Electoral Consequences of Colonial Invention: Brokers, Chiefs, and Distribution in Northern Ghana*

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Abstract

I study the effects of traditional chiefs – a common type of broker – on voters’ ability to extract state resources from politicians. Using original data from Northern Ghana, I show that chief-taincy positions invented by colonial authorities are especially prone to capture, leaving voters worse off compared both to more accountable chiefs whose authority dates to the pre-colonial period and to voters who lack formal chiefs who can serve as brokers. The latter comparison exploits exogenous assignment of ethnic groups to the colonial invention of chieftaincy in the late-19th century. The findings suggest that whether voters benefit from brokers amidst clientelistic electoral competition depends on the accountability relationship between brokers and their clients.

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*Sarah Brierley, Kim Yi Dionne, Adam Harris, Mai Hassan, Allen Hicken, Eric Kramon, Daniela Osorio Michel, George Ofosu, Tom O’Mealia, Zara Riaz, Robert Schub, Ariel White, the anonymous reviewers, and audience members at Columbia University, University of Michigan, Nuffield College Oxford, Vanderbilt University, MGAPE, MPSA, and MWEPS provided helpful comments. Thanks to Alhassan Ibn Abdallah, Paul Atwell, Moustafa El-Kashlan, Eve Hillman, and Megan Ryan for research assistance. Thanks in addition to Philomena Nyarko, Rosalind Quartey, and the Ghana Statistical Service, Alexander Essien and the National House of Chiefs, the Electoral Commission of Ghana, and Nahomi Ichino for access to data.*
1 Introduction

A vast literature demonstrates that electoral intermediaries, or brokers, help politicians engage in clientelism across the developing world (Stokes et al. 2013, Mares and Young 2016). Community-level brokers, in particular, are thought to be efficiency-enhancing for politicians by allowing them to secure support from coordinated blocs of voters without having to engage in more complex, and less monitorable, exchanges at an individual level (Holland and Palmer-Rubin 2015, Rueda 2016, Kramon 2017). But a closely related question remains more theoretically and empirically ambiguous: under what conditions do community-level brokers help voters? Brokers might produce gains for their followers by linking them to patronage resources to which they would not otherwise have access (Auyero 2000) or by helping blocs of voters leverage their collective voting power to extract more resources from politicians than they would be able to on their own (Gottlieb and Larreguy 2015, Novaes 2018). Yet brokers can also exploit intermediary positions for rent-seeking (Holland and Palmer-Rubin 2015), taking advantage of their voters and leaving them worse off than they would be if bargaining with politicians directly.

This paper argues that whether brokers benefit voters is a function of the accountability relationship between brokers and their clients. Where there is elite capture and brokers are not beholden to their followers to continue in their positions, brokers are more free to engage in rent-seeking, trading away votes for deals in their own, not voters’, best interest. Unaccountable brokers who have captured community-level power may then strike worse deals for their clients than voters could achieve on their own without a broker, or than voters would receive if under the influence of a more accountable broker.

I examine these comparisons by studying traditional leaders, or chiefs, in Northern Ghana. Like much of rural Africa (Koter 2013, Baldwin 2015, Kramon 2017), chiefs in Northern Ghana are often key intermediaries linking politicians to voters. But the presence and nature of chieftaincy varies widely. Over 30 distinct ethnic group share the same geographic, electoral, and economic
context. Approximately one third of residents come from groups that have *always* had chiefs since the pre-colonial period. Another third are from groups that were *acephalous* prior to colonialism, with no political centralization, but saw chieftaincy *invented* by the British colonial government. The remainder were ignored by colonial authorities, and as a result, have *never* had their own hierarchy of legally-recognized chiefs since the onset of colonialism.

This variation allows for comparisons of communities with and without chiefs, as well as among communities in which chiefs have different accountability relationships with their subjects. In this context, accountability between community-level brokers and their clients is shaped by institutional rules for the selection of chiefs (Acemoglu et al. 2014). In Northern Ghana, these rules differ by the historical origins of chieftaincy. In particular, the *ad hoc* nature of the British colonial imposition of chieftaincy left behind institutions much more prone to elite capture than those that emerged organically in the pre-colonial period. Unaccountable invented chiefs should then be less liable to strike deals with politicians in their followers’ interest compared both to communities that do not have traditional leaders capable of brokering their votes and to communities with more accountable chiefs rooted in pre-colonial institutions.

Empirically evaluating these types of comparisons is typically limited by the fact that brokers emerge through opaque processes that are endogenous to voter and community characteristics (Auerbach and Thachil 2018). For example, there is usually no valid control group without community-level brokers against which to compare the fortunes of voters under the influence of these intermediaries. But Northern Ghana’s history provides unusual, plausibly exogenous leverage to study the selection of voters into brokerage. The distinction between ethnic groups with colonially-invented chiefs and no recognized chiefs today was in large part determined by the side of the pre-World War I Anglo-German Gold Coast-Togoland border on which an ethnic group initially lived. This border was drawn prior to colonial rule, in a manner unrelated to local populations. While British authorities immediately began inventing chieftaincy on their side, the Germans engaged in no similar efforts. When the British took control over part of Togoland after WWI, they
nominally extended the rule of chiefs that they had already been working with eastward to cover the annexed territory. The result was that while almost all pre-colonially acephalous groups initially on the British side of the border saw the invention of chieftaincy prior to WWI, no ethnic groups originally placed in Togoland ever had chiefs invented. These differences persist with only a few exceptions, creating contemporary variation in the presence of chiefs who can serve as community-level brokers\footnote{Although the territory remains within their nominal jurisdictions, chiefs from groups on the original British side of the border no longer exercise meaningful day-to-day authority over annexed areas populated by other ethnic groups.} This exogenous variation only applies to a subset of groups but still offers better leverage on selection into community-level brokerage than is typically possible.

I draw on original data on ethnic institutional histories and chieftaincy succession, combined with fine-grained village-level census data, polling station-level election results, and geo-coded Afrobarometer surveys. The analysis proceeds in several parts. First, I present suggestive evidence in support of the mechanisms in the argument. I document that colonially-invented chieftaincies are more prone to capture and are perceived as less accountable by their subjects. I then show that these chiefs are nonetheless important intermediaries in contemporary elections. I find that ethnic groups with chiefs cluster their votes more at the community level, consistent with traditional leaders serving as vote-coordinating community-level brokers, and that chiefs also appear to substitute for individual-level mobilization by party organizations (Kramon 2017), with members of groups without formal chiefs receiving the most vote buying offers and contact with party agents.

Second, I turn to the key comparisons of interest. I find that chieftaincy institutions most susceptible to capture – those invented during colonial rule – reduce voters’ ability to extract a series of state-provided benefits during modern electoral competition compared both to communities without formal chiefs and to communities with more accountable chieftaincy institutions dating to the pre-colonial period. I provide descriptive evidence for this claim and then present similar results for the comparison to communities without chiefs when instrumenting for the presence of colonially-invented chieftaincy based on the pre-WWI distribution of ethnic groups relative to the
original Gold Coast-Togoland border.

This paper makes several contributions. Most importantly, it contributes to the study of brokers in new democracies. I shift the main focus of existing literature from how brokers help parties to a less studied, but equally important, question of the conditions under which brokers help voters. I build on research on other settings, such as Auerbach (2016), Corstange (2016), and Gottlieb (2017), to show that the extent to which brokers are accountable to followers shapes whether brokers create gains from collective bargaining, helping voters extract more resources from politicians, or instead leave voters worse off than they would have been on their own. Moreover, by exploiting exogenous assignment in the introduction of brokerage, I have unusual ability to test this argument.

The paper also has secondary implications for other literatures. I advance recent research on chiefs in African elections (Baldwin 2015, Koter 2016, Kramon 2017, de Kadt and Larreguy 2018). I suggest that chiefs’ accountability to their subjects is a key, but underexplored, determinant of whether they benefit their communities, complicating recent assumptions that chiefs have consistent incentives to represent community interests in their pursuit of resources from politicians (Baldwin 2015). Moreover, existing analyses are typically not able to use ethnic groups who lack chiefs as a comparison for estimating the effects of chieftaincy on resource distribution. For the first time, I examine plausibly exogenous variation in overall selection into chieftaincy, albeit only among a subset of ethnic groups.

I also contribute to research on the contemporary legacies of colonial and pre-colonial institutions. Consistent with Mamdani (1996), I show that colonially-invented elites can remain powerful negative forces in rural African communities, contrasting with arguments from other cases suggesting that colonially-imposed chiefs were mostly unable to sustain themselves as influential political

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2 Baldwin (2015, 2018) proxies for a comparison group by examining vacancies created by chiefs’ deaths in Zambia. But the effect of a short-term absence of a specific chief in an equilibrium in which politicians and voters otherwise rely on chiefs may be a fundamentally different quantity of interest from the effect of there never having been a chief. De Kadt and Larreguy (2018) instead compare voters of the same ethnicities living just inside or outside the borders of chiefs’ jurisdictions in South Africa, but do not have causal leverage to explore the effects of chiefs on resource distribution.
actors (Tignor 1971, Tignor 1976, Koter 2016). This offers new evidence for the political microfoundations of findings such as Gennaioli and Rainer (2007) and Michalopoulos and Papaioannou (2013), suggesting that pre-colonially acephalous ethnic groups may have lower present-day development in part due to unaccountable forms of leadership imposed during colonialism. But in contrast to these studies, I also document that a subset of pre-colonially acephalous groups avoided the imposition of chieftaincy and have a better trajectory today. Ultimately, this reinforces both that the effects of colonial institution-building were not monolithic – varying within the same colony (Boone 2003) – and that the growing literature on historical legacies in developing countries cannot understand relationships between pre-colonial history and contemporary outcomes without closely examining the mediating effects of colonialism.

2 Brokers, chiefs, and distributive politics

2.1 Chiefs as community-level brokers

Community-level brokers help politicians engage in clientelism (Holland and Palmer-Rubin 2015, Mares and Young 2016, Novaes 2018). By coordinating bloc voting on a party’s behalf at the community-level, these brokers allow parties to “buy” support wholesale (Gottlieb and Larreguy 2015, Kramon 2017). This lets parties substitute away from costly individual-level engagement with voters, including much more complex efforts to initiate and monitor direct voter-level exchanges (Stokes et al. 2013, Rueda 2016). As a result, where community-level brokers are active, there should be more bloc voting and less direct individual-level resource distribution by or voter contact with party organizations.

Traditional chiefs in rural Africa are well-positioned for such a role. Policies of indirect rule, especially in British colonies, gave chiefs power over taxation, local public goods, and other forms of administration. While most chiefs have little remaining formal governance role, they
still wield socio-economic power in rural areas through control over communally-owned land, as mediators in disputes, and by organizing communal labor (Goldstein and Udry 2008, Acemoglu et al. 2014, Baldwin and Mvukiyehe 2015). Chiefs often leverage these powers into a role as electoral intermediaries (Lemarchand 1972, Beck 2008, Baldwin 2015, de Kadt and Larreguy 2018, Gottlieb 2017), becoming “king makers” who coordinate community votes and enforce patronage exchanges (Koter 2013a, 2016).

Not all ethnic groups have active or powerful chiefs, however. Groups that lack chiefs often lack similarly powerful community-wide brokers capable of coordinating community votes and substituting for direct partisan engagement (Koter 2016). Other types of brokers may emerge instead, such as party brokers employed within a party organization. But without land-owning, judicial, or labor-organizing powers, other brokers will typically have less community-wide influence than chiefs, making them relatively less able to coordinate bloc voting and strike wholesale community-level deals with politicians. Ultimately, in competitive elections in which the votes of groups without chiefs are valuable to parties, the efficiency gains from using chiefs as brokers among some ethnic groups should allow parties to concentrate more campaign effort on the direct mobilization of ethnic groups that do not have chiefs.

2.2 Brokers’ accountability to voters

Even if brokerage leads to less direct resource provision and engagement from parties, do voters with chiefs still benefit from having their votes brokered, extracting more state resources overall in return for their support? Existing literature offers conflicting answers. Some studies expect that community-level brokers strike beneficial deals for their followers, producing gains from collective bargaining. If brokers are “free agents” – non-partisans able to drive a hard bargain between

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3The socio-economic and political influence of chiefs is often significantly lower in urban areas, however (Koter 2016, Nathan 2019). The theory and analyses focus on rural areas only.
competing parties—they can create an auction for a community’s votes, more effectively extracting resources than voters can individually (Novaes 2018). Politicians may also target more resources to communities where they know a strong broker is capable of coordinating support because they can be more certain of the electoral returns from doing so (Gottlieb and Larreguy 2015). The vote-coordinating of intermediaries should also be beneficial if they are simply pointing voters to candidates with whom they will best cooperate in co-producing local resources (Baldwin 2015).

But a broker could just as plausibly leave her followers worse off, especially when voters place little accountability pressure on the broker. Brokers often exploit intermediary positions for rent-seeking, skimming from benefits passed down by politicians or coordinating votes in return for side-payments that never reach voters (Holland and Palmer-Rubin 2015). Rent-seeking is a bigger risk when there is capture and brokers are not accountable to voters (Corstange 2016, Shami 2017). Auerbach (2016) shows, for example, that Indian slums in which multiple brokers compete for followers receive greater investments in local public goods because brokers have to secure more benefits for voters or risk losing their positions. Brokers will also strike worse deals for voters when they themselves are accountable to a party or political patron for their position, not to voters, and thus cannot drive hard bargains for voters between parties (de Kadt and Larreguy 2018).

This suggests that chiefs in rural Africa who are particularly unaccountable to their subjects are those least likely to act in voters’ best interest when serving as community-level brokers. The accountability of chiefs to their followers depends on the rules used to select chiefs. I highlight two features of chieftaincy selection that can undermine accountability and facilitate capture.

First, some chieftaincy institutions empower hereditary “despots,” granting single families permanent access to positions without popular input (Mamdani 1996, Gennaioli and Rainer 2007). For example, Acemoglu et al. (2014) show that where hereditary rights to chieftaincies in Sierra Leone have been concentrated historically in fewer families, communities have worse development outcomes today because of greater rent-seeking and coercion by unaccountable chiefs. Second, and elsewhere, limits to accountability can emerge instead from the ambiguity of succession rules.
Where chieftaincy succession is poorly codified and perpetually in dispute, governments have legal leverage to intervene in appointments to impose preferred brokers on communities. Chiefs dependent on politicians for their positions risk becoming multi-level instruments of capture, controlling their communities’ votes as they themselves are controlled by the politicians who installed them.

Where either set of succession institutions – capture by single families or political imposition of partisan chiefs – is in place, chiefs coordinate community members’ votes while facing limited accountability pressure to deliver for their subjects. The resulting ability of chiefs to exploit their brokerage positions may harm voters, rendering community members less able to extract state resources in return for their votes than if interacting with politicians and parties directly.

2.3 Relationship to existing literature

My argument departs in several ways from other recent research on the brokerage role of chiefs. First, Baldwin (2015) predicts more consistently positive effects of chiefs on their communities. This emerges in part from focusing on different outcomes. Baldwin (2015, 109) examines co-producable resources that communities help provide to themselves, while I focus on state resources directly provided by politicians. Co-production depends as much on the ability of chiefs to solve intra-community collective action problems as on politicians’ distribution. Unaccountable chiefs may still be quite effective at compelling communal self-provision. A more important difference stems instead from Baldwin’s (2015, 10-11) assumption that chiefs’ time horizons and embeddedness create clear incentives to pursue community interests. I suggest that this altruism is contingent and will not prevail where chiefs are particularly unaccountable to their subjects.

Second, my argument does not depend on how chiefs coordinate votes, a key focus of other research. It is often assumed that chiefs’ vote coordination is implicitly coercive – for example,

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4 Acemoglu et al. (2014) find that chiefs who face less competition for their positions are better able to coercively compel subjects’ labor on community projects. Similarly, Baldwin and Mvukiyehe (2015) find that unelected chiefs in Liberia are no worse at coordinating collective action than those elected by their subjects.

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through threats over access to land (Boone 2003, Ntsebeza 2005). Conroy-Krutz (2018) shows that communities vote more as blocs in rural Uganda where voters depend on local elites for land tenure. More directly, Gottlieb (2017) shows that traditional leaders in Senegal who are less accountable to their communities coordinate votes more coercively. If there is coercion, unaccountable chiefs should be the most effective brokers. But vote coordination could also be achieved more through persuasion and respect (Gottlieb 2017), or because voters draw informational value from chiefs’ candidate endorsements (Baldwin 2015).

Coercion also provides the most direct explanation for why unaccountable chiefs continue successfully coordinating votes even as they extract fewer state resources for voters. But coordination could still be achieved even if coercion is limited. Chiefs can take advantage of the respect of isolated rural voters who cannot easily observe the relative extent to which they are disfavored in allocations of state resources (Conroy-Krutz 2018). Posner (2005) and Carlson (2016) demonstrate that rural African voters often have very limited information about what other communities are receiving. Voters may also still benefit in other ways from voting with the chief. If unaccountable chiefs are effective at the co-production of smaller-scale resources, as discussed above, voters may still support chiefs’ preferred candidates in expectation of more cooperative co-production (Baldwin 2015). Short-run defections from voting with the chief may only compound a community’s disadvantages, leading to fewer co-produced resources in addition to fewer resources directly from politicians.

3 The case: Northern Ghana

I examine these dynamics in Northern Ghana. Ghana’s three northern-most administrative regions – Northern, Upper East, and Upper West – are distinct from the rest of the country. During colonialism, they were governed separately as the Gold Coast’s Northern Territories. They continue to form a geographically, economically, and culturally separate region.
State resources are often politically targeted to win votes in Ghana’s competitive presidential and parliamentary elections. Administrative districts – originally 24 in the north, now 50 – are the key unit of distribution, receiving budget transfers from the national government which are then allocated within districts by unelected officials appointed by the president. Two parties dominate: the ruling New Patriotic Party (NPP), in power 2001-2008 and 2017-present, and the National Democratic Congress (NDC), in power 1992-2000, 2009-2016. The north is a relative stronghold of the NDC, with 61% and 58% voting for the NDC in the 2012 and 2016 presidential elections, respectively. But presidential election results are locally variable and many of Northern Ghana’s over 30 small ethnic groups are divided between these parties.

From the outset of formal colonial rule in 1901, the British immediately began empowering chiefs as local agents to keep staffing low[5] While the British used chiefs that already existed where possible, they also resorted to inventing chiefs among Northern Ghana’s many previously acephalous groups, “creat[ing] chieftaincy institutions among people for whom this institution was either unknown or at best peripheral” (Awedoba et al. 2009, 3). Institutional choices from colonialism persist. Every group among whom the British either recognized existing chiefs or invented new ones still has chiefs today. All but one among whom they did not recognize or invent chiefs still lack their own recognized hierarchy of chiefs. Table [1] lists every group indigenous to Northern Ghana, along with their 2010 population. Groups are in three categories: those that have always had chiefs across the pre-colonial, colonial, and post-colonial periods; groups that were acephalous, but saw chiefs invented after the onset of colonialism[6] and groups that were ignored by the colonial state and have never had their own recognized chiefs[7]

[5]This was initiated by the Native Administrative Ordinance of 1902.
[6]A complication is the Mo, a tiny group whose chiefs only became officially recognized in the north in 1992. All results are robust to excluding Mo communities. In addition, Kusasi chiefs were invented in the early 20th century (Ladouceur 1979), but placed under the Mamprusi. The Kusasi gained their own paramountcy in 1957 (Lund 2008).
[7]The majority of the population in this third category was also pre-colonially acephalous (Murdock 1967, Talton 2010). Several smaller “never recognized” groups had some pre-colonial hierarchy, but pre-existing institutions were displaced when these groups were placed under control of chiefs from other groups.
Figure 1: Traditional Areas in Northern Ghana: Blue shaded Traditional Areas are “always chiefs” groups. Red shaded Traditional Areas are “invented chiefs” groups. Some groups (e.g., Sisala) have multiple Traditional Areas with separate paramount chiefs, while others (e.g., Dagomba) have a single paramount and Traditional Area. The smaller, white border polygons are the 2010 census enumeration areas (communities). The map zooms in on the northern half of the country.
Table 1: Ethnic Groups and Invented Chieftaincy in Northern Ghana

<table>
<thead>
<tr>
<th>Pre-colonial, colonial, and contemporary chiefs</th>
<th>Invented chiefs</th>
<th>Chiefs never recognized</th>
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<tr>
<td>Dagomba</td>
<td>20.0%</td>
<td>Dagaba (Dagarte; incl. Lobi)</td>
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<td>Mamprusi</td>
<td>5.6%</td>
<td>Frafra (incl. Nankansi, Talensi, Gurense)</td>
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<td>Gonja</td>
<td>4.5%</td>
<td>Kusasi</td>
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<td>Kasena (Paga)</td>
<td>2.2%</td>
<td>Sisala</td>
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<td>Nanumba</td>
<td>1.9%</td>
<td>Buiisa (Kangyaga)</td>
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<td>Wali</td>
<td>1.6%</td>
<td>Nannam (Nabdol)</td>
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<td>Mo (c. 1992)</td>
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<tr>
<td>Total (2010):</td>
<td>1.5m (36%)</td>
<td>Total (2010):</td>
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Group names and share of the Northern population from the 2010 census. The remaining 7% is southern or non-Ghanaiian.

Figure 1 maps present-day jurisdictions of each group with recognized chiefs. The north is divided into “Traditional Areas” led by a paramount chief. The chief of each local community – its most immediate potential broker – is either a divisional or village-level chief serving beneath the paramount. Importantly, these Traditional Areas are separate from and do not directly line up with administrative districts and parliamentary constituencies, the main units of formal governance.

Since 1979, Ghana’s constitution has granted northern chiefs formal ownership of all land in their jurisdictions. These rights are not uniformly exercised in practice (Yaro 2010). But in many communities, control over the most important resource in the agrarian economy gives chiefs potential coercive powers over subjects (Goldstein and Udry 2008). Elsewhere, chiefs’ power stems more instead from their quasi-judicial role and from the social respect they are afforded as elders and spiritual leaders.

The present-day influence of chiefs also grows from their role as electoral intermediaries. Qualitative research on Northern Ghana regularly describes chiefs as community-level brokers. For
example, Awedoba et al. (2009, 4) describe: “given their perceived influence over their people, politicians... exhibit generosity to the chief in order to secure his goodwill and through him that of the community.” While most exchanges between politicians and chiefs are unobservable, chiefs are thought to extract a range of rents from politicians in return for mobilizing votes. In addition to standard forms of patronage, these include tacit permission from local governments to engage in informal taxation, from which chiefs benefit personally (Bonoff 2014). Another private benefit is state influence in succession. Where succession is contested, chiefs benefit directly from politicians exerting leverage over the courts and police to ward off rival claimants.

But more than one quarter of the population has never had its own recognized Traditional Area. Figure 2 shades enumeration areas in which the majority population is from a “never recognized” group. Large swaths of the north, especially in the former German Togoland (see Section 7.3), are home to legally-acephalous ethnic groups nominally placed within the Traditional Areas of unrelated groups. Denied state recognition, these groups still lack formal land ownership and usually do not have formally-empowered traditional leaders who can serve as powerful brokers.

In recent decades, a small number of chiefs from “never recognized” groups have been appointed within the existing hierarchies of neighboring groups. This has often been done in an attempt to avoid violent land conflicts, with, for example, Dagomba leaders agreeing to appoint Konkombas as “Dagomba chiefs” in a handful of Konkomba towns in the mid-1990s. But this remains rare and all results below are robust to dropping communities in which official chieftaincy registries from the National House of Chiefs indicate a cross-ethnic appointment has been made (see the Supporting Information (SI)). For the large majority of areas dominated by “never recognized” groups, the parties must engage voters through other means than chiefs.

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8Other examples include some Bimoba leaders appointed within the Mamprusi hierarchy, and some Chokosi leaders appointed under the Dagomba.
9Moreover, interview evidence suggests that these newly-invented chiefs are often seen as fig leaves, lacking similar formal powers or social legitimacy as pre-existing chiefs. For example, a sub-chief serving in the court of one of the new Konkomba chiefs was blunt: “[they] have no power, they have no jurisdiction to do anything. They are just empty vessels.” Interview with Konkomba sub-chief, Saboba, Northern Region, 2 July, 2008.
Figure 2: Majority “never recognized” communities: census enumeration areas shaded in green have majority populations from groups that never have had recognized chieftaincy (see Table [1]). The blue- and red-shading is as in Figure[1] indicating the formal Traditional Areas of groups that have always had chiefs (blue) and have invented chiefs (red).
4 Theory applied: accountability and the origins of chieftaincy

Crucially, the different histories of ethnic groups in Table 1 create variation in the accountability of community-level brokers that can be used to examine the argument in Section 2. This section applies the theory to the Ghanaian case, generating predictions for the analysis. In particular, I describe that colonially-invented chiefs in Northern Ghana are especially unlikely to be accountable to their subjects. Colonial invention was deeply arbitrary: appointment procedures varied widely within ethnic groups and rarely codified clear succession institutions (Lentz 2006, Awedoba et al. 2009). This has heightened present-day risks of both types of capture outlined above: permanent control by single families and the political imposition of partisan chiefs.

First, in some cases, the original families empowered by the British used advantages accrued in the colonial period to capture effectively permanent control. An illustrative case is Lawra, a Dagaba town where the British introduced chieftaincy in 1903. Starting from their first appointment to the position in 1927, the Karbo family has been able to sustain dynastic local power in the absence of clear succession rules. The family used powers conferred on chiefs by the British to amass significant wealth advantages in the colonial period (Lentz 2006, 66). The second Karbo chief’s son, Abayifaa Karbo, was among the first Dagaba to receive higher education (Bening 1990, 133) and was elected as the area’s first MP, benefitting from the support of his father (Lentz 2006, 205-209), who he eventually succeeded as chief. Upon Abayifaa Karbo’s death in 2004, the wealth and educational advantages that the Karbos had accumulated allowed them to “ride rough-shod” over other claimants, interpreting ambiguous rules in their own favor and installing Abayifaa’s nephew as the new chief (Awedoba et al. 2009, 53). Like his grandfather once did for his uncle, this chief now uses his influence to campaign openly for his son, who has become the area’s MP.[10]

Lawra exemplifies a pattern among “invented chiefs” groups. I measure hereditary capture using contemporary registers from the National House of Chiefs, the official agency that regis-

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ters chiefs, combined with British archival documents listing all chiefs in the Northern Territories in 1909, 1922, and 1934. This data suggests that the sustained capture of chieftaincy positions by single families is especially common among groups with invented chiefs. The contemporary registers include any changes in chieftaincy appointments dating back to the 1980s. For the 485 rural communities with documented changes, I code that 44% of positions passed between chiefs sharing the same surname in “invented chiefs” groups compared to only 19% for “always chiefs” groups. In addition, I match the two sets of lists to code whether contemporary chiefs share a surname with colonial-era chiefs from the same community, indicative that the same family has likely held power for decades. Across the 534 rural communities that I can match to colonial-era records, there are three times as many cases in which a family from the early colonial period still occupies the chieftaincy among “invented chiefs” (30%) than “always chiefs” groups (10%).

Second, where single families have not captured control, succession disputes are common, creating opportunities for Ghana’s ruling parties to install partisan chiefs. MacGaffey (2013, 162) describes that partisan interference in chieftaincy has become so common that “litigation and political alliance with the party in power” are now major mechanisms for appointing chiefs. This creates another avenue to capture: many chiefs are popularly known to be “NDC men” or “NPP men,” partisans whose contested claim to power depends on their ties to a specific party. Succession disputes that allow for partisan interference are far more common in “invented chiefs” groups. Awedoba et al. (2009) comprehensively document all active succession disputes in Northern Ghana in the first decade of the 21st century, the same period examined in the analysis of resource distribution below. Among 31 disputes, 68% (21) involved invented chieftaincies, including 5 of the 7 “invented chiefs” groups in Table 1. Awedoba et al. (2009) trace most of these disputes directly to ambiguities left behind by British institution-building.

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11 I first remove all Christian and Muslim name fragments that do not indicate family ties.
12 The only “invented chiefs” groups without documented succession disputes are tiny: the Mo and Namnam, each less than 1% of the northern population.
Both dynamics contrast with groups that have always had chiefs. Drawing on pre-colonial institutions left largely intact, these groups rotate positions among “gates,” or sub-group clans. At any one time the paramount is from one gate, while divisional and village-level chiefs are from others. Rather than allowing for capture by a single family, positions are not hereditary and offices are typically not held for life (Staniland 1975). Instead, chiefs start their careers at the lowest levels and are gradually promoted or rotated to other positions. Among the Dagomba – for whom chieftaincy dates to the 15th century – there are usually multiple candidates, each representing different families, lobbying for each position. Higher-level chiefs consider local preferences when making appointments and ordinary Dagomba have informal veto powers that create avenues for bottom-up accountability; for example, “the people may refuse to allow [a new chief] to occupy the palace if they do not like him” (MacGaffey 2013, 95). Some positions are also set aside for “commoners,” allowing previously non-royal families to enter traditional leadership (Staniland 1975, 26; Awedoba et al. 2009, 205). There are still succession disputes at the highest levels in some of these kingdoms, most notably the Dagomba (MacGaffey 2013). But at lower levels – especially among divisional and village chiefs – power is decentralized across a complex, ever shifting assortment of families.

Afrobarometer surveys show that these differences in institutions are reflected in contemporary perceptions of chiefs’ accountability. Respondents in Northern Ghana from ethnic groups with invented chiefs are less likely to report that their chiefs listen to their concerns than respondents from groups that have always had chiefs (75% “always chiefs” vs. 60% “invented chiefs”, N=183), although this difference is not statistically significant at conventional levels ($p = 0.06$). Respondents from groups with invented chiefs are also 10 percentage points less likely to report trusting

---

13 Similar institutions are documented among the other “always chiefs” groups. For example, the Gonja system for selecting chiefs “allows a person... to rise from being a relative nobody to the paramountcy” (Awedoba et al. 2009, 139). Tonah (2004) documents bottom-up accountability in a Mamprusi community in which residents rejected an unpopular appointment and forced a candidate from another family to be chosen.

14 I introduce the Afrobarometer data below. Question Q54C (Round 4).
their chiefs than respondents from groups that have always had chiefs ($p < 0.01, N=528$).\textsuperscript{15}

Combined with the presence of the “never recognized” groups, these relative differences in accountability allow for two main empirical comparisons. First, by comparing “invented chiefs” and “never recognized” communities, I can examine the resource extraction of community-level brokers who are likely to be unaccountable to their voters versus a reference category of communities that largely lack these brokers. Second, by comparing “invented chiefs” and “always chiefs” communities, I can examine the differential effectiveness of community-level brokers who are relatively more or less accountable. The theory predicts a clear direction for both main comparisons: \textit{communities with colonially-invented chiefs should fare worse at securing state resources.}

The theory is more agnostic about the expected direction of the third possible comparison – between “never recognized” and “always chiefs” communities. While the differences in selection institutions documented here indicate that “always chiefs” communities have less capture than “invented chiefs” communities, chiefs whose positions date to the pre-colonial period are still unelected and bottom-up accountability mechanisms remain informal. It is not clear \textit{ex ante} whether chiefs in “always chiefs” groups will be sufficiently accountable overall that the benefits of collective bargaining through a community-level broker outweigh the risks of rent-seeking.

\section{Data sources}

The analysis employs a series of data sources.\textsuperscript{16} First, I examine bloc voting at the community (village) level using geo-coded polling station results from the 2012 and 2016 presidential elec-

\begin{flushleft}
\footnotesize
\textsuperscript{15}Questions Q49I (Round 4) and Q52K (Round 6). However, respondents from groups with invented chiefs report personally interacting with chiefs during the past year at the same rate as respondents from groups that have always had chiefs (31\% vs. 32\%), indicative of the similar formal roles played by both types of chiefs. Questions Q27B (Round 4) and Q29F (Round 6).
\textsuperscript{16}As described above, I focus on rural areas only. I thus drop Tamale, Bolgatanga, and Wa from all data sources.
\end{flushleft}
As of 2012, polling stations in the rural north had 491 registered voters on average, mostly corresponding to a single community or section of a town. Polling stations are joined with enumeration area-level 2010 census data to calculate demographic characteristics. The census data is a 10% individual-level random sample of each of 3,945 enumeration areas, also mostly corresponding to individual communities. I approximate demographics of each polling station by taking spatially-weighted averages of census characteristics in the vicinity.

Second, I examine individual-level contact with political parties using Afrobarometer data, subsetting to rural respondents in the three northern regions. I rely on the Round 5 (2012; \( N = 424 \) in the north) and Round 6 (2015, \( N = 376 \)) surveys. Both are representative samples of these three regions. I calculate demographic characteristics of the communities in which each respondent resides by linking respondents to their census enumeration areas.

Third, I estimate the contemporary provision of state resources by examining changes in enumeration area-level census data between the 2000 and 2010 censuses. The Ghana Statistical Service used slightly different enumeration area boundaries in each census, even though both were conducted at similar disaggregation. I thus calculate a weighted average of the 2000 data within each 2010 enumeration area boundary, weighting by the proportion of the surface area of each 2000 enumeration area that falls within the 2010 enumeration area.\(^{18}\)

\(^{17}\)2012 results are from the Electoral Commission. 2016 results are from the NPP. Findings are robust to using official data only. Returns are available for 48 of 57 northern parliamentary constituencies for 2012 and all constituencies for 2016. Aggregating where two polling stations share a location, there are 3,556 unique polling station-locations in 2012 and 3,854 in 2016.

\(^{18}\)To account for measurement error from overlap between censuses, I construct a Herfindahl index of the extent to which the surface area of each 2010 enumeration area is concentrated within in a single 2000 enumeration area. I use this as a control below; the results are also robust to dropping matches in the bottom 25th percentile on this index.
6 Chiefs as brokers

I begin with suggestive evidence that chiefs in Northern Ghana serve as brokers. In line with the discussion above, I show that having chiefs predicts vote coordination at the polling station (community) level and that chiefs allow parties to substitute away from direct individual-level mobilization. Each result is strongest for groups with invented chiefs, consistent with chiefs who are less accountable to their followers being more able to compel voters to back a party (Gottlieb 2017). I then turn to the key comparisons of interest in the following section.

6.1 Bloc voting by community

I first examine the clustering of votes in the 2012 and 2016 presidential election by rural polling station, or community. Clustering indicates bloc voting (Conroy-Krutz 2018), a key component of a broker’s ability to engage in an exchange with a party. The outcome is a Herfindahl index of vote shares at each polling station; scaled from 0 to 1, this is the probability that two randomly selected voters supported the same party.

I estimate two sets of OLS models in Table 2. First, to ease interpretation of ecological data, I restrict columns 1 and 2 to communities where the large majority of the population (≥ 75%) is from a single ethnic group. This applies to 74% of stations, indicative of the homogeneity of the large majority of rural communities analyzed in this paper. The predictor in column 1 is an indicator for whether the polling station is dominated by a group that has never had recognized chiefs. Communities with chiefs are the omitted category. Column 2 flips this: the predictors are communities that always had chiefs or have invented chiefs. In columns 3 and 4, I instead examine marginal differences in the population proportion of each type of ethnic group, using the full sample. All models include parliamentary constituency fixed effects.\(^\text{19}\) All models also control

\(^{19}\)Ghana’s parties organize campaign strategies by constituency. This also controls for possible spillover from concurrent parliamentary elections.
Table 2: Voter coordination by polling station, 2012 and 2016 presidential elections

<table>
<thead>
<tr>
<th>Outcome: Herfindahl index of vote coordination by polling station (PS)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>PS of “never recognized” group (0,1)</td>
<td>−0.028†</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(0.012)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PS of “always chief” group (0,1)</td>
<td>0.020†</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(0.011)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PS of “invented chief” group (0,1)</td>
<td>0.051**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(0.017)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pop. % from “never recognized” groups</td>
<td>−0.037**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(0.013)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pop. % from “always chief” groups</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(0.018)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pop. % from “invented chief” groups</td>
<td>0.049*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(0.022)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnic fractionalization</td>
<td>−0.031*</td>
<td>−0.032*</td>
<td>−0.014</td>
<td>−0.011</td>
</tr>
<tr>
<td>(0.016)</td>
<td>(0.015)</td>
<td>(0.010)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electricity access %</td>
<td>−0.045***</td>
<td>−0.042***</td>
<td>−0.046***</td>
<td>−0.040***</td>
</tr>
<tr>
<td>(0.012)</td>
<td>(0.012)</td>
<td>(0.012)</td>
<td>(0.012)</td>
<td></td>
</tr>
<tr>
<td>Secondary education %</td>
<td>0.139</td>
<td>0.149</td>
<td>0.103</td>
<td>0.130†</td>
</tr>
<tr>
<td>(0.101)</td>
<td>(0.098)</td>
<td>(0.077)</td>
<td>(0.070)</td>
<td></td>
</tr>
<tr>
<td>Formal sector employment %</td>
<td>−0.010</td>
<td>−0.011</td>
<td>0.006</td>
<td>−0.002</td>
</tr>
<tr>
<td>(0.051)</td>
<td>(0.051)</td>
<td>(0.048)</td>
<td>(0.045)</td>
<td></td>
</tr>
<tr>
<td>2016 election (0,1)</td>
<td>−0.022**</td>
<td>−0.022**</td>
<td>−0.021**</td>
<td>−0.021**</td>
</tr>
<tr>
<td>(0.008)</td>
<td>(0.008)</td>
<td>(0.007)</td>
<td>(0.007)</td>
<td></td>
</tr>
<tr>
<td>Parliamentary const. fixed effects</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>N</td>
<td>5500</td>
<td>5500</td>
<td>7410</td>
<td>7410</td>
</tr>
<tr>
<td>adj. $R^2$</td>
<td>0.191</td>
<td>0.193</td>
<td>0.192</td>
<td>0.192</td>
</tr>
</tbody>
</table>

† significant at $p < .10$; *$p < .05$; **$p < .01$; ***$p < .001$. All models are OLS, with parliamentary constituency fixed effects. Columns 1 and 2 are restricted to polling stations in which one type of ethnic group makes up 75% or more of the surrounding population. Columns 3 and 4 include all polling stations. Standard errors clustered by the plurality ethnic group at each polling station.

for underlying demographic characteristics that could affect vote coordination. Standard errors are clustered by the plurality ethnic group in each community.

In column 1, I find that communities from ethnic groups that do not have recognized chiefs score 2.8 percentage points ($p = 0.02$) lower on the index of vote clustering than communities dominated by groups with chiefs. Column 2 shows that, by contrast, communities dominated by groups with invented chiefs score 5.1 percentage points higher ($p < 0.01$) than communities of groups without chiefs. This is substantively large: 5.1 percentage points on the Herfindahl index

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20These are: ethnic fractionalization, electricity access, the extent of secondary education, and the proportion with formal or public sector employment. The latter three collectively indicate whether a polling station is situated in a more developed town or a small village.
is equivalent to the difference between a polling station in which the NDC and NPP both received 50% of the vote and a station in which one received 65.9% and the other 34.1%. In addition, column 2 shows that communities of groups that have always had chiefs are also more likely to cluster their votes than those without chiefs, although \( p = 0.08 \). Columns 3-4 show that similar results hold for marginal differences in population proportions in the full sample from the “never recognized” and “invented chiefs” groups.

### 6.2 Party contact and individual-level clientelism

Next, I examine whether ethnic groups that engage in more bloc voting are also less exposed to individual-level contact with parties, indicative that brokerage via traditional leaders substitutes for direct mobilization. The unit of analysis shifts to the individual voter. Table 3 focuses on two outcomes: whether Afrobarometer respondents report being offered gifts for their votes and whether respondents report interactions with party agents.\(^{22}\)

The first is a standard measure of individual-level campaign clientelism (Kramon 2017). The second proxies for connections to party networks – the primary channel through which Ghana’s parties engage in individual-level patronage relationships with voters (Nathan 2019). These are linear probability models (OLS) with standard errors clustered by ethnic group.\(^3\) I include individual- and community-level controls that could also affect campaign attention, including the margin of the previous presidential election in each respondent’s parliamentary constituency to rule out differences between core vs. swing areas.

Colonially-invented chiefs appear to substitute the most for direct campaigning by parties. Col-
Table 3: Party contact by chieftaincy type, Afrobarometer respondents

<table>
<thead>
<tr>
<th>Outcome:</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Campaign gift</td>
<td>Party agent contact</td>
<td>Party agent contact</td>
<td>Party agent contact</td>
</tr>
<tr>
<td>&quot;Never recognized&quot; group (0,1)</td>
<td>0.075*</td>
<td>0.087***</td>
<td>(0.032)</td>
<td>(0.022)</td>
</tr>
<tr>
<td>&quot;Always chief&quot; group (0,1)</td>
<td>0.016</td>
<td>0.101***</td>
<td>(0.014)</td>
<td>(0.021)</td>
</tr>
<tr>
<td>Same group as local Traditional Area (0,1)</td>
<td></td>
<td></td>
<td></td>
<td>−0.054*** (0.016)</td>
</tr>
<tr>
<td>Distance (km) to Closest Major Chieftaincy</td>
<td></td>
<td></td>
<td></td>
<td>0.003* (0.001)</td>
</tr>
<tr>
<td>Age (years)</td>
<td>−0.010</td>
<td>0.000</td>
<td>0.001</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>(0.006)</td>
<td>(0.006)</td>
<td>(0.006)</td>
<td>(0.006)</td>
</tr>
<tr>
<td>Age * Age</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>(0.000)</td>
<td>(0.000)</td>
<td>(0.000)</td>
<td>(0.000)</td>
</tr>
<tr>
<td>Female (0,1)</td>
<td>−0.001</td>
<td>−0.101***</td>
<td>−0.102***</td>
<td>−0.101***</td>
</tr>
<tr>
<td></td>
<td>(0.020)</td>
<td>(0.021)</td>
<td>(0.021)</td>
<td>(0.021)</td>
</tr>
<tr>
<td>Secondary education (0,1)</td>
<td>−0.033</td>
<td>−0.019</td>
<td>−0.024</td>
<td>−0.017</td>
</tr>
<tr>
<td></td>
<td>(0.035)</td>
<td>(0.022)</td>
<td>(0.021)</td>
<td>(0.022)</td>
</tr>
<tr>
<td>Assets index</td>
<td>0.032</td>
<td>0.069***</td>
<td>0.072***</td>
<td>0.072***</td>
</tr>
<tr>
<td></td>
<td>(0.017)</td>
<td>(0.016)</td>
<td>(0.017)</td>
<td>(0.017)</td>
</tr>
<tr>
<td>Community electricity access %</td>
<td>−0.037</td>
<td>0.051</td>
<td>0.065</td>
<td>0.070</td>
</tr>
<tr>
<td></td>
<td>(0.037)</td>
<td>(0.065)</td>
<td>(0.069)</td>
<td>(0.063)</td>
</tr>
<tr>
<td>Community secondary education %</td>
<td>0.046</td>
<td>−0.547*</td>
<td>−0.654*</td>
<td>−0.702**</td>
</tr>
<tr>
<td></td>
<td>(0.149)</td>
<td>(0.264)</td>
<td>(0.286)</td>
<td>(0.265)</td>
</tr>
<tr>
<td>Community formal sector employ. %</td>
<td>−0.245</td>
<td>0.190</td>
<td>0.128</td>
<td>0.275</td>
</tr>
<tr>
<td></td>
<td>(0.232)</td>
<td>(0.385)</td>
<td>(0.387)</td>
<td>(0.399)</td>
</tr>
<tr>
<td>ln(Community population)</td>
<td>0.004</td>
<td>0.001</td>
<td>0.009</td>
<td>0.012</td>
</tr>
<tr>
<td></td>
<td>(0.009)</td>
<td>(0.015)</td>
<td>(0.016)</td>
<td>(0.015)</td>
</tr>
<tr>
<td>Margin of previous presidential election (parl. constituency level)</td>
<td>0.095</td>
<td>0.010</td>
<td>−0.068</td>
<td>−0.028</td>
</tr>
<tr>
<td></td>
<td>(0.080)</td>
<td>(0.084)</td>
<td>(0.093)</td>
<td>(0.084)</td>
</tr>
<tr>
<td>Afrobarometer round 6 (0,1)</td>
<td>0.087**</td>
<td>0.100***</td>
<td>0.088**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.024)</td>
<td>(0.026)</td>
<td>(0.027)</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>0.181</td>
<td>0.037</td>
<td>0.095</td>
<td>0.088</td>
</tr>
<tr>
<td></td>
<td>(0.117)</td>
<td>(0.161)</td>
<td>(0.173)</td>
<td>(0.164)</td>
</tr>
<tr>
<td>N</td>
<td>379</td>
<td>664</td>
<td>664</td>
<td>664</td>
</tr>
<tr>
<td>Mean of the outcome variable</td>
<td>0.061</td>
<td>0.149</td>
<td>0.149</td>
<td>0.149</td>
</tr>
<tr>
<td>Afrobarometer survey clusters</td>
<td>49</td>
<td>90</td>
<td>90</td>
<td>90</td>
</tr>
<tr>
<td>Afrobarometer round(s)</td>
<td>R5</td>
<td>R5, R6</td>
<td>R5, R6</td>
<td>R5, R6</td>
</tr>
</tbody>
</table>

1 significant at $p < .10$; *$p < .05$; **$p < .01$; ***$p < .001$. OLS coefficients with robust standard errors clustered by ethnic group. To ease interpretation, I drop the small minority of respondents living in the north who are from southern ethnic groups.

Column 1 of Table 3 shows that respondents from “never recognized” groups are 7.5 percentage points ($p = 0.02$) more likely to receive direct offers of vote buying than respondents from groups with invented chiefs (the omitted category). Column 2 shows that respondents from “never recognized” groups are 8.7 percentage points ($p < 0.001$) more likely to have contact with party organizations. This more than doubles the baseline level of contact (8.2%) in groups with invented chiefs. Column 2 also shows significantly greater partisan contact for respondents from the “always chiefs” groups.
compared to those with invented chiefs. This is consistent the result above: groups that have always had chiefs both coordinate their votes to a lesser degree and receive more direct mobilization.

Column 3 introduces an indicator for whether a respondent is from the same ethnic group as their Traditional Area (Figure 1). Respondents of the same ethnicity as the recognized local chiefs – and thus those most likely to have social ties to these chiefs – are 5.4 percentage points ($p = 0.001$) less likely to have contact with party agents. Column 4 finds that contact with party agents increases in distance from the seat of a powerful paramount or divisional chief. A respondent 20km further away from a community where a major chief sits is 6.0 percentage points ($p = 0.01$) more likely to have contact with party agents.

7 Goods distribution

I now turn to the key estimates of interest: whether the brokerage role of chiefs benefits voters. For each of the two main comparisons outlined above – “invented chiefs” vs. “never recognized,” “invented chiefs” vs. “always chiefs” – I find that communities of groups with invented chiefs benefit less from the contemporary distribution of state resources. I begin with descriptive analyses of these comparisons and rule out alternative explanations. I then explore exogenous variation that provides a better-identified examination of the comparison between the “invented chiefs” and “never recognized” communities.

The unit of analysis shifts back to the community, now proxied by census enumeration area.24 I examine five measures of state resource distribution: (i) the percentage of residents with electricity, one of the main local public goods distributed as government patronage in Northern Ghana (Briggs 2012); (ii) the percentage of adults with some secondary education, indicative of both government provision of secondary schools, scarce in the north, and provision of scholarships, a

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24Enumeration areas in the data contain 978 people on average.
common private patronage good; (iii) the percentage with access to piped water; (iv) the percentage with public employment, which is highly valued; and (v) whether each enumeration area was included in one of the new administrative districts created between 2000 and 2010.\footnote{The number of districts went from 24 to 50 in the north between 2000 and 2010. I code any enumeration area as being in a “new” district if its original district was split.} Because they divide local government resources over a smaller group of people, new districts direct a bundle of valuable patronage to recipient communities (Grossman and Lewis 2014, Hassan 2016). Overall, I focus on resources that can only be provided by the state to isolate provision of resources by politicians from the ability of communities to self-provide or co-produce their own smaller-scale resources, as examined instead in Baldwin (2015, 2018).\footnote{Public sector jobs and new districts are out of the control of local communities. Expansions to electricity and piped water, as well as construction of new secondary schools (as opposed to primary school classrooms, as in Baldwin), are very capital intensive, requiring state involvement.} I include multiple resources to avoid over-interpreting patterns for any specific good (Kramon and Posner 2013).

I examine contemporary flows of resources to capture the ability of communities to extract state benefits amidst democratic elections. There are long-run inequities in present day levels, or stocks, of these resources. Because colonial policy empowered chiefs, both sets of groups with chiefs – the “always chiefs” and “invented chiefs” groups – received more initial state investments than the “never recognized” communities. These patterns continued under Ghana’s post-independence authoritarian governments.\footnote{Post-independence leaders worked through pre-existing Northern elites and did not need votes from the “never recognized” communities (Ladouceur 1979, Boone 2003).} The result is that both sets of groups with chiefs had greater stocks of resources entering the contemporary democratic period for reasons unrelated to chiefs’ ability to serve as electoral brokers. I focus instead on modern flows by examining the 2010 level of each resource controlling for the 2000 level, to isolate changes in resource provision that happened within a period when chiefs could serve as electoral brokers.\footnote{Some variation in baseline stocks in each community may have occurred during democratic competition between 1992-2000. But because I do not have census data at the community level from 1992, it is impossible to partial out resources delivered between 1992 and 2000 from resources delivered prior to democratization.} These analyses thus explicitly
compare communities with the *same historically-accumulated level* of each resource, such that aggregate differences in initial levels across groups cannot account for the results.

I address several potential concerns with using changes on the census as a measure of state distribution. First, in addition to the fact that I control for the 2000 level of each resource in each community, there is little risk of ceiling effects: despite baseline inequities, all groups are poor and have significant need for each resource. Second, differences between the separate comparisons of “invented chiefs” vs. “never recognized” communities and “always chiefs” vs. “never recognized” communities clearly rule out that the results could be due to a simple “catch up” effect, in which ethnic groups that have lower initial stocks on average in 2000 receive more between 2000-2010 because of greater need. Third, all results are robust to controlling for changes in total population and are not artefacts of differential population growth. Fourth, where appropriate, the results are robust to examining dichotomous shifts in access – i.e., whether a community has any electricity or not – not just percentage changes in levels (see SI).

### 7.1 Descriptive analysis of distribution

Figure 3 presents coefficients from OLS regressions. The outcomes for the first four pairs of plots are the 2010 level of each variable, controlling for the 2000 level in the same community. The outcome in the final pair is an indicator for an enumeration area being included in a new district between 2000 and 2010. Column (a) of Figure 3 restricts as above to homogeneous communities, while column (b) examines marginal differences in group population shares over the full set of communities. The explanatory variable for each estimate is a measure of the population from each type of ethnic group, with the other two as the omitted categories.

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29 Both the “invented chiefs” and “always chiefs” communities have greater stocks of each resource on average in 2000 than the “never recognized” communities. But while I find more contemporary flows to “never recognized” communities than “invented chiefs” communities, there are no clear differences between “never recognized” vs. “always chiefs” communities.
Figure 3: Distribution between 2000 and 2010, by group type: OLS coefficients with 95% confidence intervals. The other two group types are omitted categories for each estimate. Coefficients are not standardized – the range on the x-axis varies with the range of each outcome.
To account for variation in the marginal cost of extending services, I control for the distance to the nearest electrified or piped enumeration area as of 2000 in the analyses for electrification and running water, and the 2000 rate of completed middle school education in the analyses of secondary school access. To account for partisan favoritism, I control for 2000 NDC vote share by parliamentary constituency. To account for community wealth, I control for each community’s level of development as of 2000, measured as electrification and formal sector employment. Other controls include: community size (logged 2000 population); each community’s distance to its district capital (the largest town in the area) as of 2000; the index of the overlap between the census maps; and each community’s distance to the hometown of its MP\(^{30}\).

The first four pairs of plots in Figure 3 include fixed effects for the 2000 district of each community, to examine distribution within districts. Districts receive set formula-based allocations of funds from the national government, which are then allocated within districts by local officials of the national ruling party (Banful 2011, Williams 2017). Most opportunities for political targeting of local public goods and public patronage jobs are thus within district (Nathan 2019)\(^{31}\). Traditional Areas and administrative districts do not overlap, such that most districts contain a mix of groups with different types of chieftaincy (see SI). I instead include region fixed effects for the final outcome, as the government assigned the number of new districts to each region proportional to population and then made within-region decisions about boundaries. Standard errors for the first four outcome variables are clustered by the community’s plurality ethnic group\(^{32}\).

The key result in both columns of Figure 3 is that communities with larger populations from groups with invented chiefs do significantly worse in contemporary access to each type of resource.

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\(^{30}\)This measures the average distance to the hometown of each MP, weighted by years in office.

\(^{31}\)The main possible exception is electricity; some electrification projects are instead decided nationally by the electrical utility. Results for electricity are robust to dropping the fixed effects.

\(^{32}\)A large literature establishes that new districts in Africa, including in Ghana, are often targeted as patronage to specific spatially-clustered ethnic groups (e.g., Grossman and Lewis 2014, Hassan 2016). I do not cluster errors by ethnic group when the outcome is new district, because new districts are largely targeted at the ethnic group level, with limited within-cluster variation in the outcome.
These disadvantages are large: the typical community dominated by an ethnic group with invented chiefs saw a 7.9 percentage point smaller increase ($p = 0.046$) in the percentage of its residents with access to electricity, and was 15.2 percentage points less likely to be included in a new district ($p < 0.001$), than a community dominated by one of the other two types of groups.

Figure 4 provides head-to-head comparisons. The top two panels correspond directly to the main comparisons of interest outlined in Section 4 above. The top panel repeats the models in column (b) of Figure 3 after dropping all communities with majority populations from the “always chiefs” groups to isolate a comparison of communities with invented chiefs and those that never have had chiefs. The middle panel instead drops communities with majority populations from the “never recognized” groups to compare groups with invented chiefs and those that always have had chiefs. Consistent with expectations, both panels show that communities with larger populations from “invented chief” groups were significantly disadvantaged in access to each resource.

By contrast, there is no consistent pattern in the third head-to-head comparison in the bottom panel of Figure 4, comparing communities dominated by groups that have always had chiefs and have never had recognized chiefs. “Never recognized” communities receive less electricity than “always chiefs” communities, but are more likely to be included in new districts. There are no differences for the other outcomes.

### 7.2 Alternative explanations for the descriptive results

I rule out five alternative explanations for these results. First, this is not simply the incumbent (2001-2008) NPP government directing resources away from NDC supporters. “Invented chiefs” groups are not homogeneously pro-NDC and all models above already control for NDC vote share at the parliamentary constituency level and are robust to controlling for constituency-level competitiveness. I cannot measure community-level partisanship in the same time window as the census.

\[\text{33 All controls variables, fixed effects, and standard errors remain as in Figure 3.}\]
Figure 4: Distribution between 2000 and 2010, head-to-head comparisons: OLS coefficients with 95% confidence intervals. Coefficients are not standardized – the range on the x-axis varies with the range of each outcome.
data because polling station results are not available before 2012. But I use the 2012 and 2016 results to identify communities most likely to have been core NDC strongholds across time as enumeration areas containing polling stations with NDC vote share above the 75th percentile across both elections. All results hold when dropping these most consistent NDC strongholds (see SI). This test is imperfect; 2012 and 2016 voting could be outcomes of past distribution. But to the extent that partisan alignment is stable over time, this suggests that the results hold when subsetting to swing and pro-government (NPP) communities.

Second, access to the state through other channels could explain resource access. As a legacy of their historical dominance, groups that have always had chiefs are more educated, have the greatest representation in the civil service, and had a co-ethnic as Vice President during this period. But the main differences persist even when dropping communities dominated by the ethnic groups of these Vice Presidents. Moreover, the overrepresentation of the “always chief” groups in the state cannot account for the differences in the top panel of Figure 4; groups with invented chiefs are also significantly better educated than and have more than double the civil service representation of the “never recognized” groups, yet received fewer state resources.

Third, even though I restrict to state-provided resources, there could be concern that these differences are still an outcome of each group’s propensity for self-provision via collective action. I measure differences in collective action through Afrobarometer questions on how often respondents come together with their community to solve problems. In the opposite of what would need to hold if this alternative were true, groups with invented chiefs are most likely to act collectively, even as they receive the fewest state resources (see SI). Moreover, I conduct placebo tests for access to less capital-intensive goods that can be produced by communities on their own, without state involvement: boreholes, which Baldwin (2015) identifies as a resource that local rural communities can produce themselves, and whether household trash is collected, a low-cost activity some

\[34\] The NPP Vice President from 2001-2008 was Dagomba. The NDC Vice President from 2009-2012 was Gonja.

\[35\] Boreholes could of course also be provided by local politicians (Ejdemyr et al. 2018). But unlike the resources
communities coordinate on their own. Communities dominated by groups with invented chiefs are not disadvantaged in boreholes or trash collection (see SI), consistent with the results above being distinct from self-provision. It also is not credible that “invented chiefs” groups extract fewer resources because chieftaincy succession disputes leave them internally divided: this is inconsistent with the Afrobarometer result for collective action and with the finding that these groups cluster their votes the most.

Fourth, the observed disadvantages of communities populated by “invented chiefs” groups are robust to controlling for indicators of other cultural differences: religion (Islam), patrilineal versus other types of inheritance systems, a cultural attribute shown to predict political behavior (Gottlieb and Robinson 2017), and whether groups traditionally live in compact villages or scattered homesteads (Murdock 1967), likely correlated with elements of social structure (see SI). The results are also robust to sequentially dropping communities dominated by each individual ethnic group, such that no particular cultural or other feature of a specific group is driving the results (see SI).

Fifth, I rule out the effects of Northern Ghana’s sporadic, localized ethnic conflicts, using geo-located conflict event data from ACLED (2016) (see SI).

7.3 Instrumenting for invention: the annexation of German Togoland

There may still be unobserved differences between communities with different histories of chieftaincy, however. The pre-WWI Anglo-German border creates plausibly exogenous variation in the colonial invention of chieftaincy that helps overcome these inferential challenges for the comparison of the “invented chiefs” and “never recognized” groups – the key comparison of interest for identifying whether unaccountable brokers limit voters’ ability to secure state resources.

It is not a coincidence that most communities inhabited by groups without recognized chiefs are on what was once the German side of the border between Togoland and the British Northern

above, digging a borehole does not require major state investment.
Territories of the Gold Coast (see Figure 2). The British began inventing chiefs among acephalous
groups in the Northern Territories as early as 1902 (Ladouceur 1979, Lentz 2006). The Germans
engaged in no similar practices in Togoland (Talton 2010; 37-38). At the onset of WWI, the
British and French expelled the Germans and jointly occupied Togoland, with the colony’s western
third coming under British control. Most of British-occupied Togoland was governed separately
until 1923 (Staniland 1975) and the exact border between the new British and French occupied
territories remained ambiguous through multiple negotiations until 1930 (Bening 1983). During
this period, it remained unclear how many people from – and which – new ethnic groups would
ultimately come under British control.

After the war, British officials had decided that the easiest interim means to administer To-
goland was extending the jurisdictions of the chiefs with whom they were already working out-
wards to the cover the new territory, rather than creating new chieftaincies in new areas with an
uncertain boundary (Bening 1983, Bening 2010, Talton 2010). By the time administrators from the
Northern Territories took full control over the occupied territory, they had been governing through
chiefs on their side of the border for decades and were preparing to formalize indirect rule by de-
volving more administrative duties to Native Authorities. At this point, there appeared to be little
interest in starting over with new chiefs among new ethnic groups. While almost all pre-colonially
acephalous groups living on the British side had already seen the initial invention of chiefs prior to
WWI, no groups on the German side ever experienced the colonial invention of chieftaincy.

36 A small section around Yendi was quickly annexed during the war, however, to reunite the Dagomba paramount (at
Yendi) with most of the Dagomba population, on the British side (Bening 2010; 106).
37 A transition to full indirect rule was announced in 1928 and implemented in 1932 (Ladouceur 1979).
38 The only acephalous groups on the British side to not have chiefs invented were those with very tiny populations:
the Mo, who straddled the southern border with Gold Coast, the nomadic Fulani, the Vagala, and groups such as the
Templensi and Birifor that are so small that the census does not even give them their own category.
39 The British did carve out a small Native Authority for the Nanumba, an “always chiefs” group closely tied to the
Dagomba (already recognized on the British side). Nanumba chiefs had been formally recognized via a treaty signed
with British emissaries in the mid-1890s, prior to the drawing of the border (Ladouceur 1979, Bening 2010). I drop
all Nanumba-majority communities below.
Crucially, assignment to initial British rule relative to assignment to initial German rule appears unrelated to groups’ pre-existing characteristics. Similar claims of exogeneity from colonial African borders are common, and contested (McCauley and Posner 2015). But such an assumption is especially plausible here. Much of the Anglo-German border was drawn in 1886 prior to either colonial power having detailed information about local populations (Hertslet 1967[1908]). The final border was settled in 1899 – still prior to the formal onset of colonial rule – as a side concession in Anglo-German negotiations over the unrelated Pacific island of Samoa (Kennedy 1974). This final demarcation largely followed a small river (the Daka) and did not appear to take demographics into account, splitting up existing ethnic communities, including the area’s most powerful pre-colonial kingdom, the Dagomba. Geographically, the Northern Territories and northern Togoland were largely similar and had shared a pre-colonial economy. In addition, there are fewer concerns relative to other borders that the Anglo-German border represents a complex bundle of treatments accumulated over the entire subsequent historical experiences on each side (McCauley and Posner 2015). The border was only in effect for a 15-year window, at the outset of colonial rule when colonial footprints on each side remained small. Afterwards, both sides were exposed to the same subsequent history of British and then Ghanaian rule.

In Figure 5, I leverage this exogeneity to repeat the analysis for the comparison of the “invented chiefs” and “never recognized” groups in Figure 4 above, again dropping all communities with majority “always chief” populations. Figure 5 contains the same OLS estimates from above for the coefficients on the proportion of the population in each enumeration area from an “invented chiefs” group. It then compares these estimates to coefficients from (a) a new analysis that instruments for each community’s population proportion from “invented chiefs” ethnic groups using two-stage least squares (2SLS) and (b) reduced form (“intent-to-treat”) models, which are OLS regressions of each outcome on the instrument. The analysis remains at the community level with district fixed effects and includes the same controls as above, although because the controls are all “post-treatment” I also show that the results are robust to excluding them (see SI). Standard errors remain
Figure 5: Comparison of OLS, 2SLS, and reduced form estimates for head-to-head comparison of “invented chiefs” and “never recognized” groups, with 95% confidence intervals.

clustered as in Figures 3 and 4.

The treatment in the 2SLS models is each community’s population share from ethnic groups with invented chiefs. The instrument is the community’s population share from ethnic groups that had both (a) been pre-colonially acephalous and (b) initially lived entirely on the British side of the Anglo-German border. Given that the British invented chiefs among almost all pre-colonially acephalous groups on their side of the border and none on the other side, the first stage relationship between this instrument and the treatment is very strong (see SI). The 2SLS models estimate a Local Average Treatment Effect (LATE) among “compliers”, which in this case are communities that have larger populations from “invented chiefs” groups because they have larger populations from ethnic groups that were once acephalous and had initially lived on the British side of the pre-

40Sources used for classifying groups relative to the border are in the SI. The SI also describes the process for coding pre-colonial centralization of each group, which combined Murdock (1967) with other sources.
The reduced form estimates instead provide an overall comparison of pre-colonially acephalous ethnic groups that initially lived on each side of the pre-1914 Anglo-German border.

I focus both the 2SLS and reduced form analyses on the comparison of “invented chiefs” and “never recognized” communities only. The endogenous selection of “always chiefs” groups into chieftaincy in the pre-colonial period means both new estimates in Figure 5 do not have validity to all ethnic groups; they are only estimated among groups that were not powerful pre-colonial kingdoms, and the effects of chieftaincy may be different among those that were.

Nonetheless, using the pre-1914 border provides better empirical leverage on the assignment of chieftaincy – and by extension, community-level brokers – than previously possible, even if only among this subset of groups. This analysis also matches the first of the two main comparisons in Section 4.

Figure 5 confirms the descriptive result from above: communities with larger populations from groups with invented chiefs are disadvantaged in the contemporary distribution of all five types of resources relative to communities populated by groups that lack traditional leaders who could serve as brokers. This is consistent with invented chiefs reducing the benefits voters can extract from politicians relative to not having chiefs. All estimated effects are similar across the OLS, 2SLS, and reduced form models, although some estimates for water are no longer significant at the conventional level.

There may be several concerns with using this border as an instrumental variable. First, while it would not have been possible to anticipate the Anglo-German boundary and strategically sort prior to 1899, groups might have migrated into (out of) treatment between 1899 and 1914 (McCauley and Posner 2015). But there is no discussion in historical accounts of large population shifts.

The instrument also satisfies the “monotonicity” assumption. The only possible “defiers” (Angrist et al. 1996) – communities with small populations from historically acephalous groups that had lived entirely on the British side but large populations from “invented chiefs” groups – would be Kusasi communities. The Kusasi had chiefs invented on the British side, but their settlements straddled the Anglo-German border. All 2SLS results are robust to dropping Kusasi-majority communities.

Indeed, the theory expects different effects of chieftaincy among the “always chiefs” groups than among “invented chiefs” groups.
between 1899 and 1914. There is discussion of migration much later in the 20th century, with members of “never recognized” groups gradually moving west in search of land (Talton 2010). But cross-border migrations after the annexation of Togoland are not a threat; colonial invention had already finished being assigned. Indeed, later migration is why I do not employ the border as a regression discontinuity, comparing one side directly to the other. I instead compare communities within districts throughout the north whose populations had historically lived on different sides.

The second concern is a violation of the “exclusion restriction”: another reason that a larger population from an acephalous group that had lived on the British side pre-WWI explains present-day differences in resource provision. While untestable (Sovey and Green 2011), reasoning through this assumption suggests that the instrument is unlikely to impact the outcomes except via the invention of chieftaincy. Figure 5 is robust to including the additional controls from the discussion of alternative arguments above, casting doubt on violations related to partisanship, state connections, self-provision, culture, or violence. Moreover, the models for electricity, running water, and secondary school already control for differences in the marginal cost of providing more of each respective resource. Figure 5 also cannot be explained by differences in geography of communities populated by different ethnic groups; the results are robust to controlling for highly-localized measures of rainfall, soil quality, and slope (ruggedness) from FAO (2012) (see SI). Most importantly, the 2SLS models all control for the historically-accumulated levels of each resource as of 2000. For these estimates to be valid, the exclusion restriction only must hold once conditioning on 2000 levels. Any remaining exclusion restriction violation would have to influence the 2010 levels of resources independently from the 2000 stocks in each community.

It is not clear what such a violation would be. One possibility is if the Germans created other institutions that also persisted among groups initially living in Togoland. But German rule was brief and low intensity. Talton (2010; 38) writes, for example, that “there was little interaction overall between the Konkomba [the largest group on the German side] and their German administrators” prior to WWI. Historical accounts of the areas of Northern Togoland that later joined Ghana include
no discussion of major social disruptions from Germany’s brief control (Tait 1961, Staniland 1975). Another possibility is that the British created other institutions prior to WWI that also affect contemporary resource provision among “invented chiefs” groups. But the entire reason the British invented chiefs was because they were seeking to govern on the cheap through local elites to keep colonial staffing and activity as limited as possible. Other institution building was sharply constrained in the years before WWI, with “only the feeblest of efforts... made to promote... economic development” in what the British saw as a valueless and burdensome hinterland (Ladouceur 1979, 44). As a result, the British invention of chieftaincy represented by far the most important institutional shift on either side of the border during the first decade-and-a-half of the 20th century.

8 Conclusion

Clientelism is usually assumed to be bad for voters (Hicken 2011). Indeed, some clientelistic brokers appear unambiguously pernicious: intermediaries such as early-20th century Chilean landlords (Baland and Robinson 2008) or monopsonist Russian employers (Frye et al. 2014) clearly take advantage of the power they wield, amassing private rents while forcing voters to falsify their electoral preferences. But other scholars find that voters can instead be genuinely grateful to brokers, happy with and voluntarily loyal to electoral intermediaries who provide a lifeline to valuable state resources (Auyero 2000, Zarazaga 2014).

While this paper only examines brokerage in the context of traditional chieftaincy, the findings have broader implications for explaining what separates these voter experiences. The limitations of “invented chiefs” communities to extract state resources relative to the other two sets of ethnic groups in Northern Ghana suggest that how much brokers help or harm voters is tied to brokers’ accountability to their clients. Where brokers wield community-wide authority but are largely insulated from bottom-up pressure – the situation I describe facing many rural Northern Ghanaians with colonially-invented chiefs – negative forms of clientelism become more possible, at worst
even the more extreme forms of capture shown by Baland and Robinson (2008). But this should not occur where clients exert real pressure on brokers. Scholars of Argentinian clientelism, for example, describe that many voters can instead easily defect from one broker to another if their current intermediary stops delivering, forcing brokers to help voters or lose influence (Auyero 2000, Zarazaga 2014). Ultimately, scholars must more fully incorporate differences across types of brokers into existing theories to better explain how clientelism affects voters.

More indirectly, my findings also suggest that there may be theoretically important variation—both within and across cases—in other important dynamics of brokered politics not examined here, such as how intermediaries exercise influence over voters or how they are cultivated by politicians. Studies examining these other aspects of clientelism in a diverse range of cases—from Senegal (Gottlieb 2017), to Yemen and Lebanon (Corstange 2016), to India and Pakistan (Auerbach 2016, Shami 2017)—echo the patterns in Northern Ghana, suggesting that these key features of clientelism will also vary with brokers’ accountability relationships with their own clients. Future research exploring this variation can expand our understanding of patronage-based politics in the developing world.
References


