Ruling House names are taken from Reed and Robinson (2013), a companion paper to a political economy study on Sierra Leone's chieftaincy (Acemoglu et al., 2014), which provides a brief history of each chiefdom in Sierra Leone and identifies all Ruling Houses in each chiefdom, based on extensive oral testimony and archival research. In total there are 583 Ruling Houses, a little less than 4 per chiefdom. As northern Sierra Leoneans predominantly use clan names as surnames, giving rise to very large name groups, we restrict our list to names from chiefdoms in the South and East of the country. We also filter out common names, defined as names with a frequency higher than 1/1000 in the Electoral Register of Sierra Leone. We show in Section 6.2 the robustness of our results to varying the rare name threshold. To avoid potential overlap with the Krio name category, we exclude Chiefly names of Anglo-Saxon origin. Europeans married into some chiefly lineages in the 19th century (giving name to Ruling Houses such as those of the Caulkers, Tuckers, French and Coombers⁹). With the exclusion criteria, our final list includes 267 Ruling House names.

To show that Ruling House names mark the belonging to a local political elite with a certain proximity to the institutions of chieftaincy, we use lists of all chiefdom councillors (previously called tribal authorities), digitized for two cross-sections, in 1961 and circa 2002. Chiefdom councillors are the electors of Paramount Chiefs and are drawn from across the taxpaying

⁹ 11 Ruling Houses have a name of European origin and three Ruling Houses have a rare European name (appearing less than 1,000 times in the FamilySearch birth registers): Coomber, French, and Walters.

population in a chiefdom. The councillor lists are updated frequently, and the names published in the Sierra Leone Gazette. Chiefdom councillors today represent roughly 5% of all taxpayers in a chiefdom, or in the order of 2% of the population or 10% of all households. We hypothesise that Ruling House names should be concentrated in the Chiefdom associated with the given Ruling House. Appendix C show that this is the case: 65% of rare chiefly names in the South and East have the highest number of occurrences in the chiefdom associated with the Ruling House, and for 78% of names, we can reject the null hypothesis of random geographic distribution. We show as a robustness in Section 6.2 that the conclusions of the paper are very similar when we exclude from the list of names the names for which we cannot reject the null hypothesis of random geographic distribution. We also use the 1961 and 2000s councilor lists to identify possible name spelling variations, and add common name variations to the final list (for instance, we assume that the Chiefly name Gegbai could also be spelled as Ngegbai).

As a further robustness check, we examine the prevalence of our rare Chiefly names (~2% of name holders across the general population) amongst the Paramount Chiefs elected to parliament in each election, and two cross-sections of all Paramount Chiefs in Sierra Leone (1959 and 2013). Among Paramount Chiefs in Parliament in south-eastern seats, 86% held one of the chiefly names in our list, 67% held a rare non-European chiefly name. 77% of all south-eastern Paramount Chiefs in Sierra Leone held one of the chiefly names in our list in 1957, 86% in 2013. 61% held a rare non-European chiefly name in 1957, and 72% in 2013. In other words, these names do correctly identify Chiefs themselves.

Krio names are assumed to be names of Anglo-Saxon origin, such as Smith, Cole, Williams and Johnson. We use birth records and Fourah Bay graduation records to identify a set of commonly occurring Anglo-Saxon names. We exclude names that can be confused with common Sierra Leonean first names (e.g. James, Anthony). Note that Anglo-Saxon names are also held by some indigenous families. Sierra Leone has a tradition of wardships, whereby rural families would send children to live with wealthier urban families, where they often performed some domestic duties, and were in some cases provided with educational and occupational opportunities facilitated by their host families. Nonetheless, the frequencies and geographic spread of these names given by birth records suggest that the majority of the Anglo-Saxon name holders are likely to be of Krio decent. As a robustness check, in Section 6.2, we also

employ a more restricted list of Krio names taken from the 1802 census, which lists the Nova Scotian and Maroon settlers (by group).¹⁰

As a comparison group, we identify a set of the most common names in Sierra Leone using the Electoral Register, and a set of common names distinctive to the South and East of Sierra Leone.¹¹ These serve as a control groups, which we assume to be representative of the non-elite population of the former protectorate. The second group contains the 20 most common names that are at least twice as frequently occurring in the South and East as in the North and West (see Section 6.2). This allows us to separate out Chiefly elite persistence from possible regional elite biases.

5.2 *Name representation*

To measure name frequencies and shares for these sets of names across the general Sierra Leonean population, we relied on the Electoral Register of Sierra Leone.¹² We randomly sampled 10,000 voter ID numbers and computed name frequencies only for the names of interest to us.¹³ This showed that the rare non-European chiefly names represent 2.4% of Sierra-Leonean voters, Krio names 1.5%, common names 56.3%, and distinctly South-Eastern common names 6.4%.¹⁴

This source gives us the name distribution in Sierra Leone today, but not in the past. We therefore make temporal adjustments, by applying a 7% decadal decline in the Krio name share (based on the population fall from 1.9% in 1963 to 1.4% in 2004). Using the National Public Services Survey (2005-2011) we estimate that Ruling House families have 13% more children than other rural families, and use this to estimate a differential rate of growth in chiefly versus non-chiefly names (resulting in an estimated 2.5% decadal growth in chiefly name share). More details are given in Appendix D.

¹⁰ Archival records, TNA, WO1/352

¹¹ We start with 20 names and remove one name, Musa, as it is commonly used as a first (given) name.

¹² <https://voterdetails.ec.gov.sl/>

¹³ Because some voter ID numbers are not assigned to anyone, the name frequencies were computed on a sample of 6,709 voters. The Electoral Register was accessed in January 2023.

¹⁴ It is unlikely that working with a larger sample would modify the conclusions of the paper. Using a different random sample of 10,000 voter ID numbers (6,788 voters), we find very similar share of rare non-European chiefly names (2.3%), Krio names (1.6%), common names (57%), and distinctly South-Eastern common names (6.5%).

Samples of name-holders in elite professions and economic activities are collected primarily from the Sierra Leone Gazette. This weekly official bulletin announces information to the public, and includes a broad array of name lists, including election results, appointments to the civil service, license applicants, boards etc. These lists are photographed from hardcopy issues of the Gazette, digitized using optical character recognition software, and names counted using a python script. We supplement the Gazette with a few other publicly available sources. We group these elite lists into three broad categories: political elites, educational and professional elites, and commercial elites, see Table 2.

Table 2: Elite types analysed

Category	Type	Elite size by year* (mean and range)	Source
Political	Members of Parliament	86 (38-132)	Gazette, National Electoral Commission
	Members of Cabinet	26 (12-48)	François et al. (2015)
	Local government councillors	322 (193-489)	Gazette
	Chiefdom Councillors	~44,000	Gazette
Educational and professional	University graduates	1360 (1048-1672)	Fourah Bay Gazette
	Law school graduates	285 (125-477)	Law school website
	Public sector employees (civil service)	1100 (177-3037)	Gazette
	Doctors	150 (91-210)	Gazette
	Pharmacists	~1500	Gazette
Commercial	Holders of liquor licences	1549 (968-2304)	Gazette
	Pharmacy proprietors	1453	Gazette
	Holders of diamond dealer licences	259 (142-332)	Gazette
	Holders of diamond mining licences	3478 (1646-6579)	NMA online repository

Note: *Refers to the elite size by point of observation (can be a given year or average for a decade).

6 Results

6.1 Main Results

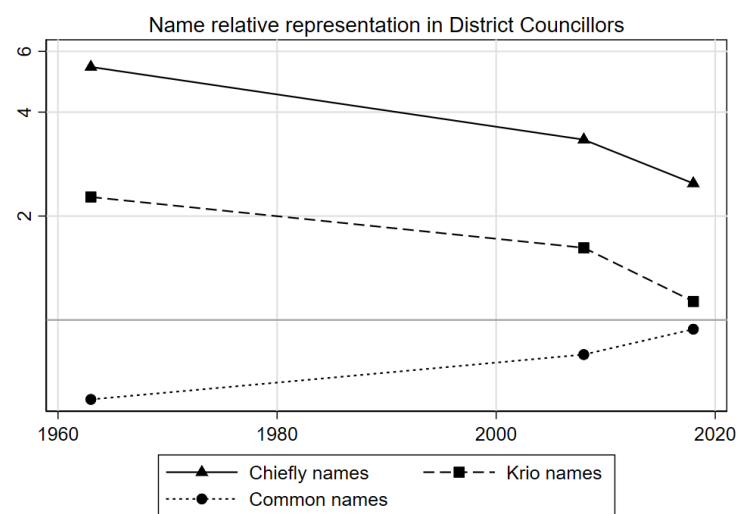
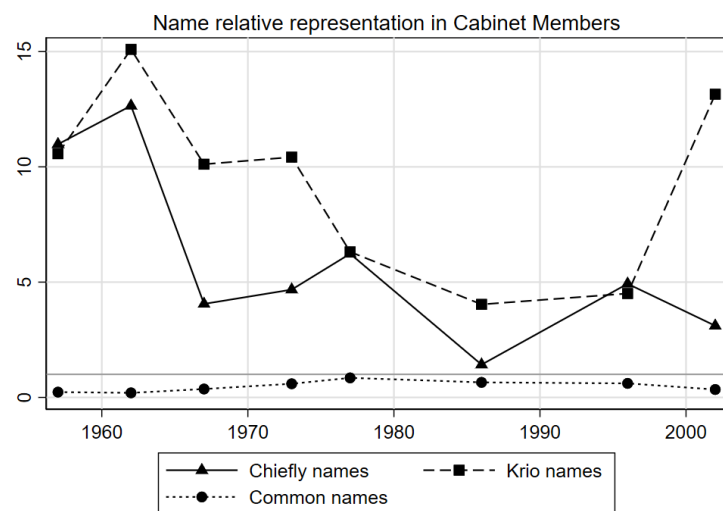
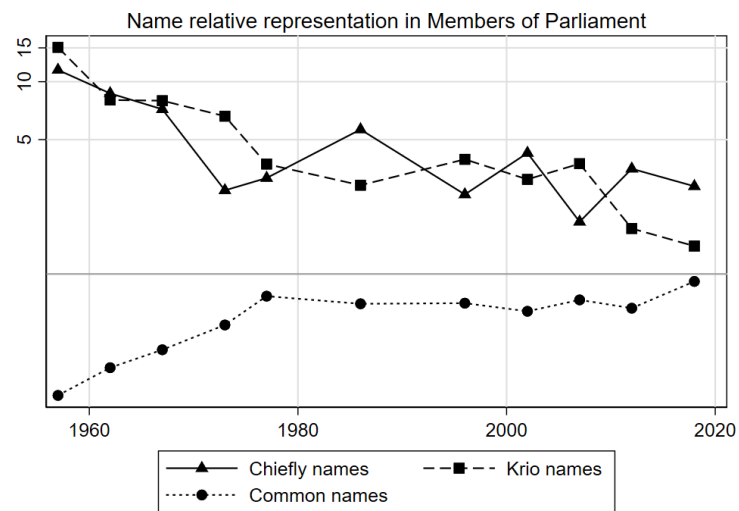
Our results point both to considerable elite persistence, and marked persistence in the types of opportunities and elite careers pursued by our two elite groups. The colonial division between colony and protectorate, and the differences in routes to advancement across these two spheres, have left lasting legacies. We start with the results for the political sphere. Figure 2 show the relative representation among ordinary Members of Parliament,¹⁵ cabinet members and district councillors, for three name groups: The Chiefly Ruling Houses, Krio names, and our set of common names.

Among Members of Parliament, the Chiefly and Krio name groups started with high ratios of relative representation of 11.5 and 15 respectively in the first 1957 legislative council (prior to independence). This means that the share of Krio and Chiefly names in Parliament was more than 10 times higher than their share in the general population.

By the next election in 1962, the Krio relative representation then halved to 8.0, on account both of a decline in the share of parliamentary seats held by constituencies in the Western Areas, and a decline in Krio dominance of these seats. The Krio overrepresentation continued to fall in the 1970s and again in 2000s, and approached 1 in the last 2018 parliamentary elections. Among cabinet members, we observe a similar pattern of decline in Krio overrepresentation, although the more educationally-selective cabinet has retained a higher level of Krio overrepresentation than the Parliament — however, the small sample size here makes the time trend less reliable. We see a similar downward trend in the Krio relative representation among district councillors. District councils were disbanded in 1972 and re-established in 2004, so here we compare election results from 1963 with those in the early 21st century. In 1963, the Krio share among district councillors was only twice the Krio share in the population (partly because the city councils, including Freetown, did not fall under a district council). In 2018, Krio representation among district councillors was almost proportional to the population share.

¹⁵ Excluding those seats reserved for Paramount Chiefs.

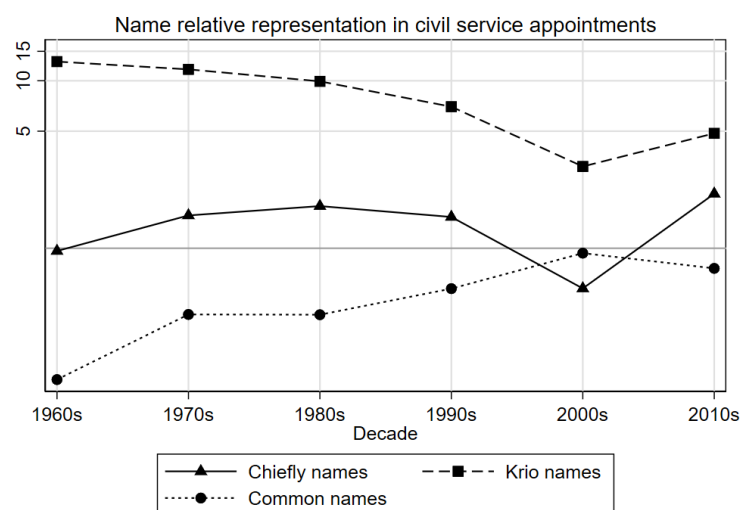
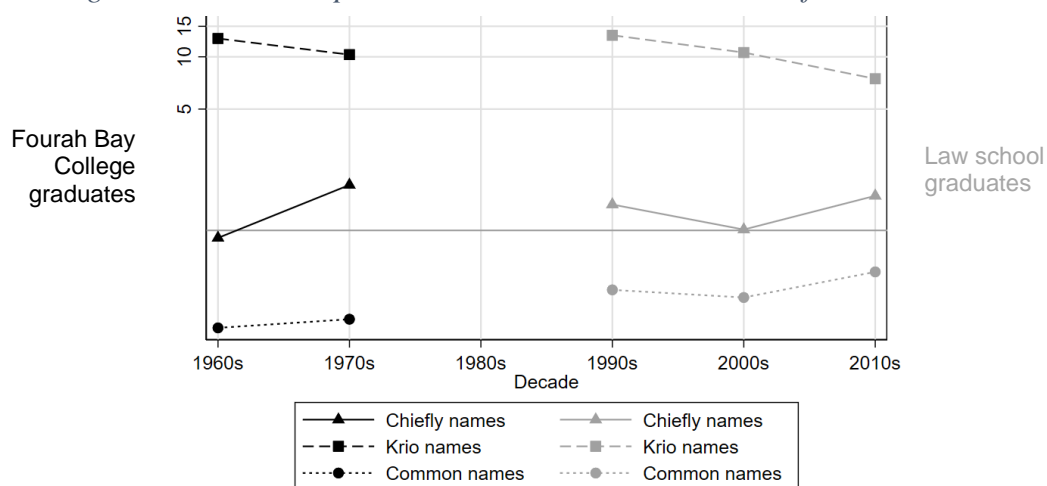
Figure 2: Relative Representation in Political Elites



The Chiefly overrepresentation in parliament also fell considerably in the 1960s, likely reflecting the emergence of an opposition party (APC) drawing support beyond the traditional rural elite. The relative representation dipped in the 1973 election, which was boycotted by the SLPP. The 1970s also saw some decline in the southern share of parliamentary seats. Since the 1970s however, the Chiefly overrepresentation has stayed relatively steady at around 3, with no obvious downward trend following the civil war. The trends among cabinet members and district councillors are similar, with a marked decline particularly in the decade after independence yet a sizable continued Chiefly overrepresentation until the present.

Conversely, the common names start with a marked underrepresentation across all the political samples, but convergence towards one over time. This convergence is fastest and relative

Figure 3: Relative Representation in Educational and Professional elites



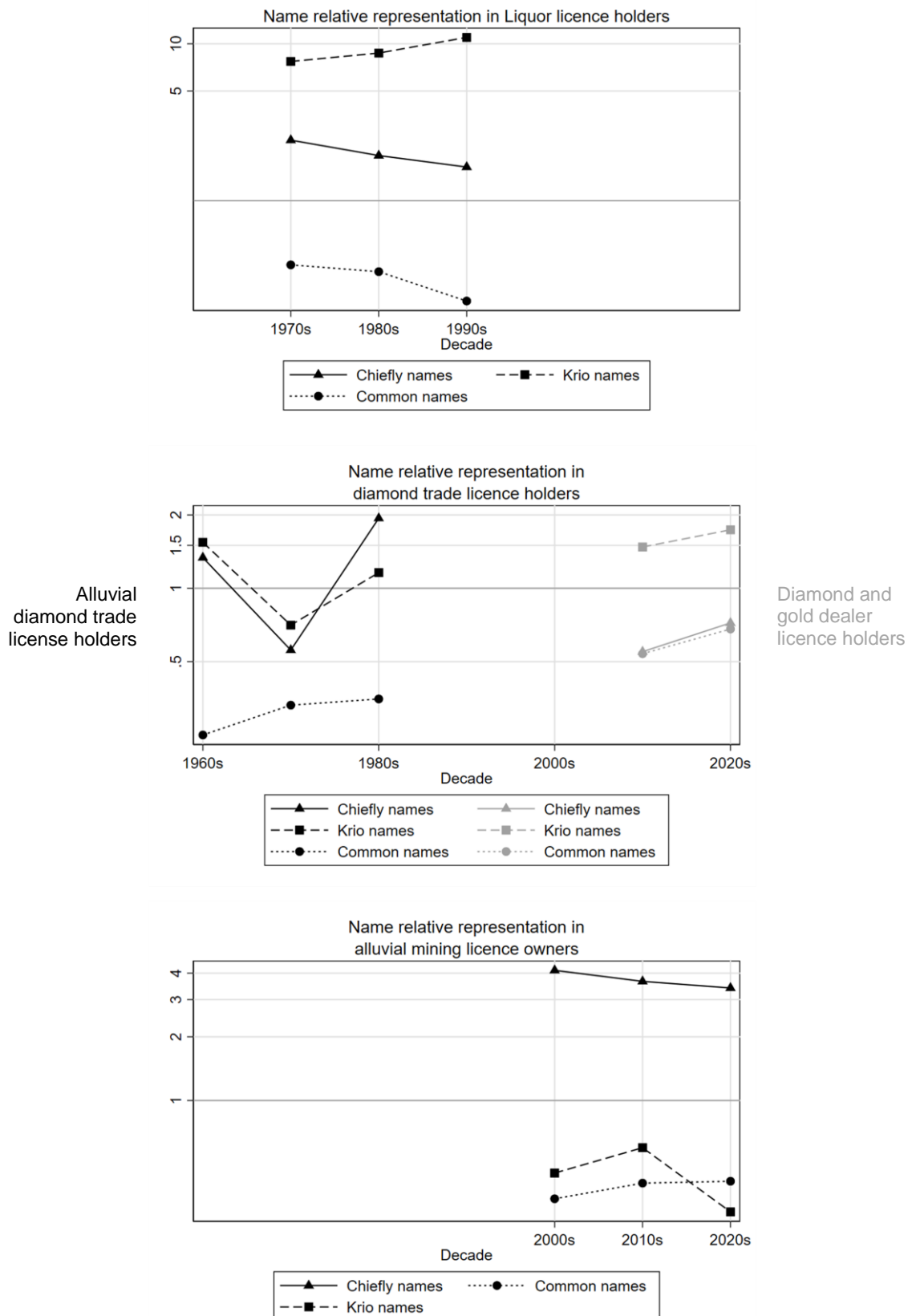
representation rates higher in the least elite of our samples (the district councillors), and less marked among the educationally more selective cabinet members.

In the educational sphere the patterns are different (Figure 3, top panel). Among Fourah Bay graduates in the 1960s and 1970s, the Krio overrepresentation was large in the 1960s, at 12.8, and declined modestly to 10.3 in the 1970s. Chiefly Ruling House names, however, did not show strong signs of overrepresentation, with a relative representation ratio of 0.9 in the 1960s and 1.8 in the 1970s. Common names were markedly underrepresented with ratios below 0.4. For the post-1970s we lack graduation lists from Fourah Bay College, and instead measure relative representation among law school students that have passed the bar exam, a more selective group than all university graduates. Among this group, the Krio overrepresentation was still high in the 1990s (13.3) and fell to 7.5 in the 2010s as the number of graduates expanded. As among the Fourah Bay, Chiefly names were not strongly overrepresented among the law graduates, with a ratio that never exceeded 1.6. At the same time, common names holder appear to be catching up and converging toward a relative representation ratio of 1.

We observe similar patterns of relative representation in the civil service, a sector which selects heavily on education. In the bottom panel of Figure 3, we consider civil service appointments (hires and promotions). The Krio relative representation fell from 13.0 in the 1960s to 7.0 in the 1990s as the civil service increasingly opened up to the non-Krio. The continued high levels of relative representation probably reflect the continued Krio educational advantage, but also the disproportionate number of civil service jobs in Freetown, the Krio heartland. In the 21st century, the Krio relative representation fell to around 4, likely reflecting the changing composition of the public service towards a much higher share of new employment in the healthcare sector, which is more geographically dispersed and less Krio dominated.

The Chiefly overrepresentation in the civil service is comparatively low (around 1.5), but relatively stable. It rose modestly between the 1960s until the 1980s, when the civil service went from being almost exclusively Krio, to including some representation from the former protectorate, but remained at between 1 and 2 through to the present. The common name-holders similarly converged towards one over time.

Figure 4: Relative Representation in Economic Elites

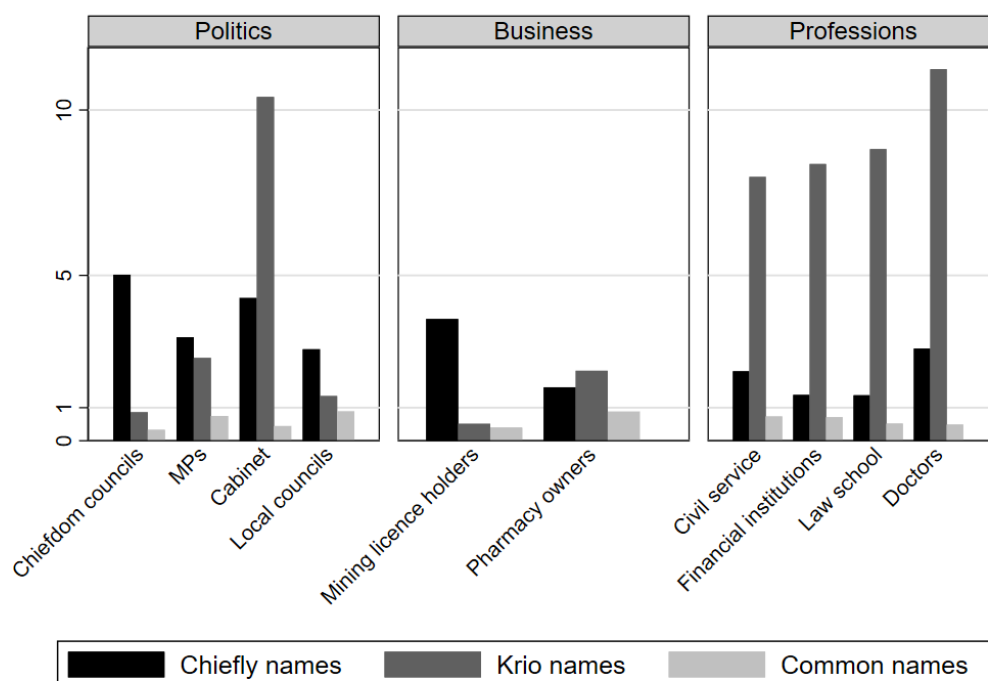


For our economic elites the sources are more scattered, and it is harder to display continuous series from independence to today. From the Gazette we gathered lists of liquor license holders in the 1970s, 1980s, and 1990s. In this lower-level business elite, there is strong Krio overrepresentation (between 8 and 11) and moderate chiefly overrepresentation (around 2), in line with the overrepresentation in the civil service. The strong Krio overrepresentation is at least partly explained by the disproportionate location of bars and restaurants in the vicinity of Freetown, and the lower share of Muslims among the Krio. These relative representation measures are relatively stable over time.

Among diamond (and gold) traders, there is limited signs of either a Chiefly or Krio overrepresentation, although the early samples are small and noisy (only a few dozen per year), and dominated by names of Lebanese origin.¹⁶ There is possibly a small Krio advantage in the 2000s. For the more recent period, we also identify alluvial diamond mining licence holders using the 2022 mining cadastre, containing all active mining licenses, by name of the license holder and the date of issue. In this much larger sample of more than 10,000 names, we find that Chiefly names are strongly overrepresented, with a relative representation ratio between 3.5 and 4.1 depending on the licence issuance period, while Krio names (and common names) are underrepresented. Given the considerable formal and informal powers granted to Chiefs over the alluvial diamond sector, this is not surprising. In fact, many of the licence holders are Paramount Chiefs themselves, identifiable in the registry by their P.C. title. It is perhaps surprising, however, that this Chiefly advantage in mining does not also carry over into the profitable trading sector, but may reflect the importance of international networks to the role of the traders.

¹⁶ This chart combines lists of diamond trading licence applicants from the gazettes, with gold and diamond trade licence holders in the 2022 mining cadastre.

Figure 5: Relative Representation in Various Elite Categories after 2000



In Figure 5, we compare the relative representation for the Chiefly and Krio name holders across all different elite categories, for the present period (simple averages for samples since 2000). This also allows us to include some elite categories for which time series data is not available, such as licenced doctors, employees of finance institutions and the chieftom councillors. This shows a clear inverse relationship between the Chiefly and Krio relative representations, with rising Krio overrepresentation, and falling Chiefly overrepresentation, the more educationally-selective the position. This also extends to cabinet, where the Krio overrepresentation is more marked than among Members of Parliament generally, very likely reflecting a stronger selection on educational criteria for ministerial posts. It is notable that Chiefly name holders have a higher relative representation in the mining sector today than in any of the other elite category, with the exception of cabinet members and chieftom councillors.

6.2 Social or Geographical Overrepresentation?

Could these patterns of over-representation reflect geographic rather than social factors? The Krios are geographically concentrated in the capital, Freetown, and we cannot easily disentangle purely geographical overrepresentation (Sierra Leoneans from Freetown are

overrepresented) and social representation (Krios specifically are overrepresented), although the very high rates of relative representation in the human-capital intensive occupations suggest that geographic factors alone are unlikely to explain this pattern (see first Panel of Appendix Figure B.2). Our sample of Chiefly name-holders in contrast, are drawn disproportionately from the south and east of Sierra Leone. Could some of the overrepresentation we observe be a feature of southern and eastern socioeconomic advantage rather than a Chiefly effect?

We examine this by turning to a second control group, which measures the relative representation of common names distinctive to the south and east of the country (see final Panel of Appendix Figure B.2). Appendix Figure B.3 displays the representation ratio of chiefly names along with the representation ratios of distinctly south-eastern names and country-wide common names for Members of Parliament, educational elites, civil service appointments, and diamond elites. Among MPs, educational elites, and the civil service, the relative representation ratios of south-eastern and common names are very similar, except maybe at the beginning of our period when the south-easterners sometimes have a small advantage (though their relative representation remains below one). This might be because of higher human capital in the southern and eastern regions, owing to higher missionary and government investments during the colonial period. Among trade licence holders (in the early decades of independence), the relative representation ratios of south-eastern and common names are similar. However, among mining licence holders, south-eastern names are better represented than common names, with relative representation ratios slightly above one, presumably because alluvial diamond resources are located in the east and south of Sierra Leone. However, the rates for these common south-eastern names remain well below those for chiefly names. Overall, the overrepresentation of chiefly names in different elite categories is not explained by the overrepresentation of the southern and eastern regions.

6.3 *Sensitivity analysis*

How sensitive are these results to the precise definition of our elite groups? To limit the number of figures, we focus on our two longest elite series: Members of Parliament, and civil service appointments. We start by investigating the sensitivity of our results to the rare-name threshold frequency used to exclude common chiefly names, that are likely also held by individuals who have very little connection to chiefly families. In our main results, we filter out names whose frequency in the Electoral Register is higher than 1/1000. In Appendix Figure B.4, we show

how relative representation in Parliament varies when we change this rare-name threshold frequency. If we retain all common Chiefly names, the patterns are similar to the patterns for common names, with relative representation ratios below one for most periods. This is not surprising, as the Chiefly name list includes common names like Kamara (held by 13% of the population). When we double the threshold frequency to 1/2000 (more common names) or halve it to 1/500, not only is the historical evolution similar, but the levels of relative representation are also comparable — though, as expected, they are slightly lower for more common names and slightly higher for rarer names. This reassures us that our results are not driven by the choice of the 1/1000 frequency threshold for defining rare names.

In Appendix Figure B.5, we investigate the sensitivity of our results to additional restrictions on the Chiefly name lists: (1) excluding Ruling House names if in the chieftom councillor lists they are not concentrated in the chieftom where the members of the Ruling House can contest the title of Paramount Chief (we exclude names for which we cannot reject the null hypothesis of random geographical distribution, see Appendix C), (2) excluding Ruling House names that never appear in the chieftom councillor lists. Results barely change when we exclude these names.

Finally, in Appendix Figure B.6, we investigate the sensitivity of Krio name relative representation to using more restrictive lists of Krio names taken from the 1802 census, which gave the names of all the Nova Scotian and Maroon settlers still present in the colony. While later settlers could well have adopted names from this list, this more restrictive name list will be more strongly associated with the first settler communities than Krio names at large. In Parliament as in the civil service, the overall pattern of Krio overrepresentation does not change when using these more distinctive Krio names, although the Nova Scotian names are somewhat more overrepresented in Parliament than Krio names at large.

6.4 *International comparisons*

How do our relative representation trends for Chiefly and Krio names compare to those in other regions of the world? What matters to study elite persistence is not so much the level of overrepresentation at any given point in time, but the rate of decline of overrepresentation over time. In a very immobile society with very closed elites, overrepresentation of a certain elite group would barely decline over time, while in a mobile society where elites positions are opened, overrepresentation would tend to decline rapidly. The change over time in the relative

representation of historical elite names has been studied in a variety of countries (Clark and Cummins, 2014; Clark, 2014; Clark, 2020), making it possible for us to compare our results to those from other regions of the world. We used Clark's (2020) method to infer an implied elasticity of social status from the change in elite name overrepresentation over a generation (30 years), see detailed discussion in Appendix E. For each 30-year generation, we derive the implied mean status, in standard deviations above the mean, of an elite group from its overrepresentation in the elite (political or educational). The intergenerational elasticity in social status is then given by the implied mean status in the old generation divided by the implied mean status in the young generation. This method relies on strong assumptions, notably on the distribution of social status in various groups, but it allows us to directly compare our results with previous results in the literature. Specifically, we estimate the elasticity in implied social status between the generations in elite positions in 1960-1989 and 1990-2019, using our series of Members of Parliaments and of Civil Service appointments, and directly compare it to the results of Clark (2020) for the generations 1950-70 and 1980-2009 in the United Kingdom, using overrepresentation in Parliament and in Oxbridge.¹⁷

In Table 3, we start by presenting results for the educational/professional elites. In the UK, using series on the overrepresentation of rare surnames in Oxbridge, Clark (2020) finds an elasticity in implied social status of 0.70. Using our series of Sierra Leonian Civil Service appointments, we find an elasticity of 0.62 for Krio names and 1.35 for Chiefly names. Since Chiefly names are not overwhelmingly represented in the Civil Service, the figure of 1.35 does not reflect that the Civil Service is a closed elite, but rather reflects that the Civil Service was increasingly opened to the non-Krio population in the decades following independence. With an intergeneration elasticity of 0.62 for Krio names, Sierra Leone's educational/professional elites appear slightly more mobile than the British. In a variety of different contexts (USA, Sweden, Chile, China, Japan, and India), Clark et al. (2014) find intergenerational elasticities of implied social status in the range of 0.7-0.8. By this measure, though displaying important persistence, Sierra Leone's educational/professional elites are perhaps somewhat more open than elsewhere in the world.

¹⁷ Ideally, we would like to compare Oxbridge with a Sierra Leonian educational elite, like Fourah Bay College, but we do not have continuous series for Fourah Bay College. We therefore use the Civil Service as a proxy for the educational elite.

Table 3: intergenerational elasticity in implied social status in comparison with the U.K.

Country	Name group	Elite category	Generations	Intergenerational elasticity
<i>Panel A: educational/professional elite</i>				
United Kingdom	Rare Oxbridge surnames 1800-29	Oxbridge	1950-70/1980-2009	0.70
Sierra Leone	Krio names	Civil Service	1960-89/1990-2019	0.62
Sierra Leone	Chiefly names	Civil Service	1960-89/1990-2019	1.35
<i>Panel B: political elite</i>				
United Kingdom	Rare Oxbridge surnames 1800-29	MPs	1950-70/1980-2009	1.02
Sierra Leone	Krio names	MPs	1960-89/1990-2019	0.52
Sierra Leone	Chiefly names	MPs	1960-89/1990-2019	0.66

Notes: see Appendix E for a description of the method and intermediary computations. The estimates for the United Kingdom are from Clark (2020). Intergenerational elasticity is intergenerational elasticity in implied social status.

We then turn to political elites. In the UK, using series on the overrepresentation of rare surnames in Parliament, Clark (2020) finds an elasticity in implied social status of 1.02. Using our series for Sierra Leone, we find low elasticities of 0.52 for Krio names and 0.66 for Chiefly names. Sierra Leone national political elites seem to have been, since independence, more fluid than national political elites in the UK.

These results merely put numbers on what was already visible in our graphs: since independence, Sierra Leone's national political elites have undergone some compositional change, while other types of elites (educational, professional, economics) saw stronger degrees of elite persistence.

7 How do elite groups persist?

The results above present something of a puzzle. Firstly, they suggest marked group-level elite persistence, despite strong postcolonial forces that buffer against the transmission of economic status, including extreme economic volatility, marked political regime shifts, and in the case of

the Chiefly elite, large families and limited private land ownership. Secondly, they show marked differences in the patterns of elite overrepresentation across the two name groups, with the Krio level of overrepresentation increasing the more educationally-selective the elite, and the Chiefly overrepresentation decreasing with educational selectivity. The Chiefly elites also show much stronger overrepresentation in the political and mining spheres, whereas any colonial-era Krio advantage in these spheres has all but disappeared today.

These differences between our two elite groups alone suggests that different social reproduction processes may be at work in the two communities. This has echoes of Bourdieu's concepts of elite power, which sees social class as a multidimensional social space, where an individual's place is defined by the ability to mobilize different types of capital (social, cultural and financial) (Vandebroeck, 2018). In the Krio case, the community's historical educational advantage has clearly persisted, presumably due to larger family-level educational investments, higher educational expectations, and greater proximity to the better educational infrastructure in Freetown. It probably also reflects higher income and wealth, which enables such educational investments. The Krio declining involvement in formal politics is not surprising (and is well documented in existing literature), given their minority status, declining share of the Freetown population, and association with the colonial project. But although we lack a clear counterfactual, this decline in formal political power does not seem to have led to strong discrimination in the educationally-dependent elite spaces, with a comparatively strong Krio presence even in highly political posts, such as the government cabinet.

In contrast, the fact that Chiefly overrepresentation is lower among the comparatively most educationally-demanding professions or political roles (lawyers, finance institutions, cabinet ministers) than the less educationally-demanding ones (civil service broadly), suggests that the group's historical political advantages have not been so easily converted into an educational advantage. This is buttressed by the National Public Services Survey, which shows only mild differences in educational attainment between members of Ruling Houses and the rest. Using a simple logistic model to predict the years of schooling of household heads from the 2008 NPSS, gives 4.4 years for household heads that have self-identified as belonging to Ruling Houses, relative to 3.6 for others (controlling for age, gender and province). This suggests perhaps a weaker relationships between political and educational 'power' than sometimes suggested in the literature (Daloz, 2018). This could be a consequence of large Chiefly family sizes, and a rootedness in rural communities at some distance from the best schools. There is

also a strong pro-Christian bias in higher education, even when the Krio minority is excluded, rooted in the association between formal education and Christian missions (Windham, 1970). Chiefly families, like the population at large, are predominantly Muslim.

This evidence then, consistent with the historical narrative, suggests that the social advantages held by Chiefly name-holders depends in part on continued political capital. We examine this further by looking at some of the intra-Chiefly name variation. Firstly, we consider whether overrepresentation across spheres are substitutes or complements. Are chiefly families with a lot of political power (and/or diamond resources) also overrepresented in educational elites, or on the contrary did they not invest in this type of capital? For each name in our list of Chiefly names, we compute the relative representation ratio in five elite categories: national politics, local politics, education and professions, economic elites, and diamond elites.¹⁸ To define a relative representation ratio for a given name, we need to know its frequency in the general population. We assign to the 171 (out of 261) Chiefly names never appearing in our sample of the Electoral Register the lowest observed frequency (1.5 in 10,000).¹⁹ Relative representation ratios tend to have a distribution with a lot of zeros (names never appearing in the elite group) and a very long tail (a handful of names with very high representation). To take this into account, we take the inverse hyperbolic sine transform of the relative representation ratio (which is like a log transform, but defined at zero).²⁰ Table 5 displays the pairwise correlations between relative representation ratios in the five elite groups. There does not appear to be any trade-off: all the correlation coefficients are positive and statistically significant at the 1% level. Within the Chiefly elite, families have not ‘specialised’ in different types of elite capital.

¹⁸ National politics is the parliament and the cabinet. Local politics is the chieftom and district councillors. Education and the professions is Fourah Bay College graduates, Law school graduates, civil service appointments, financial institutions, and doctors. Economic elites are liquor license holders and pharmacy owners. Diamond elites are diamond licence holders and mining owners.

¹⁹ Our results are qualitatively similar if we instead exclude these names. The list count 261 names instead of 267 because we do not consider names that are close enough that it would be hard to attribute a given name spelling to a given family (example: “Bawo” and “Bawoh”).

²⁰ Calling r_{nc} the relative representation ratio for name n and elite category c , the inverse hyperbolic sine transform is $\log \left(r_{nc} + (r_{nc}^2 + 1)^{\frac{1}{2}} \right)$.

*Table 5: correlation between name-level representation ratios
in different elite categories (chiefly names only)*

	National politics	Local politics	Education/ professions	Economic elite	Diamond elite
National politics	1.00				
Local politics	0.38*** (0.00)	1.000			
Education/ professions	0.47*** (0.00)	0.57*** (0.00)	1.00		
Economic elite	0.38*** (0.00)	0.51*** (0.00)	0.43*** (0.00)	1.00	
Diamond elite	0.31*** (0.00)	0.58*** (0.00)	0.48*** (0.00)	0.23*** (0.00)	1.00

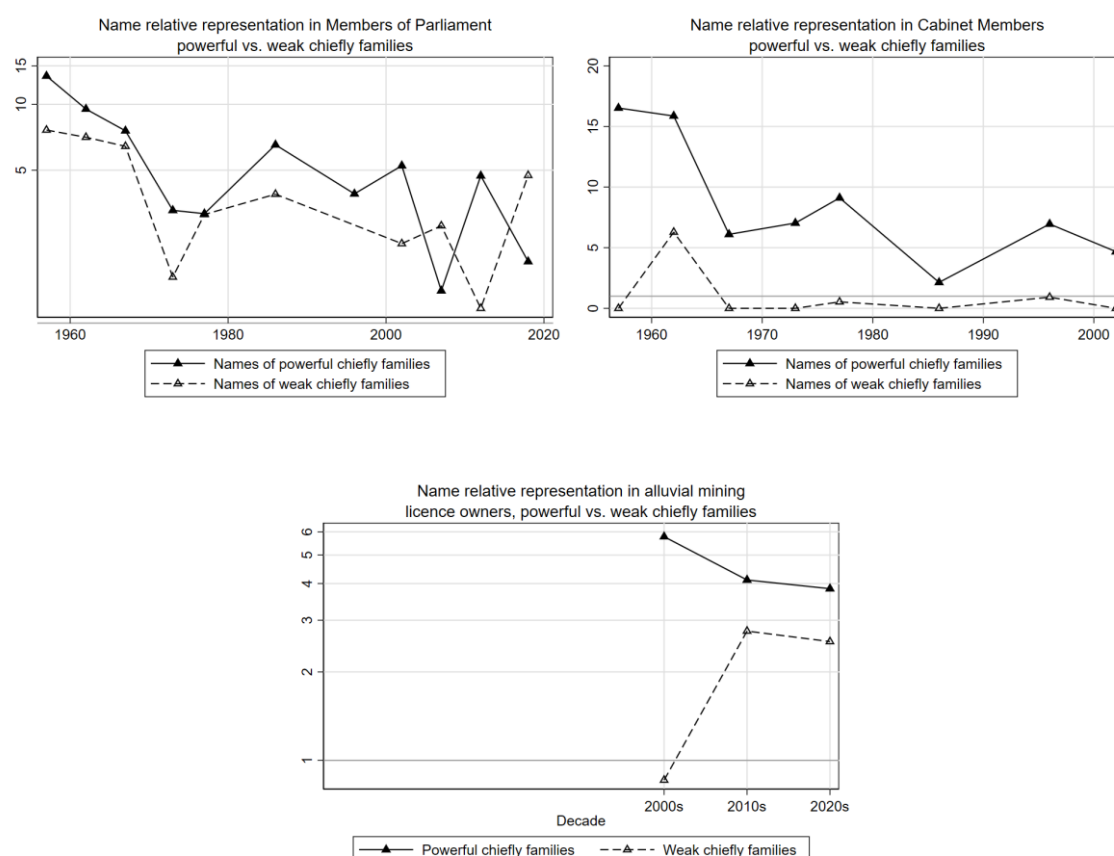
Notes: pairwise correlations of relative representation ratios (inverse hyperbolic sine transform) in five elite groups. National politics: parliament and the cabinet. Local politics: chiefdom and district councillors. Education and the professions: Fourah Bay College graduates, Law school graduates, civil service appointments, financial institutions, and doctors. Economic elites: liquor license holders and pharmacy owners. Diamond elites: diamond licence holders and mining owners. Observations: 261 chiefly families/names. P-values in parentheses. ***p<0.01, **p<0.05, *p<0.1.

Contrary to other cases, such as Uganda or Ghana, where the power of chiefs was considerably weakened after independence (Acemoglu et al., 2016), the institution of chieftaincy has remained strong in Sierra Leone. Does this institutional persistence explain the persistence of chiefly elites, notably in politics and in the diamond sector? To investigate this question, we divide our list of names between those families with stronger versus weaker involvement in Chiefdom-level politics since independence. We use three cross-sections Paramount Chief names (1959, 1990, 2013) to identify those families that have held the office of Paramount Chief in the postcolonial period, which we name ‘powerful’ chiefly names (113), versus those that have not (154).²¹ As can be seen in Figure 6, for Members of Parliament, Cabinet Ministers and alluvial mining licence owners, the powerful chiefly names are markedly more

²¹ We lack a complete list of all Paramount Chiefs that have held office, but as the office is held for life, these three cross-sections will cover the vast majority of office holders.

overrepresented than weak chiefly names. In the professional and educational sphere, where chiefly overrepresentation is lower to begin with, the differences are less marked.

Figure 6: Relative representation of politically powerful and weak chiefly families in different elite groups



Notes: Powerful chiefly names (113 names) were held by a paramount chief in power in 1959, 1990 or 1993. Weak chiefly names (154 names) were not, but nonetheless belong to a family eligible to stand in chiefly elections. We lack a list of all paramount chiefs to have held office, but as the office is held for life, these three cross sections will cover the majority of office holders.

This shows, firstly, that it is not just having a rare and ‘old’ name that accounts for the high relative representation. Although the causation could run either way, it is consistent with a model where powers stemming from Paramount Chieftaincy is contributing to success in other elite domains. It appears that the continued association with the institution of Chieftaincy matters, in part through formal rules of succession that privilege members of Ruling Houses (Kpaka, 2021), rather than intergenerational inheritance per se.

8 Conclusion

This paper set out to test whether name analysis can enrich the study of African elites and elite persistence. Using Sierra Leone as a case study, it shows how surnames help to reveal the enduring overrepresentation of colonial-era elites. By examining different elite origins (Krio versus Chiefs) and elite types (political, educational and commercial), it speaks to ways in which privilege is perpetuated across generations, and the importance of elite origin in shaping future paths.

The time trends also provide descriptive evidence of the impact of events on elite persistence in an African context. Our results suggest that decolonisation did mark a break in trend, particularly in the political sphere. It led to some opening of opportunities for non-elites, and a reduction in the extreme level of overrepresentation in parliament and cabinet, for members of both the Chiefly and Krio elites. In education too, there was a milder, but still noticeable broadening of educational opportunities in the 1970s, coinciding with a widening of the higher education system. Change in the civil service, on the other hand, have been more gradual, presumably as education-dependent professions react with a lag to changes in educational composition. Interestingly, in neither the political nor educational spheres do we see strong evidence of elite turnover after the civil war (1991-2002), although in the educational spheres it may still be too soon to tell.

Overall, this case study demonstrates how name-based methods can shed light on elite change in an African context, using comparatively small elite name samples from public sources such as government gazettes and university graduation lists, sources that are widely accessible in many Africa countries. Furthermore, the rapid advances in OCR, textual recognition and web crawling, and an increasing body of African sources online, means that the time costs of identifying and collecting such name lists should continue to decline.

The exercise also speaks to some of the limitations of these methods and sources. Although we used a set of names methods that require comparatively limited amounts of name data, we still faced challenges in establishing name frequencies across the general population over time. Furthermore, this exercise relied on the use of hereditary names that are passed down from father to children, and required that there was enough name variability for these names to carry socioeconomic information. As illustrated by the northern Sierra Leonean case, where clan names serve as surnames, these are too widespread to be useful for identifying social

differentiation. In some other countries on the continent, hereditary surnames are not in use at all.

In many countries in Africa names are not passed down intact from parents to children. However, even in such societies that lack hereditary family names, there may still be naming practices that (loosely) link family members. In many cases, rare given names will circulate within families, and sometimes in quite predictable manners (for instance, among the Kikuyu in Kenya, first born sons tends to hold the father's first name as their last name). With large enough samples, even these weaker name-based generational connections may be discernible. However, these cultural idiosyncrasies and the varied data availability, means that name-based methods have to be tailored to the local context, and are unlikely to yield many metrics that are directly comparable across space.

Nevertheless, as the famous saying goes, in the land of the blind, the one-eyed man is king. Most African countries face clear data deficits that make the study of African social and economic change considerably more constrained than in other regions of the world. Recent sociological and anthropological work on class dynamics in Africa, for instance, is sorely lacking in a quantitative dimension, making it hard to gauge the scale at which different findings apply (Kroeker et al., 2018; Melber, 2016). While name-based methods present challenges and limitations, they can offer new quantitative perspectives on social dynamics and opportunities to test hypotheses that were previously limited to qualitative study alone.

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Appendices

A. Additional Tables

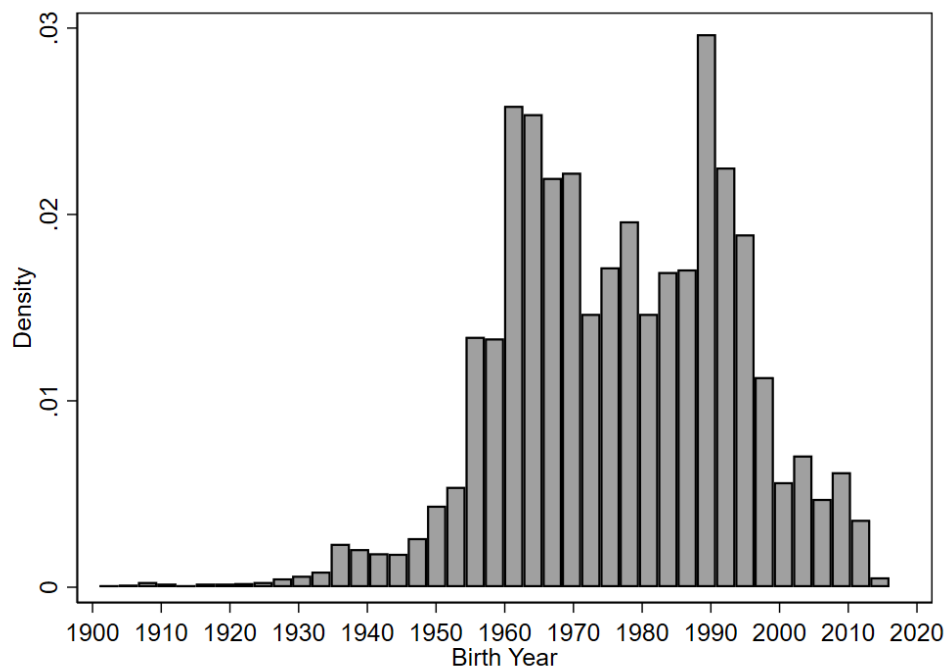
Table A.1: Some Ethnographic Data on Sierra Leone Ethnic Groups

Group name	Kinship system	Inheritance rule: land	Inheritance rule: moveable property	Rules of political succession	Polygyny common
KISSI	patrilineality	patrilineal, sons, equal	patrilineal, sons, equal	NA	yes
KORANKO	patrilineality	patrilineal, sons, primogeniture	patrilineal, sons, primogeniture	NA	yes
MENDE	patrilineality	patrilineal, other, equal	patrilineal, other, equal	patrilineal heir	yes
SHERBRO	matrilineality	NA	NA	NA	yes
SUSU	patrilineality	patrilineal, other, primogeniture	patrilineal, sons, equal	NA	yes
TEMNE	patrilineality	patrilineal, other, primogeniture	patrilineal, sons, equal	NA	yes
VAI	patrilineality	patrilineal, other, primogeniture	patrilineal, other, primogeniture	non-hereditary	yes
YALUNKA	patrilineality	absence of rule	patrilineal, other, best qualified	patrilineal heir	yes

Note: the source is the corrected version of the *Ethnographic Atlas* (Gray, 1999). Some ethnic groups present in Sierra Leone are not present in the *Atlas*, like the Kono or the Bulom. For inheritance rules, “patrilineal, other” means that inheritance goes to a patrilineal heir other than the son, for example the brother.

B. Additional Figures

Figure B.1: Distribution of Birth Years in a Subsample of Sierra Leonian Birth Records



Notes: this figure displays the distribution of birth years in a subsample of the birth records contained in the FamilySearch collection “Sierra Leone, Civil Births and Deaths”. The sub-sample is composed of: 1/ birth records of individuals with a rare chiefly names, 2/ birth records of individuals named “Kanneh” and “Massaquoi” (two very common last names in the South and East of Sierra Leone), 3/ the birth records of individuals named “Mohammed Kamara” (the most common first name/last name combination in Sierra Leone).

Figure B.2: Geographical Distribution of Various Name Groups in the Electoral Register

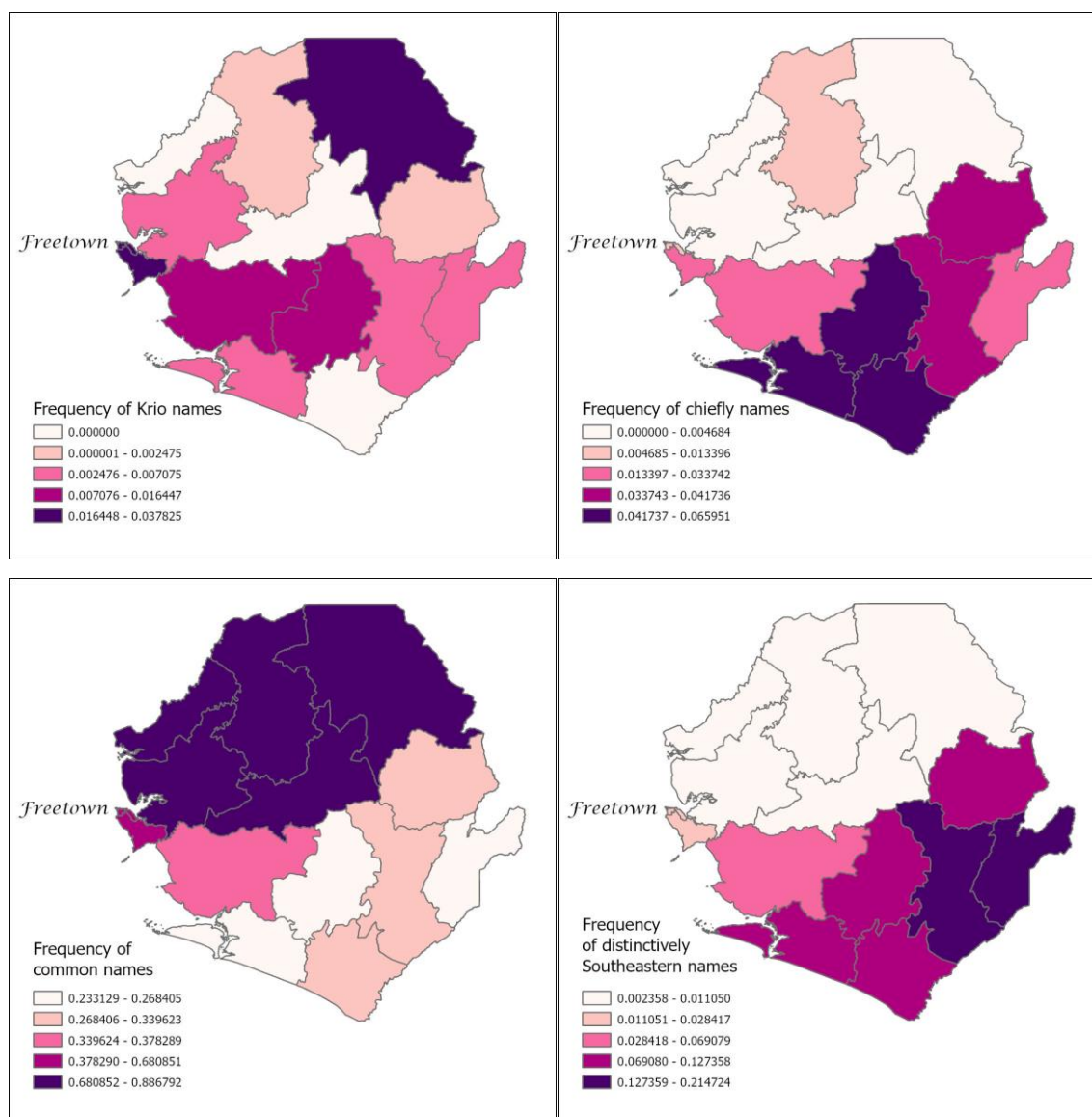


Figure B.3: Relative Representation of Rare Chiefly Names Compared with Relative Representation of Distinctively South-Eastern Names

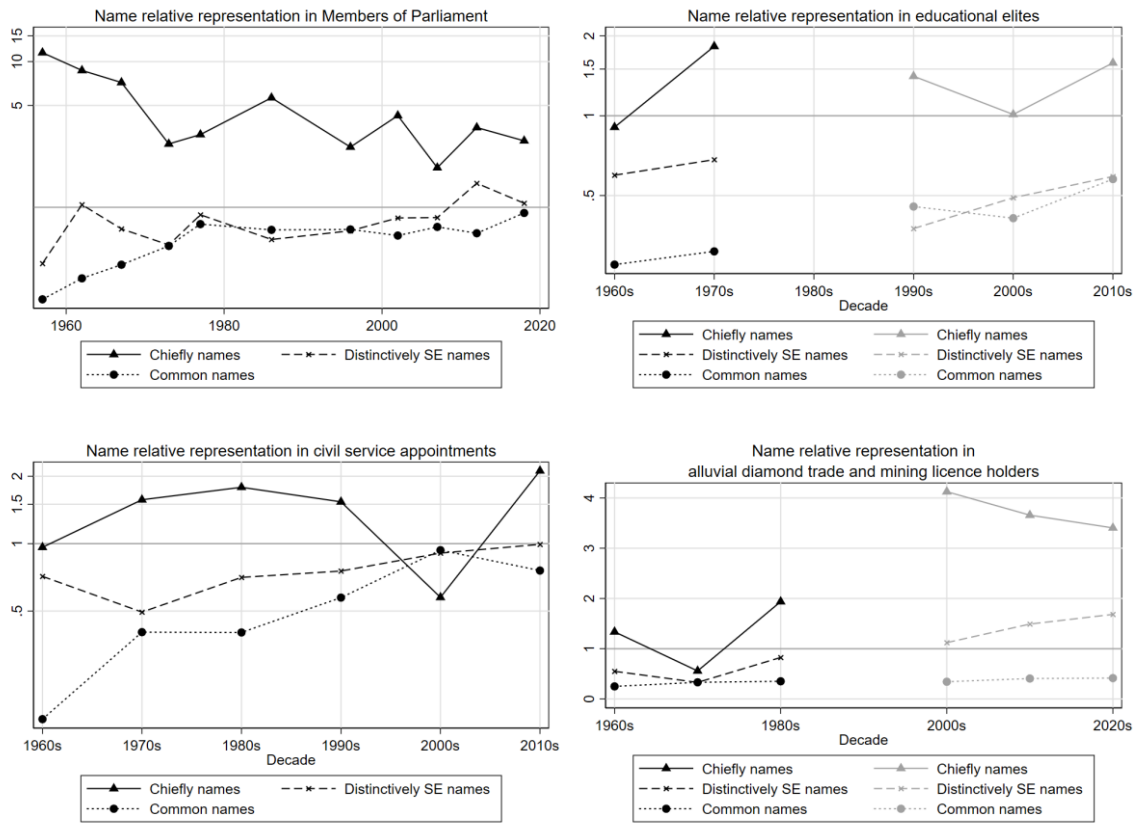


Figure B.4: Sensitivity of Chiefly Name Relative Representation to Varying the Rare Name Threshold Frequency

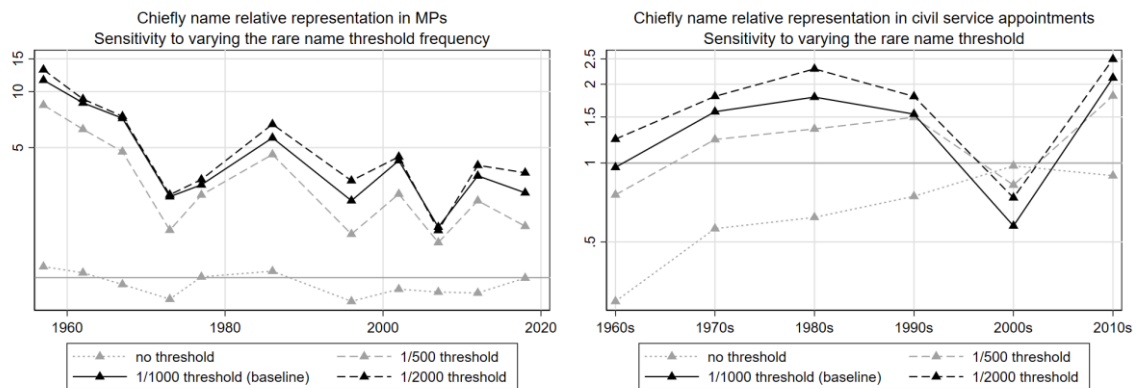


Figure B.5: Sensitivity of Chiefly Name Relative Representation to Additional Restrictions on Name List

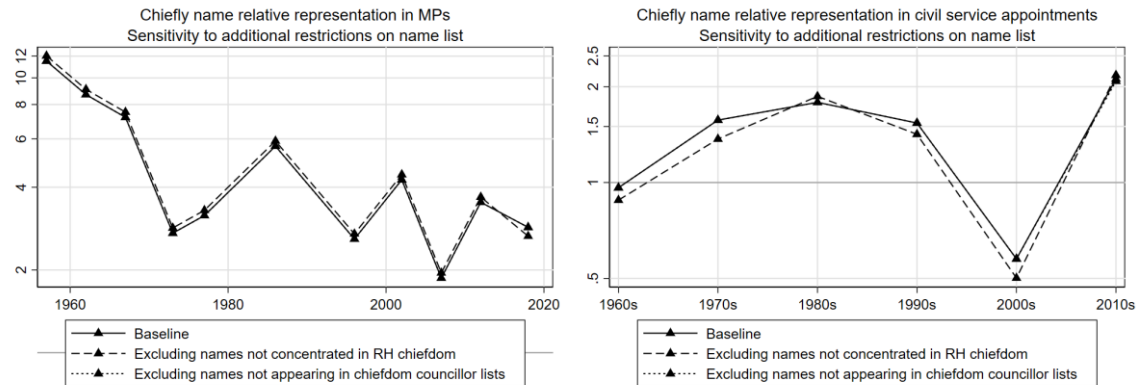
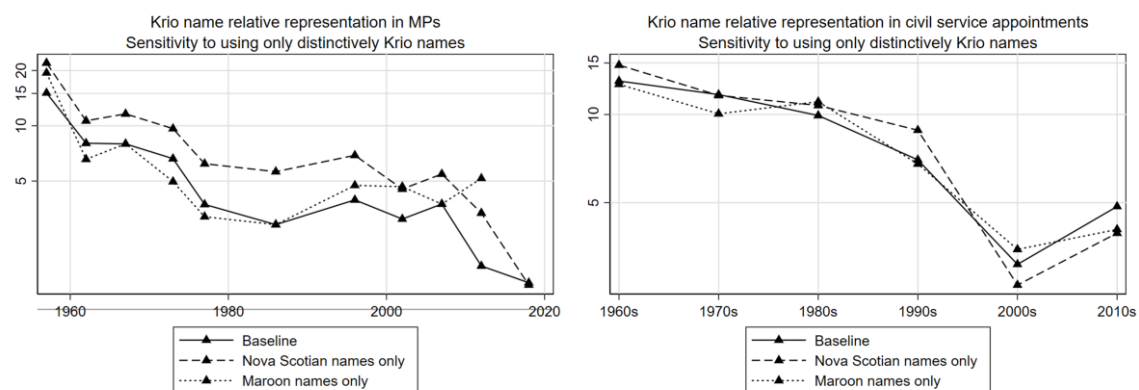


Figure B.6: Sensitivity of Krio Name Relative Representation to Using only Distinctively Krio Names



Notes: there was no distinctively Maroon name in Parliament in the most recent legislature, therefore the relative representation is zero. To keep the graph readable using a log scale, we opted not to display this datapoint.

C. Using Geographic Distribution in Councillor's Lists to Validate Chiefly Names

We use the Councillor's Lists to validate the list of chiefly names of Reed and Robinson (2013). Our hypothesis is that the bearers of these names belong to a local political elite with a certain proximity to chiefs and the institutions of chieftaincy. To validate this hypothesis, we check whether, in the lists of chiefdom councillors in the 1960s and in the 2000s, individuals bearing the name of a Ruling House are geographically concentrated in the chiefdom where the members of this Ruling House can contest the title of Paramount Chief.

Let us consider, as an example, the Ruling House "Margai". The members of this Ruling House are eligible to stand in chiefly elections in the chiefdom of Lower Banta, in the Southern Province. Of course, not all people named "Margai" are members of the Ruling House, nor can stand in chiefly elections, but if the name is indeed a marker of belonging to a chiefly elite, we expect more Councillors to be named Margai in Lower Banta than in other Chiefdoms in Sierra Leone. Figure C1 shows that this is indeed the case: in 1962, there were three chiefdom councillors named "Margai" in Lower Banta, more than in any other chiefdom. In 2002, there were 14 chiefdom councillors named Margai in Lower Banta, again more than in any other chiefdom.

We then generalize this exercise to all rare Ruling House names in the Southern and Eastern provinces of Sierra Leone. We start with all the Ruling House names of chiefdoms located in the Southern and Easter province. We filter out common names (with a frequency higher than 1/1000 in the Electoral Register of Sierra Leone) and Krio names, which leaves us with 265. We count the occurrences of each of these names in each chiefdom of the Southern and Eastern provinces in 1962 and circa 2002 (allowing for slight spelling variations). Table C1 presents some descriptive statistics at the Ruling House name level. The average number of occurrences in the chiefdom councillor lists is higher circa 2002 (20) than in 1962 (6) because the number of councillors increased over time. 67% of Ruling House names appear in the lists in 1962, 73% circa 2002, and 78% overall. Names that do not appear in the lists might belong to politically weak families who rarely hold councillors' positions, or were not counted due to spelling variations. Among the set of names appearing in the lists, more than one third occur in the Ruling House chiefdom, the chiefdom where members of the Ruling House can contest the title of Paramount Chief. Note that if the geographic distribution of names was random, since there are 94 chiefdoms, we would expect only about 1% of names to occur in the Ruling

House chiefdom. The highest number of occurrences is in the Ruling House chiefdom for 48% of names in 1962, 52% of names circa 2002, and 65% of names combining the lists of both period. If the geographic distribution of names was random, we would expect this to happen for only about 1% of names.

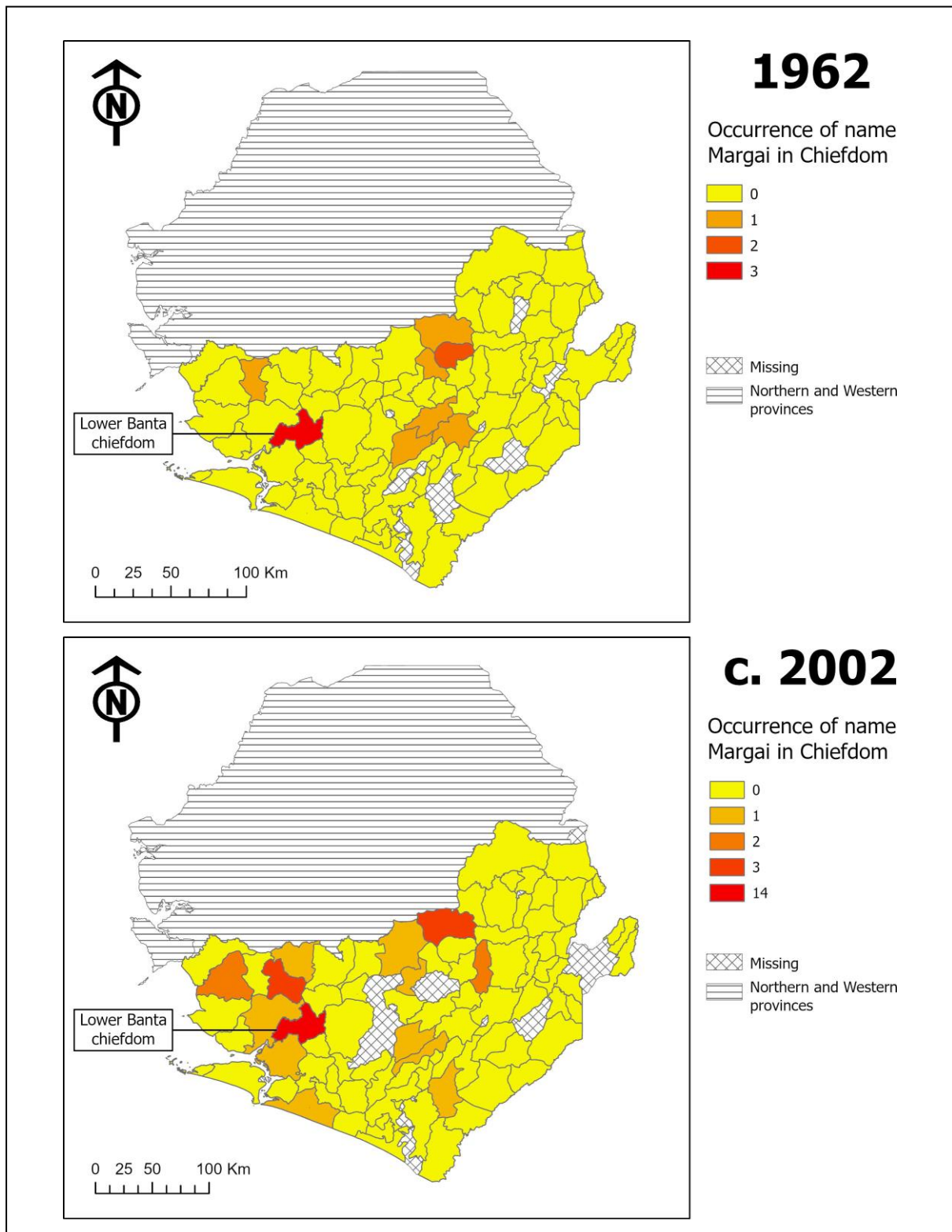
If a name appears only a handful of times in the councillor lists, its under-representation in the Ruling House chiefdom might be due to chance, however if it appears many times and it is not well represented in the Ruling House chiefdom, we might suspect that this name does not really mark the belonging to the chiefly elite. To generalize this intuition, we compute, for each name, whether we can reject the null hypothesis of random geographical distribution. A name rejects the null hypothesis at the 5% level if its share of occurrences in the “correct” chiefdom is 2.33 standard deviations above $1/94$ (since there are 94 chiefdoms). The variance of the expected share of names in the correct chiefdom depends on the occurrences of each name N and is equal to $\left(\frac{1}{N}\right) \times N \times \left(\frac{1}{94}\right) \times \left(\frac{93}{94}\right)$.²² As shown in Table C1, 64% of names reject at the 5% level the null hypothesis of random geographic distribution in 1962, 69% circa 2002, and 78% overall. We show in Section 6.2 that the results of the paper are robust to restricting the analysis to Ruling House names for which we can reject the null hypothesis of random geographic distribution.

²² Under the null hypothesis, the occurrences of a name in the “correct” chiefdom follows a Binomial distribution with a probability of success of $1/94$ (since there are 94 chiefdoms). Therefore, the expected value of the occurrences of a name in the “correct” chiefdom is $N \times \left(\frac{1}{94}\right)$. The variance of the occurrences of a name in the correct chiefdom is $N \times \left(\frac{1}{94}\right) \times \left(\frac{93}{94}\right)$. The expected share of names in the correct chiefdom is $\frac{N \times \left(\frac{1}{94}\right)}{N} = \frac{1}{94}$, and its variance is $\left(\frac{1}{N}\right)^2 \times N \times \left(\frac{1}{94}\right) \times \left(\frac{93}{94}\right)$.

Table C 1: Descriptive Statistics on Ruling House Names in Chiefdom Councillor Lists

	Mean	St. dev.	Min.	Max.	Obs.
Number of occurrences					
in 1962	5.67	9.25	0	81	267
c. 2002	19.81	38.37	0	418	267
overall	25.48	45.69	0	468	267
Appears in the lists					
in 1962	0.67	0.47	0	1	267
c. 2002	0.73	0.44	0	1	267
overall	0.78	0.41	0	1	267
Conditional on appearing in the lists:					
Share of occurrences in the RH chiefdom					
in 1962	0.33	0.37	0	1	179
c. 2002	0.36	0.36	0	1	195
overall	0.37	0.34	0	1	209
Highest # of occurrences in RH chiefdom					
in 1962	0.48	0.50	0	1	179
c. 2002	0.52	0.50	0	1	195
overall	0.65	0.48	0	1	209
Rejects the null of random geog. Distribution					
in 1962	0.64	0.48	0	1	179
c. 2002	0.69	0.46	0	1	195
overall	0.78	0.41	0	1	209

Figure C 1: Distribution of Name "Margai" in Chiefdom Councillor Lists



Authors' map. **Source** : *Sierra Leone Gazettes*. The scans were transformed in text data using the software ABBYY FineReader. We used a python script to count the occurrences of each name in the lists of chiefdom councillors (named "tribal authority members" in 1962). For the year 2002, we also use lists from the years 2001, 2015, and 2018.

D. Temporal Measures of Name Frequency in the General Population

The measure of names across the general population are based on the 2022 electoral register. However, we make temporal adjustments, to account for likely changes in population share over time. According to the censuses, the Krio population fell from 1.9% in 1963 census to 1.4% in 2004 census. This would imply a 7% decadal decline in the pop share. We adjust the Krio name shares by this decadal decline.

Conversely, the number of Chiefly name holders has likely increased over time, given a higher fertility rate amongst Chiefly families. We use the National Public Services Survey from 2008, from which we estimate that “Ruling Houses” have 13% more children. We calculate a simple association between fertility and population growth rates (using WDI data), and from this estimate the decadal growth in the Chiefly population share at 2.5%.

We assume that the common and common southeastern name shares have stayed constant.

E. Inferring Implied Elasticity of Social Status

If we had data on the income of each family i at time t and at time $t - 30$ (one generation earlier), we could estimate the intergenerational elasticity of income by regressing the log income of family i at time t on the log income of family i at $t - 30$:

$$\ln y_{it} = \alpha + \beta \ln y_{it-30} + \varepsilon_i \quad (1)$$

Averaging this equation by name group z (for example, Chiefly names or Krio names), we obtain

$$\frac{1}{N_z} \sum_i \ln y_{izt} = \alpha + \beta \frac{1}{N_z} \sum_i \ln y_{izt-30} \quad (2)$$

We assume that the name groups are sufficiently large and that the error term is independently distributed with null expectation (which is why it disappear from the equation when we take the average by family name). Taking the population average of equation (1), we obtain

$$\frac{1}{N} \sum_i \ln y_{it} = \alpha + \beta \frac{1}{N} \sum_i \ln y_{it-30} \quad (3)$$

Subtracting equations (3) from equation (2) we obtain:

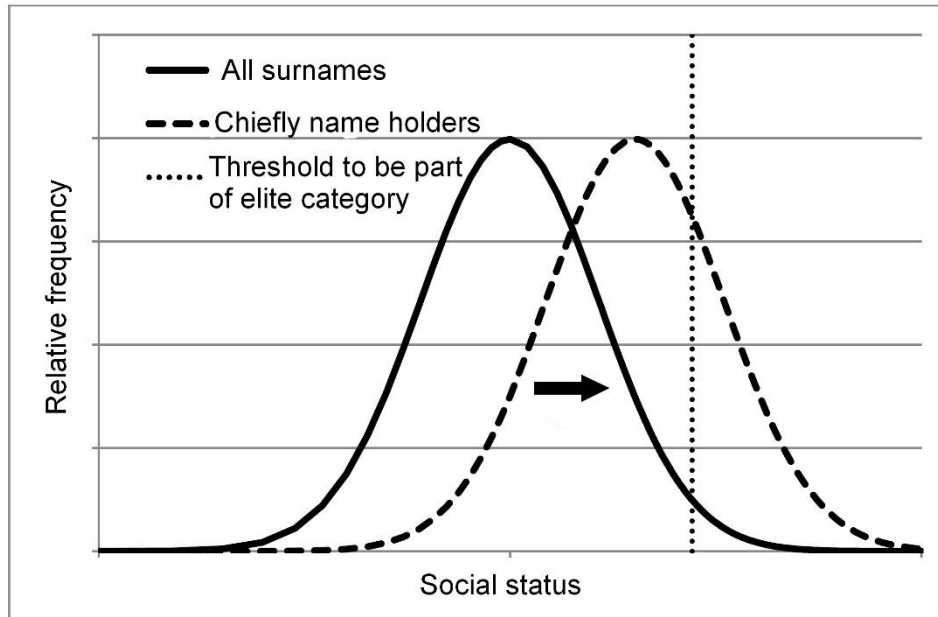
$$\frac{1}{N_z} \sum_i \ln y_{izt} - \frac{1}{N} \sum_i \ln y_{it} = \beta \left(\frac{1}{N_z} \sum_i \ln y_{izt-30} - \frac{1}{N} \sum_i \ln y_{it-30} \right)$$

This means that we can estimate β , the intergenerational elasticity of income, by dividing the log deviation of the average earnings of name group z from the population average earnings at time t by the same measure at time $t - 30$.

In our case, we have no estimation of average income by name group. We only estimate relative representation in different elite categories for each name group. In this case, Clark (2020) proposes to estimate an intergenerational elasticity in “implied social status”. We assume that social status is normally distributed within each name group z , with the same variance, but a different mean for each name group. Figure E.1 below illustrates this: the distribution of social status in the elite group (chiefly name holders) is the distribution of social status in the general population (all surnames), but shifted to the right by the mean difference in social status. Let’s

assume that to belong to an elite category (for example Members of Parliament), one needs to be part of the top 1% of social status. It means that the threshold to be part of the elite category, expressed in terms of standard deviations of social status above the mean, is 2.32 (this is just the z-score of the standard normal above which lay only 1% of observations). This is represented by the dashed line in Figure E.1.

Figure E.1: Distribution of Social Status in Different Name Groups



Note: inspired from Clark et al. (2014), figure 18.1

We have a measure of the overrepresentation of each name group z among the elite category of Members of Parliaments. Let's say, for example, that Chiefly names are overrepresented by a factor of 10. This means that the distribution of social status in the group of Chiefly name holders is such that 10% are above 2.32 (the dashed line). The z-score of the standard normal for a 10% threshold is 1.28. Therefore, the mean of social status in the elite group is $2.32 - 1.28 = 1.04$. Therefore, the implied average status of Chiefly name holders is 1.04 standard deviations above the mean.

Following the exact same reasoning as above, but replacing log income by implied social status, we can estimate β as the difference in average implied social status between Chiefly name holders and the rest of the population at time t divided by the difference in average implied social status at time $t - 30$.

Table E.1 displays, for two elite categories (the Civil Service and Members of Parliament), two name groups (Krio names and Chiefly names), and two time periods (1960-1989 and 1990-2019): (1) the relative representation of the name group in the elite category during the time period, (2) the assumed share of population whose social status is high enough to be part of the elite — we assume 1%²³, (3) the resulting population z-score threshold to be part of the elite, (4) the share of the name group whose social status is high enough to be part of the elite — (1) \times (2), (5) the resulting z-score threshold to be part of the elite in the name group, and (6) the implied mean status of the name group — (3) – (5).

Table E.2: Computing Implied Mean Status for each Elite Category, Name Group, and Period

			(1)	(2)	(3)	(4)	(5)	(6)
Elite Category	Name Group	Period	Relative Representation	Share of elite in population	Population z-score threshold to be part of elite	Share of elite in name group	Z-score threshold in the name group	Implied mean status
Civil Service	Krio	1960-1989	12.03	1.00%	2.33	12.03%	1.17	1.15
Civil Service	Krio	1990-2019	5.37	1.00%	2.33	5.08%	1.61	0.72
Civil Service	Chiefly	1960-1989	1.46	1.00%	2.33	1.46%	2.18	0.15
Civil Service	Chiefly	1990-2019	1.65	1.00%	2.33	1.65%	2.13	0.20
MPs	Krio	1960-1989	5.59	1.00%	2.33	5.59%	1.59	0.74
MPs	Krio	1990-2019	2.59	1.00%	2.33	2.59%	1.94	0.38
MPs	Chiefly	1960-1989	5.17	1.00%	2.33	5.17%	1.63	0.70
MPs	Chiefly	1990-2019	3.12	1.00%	2.33	3.12%	1.86	0.46

To obtain the intergenerational elasticities in implied social status of Table 3, we simply divide, for each elite category and each name group, the implied mean status of the period 1990-2019 by the implied mean status of the period 1960-1989. For example, for Krio names in the Civil Service, the intergenerational elasticity is equal to $0.72/1.15 = 0.62$.

²³ In practice, the intergenerational elasticities in implied social status are not that sensitive to the assumed share of population whose social status is high enough to be part of the elite, as long as the share is small. If we assume a share of 0.1% instead of 1%, we obtain intergenerational elasticities of 0.65 (instead of 0.62) for Krio names in the Civil Service, 1.34 (instead of 1.35) for Chiefly names in the Civil Service, 0.53 (instead of 0.52) for Krio names in Parliament, and 0.68 (instead of 0.66) for Chiefly names in Parliament.