Essays on Traditional Institutions and Their Impact on Economic and Political Outcomes

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To my mother and father for showing me the doors to school

And

To my wife Claire, and children for supporting me through school

Declaration

I certify that the thesis I have presented for examination for the MPhil/PhD degree of the London School of Economics and Political Science is solely my own work other than where I have clearly indicated that it is the work of others (in which case the extent of any work carried out jointly by me and any other person is clearly identified in it). I declare that my thesis is 29791 words.

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Abstract

This thesis consists of three separate, but related papers on how traditional political institutions exist alongside the modern African state to affect political, social and economic outcomes. It uses Sierra Leone as a case study, a country whose chieftaincy institution is typical of traditional institutions promoted by the British colonial masters. The first paper argues the inclusion of traditional institutions in the formal state in Sierra Leone was the result of a political bargain between educated elites and traditional leaders over which elite groups would form the first independent government. The outcome of the bargain explains why the traditional institution in Sierra Leone has remained relevant. The paper also shows that uneven access by traditional political leaders to formal state governance is associated with inequalities in education and health outcomes at independence, and that some of the effect has persisted over time. This paper provides possible reasons for the unequal economic development within the country today.

The second paper investigates the effect of competition for the highest political office within the chieftaincy institutions in Sierra Leone. I use a plausibly exogenous variation in the competitiveness for selecting a paramount chief, and exogenous conflict shocks to chiefdom politics to highlight a political logic that shaped the patterns of civilian fatalities during the country's decade long civil war (1991 to 2002). I show that the intensity of competition is positively associated with the number of civilian fatalities. This paper further shows that chiefdoms with possible power sharing arrangements among chiefly elites experienced fewer deaths. The findings here highlight a potential drawback

to competition and suggest a careful investigation of how political competition shapes other social dimensions, such as collective action and social cohesion.

The final paper examines the extent to which a hybrid of state and traditional institutions can work to provide public goods, in this case, dispute resolution in rural areas. To do this, I evaluate a national policy that introduced Chiefdom Land Committees (CLCs) to resolve land disputes in rural areas. CLCs are best viewed as a hybrid of formal and informal institutions. CLCs combine customary norms with formal state processes such as open deliberation, impartiality, and representation of interest groups in land administration and dispute resolution. Using a difference-in-difference design, I find that on average, chiefdoms with CLCs have higher land caseloads in the formal courts three years on. By adopting the CLCs, chiefdoms plausibly made land issues more salient, but instead of providing final resolutions, CLCs are conduits for the formalization of land disputes.

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Chapter 1

Introduction

There is now ample evidence to suggest that traditional authorities and institutions have remained an integral part of the modern sub-Saharan African (henceforth Africa) political and economic architecture. Despite cross-country variation in relevance, traditional authorities have largely survived the immediate post-independence move by most states across the continent to abolish or diminish their powers (Logan, 2009). Various reasons for the persistence and popularity of traditional authorities is surveyed in (Logan, 2013). The move towards a decentralized system of public goods provision in the 1990s benefited the resurgence of traditional authorities. In weak states where central governments lack the capacity or willingness to provide public goods in rural areas, traditional authorities are portrayed as critical to filling this gap (Herbst, 2000). Most states also made calculated decisions in a "core-periphery" power sharing arrangement, for instance to gain access to cash crops and minerals, or to galvanize support during elections, thereby giving legitimacy, or maintaining the relevance of chiefs and traditional authorities (Boone, 2003; Baldwin, 2013).

But what impact do these institutions continue to have on economic, social and political outcomes as countries across the continent solidify democratic institutions? Can traditional institutions be used to fill critical gaps in public goods provision in rural areas,

where modern states are unwilling or lack the capacity to do so? Furthermore, what are the most salient features of these institutions that support political and economic progress on the continent?

The dominant narrative of the impact of traditional institutions on politics and development outcomes on the continent paints a negative picture. The persistence of traditional authorities, who are largely unelected leaders, have been viewed as contradictory to the democratization. Traditional institutions across the region have been linked to patronage style politics that many have lamented has extended into the conduct of politics at the centre, which has contributed to the underdevelopment of African political and democratic institutions (Bratton & Van de Walle, 1994; Mamdani, 1996; Bates, 1981). However, cross-country studies on the perception of traditional institutions and their leaders (Logan, 2009, 2013; Wig & Kromrey, 2018) side step important differences in these institutions across countries and even within countries.

Using Sierra Leone as a case study, this thesis exploits within country variation in the chieftaincy institution to understand why the institution has persisted and how it continues to affect public goods outcomes. In the first paper of this thesis, I study how variation in chief's access to state governance impacts public goods provision. In the bargaining process for which elite groups will form the first post-independence government, some traditional authorities had formal access to state governance through the state legislature and others did not. Using archival data and the 1963 census, which is the first complete census after independence, I show that this variation in formal access to the state legislature produced disparities in public goods outcomes by independence. Some of the resulting impacts have persisted over time, with the association still present in the 2004 and 2015 census, and the 2018 data on education infrastructure and outcomes.

In the second paper, I look at variation in the intensity of competition for the highest political office of the chieftaincy institution- the paramount chieftaincy, to

understand it's impact on civilian deaths during the decade long civil war (1991 - 2002) in the country. The paramount chieftaincy is contested by ruling houses or families, who were recognised by the British colonial powers as the only people eligible to contest the position. Largely through historical accident, the number of ruling houses in each chiefdom varies, and the higher the number, the higher the level of competition for the office (Acemoglu, Reed, & Robinson, 2014). Using a highly disaggregated conflict event fatalities data, this chapter suggests that the number of ruling houses in each chiefdom is positively associated with the number of civilian deaths during the war. It also suggests that chiefdoms where power had been shared historically, perhaps because of some arrangement to rotate reigning among houses, are associated with fewer civilian deaths. This paper provides a caution for the wholesale adoption of predictions from democratic theory that suggests that competition is a critical selection mechanism for ensuring that the best leaders are selected in office, and the worst performing leaders are removed, thereby leading to better responsiveness to citizens and public goods provision. The findings here highlight a potential drawback to competition and suggest a careful investigation of how political competition shapes other social dimensions, such as collective action and social cohesion.

Finally, I exploit variation in the ability or willingness of the paramount chiefs to adopt and implement a national land policy that aimed to help citizens resolve land disputes peacefully without bringing them to the local courts. Cases that arrive at the local courts take time to be resolved, and are costly to resolve. In weak states such as Sierra Leone, the state often lacks the bureaucratic ability to project its power to implement national policies and to provide critical public goods outside of major cities and towns (Herbst, 2000), and as a result, must rely on local authorities. The policy promoted the establishment of Chiefdom Land Committees (CLCs), which is viewed as a hybrid of state and traditional institutions to help resolve land cases before they get to the local courts. To evaluate the policy I built a dataset by geo-spatially mapping all

the local courts in the country, and digitising ten years of court records from each court where it was available. I also conducted a survey of all chiefdom administrations across the country to understand which chiefdoms adopted the policy and how the policy is being implemented. Contrary to the policy objectives, chiefdoms that adopted the policy ended up with more land cases at the local courts. This papers raises questions about the best way for the state to work with chiefs to provide critical services in rural areas. A further question it raises is whether informal dispute resolution forums, such as the CLCs, are a viable route to settle land disputes, and hence protect property rights in rural areas.

Throughout this thesis, traditional institutions are defined as institutions whose rulers, often referred to as chiefs, "have power by virtue of their association with the customary mode of governing a place-based community" (Baldwin, 2016b, p.21). Because of their status in their communities, the legitimacy of traditional leaders does not necessarily have to depend on the state (Baldwin & Raffler, 2017). Furthermore, the fact that these institutions are custom-based, they evolve over time as customs change. For the most part, chiefs are not democratically elected into office. Various hereditary rules and customary norms are used to select chiefs. The chieftaincy institution in Sierra Leone is consistent with this definition, except that in Sierra Leone elections are used to select paramount chiefs. Unlike other traditional institutions across the continent, the chieftaincy institution in Sierra Leone has only gained more relevance (Acemoglu, Chaves, Osafo-Kwaako, & Robinson, 2014a), and it is a critical part of providing public goods and services, which is solidified in the Chieftaincy Act 2009. The state, NGOs and private sector often have to think about how to interact with chiefs in programming decisions. For instance, no donor funded project or large scale private sector investment in the chiefdom can be implemented without consultation with paramount chiefs. Furthermore, while there are variations in the institution across the country and over time, its core has largely remained the same, bearing features of its colonial past. The economic and political relevance, as well as the within country variation of the chieftaincy institution

in Sierra Leone makes an interesting case to study how traditional institutions function along side the state to affect economic and political outcomes.

The three papers present a mixed picture of the impact traditional institutions continue to have along side the modern democratic state. While they can be used to fill critical gaps in public goods provision, this is only limited to very localised areas, as paper one demonstrates. There are also limits on the type of public goods and service they can influence. Paper three suggests a potential weakness of traditional authorities in handling land dispute resolutions, and that there might be a preference for resolutions through formal courts whenever possible. Finally, this thesis also provides commentary on the impact of the selection process of chiefs on social outcomes. Paper two suggests competition can be potential bad for social cohesion and even collective action.

Theoretically, the first paper contributes to the regional favouritism literature. Unlike other studies that look at ethnicity or birth place of presidents, this current case study highlights a localised version of political favouritism, where ethnicity is largely muted, thereby suggesting that the benefits of politics follows the most politically salient unit of organisation, which may not necessarily be ethnicity or religion, as is often portrayed in the literature in the African context. This point is also highlighted in the second paper, where ruling houses that compete for the paramount chieftaincy share the same ethnicity, for the most part, and yet some of the effect associated with ethnic-based politics is also seen here.

Additionally, this thesis throws caution on the wholesale adoption of political competition as necessarily desirable for selecting public officer holders. While Acemoglu, Reed, and Robinson (2014) suggests competition constraints the power of chiefs and support better economic outcomes, my thesis suggests that competition in the selection of chiefs may also have adverse effect on social cohesion and collective action.

Lastly, in terms of policy relevance, I generated a new dataset by geo-spatially

mapping all local courts across Sierra Leone, and digitised ten years of case records to understand the extent to which traditional authorities and informal institutions help resolve land disputes in paper three. Unlike previous studies that capture disputes by conducting surveys, this paper captures actual disputes documented in local court records, which makes this paper among the first to make a direct empirical link between a land reform and land disputes litigated in formal courts. Furthermore, from a policy impact perspective, the spatial mapping is now being used by the government of Sierra Leone to optimize service provision in local courts.

The subsequent chapters provide the three papers that make up the body of my thesis. The first paper provides some historical context for the chieftaincy institution and possible reasons for its persistence in Sierra Leone. This also sets the stage for the empirical analysis that follows. The final chapter concludes by highlighting the implications of my research.

Chapter 2

Chiefs and the Political Origin of Education and Health Disparities in Rural Sierra Leone

Abstract

I investigate the effect of formally integrating traditional leaders or chiefs into state governance systems on public goods provision. Chiefs typically rule over specific places or communities and are not formally integrated in state governance. In Sierra Leone, some chiefs double as state legislators while also serving as leaders in their chiefdoms. Whether these particular chiefdoms have better outcomes in public goods provision is the focus of this paper. Using the 1963 census data, I show that chiefdoms whose paramount chiefs were elected to the colonial legislative council were associated with better public goods provision in education and health by independence, compared to those that did not. In addition, these same chiefdoms tend to have better education infrastructure today, providing yet another example of how at-independence within-country inequalities in education and health outcomes have persisted in parts of sub-Saharan Africa.

Key words: Colonial Legacy, Education Disparities

2.1 Introduction

The role of chiefs in public goods provision has been a key focus of most of the research on traditional leaders in sub-Saharan Africa (Baldwin & Raffler, 2019). This line of research has assessed features of the chieftaincy institutions, such as competition for the office (Acemoglu, Reed, & Robinson, 2014) or the fact that chiefs are embedded in their communities and can have longer time horizons compared to elected officials, which allows them to better plan and deliver public goods (Baldwin, 2019).

This paper assesses whether formal access by chiefs to the central state governance system enhances public goods provision by chiefs in their localities. Customary institutions vary a lot on the continent (Baldwin & Raffler, 2019) but, for the most part, chiefs are "rulers who have power by virtue of their association with the customary mode of governing a place-based community" (Baldwin, 2016b, p.21). While they may have relationships with state officials, they are not necessarily integrated in the formal state governance system (Baldwin & Raffler, 2019). In some countries like in Ghana, chiefs have a national assembly, but this is separate from the Ghanaian Parliament that makes laws for the country. In Sierra Leone, some chiefs are formally integrated in the state legislature, and have been since the colonial era. In preparation for independence, the first national constitution in 1951 expanded membership for chiefs to the colonial legislative council, which was responsible for making national laws and advising the colonial administration. The position allowed selected chiefs to be at the seat of policy making at the national level. Whether the home chiefdoms of the selected chiefs benefited deferentially than other chiefdoms is the focus my empirical analysis.

To do this, I rely on archival and historical census data on education and health outcomes. I first estimate an OLS model to compare outcomes at independence between chiefdoms whose chiefs were members of the legislative council versus those whose chiefs were not. My OLS estimations shows a strong positive association between

at-independence public goods outcomes in education and health in chiefdoms where chiefs were elected to the colonial legislative council a decade or so earlier. For education, I go a step further by exploiting within chiefdom age cohort variation to construct treatment and control groups in a difference-in-difference fashion. At independence, treatment cohorts had higher literacy rates and school attendance. Furthermore, because education outcomes are linked through generations, (Alesina, Hohmann, Michalopoulos, & Papaioannou, 2018) this effect has a long tail and can still be observed in the recent census. On average, these same chiefdoms tend to have a higher share of population that attained at least primary education, and also have higher number of school infrastructure today, relative to chiefdoms that did not have their chiefs on the legislative council.

There are at least three possible ways to make sense of this positive association between chief membership of the legislative council and better public goods outcomes. The first explanation may be that chiefs in the legislative council were more competent. I use tax collection as a proxy for competence. The idea being, the more competent a chief is the higher the amount of tax he/she may collect, which can be spent on public goods provision. My evidence does not support this explanation as a possible channel, as I find that chiefs that were not in the legislative council were able to collect as much tax as those that were.

The second explanation is that chiefs that were in the legislative council were better able to collaborate with the state to co-produce education public goods in their chiefdoms. The provision of public goods in rural areas is often a co-production effort by state and local authorities. When collaboration is better co-production is likely to happen in an effective way (Baldwin, 2019). The evidence also does not seem to support the co-production hypothesis. For instance, a good proxy for co-production in the education sector in Sierra Leone is the availability of community schools. Community schools are owned by the community and partially funded by government. I find there is no statistical

difference in the number of community schools between chiefdoms with chiefs that were in the legislative council versus those that were not.

A third explanation is that by being in the legislative council some chiefs had greater access to central state resources that they can lobby for. However, instead of distributing resources to other chiefdoms they represent in their district, chiefs send most if not all resources to their own chiefdoms. This would be akin to regional favouritism, where political leaders allocate government goods or adopt policies to mostly benefit their preferred regions or co-ethnics (Hodler & Raschky, 2014; Kramon & Posner, 2013; Kasara, 2007; Lu & Wang, 2020). My analysis supports this hypothesis. For instance, differences in health and education infrastructure is most notable when it is government owned or provided.

This paper contributes to the debate on how best to integrate traditional authorities with state institutions for political and economic development in modern Africa (Goldstein & Udry, 2008; Acemoglu, Reed, & Robinson, 2014; Baldwin, 2016a, 2019; Baldwin & Raffler, 2019; Logan, 2013; Boone, 2003). Previous studies have looked at how the selection process of chiefs matter for public good provision (Acemoglu, Reed, & Robinson, 2014). Still others asked whether the closeness of chiefs to their communities is what is critical for producing local public goods and whether they are compatible with democracy and accountability (Baldwin, 2019; Baldwin & Raffler, 2019). The current paper suggests that unequal access by chiefs to formal state governance systems made a difference in public goods provision, but in unequal ways. This has implications for thinking of traditional authorities as agents of economic development beyond their immediate localities.

This paper also contributes to the ethnic or regional favouritism literature (Hodler & Raschky, 2014; Kramon & Posner, 2013; Kasara, 2007; Burgess, Jedwab, Miguel, Morjaria, & Padró i Miquel, 2015; Bates, 1974). Unlike other studies that look

at ethnicity or birth place of presidents, this current case study highlights a localised version of political favouritism, where chiefs potentially influence allocation of government goods. Important to note in this case study context is that favouritism is not done along ethnic lines, as most districts that elected chiefs have only one ethnic group distributed in different chiefdoms. This case study shows that the benefits of politics follows the most politically salient unit of organisation, which may not necessarily be ethnicity or religion.

This article further contributes to the literature on historical roots to inequalities to education and human capital, and the persistence of at-independence disparities in Africa (Alesina et al., 2018; Woodberry, 2012; Wantchekon, Klašnja, & Novta, 2015; Nunn & Wantchekon, 2011). This case links current disparities and it's persistence to the colonial legacy of preferential access of some traditional authorities to the colonial powers (Acemoglu, Chaves, et al., 2014a).

The rest of the paper proceeds as follows: Section II provides an overview of the evolution of the modern states and how chiefs became critical for which elite groups formed the first government in Sierra Leone. Section III and IV present the data and empirical strategy, respectively. Section V and VI show the results and a discussion on possible mechanisms. The final section concludes.

2.2 The Context

Governance in Sierra Leone prior to independence followed the strategy of indirect rule. From the viewpoint of the British colonial powers, the country was divided into two administrative units – the Colony and the Protectorate. The Colony, now present-day Freetown was where freed slaves were settled. These settlers became known as the Krios. The Colony was governed through an executive council headed by the Governor. The executive council was advised by the legislative council. Citizens of the Colony were considered citizens of Great Britain. The Protectorate, which was the rest of the interior

of the country was controlled by chiefs. The Governor ruled over the protectorate through the chiefs. The chiefs were responsible for providing public goods, and as custodians of rural land they had the power to tax, mobilize labour and administer justice. While chiefs had the mandate to rule over their people, they got legitimacy from the colonial government, who provided them with stipends, security, and other modern amenities (Abraham, 1978).

Indirect rule meant for a long time that political activities in country were only limited to the chiefdom level, where ruling houses within each chiefdom compete to elect paramount chiefs, who ruled for life. However, politics at the national level gained steamed when, in 1924, three changes were made to the legislative council to encourage further integration between the Colony and the Protectorate. First, the legislative council membership was to be expanded to 21 members and was to have jurisdiction in the Protectorate. Secondly, it was to have an elected "unofficial Krio" business community representative, and finally it was to also include three unofficial representative from the Protectorate, all of whom were paramount chiefs, as it was argued that only the chiefs would represent their people well (Cartwright, 1970).

The legislative council itself functioned very much like a parliament. It held deliberations, which were chaired by the Governor to discuss a range of issues to govern the country. It made laws and ordinances in the country. Issues of taxation, trade, citizenship rights, and the provision of public goods were discussed at this level as shown in the excerpt from the April 22nd 1902 legislative council meeting agenda in Figure 2.2 in the Appendix. Final decisions ultimately came from the executive council, but the legislative council deliberations influenced these decisions. Prior to these changes, the colonial legislative council had only had white representatives, and its activities did not include the Protectorate. The changes meant that for the first time the Western elites of the Colony and the traditional Protectorate elites were brought together and given

opportunity to advise the majority European administrators and legislators.

As independence drew closer, Sierra Leone witnessed considerable administrative and political changes as well. Key objectives of the colonial masters were to make chiefdoms more economically viable and more democratic in the selection of paramount chiefs. The aim was to close the development gap between the chiefdoms and the colony. In many ways the conditions of the Protectorate was far worse than in the Colony. On education for instance, school attendance in the Protectorate was only a tiny fraction of what it was in the Colony. By 1948 while the Colony had well over 1500 pupils in secondary school, the whole of the Protectorate had only a few hundred, and even that was found only in the South, as shown in Figure 2.4 in the Appendix. Towards this end, chiefdoms were formally transformed to Native Administration (NA) for political and administrative purposes. By 1947 well over half of the chiefdoms were transformed to NA as shown in Figure 2.3 in the Appendix. The NA system provided a formal structure for taxing and bringing development in each chiefdom. Smaller chiefdoms were amalgamated to form viable political and economic spaces. For a more inclusive representation in the selection of Paramount chiefs, all villages with 20 male taxpayers were assigned a Tribal Authority (TA), who could vote in paramount chief elections.

2.2.1 The 1951 Constitution

The administrative transformation of chiefdoms also elicited political demands for greater inclusion in governing at the state level. The response of the colonial masters to increased political activities, especially in the Protectorate was to formally form two higher level consultative bodies, the Protectorate Assembly and the district councils. The district councils were an assembly of paramount chiefs and non-chief elites from the same district. Whereas the Protectorate Assembly was a gathering of chiefs (Cartwright, 1970). Consultation to advance the constitutional development of Sierra Leone as a nation, intensified with a key objective of narrowing the Protectorate-Colony cleavage. The initial

proposal for a constitution was for the Protectorate to have a greater majority of members elected from the various African bodies, but less than the majority of the whole of the legislative council. The intention was that if the Africans were to have a majority, the Protectorate and the Colony representatives had to work together. The membership under the proposed constitution was to have seven official members (Europeans), two unofficial members nominated by the governor, four members from the Colony and ten members from the Protectorate. The ten Protectorate members were to be elected from the Protectorate Assembly.

This proposal drew concerns from the three main political groups, and further heightened mistrust. On the one hand, the Krios who were more educated and already held high government positions in Freetown thought they should get greater, if not majority, representation. To them, a Protectorate majority was an affront, and a betrayal by the colonial masters. They were suspicious that the Protectorate elites would use their new power to constrain their rights.

The paramount chiefs on the other hand were largely in favour of most of the provisions of the proposal, except for the literacy requirement. It was the educated Protectorate elites who had the greatest risk of losing out. They largely held lower level civil servant positions in the Provinces, and were disenfranchised as they were often domiciled outside the home chiefdoms, and could not stand for elected office. The fact that Protectorate members were to be elected from the Protectorate Assembly meant only chiefs would be elected. While they welcomed the idea of greater Protectorate membership in the Legislative council, they wanted more space for non-chief educated Protectorate members. They pushed for the literacy requirement to stay, as well as additional selection process outside the Protectorate Assembly.

The final constitution that emerged in 1951 made provision for non-chief elites and made literacy optional for each district to consider. Of the 31 members, twenty

one were Africans, of which fourteen were elected from the Protectorate, seven from the Colony. Of those from the Protectorate, eight were paramount chiefs. Crucially also, four members of the legislative council were added to the executive council. Elected members could serve a term of five years, and could be reelected. See Figure 2.5 for the complete list of members in the first legislative council in 1951.

By the time Sierra Leone got Independence in 1961, subsequent negotiations were made so that a separate election process was made for ordinary members, and for paramount chiefs to the legislative council, with each of the twelve districts selecting one Paramount chief. The current system of electing members of parliament follows this rule. Ordinary members compete in constituencies for popular vote, whereas paramount chiefs from various chiefdoms in a district compete with each other to represent that district.

2.3 Data

2.3.1 Legislative Council Membership

My analysis aims to compare chiefdom level public goods provision in education and health between chiefdoms whose paramount chiefs were members of the legislative council versus chiefdoms that did not. Using minutes from legislative council meetings for the period 1924 to 1958, and the Protectorate Handbook, I identified all chiefdoms that had their paramount chiefs in the legislative council. The legislative council minutes lists names of members from the Districts, as shown in Figure 2.5 in the Appendix. To determine which member is a paramount chief and for which chiefdom, I cross checked names with the list of paramount chiefs from the Protectorate Handbook, which lists paramount chiefs for each District as shown in Figure 2.6 in the Appendix. I used the 1951 legislative council membership as the main explanatory variable, and the names of all the paramount chiefs that were members are listed in Table 2.13 in the Appendix. The binary variable takes value 1 if chiefdom has paramount chief in legislative council in 1951,

and 0 otherwise.

The choice of 1951 was for two reasons. First, previous legislative councils, from 1924 to 1950 had only three paramount chiefs that were hand picked largely by the governor. On other hand, the 1951 legislative council was the first after the first constitution that expanded African majority in decision making, with eight Paramount chiefs. The second reason is that the only chiefdom level outcome data available was captured after independence in 1963. An immediate concern that comes to mind was whether membership to legislative council changed from 1951 to 1963. The answer to this for the most part is no. From 1951 to 1957, there was no change in the chiefdoms that had representation in the legislative council, which means using any of the years in the period would not change the results. In the period 1958 to 1961, the legislative council was furthered expanded and transformed to the House of Representatives. With the expanded body, three additional chiefdoms were added, but the previous eight were still represented in the period. Furthermore, in 1958, leadership of the country was all but in the hands of the African elites, as the Executive Council was changed to a Cabinet body that was headed by African elites, and the governorship, still held by the colonial master was mainly a ceremonial role. To test the robustness of my finding I construct a variable that takes value 1 if a chiefdom was represented in either the legislative council or the House of Representative in the period 1951 to 1961, and 0 otherwise.

2.3.2 Outcome Data

For my main result, I look at education and health outcomes. For education, I specifically look at primary school attendance and literacy rates from the 1963 census. The first chiefdom level data on the outcomes are captured in the 1963 census. The data is disaggregated by age cohorts and by gender. For each chiefdom, the total population in each age cohort is given and the number of pupils that attended school that year is given, as well as literacy rates, as shown by the raw data in Figure 2.7 in the Appendix.

As primary school attendance is typically age bound, I exploit within chiefdom cohort variation to construct treatment and control groups in difference-in-difference estimation strategy. I provide summary statistics for the various age cohorts in Table 2.14.

I also use 2015 census data, which captures data on primary education attainment in the population, and asked a related question of whether an individual had ever attended school in the chiefdom. Both these questions provide a good indication of the extent and history of education in the chiefdom. I only use individuals who are resident in their chiefdom of birth. A final outcome data I use is the 2018 school mapping census, which captures geo-spatial locations of all primary and secondary school facilities in the country as shown in Figure 2.8 in Appendix. The data was collected by the government to understand whether the current stock of school facilities across the country meets the demand. It captures both recent and historical investments in education in the country. I use the geo-spatial information to obtain the number of school facilities in each chiefdom. Table 2.14 in the Appendix provides summary statistics for the outcome variables.

For health, I use the 1960 Protectorate Handbook which lists hospitals and dispensaries in chiefdoms. The availability of these facilities are proxies for better health outcomes, but represents government allocation of resources. The facilities are designated according to ownership as shown in Figure 2.9 in the Appendix. The summary statistics are given in Table 2.14 in the Appendix. Ideally, if the dates facilities were constructed are known I would employ a difference-in-difference strategy in my estimation. Unfortunately this information is not available, and hence I only use cross-sectional analysis for my health outcomes.

2.3.3 Other Data and Chiefdom Controls

In addition to the outcomes listed above, I also used tax collected in the colonial era by each chiefdom to assess any difference in education outcome associated with better tax collection. The presence of missionaries in the chiefdom or the distance to nearest

mission could also affect education outcomes. I control for these in my analysis. Other chiefdom level controls in my analysis include geographic, economic, and institutional factors, all obtained from published sources including Acemoglu, Reed, and Robinson (2014), Glennerster, Miguel, and Rothenberg (2013), Nunn (2010), Michalopoulos and Papaioannou (2013), and Gregory (1965). Table 2.15 in Appendix provides summary statistics for these variables.

2.4 Empirical Strategy

I first rely on Ordinary Least Squares (OLS) to establish a link with membership to the legislative council and better chiefdom level public goods provision. An immediate concern is that there may be chiefdom level observables and unobservables that jointly correlate with chief membership to the legislative council and better public goods outcomes. For instance, missionaries' activities in education in a particular chiefdom could mean both better education outcomes, which also helps chiefs gain membership to the legislative council as literacy was a requirement for membership. To partially address thes types of concerns, I first identify chiefdom observables that may jointly correlate with chief membership and better education outcomes, and control for these in the estimation. Table 2.16 in the Appendix shows a list observables that correlate with chief membership to the 1951 legislative meetings.

For my education outcomes, I take one more step to address concerns that unobservables may confound my results. I exploit variations in age cohort within the chiefdoms from the 1963 census data and membership to the legislative council to motivate a difference-in-difference design. Schooling is typically age bound, which means the effect of membership to the legislative council will only affect children of school going age. By 1963 most schools in the chiefdoms were still only for primary education, and attendance to primary is typically between ages 6 to 12. For school enrollmentment to be associated

with chief membership to the 1951 legislative council, most children would likely have to be in this age bracket in 1963 when census was collected.

Using that information I construct five age cohorts, two of which I define as treatment groups; **T1**; children that were 5 years old in 1963, **T**2; those that were 10 years old in 1963. I also define three control groups, **C1**; children that were 15 years old in 1963, **C2**; people 20 years old in 1963, and **C3**; people that were 25 years old and above in 1963.[1] I use a similar strategy for literacy rate, although treatment and control groups are harder to define directly as literacy is not bounded by age in a similar manner as primary school enrollment. For instance, it is not exactly clear how long one has to be in school to be literate. In addition, there might have also been other sources of education like mission churches to promote literacy. However, it would be safe to assume that literacy of older cohorts are less likely to be associated with membership to the 1951 legislative council, whereas younger age groups are more likely. With this in mind, I define four age cohorts, two potential treatment groups: **T1**; age group 10-19, **T2**; age group 20-29. And two control groups: **C1**; age group 30-39 and **C2**; 40 years and over.

A potential concern for this cohort set up for both school enrollment and literacy is the movement of people from one chiefdom to the next. If people are moving between chiefdoms we can't be sure that outcomes observed, say literacy, is as a result of the particular chiefdom they find themselves in at the time of the census in 1963. In the Sierra Leone context however, and especially pre-independence, this concern is reduced because citizenship status is tied to chiefdoms, and because it is harder for non-natives to gain access to land in other chiefdoms. With agriculture being the primary source of livelihood for most people at this time, access to land limits the movement of people between chiefdoms.

[1] I include 5 and as treatment cohorts, because they are just at the border of primary school going age groups.

2.4.1 OLS Specification

The OLS specification is given as follows:

$$Y_c = \alpha_d + \delta Leg_c + X_c + \varepsilon_c \tag{2.1}$$

Where, Y_c is the outcome variable for chiefdom c. From the 2018 school mapping, I use number of schools and chiefdom enrolment. The parameter α_d is for the district fixed effects, and Leg_c is the dummy for PC of chiefdom c membership to legislative council in 1951. The vector X_c are relevant chiefdom controls such as geographic, economic, politics, and pre-colonial centralization. The error term is given by ε_c and clustered at chiefdom level. The correlation estimate is give by δ. For binary outcomes like primary education attainment, this model can be viewed as a Linear Probability Model, and δ interpreted as predicted probability.

As the 2015 census data are captured at the individual level, I use the following specification:

$$Y_{ic} = \alpha_c + \delta Leg_c + I_{ic} + X_c + \varepsilon_{ic} \tag{2.2}$$

Where, Y_{ic} is the outcome variable for unit/individual i in chiefdom c, α_c is the district fixed effects, and Leg_c is the dummy for PC of chiefdom c membership to legilative council in 1951. I add relevant unit/individual controls with the vector I_{ic}, and chiefdom controls with X_c. The error term is given by ε_{ic} and it is clustered at the chiefdom level. The correlation estimate is given by δ.

2.4.2 DiD Specification

The difference-in-difference specification is as follows:

$$Y_{ct} = \alpha_d + \beta_t + \delta(Leg_c \times cohort_t) + X_{ct} + \varepsilon_{ct} \tag{2.3}$$

The outcome variables are number of children enrolled in school and literacy rate from the 1963 census for chiefdom c. The parameters α_d is for the district fixed effects that captures shocks common to all districts and β_t is the cohort fixed effects, which captures characteristics common to everyone in the same age cohort from the same chiefdom. $cohort_t$ is dummy for each age cohort t, which is interacted with Leg_c, the dummy for PC of chiefdom c membership to legislative council in 1951. The vector X_{ct} are possible relevant chiefdom controls such as geographic, economic, politics, and pre-colonial centralization. It also contains cohort characteristics in each chiefdom such as cohort population. The error term is given by ε_{ct} and clustered at chiefdom level. The correlation estimate is give by δ, is the coefficient on the interaction term, which is the impact of legislative council membership experienced by a particular cohort. This impact is the relative increase school attendance or literacy with respect to the comparison cohort in the same chiefdom.

I also do a more conventional difference-in-difference specification to estimate the average treatment effect (ATT) as given by equation 3.4. With this specification, I define treatment cohort $treat_{ct}$ to takes value 1 if child in chiefdom c is 10 years or under in 1963 and 0 otherwise, for primary school attendance. For literacy, $treat_{ct}$ takes value 1 if person in chiefdom c is 15 years or under in 1963, and 0 otherwise.

$$Y_{ct} = \alpha_d + \beta_c + \delta(Leg_c \times treat_{ct}) + X_{ct} + \varepsilon_{ct} \tag{2.4}$$

Here, the parameters α_d is for the district fixed effects, β_c is the cohort fixed effects as defined above. For school attendance, this includes five cohorts, and for literacy four cohorts. The interaction term $Leg_c \times \text{treat}_{ct}$ is the DiD estimator. The vector X_{ct} are

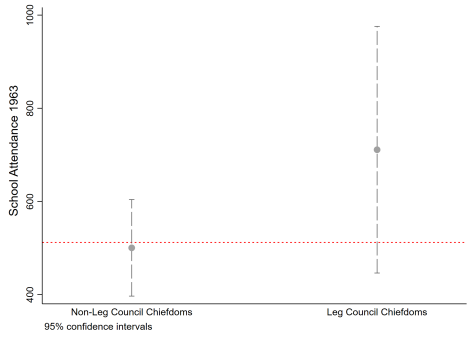
possible relevant chiefdom controls similar to 4.3 above. The parameter δ now captures the ATT.

2.5 Results

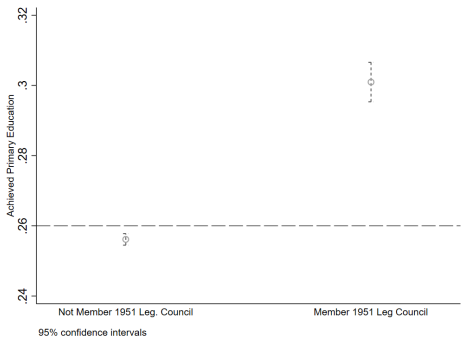
In this section I present the results of my analysis. I first present simple mean differences for the outcomes. I then present OLS estimates for the education and health outcomes. For robustness, I then present difference-in-difference estimates for the 1963 education outcomes. I repeat my OLS analysis for education outcomes from the 2015 censuses and 2018 administrative mapping of school to capture if effects are persistent over time.

2.5.1 Simple Mean Differences

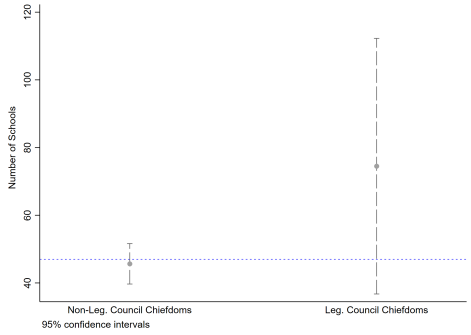
Figure 2.1 below shows confidence interval plots of means for four main outcomes of my study. The circles represent means for each outcome for the two groups, and the dotted vertical lines represent confidence intervals. The dotted horizontal line is the population mean. For each of these outcomes the mean for chiefdoms whose Paramount chiefs were in the legislative council is much higher than other chiefdoms. Although for some the differences are not statically significant, but they are large. For instance in Panel (a) school attendance in 1963 is about 711 pupils in chiefdoms with chief in legislative council versus 430 pupils in the other chiefdoms. Although this difference is not statistically significant, it is economically significant at about 55% of the population average.



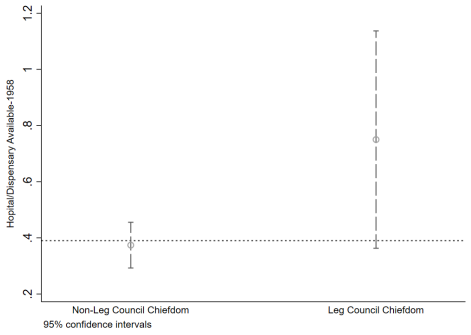
(a) School Attendance -1963



(b) Attained Primary Education-2015



(c) Number of Schools-2018



(d) Hospital or Dispensary Available-1958

NOTE- Dotted horizontal lines are outcome means for each group

Figure 2.1: Confidence Interval Plots of Outcomes for Each Group.

For hospitals or dispensaries, chiefdoms whose chiefs were in the legislative council are almost twice as likely to have a hospital or dispensary as other chiefdoms, as shown in Panel (d) in 2.1.

2.5.2 OLS Estimates

Education Outcomes

In this section I present correlation coefficients by estimating equation 4.1 above using OLS. I start with education outcomes. Table 2.1 below presents the results for the share of 5-29 year olds that were in school attendance in 1963. Column 1 is the most parsimonious model with only district fixed effects. In column 2, I control for institution and add demographic and economic controls in column 3 and 4 respectively. In column 5, I control for the presence of missionaries in the chiefdom as a potential confounder of my analysis.

As predicted, the coefficient on PC membership to the 1951 legislative council is positive and significant. In the most rigorous model the estimates are, $\delta = 0.019$, (S.E = 0.010). This suggests that chiefdoms whose chiefs were members of the 1951 legislative council are associated with a 1.9% higher share in population that attended school in 1963, compared to those that did not have chiefs on the legislative council. I estimated the same model but using membership to the legislative council and house of representative from 1951 to 1961. The results are shown in Table 2.17 in the Appendix. The correlation coefficient is much larger, with $\delta = 0.035$ (S.E = 0.010), in the most rigorous model in column (5).

Table 2.1: School Attendance-1963

	Share of 5-29 Year Old Attending School in 1963				
VARIABLES	(1)	(2)	(3)	(4)	(5)
PC Membership to 1951 Leg. Council	0.019*	0.024***	0.018**	0.023**	0.019*
	(0.010)	(0.009)	(0.009)	(0.009)	(0.010)
Population 1963			0.000**	0.000	0.000
			(0.000)	(0.000)	(0.000)
Mission Presence					0.009
					(0.015)
District Fixed Effects	Yes	Yes	Yes	Yes	Yes
Controls for Chiefdoms Politics		Yes	Yes	Yes	Yes
Demographic Controls			Yes	Yes	Yes
Geographic and Economic Controls					Yes
Outcome Mean	0.082	0.082	0.082	0.082	0.082
Outcome Standard Deviation	0.048	0.048	0.048	0.048	0.048
Observations	145	145	145	145	145
R-squared	0.439	0.485	0.504	0.558	0.560

NOTE- Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Missing data on outcome variable for four chiefdoms. Fixed effects are for all districts with data on outcome variable. Geographic and economic controls include an indicator variable if the chiefdom had license for mining (diamonds and non-diamond), distance to 1907 rail road. All distances are in km and are calculated with reference to chiefdom centroids. Demographic controls include chiefdom 1963 ethnolinguistic fractionlization index. Controls for institutions include political competition at chiefdom level, number of chiefs recalled, an indicator variable for the presence of pre-colonial politically centralized ethnic groups, and whether chiefdom was amalgamated.

Next, I show results for literacy rates in Table 2.2 below. I calculate the share of population age 10 years and above that is literate in each chiefdom and use as my outcome

variable. Models (1) to (5) are similar to those in Table 2.1 above. With just the district fixed effects in column (1), the coefficient is positive but not statistically significant. In column (5) with all the controls the coefficient is significant, with $\delta = 0.012$ (S.E = 0.006). The result suggests that chiefdoms whose chiefs were members of the legislative council were associated with a 1.2% higher share in literate population compared to chiefdoms that did not have representation. I repeat the same model using membership to the legislative council and House of Representative from 1951 to 1961 in Table 2.18 in the Appendix. The estimates in columns (1) to (5) are all larger and statistically significant.

Table 2.2: Literacy Rate for Population 10 Years and Over

	Literacy Rate 10 Years and Over - 1963				
VARIABLES	(1)	(2)	(3)	(4)	(5)
PC Membership to 1951 Leg. Council	0.010	0.013**	0.010*	0.013**	0.012**
	(0.007)	(0.005)	(0.005)	(0.006)	(0.006)
Population 1963			0.000***	0.000***	0.000***
			(0.000)	(0.000)	(0.000)
Mission Presence					0.002
					(0.007)
District Fixed Effects	Yes	Yes	Yes	Yes	Yes
Controls for Chiefdoms Politics		Yes	Yes	Yes	Yes
Demographic Controls			Yes	Yes	Yes
Geographic and Economic Controls					Yes
Outcome Mean	0.04	0.04	0.04	0.04	0.04
Outcome Standard Deviation	0.03	0.03	0.03	0.03	0.03
Observations	145	145	145	145	145
R-squared	0.175	0.236	0.371	0.426	0.426

NOTE- Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Missing data on outcome variable for four chiefdoms. Fixed effects are for all district with data on outcome variable. Geographic and economic Controls include an indicator variable if the chiefdom had license for mining (diamonds and non-diamond), distance to 1907 rail road. All distances are in km and are calculated with reference to chiefdom centroids. Demographic controls include chiefdom 1963 ethnolinguistic fractionlization index. Controls for institutions include political competition at chiefdom level, number of chiefs recalled, an indicator variable for the presence of pre-colonial politically centralized ethnic groups, and whether chiefdom was amalgamated.

Hospitals and Dispensaries

This paper investigates whether chiefdoms whose paramount chiefs were members of the 1951 legislative council had better outcomes in public goods provision. And

one hypothesis is that this may have happened through government allocations. Since government does not only allocate one type of public good (Kramon & Posner, 2013), I use access to hospitals or healthcare centers as another outcome variable to test this hypothesis.

Table 2.3 below presents result of my analysis. The outcome variable is a binary variable that takes the value 1 if a hospital or dispensary is present in the chiefdom, and 0 otherwise. I estimate the equation 4.1 as a Linear Probability Model, such that the coefficient is interpreted as the probability of observing a hospital or dispensary in a chiefdom. Column (1) only has district fixed effects with additional chiefdom level controls added, with full set of controls in column (5). In the most parsimonious model in column (1), the coefficient is positive and statistically significant, suggesting that chief membership to the 1951 legislative council is associated with a higher predicted probability of a chiefdom having a hospital or a dispensary. The magnitude of the coefficient drops from $\delta = 0.37$, S.E = 0.15 in column (1) to $\delta = 0.25$, S.E = 0.15, in column (5).

In Table 2.19 in the Appendix, I estimate the same model, but this time the outcome variable is the number of hospitals or dispensaries. The results tell a similar story, which is that chief membership to 1951 legislative council is associated with a higher number of hospitals or dispensaries in chiefdoms.

2.5.3 DiD Estimates with 1963 Education Outcomes

Although I have used district fixed effects and controlled for chiefdom level observables in my OLS estimation, my estimates are still subject to biases from unobservable differences across chiefdoms. I use a DiD estimation strategy to address these concerns. Unfortunately, only the 1963 census data allows me to carry out this empirical strategy.

I present results from the DiD estimation starting with school attendance in 1963 in Table 2.4 below. Column (1) presents the most parsimonious model with only

Table 2.3: Hospital/Dispensary Available in Chiefdom

	Hospital or Dispensary Present in Chiefdom in 1958				
VARIABLES	(1)	(2)	(3)	(4)	(5)
PC Membership to 1951 Leg. Council	0.37**	0.37**	0.30**	0.33**	0.25*
	(0.15)	(0.15)	(0.14)	(0.13)	(0.15)
Population 1963			0.00***	0.00***	0.00***
			(0.00)	(0.00)	(0.00)
Mission Presence					0.22
					(0.13)
District Fixed Effects	Yes	Yes	Yes	Yes	Yes
Controls for Chiefdoms Politics		Yes	Yes	Yes	Yes
Demographic Controls			Yes	Yes	Yes
Geographic and Economic Controls				Yes	Yes
Outcome Mean	0.39	0.39	0.39	0.39	0.39
Outcome Standard Deviation	0.49	0.49	0.49	0.49	0.49
Observations	147	147	147	147	147
R-squared	0.18	0.18	0.30	0.32	0.33

NOTE- Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Missing data on outcome variable for two chiefdoms. Fixed effects are for all district with data on outcome variable. Geographic and economic Controls include an indicator variable if the chiefdom had license for mining (diamonds and non-diamond), distance to 1907 rail road. All distances are in km and are calculated with reference to chiefdom centroids. Demographic controls include chiefdom 1963 ethnolinguistic fractionlization index. Controls for institutions include political competition at chiefdom level, number of chiefs recalled, an indicator variable for the presence of pre-colonial politically centralized ethnic groups, and whether chiefdom was amalgamated.

district and cohort fixed effects. I include chiefdom politics, demographic, and geographic and economic controls in columns (2)-(5) respectively. As a base case, the interaction term for cohort 5, people 25 years and above is left out. Cohorts 1 and 2 are considered treatment groups, whereas cohorts 4, and base cohort are considered control groups. The coefficients on the interaction term for each cohort captures the share of pupils in that age group enrolled in school in 1963 in chiefdoms whose paramount chief was a member of the 1951 legislative council relative to the base cohort.

As anticipated, the coefficient on the interaction with cohort 2, which is for pupils ten years old is positive and statistically significant, with $\delta = 0.05$ (S.E = 0.03), suggesting that relative to the base cohort, school attendance was 5% higher for chiefdoms whose paramount chief was member of the 1951 legislative council. The magnitude does not change as I include more controls in the model in columns (2)-(4). It loses statistical significance in column (5), when I control for missionary presence. The coefficients on the interaction term with cohort 1 is statistically significant with $\delta = 0.03$, (S.E = 0.01) in column (2); $\delta = 0.02$, (S.E = 0.01) in column (3); and $\delta = 0.02$, (S.E = 0.01) in column (4). The coefficient in column (5) is not statistically significant, although the magnitude remains the same. As noted above, although possible, it is not typical for five year olds to be in school, as such the magnitude of the coefficient is not too different from the base cohort.

Table 2.4: School Attendance-Relative to Comparison Cohort

	Share of Children in School Attendance				
VARIABLES	(1)	(2)	(3)	(4)	(5)
Memb. 1951 Leg.Council $\times Cohort1$	0.02	0.03**	0.02*	0.02*	0.02
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Memb. 1951 Leg.Council $\times Cohort2$	0.05*	0.05*	0.05*	0.05*	0.05
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Memb. 1951 Leg.Council $\times Cohort3$	0.02	0.02	0.02	0.02	0.02
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Memb. 1951 Leg.Council $\times Cohort4$	0.01	0.02	0.01	0.01	0.01
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Population 1963			0.00***	0.00*	0.00**
			(0.00)	(0.00)	(0.00)
Mission Presence					0.01
					(0.01)
District Fixed Effects	Yes	Yes	Yes	Yes	Yes
Controls for Chiefdom Politics		Yes	Yes	Yes	Yes
Demographic Controls				Yes	Yes
Geographic and Economic Controls					Yes
Outcome Mean	0.082	0.082	0.082	0.082	0.082
Outcome Standard Deviation	0.104	0.104	0.104	0.104	0.104
Number of Chiefdoms	145	145	145	145	145
Observations	725	725	725	725	725
R-squared	0.64	0.65	0.65	0.67	0.67

NOTE- Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Missing data on outcome variable for two chiefdoms. Fixed effects are for all district with data on outcome variable. Geographic and economic Controls include an indicator variable if the chiefdom had license for mining (diamonds and non-diamond), distance to 1907 rail road. All distances are in km and are calculated with reference to chiefdom centroids. Demographic controls include chiefdom 1963 ethnolinguistic fractionlization index. Controls for institutions include political competition at chiefdom level, number of chiefs recalled, an indicator variable for the presence of pre-colonial politically centralized ethnic groups, and whether chiefdom was amalgamated.

The interaction term with cohorts 3, and 4, the other control groups is not statistically significant, with $\delta = 0.02$, (S.E $= 0.02$) and $\delta = 0.01$, (S.E $= 0.01$), respectively, suggesting they are not statistically different from the base cohort. The magnitudes on these coefficients are also much smaller, especially in comparison to cohort 2, which supports the hypothesis of this paper.

Next, I present results for literacy rate in Table 2.5 below. The models are

similar to those in Table 2.4 above. I used cohort 4 (people 40 years and above) as a base case, which is left out. Cohorts 1 and 2 are considered treatment groups, whereas cohorts 4 and base cohort are considered control groups. The coefficients on the interaction term for each cohort captures the share of people that are literate in that age group in 1963 in chiefdoms whose paramount chief was a member of the 1951 legislative council relative to the base cohort.

Table 2.5: Literacy Rate-Relative to Comparison Cohort

	Literacy Rate				
VARIABLES	(1)	(2)	(3)	(4)	(5)
Memb. 1951 Leg.Council $\times Cohort1$	0.02	0.02*	0.02	0.02*	0.02
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Memb. 1951 Leg.Council $\times Cohort2$	0.01***	0.01***	0.01***	0.01***	0.01***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Memb. 1951 Leg.Council $\times Cohort3$	0.01**	0.01***	0.01***	0.01***	0.01***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Population 1963			0.00***	0.00***	0.00***
			(0.00)	(0.00)	(0.00)
Mission Presence					0.00
					(0.01)
District Fixed Effects	Yes	Yes	Yes	Yes	Yes
Controls for Chiefdom Politics		Yes	Yes	Yes	Yes
Demographic Controls				Yes	Yes
Geographic and Economic Controls					Yes
Outcome Mean	0.04	0.04	0.04	0.04	0.04
Outcome Standard Deviation	0.05	0.05	0.05	0.05	0.05
Number of Chiefdoms	145	145	145	145	145
Observations	1,160	1,160	1,160	1,160	1,160
R-squared	0.54	0.56	0.60	0.62	0.62

NOTE- Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Missing data on outcome variable for two chiefdoms. Fixed effects are for all district with data on outcome variable. Geographic and economic Controls include an indicator variable if the chiefdom had license for mining (diamonds and non-diamond), distance to 1907 rail road. All distances are in km and are calculated with reference to chiefdom centroids. Demographic controls include chiefdom 1963 ethnolinguistic fractionlization index. Controls for institutions include political competition at chiefdom level, number of chiefs recalled, an indicator variable for the presence of pre-colonial politically centralized ethnic groups, and whether chiefdom was amalgamated.

As can be seen, the coefficient on the interaction term for cohort 1 is positive, with $\delta = 0.02$, (S.E = 0.01). It is weakly statistically significance across the five models.

The coefficient on the interaction term for cohorts 2 and 3 are positive and identical, with $\delta = 0.01$, (S.E = 0.00) for both. This suggests that relative to the base, literacy rate was 1% higher among these age groups for chiefdoms whose paramount chiefs were members of the 1951 legislative council. The fact that the coefficient on the interaction term for one of the possible control groups, cohort 3, is identical to that of cohort 1 makes the analysis less conclusive for literacy rate.

2.5.4 ATT Estimates

In Table 2.6 below, I present results for the ATT estimation for the share of children in school attendance. The coefficient of the DiD estimator is positive and significant in columns (1) to (4), with $\delta = 0.04$ in column (4), suggesting that primary school attendance for children in the treatment cohort, that is those that are 10 years and under, in chiefdoms whose paramount chief were members of the 1951 legislative council is about 4% higher than those that are not. This result is consistent to that in Table 2.4 above.

Table 2.6: ATT Estimates for School Attendance

	Share of Children in School Attendance				
VARIABLES	(1)	(2)	(3)	(4)	(5)
Treat $\times Memb.1951 Leg.Council$	0.03*	0.04**	0.03*	0.04*	0.03
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Cohort 1	0.07***	0.07***	0.07***	0.07***	0.07***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Cohort 2	0.20***	0.20***	0.20***	0.20***	0.20***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Cohort 3	0.12***	0.12***	0.12***	0.12***	0.12***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Cohort 4	0.01***	0.01***	0.01***	0.01***	0.01***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Population 1963			0.00***	0.00**	0.00**
			(0.00)	(0.00)	(0.00)
Mission Presence					0.02
					(0.01)
District Fixed Effects	Yes	Yes	Yes	Yes	Yes
Controls for Chiefdom Politics		Yes	Yes	Yes	Yes
Demographic Controls				Yes	Yes
Geographic and Economic Controls					Yes
Outcome Mean	0.082	0.082	0.082	0.082	0.082
Outcome Standard Deviation	0.104	0.104	0.104	0.104	0.104
Number of Chiefdoms	145	145	145	145	145
Observations	725	725	725	725	725
R-squared	0.64	0.65	0.65	0.66	0.67

NOTE- Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Missing data on outcome variable for two chiefdoms. Fixed effects are for all district with data on outcome variable. Geographic and economic Controls include an indicator variable if the chiefdom had license for mining (diamonds and non-diamond), distance to 1907 rail road. All distances are in km and are calculated with reference to chiefdom centroids. Demographic controls include chiefdom 1963 ethnolinguistic fractionlization index. Controls for institutions include political competition at chiefdom level, number of chiefs recalled, an indicator variable for the presence of pre-colonial politically centralized ethnic groups, and whether chiefdom was amalgamated.

The ATT estimate for literacy are also consistent with result in 2.5 above. In Table 2.7 below the coefficient on the DiD estimator is also positive, with similar magnitude, although not statistically significant.

Table 2.7: Literacy Rate

	Literacy Rate				
VARIABLES	(1)	(2)	(3)	(4)	(5)
Treat X Memb. 1951 Leg. Council	0.02	0.02*	0.02	0.02	0.02
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Cohort 1	0.08***	0.08***	0.08***	0.08***	0.08***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Cohort 2	0.01***	0.01***	0.01***	0.01***	0.01***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Cohort 3	0.01***	0.01***	0.01***	0.01***	0.01***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Population 1963			0.00***	0.00***	0.00***
			(0.00)	(0.00)	(0.00)
Mission Presence					0.00
					(0.01)
District Fixed Effects	Yes	Yes	Yes	Yes	Yes
Controls for Chiefdom Politics		Yes	Yes	Yes	Yes
Demographic Controls				Yes	Yes
Geographic and Economic Controls					Yes
Outcome Mean	0.04	0.04	0.04	0.04	0.04
Outcome Standard Deviation	0.05	0.05	0.05	0.05	0.05
Number of Chiefdoms	145	145	145	145	145
Observations	1,160	1,160	1,160	1,160	1,160
R-squared	0.14	0.56	0.59	0.62	0.62

NOTE- Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Missing data on outcome variable for two chiefdoms. Fixed effects are for all district with data on outcome variable. Geographic and economic Controls include an indicator variable if the chiefdom had license for mining (diamonds and non-diamond), distance to 1907 rail road. All distances are in km and are calculated with reference to chiefdom centroids. Demographic controls include chiefdom 1963 ethnolinguistic fractionlization index. Controls for institutions include political competition at chiefdom level, number of chiefs recalled, an indicator variable for the presence of pre-colonial politically centralized ethnic groups, and whether chiefdom was amalgamated.

2.5.5 Persistence

A useful question to ask given the results so far is how long the observed effect lasts? Do all the chiefdoms today have similar levels of public goods outcomes despite the initial inequality observed at independence? To answer this question, I estimate equations 4.1 and 4.2 and use contemporary outcomes.

In Table 2.8 below I present results from estimating equation 4.2 using data

from the latest population census conducted in 2015. The census asked individuals in the population if they have attained primary education. I use this to construct my outcome variable, which takes value 1 if an individual says they have attained primary education and 0 otherwise. As data is captured at the individual level, I control for individual level factors such as age, gender and ethnicity. All other controls are the same as the chiefdom controls from the base result in 2.1 above. In column (5), I control for share of population in school attendance in 1963, which captures any evidence of catch-up in school attainment over the years. The coefficients in columns (1) to (4) are all positive and statistically significant, with as high as $\delta = 0.04$, suggesting that on average, primary school attainment in chiefdoms whose chief was a member of the 1951 legislative council is more likely to have attained primary education in 2015 compared to other chiefdoms. The coefficient in column (5) is positive but not statistically significant, indicating that there has been no catch-up over years. This result may in fact not be too surprising as education outcomes tend to be sticky from generation to the next (Alesina et al., 2018).

In Table 2.9, I provide further evidence to suggest a persistence of the observed effect on education. The table shows estimates from running equation 4.1, where the outcome variable is the number of primary and secondary school facilities in each chiefdom. This government data collection exercise mapped all existing schools in the country with the aim of understanding whether efforts to replenish the stock of education facilities through mass construction of schools since the end of the civil war had been enough to meet demand. The dataset therefore gives a good sense of historical and contemporary investment in education in the country. Models (1) to (5) are similar to those in the base models. The coefficients are all positive and statistically significant. They are also economically large. For instance in column (1), the result suggests that chief membership to the 1951 legislative council is associated with about $\delta = 24$ more school facilities in 2018. In column (5), which also controls for the school attendance in 1963, this number drops to $\delta = 16$. This difference is above a third of the average number of schools per chiefdom.

Table 2.8: Share of Population To Attain Primary Education

	Primary Education Attainment - 2015 Census				
VARIABLES	(1)	(2)	(3)	(4)	(5)
PC Membership to 1951 Leg. Council	0.04**	0.03***	0.04***	0.03**	0.02
	(0.02)	(0.01)	(0.01)	(0.01)	(0.01)
Age	-0.02***	-0.02***	-0.02***	-0.02***	-0.02***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Age$\hat{2}$	0.00***	0.00***	0.00***	0.00***	0.00***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Female	-0.12***	-0.12***	-0.12***	-0.12***	-0.12***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Population Density 2015		0.00***	0.00***	0.00***	0.00***
		(0.00)	(0.00)	(0.00)	(0.00)
Ln(Distance to Nearest Mission)			-0.02**	-0.04***	-0.03**
			(0.01)	(0.01)	(0.01)
Sch. Attendance 1963 (Share of Pop)					0.77***
					(0.10)
Ethnicity Fixed Effects	Yes	Yes	Yes	Yes	Yes
Chiefdom Politics and Demographic Controls		Yes	Yes	Yes	Yes
Geographic and Economic Controls			Yes	Yes	Yes
District Fixed Effects				Yes	Yes
Outcome Mean	0.26	0.26	0.26	0.26	0.26
Outcome Standard Deviation	0.438	0.438	0.438	0.438	0.438
Number of Chiefdoms	147	147	146	146	144
Observations	293,452	286,474	285,659	285,659	282,918
R-squared	0.10	0.11	0.11	0.12	0.12

NOTE- Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Missing data for five chiefdoms in column 5. Fixed effects are for all district with data on outcome variable. Controls include ethnicity fixed effects for all recorded ethnicity in the country. Geographic and economic Controls include an indicator variable if the chiefdom had license for mining (diamonds and non-diamond), distance to 1907 rail road. All distances are in km and are calculated with reference to chiefdom centroids. Controls for institutions include political competition at chiefdom level, number of chiefs recalled, an indicator variable for the presence of pre-colonial politically centralized ethnic groups, and whether chiefdom was amalgamated.

The results presented in the last two tables suggest that disparities in education outcomes inherited at independence still persists today. Despite all the institutional changes and development in the country, chiefdoms that were behind in public goods provision tend to still be the ones lagging behind today.

Table 2.9: Number of Schools

	Number of Schools				
VARIABLES	(1)	(2)	(3)	(4)	(5)
PC Membership to 1951 Leg. Council	23.97**	24.31***	22.20**	17.64**	15.73*
	(11.62)	(9.09)	(9.18)	(8.81)	(8.68)
Population Density 2015		0.16***	0.10**	0.08*	0.08*
		(0.04)	(0.04)	(0.05)	(0.05)
Mission Presence			16.74	23.35**	22.29**
			(10.94)	(11.10)	(10.95)
Sch. Attendance 1963 (Share of Pop)					98.04
					(68.92)
District Fixed Effects	Yes	Yes	Yes	Yes	Yes
Controls for Chiefdoms Politics		Yes	Yes	Yes	Yes
Demographic Controls			Yes	Yes	Yes
Geographic and Economic Controls				Yes	Yes
Outcome Mean	47.2	47.2	47.2	47.2	47.2
Outcome Standard Deviation	36.83	36.83	36.83	36.83	36.83
Observations	149	149	148	148	146
R-squared	0.21	0.34	0.44	0.41	0.41

NOTE- Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Missing data for one chiefdom in column 3 and three chiefdoms in column 5. Fixed effects are for all district with data on outcome variable. Geographic and economic Controls include an indicator variable if the chiefdom had license for mining (diamonds and non-diamond), distance to 1907 rail road. All distances are in km and are calculated with reference to chiefdom centroids. Controls for institutions include political competition at chiefdom level, number of chiefs recalled, an indicator variable for the presence of pre-colonial politically centralized ethnic groups, and whether chiefdom was amalgamated.

2.6 Making Sense of the Results

So far I have shown a strong positive association between membership to the 1951 colonial legislative council and better public goods provision. What is less clear is the mechanism through which this may have happened. Although I do not provide direct evidence for the observed effect, I explore three possible explanations.

The first explanation is that chiefdoms whose chiefs were members of the 1951 legislative council were able to collect more taxes from their chiefdoms compared to other chiefdoms, which they used to provide education and health facilities in their chiefdoms. This is a plausible explanation as the colonial government emphasized tax collection as a means for Africans to self-govern in the waning days of the colonial era (Cooper, 2019). One would expect members of the legislative council to be champions of such a cause. I directly test this hypothesis by investigating whether there is any difference in the amount of tax collected between chiefdoms with chiefs on the legislative council versus not. I present my analysis in Table 2.10 below. The outcome variable is tax per thousand chiefdom population collected in 1959. Although the coefficients on chief membership to the 1951 legislative council are all positive in all the models, they are not statistically significant and much smaller in magnitude relative to the mean. Suggesting that tax collected would not have contributed to the observed effect.

Table 2.10: Tax Collected

	Tax Collected-1959 (£/Thousand 1959 Population)				
VARIABLES	(1)	(2)	(3)	(4)	(5)
PC Membership to 1951 Leg. Council	22.80	24.66	29.87	30.95	24.40
	(24.51)	(25.83)	(26.18)	(25.47)	(21.87)
Population 1963			-0.00**	-0.00**	-0.00**
			(0.00)	(0.00)	(0.00)
Mission Presence					18.34
					(13.29)
District Fixed Effects	Yes	Yes	Yes	Yes	Yes
Controls for Chiefdoms Politics		Yes	Yes	Yes	Yes
Demographic Controls			Yes	Yes	Yes
Geographic and Economic Controls				Yes	Yes
Outcome Mean	1221.78	1221.78	1221.78	1221.78	1221.78
Outcome Standard Deviation	89.28	89.28	89.28	89.28	89.28
Observations	146	146	146	146	146
R-squared	0.68	0.69	0.70	0.71	0.71

NOTE- Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Missing data on outcome variable for three chiefdoms. Fixed effects are for all district with data on outcome variable. Geographic and economic Controls include an indicator variable if the chiefdom had license for mining (diamonds and non-diamond), distance to 1907 rail road. All distances are in km and are calculated with reference to chiefdom centroids. Demographic controls chiefdom 1963 ethnolinguistic fractionlization index. Controls for institutions include political competition at chiefdom level, number of chiefs recalled, an indicator variable for the presence of pre-colonial politically centralized ethnic groups, and whether chiefdom was amalgamated.

Another related, but slightly different explanation, is that because state governments are weak and lack the capacity to produce public goods in rural areas, they rely on local authorities, who were mostly chiefs to co-produce public goods. Co-production could sometimes mean chiefs or the communities may start a project, for instance, that the state would then complete. And would expect that because of the closeness to state decision making, chiefs on the legislative council will be more likely to start projects as they anticipate completion from state government. If this was the case, then these chiefdoms would have many more community owned or initiated efforts.

To test this idea, I disaggregate hospitals and schools by type of ownership and estimate equation 4.1 above for each type. Table 2.11 shows the result for hospitals. Column (1) shows the outcome for government-owned hospital/dispensaries. Similarly,

column (2) shows missionary owned facilities, and column (3) shows native administration-owned hospital/dispensaries. The native administration in this case is equivalent to a local or community ownership. Each coefficient can be interpreted as the predicted probability of observing each type of hospital in the chiefdom. The coefficient, δ in column (3) is positive but not statistically significant, suggesting that chiefdoms with chiefs in the legislative council did not seem to have high chances of having community owned hospitals or dispensaries.

I repeat the analysis for schools. The school mapping exercise designated school by ownership, which includes, government schools that are hundred percent funded by the state. Next are community schools, which get partial support from the state and thus represent a co-production effort. The last two categories are missionary schools that are funded by religious institutions and private schools, which are owned by individual proprietors. The result is given in Table 2.12 below. The outcome in each column is a binary variable that takes the value 1 for each type of school and 0 otherwise. As such the models estimate the predicted probability of observing each type of school in the chiefdom. The correlation coefficient δ is positive and statistically significant only for government and missionary schools in columns (2) and (3) respectively. The magnitude of the coefficient for community schools is much smaller, and not statistically significant and does not support the co-production hypothesis.

Table 2.11: Types of Hospital Or Dispensary

	Government Hop/Disp.	Missionary Hosp/Disp	Native Admin Hosp/Disp.
VARIABLES	(1)	(2)	(3)
PC Membership to 1951 Leg. Council	0.32*	-0.05	0.03
	(0.17)	(0.12)	(0.12)
Population 1963	0.00	0.00***	0.00
	(0.00)	(0.00)	(0.00)
Mission Presence	0.06	0.11	-0.04
	(0.12)	(0.12)	(0.08)
District Fixed Effect	Yes	Yes	Yes
All Controls	Yes	Yes	Yes
Outcome Mean	0.08	0.1	0.07
Outcome Standard Deviation	0.27	0.3	0.25
Observations	147	147	147
R-squared	0.28	0.21	0.34

NOTE- Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Missing outcome data for two chiefdoms. All controls are same as in Table 2.3 above.

Table 2.12: Schools By Ownership

	Community School	**Government School**	**Missionary School**	**Private School**
VARIABLES	(1)	(2)	(3)	(4)
PC Membership to 1951 Leg. Council	1.56	6.39***	14.07**	0.23
	(2.00)	(2.41)	(5.78)	(1.11)
Population Density (2015)	0.00	0.00	0.06**	0.03***
	(0.01)	(0.01)	(0.03)	(0.00)
Mission Presence	5.54**	4.99*	4.63	1.39
	(2.78)	(2.58)	(6.57)	(0.93)
All Controls	Yes	Yes	Yes	Yes
Outcome Mean	8.21	8.23	29.02	1.63
Outcome Standard Deviation	8.68	7.67	23.09	5.02
Observations	148	148	148	148
R-squared	0.51	0.40	0.36	0.57

NOTE- Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Missing data on chiefdom. All controls similar to Table 2.9

The third explanation I explore is that chiefs who were members of the legislative council may have used their proximity to the government to disproportionately direct state resources to their chiefdoms instead of evenly across all chiefdoms in the districts they represented in their capacity as legislators. This argument is akin to regional favouritism. This phenomenon is often discussed in the literature with respect to heads of state who direct resources or implement policies that favour specific regions or ethnic groups (Hodler & Raschky, 2014; Kramon & Posner, 2013; Kasara, 2007; Burgess et al., 2015; Bates, 1974). But the phenomenon can also apply in this context. Paramount chiefs in their capacity as legislators have responsibility to provide public goods in the entire district they represent. They influence policy and state allocation of resources. In the colonial era they also had substantial influence in where mission schools and hospitals can be located, as well as where to direct investments (Fenton, 1951; Richards, 2005; Fanthorpe, 2001). But instead of directing resources or policies to benefit all chiefdoms in their district, the incentives that shaped their office compelled them to focus only on their chiefdoms. To begin with, even though chieftaincy position is a life term, inter-generational competition

for the chieftaincy through ruling houses meant chiefs still had to care about how they performed in office. Using their legislative position to direct resources was a good way to leave a legacy that would benefit their lineage (Richards, 2003). They might even use progress in their chiefdoms relative to others as an indication of their ability to do the job. It, therefore, would not be a surprise if chiefs directed higher levels of public goods to their own chiefdoms.

The direct way to empirically establish this fact is to show actual government allocations in education and health that disproportionately went to favored chiefdoms. Unfortunately the available chiefdom level data in the period under study does not consistently document allocation from state government to the various chiefdoms. I only rely on the outcomes associated with these allocations. The base result already makes a clear association between legislative council member and better outcomes in education and health. In this section, I have already presented evidence that these difference are not due to better tax collection or co-production. The results in both Tables 2.11 and 2.12 show that the association between chief membership to the legislative council and better outcomes is strongest when the public good is provided or owned by government. I argue that this is plausibly because government allocations or policies disproportionately benefited the favoured chiefdoms.

2.7 Conclusion

In this paper, I investigate the effect of formally integrating chiefs in state governance. Chiefs typically rule almost exclusively in local communities. The link between chiefs and the formal state is often informal and takes the form of a patron-client association. How the formal connection between the state and chiefs affects public goods provision is the focus of this paper.

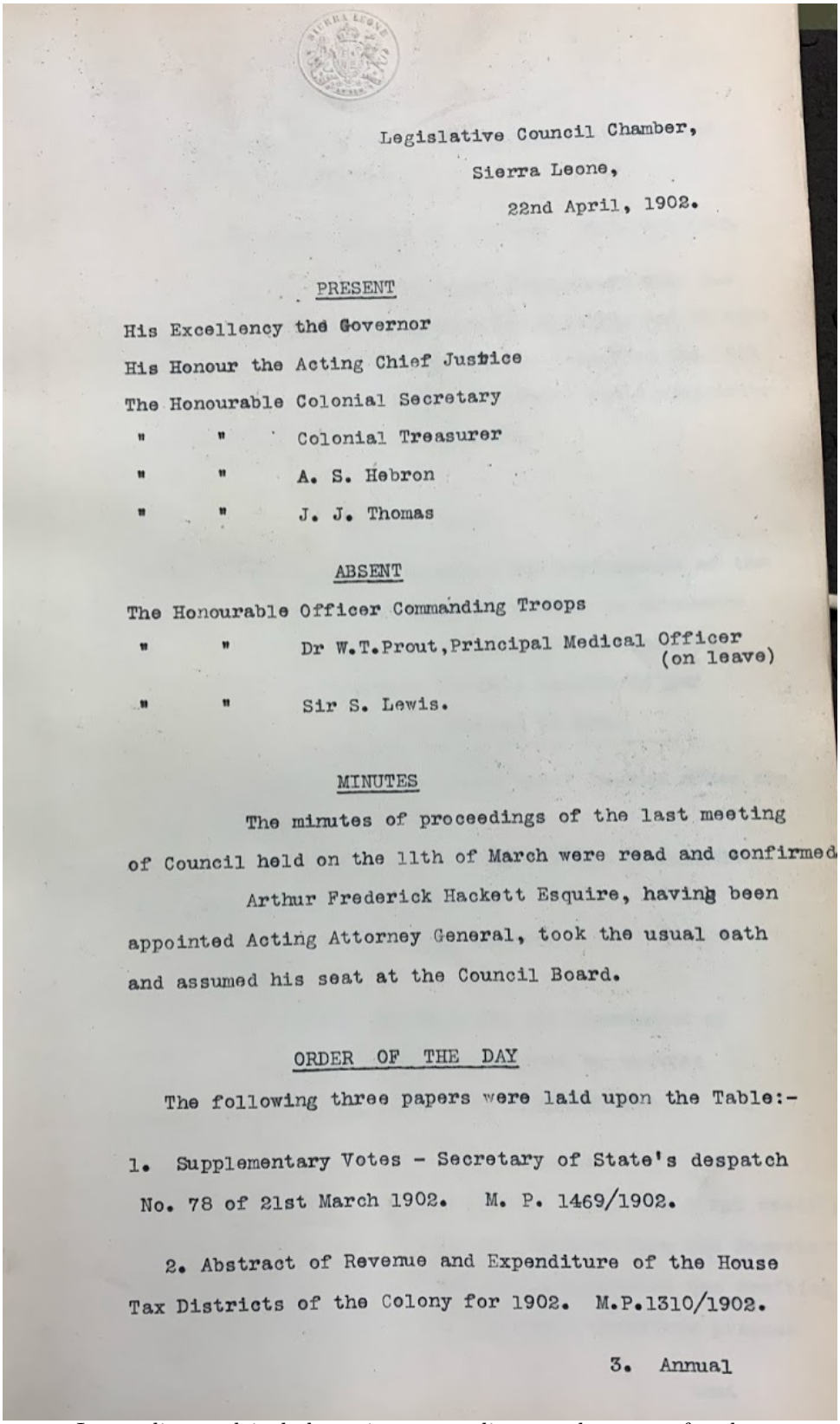
Using archival data and the historical census data I show a strong correlation

between the pattern of public goods provision in health and education at-independence and the integration of chiefs in the colonial state legislature. My analysis also suggests that there is degree of persistence to this correlation. Chiefdoms that had their chiefs integrated in the state legislature still have better outcomes in education today. The channels explored point to a localized regional favouritism, where chiefs in the legislature disproportionately favour their own chiefdoms instead of the rest of the district.

This paper provides a political rational for the origin of disparities in education and health outcomes and its persistence in the country. It provides the historical basis for the complexity around using chiefs to provide local public goods. While it is clear that the incentives that govern the institutions makes them perhaps more responsive in their immediate community, their role as agents of the states for wider public goods provision is less beneficial.

Appendix

Figure 2.2: Excerpt from April 22nd 1902 Legislative Council Meeting Agenda



Legislative Council Chamber,
Sierra Leone,
22nd April, 1902.

PRESENT

His Excellency the Governor
His Honour the Acting Chief Justice
The Honourable Colonial Secretary
" " Colonial Treasurer
" " A. S. Hebron
" " J. J. Thomas

ABSENT

The Honourable Officer Commanding Troops
" " Dr W.T.Prout,Principal Medical Officer (on leave)
" " Sir S. Lewis.

MINUTES

The minutes of proceedings of the last meeting of Council held on the 11th of March were read and confirmed.

Arthur Frederick Hackett Esquire, having been appointed Acting Attorney General, took the usual oath and assumed his seat at the Council Board.

ORDER OF THE DAY

The following three papers were laid upon the Table:-

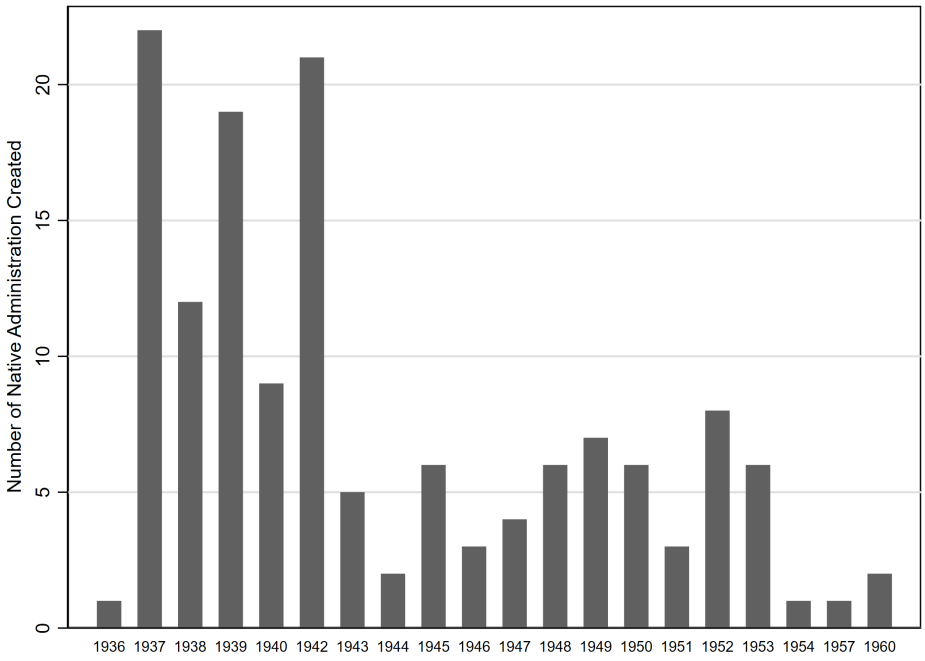
1. Supplementary Votes - Secretary of State's despatch No. 78 of 21st March 1902. M. P. 1469/1902.

2. Abstract of Revenue and Expenditure of the House Tax Districts of the Colony for 1902. M.P.1310/1902.

3. Annual

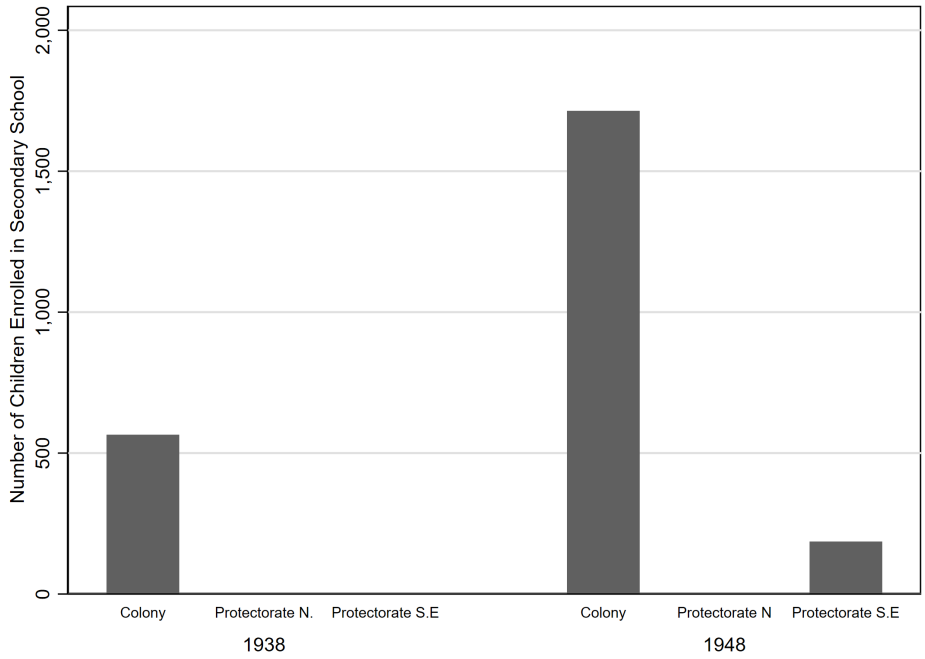
Issues discussed include voting, expenditure and revenue for the Colony .

Figure 2.3: Native Administration Creation Accelerated in this Period



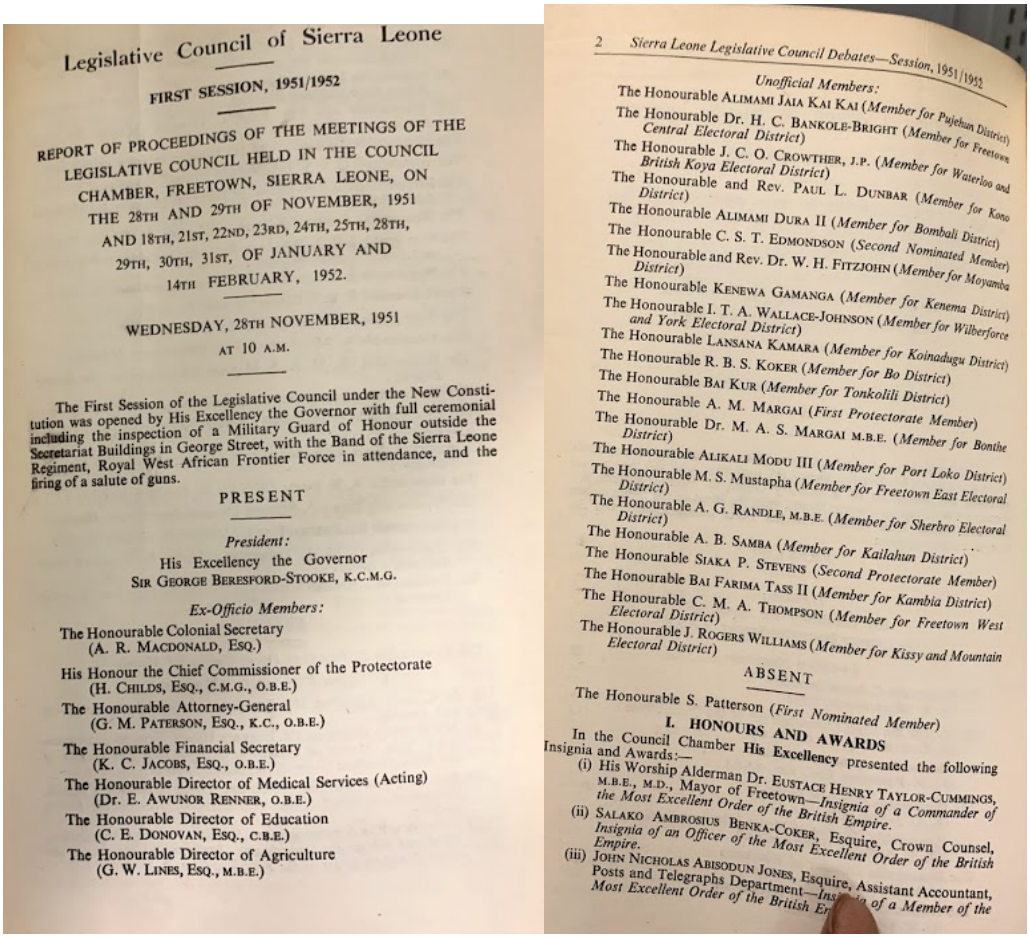
Source: Data Collected from Various Archival Documents

Figure 2.4: A Golf Between The Protectorate and Colony on Education



Charted made using data from (Cartwright, 1970, p.25)

Figure 2.5: Meeting Minutes from First Legislative Council Meeting in 1951



Legislative Council of Sierra Leone

FIRST SESSION, 1951/1952

REPORT OF PROCEEDINGS OF THE MEETINGS OF THE LEGISLATIVE COUNCIL HELD IN THE COUNCIL CHAMBER, FREETOWN, SIERRA LEONE, ON THE 28TH AND 29TH OF NOVEMBER, 1951 AND 18TH, 21ST, 22ND, 23RD, 24TH, 25TH, 28TH, 29TH, 30TH, 31ST, OF JANUARY AND 14TH FEBRUARY, 1952.

WEDNESDAY, 28TH NOVEMBER, 1951

AT 10 A.M.

The First Session of the Legislative Council under the New Constitution was opened by His Excellency the Governor with full ceremonial including the inspection of a Military Guard of Honour outside the Secretariat Buildings in George Street, with the Band of the Sierra Leone Regiment, Royal West African Frontier Force in attendance, and the firing of a salute of guns.

PRESENT

President:

His Excellency the Governor
SIR GEORGE BERESFORD-STOOKE, K.C.M.G.

Ex-Officio Members:

The Honourable Colonial Secretary
(A. R. MACDONALD, ESQ.)

His Honour the Chief Commissioner of the Protectorate
(H. CHILDS, ESQ., C.M.G., O.B.E.)

The Honourable Attorney-General
(G. M. PATERSON, ESQ., K.C., O.B.E.)

The Honourable Financial Secretary
(K. C. JACOBS, ESQ., O.B.E.)

The Honourable Director of Medical Services (Acting)
(Dr. E. AWUNOR RENNER, O.B.E.)

The Honourable Director of Education
(C. E. DONOVAN, ESQ., C.B.E.)

The Honourable Director of Agriculture
(G. W. LINES, ESQ., M.B.E.)

Unofficial Members:

The Honourable ALIMAMI JAIA KAI KAI (*Member for Pujehun District*)
The Honourable Dr. H. C. BANKOLE-BRIGHT (*Member for Freetown Central Electoral District*)
The Honourable J. C. O. CROWTHER, J.P. (*Member for Waterloo and British Koya Electoral District*)
The Honourable and Rev. PAUL L. DUNBAR (*Member for Kono District*)
The Honourable ALIMAMI DURA II (*Member for Bombali District*)
The Honourable C. S. T. EDMONDSON (*Second Nominated Member*)
The Honourable and Rev. Dr. W. H. FITZJOHN (*Member for Moyamba District*)
The Honourable KENEWA GAMANGA (*Member for Kenema District*)
The Honourable I. T. A. WALLACE-JOHNSON (*Member for Wilberforce and York Electoral District*)
The Honourable LANSANA KAMARA (*Member for Koinadugu District*)
The Honourable R. B. S. KOKER (*Member for Bo District*)
The Honourable BAI KUR (*Member for Tonkolili District*)
The Honourable A. M. MARGAI (*First Protectorate Member*)
The Honourable Dr. M. A. S. MARGAI M.B.E. (*Member for Bonthe District*)
The Honourable ALIKALI MODU III (*Member for Port Loko District*)
The Honourable M. S. Mustapha (*Member for Freetown East Electoral District*)
The Honourable A. G. RANDLE, M.B.E. (*Member for Sherbro Electoral District*)
The Honourable A. B. SAMBA (*Member for Kailahun District*)
The Honourable SIAKA P. STEVENS (*Second Protectorate Member*)
The Honourable BAI FARIMA TASS II (*Member for Kambia District*)
The Honourable C. M. A. THOMPSON (*Member for Freetown West Electoral District*)
The Honourable J. ROGERS WILLIAMS (*Member for Kissy and Mountain Electoral District*)

ABSENT

The Honourable S. Patterson (*First Nominated Member*)

I. HONOURS AND AWARDS

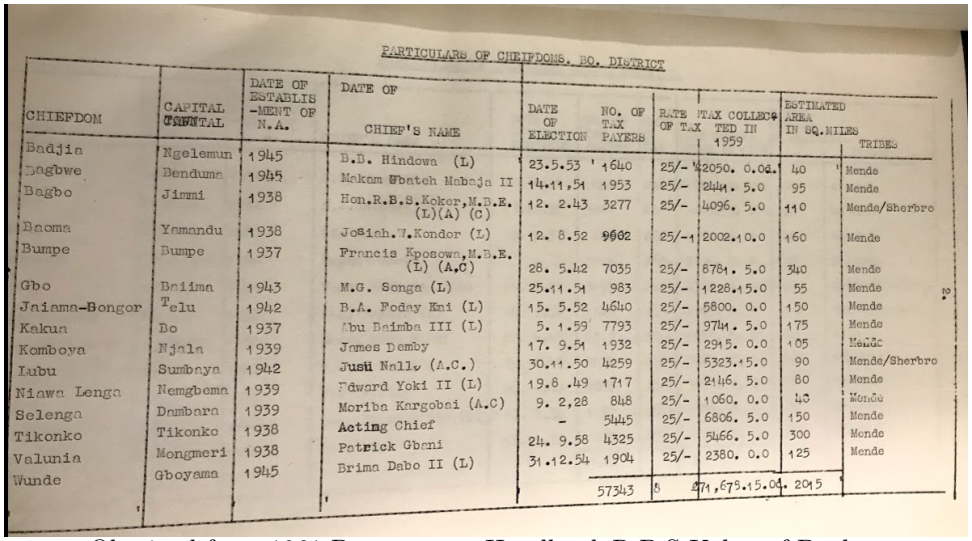
In the Council Chamber **His Excellency** presented the following Insignia and Awards:—

(i) His Worship Alderman Dr. EUSTACE HENRY TAYLOR-CUMMINGS, M.B.E., M.D., Mayor of Freetown—*Insignia of a Commander of the Most Excellent Order of the British Empire.*

(ii) SALAKO AMBROSIUS BENKA-COKER, Esquire, Crown Counsel, *Insignia of an Officer of the Most Excellent Order of the British Empire.*

(iii) JOHN NICHOLAS ABISODUN JONES, Esquire, Assistant Accountant, Posts and Telegraphs Department—*Insignia of a Member of the Most Excellent Order of the British Empire.*

Figure 2.6: List of Paramount Chiefs in Bo District.



PARTICULARS OF CHIEFDOMS, BO. DISTRICT

CHIEFDOM	CAPITAL	DATE OF ESTABLISHMENT OF N.A.	DATE OF CHIEF'S NAME	DATE OF ELECTION	NO. OF TAX PAYERS	RATE OF TAX	TAX COLLECTED IN 1959	ESTIMATED AREA IN SQ. MILES	TRIBES
Badjia	Ngelemun	1945	B.D. Hindowa (L)	23.5.53	1640	25/-	½2050. 0.0d.	40	Mende
Bagbwe	Benduma	1945	Makam Ubatch Mabaja II	14.11.51	1953	25/-	2441. 5.0	95	Mende
Bagbo	Jimmi	1938	Hon.R.B.S.Koker,M.B.E. (L)(A) (C)	12. 2.43	3277	25/-	4096. 5.0	110	Mende/Sherbro
Baoma	Yamandu	1938	Josiah.W.Kondor (L)	12. 8.52	9602	25/-1	2002.10.0	160	Mende
Bumpe	Bumpe	1937	Francis Kposowa,M.B.E. (L) (A,C)	28. 5.42	7035	25/-	8781. 5.0	340	Mende
Gbo	Baiima	1943	M.G. Songa (L)	25.11.54	983	25/-	1228.15.0	55	Mende
Jaiama-Bongor	Telu	1942	B.A. Foday Kai (L)	15. 5.52	4640	25/-	5800. 0.0	150	Mende
Kakua	Bo	1937	Abu Baimba III (L)	5. 1.59	7793	25/-	9741. 5.0	175	Mende
Komboya	Njala	1939	James Demby	17. 9.54	1932	25/-	2415. 0.0	105	Mende
Lubu	Sumbaya	1942	Jusu Nallo (A.C.)	30.11.50	4259	25/-	5323.15.0	90	Mende/Sherbro
Niawa Lenga	Nemgbema	1939	Edward Yoki II (L)	19.8 .49	1717	25/-	2146. 5.0	80	Mende
Selenga	Dumbara	1939	Moriba Kargobai (A.C)	9. 2,28	848	25/-	1060. 0.0	40	Mende
Tikonko	Tikonko	1938	Acting Chief	-	5445	25/-	6806. 5.0	150	Mende
Valunia	Mongmeri	1938	Patrick Gbani	24. 9.58	4325	25/-	5466. 5.0	300	Mende
Wunde	Gboyama	1945	Brima Dabo II (L)	31.12.54	1904	25/-	2380. 0.0	125	Mende
					57343		£71,678.15.0d.	2015	

Obtained from 1961 Protectorate Handbook.R.B.S Koker of Bagbo Chiefdom is the PC that represented Bo District in Legislative Council.

Table 2.13: Chiefdoms Represented in the 1951 Legislative Council

District	Chiefdom	Name of Paramount Chief
Bo	Bagbo	Hon. R.B.S Koker
Bombali	Safroko Limba	Hon. Alimami Dura
Kailahun	Upper Jawi	Hon. A.B Samba
Kambia	Magbema	Hon. Bai Farima Tass
Kenema	Simbaru	Hon. Kenewa Gamanga
Port Loko	Mafroki	Hon. Alikali Modu
Pujehun	Kpanga-Kabonde	Hon. Alimami Jaia Kai Kai
Tonkolili	Kunike S.	Hon. Bai Kur

NOTE- Names are matched from Paramount chiefs listed in the Protectorate Handbook and from meeting minutes of the 1951 Legislative Council .

Figure 2.7: Raw Data for School Attendance by Age Cohort

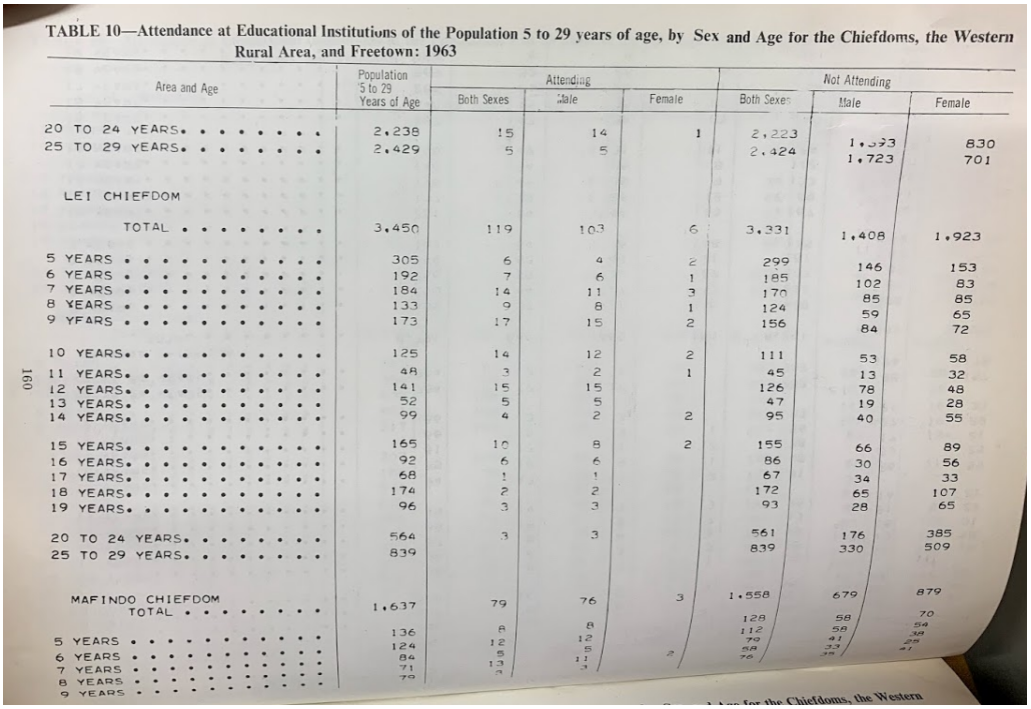


TABLE 10—Attendance at Educational Institutions of the Population 5 to 29 years of age, by Sex and Age for the Chiefdoms, the Western Rural Area, and Freetown: 1963

Area and Age	Population 5 to 29 Years of Age	Attending			Not Attending		
		Both Sexes	Male	Female	Both Sexes	Male	Female
20 TO 24 YEARS	2,238	15	14	1	2,223	1,393	830
25 TO 29 YEARS	2,429	5	5		2,424	1,723	701
LEI CHIEFDOM							
TOTAL	3,450	119	103	6	3,331	1,408	1,923
5 YEARS	305	6	4	2	299	146	153
6 YEARS	192	7	6	1	185	102	83
7 YEARS	184	14	11	3	170	85	85
8 YEARS	133	9	8	1	124	59	65
9 YEARS	173	17	15	2	156	84	72
10 YEARS	125	14	12	2	111	53	58
11 YEARS	48	3	2	1	45	13	32
12 YEARS	141	15	15		126	78	48
13 YEARS	52	5	5		47	19	28
14 YEARS	99	4	2	2	95	40	55
15 YEARS	165	10	8	2	155	66	89
16 YEARS	92	6	6		86	30	56
17 YEARS	68	1	1		67	34	33
18 YEARS	174	2	2		172	65	107
19 YEARS	96	3	3		93	28	65
20 TO 24 YEARS	564	3	3		561	176	385
25 TO 29 YEARS	839				839	330	509
MAFINDO CHIEFDOM							
TOTAL	1,637	79	76	3	1,558	679	879
5 YEARS	136	8	8		128	58	70
6 YEARS	124	12	12		112	58	54
7 YEARS	84	5	5		79	41	38
8 YEARS	71	13	11	2	58	33	25
9 YEARS	79	3	3		76	35	41

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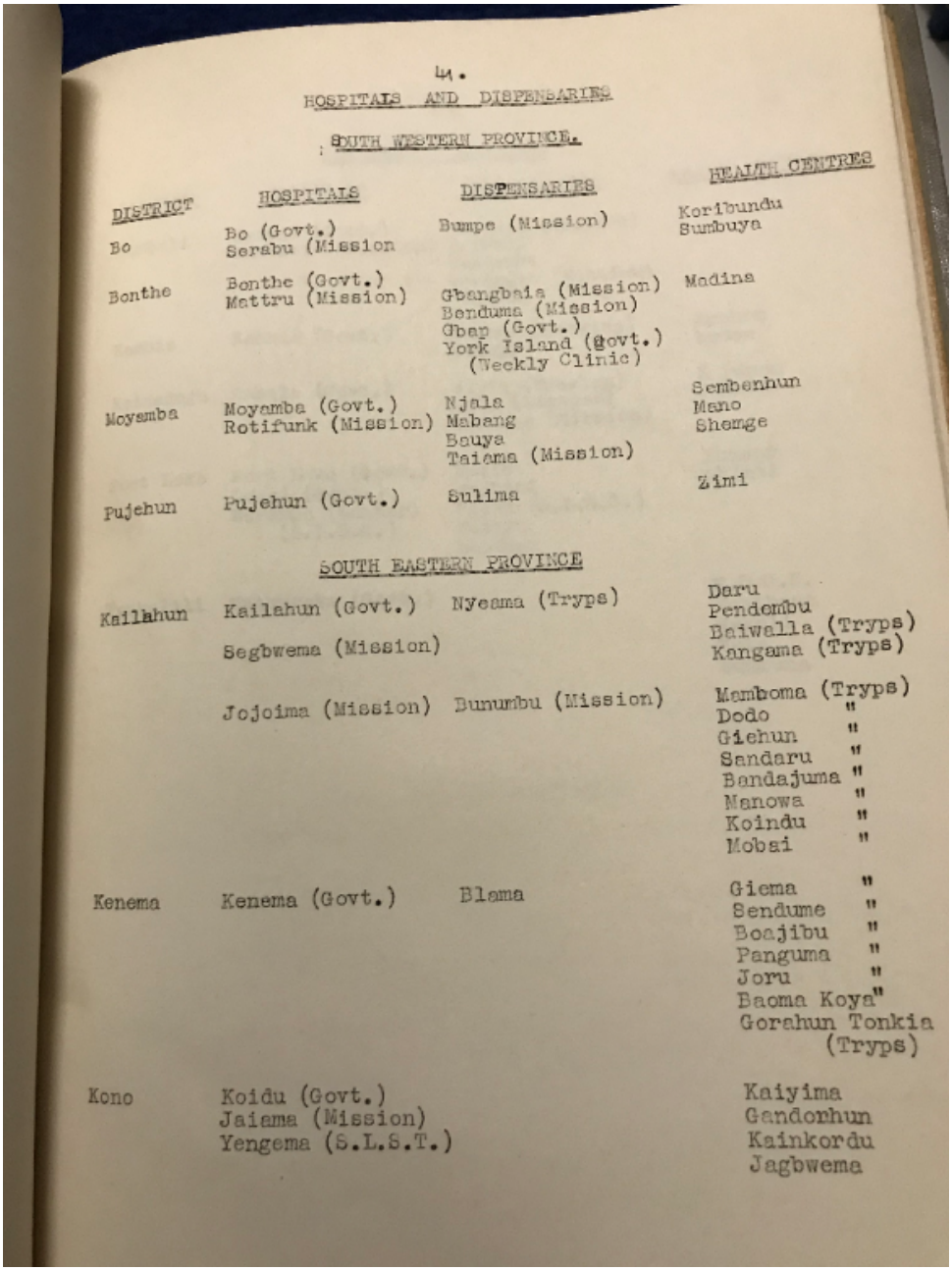
Excerpt from 1963 Census on Chiefdom Level School Attendance. Data shown for Lei Chiefdom

Figure 2.8: Geo-Spatial Locations of Primary and Secondary Schools in Sierra Leone

Source: Latitude and Longitude coordinates obtained from Ministry of Basic and Senior Secondary Education .

Figure 2.9: Hospital and Dispensaries in Chiefdoms



4.

HOSPITALS AND DISPENSARIES

SOUTH WESTERN PROVINCE.

DISTRICT	HOSPITALS	DISPENSARIES	HEALTH CENTRES
Bo	Bo (Govt.) Serabu (Mission	Bumpe (Mission)	Koribundu Sumbuya
Bonthe	Bonthe (Govt.) Mattru (Mission)	Gbangbaia (Mission) Benduma (Mission) Gbap (Govt.) York Island (Govt.) (Weekly Clinic)	Madina
Moyamba	Moyamba (Govt.) Rotifunk (Mission)	Njala Mabang Bauya Taiama (Mission)	Sembehun Mano Shenge
Pujehun	Pujehun (Govt.)	Sulima	Zimi
SOUTH EASTERN PROVINCE			
Kailahun	Kailahun (Govt.) Segbwema (Mission)	Nyema (Tryps)	Daru Pendembu Baiwalla (Tryps) Kangama (Tryps)
	Jojoima (Mission)	Bunumbu (Mission)	Mamboma (Tryps) Dodo " Giehun " Sandaru " Bandajuma " Manowa " Koindu " Mobai "
Kenema	Kenema (Govt.)	Blama	Giema " Sendume " Boajibu " Panguma " Joru " Baoma Koya" Gorahun Tonkia (Tryps)
Kono	Koidu (Govt.) Jaiama (Mission) Yengema (S.L.S.T.)		Kaiyima Gandorhun Kainkordu Jagbwema

Source: Protectorate Handbook 1960 .

Table 2.14: Summary Statistics

Variable	**N**	**Mean**	**Std. Dev.**
Leg Council Memb. 1951	149	0.05	0.23
Any Leg. House Rep Memb 1951-1961	149	0.12	0.33
Prop Sch. Attnd (All)	145	0.08	0.05
Prop Sch. Attnd (5 Yr. Olds)	145	0.07	0.06
Prop Sch. Attnd (10 Yr. Olds)	145	0.20	0.12
Prop Sch. Attnd (15 Yr. Olds)	145	0.13	0.09
Prop Sch. Attnd (20 Yr. Olds)	145	0.01	0.01
Prop. Literacy (All)	145	0.04	0.03
Prop. Literacy (10-14 Yr)	145	0.12	0.08
Prop. Literacy (15-19 Yr)	145	0.09	0.06
Prop. Literacy (20-24Yr)	145	0.03	0.03
Prop. Literacy (25-29Yr)	145	0.03	0.02
Ever Attend School (2015 Census)	494165	0.44	0.50
Primary Education Attainment (2015 Census)	298180	0.26	0.44
Number of Schools (All)	149	47	36.83
Number of Missionary Schools	149	29	23.09
Number of Community Schools	149	8	8.68
Number of Government Schools	149	8	7.68
Number of Private School	149	2	5.02
Hospitals or Dispensary Available (binary)	147	0.39	0.49
Number of Gov Hospitals or Dispensary	147	0.51	0.71
Gov. Hospitals or Dispensary Available (binary)	147	0.08	0.27
Native Admin. Hospitals or Dispensary Available (binary)	147	0.07	0.25
Mission Hospitals or Dispensary Available (binary)	147	0.10	0.30

NOTE- Legislative Council Membership Obtained from meeting minutes, and chiefdoms matched from Protectorate Handbook Year 1958. Data on proportion of school attendance and literacy obtained from 1963 census. Data on primary education attainment obtained and share of population that ever attended school obtained from 2015 censuses. Number of schools aggregated at chiefdom level from geo-spatial mapping of all school in the country. Hospital and dispensary information obtained from 1960 Protectorate Handbook.

Table 2.15: Summary Statistics for Control Variable

Variable	**N**	**Mean**	**Std. Dev.**
Number of Ruling Houses	149	3.95	2.15
Chiefdom Amalgamated (binary)	149	0.31	0.46
Number Tribes	146	1.30	0.52
Presence of Hierarchical Tribe (binary)	149	0.28	0.45
Mission Presence (binary)	149	0.09	0.29
Distance to Nearest Mission (KM)	149	55.48	41.39
Population 1963	148	13259.59	9470.61
Years Since Chiefdom Became NA	148	17.65	5.84
Area (Sq_Km)	149	482.84	371.54
Distance to Coast (km)	149	105.33	65.61
Distance to 1907 Railroad (km)	149	44.19	30.34
Chiefdom Elevation	149	0.17	0.15
Average Slope	149	7.46	3.94
Average annual rainfall-15 to 20 years average (Inches)	149	113.19	17.35
Distance to 1895 Mitchell Trade Route(km)	149	20.19	19.94
Tax Collected in 1959 (£)	146	3615.91	2433.68
Tax Per 1963 Pop 1959 (£/pop)	146	0.33	0.47
1930 Mining Permits (binary)	149	0.17	0.38
Number of Cooperative	146	2.83	5.59
Number of Produce Marketing Board	147	1.73	3.97

NOTE- Data obtained from various sources. Missing data also for some covariates. Institutional controls such as number of ruling houses, amalgamation, , and geographic controls such as distance to coast, distance to 1895 trade routes, distance to 1907 railroad, 1930 mining permissions are all obtained from (Acemoglu, Reed, & Robinson, 2014).Chiefdom slope, elevation, obtained from Glennerster et al. (2013) and calculated using GIS software from rasters provided in the Harmonised World Soil Index (HWSD). Presence of missionaries obtained from Nunn (2010). Rainfall data calculated using GIS software, where each chiefdom is assigned rainfall data collected by the nearest distance to any of 38 rainfall station across the country from 1941- 1960 (Gregory, 1965).Produce marketing board and number of cooperatives, and tax data obtained from 1960 Protectorate Handbook, (Sierra Leone Chief Commissioner's Office, 1942 -1960)

Table 2.16: Determinants of 1951 Legislative Council Membership

	Membership to 1951 Leg. Council			
VARIABLES	(1)	(2)	(3)	(4)
Mission Presence	0.23*		0.25**	0.26**
	(0.12)		(0.12)	(0.12)
Population (1963)		0.00**	0.00**	0.00**
		(0.00)	(0.00)	(0.00)
Ln(Distance to 1895 Trade Routes (km))	-0.00	-0.01	-0.00	-0.00
	(0.01)	(0.01)	(0.02)	(0.02)
Area of Chiefdom (square km)	-0.00	-0.00*	-0.00*	-0.00*
	(0.00)	(0.00)	(0.00)	(0.00)
Ln(Distance to 1097 Rail Road 9km))	0.03**	0.03**	0.05**	0.05**
	(0.02)	(0.02)	(0.02)	(0.02)
Ln(Distance to Coast (km))	0.07*	0.04	0.03	0.03
	(0.04)	(0.03)	(0.04)	(0.04)
Mining Permission in 1930	-0.03	-0.05	-0.09	-0.08
	(0.06)	(0.07)	(0.08)	(0.08)
Pre-Colonial Political Centralization	-0.04	-0.01	0.00	0.01
	(0.06)	(0.06)	(0.06)	(0.06)
Number of Ruling Houses	-0.01	-0.01	-0.01	-0.02
	(0.01)	(0.02)	(0.01)	(0.01)
Number of Chiefs in History of Chiefdom	-0.00	-0.00	-0.01	-0.01
	(0.00)	(0.01)	(0.01)	(0.01)
Amalgamation	0.03	0.02	0.03	0.04
	(0.05)	(0.05)	(0.06)	(0.06)
Number of Tribes in Chiefdom (1950s)	-0.04	-0.06	-0.06	-0.06
	(0.03)	(0.03)	(0.04)	(0.04)
Average Chiefdom Elevation	-0.38	-0.35	-0.05	0.00
	(0.31)	(0.30)	(0.57)	(0.58)
Average Chiefdom Slope	-0.00	0.00	0.00	0.00
	(0.01)	(0.01)	(0.01)	(0.01)
Ln(Historic Average Annual Rainfall-1941-160s)	0.11	0.07	-0.11	-0.14
	(0.14)	(0.14)	(0.29)	(0.29)
Number of cooperatives 1960				0.00
				(0.00)
Observations	146	146	146	146
R-squared	0.10	0.08	0.18	0.19

NOTE- Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table 2.17: School Attendance-1963 (2)

	Share of 5-29 Year Old Attending School in 1963				
VARIABLES	(1)	(2)	(3)	(4)	(5)
PC Member of Any Leg. Council or House Rep. 1951- 1961	0.034***	0.036***	0.034***	0.036***	0.035***
	(0.011)	(0.010)	(0.010)	(0.009)	(0.010)
Population 1963			0.000**	0.000	0.000
			(0.000)	(0.000)	(0.000)
Mission Presence					0.007
					(0.013)
District Fixed Effects	Yes	Yes	Yes	Yes	Yes
Controls for Chiefdoms Politics		Yes	Yes	Yes	Yes
Demographic Controls			Yes	Yes	Yes
Geographic and Economic Controls					Yes
Outcome Mean	0.082	0.082	0.082	0.082	0.082
Outcome Standard Deviation	0.048	0.048	0.048	0.048	0.048
Observations	145	145	145	145	145
R-squared	0.483	0.533	0.550	0.603	0.604

NOTE- Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. All controls are similar to the base result in Table 2.1.

Table 2.18: Literacy Rate in Population 10 Years and Above

	Literarcy Rate 10 Years and Over - 1963				
VARIABLES	(1)	(2)	(3)	(4)	(5)
PC Member of Any Leg. Coucil or House Rep. 1951- 1961	0.021***	0.023***	0.019***	0.020***	0.020***
	(0.007)	(0.007)	(0.006)	(0.006)	(0.006)
Population 1963			0.000***	0.000***	0.000***
			(0.000)	(0.000)	(0.000)
Mission Presence					0.001
					(0.007)
District Fixed Effects	Yes	Yes	Yes	Yes	Yes
Controls for Chiefdoms Politics		Yes	Yes	Yes	Yes
Demographic Controls			Yes	Yes	Yes
Geographic and Economic Controls					Yes
Outcome Mean	0.04	0.04	0.04	0.04	0.04
Outcome Standard Deviation	0.03	0.03	0.03	0.03	0.03
Observations	145	145	145	145	145
R-squared	0.221	0.288	0.408	0.462	0.462

NOTE- Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Controls are same as base result in Table 2.2.

Table 2.19: Number of Hospital and Dispensaries

	Number of Hospital or Dispensary in Chiefdom in 1958				
VARIABLES	(1)	(2)	(3)	(4)	(5)
PC Membership to 1951 Leg. Council	0.63**	0.64**	0.50*	0.53**	0.46*
	(0.28)	(0.27)	(0.26)	(0.25)	(0.27)
Population 1963			0.00***	0.00***	0.00***
			(0.00)	(0.00)	(0.00)
Mission Presence					0.21
					(0.21)
District Fixed Effects	Yes	Yes	Yes	Yes	Yes
Controls for Chiefdoms Politics		Yes	Yes	Yes	Yes
Demographic Controls			Yes	Yes	Yes
Geographic and Economic Controls				Yes	Yes
Outcome Mean	0.51	0.51	0.51	0.51	0.51
Outcome Standard Deviation	0.71	0.71	0.71	0.71	0.71
Observations	147	147	147	147	147
R-squared	0.18	0.19	0.36	0.38	0.38

NOTE- Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Controls are same as those in Table 2.3.

Chapter 3

Game of Chiefs: Using Violent Conflict for Political Gains. A Case Study From the Sierra Leone Civil War

Abstract

Do political rivals use violent conflicts to gain political advantage? And if so, under what circumstances? To answer these questions, I take advantage of a plausibly exogenous variation in ruling house rivalry and conflict shocks to chiefdom politics in Sierra Leone to highlight a political logic that shaped the patterns of civilian fatalities during the country's decade-long civil war (1991 to 2002). Ruling houses are political dynasties recognized by the British colonial authorities as the only groups to contest the paramount chieftaincy. I show that the number of ruling houses in a chiefdom is positively associated with the number of civilian fatalities. I further show that locations where there is a stable balance of power, because historically houses rotate reigning, are negatively associated with civilian deaths, relative to chiefdoms where the power dynamics among ruling houses is unstable. The mechanism suggests a civilian-combatant co-production of violence, where rival political actors target each other through denunciation, and insurgents who punish to deter defection in areas under their control.

JEL Classification: D74 , O17, P48 Q34

Key words: Selective Violence, Civil Conflict, Customary Institutions, Chiefs, Sub-national Political Competition, Sierra Leone

3.1 Introduction

This paper highlights the role of political rivalry in understanding the pattern of lethal violence against civilians in civil wars. The conflict literature underscores incentives and constraints that shapes interactions between armed groups and unarmed civilians. War-related factors, such as the incentives for territorial control by armed groups (Kalyvas, 2006; Kalyvas & Kocher, 2009), the incentives for survival by civilians (Wimmer & Miner, 2019; Valentino, Huth, & Balch-Lindsay, 2004; Kalyvas, 2006), and the recruitment and organizational features of armed groups (Humphreys & Weinstein, 2006; Weinstein, 2006; Arjona & Kalyvas, 2012a) are possible explanations for the pattern of violence in civil conflicts. The role of politics is largely muted in these leading explanations. In studies that highlight political rivalry, rivalry is endogenous to the conflict (Balcells, 2010, 2011). When civil wars are ignited because of political rivalry, it is not surprising for supporters of competing political parties to target each other to gain political advantage (Brosché & Höglund, 2016; Esteban, Morelli, & Rohner, 2015; Querido, 2009).

How does political rivalry affect conflict outcomes when conflict is an exogenous shock to the political setting? Would political actors use conflict to gain political advantage? Or would they act collectively to protect their communities against warring factions? The empirical literature has little to say about these questions. This is in part because data on political variables are often captured at a level much higher and cannot be matched with the more spatially disaggregated conflict data available to researchers. It is also often the case that ethnic divisions and political rivalry are intertwined in research that links political rivalry and violence against civilians in civil wars (Wimmer & Miner, 2019; Weidmann, 2011).

In this paper, I take advantage of a political setting where political rivalry and the civil conflict are orthogonal to each other, which allows me to isolate the effect of political rivalry on civilian fatalities. In Sierra Leone, the lowest administrative political office is the

paramount chieftaincy. The position is contested by ruling houses. Ruling houses consist of established kinship networks that were recognized by the British colonial authorities as the only groups allowed to contest the paramount chieftaincy. This institutional set up makes chiefdom politics very local. Ruling houses are viewed by locals as political dynasties. Political rivalry is intensified the higher the number of ruling houses in a chiefdom. Furthermore, variation in the number of ruling houses was largely due to historical accidents, making political rivalry plausibly exogenous (Acemoglu, Reed, & Robinson, 2014). For a particular ruling house to gain the paramount chieftaincy, they must galvanize kinship networks, and form alliances among local elites who are eligible to vote in the chieftaincy elections. Once elected, paramount chiefs rule for life, making chiefdom politics a high stakes game. Paramount chiefs are gatekeepers for the chiefdoms, and have control over critical local economic resources such as land.

With respect to conflict, the Sierra Leone civil war was a national struggle aimed at removing political heads at the centre of government in Freetown. Initially fighting was between the Revolutionary United Front (RUF) and the Sierra Leone Armed Forces (the national army). But through rebel attacks, military counterattacks, and the rise of vigilante groups and civil defence forces, conflict eventually reached almost every chiefdom in the country. As the war progressed, chiefs and their kinship networks became targets (Guberek et al., 2006). This paper aims to understand how this shock to chiefdom political rivalry affected conflict outcomes at the chiefdom level.

My empirical analysis suggests that there is a positive association between the number of ruling houses and civilian fatalities during the Sierra Leone civil war. This effect is substantial. My analysis suggests that on average any additional ruling house in a chiefdom is associated with as much as 9% increase in civilian fatalities per event. When results are analysed at the chiefdom level, I find that every additional number of ruling house is associated with about 16% more civilian fatalities.

I further show that pre-war balance of power among competing houses in chiefdoms shaped civilian survival outcomes differently. I investigate three cases: chiefdoms where ruling houses have had almost equal reign of the paramount chieftaincy, which I call Shared Power. I label the second case Monopoly Power, in instances where only one ruling family has dominated power in a chiefdom even when there are two or more other rival houses. I label the third case Unstable Power; in situations where no single ruling house dominates but there is also no power sharing among ruling houses. I find that locations where power is shared are negatively associated with civilian fatalities relative to the Unstable Power category. Relative to Unstable Power cases, Monopoly Power cases are also negatively associated with civilian fatalities but not statistically significant.

These results are obtained from regression specifications with district, year and faction fixed effects. These capture variation in fatalities across districts, year, and the different warring factions, respectively. However, a key concern that remains is the possibility that chiefdoms with more ruling houses were targeted for reasons that suggest a spurious relationship because of omitted variable bias. I take a few steps to address these concerns. First, I address potential concerns that there may have been over reporting on fatalities in locations with more ruling houses during the war, which may have been because they are more accessible. I consider the role of diamonds and the presence of non-natives or *strangers* in the chiefdoms, who have been described as political foot soldiers for oppressive paramount chiefs (Reno, 2000). My analysis does not support this claim. I further take advantage of the categories of fatalities in the dataset to conduct a placebo test using combatant fatalities instead of civilian fatalities. Finally, I then use a second conflict dataset and I repeat my analyses. My results remain robust, and the findings suggest that ruling house rivalry is positively associated with lethal violence against civilians in the Sierra Leone civil war.

In terms of mechanism, the evidence points to a civilian-combatant co-production

of violence in a process that Kalyvas (2006) describes as denunciation. The claim is that ruling houses provided information about their rivals to combatants who aimed to deter and punish defection in areas where they enjoy some degree of control. This would suggest that, the higher the number of ruling houses, and number of factions in the chiefdoms, the more likely the chances of denunciation and counter-denunciation, and ultimately more civilian deaths. My empirical analysis weakly supports this claim. But it is the anecdotes during the war as captured by the United Nations Truth and Reconciliation Reports (TRC) that provide the clearest evidence for the denunciation mechanism.

To further support the claim that denunciation is a possible mechanism for the observed link between civilian fatalities and ruling house rivalry, I exploit the changes in violence in the different phases of the war. In the latter part of the war, violence was more indiscriminate as actors struggle for power at the national level after the 1997 military coup (Smith, Gambette, & Longley, 2004). Almost by definition, selective violence is unlikely when violence is indiscriminate (Kalyvas, 2006; Kalyvas & Kocher, 2009). As such ruling house rivalry should not be linked to civilian fatalities, whether by denunciation or otherwise. My empirical analysis confirms this claim.

This paper contributes to the literature that attempts to explain violence against civilians or mass killings in conflict (Valentino et al., 2004; Kalyvas, 2006; Humphreys & Weinstein, 2006; Weinstein, 2006; Kalyvas & Kocher, 2009; Querido, 2009; Balcells, 2010, 2011; Weidmann, 2011; Esteban et al., 2015; Brosché & Höglund, 2016; Raleigh & De Bruijne, 2017; Wimmer & Miner, 2019). It is more closely related to studies that provide strategic explanations for violence against civilians in civil wars. Weinstein (2006) and Humphreys and Weinstein (2006) underscore the importance of the organizational features of warring factions, while Kalyvas (2006) and Kalyvas and Kocher (2009) point to incentives for territorial control by fighters, and for collaboration by civilians, in the Greek and Vietnam civil wars, respectively in explaining violence against civilians. This paper

joins the literature that aims to specify the incentive that civil war induces for civilians to collaborate with warring factions in meting out lethal violence against civilians (Wimmer & Miner, 2019; Balcells, 2010, 2011; Valentino et al., 2004).

Balcells (2010, 2011) are among the limited studies that account for political competition in explaining lethal violence patterns. Balcells (2010, 2011) show that pre-war power parity contributed to more direct violence in the Spanish Civil War. However, in the Spanish Civil War, national level political competition ignited the war, and warring factions in the various municipalities of Catalonia were, for the most part, armed wings of national parties. In this case, political competition is endogenous to the conflict.

In the Sierra Leone case, the civil war was a shock to chiefdom politics, and chiefdom political rivalry does not mirror national level political cleavages. I show that political calculations among local rivals in a highly disaggregated political setting, that is largely devoid of ethnic cleavages, is a key explanatory factor for selective violence in that war. My analysis also goes a step further by showing that the exploitation of conflict for political gain depends largely on the balance of power in the rivalry.

This paper also contributes to the broad literature on the role and effect of customary institutions in the political and economic development in modern Africa (Acemoglu, Reed, & Robinson, 2014; Logan, 2013; Baldwin, 2016b; Wig & Kromrey, 2018; Baldwin & Raffler, 2017). Acemoglu, Reed, and Robinson (2014) suggests more competition for political leadership within the institution is an effective mechanism for accountability in public goods provision. Drawing on evidence mostly from Zambia, Baldwin (2016b) on the other hand, suggests that it is precisely the undemocratic nature of chiefs that make them more effective. As a result of their unlimited tenure, and the fact that they do not have elections to worry about, chiefs can have long time horizons in planning, and can call on deep extended networks for collective action to deliver on development objectives. In Liberia, Baldwin and Mvukiyehe (2015) find that the selection

of clan chiefs through periodic elections does not lead to better collective action. Instead, the study finds that elections encourage participation in contentious acts, such as protests and riots, and decrease participation in collective action efforts. This paper highlights a downside to political competition and raises questions about the best way to incorporate traditional institutions in the political systems on the continent.

The rest of the paper proceeds as follows; Section 2 outlines existing explanations for lethal violence against civilians in civil wars and Section 3 gives a background to the Sierra Leone civil war. Section 4 describes the chieftaincy system in Sierra Leone and defines local political rivalry and how balance of power is captured in this study. In Section 5, I describe data sources used in the paper. Section 6 lays out the identification and estimation strategy, and section 7 provides my main results, and I discuss the robustness of the main findings in Section 8. In Section 9, I address concerns over possible confounding factors and explore alternative hypotheses. I turn my attention to the mechanism in Section 10, and the final section concludes with implications for the chieftaincy system in Sierra Leone.

3.2 Theories of Selective Violence against Civilians

Sub-national level analyses of civil conflicts have brought greater understanding to the causes, effects and dynamics of conflicts. Analyses grounded at the micro-level allow us to understand how individual and group differences and engagement in war across time and space affect conflict dynamics and outcomes (Verwimp, Justino, & Brück, 2009). A key puzzle at the core of these analyses is the variation in civilian suffering during civil wars. At least two broad strands of arguments have been put forth. One focuses on combatants and their organizations. The theory is that, how combatants are recruited, who chooses to fight, how they are deployed, disciplined, and what resources are available to combatant groups, all determine whether or not they will perpetuate violence against civilians (Humphreys &

Weinstein, 2006; Weinstein, 2006; Arjona & Kalyvas, 2012b). Humphreys and Weinstein (2006) for instance, argue that using interviews of ex-combatants in the Sierra Leone civil war, high levels of abuse against civilians were attributed to warring factions that did not have control over their recruits or lack punishment mechanisms for indiscipline. The theory also suggests that resource-rich factions are likely to attract opportunistic recruits who would be more likely to use indiscriminate violence. Resource poor groups would rely on social endowments, such as religion, ethnicity or ideology to recruit fighters, and these recruits would be more likely to use selective violence. For instance, violence levels will be low if warring factions operate in areas where they share the same identity as civilians. However, in this theory civilians are complete victims with little agency in the perpetuation of violence. Furthermore, the theory is also less informative about the type of violence or its intensity. It is possible organizational factors may explain wide-spread abuse of civilians, but not the intensity of abuse.

Other theories account for civilian agency in civil war violence. Kalyvas (2006) suggests that in civil wars that are characterized by contested areas within a sovereignty by competing warring factions, lethal violence against civilians is a result of military incentive to control territory. In such a setting, the use of selective violence can be an effective tool in areas where fighting factions enjoy dominant but not full control. However, selective violence depends on the supply of asymmetric information that only civilians can provide, and which warring factions need to help them to deter or punish defection. The theory suggests civilians may collaborate by providing information about other civilians (denounce) only if the likelihood of a retaliation is low. The theory predicts that areas of complete control or no control are less likely to experience selective violence. This is because in locations of no control, armed actors will demand information, but civilians would not provide it, and conversely in locations of complete control, armed actors may not need or act on information civilians may provide. Kalyvas (2006) and, Kalyvas and Kocher (2009) in the Greek and Vietnam War, respectively, provide empirical support

for this hypothesis. The Kalyvas control-collaboration theory puts civilian agency at the center of explanations for selective violence against civilians. The theory is however not specific about the motivations for civilian agency. The author generally points to settling old feuds as possible motivation for civilians to collaborate with fighters to perpetuate violence.

Recent research has contributed toward highlighting political factors specifically in the explanation of selective violence. Wimmer and Miner (2019) describes ethnoterritorial competition as a leading factor in explaining violence against civilians. They argue that fighters will kill civilians in areas with almost equal share of populations of their own co-ethnics and adversary's co-ethnics, because even the slightest conflict has the potential to shift territorial control. Balcells (2010, 2011) focuses on the role of political competition as the primary factor in explaining violence in the Spanish civil war. The author uses pre-war voting returns to show that pre-war political competition shaped direct violence against civilians at the local level, and that lethal violence was highest in locations where the two main competing political parties had very close results in pre-war elections. The difference between these studies and the current paper is that, in Wimmer and Miner (2019) politics or territorial control is driven by ethnic cleavages, and in Balcells (2010, 2011), political rivalry is endogenous to the conflict. The war started because of political competition at the center, and militia at the municipal level were armed wings of the two main national political parties.

I show that even in instances of exogenous conflict shocks, political actors will aim to use war to gain political power, even at the expense of loss to their community. This is contrary to literature that suggests that communities will act collectively to deter fighters perpetrating civilian targeted violence (Rubin, 2018; Shaver, Shapiro, et al., 2015; Berman, Shapiro, & Felter, 2011). I am able to more clearly highlight strategic political considerations in explaining patterns of violence because I benefit from the availability of

data on political rivalry in highly disaggregated political settings, largely devoid of ethnic cleavages, and where local politics is delinked from national politics.

3.3 Background to the Sierra Leone Civil War

The Sierra Leone civil war raged from March 23rd 1991 to January 18th 2002. According to the No Peace Without Justice (NPWJ) Sierra Leone conflict mapping project, the war began when a group of armed forces of the Revolutionary United Front (RUF) and National Patriotic Front for Liberia (NPFL) entered Kailahun District from Liberia through the town of Bomaru in Upper Bambara Chiefdom (Smith et al., 2004). The war quickly spread throughout the towns and villages of southern and eastern districts that bordered Liberia in the first few years of the war. What came to be the main RUF base "Camp Zogoda" was established in the Kenema district close to the Liberian border (Smith et al., 2004). From here they orchestrated attacks on civilians in villages in the region. Eventually the war reached all regions of the country. Although the RUF was the main rebel group that initiated the war, by the time the war ended as many as eight distinct fighting factions had been involved.

Most of the Sierra Leone civil war can be categorized as irregular or unconventional civil war (Kalyvas, 2006; Balcells, 2010). Unlike conventional civil war, there were no clear front lines where warring factions met to fight. In the Sierra Leone civil war, the frontlines were villages and towns where civilians lived. Various fighting factions took control of the same locations at different times over the duration of the war. Only Freetown stayed under the control of the military until 1997. A key feature of this war was the intensity of face-to-face violence against civilians. Children holding AK47s, amputated women and children, and human remains in city streets were common images from the war. Accounts of the war suggest fighting factions would assemble people perceived to be supporters or sympathizers of enemy factions in local court houses and publicly execute

them (Guberek et al., 2006). Estimates of civilian fatalities vary widely, ranging from a low of 10,000 (Guberek et al., 2006) to a high of 75,000 (Sawyer, 2008). The war also had many twists and turns. By the time the war ended in 2002, political power at the national level changed hands four times, through two coup d'états, one democratic election, and one internationally backed military intervention. In the latter part of the war, violence against civilians became more discriminate. The reason for this is that civilians all across the country put up a very strong resistance and protest against the second military overthrow of the democratically elected government. The popular slogan of the military and the RUF was "Operation No Living Thing"(Smith et al., 2004, p.91). In this period, amputation of arms also skyrocketed and was intended to dis-empower civilians, who insisted that the right to govern the country lies in their hands and they give that right only through the ballot box.

The role of warring factions in inflicting untold violence against civilians is emphasized in the literature (Guberek et al., 2006; Smith et al., 2004). However, detailed qualitative studies of violence and victimization of civilians paint a more complex picture that implicates unarmed local actors. Richards (2003) points out that a number of villages that were only marginally hit by rebel activities, continued to be destroyed by local actors, a reflection of local tension built up over many years. He argues that violence that followed unopposed attacks were more costly. Richards (2003, p.13) notes the following with respect to the R.U.F:

> "The rebels were rarely if ever interested in holding the villages they sacked. They had few troops, and needed to move on. So an attack would displace the population and sow seeds of local dissensions, eg. by burning the houses of only one faction in a land dispute... As villagers ventured to return they might conclude from patterns of damage that the violence was an inside job".

A post-war consultation on causes of violence in the local communities highlights anecdotes

of betrayal and people participating in the destruction of their own communities. Old local feuds and political rivalry were blamed for some of the destruction and harm that happened in communities across the country (Richards, 2003).

3.4 Ruling Houses and the Paramount Chief Position

Core elements of the chiefdom politics as it has congealed in the past half century includes an election of the paramount chiefs by a group of elites, known as chiefdom councillors (formerly, Traditional Authorities). The electorate has grown over the years, the average chiefdom has 554 councillors gazetted as the electorate. The Protectorate Ordinance stipulated that only individuals from ruling houses are eligible to contest the paramount chief position. Post-independence Sierra Leone kept this rule (M. Conteh, 2013). Ruling houses were likely warrior groups that conquered and protected land; it is based on strong familial lineages and a distinction between first-comers and new-comers. The British signed treaties with some of the houses that had claimed land, and these became known as "treaty chiefs" (Richards, Bah, & Vincent, 2004). Furthermore, to raise revenue and maintain order in the interior, the Protectorate Ordinance empowered chiefs to form local governments in their native territories. The paramount chief position became the apex of the institution. Ruling houses are thus the unit of political competition in all 149 chiefdoms. To many observers, ruling houses act like political parties in the chiefdoms. W. Barrows (1976, p. 202) describes ruling houses as political parties operating in the chiefdoms as follows: *"Structurally, the semblance of a two- or multiparty system is built into chiefdom politics because (almost) every chiefdom has at least two ruling families. In fact, local people often use the terms ruling party and opposition party".*

For paramount chief candidates to gain support of the councillors they must galvanize kinship networks, and form alliances among the lesser chiefs and village headmen across the chiefdom. Ruling houses build networks and make social investments to build

reputation both in and out of reigns, which is crucial in a system with intergenerational political turnover. Once elected, paramount chiefs rule for life. As of 2016 the average tenure was 15 years, but this number ranges from 1 to 47 years.[1] Another option for political turnover in the chiefdoms is a political settlement approach, where ruling houses take turns at governing. This settlement approach was promoted in chiefdoms that were combined (Amalgamated), but this option has rarely been taken (Tangri, 1976; Fenton, 1951). As a result, there is high variation in the balance of power among houses in chiefdoms with multiple ruling houses. For instance, a survey of local historians and archival research of ruling houses by Reed and Robinson (2013) shows that in Jaiama-Bongor chiefdom there are seven ruling houses, but only one has had reign in the history of the chieftaincy, whereas in Sella Limba chiefdom with four ruling houses, there is an almost equal number of reigns. There is also variation in the number of paramount chieftaincies in each chiefdom. On average some chiefdoms have had six paramount chiefs, but some have had up to 15.

Up until 2004, the chiefdom administrations were responsible for providing public goods, and, as custodians of rural land, they had the power to tax, mobilize labour and administer justice. In the colonial era, the paramount chiefs had the full backing of the British might in the form of police forces and prison facilities to help them overcome any local challengers, provided the chiefs remained loyal to the colonial masters. As has been widely documented elsewhere on the continent, chiefs were accountable only to the colonial powers rather than the local people they governed. The fact that they had the backing and protection of the British powers made them more powerful and despotic than before the colonial encounter (Cooper, 2002; Mamdani, 1996; Acemoglu, Chaves, Osafo-Kwaako, & Robinson, 2014b). The chieftaincy system in Sierra Leone perhaps provides the clearest example of despotism. In addition to chiefs' control over land, they

[1] In very rare cases, PCs were removed by the British colonial masters. The post-independence era constitution also give Presidents the power to remove PCs, however, this happens rarely and only in particular chiefdoms that are politically sensitive to the central government.

were steeped in the domestic slave trade until the late 1920s when it was legally banned (Fanthorpe, 2001; Richards, 1996). But even then, chiefs could use bonded labour of young men to work on large tracts of land they controlled. They had the power to banish people, and strangers were left at their mercy. Every post-independence regime in the country has also supported the chieftaincy system.

The authoritarian rule of the paramount chiefs raised the stakes in the political contests in these chiefdoms. Historical accounts indeed point to conflicts and unrest in the chiefdoms resulting from ruling house political rivalry within and across chiefdoms. In his analysis of chiefdom conflict and unrest across the country dating back to 1912, Tangri (1976, p. 313) notes:

> "The leaders of opposition ruling houses were often frustrated in their attempts to gain access to the local decision-making bodies by conventional means... in a situation of widespread discontent, violence was the only means of expression..."

This frustration of not being included in decisions encouraged fierce competition among rival political elites, as politics was indeed a winner-take-all contest.

The literature on the war in Sierra Leone implicates the chieftaincy system by pointing to intergenerational grievances between rural elites and young people. The argument is that a slave culture which predates colonialism continued to be perpetuated by chiefs, in which rights of young people over land and their labour was denied by chiefs or used for their own benefit. This created the so called “lumpen” youth in rural areas (Richards, 1996, 2005; Fanthorpe, 2001; Abdullah et al., 1997). This argument is a useful theory about why so many young people became engaged in the war, but not sufficient to explain the varied pattern of violence against civilians. My paper suggests a new explanation, which is that strategic political considerations to tip the balance of power in

chieftaincy politics may have been the logic that explains the pattern of lethal violence against civilians observed in the war.

3.5 Data

In this section, I describe the data sources for both the war outcomes and the political variables. I provide a definition of political rivalry, and how the balance of power categories are captured in the data.

A. Political Variables

Acemoglu, Reed, and Robinson (2014) are the first to comprehensively document ruling houses across chiefdoms in Sierra Leone.[2] To build the dataset on ruling houses, the authors combined information from the archives in Sierra Leone and London with a survey of local historians from all 149 chiefdoms.[3] Their key respondents were local oral historians, who helped reconstruct the list of ruling houses, number of times each had reigned, and number of past PCs for each chiefdom. The archival work was crucial in documenting and confirming which chiefdoms were combined (amalgamated). The companion work Reed and Robinson (2013), provides a detailed description and history of each ruling house. Table 3.8 in the Appendix provides summary statistics of the chiefdom political institution. The number of ruling houses per chiefdom ranges from 1(6% of cases) to 12 (less than 1% of cases), with the modal number of ruling houses being 4. As Panel (a) in Figure 1 shows there is no discernible pattern in the distribution of ruling houses across the chiefdoms. Acemoglu, Reed, and Robinson (2014) argue that the intensity of competition increases with the number of ruling houses. To empirically show this, they developed a concentration of political power index, the Herfindahl Index, which is a weighted average of the number of times each ruling house has reigned. The index ranges

[2] I am very grateful to one of the authors of the paper, Reed, who was kind enough to talk me through how they collected the data, and made the data available to me.

[3] In July 2017 the outgoing President split up some chiefdoms to create 41 new ones. This analysis uses the 149 chiefdom from the 2004 census.

from 0 to 1, and a score closer to 0 suggests ruling houses in that chiefdom have gained equal reign, and a score of 1 suggest, only one ruling house has dominated power. They then show that the number of ruling houses is negatively correlated with the Herfindahl Index of power concentration. Table 3.7 in the Appendix shows a statistically negative correlation between the Herfindahl Index of ruling house dominance and the number of ruling houses. This relationship is shown graphically in Figure 3.3 in the Appendix using model 5 in Table 3.7.

Acemoglu, Reed, and Robinson (2014) are not the first to measure political rivalry in this manner. Becker (1983) and Stigler (1972) have also demonstrated that the number of candidates or political parties, is a useful measure of competition, just like using the number and size of firms in market competition. Even though the number of ruling houses is a useful measure of rivalry, it is not very informative about the balance of power among competing houses in each chiefdom. For instance, the average chiefdoms has had about six opportunities for the paramount chieftaincy, with maximum of 17. In addition, on average the maximum time one ruling house has gained power is about 3, but this ranges from 1 to 15. As of 2016, the longest serving paramount chief had reigned for 47 years. For the argument of this paper, it would be important to know how successful ruling houses have been in getting hold of power in the chiefdoms, much like the effective number of political parties (Laakso & Taagepera, 1979).

I use the Herfindahl Index to create three categorical variables to describe the balance of power in the chiefdoms. First, I look at locations where, pre-war, multiple ruling houses have shared equally the reign of the paramount chieftaincy. I call this category *Shared Power*. Historically, power sharing was achieved through rotational arrangement between ruling houses (Tangri, 1976). I then describe the case where only one ruling house has dominated the chieftaincy even when there are more than one house in the chiefdom. I call this case *Monopoly Power*. These two cases can be viewed as stable in

terms of power dynamic among the ruling houses. The third category which is defined as *Unstable Power*, is the situation in between these two scenarios.

The Herfindahl Index score varies for each of these categories and depends on the number of ruling houses, N in each chiefdom. For instance, in the most simple case for *Shared Power*, where a chiefdom with two ruling houses have had equal reigns at the paramount chieftaincy, will have an index score of 0.5. For a scenario where there are four ruling houses that have shared power equally would have Herfindahl Index score of 0.25. The simplest case of *Monopoly Power* is where only one ruling house has reigned even when there are two houses. Herfindahl Index score will be 1 in this case.

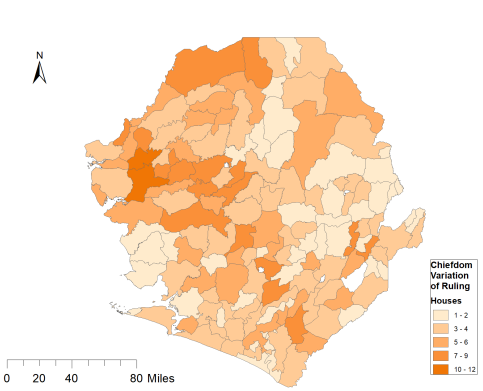
The function below describes the relationship between the Herfindahl Index and the number of ruling houses in the definition of the balance of power categories for all chiefdoms with multiple houses.

$$F(h;N) = \frac{\left(h - \frac{1}{N}\right)}{\left(1 - \frac{1}{N}\right)} \tag{3.1}$$

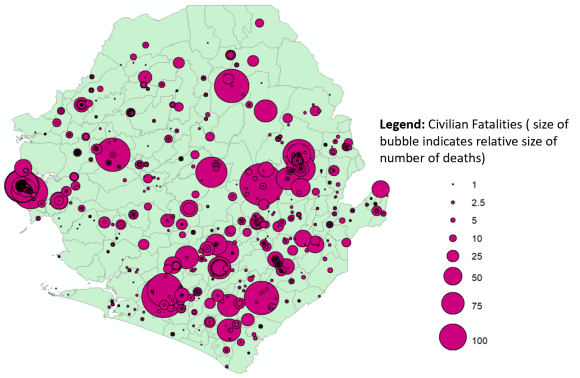
Where h is the Herfindahl Index score for any given number ruling house, N in a chiefdom, and N ranges from 2 to 12. The function falls between 0 and 1, and it is 0 in the case of full *Shared Power*, and takes value 1 in case of full *Monopoly Power*. As the number of house, N increases in a *Shared Power* situation the Herfindahl Index score tends to zero. In general, I categorize chiefdoms as *Shared Power* if the Herfindahl Index score is equal to or less than the 10th percentile for each given N. This is because the closer the index is to 0, the more likely it is that power has been shared more equally. I describe 16% of chiefdoms as having *Shared Power* among ruling houses. *Monopoly Power* have a Herfindahl Index score at or above the 90th percentile. Here too, the closer we are to 1 for each given N the likely it is that one house has dominated power. There are about 25 chiefdoms (24% of chiefdoms) in this category, 16 of which have Herfindahl Index score of 1, like locations with only one ruling house, although qualitatively the power dynamics

are very different. The *Unstable Power* category is essentially a residual from the two extremes. The Herfindahl Index score for this category falls between the 10th percentile and 90th percentile for any given N in a chiefdom . Sixty percent of chiefdoms are in this category.

Figure 3.1: Ruling Houses and Conflict Event Locations and Fatalities



(a) Distribution of Ruling Houses



(b) Event Frequency and Magnitude of Fatalities

B. Conflict Data

The paper relies on the UCDP Georeferenced Event Dataset (GED) Global version 17.2 for the main results (Sundberg & Melander, 2013; Croicu & Sundberg, 2017). The UCDP defines an event as "the incidence of the use of armed force by an organized actor against another actor, or against civilians, resulting in at least one direct death in either the best, low or high estimate categories at a specific location and for a specific time" (Croicu & Sundberg, 2017).[4]

Using chiefdom shapefiles from the Sierra Leone Statistics Agency, and the georeferenced information (latitude and longitude coordinates) for each unique conflict event from 1991 to 2002, I create a chiefdom-level fatalities and conflict event frequency for the war period. Panel (b) in Figure 3.1 shows the number of events and magnitude

[4] Georeferenced information on conflict locations and fatalities in this dataset are largely obtained from news media, both international and local, humanitarian organizations such as Red Cross, MSF, the U.N., and government, international and private security forces that operated in Sierra Leone during the war. This data is also partly supplemented by the No Peace Without Justice (NPWJ) conflict mapping project (Smith et al., 2004).

of fatalities within chiefdom boundaries. As the definition implies, the dataset provides three estimates of fatalities for each unique dyad conflict event. I use the *best* estimate throughout my analysis. The *best* and *high* estimate for all fatalities in this dataset are 20,514, and 32,524 respectively, from 1,495 unique deadly conflict events. Table 3.9 and Table 3.10 in the Appendix provide detailed description of the data. The *best* estimate for civilian fatalities is given as 9,767. As noted above, estimates of fatalities in the academic literature on the war vary widely; Guberek et al. (2006) suggest 10,000, Keen (2005) reports 50,000, and a high of 75,000 in Sawyer (2008).[5] The average civilian fatalities per event is about 5, and when aggregated at the chiefdom level it is about 60 deaths.

Other useful attributes in this dataset include the date each event started and ended, and identification of actors in the dyads. Each unique event also has information on precision of reporting on event location, timing and fatalities. About 93% are reported with an event clarity of 1, and about 41% of event dates are reported to be almost exact. Identification of actors involved in the conflict allows me to capture the number of different actors that engaged in conflicts in each chiefdom. I estimate that on average each chiefdom had about four different warring factions engaged in conflict at different times throughout the war. To get the number of times each chiefdom was attacked throughout the war, what I am calling in this paper conflict frequency, I sum up each unique conflict event in the chiefdom. I estimate that on average each chiefdom experienced about 10 separate attacks throughout the war. Table 3.10 in the Appendix provides information on conflict dyads.

As part of my robustness check, I use the Sierra Leone Truth and Reconciliation Commission (TRC) dataset (Conibere et al., 2004), which was independently generated

[5] De Bruijne (2014, p. 8) who compares four other conflict event datasets for the Sierra Leone war notes this about the UCDP-GED dataset; "The UCDP data strikes a middle ground between ACLED-v4 [Armed Conflict Location Event Dataset-version 4] and the TRC [Truth and Reconciliation Commission] data. In UCDPs reading, the Sierra Leone conflict has elements of a traditional conflict between military and non-state actors (42% battles) but also reports high levels of one-sided violence (58%)".

from the UCDP data. The TRC dataset was built from information given by witnesses in the trial of some of the war actors that were deemed to have committed the worst crimes. A convenient sampling approach was used, that is, only people willing to give statements were included in the detailed interviews, which has potential for biases.[6] In fact, some have suggested that this data is biased towards showing atrocities committed by the main rebel group the R.U.F (De Bruijne, 2014). Nonetheless, there are key aspects of the data that would allow us to get a gut-check on the key argument suggested here.

The TRC data was collected between March 2002 and 2003, from 149 chiefdoms, and consists of 7,706 witnesses and catalogues 40,242 *violations*. The deposition could be related to one or multiple victims. The dataset identifies about 28,720 victims, which implies some victims suffered multiple *violations*. The data provides specific categories of *violations*, which are listed in Table 3.12 in the Appendix. *killings* is the main category of interest. It takes value 1 if a witness says someone in their community was killed during the war, and 0 otherwise. About 4,514 witnesses reported killings for the period 1991 to 2000. When compiled at the chiefdom level, the average number of witnesses reporting *killings* is 20. Furthermore, the dataset also provides information about victims, which is listed in Table 3.11 in the Appendix. About 2% of victims were listed as chiefs.[7] Figure 3.4 in the Appendix shows the correlation between the two datasets. It is low, at 0.14, which may be in part because the TRC data probably captures the extensive margin, whereas the UCDP data captures intensity, and the data focused more on R.U.F atrocities.

C. Covariates

A possible concern in the empirical analysis in this paper is the potential endogeneity in the variation in the number of ruling houses across chiefdoms. The number

[6] The TRC states the following about the data; "These are convenience sample data, and as such they are not a statistically representative sample of events in this conflict. These data do not support conclusions about patterns, trends, or other substantive comparisons (such as over time, space, ethnicity, age, etc.)

[7] The dataset does not distinguish whether chiefs are PC or not. It is also unclear if individuals that provided information about killing of chiefs are themselves chiefs.

of ruling houses may be correlated with a number of factors that in turn affect frequency of conflict events and civilian fatalities. To address these concerns, I test and control for chiefdom level factors. Below I describe some of the observed covariates in my multivariate regression analysis, which include: geographic, demographic, economic, and institutional observables. Below I highlight some of the main covariates.

Geography: Geographic covariates are detailed in Table 3.13, and are obtained from various sources. Glennerster et al. (2013) provide data on average slope, distance to coast and distance to nearest river. Soil quality information is calculated from raster data provided in Harmonised World Soil Index (HWSD). I modelled chiefdom-level historical rainfall by using rainfall data from 30 rain stations in the chiefdoms across the country, as reported by Gregory (1965). I used a simple rule to assign rainfall data- chiefdoms that had rain stations are assigned the historical annual average reported from those stations. Chiefdoms without rain stations are assigned readings from the nearest station, or the average of multiple nearby stations. Some adjustments to this rule were made for chiefdoms that have special features, such as being on a coast. Figure 3.5 in the Appendix shows the spread of rainfall. The result matches well with other computed rainfall information.

Demographic and Economic: The demographic and economic controls come from Acemoglu, Reed, and Robinson (2014) and Glennerster et al. (2013). They include chiefdom population density, area of chiefdoms in square kilometres, availability of diamonds and non-diamond minerals, and distance from historical trade routes in kilometres. See Table 3.14 for detailed summary statistics.[8]

Soil Quality Covariates- Chiefdom-level soil quality variables are obtained from Harmonised World Soil Index (HWSD) and include: topsoil salinity, percent of topsoil

[8] For population density the only complete census data for chiefdom population before the war was 1963, which I use instead of census data taken immediately after the war in 2004 since most people were still displaced.

organic carbon, and drainage.

Institutional Covariates- This includes an indicator variable to capture if a chiefdom was combined (amalgamation), number of missions in the chiefdoms in 1923, and distance to nearest mission, both from Glennerster et al. (2013) but originally from Nunn (2010). The indicator variable for the presence of pre-colonial politically centralized ethnic groups is an indicator variable that takes value 1 if the chiefdom had ethnic groups that had some degree of pre-colonial political centralization, and 0 otherwise. Acemoglu, Reed, and Robinson (2014) provide information on number of paramount chiefs in the history of each chiefdom and the average maximum reign of the paramount chief position. Table 3.8 provide summary statistics of the chiefdom political institutions.

3.6 Estimation and Identification Strategy

3.6.1 Identification

A key concern for identification in this paper is the endogeneiety of the variation in number of ruling houses. It is possible that chiefdoms with higher number of ruling houses may have been specifically targeted for some unobservable reasons that may lead to a spurious relationship between civilian fatalities and number of ruling houses. It might also be that the positive correlation between civilian fatalities and number of ruling houses is an artifact of over reporting, perhaps because chiefdoms with higher number of ruling houses had the infrastructure to report more during the war. I take a few steps to address these concerns.

I build on and reproduce the test for confounding variables by Acemoglu, Reed, and Robinson (2014), and add other economically salient geographic variables including soil quality and rainfall. Arguably, these are perhaps the most important indicators of economic potential in these chiefdoms, because they directly affect agricultural productivity. A vast majority of chiefdom populations are engaged in subsistence farming, where fertilizer is

not used and rain is the only source of irrigation. One can expect more ruling houses to be found in places with higher agriculture productivity potential, and a concern for this paper would be that these high potential areas were also disproportionately targeted by rebels during the war, because for instance they got their food supply from these areas.

Furthermore, I investigates whether pre-colonial and early colonial era institutions may have shaped the distribution of ruling houses. To do this, this paper uses data from Nunn (2010) that documents the number of Christian missions in the early 1920s in Sierra Leone. Locations of missions would be wealthier or have services that attract more population and ruling houses. Next, I test if pre-colonial political organizational structures among ethnicities in Sierra Leone shaped the pattern of ruling houses settlement across the chiefdoms. Michalopoulos and Papaioannou (2013) suggest that pre-colonial ethnic organizational complexities in Africa strongly correlate with the level of economic development today. In particular, locations with ethnicities that had more politically centralized structures are shown to be more prosperous today. Using the work of Murdock (1967), they spatially locate ethnicities across Africa and characterize their pre-colonial political organizational structures. Two ethnic groups, the Temne and the Sherbro from Sierra Leone are categorized to have a relatively centralized political structure in the pre-colonial era. Using archival information from the 1930s with records of which ethnicities were present in each chiefdom (SierraLeone, 1949), I identify chiefdoms with these two ethnicities, and test for correlation with number of ruling houses, and find pre-colonial centralized political structure among chiefdoms is not associated with the variation in the number of ruling houses.

Table 3.1 below shows the results from an OLS regression model for number of ruling houses on potential confounders, with district fixed effects. The results show that chiefdom geographic attributes such as average annual rainfall and measures of soil quality are uncorrelated with the number of ruling houses. It also shows that institutional proxies,

such as number of Christian missions, and the presence of ethnicities with pre-colonial political centralization are also uncorrelated with the number of ruling houses. The binary variable, amalgamation, which takes value 1 if the chiefdom has been combined with another, and zero otherwise, as expected, shows a strong correlation with number of ruling houses. I add it as control in all the regression models.

Table 3.15 in the Appendix shows early development indicators that Acemoglu, Reed, and Robinson (2014) show are also uncorrelated with ruling houses.

By showing that important determinants of agricultural productivity and pre-colonial institutions are uncorrelated to the number of ruling houses, I add to the robustness of the Acemoglu, Reed, and Robinson (2014) claim that the distribution of ruling houses does not seem to follow any observable pattern. Historical records indeed suggest that the settlement pattern of ruling houses may have been a historical accident (Reed & Robinson, 2013), suggesting a plausible exogeneity in the variation in the number of ruling houses.

I further show robustness of my results by using combatant fatalities as a placebo. The idea is that because combatants fatalities are largely owed to strength, discipline and strategy (Weinstein, 2005), fatalities among warring factions should not be associated with chiefdom political rivalry. Lastly, I use a second dataset of conflict events generated from a different process to repeat my main analysis.

3.6.2 Estimation

As my outcome at the event level is a count variable, I estimate the following negative binomial model:

$$y_{ic} = \delta_d + \delta_T + \delta_f + \alpha_c H_c + X_c + \varepsilon_{ic} \tag{3.2}$$

Where y_{ic} represents civilian fatalities in conflict event i in chiefdom c. δ_d is fixed effect for the 12 districts. The district fixed effects capture district level differences that stay

Table 3.1: Number of Ruling Houses and Chiefdom Characteristic Correlates

	Dependent Variable: Number of Ruling Houses						
VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Number of Missions	0.37						
	(0.33)						
Distance to Nearest Missions		-0.01					
		(0.01)					
Pre-colonial Politically Centralized Ethnicities			-0.30				
			(0.58)				
Topsoil Salinity (Elco)(ds/m)				-0.28			
				(0.27)			
Topsoil Organic Carbon (%)					-0.73		
					(0.47)		
Soil Drainage (%)						-0.76	
						(1.04)	
Average Annual Rainfall (inches)							-0.01
							(0.01)
Amalgamation	2.71***	2.71***	2.68***	2.63***	2.61***	2.66***	2.63***
	(0.39)	(0.40)	(0.39)	(0.39)	(0.39)	(0.39)	(0.38)
Number of Chiefs Recalled	0.06	0.07	0.07	0.06	0.07	0.06	0.05
	(0.07)	(0.08)	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)
Observations	147	147	146	147	147	147	147
R-squared	0.48	0.48	0.48	0.48	0.48	0.48	0.48

NOTE-.Soil quality controls are obtained from Glennerster et al. (2013) and calculated using GIS software from rasters provided in the Harmonised World Soil Index (HWSD). Rainfall data is calculated using GIS software, where each chiefdom is assigned rainfall data collected by the nearest distance to any of 38 rainfall stations across the country from 1941-1960 (Gregory, 1965). The number of missions in the chiefdom in 1923 obtained from Glennerster et al. (2013) and originally from Nunn (2010), and information on pre-colonial tribal organization obtained from (Michalopoulos & Papaioannou, 2013).

constant over time. For instance, some districts may have people who historically are more violent, and this may also be where you find chiefdoms with more ruling houses. δ_T is year fixed effects for the 10-year war period. The time fixed effects for controlling time varying factors during the war. For example, changes in appetite for violence as the war progressed. δ_f is faction fixed effects for the four main fighting groups. The faction fixed effects are crucial for capturing differences among warring factions (Humphreys & Weinstein, 2006). For instance, the RUF was known to have targeted civilians as the war went on compared to other forces. X_c' is a vector of variables that capture relevant chiefdom level controls, including institutional, demographic, economic and geographic factors. A list of these controls are given in Tables 3.8, 3.13, 3.14 in the Appendix. ε_{ic} is the error term. Throughout the analysis the errors reported are clustered at the chiefdom level. The coefficient α_c gives the estimate of the effect on civilian fatalities. I use both the sign and size of α_c to test the hypothesis in the paper. The coefficient, α_c can be interpreted as a α_c increase in the expected log count of civilian fatalities for a one unit change in number of ruling house at the 95% confidence level.

To test hypotheses around balance of power, I introduce a dummy variable for each balance of power scenario to equation 1. For instance, for the case of *Shared Power*, the equation looks as follows:

$$y_{ic} = \delta_d + \delta_T + \delta_f + \alpha_c H_c + \sigma_c SharedPower_c + X_c + \varepsilon_{ic} \tag{3.3}$$

Where *Shared Power* takes value 1 if chiefdom has shared power among multiple ruling houses, and zero otherwise.

3.7 Results

3.7.1 Main Results

In this section, I present estimates for the baseline results. I estimate equation 4.1 using both a Negative Binomial and OLS model. The OLS results are presented in Table 3.17 in the Appendix. In Table 3.2 below I present results for the Negative Binomial model. Column 1 is the most parsimonious model with only district fixed effects. In column 2, I control for institution and add demographic and economic controls in column 3 and 4, respectively. I add faction fixed effects in column 5, and in column 6, the most stringent model includes year fixed effects.

Table 3.2: Negative Binomial Estimation Of Civilian Fatalities

	Dependent Variable: Civilian Fatalities					
VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
Number of Ruling Houses	0.07*	0.12***	0.11**	0.12***	0.11**	0.11***
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
Amalgamation		-0.64**	-0.57**	-0.56**	-0.51**	-0.48*
		(0.25)	(0.25)	(0.25)	(0.26)	(0.27)
Year Fixed Effects	No	No	No	No	No	Yes
Faction Fixed Effects	No	No	No	No	Yes	Yes
Economic Controls	No	No	No	Yes	Yes	Yes
Demographic Controls	No	No	Yes	Yes	Yes	Yes
Control for Institutions	No	Yes	Yes	Yes	Yes	Yes
District Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Outcome Mean	5.01	5.01	5.01	5.01	5.01	5.01
Outcome Standard Deviation	11.46	11.46	11.46	11.46	11.46	11.46
Number of Clusters	138	138	138	138	138	138
Observations	1,282	1,282	1,282	1,282	1,282	1,282

NOTE-Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Event level fatalities using the *best* estimate for civilian fatalities in the chiefdom for the duration of the conflict in the UCDP Georeferenced Event Dataset (GED) Global version 17.2 (2016). Missing data on outcome variable for 11 chiefdoms including: "Malegohun", "Toli", "Bombali Sebora", "Libeisaygahun", "Gbinle-Dixing", "Dembelia Sinkuni", "Follosaba Dembelia", "Timdale"; "Upper Banta", and "YKK". All distances are in km and are calculated with reference to chiefdom centroids. Fixed effects are for all district with data on outcome variable. Year Fixed Effects are for all ten years of war. Geographic Controls include, log of distance to major towns (Bo, Kenema, and Freetown), an indicator variable if the chiefdom had license for mining (diamonds and non-diamond), distance to 1907 rail road. Demographic controls include log of 1963 population density, and chiefdom ethnolinguistic fractionlization index. Controls for institutions include number of chiefs recalled and an indicator variable for the presence of pre-colonial politically centralized ethnic groups.

As predicted, the coefficient on the number of ruling houses is positive and statistically significant. To assess the magnitude, I take the marginal effect and present in Table 3.16 in the Appendix. In column 6, the coefficient, $\alpha = 0.45(S.E = 0.17)$, which suggests that one additional ruling house is associated with about 9% more civilian fatalities in an event on average. This result is also similar to the OLS model in Table 3.17. This result suggest that chiefdom political rivalry is significant in explaining civilian fatalities.

Next, I show results for the balance of power categories. To do this I estimate

equation 4.2 by including binary variables for each balance of power category. Table 3.18 in the Appendix shows Marginal Effect estimates. Columns (1)-(4) in Table 3.18 shows estimates for the simplest scenarios for balance of power categories. For *Shared Power*, it is the case where the number of ruling houses, $N = 2$ and Herfindahl Index score, $h = 0.5$, which represent about 4% of cases in the sample. For the *Monopoly Power* case, it is when the number of ruling houses, $N = 2$ and Herfindahl Index score, $h = 1$, which also represents about 4% of cases in the sample. I run a separate regression for each category to understand the link between specific balance of power cases and civilian fatalities. To get a relative sense of effect among the three categories, I include all three in my regression, with *Unstable Power* dropped to serve as reference category, as shown in column (4) in Table 3.18.

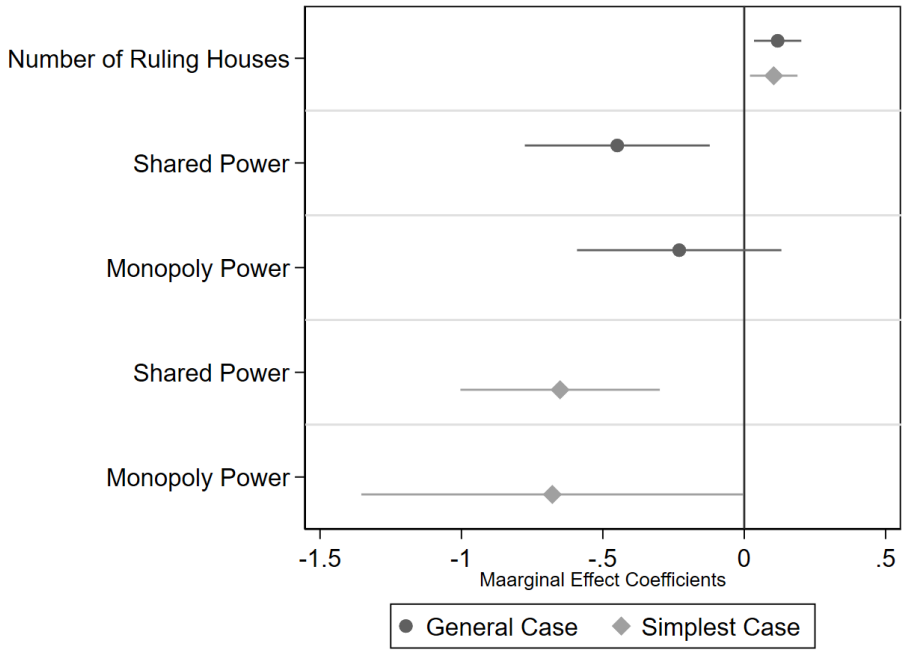
Column (1) in Table 3.18 in the Appendix shows that the coefficient on *Shared Power* is negative and statistically significant, $(\alpha = -2.21, S.E = 0.44)$, which suggests that these chiefdoms are associated with about 44% fewer civilian fatalities per event compared to places that don't have power parity. The coefficient on *Monopoly Power* in column (2) is negative and statistically significant $(\alpha = -1.92, S.E = 0.72)$, suggesting that these cases have 38% fewer civilian deaths. Lastly, in column (3) *Unstable Power* chiefdoms are associated with about 38% $(\alpha = 1.89, S.E = 0.42)$ more civilian fatalities per event, compared to otherwise.

Columns (5) to (8) represent the general case for the balance of power categories using the relationship in equation 3.1 above. The results are similar to the simple sign on the coefficients. Column (5) in Table 3.18 in the Appendix suggest that *Shared Power* chiefdoms are associated with about 28% $(\alpha = -1.41, S.E = 0.48)$ fewer civilian fatalities per event compared to places that don't have power parity. The coefficient on *Monopoly Power* in column (6) is negative and not statistically significant $(\alpha = -0.74, S.E = 0.61)$. The coefficient on *Unstable Power* chiefdoms in column (7) are associated with 24%

($\alpha = 1.18, S.E = 0.45$) more civilian fatalities per event, compared to otherwise.

For comparison among the three categories, I plot estimates from the models (4) and (8) in Table 3.18 in the Appendix in Figure 3.2. The reference category in each model is *Unstable Power*. The diamond shapes represent coefficients Plot for the simple cases, and solid dots represent the general case. For the simple case, the results suggests that at the 95% confidence level, the coefficients on *Shared Power*, and *Monopoly Power* have similar magnitude, and are negative and statistically different from zero, which suggests that relative to *Unstable Power*, chiefdoms where ruling houses have shared power or one has dominated power are associated with lower fatalities. In terms of magnitude both have about 37% fewer deaths, with the coefficient on *Shared Power* at ($\alpha = -1.86, S.E = 0.44$), and that for *Monopoly Power* at ($\alpha = -1.83, S.E = 0.69$).

In the general case, the result for *Shared Power* is similar to the simple case, with ($\alpha = -1.44, S.E = 0.48$), suggesting 29% fewer deaths relative to *Unstable Power* chiefdoms. The coefficient on *Monopoly Power* is negative but not statistically significant, suggesting that, overall fatalities in these chiefdoms are not different from chiefdoms with unstable power dynamic.



NOTE- Base/comparison category is Unstable Power.

Figure 3.2: Coefficient Plot of Balance of Power

3.8 Robustness Checks

In this section, I present further evidence to support my main results. I first conduct a placebo test, using combatant fatalities as the outcome. I then use a second dataset generated from a different process to reproduce my main findings.

3.8.1 Combatant Fatality as a Placebo

In a civil war like in my case study, combatant fatalities result when warring factions face each other. The pattern of deaths among combatants is largely determined by other factors inherent to combat such as strength, discipline and strategy (Weinstein, 2005). Furthermore, about 43% of deadly events involved attacks between various warring factions, and unlike civilians, combatants were much less likely to be residents of chiefdoms they died in.[9] This makes combatant fatalities an effective placebo for my analysis.

[9] One of the warring factions in the later stages of the war of a composition of local vigilanties, that often had ties to the chiefdom institutions, but we still don't see any effect of rivalry and combatant fatalities.

As my main dataset separates combatant and civilian fatalities, I am able to test this idea. I estimate equation 4.1 but with combatant fatalities as the dependent variable as shown in Table 3.3 below. The coefficients on number of ruling houses are all insignificant, and much smaller in magnitude. This result suggests, as expected that combatant fatalities are not associated with ruling house rivalry.

Table 3.3: Negative Binomial Estimation Of Combatant Fatalities

	Dependent Variable: Combatant Fatalities					
VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
Number of Ruling Houses	0.04	0.06	0.03	-0.01	0.04	0.01
	(0.05)	(0.06)	(0.05)	(0.05)	(0.05)	(0.06)
Amalgamation		-0.02	0.03	0.15	0.11	-0.05
		(0.30)	(0.29)	(0.29)	(0.28)	(0.28)
Year Fixed Effects	No	No	No	No	No	Yes
Faction Controls	No	No	No	No	Yes	Yes
Economic Controls	No	No	No	Yes	Yes	Yes
Demographic Controls	No	No	Yes	Yes	Yes	Yes
Control for Institutions	No	Yes	Yes	Yes	Yes	Yes
District Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Outcome Mean	5.22	5.22	5.22	5.22	5.22	5.22
Outcome Standard Deviation	13.17	13.17	13.17	13.17	13.17	13.17
Number of Clusters	138	138	138	138	138	138
Observations	1,282	1,282	1,282	1,282	1,282	1,282

NOTE-Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Controls identical to those in main results table above.

3.8.2 A Second Dataset

Next, I use a second dataset that was generated from the Truth and Reconciliation Commission depositions. The appealing aspect of this dataset is that the information covers all 149 chiefdoms, consists of 7,706 witnesses that catalogues 40,242 *violations*. The depositions could be related to one or multiple victims. Witness report in these depositions identified about 28,720 victims. The data provides specific categories of *violations*, which are listed in Table 3.12 in the Appendix. *killings* is the main category of interest. Because in this dataset *killings* are reported as a binary variable, I estimate the following Logit

model with similar controls as in Table 3.2, without the year fixed effects.

Let d_{ic} be a binary variable, such that $d_{ic} = 1$, if a witness i in chiefdom c reported a wartime death, and $d_{ic} = 0$ otherwise, then conditional on a number of covariates, then the probability $P(d)$ of a wartime death in chiefdom c is given as follows:

$$P(d = 1|X) = G(\delta_d + \delta_T + \delta_f + \alpha_c H_c + X_c + \varepsilon_{ic}) \tag{3.4}$$

Where X is covariates similar to those in equation 1 above.

I present the Logit model estimates in Table 3.20 to assess if the sign on the coefficient α here is consistent with that of the main dataset. Column 1 in Table 3.20 is identical to column 6 in the main results in Table 3.2, and there is a positive and statistically significant link between political rivalry and probability of killing reported in this data as well. This is consistent with results from my main findings. However, the coefficients on the dummies for each of the balance of power categories in columns (2) to (5) are not statistically significant. This suggests that the results for the balance of power categories are not consistent with the main findings. This may not be surprising because the models in my main dataset capture the effect of ruling house rivalry at the intensive margins, whereas here the model captures the effect at the extensive margin.

3.9 Alternative Explanation and Possible Confounding Factors

Next, I explore a series of alternative hypotheses and possible confounding factors for the observed relationship between civilian fatalities and number of ruling houses.

Reporting Bias

A general concern with conflict event datasets like the one used in this paper is over reporting bias from big cities or locations that are connected either through media or road networks (Weidmann, 2016). In this study, this would mean that the pattern of civilian fatalities observed is a result of over reporting in some areas and not in others. Perhaps chiefdoms with more ruling houses reported more because they are closer to major towns with news media or they may have better road networks that would have facilitated the movement of humanitarian organizations who helped to collect information about fatalities during the war. To rule out this concern, I create an interaction term of the nearest distance, from chiefdom centroid to the three major headquarter towns in the East, South and North of the country. If over-reporting is happening in more accessible chiefdoms, it would have most likely happened via these towns, and we can expect the effect of the number ruling houses on fatalities to disappear. I present results of this analysis in Table 3.19 in the Appendix. The result shows that the average effect holds even after interacting number of ruling houses with distance to the major towns.

3.9.1 Frequency of Attacks and Ruling Houses

A key argument suggested in this paper is that conflict was largely a shock to the local political systems in the chiefdoms. However, if we observe a link between frequency of attacks and ruling houses, then it is possible that some of the conflict events may have been a result of direct confrontation among ruling houses, or somehow incited by the ruling house rivalry, which would undermine the claim that conflict events in the chiefdoms were exogenous shocks. This may also have implications for the type of mechanisms that explain the main effect. For instance, it may suggest that the reigning paramount chiefs, who are likely to be more resourced would do most of the targeting of other rival ruling houses. This is unlikely as chiefs and other local elites were just as likely to be killed in the war.

To explore this argument, I estimate a model with the number of events in each chiefdom as the dependent variable. I only use events that were unopposed attacks, which are events where there is only one warring faction involved in the conflict dyad, and civilians were the other side in the dyad. Unopposed attacks account for about 57% of events in the dataset. If ruling house rivalry contributed to the frequency of events, then we are more likely to observe it in unopposed attacks than in events where warring factions attack the positions of other fighters.

The model is estimated at the chiefdom level and is represented by 3.5 below. y_c is number of unopposed attacks for the duration of the war. The covariates are identical to equation 4.1 above.

$$y_c = \delta_d + \delta_T + \delta_f + \alpha_c H_c + X_c + \varepsilon_c \tag{3.5}$$

The result in Table 3.4 suggests that ruling house rivalry is not associated with the number of attacks in each chiefdom. The sample include only 129 chiefdoms, but even when I repeat the analysis for all attacks, I still find a null effect in my strictest model as column 5 in Table 3.21 in the Appendix shows.

Table 3.4: Ruling House Rivalry and Frequency of Unopposed Deadly Events

	Number of Unopposed Deadly Events				
VARIABLES	(1)	(2)	(3)	(4)	(5)
Number of Ruling Houses	0.08**	0.06	0.07*	0.05	0.05
	(0.03)	(0.04)	(0.04)	(0.04)	(0.04)
Amalgamation		0.18	0.15	0.21	0.16
		(0.20)	(0.21)	(0.21)	(0.17)
Faction Controls	No	No	No	No	Yes
Economic Controls	No	No	No	Yes	Yes
Demographic Controls	No	No	Yes	Yes	Yes
Control for Institutions	No	Yes	Yes	Yes	Yes
District Fixed Effects	Yes	Yes	Yes	Yes	Yes
Outcome Mean	10.29	10.29	10.29	10.29	10.29
Outcome Standard Deviation	9.46	9.46	9.46	9.46	9.46
Observations	129	129	129	129	129

NOTE-Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Dependent variable is the number of unopposed event for chiefdom obtained from the UCDP Georeferenced Event Dataset (GED) Global version 17.2 (2016), which list conflict dyads. Unopposed events are those with civilians are on the receiving end of the dyad. The listed conflict events are collapsed at the chiefdom level, to the number of events in each chiefdoms. Unopposed event happend in 129 chiefdoms. All other controls are identical to those in in main results table. There are no year fixed effect in the model.

Greed and other Grievance

One of the leading factors in the literature on the war is the role of diamonds. The notion of "blood diamonds" gained popularity because of the Sierra Leone war. In Table 3.19 I show that the presence of diamonds interacted with the number of ruling houses does not alter my results. In fact, I show that the presence of diamonds is not statically associated with civilian fatalities, a finding that is consistent with other empirical research on the war (Bellows & Miguel, 2009; Raleigh & De Bruijne, 2017). Furthermore, the political economy literature on the war suggests political strategies, which pre-date the war, involved armed and violent political networks installed by central government, that in some chiefdoms worked in collaboration with the paramount chiefs, and in others in opposition, may have been rekindled during the war. Reno (2000, p. 34) argues that in the build up to the war, some paramount chiefs used their power to grant land access to

strangers to build violent political networks that they then used to target rivals within and outside their chiefdoms.[10] He states that *"[c]hiefs had built up local political power by controlling their [illicit diamond mining] strangers and using them to marshal support for their preferred local headmen candidates and to intervene in disputes in neighbouring areas"*. This argument suggests the availability of strangers as a mechanism, as they were the foot soldiers in these violent political networks.

I argue that the effect observed here is likely not through the channel of strangers. I test this idea by creating a binary variable for chiefdoms where the proportion of strangers reported in a pre-war census is in the top 20 quintile, and interacted it with the number of ruling houses. The result in Table 3.19 shows that the mechanism suggested by Reno (2000) may not have accounted for the pattern of civilian fatalities observed in the conflict.

3.10 Mechanism

In this section I explore possible mechanisms for the observed positive association between number of ruling houses and civilian fatalities. I do this in two steps. First, I present some anecdotes to suggest the role of denunciation in civilian fatalities. Second, I provide some empirical evidence to support the denunciation argument.

Anecdotes of Civilian-Combatant Co-production of Violence

Anecdotes and qualitative literature on the war departs from the empirical studies that solely highlight the role of warring faction in explaining violence. These stories highlight people participating in the destruction of their own communities because of old grudges. Consultations on causes of violence in communities across the country is captured by the sentiment in this quote from one of the participants (Richards, 2003, p.13) *"our village was destroyed, only 5 percent by the RUF, and 95 per cent by our own indigenous rebels"*.

[10] *strangers* people born outside the chiefdom and having no claim to land (Tangri, 1976; Fenton, 1951).

Survival strategies devised by villagers were made futile by insiders. In the *Mende* land, for instance, such strategies included hiding in places called *sorkoihun* ('in corners'). But as Richards (2003, p.33), suggests that revenge and local feuds resulted in hiding sites being often *"betrayed by disgruntled local informers"*. A witness at the Truth and Reconciliation Commission pointed out how costly these betrayals were:

> "My brother in law was captured from his hiding place and was brought to town. He was placed before us and shot. He fell down and one of the RUF men went closer and fired at his head. He died on the spot and was thrown into the bush."(Guberek et al., 2006, p.493)

These stories suggest a type of collaboration between insurgents and civilians, where civilians provided information, and rebels used it to commit violence. In the Kalyvas (2006) control-collaboration model, this is denunciation. I argue that denunciation is a key mechanism for the observed link between ruling houses and civilian fatalities.

3.10.1 A Match-up between Warring Factions and Ruling Houses

Although I am not able to observe denunciation empirically, and more importantly link it to number of ruling houses, I argue that denunciation and counter-denunciation would be more prevalent in locations that saw repeated and lengthy conflicts, and experienced more warring factions. With more ruling houses, the potential for a match-up between a disgruntled rival and insurgents increases. This match-up leads to more civilians informing, and more fatalities. The Kalyvas (2006) control-collaboration would suggest that the presence of many factions would discourage denunciation as actors would weigh the risk of retaliation. I argue that this is a strict condition, as people are less likely to be able to weigh this risk accurately because it depends on their ability to assess if factions are strong enough to keep control of their area for a long time. Nonetheless, the longevity of the Sierra Leone civil war made it possible for different factions to occupy the same

locations at different times, an ideal scenario for denunciations and counter-denunciations.

To execute this empirically, I create a triple interaction term that includes a binary variable that captures whether the chiefdom experienced two or more fighting factions in the course of the war, a binary variable for whether the chiefdom has more than two ruling houses and a binary variable for whether the chiefdom was a base. I define a base as a locations that experienced conflict length for 180 days or more. According to the UCDP dataset, 37% of chiefdoms experienced conflict for over 180 days. In addition, I also investigate how this mechanism varies with the balance of power categories. I create a triple interaction term for each balance of power category and a binary variable that captures whether the chiefdom experienced two or more fighting factions and a binary variable for whether the chiefdom was a base. The idea here is to get a sense of under which power control condition the mechanism would be more potent. The model estimated is similar to that in column 5 in Table 3.4 above.

I present the results of this analysis in Table 3.5 below. Column (1) tests the mechanism hypothesis for the main results. The coefficient on the triple interaction term is statistically significant but negative. The coefficient on the double interaction term with *Two or More Factions* and *More Than Two Houses* factions and ruling house is positive but not statistically significant. The coefficients on the two binary variables for *Base* and *Two or More Factions* are positive and statistically significant, consistent with the hypothesis. In column (2), I test to see how the mechanism works in *Shared Power* context. The coefficient on the triple interaction term is statistically significant and negative, which is consistent with the findings from Figure 3.2 above. In Column (3), the coefficient on the triple interaction term with *Unstable Power* is negative and not statistically significant. The coefficient on the triple interaction term in column (4) is positive and statistically significant, suggesting that in *Monopoly Power* situations, more factions are associated with more fatalities, which is different from the findings

from Figure 3.2 above. Finally, in column (5) I include the interaction terms for two power categories *Shared Power*, and *Monopoly Power*, with *Unstable Power* serving as reference category. The result suggests that relative to *Unstable Power*, *Monopoly Power* is associated with more civilian fatalities when there are multiple warring factions in chiefdom that was a *Base*, while holding *Shared Power* contexts constant.

Table 3.5: Multiple Factions and Bases as Potential Mechanism

	Dependent Variable: Civilian Fatalities				
VARIABLES	(1)	(2)	(3)	(4)	(5)
Two/More Houses (binary)	0.83				
	(0.61)				
Two/More Houses X Two/More Factions X Base	-1.97***				
	(0.46)				
Two/More Faction X Two/More houses	0.37				
	(0.62)				
Shared Power X Two/More Factions X Base		-1.06**			-0.81
		(0.51)			(0.52)
Shared Power X Two/More Factions		0.13			0.28
		(0.68)			(0.71)
Shared Power		0.29			0.01
		(0.56)			(0.59)
Unstable Power X Two/More Factions X Base			-0.09		
			(0.43)		
Unstable Power X Two/More Factions			-0.27		
			(0.69)		
Unstable Power			0.41		
			(0.62)		
Monopoly Power X Two/More Factions X Base				1.06**	0.89*
				(0.52)	(0.52)
Monopoly Power X Two/More Factions				0.12	0.15
				(0.83)	(0.86)
Monopoly Power				-0.74	-0.68
				(0.77)	(0.81)
Two/More Factions	2.12***	2.78***	2.93***	2.82***	2.68***
	(0.76)	(0.81)	(0.73)	(0.81)	(0.93)
Base (binry)	2.22***	0.83***	0.72**	0.39	0.54*
	(0.42)	(0.26)	(0.36)	(0.29)	(0.31)
Number of Ruling Houses		0.20***	0.20***	0.19***	0.19**
		(0.07)	(0.07)	(0.07)	(0.07)
Amalgamation	-0.22	-0.41	-0.54	-0.53	-0.45
	(0.38)	(0.43)	(0.42)	(0.42)	(0.44)
District Fixed Effect	Yes	Yes	Yes	Yes	Yes
Faction Fixed Effect	Yes	Yes	Yes	Yes	Yes
All Contronls	Yes	Yes	Yes	Yes	Yes
Outcome Mean	59.1	59.1	59.1	59.1	59.1
Outcome Standard Deviation	82.4	82.4	82.4	82.4	82.4
Observations	138	138	138	138	138

NOTE-Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. All other controls are identical to those in main results table. There are no year Fixed Effect in the model.

3.10.2 Local Political Rivalry in The Phases of the War

Given that the above analysis is not a direct demonstration of the mechanism advanced by this paper, I use the different phases of the war to pressure test the link between the possibility of denunciation and civilian fatalities. The Truth and Reconciliation Commission characterizes the war in three phases; *"'conventional target warfare' between March 1991-November 1993; 'guerrilla warfare' between November 1993 and March 1997; and 'power struggles and peace efforts' lasting until the end of May 2000"* (Guberek et al., 2006, p.4). Each of these phases had different implications for violence against civilians. Many have suggested that lethal violence against civilians in the later part of the war was largely indiscriminate. A popular slogan by fighting factions was "Operation No Living Thing" (Smith et al., 2004, p.91). Figure 3.6 in the Appendix shows a sharp rise in atrocities after 1997. I argue that the conjectured mechanism would be irrelevant in explaining indiscriminate civilian fatalities.

For analytical power, I divide the war into two phases, 1991 to 1996 inclusive, as phase one, which includes 721 conflict events in the dataset, and 1997 to 2002, inclusive, as phase two, and includes 774 events. I present the result in Table 3.22. For the first half of the war, my analysis shows a positive association between rivalry and civilian fatalities, this effect is bigger than the baseline effect. In the second phase on the other hand, I find a null effect, as expected.

Table 3.6: Ruling Houses and Civilian Fatalities in the Phases of the War

	Dependent Variable: Civilian Fatalities					
	1991-2002		**1991-1996**		**1997 - 2002**	
VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
Number of Ruling Houses	0.11**	0.11***	0.19***	0.20***	0.11	0.07
	(0.04)	(0.04)	(0.05)	(0.05)	(0.08)	(0.08)
Amalgamation	-0.51**	-0.48*	-0.94***	-0.99***	-0.15	0.07
	(0.26)	(0.27)	(0.34)	(0.37)	(0.41)	(0.39)
All Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	No	Yes	No	Yes	No	Yes
Outcome Mean	5.01	5.01	5.32	5.32	4.82	4.82
Outcome Standard Deviation	11.46	11.46	12.02	12.02	10.92	10.92
Number of Clusters	138	138	118	118	100	100
Observations	1,282	1,282	665	665	617	617

NOTE-Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. All other controls are identical to those in main results table

3.11 Conclusion

In this paper, I established a link between political rivalry and civilian fatalities in one of Africa's most written about civil wars. I combined a highly disaggregated conflict events dataset with data on political rivalry in a decentralized political setting. Because both incidence of conflict and political rivalry are plausibly exogenous, this micro-level analysis of civil war fatalities presented in this case study perhaps provides the clearest instance of a political logic that shaped civilian survival outcomes. By doing this, this paper joins others in highlighting strategic interactions between unarmed civilians and warring factions in understanding patterns of violence in civil wars. Furthermore, the political settings are much more local such that ethnic cleavages are muted. As such, this paper lends a strong support to the argument that political actors will use external shocks to gain political advantage.

A few implications follow. By putting the focus on local political rivalry in explaining civil war outcomes, this paper encourages policy interventions that aim to

prevent violent conflicts to take politics as fundamental in understanding conflict effects, and not as a manifestation of ethnic or religious cleavages. This paper suggests that as long as stakes are high in politics, individual political actors or groups may use every necessary means, even civil wars, to gain political power.

This paper also has implications for the best way to integrate traditional institutions in modern democratic Africa. Governance reform efforts often aim to introduce competitiveness in the selection of chiefs. Acemoglu, Reed, and Robinson (2014) argue that competition even in these traditional institutions can serves as an effective check on political power in ways that lead to better economic outcomes. The findings here highlight a potential drawback to competition and suggest a careful investigation of how political competition shapes other social dimensions, such as collective action and social cohesion.

Appendix

Table 3.7: Number of Ruling Houses and Herfindahl Index of Ruling House Dominance

Dependent Variable: Herfindahl Index of Ruling House Dominance					
	(1)	(2)	(3)	(4)	(5)
Ln(Number of Ruling Houses)		-0.25***	-0.31***	-0.29***	-0.55***
		(0.03)	(0.03)	(0.03)	(0.06)
Number of Ruling Houses	-0.05***				0.07***
	(0.01)				(0.02)
Amalgamation			0.09	0.08	0.05
			(0.06)	(0.06)	(0.05)
Number of Chiefs Recalled			-0.03***	-0.03***	-0.03***
			(0.01)	(0.01)	(0.01)
Observations	147	147	147	147	147
R-squared	0.21	0.33	0.56	0.57	0.61

Robust standard errors in parentheses and clustered at chiefdom level
*** p<0.01, ** p<0.05, * p<0.1

NOTE- Data from Acemoglu, Reed, and Robinson (2014). The Herfindahl index has mean 0.54 (SD 5 0.24). Geographic controls are a dummy for the presence of mining permissions in the 1930s, distance to coast, distance to nearest river, distance to 1895 trade routes, distance to 1907 railroad, and minimum distance to Bo, Kenema, or Freetown. I also added river density.

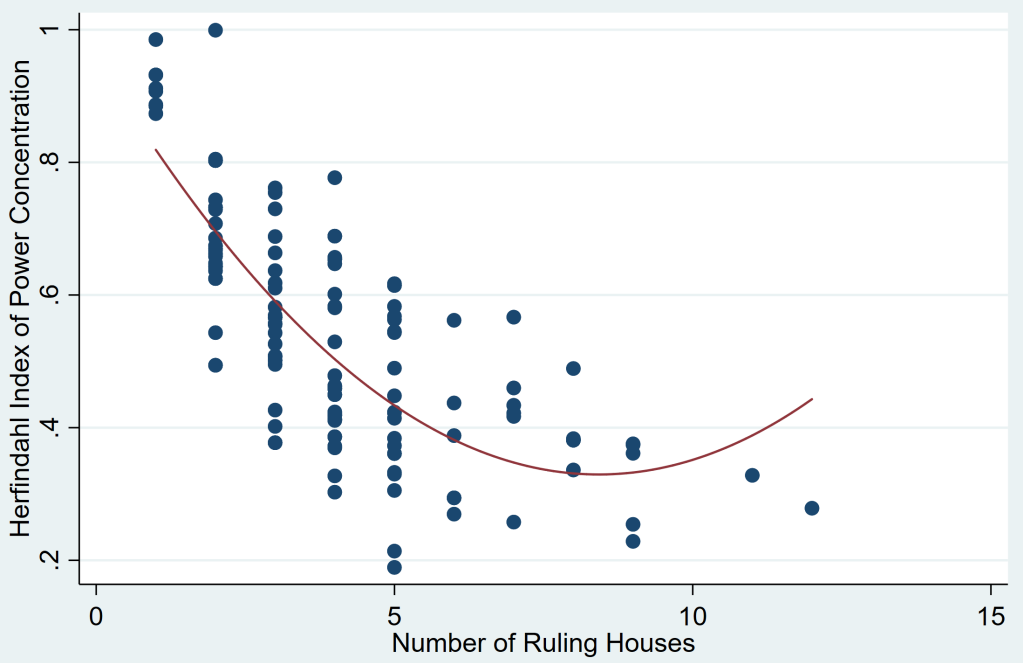


Figure 3.3: Ruling Houses and Concentration of Power Index.

Table 3.8: Chiefdom Institutional Summary Statistics

Institutional Covariates			
Variables	***N***	**Mean**	**SD**
Number of ruling houses	149	3.95	2.15
Number of P. Chiefs in History of Chiefdom	149	5.79	2.59
Maximum Reign by One Ruling House	149	3.45	1.73
Chiefdoms with Shared Power (binary)	149	0.16	0.37
Chiefdoms with Monopoly Power (binary)	149	0.24	0.43
Chiefdom with Unstable Power (binary)	149	0.60	0.49
Herfindahl index of power concentration	149	0.55	0.24
Amalgamation (binary)	149	0.31	0.46
Number of missions (1923)	161	0.14	0.40
Distance to 1923 missions (km)	158	52.58	41.90
Presence of Hierarchical Tribe (binary)	146	0.28	0.45

NOTE-Data obtained from various sources, some sources have information from oustide chiefdoms, hence N is higher than 149. Missing data also for some covariates. The number of ruling houses, Amalgation, number of P. Chiefs,Maximum Reign, and Herfindahl index are obtained from Acemoglu, Reed, and Robinson (2014). Author Genarated binary variables for balance of power categories. The number of missions in the chiefdom in 1923 obtained from Glennerster et al. (2013) and originally from Nunn (2010), and information on pre-colonial tribal organization obtianed from (Michalopoulos & Papaioannou, 2013).

Table 3.9: UCDP Conflict Data Summary Statistics

War Covariates (UCDP Data)			
Variables	***N***	**Mean**	**SD**
Event Level Stats			
Civilian Fatalities	1495	5.06	11.46
Combatant Fatalities	1495	5.22	13.17
Civilian Fatalities -1991-1996	721	5.32	12.01
Civilian Fatalities -1997 -2002	774	4.82	10.91
Number of Events 1991-1996	721		
Number of Events 1997 - 2002	774		
Chiefdom Level Stats			
Civilian Fatalities	138	59.14	82.41
Combatant Fatalities	138	57.71	88.7
Number of Factions	138	3.68	1.74
Number of Attacks	138	9.78	9.27
Total Days of Conflict	138	238.54	351.51

NOTE- Conflict covariates are for the period 1991 to 2002 from the UCDP Georeferenced Event Dataset (GED) Global version 17.2 (2016). It is missing data on outcome variables for 11 chiefdoms including: "Malegohun", "Toli", "Bombali Sebora", "Libeisaygahun", "Gbinle-Dixing", "Dembelia Sinkuni", "Follosaba Dembelia", "Timdale"; "Upper Banta", and "YKK..

Table 3.10: UCDP Data: Conflict Dyads

Conflict Dyads	**Frequency**	**Percent**
AFRC - Civilians	164	10.97
Government of Guinea - RFDG	4	0.27
Government of Nigeria - Civilians	5	0.33
Government of Sierra Leone - AFRC	143	9.57
Government of Sierra Leone - Civilians	118	7.89
Government of Sierra Leone - Kamajors	75	5.02
Government of Sierra Leone - RUF	409	27.36
Government of Sierra Leone - WSB	1	0.07
Kamajors - Civilians	17	1.14
Kamajors - RUF	6	0.4
LURD - Civilians	1	0.07
NPFL - Civilians	10	0.67
NPFL - ULIMO	1	0.07
RUF - Civilians	533	35.65
RUF - ULIMO	3	0.2
ULIMO - Civilians	3	0.2
ULIMO - J - ULIMO - K	2	0.13
Total	1,495	100

NOTE-.Conflict covariates are for the period 1991 to 2002 from the UCDP Georeferenced Event Dataset (GED) Global version 17.2 (2016). It is missing data on outcome variables for 11 chiefdoms including: “Malegohun”, “Toli”, “Bombali Sebora”, “Libeisaygahun”, “Gbinle-Dixing”, “Dembelia Sinkuni”, “Follosaba Dembelia”, “Timdale”; “Upper Banta”, and “YKK..

Table 3.11: TRC Data: Victim Types

Victim Type	Frequency	Percent
Agricultural	12314	57.76
Business Person	709	3.33
Chief	487	2.28
Clerical	75	0.35
Elder	15	0.07
Journalist	7	0.03
Miner	168	0.79
None / Unknown	56	0.26
Political	163	0.76
Professional	275	1.29
Religious Leader	129	0.61
Skilled Worker	1349	6.33
Student	2754	12.92
Teacher	702	3.29
Trader	1650	7.74
Unskilled	467	2.19
Total	21320	100.00

NOTE-Truth and Reconciliation Commission (TRC) dataset (Conibere et al., 2004)

Table 3.12: TRC Data: List of Violations

List of Violations	Frequency	Percent
Abduction	5968	14.83
Amputation	378	0.94
Arbitrary Detention	4835	12.01
Assault / Beating	3246	8.07
Destruction of Property	3404	8.46
Drugging	59	0.15
Extortion	1273	3.16
Forced Cannibalism	19	0.05
Forced Displacement	7983	19.84
Forced Labour	1834	4.56
Forced Recruitment	331	0.82
Killing	4514	11.22
Looting of Goods	3044	7.56
Physical Torture	2051	5.10
Rape	626	1.56
Sexual Abuse	486	1.21
Sexual Slavery	191	0.47
Total	40,242	100

NOTE-Truth and Reconciliation Commission (TRC) dataset (Conibere et al., 2004)

Figure 3.4: Scatter Plot of Civilian Fatalities from the two Dataset

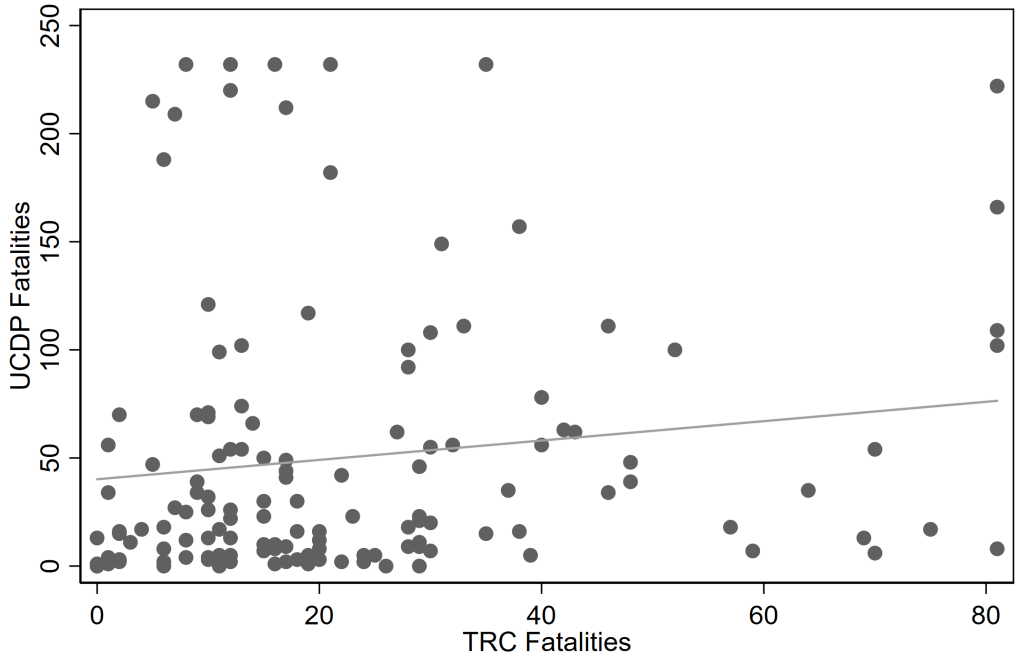


Table 3.13: Chiefdom Geographic Summary Statistics

Geographic Covariates			
Variables	***N***	**Mean**	**SD**
Average slope of chiefdom	156	7.55	4.15
Distance to the coast (km)	161	88.11	67.55
Average annual rainfall-15 to 20 years average (Inches)	166	117.05	23.18
Soil w/excessive drainage (%)	161	0.02	0.11
Topsoil salinity (Elco) (dS/m)	161	0.25	0.47
Organic carbon (%)	161	1.22	0.32
Distance to Nearest Major Town (km)	147	79.40	44.37
Distance to 1895 Mitchell Trade Route(km)	149	20.19	19.94
Distance to 1907 Railroad (km)	149	44.19	30.34

NOTE-Data obtained from various sources, some sources have information from oustide chiefdoms, hence N is higher than 149. Missing data also for some covariates. Geographic controls are, distance to coast, distance to nearest river, distance to 1895 trade routes, distance to 1907 railroad, and minimum distance to Bo, Kenema, or Freetown.Soil quality controls are obtained from Glennerster et al. (2013) and calculated using GIS software from rasters provided in the Harmonised World Soil Index (HWSD). Rainfall data calculated using GIS software, where each chiefdom is assigned rainfall data collected by the nearest distance to any of 38 rainfall station across the country from 1941- 1960 (Gregory, 1965).

Table 3.14: Chiefdom Economic and Demographic Summary Statistics

Economic and Demographic Covariates			
Variables	***N***	**Mean**	**SD**
1900 Tax per 100 km-squared	87	0.85	1.18
1900 Tax per 1000 1963 Population	86	0.03	0.03
1930 Mining Permits (binary)	149	0.17	0.38
Number of diamond permits	144	2.64	5.63
Non-diamond permits (binary)	144	0.33	0.47
Number of non-diamond permits	144	1.50	2.98
Pre-War Chiefdom Ethnolinguistic Fractionalization (1963 census)	149	0.31	0.21
Pre-war Poupalation Density (1985 Census)	149	54.8	46.67
Pre-War Proportion of Strangers (1963)	148	0.23	0.14

NOTE-Data obtained from various sources, some sources have information from oustide chiefdoms, hence N is higher than 149. Missing data also for some covariates. Economic and demographic controls are a dummy for the presence of mining permissions in the 1930s, distance to coast, distance to nearest river, distance to 1895 trade routes, distance to 1907 railroad 1900 Tax information from Acemoglu, Reed, and Robinson (2014). Ethno-Linguistic Fractionalization index , stranger and population denisty from Glennerster et al. (2013).

Figure 3.5: Distribution of Historic Average Annual Rainfall

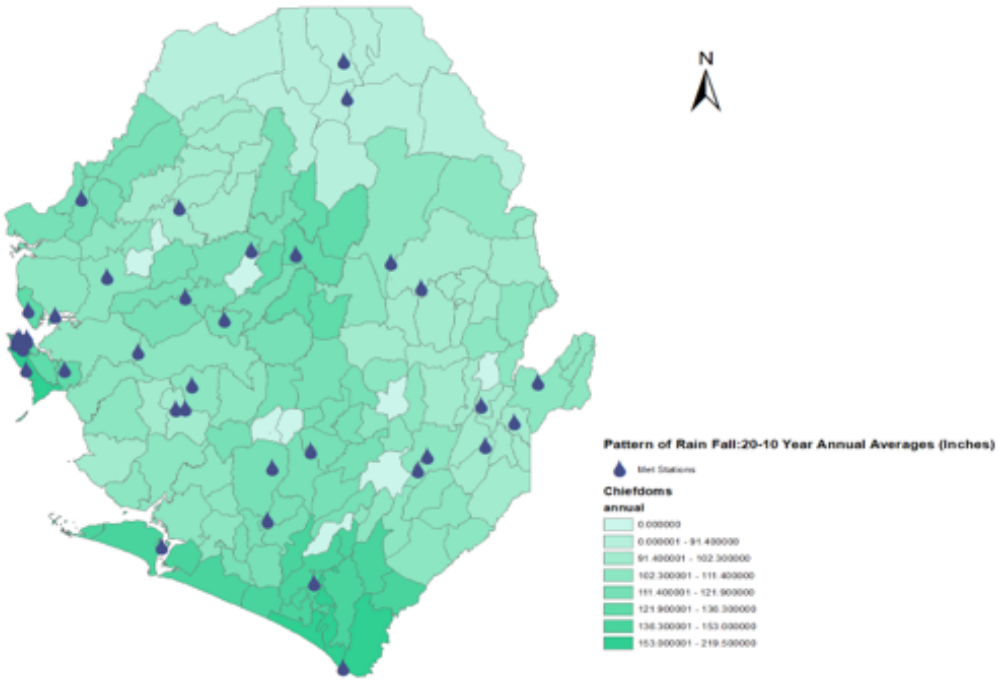


Table 3.15: Ruling Houses and Early Development Correlates

	Dependent Variable: Number of Ruling Houses								
VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1900 Tax per 100 km-sq	-0.20								
	(0.18)								
1900 Tax per 100 1963 Population		2.42	1.67						
		(7.66)	(7.60)						
1900 Tax per 1963 Population per Stranger			-0.00						
			(0.00)						
1930s Mining permits				-0.21					
				(0.33)					
Distance to Coast (km)					-0.00				
					(0.01)				
Distance to River (km)						-0.01			
						(0.02)			
Distance to 1895 Trade Route (Km)							-0.01		
							(0.01)		
Distance to 1907 Rail Line (km)								-0.01	
								(0.01)	
Minimum Distance to Major Towns (km)									-0.01**
									(0.01)
Amalgamation	3.12***	2.95***	2.94***	2.66***	2.68***	2.67***	2.69***	2.71***	2.70***
	(0.55)	(0.59)	(0.57)	(0.38)	(0.39)	(0.39)	(0.39)	(0.40)	(0.40)
Number of Chiefs Recalled	0.10	0.07	0.09	0.06	0.06	0.07	0.07	0.06	0.06
	(0.11)	(0.11)	(0.11)	(0.07)	(0.07)	(0.08)	(0.08)	(0.07)	(0.07)
Observations	85	84	84	147	147	147	147	147	147
R-squared	0.52	0.52	0.52	0.48	0.48	0.48	0.48	0.49	0.50

NOTE- Data obtained from Acemoglu, Reed, and Robinson (2014). All distances are in km and are calculated with reference to chiefdom centroids. In cols. 1–3, 1900 taxes are in pounds sterling and are equal to the average nominal annual hut tax assessment by the government between 1899 and 1902. One observation is dropped in cols. 2 and 3 because 1963 census data are not available for one chiefdom, Dibia. In column 10 there is a missing data for civilian deaths in one chiefdom. Thousands of strangers is the 1963 census count, in thousands, of the number of "indigenous" (e.g., Africans of non-Krio Sierra Leonean descent) residents of the chiefdom not born there. The outcome in col. 4 is dummy for whether the government had given permission to mine in the chiefdom between 1935 and 1940. Trade routes in col. 7 are from Mitchell (1962)who maps the major trade routes identified by Governor Rowe during a countrywide expedition in 1895. The railroad in col. 8 began operation in 1897; the full route was completed in 1907 and ceased operation permanently in 1974. The major towns in col. 9 are Bo, Kenema, and Freetown, the three largest cities by population in 2004; these cities were also prominent in 1900.

Table 3.16: Marginal Effect of Ruling Houses on Civilian Fatalities

	Dependent Variable: Civilian Fatalities					
VARIABLES	(1) dydx	(2) dydx	(3) dydx	(4) dydx	(5) dydx	(6) dydx
Number of Ruling Houses	0.32*	0.55***	0.46**	0.51***	0.46**	0.45***
	(0.18)	(0.19)	(0.19)	(0.18)	(0.19)	(0.17)
Amalgamation		-2.52***	-2.24**	-2.16**	-1.94**	-1.73*
		(0.96)	(0.93)	(0.89)	(0.91)	(0.92)
Year Fixed Effects	No	No	No	No	No	Yes
Faction Controls	No	No	No	No	Yes	Yes
Economic Controls	No	No	No	Yes	Yes	Yes
Demographic Controls	No	No	Yes	Yes	Yes	Yes
Control for Institutions	No	Yes	Yes	Yes	Yes	Yes
District Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Outcome Mean	5.01	5.01	5.01	5.01	5.01	5.01
Outcome Standard Deviation	11.46	11.46	11.46	11.46	11.46	11.46
Number of Clusters	138	138	138	138	138	138
Observations	1,282	1,282	1,282	1,282	1,282	1,282

NOTE-Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Event level fatalities using the *best* estimate for civilian fatalities in the chiefdom for the duration of the conflict in the UCDP Georeferenced Event Dataset (GED) Global version 17.2 (2016). Missing data on outcome variable for 11 chiefdoms including: "Malegohun", "Toli", "Bombali Sebora", "Libeisaygahun", "Gbinle-Dixing", "Dembelia Sinkuni", "Follosaba Dembelia", "Timdale"; "Upper Banta", and "YKK. All distances are in km and are calculated with reference to chiefdom centroids. Fixed effects are for all district with data on outcome variable. Year Fixed Effects are for all ten years of war. Geographic Controls include log of 20-year average annual rainfall, top soil organic content, log of distance to major towns (Bo, Kenema, and Freetown), an indicator variable if chiefdom had license for mining (all mining, diamonds and non-diamond) distance to 1907 rail road. Demographic controls include log of 1963 population density, and chiefdom ethnolinguistic fractionlization index. Controls for institutions include number of chiefs recalled and an indicator variable for the presence of pre-colonial politically centralized ethnic groups.

Table 3.17: OLS Estimate for Baseline Results

	Dependent Variable: Civilian Fatalities					
VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
Number of Ruling Houses	0.42*	0.66***	0.54**	0.61**	0.59**	0.58**
	(0.23)	(0.24)	(0.25)	(0.24)	(0.23)	(0.23)
Amalgamation		-2.85**	-2.52**	-2.53*	-2.57**	-2.46*
		(1.24)	(1.23)	(1.29)	(1.27)	(1.29)
Year Fixed Effects	No	No	No	No	No	Yes
Faction Controls	No	No	No	No	Yes	Yes
Economic Controls	No	No	No	Yes	Yes	Yes
Demographic Controls	No	No	Yes	Yes	Yes	Yes
Control for Institutions	No	Yes	Yes	Yes	Yes	Yes
District Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Outcome Mean	5.01	5.01	5.01	5.01	5.01	5.01
Outcome Standard Deviation	11.46	11.46	11.46	11.46	11.46	11.46
Number of Clusters	138	138	138	138	138	138
Observations	1,282	1,282	1,282	1,282	1,282	1,282
R-squared	0.03	0.03	0.04	0.05	0.05	0.06

NOTE-Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Event level fatalities using the *best* estimate for civilian fatalities in the chiefdom for the duration of the conflict in the UCDP Georeferenced Event Dataset (GED) Global version 17.2 (2016). Missing data on outcome variable for 11 chiefdoms including: "Malegohun", "Toli", "Bombali Sebora", "Libeisaygahun", "Gbinle-Dixing", "Dembelia Sinkuni", "Follosaba Dembelia", "Timdale"; "Upper Banta", and "YKK. All distances are in km and are calculated with reference to chiefdom centroids. Fixed effects are for all district with data on outcome variable. Year Fixed Effects are for all ten years of war. Geographic Controls include log of 20-year average annual rainfall, top soil organic content, log of distance to major towns (Bo, Kenema, and Freetown), an indicator variable if chiefdom had license for mining (all mining, diamonds and non-diamond) distance to 1907 rail road. Demographic controls include log of 1963 population density, and chiefdom ethnolinguistic fractionlization index. Controls for institutions include number of chiefs recalled and an indicator variable for the presence of pre-colonial politically centralized ethnic groups.

Table 3.18: Marginal Effect of Balance of Categories

	Civilian Fatalities Marginal Effects- Simple Case				**Civilian Fatalities Marginal Effects- General Case**			
VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Power Shared	-2.21***			-1.86***	-1.41***			-1.44***
	(0.44)			(0.44)	(0.48)			(0.48)
Power Monopoly		-1.92***		-1.83***		-0.74		-0.79
		(0.72)		(0.69)		(0.61)		(0.59)
Unstable Power			1.89***				1.18***	
			(0.42)				(0.45)	
Number of Ruling House	0.41**	0.46***	0.38**	0.38**	0.44***	0.48***	0.45***	0.44***
	(0.16)	(0.17)	(0.16)	(0.16)	(0.16)	(0.16)	(0.16)	(0.16)
Amalgamation	-1.63*	-1.90**	-1.55*	-1.55*	-1.62**	-1.66**	-1.57*	-1.57*
	(0.87)	(0.87)	(0.82)	(0.82)	(0.82)	(0.82)	(0.81)	(0.81)
All Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Outcome Mean	5.01	5.01	5.01	5.01	5.01	5.01	5.01	5.01
Outcome Standard Deviation	11.46	11.46	11.46	11.46	11.46	11.46	11.46	11.46
Number of Clusters	138	138	129	129	129	129	129	129
Observations	1,282	1,282	1,188	1,188	1,188	1,188	1,188	1,188

NOTE- Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Event level fatalities using the *best* estimate for civilian fatalities in the chiefdom for the duration of the conflict in the UCDP Georeferenced Event Dataset (GED) Global version 17.2 (2016). Missing data on outcome variable for 11 chiefdoms including: "Malegohun", "Toli", "Bombali Sebora", "Libeisaygahun", "Gbinle-Dixing", "Dembelia Sinkuni", "Follosaba Dembelia", "Timdale"; "Upper Banta", and "YKK". All distances are in km and are calculated with reference to chiefdom centroids. Fixed effects are for all district with data on outcome variable. Year Fixed Effects are for all ten years of war. Geographic Controls include, log of distance to major towns (Bo, Kenema, and Freetown), an indicator variable if the chiefdom had license for mining (diamonds and non-diamond), distance to 1907 rail road. Demographic controls include log of 1963 population density, and chiefdom ethnolinguistic fractionlization index. Controls for institutions include number of chiefs recalled and an indicator variable for the presence of pre-colonial politically centralized ethnic groups.

Table 3.19: Testing Alternative Hypotheses

	Dependent Variable: Civilian Fatalities		
VARIABLES	(1)	(2)	(3)
Number of Ruling Houses	0.29***	0.32***	0.20***
	(0.09)	(0.11)	(0.08)
Ruling Houses X Diamond	-0.06		
	(0.05)		
Numbers of Diamond Mines	0.02		
	(0.02)		
Ruling Houses X Distance to Nearest Major Towns		-0.00	
		(0.00)	
Distance to Nearest Major Towns (km)		0.00	
		(0.00)	
Ruling Houses X Prop of Strangers			-0.06
			(0.09)
Proportion of Strangers			0.48
			(0.52)
Amalgamation	-0.68	-0.62	-0.62
	(0.44)	(0.43)	(0.40)
All Controls	Yes	Yes	Yes
Outcome Mean	5.01	5.01	5.01
Outcome Standard Deviation	11.46	11.46	11.46
Observations	138	138	137

NOTE-Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Controls identical to those in main results table.

Table 3.20: Logit Model of Killing Reported By Witness Depositions-TRC Data

	Dependent Variable: Witness Report Killing				
VARIABLES	(1)	(2)	(3)	(4)	(5)
Number of Ruling Houses	0.03*	0.03*	0.04**	0.04**	0.04**
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Shared Power		-0.02			0.02
		(0.09)			(0.10)
Monopoly Power			0.11		0.11
			(0.09)		(0.09)
Unstable Power				-0.08	
				(0.08)	
Amalgamation	-0.07	-0.07	-0.09	-0.09	-0.09
	(0.12)	(0.13)	(0.12)	(0.13)	(0.13)
District Fixed Effect	Yes	Yes	Yes	Yes	Yes
All Controls	Yes	Yes	Yes	Yes	Yes
Outcome Mean	0.11	0.11	0.11	0.11	0.11
Outcome Standard Deviation	0.32	0.32	0.32	0.32	0.32
Number of Clusters	149	149	149	149	149
Observations	28,720	28,720	28,720	28,720	28,720

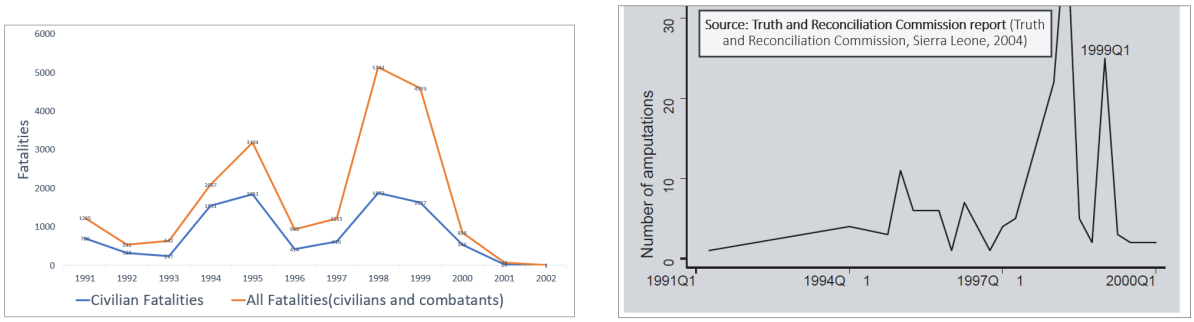
NOTE-Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Controls identical to main results table. Controls do not include year Fixed Effects.

Table 3.21: Ruling House Rivalry and Frequency of Deadly Events(All)

	Dependent Variable: Number of Deadly Events				
VARIABLES	(1)	(2)	(3)	(4)	(5)
Number of Ruling Houses	0.10***	0.08**	0.09**	0.07*	0.05
	(0.03)	(0.04)	(0.04)	(0.04)	(0.03)
Amalgamation		0.11	0.11	0.17	0.13
		(0.20)	(0.20)	(0.21)	(0.16)
Faction Controls	No	No	No	No	Yes
Economic Controls	No	No	No	Yes	Yes
Demographic Controls	No	No	Yes	Yes	Yes
Control for Institutions	No	Yes	Yes	Yes	Yes
District Fixed Effects	Yes	Yes	Yes	Yes	Yes
Outcome Mean	9.78	9.78	9.78	9.78	9.78
Outcome Standard Deviation	9.23	9.23	9.23	9.23	9.23
Observations	138	138	138	138	138

NOTE-Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Dependent variable is the number of unopposed event for chiefdom obtained from the UCDP Georeferenced Event Dataset (GED) Global version 17.2 (2016), which list conflict dyads. Missing data on outcome variable for 11 chiefdoms including: "Malegohun", "Toli", "Bombali Sebora", "Libeisaygahun", "Gbinle-Dixing", "Dembelia Sinkuni", "Follosaba Dembelia", "Timdale"; "Upper Banta", and "YKK. All other controls are identical to those in in the main results table. There are no year Fixed Effect in the model.

Figure 3.6: Brutality Over Time In the War



(a) Fatalities (UCDP data)

(b) Amputation(TRC Report)

Table 3.22: Ruling Houses and Civilian Fatalities in the Phases of the War

	Dependent Variable: Civilian Fatalities					
	1991-2002		**1991-1996**		**1997 - 2002**	
VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
Number of Ruling Houses	0.11**	0.11***	0.19***	0.20***	0.11	0.07
	(0.04)	(0.04)	(0.05)	(0.05)	(0.08)	(0.08)
Amalgamation	-0.51**	-0.48*	-0.94***	-0.99***	-0.15	0.07
	(0.26)	(0.27)	(0.34)	(0.37)	(0.41)	(0.39)
All Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	No	Yes	No	Yes	No	Yes
Outcome Mean	5.01	5.01	5.32	5.32	4.82	4.82
Outcome Standard Deviation	11.46	11.46	12.02	12.02	10.92	10.92
Number of Clusters	138	138	118	118	100	100
Observations	1,282	1,282	665	665	617	617

NOTE-Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. All other controls are identical to those in main results table

Chapter 4

Chiefs, Courts, and Upholding Property Rights: Quasi-Experimental Evidence from Sierra Leone

Abstract

Land disputes are unavoidable and costly to resolve in the formal courts in contexts with weak property rights and low state capacity. In order to relax the pressure on strained formal courts, many countries permit parallel informal dispute resolution forums. This paper investigates the extent to which one such forum-Chiefdom Land Committees (CLCs)-in Sierra Leone is able to resolve land disputes. I constructed a dataset of ligated cases at local courts across the country and implement difference-in-difference design to estimate the effect of the CLCs on land caseload in the formal courts. Contrary to the policy goals, I find that on average, chiefdoms with CLCs have higher land caseload in the formal courts three years on. By adopting the CLCs, chiefdoms plausibly made land issues more salient, but, instead of providing final resolutions, CLCs are conduits for the formalization of land disputes.

4.1 Introduction

In most of sub-Saharan Africa property rights over land are less protected (World Bank, 2007). Land ownership and usage rights are less individualist and are based on customary laws that are typically unwritten (Toulmin, 2009; Boone, 2013). Even where formal laws allow individual rights, these are often poorly defined. This generally discourages investments, depresses agriculture productivity (Besley & Ghatak, 2010; World Bank, 2007; Feder & Feeny, 1991; Deininger & Chamorro, 1999) and many times gives rise to land disputes, some of which can lead to violent conflicts (van der Haar & van Leeuwen, 2019; Van Leeuwen & Van Der Haar, 2016; Huggins, Cloreal, et al., 2005; Huggins, 2009).

Pervasive lack of capacity in state legal institutions further hinders upholding any rightful claims to land. Claimants that take land disputes to the formal courts find that the court systems lack resources, are typically not trustworthy, and are costly to access (Deseau, Levai, Schmiegelow, et al., 2019; Price, 2018; Logan, 2017). As a claimant do you then go to informal parallel dispute resolution forums? But these forums are typically captured by local elites who may not be impartial arbiters in land dispute resolution (Unruh & Turray, 2006; Goldstein & Udry, 2008; Hartman, Blair, & Blattman, 2018).

In order to help claimants and to protect and uphold property rights, one approach states often pursue is to focus on building the capacity of state legal institutions and make them more trustworthy by providing people with truthful information about improved service delivery (Acemoglu, Cheema, Khwaja, & Robinson, 2018). Another is to educate individuals to privately and peaceful resolve their disputes while minimizing state engagement in dispute resolution (Blattman, Hartman, & Blair, 2014; Hartman et al., 2018). In this paper, I investigate whether a hybrid state-customary dispute resolution mechanism can be a viable option to resolve land disputes, and by extension, help uphold land property rights.

I study this question in the Sierra Leone context where land disputes in rural areas are a thorny issue for the government and the formal court systems. Rights over land in these areas are based on unwritten customary rules and norms that vary in different parts of the country. Customary rights are legally recognized, although such rights are not adequately protected as properties and associated rights are not registered (R. L. Barrows, 1974; Unruh & Turray, 2006; Renner-Thomas, 2010; Johnson, 2011; Ryan, 2018). At the same time, the formal court system in Sierra Leone is marked by long delays, high costs and mistrust. This is especially the case for the lowest courts-the local courts-that are grossly under resourced, lack trained personnel and are unable to meet the demand for justice in their jurisdictions (Suma, 2014; Park, 2008). Local courts are critical for upholding and protecting rights for land in rural areas. Most land cases that make it to the superior courts in the provinces originate from the local courts and remain unresolved for years. Furthermore, various analyses of the causes of the decade-long civil war in the country point to captured economic resources such as land, by the traditional authorities that alienated the youths and other vulnerable groups (Abdullah et al., 1997; McIntyre, Aning, & Addo, 2002; Richards, 2005; Fanthorpe, 2006), which undermines traditional modes of dispute resolution.

As part of the 2015 National Land Policy, the government proposed the introduction of Chiefdom Land Committees (CLCs) to administer rural land in an equitable manner, and to help resolve land disputes among community members through third-party mediation. The policy does not change, but instead builds on the existing customary laws that govern land administration and land dispute resolution. The CLCs can be best viewed as a hybrid state-customary order in the spirit of Boege, Brown, and Clements (2009), as the CLCs get legitimacy and support from the state. The state also saw the CLCs as a way to emphasize principles of fairness, such as deliberation and inclusiveness in customary ways of land dispute resolution. The Policymakers expected the CLCs to reduce land cases that end up in the formal court system, through two possible channels:

preventing disputes in the first place because of better land administration, and mediation through CLCs for disputes that arise anyways.

Whether this hybrid state-customary land dispute resolution forum has any effect on land cases litigated at the formal courts is the focus of my empirical analysis. I surveyed all the chiefdom administrations in early 2019 and found that only 51 out of 149 chiefdoms had adopted CLCs. I use this variation in the policy adoption, and ten years of local court records (from 2009 to 2018) in a difference-in-difference design to estimate the average treatment effect (ATT) of CLCs on both the likelihood of observing land cases, and the volume of land cases litigated at the formal courts.

The results suggest that on the extensive margin, formal courts in non-compliant chiefdoms were just as likely to hear land cases as those in chiefdoms with CLCs. However, at the intensive margins, formal courts in chiefdoms with CLCs, on average saw higher land caseloads ($\delta = 1.76$, $s.e = 0.71$) than formal courts in non-compliant chiefdoms. This effect is large given that the mean number of cases in the formal courts is 1.28 per year for the study period.

The program effect holds after a series of robustness checks. I exploit the time series nature of the outcome variable to conduct falsification test and show that for each year prior to the policy implementation, there was no effect on the number of land cases in the formal courts. In addition, because the policy targeted land disputes, I use the number of other civil cases (non-land) as a placebo outcome and I show that the policy had no effect on these types of cases. Finally, I use the total number of all cases, and the case types in a triple difference specification, and the result is consistent with the difference-in-difference estimation.

I explore three possible channels to further understand this observed effect. First, I assess whether the land reform and activities of the CLCs brought to the surface pent-up

land concerns among vulnerable groups like *strangers*[1] or from chiefdoms that are more prone to have land disputes, for instance because they have relatively high degrees of unemployment or are close to urban centers (Nuhu, 2019; Lombard, 2016). My analysis does not find support for this argument. The policy did not seem to have had any effect on chiefdoms that adopted CLCs and have a higher proportion of *strangers*, higher unemployment or are closer to major towns.

Secondly, I explore whether, rather than solving land disputes, the CLCs are instead conduits of land cases to the formal court system. This can happen via interaction with CLCs, where the CLCs refer cases to the formal courts. In addition, a potential drawback to informal or alternative dispute resolution is that resolutions are often perceived as less final (Crook, 2004), so that people that are unsatisfied with CLC resolution may proceed to formal courts with their land cases.

Thirdly, I explore whether the observed effect is a result of the CLCs making land issues more salient. The idea is that the CLC activities may educate people of their rights over land, and those that can respond, for example the more educated, or people with relatively higher income, can take their land cases directly to the formal courts. There is merit to this mechanism because despite the stated policy goals my data collection revealed that the actual number of land cases in the local courts are a magnitude lower than non-land cases. This does not necessarily mean that the prevalence of land disputes is low, but it is more likely that people do not seek justice or may go to other dispute resolution mechanisms. By making land dispute resolution more salient the policy may have prompted people to bring their disputes to the courts, and hence increase land caseload in treatment chiefdoms.

There is some evidence to support both of these latter explanations. For instance, chiefdoms that adopted the CLCs and potentially have higher income or secondary

[1] *Strangers* are people born outside the chiefdom and have no claim to land. They must seek permission from paramount chief to access land for cultivation and livelihood (Tangri, 1976; Fenton, 1951)

education tend to drive the main result. Similarly, of the chiefdoms that adopted CLCs, the ones that said they referred land cases to either the local or magistrate courts also had higher land caseloads in the local courts. These findings suggests that this hybrid forums are more likely a link for state formalization of disputes rather than forums of resolution.

This paper directly contributes to the debate about how to uphold and secure rights over land in contexts where property rights are weak (Crook, 2004; Toulmin, 2009; Collins & Mitchell, 2018; Unruh & Turray, 2006). While informal alternative dispute resolution mechanisms, primarily provided by non-state actors, are the predominant way people address everyday disputes (Logan, 2017), the evidence presented here suggests that for land disputes, even when the state sanctions informal dispute resolution channels, people might still prefer to bring their cases to the formal court system. This may be because resolution in the formal systems might be perceived as final or at least more permanent than they will get from the informal system. This is similar to the finding from Ghana as Crook (2004) shows from his survey of litigants.

It also contributes to the broader debate about how to provide critical public goods such as access to justice in developing countries. To this end, the merits and demerits of having plural justice systems is discussed in the literature (D'Aoust & Sterck, 2016; Tamanaha, 2011; Swenson, 2018; Chirayath, Sage, & Woolcock, 2005). While evidence exists that they help extend access to justice (Price, 2018), little evidence exists about their direct impact on the capacity of formal justice systems. In the Sierra Leone context, and with land cases, I show a preference for formal courts, where people bring their land cases to the formal courts perhaps because they are unsatisfied with resolutions from the informal mechanism or because informal forums motivated them to directly seek justice in the formal courts. In a similar vein, Acemoglu et al. (2018) show that by providing truthful information about formal courts in Pakistan, people switch from informal forums to the state forums in addressing disputes. They argue that "motivated

reasoning", where a positive experience with the state courts not only changes people's beliefs about the state institution, but also encourages citizens to use the formal state processes. My findings in relation to Acemoglu et al. (2018) suggests a potential trade-off between investing in informal dispute resolution channels versus working to build the capacity of formal state courts.

Finally, this paper is among the first to make a direct empirical link between a land reform and land disputes litigated in formal courts. The vast majority of literature on the impact of land reforms focus on economic outcome such as investment and productivity (Besley & Ghatak, 2010; World Bank, 2007; Feder & Feeny, 1991; Deininger & Chamorro, 1999), while ignoring reform effect on land disputes.

The rest of the paper proceeds as follows: section II describes the context, starting with a description of the land tenure system, and the intervention to extend land tenure, and to prevent and resolve land disputes. In section III, I describe the data and empirical strategy. I present results in section IV. I conduct robustness checks in section V and explore explanations for the observed effect in Section VI. Section VII concludes.

4.2 The Context

4.2.1 Land Tenure In Sierra Leone

In Sierra Leone, the institution that governs land in rural areas is customary law. These are undocumented informal laws that vary from one locality to the next (Kanu & Henning, 2019; Oredola-Davies, 2006). In the absence of formal land demarcation, registration and titling, claims and counter claims over rural land have given rise to considerable disputes over farm land in rural areas in post-conflict Sierra Leone (Unruh & Turray, 2006). These disputes can range from minor altercations among rival claimants, over particular pieces of land, to violent clashes against foreign land deals in the chiefdoms. As custodians of rural land, paramount chiefs (PCs) are key players in preventing and

resolving disputes over land. No meaningful land transaction is completed in the chiefdoms without the stamped approval of the PCs, even when it involves the state (Ryan, 2018; Johnson, 2011; Bottazzi, Goguen, & Rist, 2016). However, paramount chiefs may not be impartial arbiters in resolving disputes over land in rural areas. Land is frequently used as a political and economic tool by chiefs. The capture of critical resources such as land is argued to have formed the foundation of the decade-long civil war in the country (Jackson, 2007; Unruh & Turray, 2006; Sawyer, 2008; Richards, 2005).

4.2.2 The 2015 National Land Policy Reform

A key policy reform effort after the war aimed to secure rights over land for the rural populations, particularly for women and the youth who had been marginalized by local elites in pre-war era (Sawyer, 2008). The 2015 National Land Policy is the result of a second attempt at this goal. The first effort at this goal was initiated in 2003 immediately following the end of the war. But the effort did not succeed at the cabinet level because opponents to the policy argued it was not consulted enough with relevant stakeholders like the paramount chiefs and land holding families (Government of Sierra Leone, 2015). What eventually became the 2015 National Land Policy was extensively consulted across the country, starting as early as 2011. The policy itself is a bundle of interventions in land governance and usage at various levels in the country. In terms of governance, the policy proposed a National Land Commission that is decentralized at the various administrative levels of the country. The Chiefdom Land Committee (CLC) represents the National Land Commission at the chiefdom level. The focus of my analysis of the policy is at this level.

The CLCs are headed by paramount chiefs, and are to be comprised of landowners and "persons ordinarily resident" in the chiefdoms. The policy also suggests that membership to the CLC must "respect gender, ethnic diversity, and social political dynamic". Under the policy, the responsibility for communal land is now vested in the CLC. The policy states, "It [the Chiefdom Land Committee] shall vet/approve all land

transactions and perform all other functions relating to the disposal of communal land presently performed by the Chiefdoms Councils" (Government of Sierra Leone, 2015, p.72-73). While the policy did not change the existing dual land tenure system in the country, the intended goal of vesting land decisions in a diverse committee of locals was to reduce the overwhelming influence of the paramount chiefs in land decisions in their chiefdoms.

Recognizing that the formal court system is overwhelmed and lacks the capacity to handle most civil disputes, the CLCs were to also act as new forums for dispute resolution for land disputes. It states that, "At the chiefdom level the CLC...will develop and maximize opportunities to formalize the application of Alternative Dispute Resolution mechanisms such as negotiation and mediation to reduce the number of cases that end up in the court system" (Government of Sierra Leone, 2015, p.76). In the rural areas, the local courts are courts of first instance for civil cases in the formal court system in Sierra Leone (Government of Sierra Leone, 1991). Most land cases that get in the formal court system start here. These local courts, which were headed by paramount chiefs until 2011 gained a reputation of being biased and favor only the local elites in power (Sawyer, 2008). With the CLCs, policymakers hoped to ensure fairer outcomes in land dispute resolution, and to reduce caseloads in the formal courts. People in rural areas can report land disputes to identified members of the CLC, who can then bring it to the wider committee for deliberations. Prior to the CLCs, only the paramount chief and a fewer lesser chiefs received land dispute claims at the chiefdoms level.

4.2.3 CLCs as Hybrid Forums

Theoretically, the CLCs can be best viewed as a "hybrid order" (Boege et al., 2009). CLCs get legitimacy from the state, unlike various other traditional channels of land dispute resolution. In addition, the CLCs combine customary norms with formal state processes such as open deliberation, impartiality, and representation of interest group

in land administration and dispute resolution. The expectation is that these 'Weberian' state features will help prevent land capture by local elites and lead to a more equitable access to land, which would prevent land disputes. Disputes that inevitably arise can also be resolved satisfactorily through CLC mediation.

However, despite these goals, the policy does not specify the actual implementation or day-to-day running of the CLCs. Importantly also, there was no means of enforcement, punishment or reward for chiefdoms adopting CLCs. In fact, the policy was launched by the President without much administrative resource and finance to implement it (S. Conteh, 2015). It was largely left to the chiefdoms to adopt CLCs and implement it in their own ways. The result is a variation in what CLCs do and how they are run. One exception to this variation is that almost all of the CLCs addressed land disputes in the community. While I can't distinguish these two mechanisms of the policy, my analysis aims to understand the extent to which the policy impacted land caseload in formal courts.

4.3 Data and Identification Strategy

4.3.1 Data

I combined two original sources of data for the analyses in this paper. I hired and trained a team of experienced enumerators to collect ten years of administrative records of cases litigated at local courts across the country, and to conduct a survey of all the chiefdom administrations to understand if and how chiefdom land committees were implemented.

Land Dispute Litigation: In Sierra Leone each chiefdom has at least one local court, some chiefdoms have up to four in our data collection. Most rural people are encouraged to address all land disputes through the local courts, although they can also bring the case to higher courts like the magistrate courts. This makes local courts an

ideal place to capture litigation over land cases across the country. My research team and I collected information from all functioning local courts in each chiefdom. We visited 248 local court locations, but only 199 courts had any data. When aggregated, this includes 130 chiefdoms that had court data for some years in the study period. Panels (a) and (b) in Figure 4.7 in the Appendix show the location of local courts with respect to population density and variation in costs across the country.

At the local courts the main source of information were the case logs. Each court has case logs where the court clerks are suppose to record all cases that are brought to that court each year. These records are all handwritten in blue ledger that is provided by the government. Figure 4.8 in the Appendix shows a typical case log. Critical information in the case log generally includes, case number, date case was filed, the names of the plaintiff and defendant, the cause or claim, various cost items to file a case in that court, and date of hearing. We aimed to collect information from logs from 2009 to 2018.

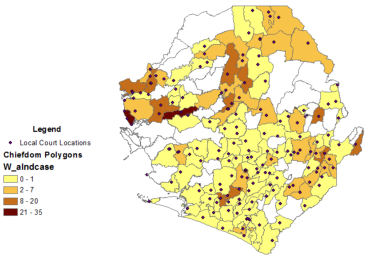
We obtained on average 3.6 years of records per court or 5.5 years of record per chiefdom making for a total of 711 court-year observations in the full dataset. For each year record we counted/recorded the number of all civil cases in a programmed tablet. Next we determined which of the litigation were over land. The type of case is easily obtained from the cause or claim of the filing but the researchers also worked closely with the court clerk to identify case types. Each logged case also has a separate file with details on testimonies and witnesses, all of which helps determine what the case was about. We took photos of recorded pages where we found cases about land as the example in Figure 4.9b in the Appendix. Panel (a) in Figure 4.1 shows the pattern of land cases for the study period. Panels (b) and (c) show the spread of cases post-treatment (2015 - 2018) and pre-treatment, respectively. Table 4.6 in the Appendix provides summary statistics of the outcome variables and other court related variables.

Low Land Caseloads in the Local Courts: It is worth noting at this point

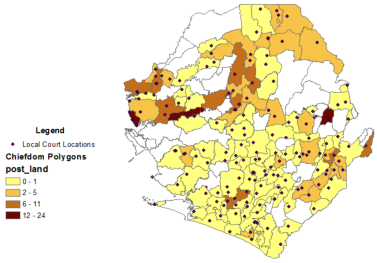
that despite the stated policy objective of reducing land cases in the local courts, it turns out land cases are only a tiny fraction of cases in the local courts. During the pilot phase of my research, I was told by many court clerks and community leaders that people are encouraged to resolve land cases at a much lower level before bringing them to the local courts. For example, land disputes within families are encouraged to be resolved at the family level. My data collection also confirms this claim. The average court in my full dataset receives about than 1.3 land cases per year, compared to 51.4 for non-land cases. It does appear that the policy goal with respect to caseload in the courts was not informed by much evidence. At best, on would expect that the policy would have no effect, however, as I will show, the CLC presence did lead to increase in land cases in the courts. Whether this is desirable or not very much depends on if the emphasis is placed on dispute resolution, as intended by the Sierra Leone policymakers, or access to formal courts. The policy may have achieved the latter.

Data Attrition and Balance Concerns: As can be seen from the maps in 4.1, there are some holes in the data, especially in the pre-treatment period, where the data is available only for 58 local courts out of the 248 visited. Some courts also did not have consecutive years of data. This can potentially lead to biases in the average effect of the intervention if observations are not balanced between treatment and controls groups. In Tables 4.7 and 4.8 in the Appendix, with the exception of 2009, I show that there is some degree of balance in proportion of observations for each year between treatment and control especially for the latter years . In addition, at the chiefdom level, I have at least one observation per year between 2010 and 2018 for 130 chiefdoms.

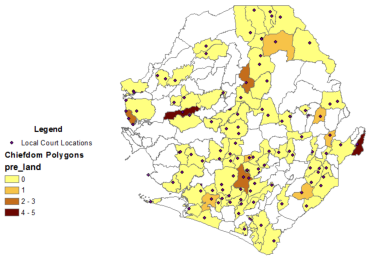
Figure 4.1: Spatial Pattern of Land cases and Treatment Locations



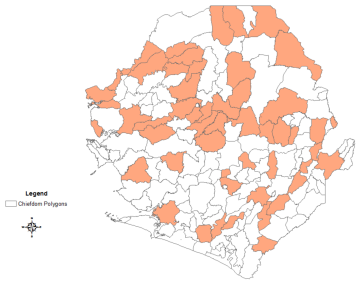
(a) All Land Cases



(b) Land Cases Post Treatment



(c) Land Cases Pre-Treatment



(d) Treatment Locations-Shaded

Note:- Darker colors indicate high number of cases. Dots are Location of Local Courts. White spaces in panels a, b, and c indicate missing data.

To further address potential concerns from data attrition and balance in my estimation, I first use a restricted sample of the data from courts with consecutive years of observations that span at least one pre-treatment period for both treatment and control. This ensures balance in treatment and control. I relax this data restriction and use the full dataset. I compare my estimates with estimates from the restricted sample to get a sense of bias implications for population average effects.

Chiefdom Administration Survey: In early 2019, I also lead a research team to conduct a survey of all 149 chiefdoms to investigate which chiefdoms had land committees and how they operated. [2] We interviewed key officials on the chiefdoms administration who would know if their chiefdom had CLCs. Most of the officials we interviewed would participate on CLCs if their chiefdom adopted the policy. See Table

[2] Some chiefdoms were split up in 2017 and increased the total number of chiefdoms to 191. But by the time we conducted the survey, most of the newly created chiefdoms did not yet have a chiefdom administration, and more importantly local courts, which were the points of data collection. Hence we use the old administrative divisions in this study

4.9 in the Appendix for the types of respondents we interviewed. Only 51 chiefdoms reported having CLCs. Tables 4.10, 4.11, and 4.12 provide information on membership selection,composition of CLCs, and case mediation activities, respectively of the CLCs. Unsurprising also is the variation in how the policy is being implemented for those that adopted it. For instance about 36% of CLCs charge fees to hear land cases. In terms of membership composition, less than half of chiefdoms include vulnerable groups such as youth and women as shown in Table 4.11. The way members on the CLCs are selected also varies as shown in Table 4.10.

One crucial exception to this variation is that almost all of the CLCs (over 98% as shown in Table 4.12) play a mediation role in resolving land disputes among community members. In this paper the main treatment is the presence of CLC in the chiefdoms. I also explore variation in how CLCs are run, for instance, whether chiefdoms with CLCs that refer cases to the court system, are more likely to contribute to cases litigated at the local courts.

Other Datasets: In my analysis of the drivers of the observed effect, I use the 2015 census to obtain the chiefdom level proportion of primary education attainment and proportion of employment in the non-agriculture sector. I use mean distance from chiefdom centroid to the nearest major town, which I obtained from the Acemoglu, Reed, and Robinson (2014) dataset.

4.3.2 Identification Strategy

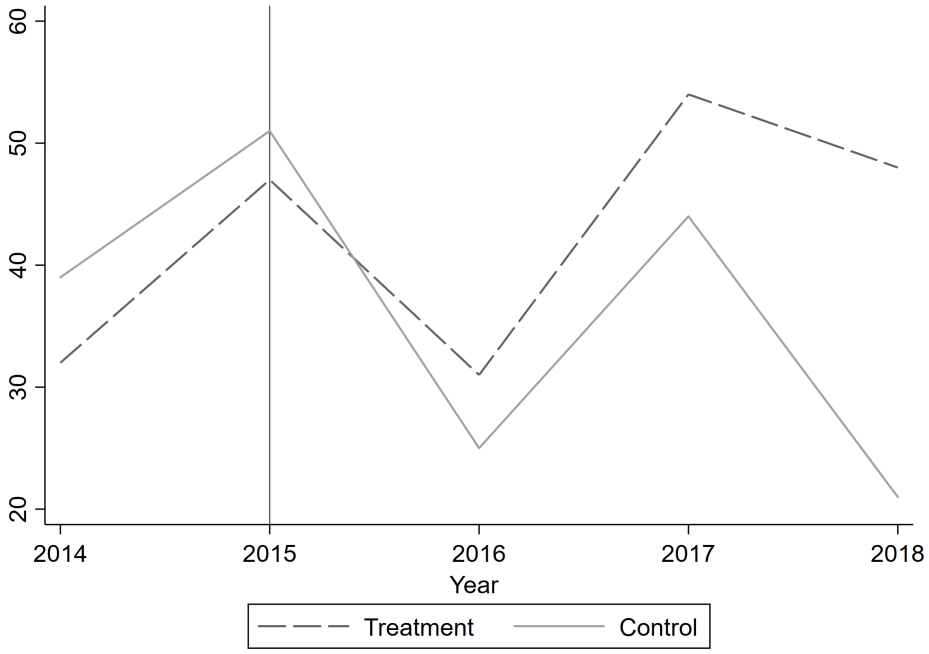
As noted above, some chiefdoms failed to implement CLCs three years after the policy. An implicit assumption this paper makes is that those chiefdoms that had CLCs in 2018 had them for some or all of the post treatment period, whereas those chiefdoms that did not have CLCs by 2018 never adopted it. This allows me to create a control and treatment group and utilize the longitudinal nature of the court data in a difference-in-difference (DiD) design to estimate the causal effect, given by the average

treatment effect (ATT). An immediate concern with the main treatment is that there might be some systematic reason why some chiefdoms have CLCs and not others. I show spatially in Panel (d) in Figure 4.1 locations that adopted the policy. There is a slight density in the North of the country where the incumbent government that passed the policy has a stronghold. However, such a selection is highly likely to be unrelated to the studied outcomes. Table 4.14 in the appendix shows result from a linear probability model of potential determinant policy compliance. It suggests that the presence of mining activities in the chiefdom is positively associated with CLC adoption, whereas distance to the nearest major towns [3] is negatively associated with CLC adoption. I control for these with chiefdoms and court fixed effects.

Difference-in-Difference estimation is the most appropriate in the evaluation of large-scale policy programs if longitudinal data exist for outcomes before and after the intervention for both the control and treatment groups (Ashenfelter & Card, 1984). The critical identifying assumptions in this design are that there is a counterfactual parallel trend in the outcome for the treatment and control group, and that the allocation of treatment assignment is unrelated to outcomes at the baseline. When these assumptions hold, the DiD estimator removes biases in post-treatment period differences between the treatment and control group that could be the result of inherent differences between those groups, as well as biases from differences over time in the treatment group resulting from trends due to other causes of the outcome (Wooldridge, 2002; Angrist & Pischke, 2008). Visual inspection of Figure 4.2 below appears to show that the parallel trend assumption holds for the restricted data, where data includes only courts with 5 consecutive years of data. I show parallel trends for unrestricted data in panel (a) in Figure 4.10 in the Appendix. The trend is stronger when all the data is used. Panel (b) in the same figure shows the trend for all cases.

[3] The towns include provincial head quarter towns of Bo, Kenema, Makeni, and the capital, Freetown

Figure 4.2: Visual Inspection of Parallel Trends with restricted data



Vertical axis is the number of land cases per year in each local court in treatment and control chiefdoms.

4.3.3 Estimation

I estimate the effect of the intervention using the least squares regression model below:

$$y_{ict} = \alpha_c + \beta_t + \delta I_{ct} + cX_{ict} + \varepsilon_{ict} \tag{4.1}$$

where y_{ict} is the outcome variable for court i in chiefdom c at time t. When the outcome is a binary, I estimate a linear probability model. α_c is the court fixed effects, and β_t is year fixed effects. I_{ct} is an interaction dummy for treatment in chiefdom c, and post treatment period, t . X_{ict} are relevant court level controls such as costs of filing cases, and finally the error term is given by ε_{ict}. The coefficient of interest is δ, which is the ATT.

4.4 Results-Average Treatment Effects

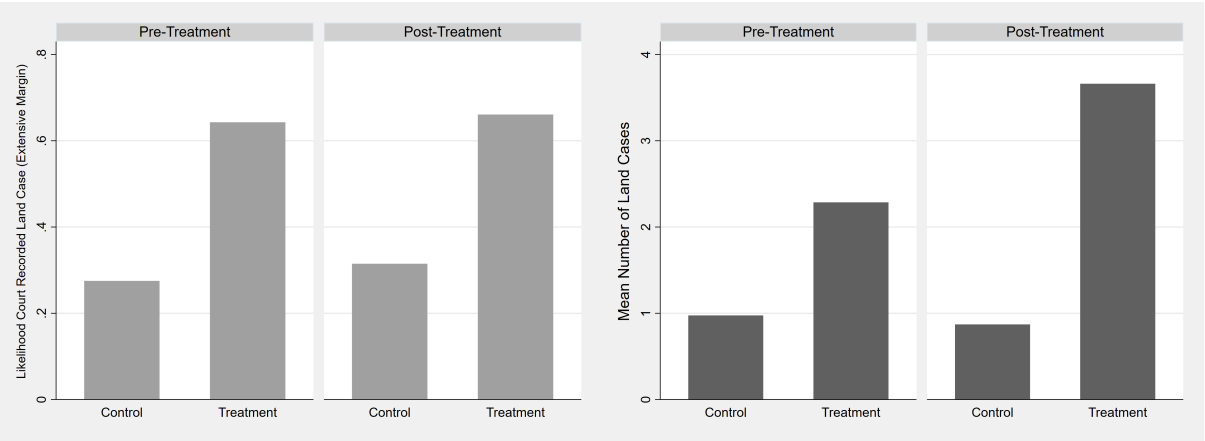
In this section I present the main results of my analysis. I presents two sets of results, one with the restricted sample that has consecutive years of court data from 2013 to 2018, which spans three pre-treatment years, inclusive, and for the full data. The idea is to compare the result from the restricted data that is a balanced sample in treatment and control, with results from my full sample, where estimates may be bias as a result data attrition. I begin with a graphical representation of a simple difference of the outcomes, and then proceed with the estimation results.

4.4.1 Simple Differences

Panel (a) in Figure 4.3 below shows results for the extensive margin. The outcome is an indicator variable that takes value 1 if case type is a land case, and zero otherwise. In this way, the outcome can be interpreted as the likelihood of observing land cases at the formal courts. I show graphically that although there is a difference between treatment and control in the pre-treatment period, this difference does not change in the post-treatment period, suggesting that the program had no effect at the extensive margin. Panel (b) captures the intensive margin, which is number of land cases in local courts per year. As noted earlier the land caseload in courts were low before the reform and picked up after, but generally land case level in courts remain low. Panel (b) shows that the difference between control and treatment chiefdoms in the pre-treatment period grows in the post-treatment period. The change in difference is about 1.5 land cases. I show a similar result for the unrestricted data in Figure 4.11 in the Appendix.

Figure 4.3: Simple Difference of Outcomes- Restricted Data

(a) Extensive Margin (b) Intensive Margin



4.4.2 Estimation Results with Restricted Data

Extensive Margin

Table 4.1 below shows results from estimating equation 4.1 above. The outcome is the likelihood of observing land cases at the formal courts. The model is fitted with year and court fixed effects. The ATT is given by the coefficient on the variable DiD. In column (1) in the table the data is restricted to include only courts that have five consecutive years of data from 2014 to 2018. In column (2) data is restricted to include courts with six consecutive years of data spanning 2013 to 2018, and in column (3) seven years of data from 2012 to 2018. The coefficient on the DiD estimator are not statistically significant ($\delta = -0.02, s.e = 0.1$), but noticeable also is that the sign changes from negative in column (1) and makes a big positive jump in column (3) where $\delta = 0.2, s.e = 0.2$. These models suggest that the intervention did not have a detectable effect on the extensive margins. A possible interpretation of this result is that the land administration channel through which policymakers expected CLC intervention would help reduce the risk of land conflict made no difference.

Table 4.1: ATT for Likelihood of Observing Land Cases-Restricted Data

	Land Case (Binary)		
VARIABLES	(1)	(2)	(3)
DiD	-0.02	0.07	0.20
	(0.10)	(0.20)	(0.20)
Year Fixed Effects	x	x	x
Court Fixed Effect	x	x	x
Outcome Mean	0.4	0.35	0.34
Outcome Standard Deviation	0.49	0.48	0.47
Number of Courts	56	39	31
Court-year observations	272	224	208
R-squared	0.53	0.44	0.49

NOTE-Robust standard errors in parentheses clustered at the chiefdom level. *** p<0.01, ** p<0.05, * p<0.1. Columns 1, 2, and 3 on include 45, 31 and 25 chiefdoms respectively. Treatment group make up, 26%, 20% and 25% in columns 1, 2, and 3 respectively.

Number of Land Cases Litigated at Local Courts

Similarly, Table 4.2 below shows results from the main OLS estimation, but now the outcome variable is the number of land cases. The model is fitted exactly the same was as in Table 4.1 above. Columns (1) to (3) have the same restrictions. As can be seen from the table the ATT of the intervention ranges from $\delta = 1.47, s.e = 0.85$ to $\delta = 1.95, s.e = 0.75$ with the tightest data restriction, which is statistically significant at the 5% confidence interval. Noticeable also is that the coefficients and standard errors are stable even as the sample drops. The magnitude of the ATT is also large. For instance in column (3), it is about 70% of the standard deviation of the outcome mean.

Table 4.2: ATT on Land Cases-Restricted Data

	Number of Land Cases		
VARIABLES	(1)	(2)	(3)
DiD	1.47*	1.82**	1.95**
	(0.85)	(0.80)	(0.75)
Year Fixed Effects	x	x	x
Court Fixed Effect	x	x	x
Outcome Mean	1.53	1.26	1.26
Outcome Standard Deviation	3.26	2.77	2.81
Number of Courts	56	39	31
Court-year observations	272	224	208
R-squared	0.48	0.44	0.45

NOTE-Robust standard errors in parentheses clustered at the chiefdom level. *** p<0.01, ** p<0.05, * p<0.1. Columns 1, 2, and 3 on include 45, 31 and 25 chiefdoms respectively. Treatment group make up, 26%, 20% and 25% in columns 1, 2, and 3 respectively.

4.4.3 Estimation Results with Full Dataset

In this section I relax the data restrictions and use the full dataset to run models. On the one hand the restricted data provides the most robust estimate, but I loose statistical power when looking at potential mechanisms. I relax the data restriction to make sure the estimates are not too different from the restricted sample. Table 4.3 below shows the estimation results with the number of land cases as outcome variable. Column (1) is estimated with year and chiefdom fixed effects without controls. Column (2) introduces court level controls including mean cost of using courts, number of years of court records in each court, and mean cost in each court. Column (3) adds court fixed effects.

Table 4.3: ATT on Land Cases- Unrestricted Data

	Number of Land Cases		
VARIABLES	(1)	(2)	(3)
DiD	1.76**	1.65**	1.46**
	(0.71)	(0.67)	(0.73)
Year Fixed Effects	x	x	x
Chiefdom Fixed Effects	x	x	
Court Controls		x	x
Court Fixed Effects			x
Outcome Mean	1.28	1.28	1.28
Outcome Standard Deviation	2.8	2.8	2.8
Number of Chiefdoms	130	129	129
Court-year observations	706	689	689
R-squared	0.36	0.37	0.52

NOTE- Court controls include mean cost and number of record years. Robust standard errors in parentheses clustered at the chiefdom level. *** p<0.01, ** p<0.05, * p<0.1.

The results suggest that at the intensive margin, the intervention increased land cases in the formal courts by 62% of outcome standard deviation ($\delta = 1.76$, $s.e = 0.71$) in column (1), which fall to 53% ($\delta = 1.46$, $s.e = 0.73$) in the most stringent model in column (3). Notable here also is that magnitudes are similar to the results with the restricted dataset in Table 4.2 above. In Table 4.15 in the Appendix, I present the results table for probability of observing land cases with the full sample. The coefficients are similar to that in the restricted model, but they are also not statistically significant.

The fact the magnitude of the estimates from the restricted and unrestricted data for both of these outcomes assuages potential bias concerns resulting from data attrition. I proceed in the next section with a series of robustness checks of the results for the intensive margins.

4.5 Robustness Checks

To bolster the internal validity of the results above, I conduct three additional robustness tests in this section. I start with a formal placebo test, using a leads and lags analysis. Secondly, since the policy targeted land cases, I also use civil cases at the local courts as a second placebo outcome. Finally, I use the case type to introduce a third dimension of variation in a triple difference specification, where the outcome is now the number of all cases (land and non-land) in the courts.

4.5.1 Placebo Tests

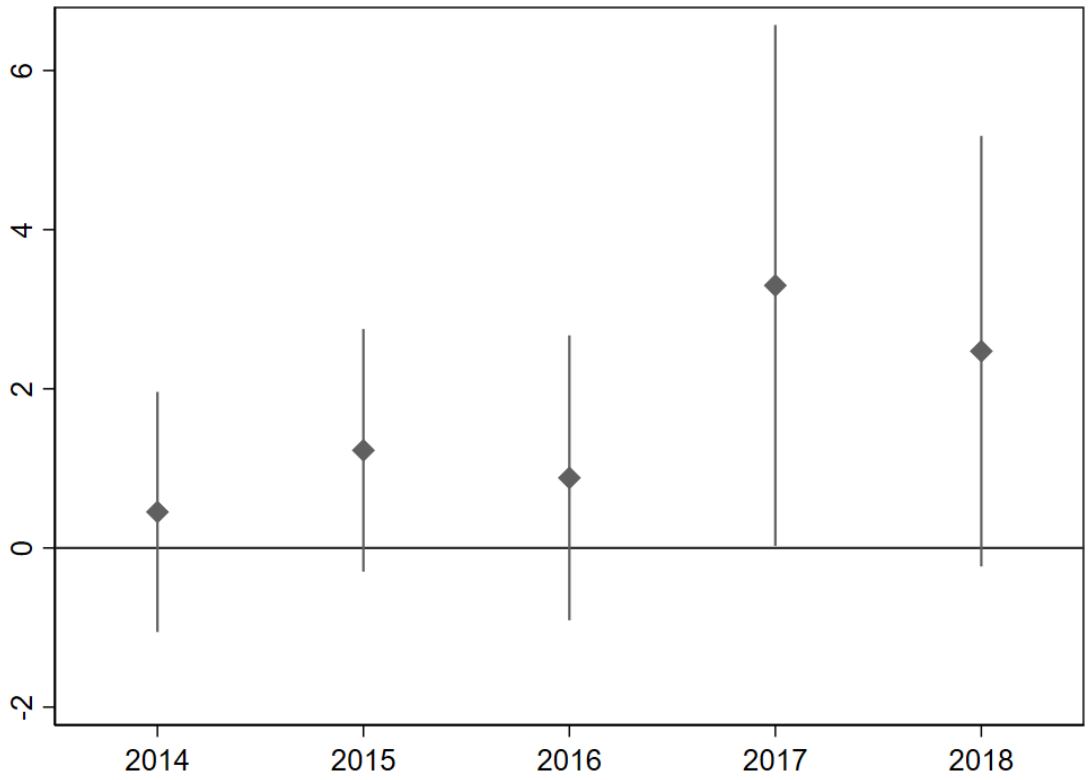
Leads and Lags ATT

I exploit the time series nature of the caseload in courts to conduct a falsification test by estimating the ATT on the treated for each year data is available. I use both the the restricted and full dataset. The full dataset allows me to compare treatment and control chiefdoms as far back as 2010. To do this, I use a variation of equation 4.1 above to estimate the following model:

$$y_{ict} = \alpha_c + \beta_t + \sum_{t=2009}^{2018} \delta_t(I_{ci}) + cX_{ict} + \varepsilon_{ict} \tag{4.2}$$

where δ_t is now the ATT for each year t from, 2014 to 2018 with the restricted data, and 2009 to 2018 in the full dataset. This formulation allows me to show a formal placebo test for the intervention by showing that the ATT for each pre-treatment year is not statistically different from zero. I present a graphical representation of the results below in Figure 4.4 below for the restricted sample. The diamond shapes are standardized coefficients with error bars from running 4.2 above.

Figure 4.4: Formal Falsification Test- With Restricted Sample



Y-axis represent standardized coefficient from estimating 4.2 above using the restricted data from as shown in model (3) in Table 4.16 in the Appendix. Error bars are for 95% confidence intervals.

From Figure 4.4 above, the ATT is statistically indistinguishable from zero for 2014, the first pre-treatment year. In the post treatment period the magnitude of ATT gradually increases and dips slightly again in 2018. In Figure 4.12 in the Appendix, I show the same analysis with the full sample. I run equation 4.2 using both chiefdom and court fixed effects models in columns 1, and 2 respectively from Table 4.16 in the Appendix. Using the model with the chiefdom fixed effects, the results show that prior to the intervention in 2015 the ATT for each year is statistically zero. Post intervention, the coefficients generally trend positive and are different from zero for two of the three years after the intervention. The picture is similar with the more restrictive model with the court fixed effects. Although the coefficients for the yearly ATT are not statistically significant at the 5% level, it is easy to see why the average effect over the three years is

statistically significant.

Civil Cases as Placebo

I conduct a second placebo test by using the number of other civil cases (non-land cases) as my outcome variable. This additional placebo test addresses possible concerns that courts in treatment chiefdoms are in general more active. If this is the case one would effect to find an effect even for non-land cases, even though the policy did not target non-land cases. The table below present the results. I use the full sample. Column (1) estimates are with year and chiefdom fixed effects without controls. Column (2) introduces court level controls including mean cost of using courts, and number of years of court records in each court. Column (3) adds court fixed effects. From Table 4.4 below, as expected the coefficients on the DiD estimator are all not statistically different from zero.

Table 4.4: Placebo Test with Civil Cases

	Number of Other Civil Cases(non-Land)		
VARIABLES	(1)	(2)	(3)
DiD	34.65	39.58	36.30
	(23.39)	(30.02)	(38.39)
Year Fixed Effects	x	x	x
Chiefdom Fixed Effects	x	x	
Court Controls		x	x
Court Fixed Effects			x
Outcome Mean	51.38	51.38	51.38
Outcome Standard Deviation	65.2	65.2	65.2
Number of Chiefdoms	130	129	129
Court-year observations	706	689	689
R-squared	0.58	0.60	0.71

NOTE- Court controls include mean cost and number of record years. Robust standard errors in parentheses clustered at the chiefdom level. *** p<0.01, ** p<0.05, * p<0.1.

Although not statistically different from zero, the estimate on civil cases are large and positive. A potential concern maybe that part of the effect captured is a result of differential trends in conflict in these chiefdoms. This a reasonable concern

given chiefdoms self-selected in the treatment. To alleviate this concern I run a triple difference-in-difference in the next section.

4.5.2 Triple Difference Estimation

Finally, I use the number of all cases (both land and non-land) as the outcomes, and introduce a third dimension of variation, using the case types in a difference-in-difference-in-difference (DiDiD) design to help further isolate the treatment effect (Cancian & Levinson, 2005). The idea here is to show that intensity of all cases in formal courts in treatment chiefdoms is higher for courts that recorded any land cases. The indicator variable for land cases is used as treatment. This third dimension of variation addresses potential concerns that the ATT from the difference-in-difference may have resulted from chiefdoms that have higher number of land disputes adopting the treatment. To do this, I use the following specification:

$$Y_{ict} = \alpha_c + \beta_t + \gamma_a + \delta I_{ca} + \psi I_{at} + \rho I_{ct} + \phi(I_t \times I_c \times I_a) + \varepsilon_{ict} \tag{4.3}$$

where Y_{ict} is number of cases of all types. I normalized this outcome the diving by the mean number of all cases from the local courts for the study period. I do this to bring the order of magnitude closer to that of number of land cases to make it easier for comparison. γ_a is case type fixed effect, and γ_a is 1 if case type is land case, α_c is the court fixed effects, and β_t is year fixed effects. I_{ca} is a interaction of treated chiefdom and a dummy for case type, I_{at} is a interaction dummy for case type and post treatment period, and I_{ct} is interaction dummy for post-treatment and treatment. This is essentially the DiD from equation 4.1 above. The triple difference is given by $I_t \times I_c \times I_a$, where I_t is dummy for post treatment period, I_c is dummy for treatment, and I_a is dummy for case type, which is 1 when any land case is observed. ϕ is the estimate for the triple difference.

Table 4.5 below shows the result of my estimation. The outcome for all three models is the number of all cases (land and non-land). In Table 4.17, in the Appendix I show the same results without the normalization. In column (1), I present results for the DiD, and in column (2) I present result with for the triple difference (DiDiD) with the unrestricted data. In column (3) the results are for the DiDiD with the restricted data with a balanced sample in treatment and control. The coefficient on the DiD in Column (1) is not statistically significant. In columns (2) and (3) the coefficients on triple difference estimator (DiDiD) are statistically significant at the 5% and 1%, respectively. The interpretation is that treatment chiefdoms with local courts that recorded any land case, saw on average higher number of cases overall. And like with the main result, this increase is larger than the mean number of cases. This result suggests indeed the intervention had an impact on land cases litigated at the local courts.

Table 4.5: Triple Difference Estimation

	Number of All Cases (normalized)		
VARIABLES	(1)	(2)	(3)
DiD (Post X CLC Chiefdom)	0.74	0.17	-0.18
	(0.65)	(0.44)	(0.13)
DiDiD (Post X CLC Chiefdom X Case Type)		1.03**	1.56***
		(0.48)	(0.57)
CLC Chiefdom X Case Type (Land)		-0.78*	-1.48**
		(0.42)	(0.63)
Post X Case Type (Land)		0.07	-0.19
		(0.18)	(0.23)
Case Type (Land)		0.11	0.39
		(0.12)	(0.33)
Year Fixed Effects	X	X	X
Court Fixed Effect	X	X	X
Outcome Mean	1.00	1.00	1.03
Outcome Standard Deviation	1.26	1.26	1.34
Number of Chiefdoms	130	130	45
Court-year observations	706	706	272
R-squared	0.71	0.72	0.75

NOTE-Robust standard errors in parentheses clustered at the chiefdom level. *** p<0.01, ** p<0.05, * p<0.1.

4.6 Possible Explanations For the Observed Effects

The analyses so far suggests that the increase in the number of land cases litigated at the local courts is causally linked to the intervention. This effect is also large, over 50% of the standard deviation of the mean annual land cases per court in the study period. This finding is the opposite of the stated policy objective, and my research hypothesis going into the study was also aligned with that of the policymakers. However, does this opposite effect suggest that the policy was undesirable? To start with, my data suggests that policymakers may have misjudged land caseload in the formal courts. Panels (a) and (b) in Table 4.10 in the Appendix show that although civil cases have been trending upwards, land cases were in fact a small part of this increase. In this period the typical court received about 1.3 land cases compared to about 51.4 for non-land cases. Could people be bringing theirs land cases to the formal courts for the "right" reasons? For example, perhaps because the effect of the CLCs is empowering people about their land rights which prompts them to seek justice? In this section, I turn my attention to exploring possible explanations for the observed effects.

Throughout this section I use the unrestricted data to gain statistical power. As I showed in Section 4.4.3 the estimate obtained from using the unrestricted data is similar to that from the restricted data. Furthermore, the ideas I explore provide suggestive evidence for the drivers of the observed effect of the intervention.

4.6.1 CLCs Expose Pent-up Land Concerns from Vulnerable Groups or Chiefdoms Potentially Prone to More Land Disputes

A big part of the land reform policy, and activities of the CLCs, was to administer land in a more equitable manner in the chiefdoms. By aiming to loosen the grip of the local authorities over land in the provinces, policymakers hoped to extend land tenure

to vulnerable groups such as women, youths and strangers. Observers of the policy reform suggest that the reform would be beneficial to strangers across the chiefdoms, because thereto strangers are generally landless and must rely on chiefs to use land in the chiefdoms(Sawyer, 2008). I investigate how this group responds to the policy. Similarly, the policy may have also played out differently in chiefdoms with higher levels of unemployment or because they are close to major towns. Peri-urban areas are known to be prone to land disputes (Nuhu, 2019; Lombard, 2016).

To investigate this, I use the 2015 census data to generate a binary variable that takes value 1 for chiefdoms with above median proportion of strangers in the population and 0 otherwise. For employment, the variable is 1 for chiefdoms below median employment levels, and 0 otherwise.[4] For proximity to major towns, I use geospatial data from Acemoglu, Reed, and Robinson (2014) to create a binary variable that takes value 1 for chiefdoms above median nearest distance to major towns, and 0 otherwise. Descriptive statistics for these binary variables are given in Table 4.13 in the Appendix. These variables are interacted with the DiD estimator and the interaction term shows any differential impact of the policy.

I present the results of these analysis in Table 4.18 in the Appendix. Each column correspond to the models in Table 4.3 above. As can be seen the coefficient on each of the interaction terms are not statistically significant. Notable also is that the main ATT remains significant in columns (1), ($\delta = 2.03, s.e = 1.05$) and (2), ($\delta = 1.80, s.e = 0.95$). In column (3) the main ATT becomes insignificant, but the magnitude is comparable to that of the main result ($\delta = 1.83, s.e = 1.11$). These results suggest that the impact of the policy is not driven by a response to the policy from vulnerable groups or chiefdoms.

[4] As time series data for employment at the chiefdom level is not available, the assumption I make here is that the 2015 figure represents a stock that captures the relative difference in employment across chiefdoms. The same assumption holds for the proportion of strangers in the population.

4.6.2 CLCs as Conduits of Land Cases in the Formal Courts

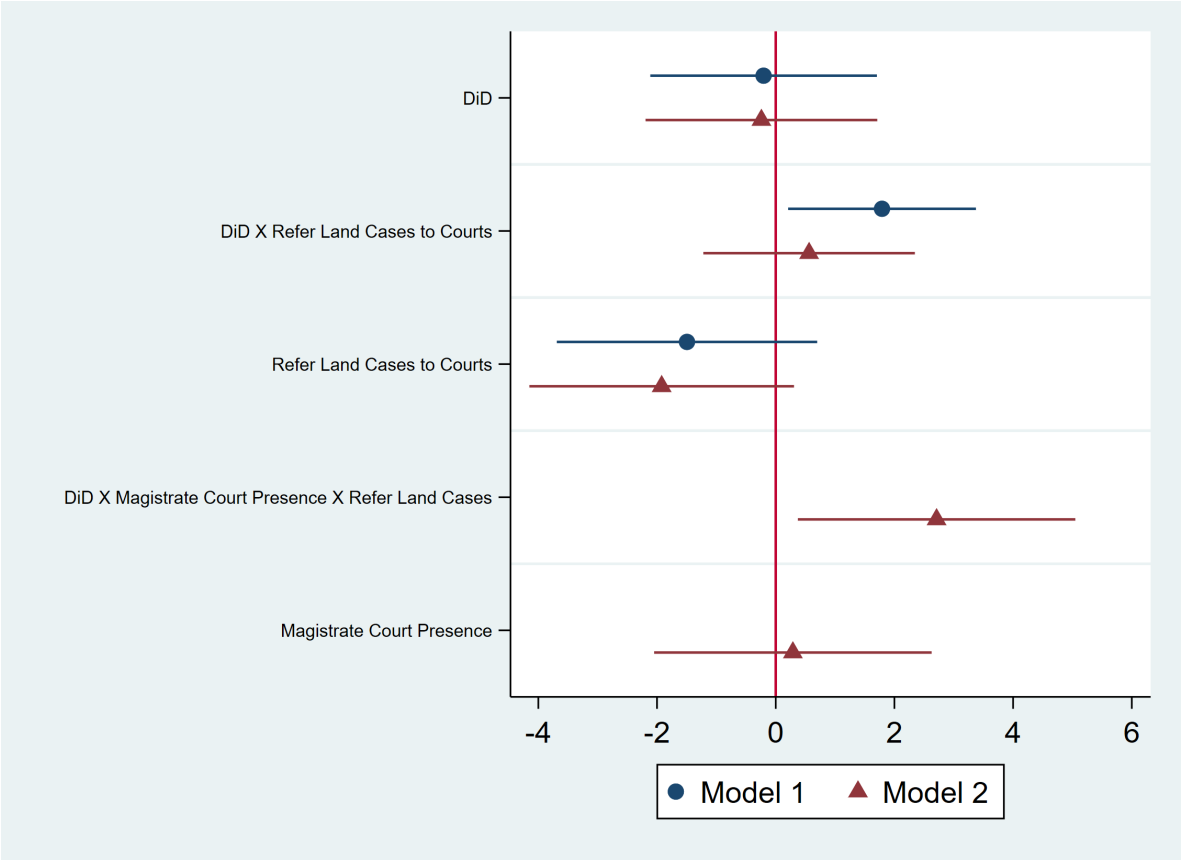
Research elsewhere suggests that because alternative dispute resolution channels are often not able to provide final resolutions to cases litigants are more likely to take land cases to the formal court system (Crook, 2004). It is also possible that in this case study too, instead of resolving land cases, CLCs are either directly or indirectly conduits of land cases to the local courts. The direct channel may include instances where CLCs refer cases to the courts, either local courts or magistrate courts. In the chiefdoms survey, about 43% of the CLCs reported sending land cases to local or magistrate courts. Another option, which is not directly captured in my data, is that people who may be unsatisfied with resolutions from CLCs may still take their disputes to the formal court system. This is limited by the availability of other channels to justice, for example, the existence of a magistrate court in the chiefdom or close by.

To test these ideas, I create an interaction term of DiD estimator and a binary variable that takes value 1 for chiefdom with CLCs that make case referrals to either a local or magistrate court, and 0 otherwise. This variable is a post-treatment measure, so the coefficients on the interaction term does not explain the ATT, but it shows whether there are differences in impact between chiefdoms with CLCs that send cases to the courts and those with CLCs but don't send cases. Furthermore, since the location of formal courts impacts people's ability to bring cases there, I create a triple interaction with the DiD estimator, CLC case referrals and a binary variable that takes value 1 if the chiefdom also has a magistrate court.

Model (1) in Figure 4.5 below shows the coefficient plot from column (1) in Table 4.19 in the Appendix. The interaction term is indeed significant at the 95% level, and it suggests chiefdoms with CLCs that make land cases referral to the formal courts have about 1.79 more land cases litigated at the local courts than those that have CLCs but do not make case referrals. Importantly also is that the coefficient on the DiD estimate is

now negative and not statistically significant. This suggests that the main impact may be driven by the CLCs that make case referrals. Model (2) is a triple interaction of DiD estimator, CLC cases referral and the presence of a magistrate court. This coefficient is significant at the 99% level, and the magnitude of 2.97 is more than double the mean number of land litigation for the study period. In addition, the coefficient on the main effect is no longer significant. These results provide correlational evidence for the argument that CLCs are indeed direct conduits of cases that end up in the formal court system.

Figure 4.5: Coefficient Plot of CLC Land Case Referral



X-axis represent standardized coefficient from columns (1) and (2) in Table 4.19 in the Appendix. Model 1 shows coefficient of the interaction of CLC case referral and the DiD estimator. Model 2 is similar but with a triple interaction with the presence of magistrate courts. Error bars are for 95% confidence intervals.

4.6.3 Issue Salience

Finally, I explore the role of issue salience in explaining the observed effect. The argument is that the presence and activities of CLCs make land issues more salient. For

instance, the CLCs may educate people of their land rights. People that are able to respond may decide to bring their land disputes directly to the formal courts including the local courts in the chiefdoms. The ability of people to respond in this way will depend on their level of education and incomes (Logan, 2017). Although not a direct test of the issue salience argument, I investigate whether the effect is stronger in chiefdoms with high levels of education and income.

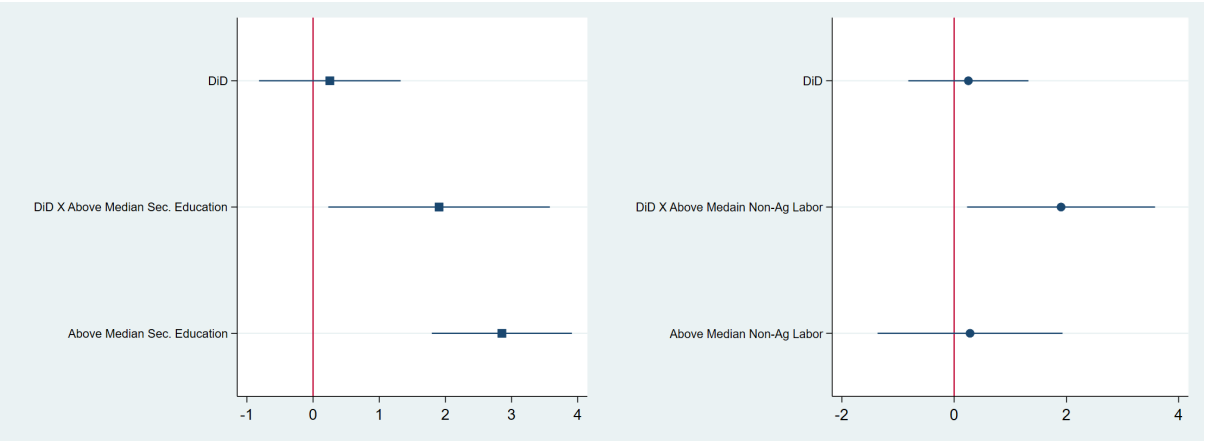
I again rely on the 2015 census data and create a binary variable that takes value 1 for chiefdoms with above median secondary level education attainment, and 0 otherwise. For income, I use the proportion of non-agriculture labor in each chiefdom as a proxy for relative income difference among chiefdoms.[5] I create a binary variable that takes value 1 for chiefdoms with above median proportion of non-agriculture labor and 0 otherwise. Descriptive statistics for these binary variables are give in Table 4.13 in the Appendix.

Panels (a) and (b) in Figure 4.6 below show results for education and non-agriculture labor respectively. The coefficients on the interaction terms are the same and are both statistically significant. They suggest that a chiefdom whose secondary education attainment is above median, or that as above median non-agriculture labor, and adopted CLCs has about 1.90 more land cases litigated in the local courts. The effect for the baseline category is no longer statistically significant. This suggests that the ATT is driven by chiefdoms that have relatively higher levels of education or potentially higher income. My interpretation is that these are the chiefdoms with people that are able to respond to the introduction of the CLCs.

[5] Non-agriculture labor is used widely in development economics as a proxy for income in developing country contexts (Gollin, Lagakos, & Waugh, 2014; Haggblade, Hazell, & Reardon, 2007)

Figure 4.6: Response to Issue Salience

(a) Coefficient Plot for Secondary Education (b) Coefficient Plot for Non-Agriculture Labor



X-axis represent standardized coefficient from in Table 4.20 in the Appendix. Error bars are for 95% confidence intervals.

4.7 Conclusion

Lack of capacity in state legal institutions means informal dispute resolution channels handle the vast majority of everyday civil disputes in many developing countries. Previous work shed doubt on the viability of these informal forums to address land disputes. The central question of this research is whether an informal channel supported by the state can help resolve land disputes and thus reduce land caseload in the formal court system. This case study from Sierra Leone suggests instead of resolving land disputes the informal forums are more likely conduits of land cases to the formal courts. It is plausible that the involvement of the state through the CLCs raised the salience of land issues, but as resolutions through informal channels may be perceived as not final, people that are unsatisfied with outcomes from these channels may still pursue a more final resolution in the formal court system. My analysis in fact shows that the CLCs themselves do direct case referrals of land cases to the formal courts. Another plausible channel is that people may have responded to the salience of land dispute by sidestepping the informal forum altogether and bringing land cases directly to the formal courts. As my analysis suggest, this would be the case for those who can respond, such as the the more educated and the

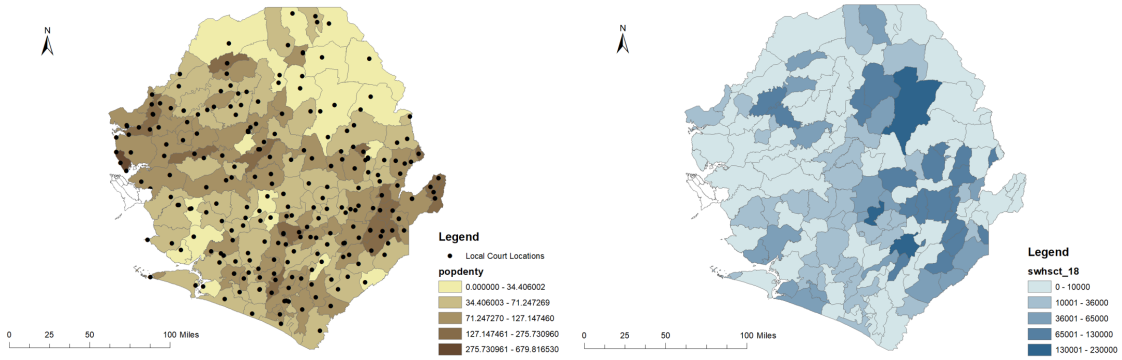
relatively more resourced.

This finding from Sierra Leone matter for our understanding of how to protect and upload property rights under customary land tenure regimes. The results raises questions about how to address poor legitimacy in customary land dispute resolution mechanisms, and whether effective linkages can be made between customary and non-customary property rights. It does seems in this case that state institutions cannot be easily replaced by informal channels of dispute resolution. The case suggests investment of resource to build informal disputes resolution mechanism should accompany efforts to build the capacity of the formal courts systems as well.

The positive side of this unexpected result is that informal dispute resolution channels may be more important for providing access to justice through the formal systems. This happens when people are empowered and are able to seek justice. Emphasising this positive aspect of informal dispute resolution channels in policy reforms, while also investing in state capacity, probably provides the best chance to uphold land property rights in contexts with weak property right regimes.

Appendix

Figure 4.7: Local Court Locations and Cost



(a) Courts and Population Density (b) Costs of Using Court Varies

Figure 4.8: Typical Case Log at the Local Courts

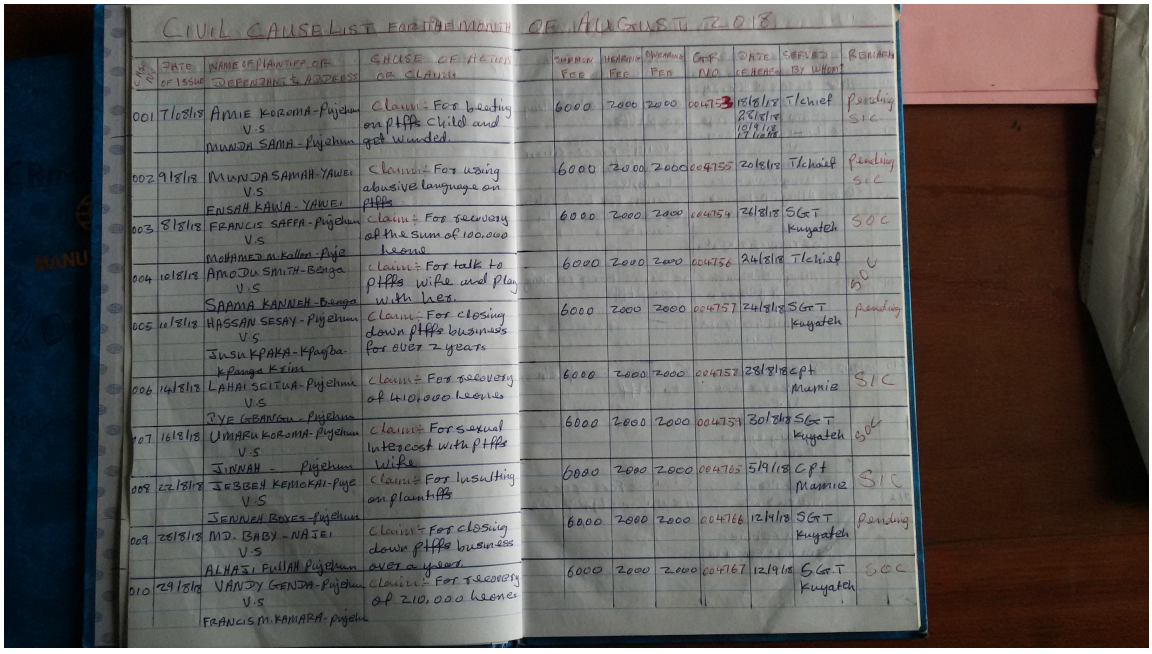
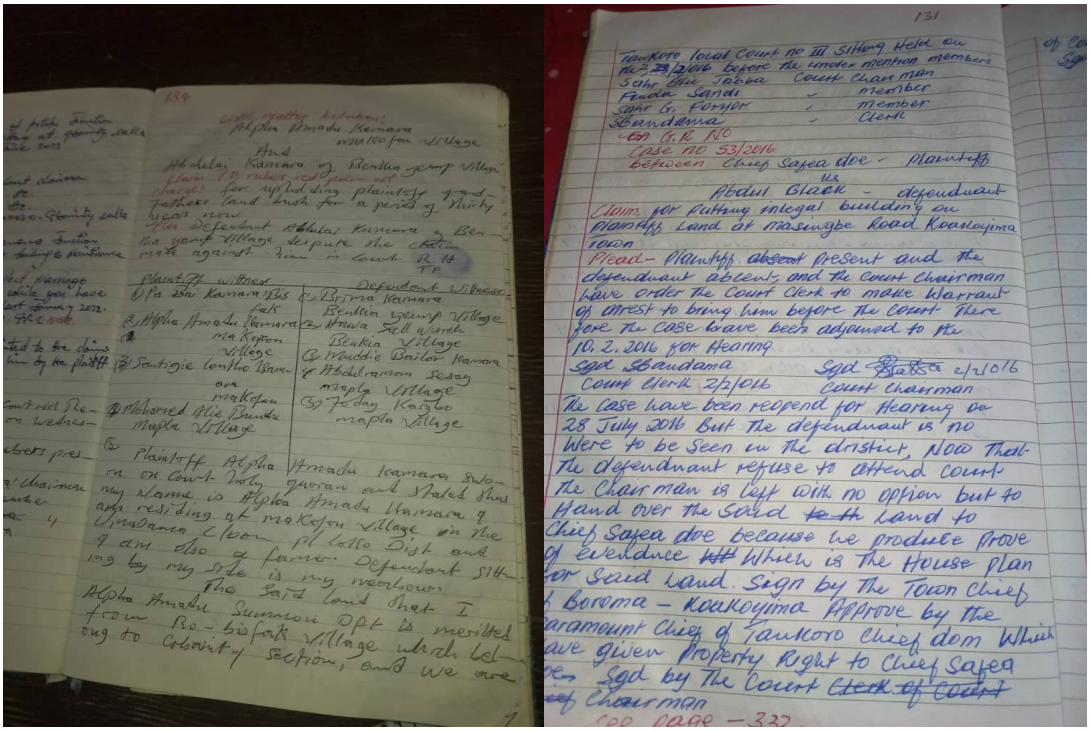


Figure 4.9: Example Land Cases



(a) Land Case: It reads; "for upholding plaintiff grand-father's land land bush for a period of thirty years now"

(b) Land Case: It reads; "for putting illegal abuilding on plaintiff land at Masingbe Road Koakayima Town"

Table 4.6: Outcome and Court Level Control Descriptive Statistics

Variable	Obs	Mean	Std. Dev.
Number of Land Cases	711	1.28	2.80
Land Case (Binary)	711	0.40	0.49
Other Civil Cases	711	51.38	65.21
Total Cases	711	52.66	66.14
Mean Court Cost (Le)	711	5857.93	10297.27
Number of Record Years	706	5.48	2.89

Source:- Authors Calculation from local court administrative data

Table 4.7: Observation by Year

Control Group		
Year	Observations	Percent
2009	12	2.47
2010	14	2.89
2011	22	4.54
2012	25	5.15
2013	30	6.19
2014	40	8.25
2015	51	10.52
2016	72	14.85
2017	93	19.18
2018	126	25.98
Total	485	100

Source:- Authors Calculation from local court administrative data

Table 4.8: Number of Observations by Year

Treatment Group		
Year	Observations	Percent
2009	2	0.9
2010	6	2.71
2011	9	4.07
2012	7	3.17
2013	7	3.17
2014	14	6.33
2015	20	9.05
2016	35	15.84
2017	50	22.62
2018	71	32.13
Total	221	100

Source:- Authors Calculation from local court administrative data

Table 4.9: Respondents Interviewed

Interview Respondent	Freq.	Percent
Chiefdom Administrator	22	14.77
Chiefdom Secretary	8	5.37
Chiefdom Speaker	25	16.78
Chiefdom Treasury Secretary	61	40.94
Chiefdom Council member (councilor)	1	0.67
Paramount Chief	5	3.36
Section Chief	6	4.03
Religious leader (Imam, Pastor etc)	1	0.67
Regent Chief	4	2.68
Village Elder or Notable	16	10.74
Total	149	100

Source:- Author's Chiefdom Administration Survey

Table 4.10: Chiefdom Land Committee and Member Selection

Variable	Obs	Mean	Std. Dev.
CLC Members Selected by Chiefdom Administration	51	0.45	0.50
CLC Member Selected by PC/Regent Chief	51	0.53	0.50
Chiefs Appoint Community Members to the CLC	51	0.31	0.47
CLC Members Selected by Other Community Members	51	0.39	0.49
CLC Members are "Elected"	51	0.12	0.33
People Volunteer to be on CLC	51	0.06	0.24

Source:- Author's Chiefdom Administration Survey

Table 4.11: Composition of Chiefdom Land Committees

Which Groups Are Represented on CLC in this Chiefdom?			
Variable	Obs	Mean	Std. Dev.
Section Chiefs	51	0.67	0.48
Village Headmen	51	0.51	0.50
PC/Regent Chief	51	0.57	0.50
Chiefdom Speaker	51	0.39	0.49
Landholding Families	51	0.41	0.50
Local Council Representatives	51	0.27	0.45
Youth Representative	51	0.45	0.50
Women Representative	51	0.45	0.50
Religious Leaders (Imam/Pastor)	51	0.35	0.48
Traditional Healers	51	0.04	0.20
Members of Secret Society	51	0.04	0.20

Source:- Author's Chiefdom Administration Survey

Table 4.12: Mediation Role of Chiefdom Land Committees

Variable	Obs	Mean	Std. Dev.
Does CLC Hear Land Dispute Cases Between People in Community	51	0.98	0.14
Number of Land Dispute per Month	50	0.29	0.22
Does CLC Charge to Hear land Cases	50	0.36	0.49
Amount Charge (SL LE)	12	87083.33	82254.00
Does CLC Refer Case to Local/Magistrate Court or Village Level	51	0.43	0.50

Source:- Author's Chiefdom Administration Survey

Table 4.13: Summary Statistics for Hypothesis Testing

Variables	Obs	Mean	Std. Dev.
Above Median Secondary Education	154	0.43	0.50
Above Median Stranger Population	154	0.45	0.50
Above Median Non-Agriculture Labor	154	0.40	0.49
Chiefdom Has Magistrate Court	149	0.13	0.33
Below Median Employment	154	0.37	0.48
Above Median Distance to Nearest Town	149	0.30	0.46

Source:- Data on secondary education, stranger population, employment, and non-agriculture labor calculated using 2015 census data. Data on median distance to towns (km) taken from Acemoglu, Reed, and Robinson (2014), and these include, Freetown, Bo, Kenema and Makeni. Location of magistrate obtained by author from local court survey.

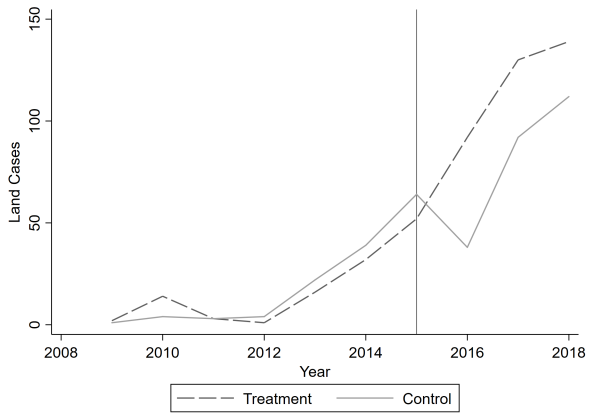
Table 4.14: Determinants of Policy Compliance

	CLC Compliance						
VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)
PC Tenure Years (by 2016)	0.00						0.00
	(0.00)						(0.00)
Number of Ruling Houses		-0.00					-0.01
		(0.02)					(0.02)
Chiefdom Primary Edu. Attainment			-0.30				-0.89
			(1.18)				(1.49)
Chiefdom Non-Ag Labor				0.17			0.01
				(0.41)			(0.50)
Mining License 1930					0.25*		0.27**
					(0.13)		(0.13)
Ln(Distance to Nearest Major Town)						-0.18	-0.23*
						(0.11)	(0.13)
Amalgamation	0.01	0.02	0.01	0.01	0.02	0.01	0.04
	(0.09)	(0.11)	(0.09)	(0.09)	(0.08)	(0.09)	(0.10)
Population Density (2015)	0.00*	0.00*	0.00*	0.00	0.00*	0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Ethnoliguistic Fractionalization	0.13	0.14	0.15	0.10	0.05	0.20	0.12
	(0.25)	(0.25)	(0.25)	(0.27)	(0.25)	(0.25)	(0.28)
District Fixed Effects	X	X	X	X	X	X	X
Observations	149	149	149	149	149	149	149
R-squared	0.19	0.19	0.19	0.19	0.22	0.21	0.24

NOTE-.Robust standard errors in parentheses clustered at the chiefdom level. *** p<0.01, ** p<0.05, * p<0.1.

Figure 4.10: Visual Inspection of Parallel Trends

(a) Trends for Land Cases with unrestricted data



(b) Trends for all cases

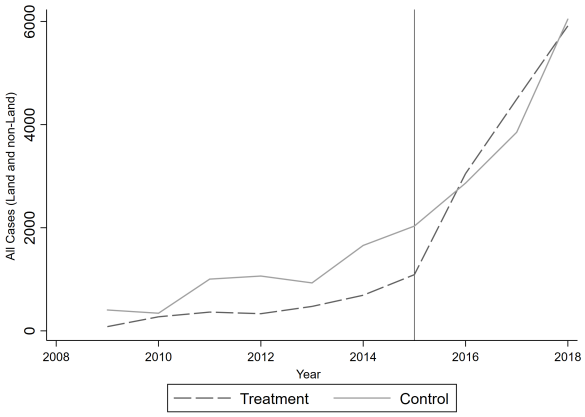


Figure 4.11: Simple Difference of Outcomes- Unrestricted Data

(a) Extensive Margin (b) Intensive Margin

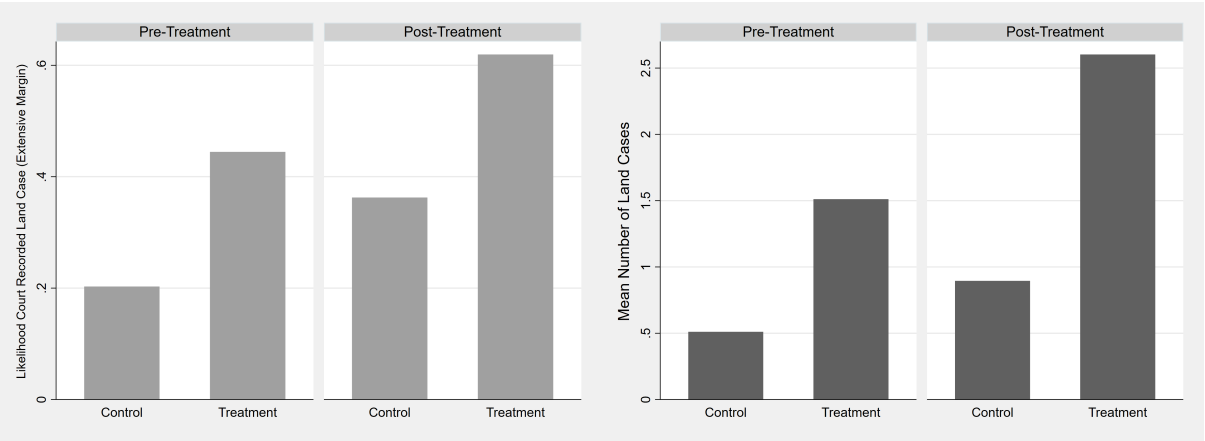


Table 4.15: ATT for Likelihood of Observing Land Cases- Unrestricted Data

	Land Case (Binary)		
VARIABLES	(1)	(2)	(3)
DiD	0.09	0.10	0.06
	(0.13)	(0.15)	(0.16)
Year Fixed Effects	x	x	x
Chiefdom Fixed Effects	x	x	
Court Controls		x	x
Court Fixed Effect			x
Outcome Mean	0.4	0.4	0.4
Outcome Standard Deviation	0.49	0.49	0.49
Number of Chiefdoms	130	129	129
Court-year observations	706	689	689
R-squared	0.52	0.52	0.59

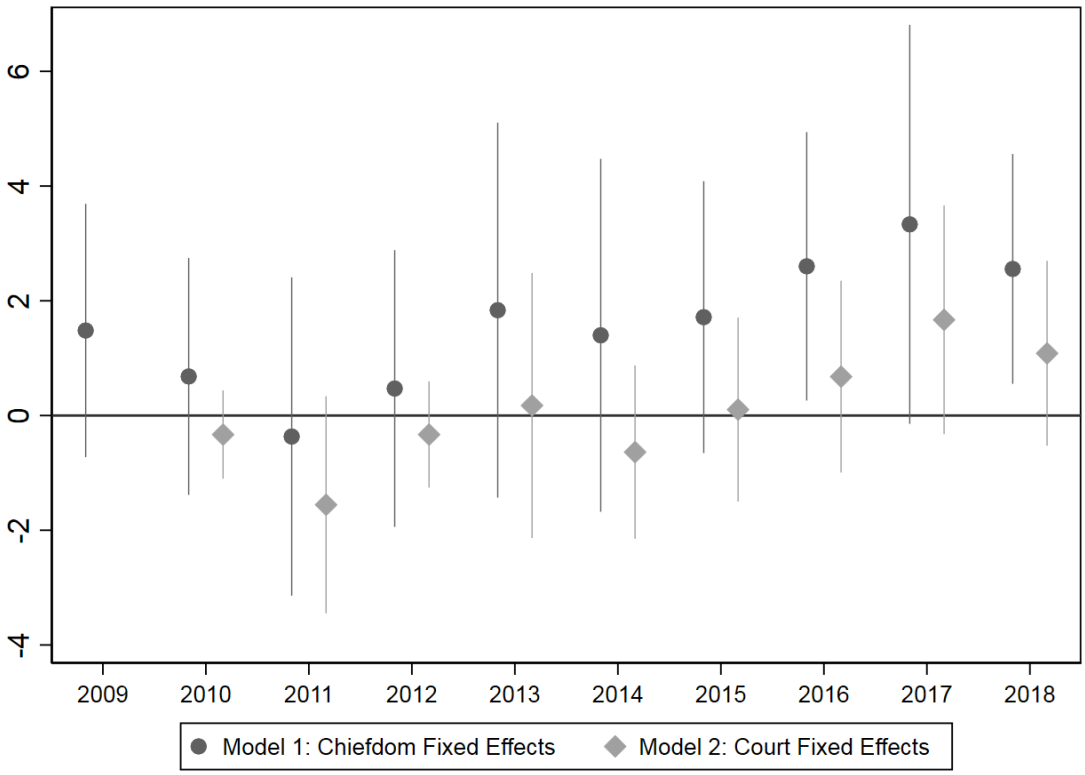
NOTE-Court controls include mean cost and number of record years. Robust standard errors in parentheses clustered at the chiefdom level. *** p<0.01, ** p<0.05, * p<0.1.

Table 4.16: Formal Placebo Test

	Number of Land Cases		
VARIABLES	(1)	(2)	(3)
Treatment X 2009	1.48		
	(1.12)		
Treatment X 2010	0.68	-0.33	
	(1.04)	(0.39)	
Treatment X 2011	-0.37	-1.56	
	(1.40)	(0.96)	
Treatment X 2012	0.47	-0.33	
	(1.22)	(0.47)	
Treatment X 2013	1.84	0.18	
	(1.65)	(1.17)	
Treatment X 2014	1.40	-0.64	0.45
	(1.55)	(0.76)	(0.75)
Treatment X 2015	1.71	0.10	1.23
	(1.20)	(0.81)	(0.76)
Treatment X 2016	2.60**	0.68	0.88
	(1.18)	(0.85)	(0.89)
Treatment X 2017	3.33*	1.67*	3.30**
	(1.76)	(1.01)	(1.62)
Treatment X 2018	2.56**	1.08	2.47*
	(1.01)	(0.81)	(1.34)
Chiefdom Fixed Effects	X		
Year Fixed Effects	X	X	X
Court Controls	X	X	X
Court Fixed Effects		X	X
Outcome Mean	1.28	1.28	1.53
Outcome Standard Deviation	2.8	2.8	3.3
Number of Chiefdoms	129	129	45
Court-year observations	689	689	267
R-squared	0.38	0.52	0.50

NOTE-Court controls include mean cost and number of record years. Robust standard errors in parentheses clustered at the chiefdom level. *** p<0.01, ** p<0.05, * p<0.1.

Figure 4.12: Formal Falsification Test- With Restricted Sample



Y-axis represent standardized coefficient from estimating 4.2 above. Model with diamond on error bar is with court fixed effects from model (2) in Table 4.16, and the other is with chiefdom fixed effects. Error bars are for 95% confidence intervals.

Table 4.17: Triple Difference Estimation

	Number of All Cases (Land and Non-land)		
VARIABLES	(1)	(2)	(3)
DiD	39.11	9.11	-9.25
	(34.00)	(23.32)	(6.62)
DiDiD		54.36**	82.06***
		(25.11)	(30.26)
Treatment X Case Type (Land)		-40.90*	-77.80**
		(22.04)	(33.10)
Post-Treatment X Case Type (Land)		3.54	-9.78
		(9.69)	(11.94)
Case Type (Land)		6.03	20.71
		(6.45)	(17.21)
Year Fixed Effect	X	X	X
Court Fixed Effect	X	X	X
Outcome Mean	52.66	52.66	54.23
Outcome Standard Deviation	66.14	66.17	70.65
Number of Chiefdoms	130	130	45
Court-year observations	706	706	272
R-squared	0.71	0.72	0.75

NOTE-Robust standard errors in parentheses clustered at the chiefdom level. *** p<0.01, ** p<0.05, * p<0.1.

Table 4.18: Pent-UP Land Concerns From Vulnerable Groups

	Number of Land Cases		
VARIABLES	(1)	(2)	(3)
DiD	2.03*	1.80*	1.83
	(1.05)	(0.95)	(1.11)
DiD Above Median Stranger Population	-1.02		
	(1.13)		
Above Medin Stranger Popultaion	-2.39***		
	(0.35)		
DiD X Below Median Employment Level		-0.50	
		(1.21)	
Below Median Employment Level		2.95***	
		(0.95)	
DiD X Below Median Distance to Major Town			-0.52
			(1.35)
Below Median Distance to Major Town			1.19***
			(0.33)
Chiefdom Controls	X	X	X
Year Fixed Effect	X	X	X
Court Fixed Effect	X	X	X
Outcome Mean	1.28	1.28	1.28
Outcome Standard Deviation	2.8	2.8	2.8
Number of Chiefdoms	130	130	130
Court-year observations	706	706	706
R-squared	0.52	0.52	0.52

NOTE-Chiefdom controls include 2015 census population density and distance to nearest major town. Robust standard errors in parentheses clustered at the chiefdom level. *** p<0.01, ** p<0.05, * p<0.1.

Table 4.19: CLCs As Direct Conduits Of Land Cases

	Number of Land Cases	
VARIABLES	(1)	(2)
DiD	-0.20	-0.45
	(0.95)	(0.92)
DiD X Refer Cases to Courts	1.79**	
	(0.78)	
DiD X Refer Cases to Courts X Magistrate Court Presence		2.97***
		(0.98)
Refer Cases to Courts	-1.50	-1.62
	(1.09)	(1.31)
Magistrate Court Presence		0.03
		(0.98)
Year Fixed Effect	X	X
Court Fixed Effects	X	X
Outcome Mean (Full Sample)	1.28	1.28
Outcome Standard Deviation (Full Sample)	2.8	2.8
Number of Chiefdoms	44	44
Court-year observations	218	218
R-squared	0.51	0.52

NOTE-Robust standard errors in parentheses clustered at the chiefdom level. *** p<0.01, ** p<0.05, * p<0.1.

Table 4.20: Issues Salience and Response

	Number of Land Cases	
VARIABLES	(1)	(2)
DiD	0.25	0.25
	(0.54)	(0.54)
DiD X Above Median Non-Ag Labor	1.90**	
	(0.85)	
Above Median Non-Ag Labor	0.28	
	(0.83)	
DiD X Above Median Secondary Education		1.90**
		(0.85)
Above Median Secondary Education		2.85***
		(0.54)
DiD X Magistrate Presence		
Magistrate Court Presence		
Chiefdom Control	X	X
Year Fixed Effect	X	X
Court Fixed Effect	X	X
Outcome Mean	1.28	1.28
Outcome Standard Deviation	2.8	2.8
Number of Chiefdoms	130	130
Court-year observations	706	706
R-squared	0.52	0.52

NOTE-Chiefdom controls include 2015 census population density and distance to nearest major town. Robust standard errors in parentheses clustered at the chiefdom level. *** p<0.01, ** p<0.05, * p<0.1.

Chapter 5

Conclusion

This thesis uses Sierra Leone as a case study to address critical research questions regarding traditional institutions in the modern African state. The three papers that make up this thesis have collectively addressed questions about the impact these institutions continue to have on economic, social and political outcomes in Sierra Leone. They show that while traditional institutions can be used to fill critical gaps in public goods provision in rural areas, they may do so in unequal ways. The incentives that govern the institutions makes chiefs perhaps more responsive in their immediate community, rather than the wider state.

There are also limits on the type of public goods and service traditional authorities can influence. A key area they are often required to act is dispute resolution, especially for land and other civil disputes in rural areas. This thesis suggests a potential weakness of traditional authorities in handling land dispute resolutions, and that there might be a preference for resolutions through formal courts whenever possible.

Lastly, this thesis addresses questions about how the salience of the selection process of leaders of the institution matters for affecting social outcomes. The Sierra Leone chieftaincy institution selects leaders through elections by a small group of local taxpayers in the chiefdom. The intensity of competition for the office is shown to have

negative consequences for social cohesion and possibly collective action.

A key theoretical implication from the collective findings from this thesis is that it puts the salience of ethnicity in affecting political outcomes in Africa into context. In the wider literature on African politics, ethnicity matters for most political and economic outcomes, especially in cross-country analyses. This case study observes politics at the chiefdom level, where political actors and competitors share the same ethnicity. Yet, I observe similar effects often associated with ethnicity. This case study perhaps stands out in suggesting that politics in Africa can look much like politics in the West, where the benefits of politics follow the most politically salient unit of organisation, which may not necessarily be ethnicity or religion. In the literature on politics in the West, this is often dubbed as advantages of political alignment.

This thesis perhaps triggers further research on traditional institutions at the sub-national level. With the exception of a few recent studies there is a dearth of research in this area. Such research will shed much clearer light on how traditional institutions affect political and economic outcomes on the continent. Instead of national boundaries, research can focus on establishing, and using geographic boundaries of different traditional chiefdoms, kingdoms and territories, which will help isolate the effect of the institutions on outcomes.

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