

Does Ethnic Inequality Promote Ethnic Voting?

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Abstract

Does ethnic inequality promote ethnic voting? This paper argues that inequality between ethnic groups increases ethnic voting but only when within group inequality is low. Between-group inequality (BGI) increases ethnic voting by creating clear demarcations between members of different ethnic groups. The effect of BGI, however, weakens as within-group inequality (WGI) increases because the latter reduces groups' cohesion. We support our hypothesis using both qualitative and quantitative evidence. First, we present comparative qualitative evidence from Canada, South Africa, Nigeria, Senegal, and Mozambique. Second, we test the relationship statistically using group-level data on over 200 ethnic groups from 65 countries. We find strong support for our hypothesis: among ethnic groups with low WGI, BGI increases ethnic voting; but among those with high WGI, BGI has no discernable effect.

1. Introduction

Across four general elections since the end of Apartheid, the African National Congress (ANC) has won overwhelming majorities, reflecting its dominance of the black vote. While the ANC typically wins around 80 percent of the black vote, the Democratic Alliance (DA) and its predecessors, have won at least the same proportion of the white vote. South Africa's elections have thus been described as a 'racial census' in which the black majority has an unassailable position (Horowitz, 1985). In such cases it is easy to imagine that voting according to one's ethnicity reflects the primacy of deeply held racial identities, with relatively stable elections over time suggesting the logic of an 'ethnic head count' (Chandra, 2004; Harmel & Robertson, 1985; Posner, 2004). However, even a cursory look at the evidence reveals that ethnicity is politically salient only under certain circumstances (Basedau, Erdmann, Lay, & Stroh, 2011; Basedau & Stroh, 2012; Bratton, Bhavnani, & Chen, 2012; Hoffman & Long, 2013).

In this paper, we posit that ethnic voting, which refers to the degree to which individuals from different ethnic groups support distinct parties, is influenced by how ethnicity interacts with other cleavages. We argue that ethnic voting is particularly elevated when ethnicity and inequality reinforce one another. More specially, we claim that between-ethnic group inequality (BGI) increases ethnic voting and, in a departure from prior research, that its effect strengthens when within-ethnic group inequality (WGI) is low. We argue that two mechanisms drive the relationship (Carlson, 2015; Houle, 2015; Huber & Suryanarayan, 2016; Lindberg, 2013). First, BGI increases the difference between the preferences over economic policies of members of different ethnic groups. At the same time, a low WGI homogenizes the preferences of members of the same groups. Therefore, when BGI is high and WGI is low – and so ethnicity and class affiliations reinforce one another – people from the same ethnic groups are likely to share similar

preferences over economic policies and to vote for the same parties. Second, as suggested by the classical literature on reinforcing and cross-cutting cleavages, an individual's loyalty toward other members of his/her group along one cleavage, such as ethnicity, is likely to be stronger when they share membership in the same group along other cleavages, such as class affiliations (e.g., Lipset, 1960; Bates, 1974). When BGI is high and WGI is low, people from the same ethnic groups are likely to feel closer to one another, identify more strongly with coethnics, and are therefore more likely to vote along ethnic lines (Frymer, 1999). These affective bonds facilitate the mobilization of coethnics by political entrepreneurs.

Empirically, we first examine several cases that illustrate how these mechanisms operate. We choose both typical and diverse cases, which allow us to employ the logic of most different and most similar comparative case analysis (Seawright & Gerring, 2008). We look at the relationship between BGI, WGI, and ethnic voting in three typical cases: Canada, South Africa, and Nigeria. In each case, BGI is high while WGI is relatively low, and in each case ethnic voting is highly prevalent. Moreover, as these cases vary in terms of other factors including the level of development and electoral institutions, we can probe the validity of our hypothesized causal mechanism in diverse political economic contexts through a most different design. We also examine the examples of Senegal and Mozambique. While these cases share many commonalities with those of South Africa and Nigeria, ethnic voting is largely absent. Using the logic of most similar comparative case analysis, these results put into question the applicability of a number of alternative explanations while providing support for our proposed model. Senegal has low levels of inequality both between and within ethnic groups, such that ethnic and class cleavages do not reinforce one another. Mozambique differs from Senegal in that although BGI

is high, WGI is also high, which suggests that ethnic voting is reduced where ethnic groups do not share economic interests, even if other factors favor the politicization of ethnicity.

Next, we use survey data from the Afrobarometer, Latinobarometer, World Value Survey (WVS) and Comparative Study of Electoral Systems (CSES), to develop group-level indicators of ethnic voting as well as BGI and WGI. Our dataset contains over 600 ethnic group-survey year observations and covers 208 ethnic groups from 65 countries between 1995 and 2014. We show that ethnic groups that are either much poorer or much richer than other ethnic groups of their countries are more likely to vote along ethnic lines. However, consistent with our hypothesis, the effect of between group inequality is weaker among groups that have high levels of within-group inequality. This paper provides the first cross-national test of whether inequality between ethnic groups increases ethnic voting, and whether its effect is conditional on inequality within ethnic groups.¹ It is also the first cross-national test that uses the ethnic group as its unit-of-analysis.² This focus is important because the argument that ethnic inequality fosters ethnic voting is primarily about how the economic situation of a given ethnic group affects the voting behavior of *that* particular group rather than of all groups in a country.

2. Ethnic Voting

Ethnicity is a subset of identity categories in which membership is determined by attributes associated with, or believed to be associated with, descent (Chandra, 2006). Party systems around the world vary greatly in their level of ethnicization. Ethnicization refers to the degree to which parties have a strong ethnic basis of support. Parties may self-identify as ethnic (Elischer, 2013), as do the *Dravida Munnetra Kazhagam (DMK)*, a Tamil party in South India, or the *Euzko Alderdi Jeltzalea (EAJ)*, the party of the Basque nationalists in Spain. However, self-

identification is not necessary for *ethnic voting* to occur. For example, in the United States, an overwhelming majority of African Americans support the Democratic Party, even though the latter could not be labeled an ‘ethnic party’ (Dawson, 1994). Ethnic voting is low if members of an ethnic group vote the same way as all other ethnic groups in a country, and high if they vote differently from them.

The literature on ethnic voting is too vast to be fully summarized here. We thus take as our starting point the position that ethnicity requires activation or politicization (Eifert, Miguel, & Posner, 2010, Miguel, 2004, Posner, 2003, Reilly, 2001), and focus our brief review on recent research that interrogates the conditions under which ethnicity becomes a salient political cleavage. First, ethnic voting may be more likely where information about candidates is poor and where personal access to state resources, i.e. patronage, is an important source of well-being (e.g., see Bratton, 2008; Chandra, 2004; Conroy-Krutz, 2013; Kolev & Wang, 2010; Posner, 2004). That is, ethnicity offers an informational shortcut to voters about which candidate is more likely to provide them with patronage if elected (e.g., see Franck & Rainer, 2012; Ichino & Nathan, 2013; Kudamatsu, 2009). However, Lindberg and Morrison (2008) and Lindberg (2013) find that even in low and middle income states where clientelism is common, ethnic voting may be partly driven by divergent preferences over redistribution.

Second, political institutions and the nature of political competition may also affect ethnicization. Van Cott (2003) finds that while a permissive institutional environment including proportional representation (PR), decentralization, and minority reservations, may be necessary conditions for the emergence of ethnic parties in the Latin American context, they are not sufficient. More recently, Huber (2012) has instead shown that ethnic voting is more common under majoritarian rather than PR systems. Eifert et al. (2010) show that ethnic voting is most

pronounced when elections are highly competitive, while Higashijima and Nakai (2016) demonstrate that people are more likely to identify with their ethnicity in periods of elections, and that mobilization by one ethnic group in a country encourages other ethnic groups to also mobilize.

Third, and most closely related to the approach taken in this paper, is recent research which suggests that ethnicity may be more salient when it overlaps with other social cleavages.³ For example, on a cross-national sample, Davidson (2014) finds that ethnic voting is attenuated by the presence of cross-cutting cleavages, specifically religion, while Ishiyama (2012) finds that ethnic voting in Africa is more common where ethnic groups are geographically concentrated. Conversely, as Dunning and Harrison (2010) and Dunning and Nilekani (2013) show in studies of political behavior in Mali and India respectively, cross-cutting cleavages mitigate the relationship between ethnicity and individual vote choice. Following this logic, ethnicization should be higher if class and ethnicity are overlapping and lower if they are cross-cutting. In their study of ethnic inequality and ethnic voting in India, Huber and Suryanarayan (2016) find that party voting polarization is indeed greater where economic inequality between groups is higher. The greater the inequality of income (measured by assets in this case) between caste groups (*jati*), the more likely parties representing these groups are to be ethnically cohesive. However, Huber and Suryanarayan (2016) find that income differentials *within* ethnic groups have no effect on party system ethnicization; inequality between groups is doing all of the explanatory work. Huber and Suryanarayan (2016) also extend their analysis to the cross-national level. They find that BGI but not WGI has a strong and positive effect on party voting polarization under majoritarian systems. In PR systems, however, WGI is negatively associated with party voting polarization, while BGI has no effect (see also Kolev & Wang, 2010).

3. Ethnic Inequality and Ethnic Voting

We posit that the way in which ethnicity interacts with other cleavages influences the degree of ethnicization of parties. Specifically, we argue that between-ethnic group inequality (BGI) increases ethnic voting and that its effect strengthens as within-ethnic group inequality (WGI) decreases. In other words, ethnic groups that are either considerably poorer or richer than other groups of their country are more likely to vote along ethnic lines, especially when inequality among their members is low. Where within group inequality is high, we would expect to see greater cross-group voting.

Building on the work of Houle (2015) and Huber and Suryanarayan (2016), we develop two mechanisms through which ethnic inequality influences ethnic voting. First, BGI widens the gap between the preferences over economic policies of different ethnic groups. Very poor groups are likely to favor poor-friendly policies, such as public health, public education and the provision of social transfers. Very rich groups, for their part, are likely to oppose such policies. Moreover, when WGI is low, members of the same ethnic groups have similar preferences over policies. A high BGI combined with a low WGI creates ethnic groups that have drastically different policy preferences but with homogeneous within-group preferences. In other words, when ethnicity and class affiliations reinforce one another, coethnics tend to have similar preferences over policy and to support the same parties.

Second, BGI, when combined with a low WGI level, intensifies ethnic identification. An individual's social identity both results from and places an individual within, myriad social roles (Howard, 2000). Thus, to the extent that shared ethnic and class identities similarly define the place of individuals in society, the sense of group belonging among those individuals is likely to

be greater. This argument builds on the classical literature on cross-cutting and reinforcing cleavages according to which an individual's loyalty to other members of his/her group along one cleavage (e.g., ethnicity, class, religion, geography, language) strengthens when he/she is in the same group as them along other cleavages (e.g., Lipset, 1960; Rae & Taylor, 1970; Bates, 1974; Simmel, 1908). Various authors have applied this logic to ethnicity – arguing, for example, that ethnicity becomes more salient when it is reinforced by geography – rather than cleavages more generally (e.g., Chandra, 2005; Diamond, 1988; Hechter, 1975; Horowitz, 1985; Laitin, 1986; Selway, 2011). Individuals are more likely to feel closer to other members of their own ethnic group when: (1) they share the same living conditions as them (low WGI); and (2) live under very different economic conditions than members of other ethnic groups (high BGI). When ethnic identities are more salient, in turn, individuals become more likely to vote along ethnic lines.

Our argument and empirical analysis improve over that of Huber and Suryanarayan (2016), Kolev and Wang (2010), and others in several ways. First, and perhaps most importantly, we argue and empirically demonstrate that the effect of BGI on ethnic voting is *conditional* on WGI. While Huber and Suryanarayan (2016) include WGI as a control variable, they do not examine whether the effect of inequality between groups is contingent on how income is distributed within groups (i.e. they do not account for an interaction effect). Yet, the two mechanisms we develop above suggest that the effect of BGI is contingent on WGI.

Second, we provide the first cross-national study of the effect at the ethnic-group level. While Huber and Suryanarayan (2016) investigate the effect of BGI on ethnic voting at the group-level, their group-level analysis is limited to India. Our group-level analysis, in contrast,

covers 208 ethnic groups from 65 countries worldwide. This is important because the argument that ethnic inequality fosters ethnic voting is primarily about how the economic situation of a given ethnic group affects the voting behavior of *that* particular group. A group-level analysis is thus more appropriate to test this hypothesis than a country-level test.

Third, our country-level test, which is presented in Section 3 of the online appendix, also improves upon that of Huber and Suryanarayan (2016) and Kolev and Wang (2010) which are the most extensive country-level tests available. While Huber and Suryanarayan (2016) cross-national test focuses on 13 countries with majoritarian electoral systems, ours covers 61 countries. We also find that our findings apply to countries with both majoritarian and PR electoral systems, while Huber and Suryanarayan (2016) only find support among the former. Kolev and Wang (2010) cover 81 countries, but only examine the effective of BGI on ethnic voting, not WGI.

4. Country Examples

Many models of ethnic voting apply primarily, if not exclusively, to low and middle income states in which ethnic parties can credibly promise to deliver patronage to their supporters if victorious. Canada, a highly developed economy, where voting along ethnic lines has been highly pronounced at both the provincial and the federal levels, does not fit such models. The prominent ethnolinguistic division in Canada is between English and French-speakers, the latter representing 23 percent of the population, but aboriginal Canadians also occupy a minority status, accounting for about 4 percent of the population. Ethnic voting has been most pronounced among French-speaking Canadians. At the provincial level, the separatist party, the *Parti Québécois*, has often commanded the majority vote share, winning five of the eleven provincial

elections held since 1976. At the federal level, the separatist *Bloc Québécois* party has often gained a significant proportion of the seats. Between 1993 and 1997 the *Bloc Québécois* was the second party with the most seats in the federal parliament, giving it the status of official opposition party. In the dataset we develop below, the average ethnic voting score of the French-speaking Canadians is the 84th percentile of the distribution (.357).

Canada is one of the most ethnically unequal developed states in the world. In the country-level dataset of Houle (2015), Canada is the Western democracy – a group including Canada, the United States, Australia, New Zealand and Western Europe – with the highest BGI level. This status is a result of the wide inequalities between aboriginal and nonaboriginal Canadians and between English and French-speaking Canadians. French-speakers have traditionally been poorer than English-speakers (Dofny, 1985; Fenwick, 1981; McRoberts & Postgate, 1980; Vaillancourt, 1988). The national census of 1961 showed that in Quebec, the income of English-speakers was on average 49 percent higher than that of French-speakers. The level of inequality between French-speakers and English-speakers has decreased since the 1960s, but inequality both between Quebec and other provinces and between French-speakers and English-speakers in Quebec remains large. In our dataset, for example, the average BGI level of French-speaking Canadians is at the 75th percentile of the distribution. Multiple studies have also found that WGI is low among French-speakers (e.g., Béland & de Sève, 1986; Langlois, 2002).

The low economic status of French-speaking Canadians (relative to English-speaking Canadians) has been cited as one of the causes of the emergence in the 1960s of the Quebec nationalist movement; reducing intergroup inequality was one of the movement's explicit goals at its inception (Dofny, 1985; Fenwick, 1981; McRoberts & Postgate, 1980). According to the 1965 Royal Commission on Bilingualism and Biculturalism, appointed by the federal

government of Canada, intergroup inequality was the single most important cause of tension between English- and French-speakers. This emphasis on the low economic status of French-speakers is evident in much of the early literature supportive of the separatist movement. For example, the crucial role of inter-group inequality is evident in *Nègres blancs d'Amérique* (White Niggers of America) by Pierre Vallières (1968), a leader of the *Front de Libération du Québec* (FLC) – a separatist paramilitary group. Vallières makes the case that the French-speaking population have been economically oppressed by the English-speaking economic elite. This book has been highly influential among the supporters of the nationalist movement, and the Quebec society more generally. Moreover, the fact that the nationalist movement of Quebec is left-leaning has been attributed to the lower economic status of the French-speaking population (see Béland & Lecours, 2011).

Both of our mechanisms are supported by the case of Canada. First, the fact that the French-speaking population is poorer than the English-speaking population and that within-group inequality is moderate among the former have meant that French-speakers usually support left-wing parties (e.g., *Bloc Québécois*, Liberal Party of Canada); hence increasing their level of ethnic voting. Second, the *Parti Québécois* and the *Bloc Québécois* have not only distinguished themselves through left-leaning economic policies, but also through the promotion of Quebec nationalism. Therefore, they have also promoted ethnicity as an important identity.

The correlation between race and vote choice in South Africa is so strong that elections there have sometimes been described as a ‘racial census’ (Horowitz, 1985). According to the 2011 census, blacks account for 79 percent of the population, whites for 9 percent, and Colored and Asian for 11 percent. Black voters overwhelmingly vote for the ANC, the party of Nelson

Mandela, while white voters vote for one of the two main parties of the Apartheid era, the National Party (NP), the Democratic Party (DP), or their successor parties. In 1999, 81 percent of black voters voted for the ANC, while 91 percent of white voters voted for the NP, DP, or another white party. Coloreds and Asians split their vote. Within the black vote, there have been further persistent cleavages. Support for the Inkatha Freedom Party (IFP) has been exclusively located in the state of Kwazulu-Natal, which is 77 percent Zulu (compared to 22 percent for the whole population). In our dataset, the white groups (Afrikaners and English-speakers) have among the highest ethnic voting scores, while the black groups (Zulus, Xhosa and other black groups) all have average scores above the 70th percentile of the distribution.

Even though there is little crossing of the racial boundary, race alone does not dictate how South Africans vote (Ferree, 2011). Survey data indicates that South Africans are acutely aware of issues of retrospective and prospective governmental performance. However, race does affect how voters evaluate government performance and how they view alternative parties (Mattes & Piombo, 2001). Race acts as an informational shortcut for voters in terms of the policy programs of prospective parties (Ferree, 2006). That is, because blacks and whites respectively share distinct interests based on their economic profiles, distinct parties are perceived to represent those interests (Ferree, 2011). Crucially, therefore, race appears to interact with socioeconomic status to affect voting behavior.

After democratization, South Africa was one of the most unequal countries in the world, with a Gini coefficient of income of 0.66 (Leibbrandt, Finn, & Woolard, 2012). Fifty-eight percent of all South Africans and 68 percent of black South Africans were in poverty in 1995, while poverty was virtually unknown among whites (Hoogeveen & Ozler, 2005). South African

ethnic groups have among the highest BGI levels of all groups included in our dataset. Even though estimates from distinct data sources suggest that WGI has risen for all race groups since the early 1990s, especially the black population (Hoogeveen & Ozler, 2005; Leibbrandt et al., 2012, p.26; Moll, 2000, Van der Berg, 2010, p.14), levels of WGI remain relatively low, while BGI remains extremely high (Lam & Leibbrandt, 2003, Van der Berg, 2010). In fact, in our dataset, the WGI level of all ethnic groups is well below the median, even in most recent years. Black and white South Africans continue to have markedly different preferences as regards to the provision of public goods, with blacks favoring expansion and whites favoring retrenchment (Bratton & Mattes, 2003). Thus, in addition to the ANC and NP representing opposing sides of the struggle for racial equality, the respective parties appealed to voters with distinct interests over redistribution. While the government does exert a significant influence over the allocation of jobs in the public sector, in part because South Africa has a single national electorate and closed-list proportional representation system, this discourages the formation of clientelistic linkages (Ferree, 2011). Despite South Africa being a middle income state, therefore, the interactive effect of race and economic inequality on ethnic voting appears to have a more programmatic logic, even if notions of racial identity are also deeply engrained. In short, both mechanisms also appear to be operating in South Africa as they do in Canada.

Nigeria is another prominent example of ethnic voting. Its major ethnic groups are the Hausa-Fulani of the north (29 percent), the Yoruba of the southwest (21 percent), the Igbo of the southeast (18 percent), and the Ijaw of the Niger Delta region (10 percent). Several hundred other ethnicities constitute different degrees of “minority” status. Religiously, the country can be roughly divided into a Muslim majority north and Christian majority south, with Muslims comprising 50 percent of the population, and Christians 40 percent. For many groups (the

Yoruba being a notable exception), religion and ethnicity overlap. In spite of having one of the most extensive repertoires of legal restrictions on ethnic and religious parties (Bogaards, 2010), in practice political support is very much divided along ethnic lines. Support for Goodluck Jonathan, an Ijaw Christian, was located almost exclusively in the Christian majority South-East in the 2011 and 2015 elections, while that of his opponent, Major-General Buhari, a Muslim, was similarly restricted to the Muslim-majority North-West. Winning the 2015 election, Buhari was perceived to represent both the poor and Muslims, with poverty being significantly lower in the southern zones than in the northern zones. In the data presented below, the average ethnic voting scores of the Hausa-Fulani, Yoruba, Igbo and Ijaw are at the 81th, 82nd, 73rd and 40th percentiles of the distribution, respectively.

A long history of inter-ethnic conflict clearly contributes to the present degree of ethnic voting in Nigeria. Yet ethno-religious identities are strongly reinforced by socioeconomic cleavages, and inter-ethnic conflicts themselves have been fueled at least in part by between group inequalities (Diamond, 1988; Langer, Mustapha, & Stewart, 2007). In fact, inequalities between the major ethnic and religious groups have persisted since colonial rule. Moreover, because extensive oil reserves are located in the southern Niger Delta region, while the nation's political and commercial capital, Lagos, is also located in the south, recent years have seen these inequalities grow further. Poverty incidence improved in the southern zones during the 1990s, but deteriorated in the north, particularly in rural areas (Aigbokhan, 2000; Mancini, 2009). Given the strong overlap between ethnicity and income, ethnic voting has considerable redistributive potential. Access to oil rents and public sector employment are major sources of competition between ethnic and religious groups (Mustapha, 2006) and this is reflected in persistent electoral cleavages between groups.

The Senegalese population is also divided into multiple ethnic and religious groups. The Wolof group is the dominant ethnic group (39 percent), with Pulaar (27 percent), Serer (15 percent), Mandigue (4 percent), and Jola (4 percent) the most significant of the minority groups. Senegal is 92 percent Muslim and 7 percent Christian. Since the opening up of the party system in the 1980s, Senegal had become one of a few relatively well consolidated democracies in Sub-Saharan Africa, until it lost this status over electoral irregularities in the late 2000s. Throughout this period, ethnic voting has been almost completely absent, even after restrictions on the formation of particularistic parties were lifted by constitutional amendment in 1981 (Hartmann, 2010). The 1983, 1988, and 1993 elections were essentially two-party contests between the *Parti Socialiste* (PS), the ruling party during the period of one-party rule, and the *Parti Démocratique Sénégalais* (PDS), which became the formal opposition (Hartmann, 2010). While the PS occupied the socialist space, the PDS was formally allocated the role of the liberal party. Both the PS and the PDS were multi-ethnic parties drawing their support from across the country. Party factionalism led to the declining dominance of the PS, with major factions breaking away in the 1998 parliamentary elections – the *Union pour le Renouveau* (URD) – and in the 2000 presidential elections – the *Alliance des Forces de Progrès* (AFP) (Hartmann, 2010, p.772). These defections ultimately helped the PDS under Abdoulaye Wade come to power at the head of a new multiparty coalition.

In spite of the ethnic diversity of the population, ethnicity has not been a salient political cleavage at the national level (Osei, 2013, p.586). In our dataset, all five major ethnic groups have an ethnic voting score below the 41st percentile of the distribution. Even in the southern region of Casamance, where the Jola minority group primarily resides, ethnic voting has been limited. The Casamance, which is effectively separated from the rest of Senegal by the Gambia,

has been the location of the only ethno-regional movement of note in Senegal. A secessionist conflict broke out between the *Mouvement des forces démocratiques de Casamance* (MFDC) and the government in 1990 and ended only in 2014 (Lambert, 1998). Although Casamance may have considerable unexploited oil reserves, it has traditionally been poorer than the rest of Senegal (De Jonge, 1978), a divergence exacerbated by the conflict itself. Poverty in the regional capital, Ziguinchor was 66.8 percent, while the rate for urban households overall was just 39 percent (IMF, 2013). However, the overlap between Jola and Casamançais political identities is limited, with many Jola opposing the secessionist movement (Lambert, 1998). The Jola themselves have a high degree of WGI (87th percentile), which we suggest may inhibit cohesive ethnic voting, even though Jola also have a high BGI level (86th percentile). Although the Jola have the highest average level of ethnic voting among Senegalese groups (41st percentile), it has not been consistent. During the presidential elections in 2007, Robert Sagna, a popular (Christian) mayor of Ziguinchor between 1984 and 2009, created his own party, the *Rassemblement pour le Socialisme et la Démocratie* (RSD) and ran a regionalist electoral campaign, in which he obtained 2.58% of the national vote. However, the RSD soon folded itself into the multi-ethnic national oppositional party coalition, Takku Défaraat Sénégal (Hartmann, 2010, p.776). Even in Casamance, therefore, regional and personalist cleavages are more pronounced than ethnic ones.

Although we acknowledge that other factors may contribute to the lack of ethnic voting in Senegal, we believe that the low level of ethnic inequality plays a significant role.⁴ Even though there exists some inter-regional inequality, most notably between the more highly developed and densely populated West – also the zone in which the majority Wolof population lives – and the more remote, peripheral areas inhabited by the country's ethnic minorities (Osei,

2013), BGI is comparatively low in Senegal, while WGI is not. Thus, groups do not share living conditions and do not differ systematically in terms of their redistributive preferences, which reduces the salience of ethnicity.

In Mozambique, the major ethnic groups are the Tsonga in the South (28.7 percent), the Shona in the Center (9.8 percent), and the Makua-Lomwé in the North (6.7 percent). As of the 2007 census, Christianity is the major religion (56 percent), but substantial minorities of Muslims (18 percent) and traditional African religions (7 percent) exist. Voting crosses ethnic groups, and while religious tensions exist, the major parties are not divided along this cleavage either. In the data assembled for this paper, all three ethnic groups have ethnic voting scores below the 16th percentile of the distribution. That ethnic voting is so low is surprising given Mozambique's high level of BGI. The average BGI levels of the Tsonga, Shona and Makua-Lomwé are at the 95th, 85th and 81st percentiles of the distribution, respectively. In this respect, Mozambique is a more difficult case of non-ethnic voting to explain than Senegal, as like Senegal, it does not implement a ban on ethnic parties. We posit that the absence of ethnic voting may be partly a result of it having a high level of WGI, with inequality thus cutting across ethnic groups. In fact, the three ethnic groups have WGI levels above the 80th percentile of the distribution.

The main political parties appeal to voters on historical affiliations from the civil war period. Shortly after gaining independence from Portugal in 1975, a civil war broke out between the ruling leftist Frente de Libertação de Moçambique (Frelimo) and the anti-Communist Mozambican National Resistance (Renamo). While the war had a regional dimension, it cut across ethnic and religious lines. The war ended in 1992 with the country's first multiparty

elections following in 1994. The governing Frelimo party won 44 percent of the vote and 129 seats in the 250 member assembly, while Renamo won 112 seats with 38 percent of the vote. Although nominally left and right wing parties respectively, there was in practice little to distinguish both parties' platforms. Rather, since formal democratization, Frelimo has used control over aid and resources to perpetuate its dominance (Sumich, 2010). The predominance of *assimilados*, mostly from ethnic minority groups in the South, among Frelimo's leadership has led the group to deemphasize ethnicity in its mobilization. In this case, class or social background trumps ethnicity. However, this has not given the party system a programmatic quality. Rather, the governing Frelimo party itself has become the major area of competition, as is common in one-party dominant democracies. That is, competing socioeconomic interests are articulated within the party, rather than between parties, partly as a result of the predominance of patronage over programmatic policy delivery.

5. Data

This section describes the data used in the quantitative analysis. The unit-of-analysis is the ethnic group survey-year. The sample covers about 600 observations on 208 ethnic groups from 65 countries between 1995 and 2014. To capture our dependent variable (ethnic voting) and our independent variables (ethnic inequality) we employ data from the World Value Surveys (WVS), the Afrobarometer, the Latinobarometer and the Comparative Study of Electoral Systems (CSES). These surveys contain information on the ethnicity of respondents as well as their preferences over political parties and some indicators of their wealth or income (see below). For each observation, we use the *same* survey to capture both ethnic voting and ethnic inequality.

Ethnic groups are identified using the Ethnic Power Relations (EPR) dataset. We only include ethnic groups that are classified as politically relevant in the EPR dataset. Many of the countries that are missing from our sample are excluded because they are coded as ethnically homogenous in the EPR dataset (e.g., Lesotho and Burkina Faso); meaning that we cannot compute indicators of inequality between ethnic groups and ethnic voting.

Table A1 of the online appendix provides summary statistics for all variables used in the analysis. Table A2 lists all the surveys we rely on for each country.

5. 1 Dependent Variable

The questions on political party preferences differ somewhat across surveys. For example, the WVS and the Latinobarometer and rounds 3-5 of the Afrobarometer ask for which party the respondent would vote if there were an election in the near future. The CSES asks for what party the respondents voted in the last elections. Finally, the rounds 1 and 2 of the Afrobarometer ask to which party the respondents feel the closest. In Section 2 (Table A3) of the online appendix, we list the exact questions we employ for each survey/round.

We use the answers given by the respondents to estimate the proportion of the members of each ethnic group that supports each party.⁵ Our group-level indicator of ethnic voting (EV) is based on the measure developed by Huber and Suryanarayan (2016)⁶ and is given by the following equation:

$$EV_i = \sqrt{\frac{1}{2} \sum_{j=1}^p (v_{j,i} - v_{j,-i})^2}$$

where i is a given ethnic group, j is a given political party and p is the total number of political parties, $v_{j,i}$ is the proportion of members of ethnic group i that votes (supports) political party j , and $v_{j,-i}$ is the proportion of members of ethnic groups *other* than group i that votes (supports) political party j .

EV could theoretically range between zero and one, where zero indicates that members of ethnic group i vote in exactly the same way as other ethnic groups from the same country. In the dataset, EV ranges between 0.01 (Uzbeks, Kyrgyzstan) and 0.777 (Afrikaners, South Africa). More detail on our measure of ethnic voting is provided in Section 2 of the online appendix.

According to this measure, an ethnic group could have a high ethnic voting score even if it does not vote for an ‘ethnic party,’ such as the *Bloc Québécois* in Canada. This is the case, for example, for African Americans in the United States, who vote overwhelmingly for the Democratic Party. This measure is thus consistent with our two mechanisms proposed above, according to which ethnic inequality (1) increases the extent to which coethnics share policy preferences; and (2) increases ethnic solidarity.

We believe that using this indicator is superior to simply identifying ethnic parties and then looking at the proportion of members of the relevant ethnic groups that support them. First, doing so would rely on our ability to identify ethnic parties, which is not trivial. Second, methodologically, it would be difficult to handle groups that are not represented by any ethnic party. Simply excluding such ethnic groups would most likely bias the results since the decision to establish an ethnic party may depend on ethnic inequality. Third, as discussed above, such a measure would wrongly suggest that ethnic voting is null for many groups that are not represented by an ethnic party but that in fact do vote together, such as African Americans in the

United States. The latter have an average ethnic voting score of 0.402 in our dataset, which corresponds to the 87th percentile of the distribution of *EV*. Of course, our measure also captures ethnic voting that is driven by support for ethnic parties. Some of the groups that are represented by an ethnic party, such as French-speakers in Canada, have among the highest level of ethnic voting.

5. 2 Independent Variables

In addition to asking the ethnicity of the respondents and their preferences over political parties, the Afrobarometer, the Latinobarometer, the CSES and the WVS ask a number of questions that can be employed to construct indicators of the income/wealth of the respondents. Once again, the questions differ somewhat across surveys. The CSES asks the income quintile in which the respondent finds him/herself. The WVS and the Latinobarometer ask respondents to place themselves on a scale from one to ten, where ten is the richest.

Unfortunately, the Afrobarometer has no question on the income of the respondents. However, most countries that are covered by the Afrobarometer are relatively poor and monetize income is not as relevant in these countries because most of the population has little access to monetized income (Baldwin & Huber, 2010; Bratton, 2008). In fact, the Afrobarometer does not ask questions on monetized income because such questions would be of limited relevance in sub-Saharan Africa (Bratton, 2008). However, the Afrobarometer asks questions about the ownership of key assets: a radio, television and motor vehicle. For the Afrobarometer, we thus construct an asset-based wealth (ABW) indicator of economic well-being. It ranges from 0 (the respondent owns none of the assets) to 3 (the respondent owns all of the assets). This is the same approach as employed by other authors that have used the Afrobarometer to capture the income/wealth of respondents (e.g., Dionne, Inman, & Montinola, 2014; Houle, 2015). As explained below, in

order to account for the differences in the questions used to capture party support and ethnic inequality across surveys, the analysis includes dummy variables for each survey.

We use information on the ethnicity of the respondents to construct measures of BGI and WGI for each ethnic group of each country. In the WVS, Latinobarometer and CSES these measures are based on income inequality, and in the Afrobarometer on inequality in ABW. We measure BGI as follow:

$$BGI = \left[\log\left(\frac{g}{G}\right) \right]^2$$

where g refers to the average income (or ABW score) of members of a given ethnic group, and G to the average income (or ABW score) of members of *other* ethnic groups. We thus calculate BGI in a very similar manner as Cederman et al. (2011) and Houle (2015). The only difference is that in our case G gives the average wealth of individuals from the same country but different ethnic groups, while they use the average wealth of *all* individuals from that country (including the group for which they are calculating BGI). This point is important because EV_i compares the voting behavior of ethnic group i with that of *other* ethnic groups of the same country (as captured by $v_{j,-i}$), not the voting behavior of all citizens of the country. Therefore, both our measures of ethnic voting and BGI compare a given ethnic group to other ethnic groups from their country.

The within-ethnic group inequality (WGI) of a given ethnic group is calculated as the Gini coefficient among all of its members. For all countries, we first group all members of each ethnic group together, and then calculate a Gini coefficient for all groups separately. The Gini coefficient is computed using the command ‘ineqdec0’ in STATA. Each ethnic group of a given country has a different WGI value. BGI_i thus measures inequality between a typical member of

ethnic group i and a typical member of another ethnic group from the same country, while WGI_i captures the level of inequality among members of ethnic group i .

There are two alternative group-level measures of BGI and WGI that warrant discussion: Houle (2015) and Kuhn and Weidmann (2015). Our measures of BGI/WGI are calculated from many of the same surveys as Houle (2015).⁷ The main difference is in the manner in which we calculate BGI (see above). The reason why we did not use his data is simply that, for each group/year, we want to use the same survey to measure ethnic voting and ethnic inequality. As shown in model 2 of Table A8, our results are unchanged if we use the measure BGI/WGI with the dataset of Houle (2015).

Kuhn and Weidmann (2015) also provide alternative group-level measures of BGI and WGI. Unlike us, they do not rely on survey data to construct their indicators. Instead, they use data on nightlight emissions along with maps on ethnic group settlement to compute indicators of BGI and WGI. Cederman et al. (2011) and Alesina et al. (2016) employ a similar methodology to calculate measures of BGI (but not WGI). Cederman et al. (2011), however, rely on the spatial dispersion of wealth rather than nightlight emissions.

Although this approach has many advantages, it also has several important limitations (Huber & Mayoral, 2014). Measures relying on the spatial dispersion of groups are particularly problematic when multiple ethnic groups live in close proximity. In such instances, it is difficult to differentiate between inequality across and within groups. Authors relying on these methods have to assume either that each area is ethnically homogeneous or that inequality between members of different ethnic groups within a given area is the same as inequality among members of the same ethnic group (Huber & Mayoral, 2014). Indeed, because of this problem, Kuhn and Weidmann (2015) exclude all urban areas when calculating WGI. Their measures are thus not

representative of the full population. Indicators relying on survey data do not suffer from these limitations. Model 1 of Table A8 of the online appendix shows that our results are robust when we employ the indicators of Kuhn and Weidmann (2015).

In addition to these group-level datasets, there are also a number of country-level measures of BGI, such as the ones developed by Cederman et al. (2011), Østby (2008) and Baldwin and Huber (2010). However, as explained above, our hypothesis is better tested at the group-level. Moreover, these authors only provide measures of BGI, not WGI.

5.3 Control Variables

Since it is difficult to control for all possible country-level determinants of ethnic voting, our main models include country fixed-effects (although we also run the analysis without country fixed-effects). The analysis also uses a number of group- and country-level control variables. First, we control for the size of the ethnic group (taken from the EPR). Moreover, it is possible that ethnic inequality has a stronger effect on ethnic voting among poor (or rich) groups. For example, grievance is likely to play a stronger role among poor groups. We include a dummy variable (*Poor*) that takes the value one if the ethnic group's income (or ABW) is lower than that of other ethnic groups of the same country.

Among the time-variant country-level controls, we include GDP per capita (logged) (taken from the World Development Indicator of the World Bank). It is also possible that ethnic voting will be more important in weak democracies since programmatic political parties are less likely to be established. We control for the Polity score (*Polity*).

The regressions that do not include country fixed-effects control for additional country-level variables. These are not included in the regressions using country fixed-effects because of

limited variation within countries over time. As shown by Huber (2012), democracies with PR are likely to have less ethnic voting. We thus include a dummy variable that takes the value one if a country has PR based on Bormann & Golder (2013) for democracies, and Johnson & Wallack (2012) for non-democracies. We also control for ethnic fractionalization (taken from the EPR). Decentralization could influence ethnic voting. Therefore, we include a dummy variable for federalism (Treisman, 2008).

As discussed above, there are some differences between the diverse surveys used in the analysis. We add dummy variables for each survey (the CSES is the excluded dummy). Additional controls used in the robustness checks are discussed in section 6.2.

6. Empirical Analysis

6.1 Main Analysis

In Table 1, we estimate the effect of ethnic inequality on ethnic voting. All models use ordinary least squares. We test our hypothesis that BGI increases ethnic voting only when WGI is low by including the interaction between BGI and WGI. Our hypothesis would be supported if the coefficient on BGI is positive and that on the interaction term is negative. If the coefficient on BGI is positive, it means that BGI increases ethnic voting when WGI is zero. In turn, if the coefficient on the interaction term is negative, it means that the effect of BGI weakens as WGI increases.

[Table 1 about here]

Model 1 includes all countries, regardless of their regime, as well as country fixed effects. Both coefficients are of the expected sign and statistically significant at the one percent level. Between-group inequality increases ethnic voting when WGI is low but its effect diminishes as

WGI increases. In other words, people are more likely to vote along ethnic lines when ethnicity is reinforced by inequality.

[Figure 1 about here]

Figure 1 shows the marginal effect of BGI at different levels of WGI. As shown in the figure, BGI increases ethnic voting until WGI attains a value of about 0.38, which represents about 78 percent of the sample. When WGI is above 0.38, however, the effect of BGI is no longer statistically significant. For example, all three ethnic groups in Mozambique (Tsonga, Shona and Makua-Lomwé) have WGI levels above this threshold.

[Figure 2 about here]

Figure 2 plots the effect of BGI on the predicted ethnic voting value for ethnic groups with low (10th percentile of the WGI distribution) and high (90th percentile of the WGI distribution) WGI levels. As shown in the figure, while increasing BGI increases ethnic voting sharply for groups with low WGI, it has no discernible effect for those with high WGI.

Model 2 redoes model 1 without country fixed effects. Models 3 and 4 redo models 1 and 2 with only partial and full democracies, measured as countries with a Polity score of at least one. In Table A10 of the online appendix, we also redo the analysis with only countries that are full democracies (Polity score of at least six). Results are robust.⁸ Figures A4-A6 of the online appendix plot the marginal effect of BGI based on models 2-4 of Table 1.

Our findings on the control variables are consistent with those of the previous literature (in particular those of Huber, 2012). We find that PR and federalism decrease ethnic voting and that richer countries have more ethnic voting. Moreover, larger ethnic groups are less likely to vote along ethnic lines.

6.2 Robustness Tests

The online appendix presents additional robustness tests. First, in the main text our unit-of-analysis is the ethnic group. In Section 3 of the online appendix, we present a country-level analysis using similar country-level indicators of ethnic voting as Huber (2012). We find that countries with high BGI have more ethnic voting. Again, however, the effect of BGI weakens as WGI increases.

Next, the analysis presented in Table 1 includes a number of small ethnic groups. Since we construct our data from surveys, sometimes these indices rely on a small number of respondents for these groups (although we do not include groups for which we have fewer than 40 respondents). In Table A11, we redo our main model (model 1 of Table 1) without groups that represent less than 2 percent (model 1), 3 percent (model 2), 4 percent (model 3), and 5 percent (model 4) of the population of their country. Results are unchanged.

Huber and Suryanarayan (2016) make the argument that BGI should be more relevant to countries with majoritarian as opposed to PR electoral systems. In Table A12 we redo the analysis separately for countries with majoritarian and PR systems. We find support for our hypothesis in both groups of countries. In the main text we employ a dummy variable to capture PR, in Table A14 we redo the main analysis with district magnitude (logged, taken from the Database of Political Institutions) instead. Results are unchanged.

One could argue that the effect of ethnic inequality may be different for poor and rich ethnic groups. For example, poor groups may be more likely to resent inequality. In Table A13, we redo the analysis separately for poor and rich ethnic groups. Our hypothesis is supported in both samples, although the relationship is stronger among rich groups.

Figures A1-A3 plot the density distribution of BGI, WGI and ethnic voting. As can be seen from the figures, there are a number of outliers, especially for BGI. Tables A4-A6 redo the main analysis while excluding outliers. For each variable, we exclude, in turn, observations that have values below the 1st percentile, below the 5th percentile, above the 95th percentile, and above the 99th percentile of the distribution. To further make sure that our results are not driven by outliers, we calculate the Cook's distance of each observation (we use the command 'cooksd' in STATA). As is common practice, we drop observations with a Cook's distance above 4/n. In all cases, results are robust (see Table A7).

We also redo the analysis with additional control variables. First, to deal with the possibility that ethnic voting and ethnic inequality may be due to the type of party voter linkage system, we also include a composite measure from the Database on Political Linkages (DALP), constructed by Herbert Kitschelt and his collaborators, which asked experts to assess the degree to which political parties utilized the provision of consumer goods, preferential access to public benefits, employment opportunities, government contracts, or intervention in regulatory proceedings to maintain linkages with voters (Kitschelt, 2013). The answers to these questions were compiled into an index and aggregated to the country level (Material Exchange)., Unfortunately, the data is available for only a single time period (2008/9), so we also have to make the assumption that Material Exchange is relatively constant within countries over the time period covered by our survey data. Table A16 shows that the results are unchanged when we include this variable.

Second, some countries have imposed bans on ethnic parties. Unfortunately, data on ethnic party bans are only available for sub-Saharan Africa. In model 1 of Table A17, we redo our main analysis while restricting the sample to sub-Saharan African countries and control for

whether a country has implemented an ethnic party based using the data of Moroff (2010). Our results are unchanged. Model 2 includes interaction terms between BGI, WGI, BGI*WGI and the ethnic party ban dummy variable. We find that the effect of ethnic inequality does not depend on whether the country has implemented an ethnic party ban or not. Third, Eifert et al. (2010) argue that ethnic voting is more prevalent in countries in which elections are competitive. Therefore, in Table A15 we show that the results are unchanged when we control for competitiveness, calculated as the vote share differential between the two candidates (or parties) with the first and second most votes in the previous election (Database of Political Institutions).

We also make sure that our results are not affected by multicollinearity, especially between BGI and WGI. The correlation between BGI and WGI is only 0.04. We calculate the variance inflation factor (VIF) of all variables based on model 2 of Table 1 (excluding the interaction term). None of the variable has a VIF above 10, which is the threshold usually employ to detect multicollinearity. BGI and WGI have a VIF of 1.08 and 2.26, respectively.

Two further caveats are in order. First, we do not examine whether changes in the BGI/WGI scores of a given ethnic group over time lead to changes in their level of ethnic voting. Our dataset simply does not exhibit enough variation in BGI/WGI within ethnic groups over time to test such a relationship. In fact, many previous studies have assumed that BGI and/or WGI are constant over extended periods of time (e.g., Cederman et al. 2011). Moreover, it is well known that once parties have been formed and support bases established, party identification has a substantial degree of inertia (Converse, 1976; Green & Palmquist, 1994). That is, voters come to identify with parties per se, even if the policies pursued those parties no longer best reflect their material interests. Thus, even if there is some change in the relative levels of BGI and WGI over time, political realignments are likely to lag such economic changes, perhaps by as much as a

generation (Bates, 1974; Wolfinger, 1965, pp.906-908). In the United States for example, African American voters continue to vote overwhelmingly for the Democratic Party, even as WGI has increased in recent decades with the growth of an African American middle class (Dawson, 1994; Frymer, 1999).

Second, it is possible that ethnic voting might cause, or contribute to, ethnic inequality. In other words, our results could be driven by reverse causation. Once again limitations with our dataset prevent us from adopting strategies to address endogeneity in our quantitative analysis. However, the country examples discussed above enable us to alleviate these concerns. In each of the cases we discuss, ethnic inequality substantially predates ethnic voting. For example, in South Africa, ethnic inequality was elevated even before the end of the Apartheid. In Quebec, inequality between French- and English-speakers was high before the creation of the *Parti Québécois* and the *Bloc Québécois* in 1968 and 1991, respectively. Moreover, across a global sample, Alesina et al. (2016) demonstrate that ethnic inequality has a basis in differential access to resources that substantially precedes the formation of contemporary state institutions.

7. Conclusion

We argue that the effect of BGI on ethnic voting is contingent on WGI: BGI increases ethnic voting, but the magnitude of its effect decreases as WGI increases. We find support for our hypothesis using both qualitative and quantitative evidence. We examine five country examples: South Africa, Canada and Nigeria are examples of countries with high BGI, relatively low WGI and high ethnic voting; Senegal is a case with low BGI (and low WGI) and low ethnic voting; and Mozambique is an example of a country with high BGI and high WGI but low ethnic voting. Our quantitative analysis uses a dataset on over 200 ethnic groups from 65 countries. As

expected, we find that ethnic groups that are either much richer or much poorer than other groups of their countries tend to vote more along ethnic lines but that BGI's effect weakens as WGI increases.

Our empirical analysis makes several important contributions to the literature on ethnic voting. First, and most importantly, we conduct the first cross-national empirical test of whether the effect inequality between ethnic groups on ethnic voting is conditional the level of inequality within ethnic groups. Our analysis improves substantially over previous tests of the effect of cross-cutting and reinforcing ethnic and economic cleavages on ethnic voting.⁹ Second, our empirical analysis is the first cross-national test to use the ethnic group-year as its unit-of-analysis. Previous tests have instead use the country-year as their unit-of-analysis, or have limited their analysis to a single country (Huber & Suryanarayan, 2016; Kolev & Wang, 2010). This is crucial because in many instances different ethnic groups within the same country have very different BGI, WGI and ethnic voting levels. For example, in Benin, while the Adja have an average BGI level at the 83rd percentile of the distribution, that of the Yoruba is below the 7th percentile. Using a single aggregate value of BGI (as well as WGI and ethnic voting) for all groups of the same country is thus not appropriate. Our empirical strategy enables us to test whether the BGI and WGI scores of a given ethnic group affect the voting behavior of that specific ethnic group.

Our results have important implications for the study of ethnicity and voting. Crucially, they point to the importance of looking at the structure of social cleavages rather than each cleavage in isolation (Lipset, 1960). The existence of different ethnic groups by itself does not cause ethnic voting. Other factors seem to be needed to explain why in some instances ethnicity is activated while in others it is not. In this paper, we have shown that how ethnicity interacts

with economic cleavages is one of these factors. Our findings suggest that ethnicity has more influence on voting behavior when it is reinforced by inequality. More broadly, our findings indicate the need to take account of the conditioning effect of within group differences when considering the effect of between group cleavages on political behavior. This could have implications for the study of other political phenomena outside of electoral politics such as ethnic conflict.

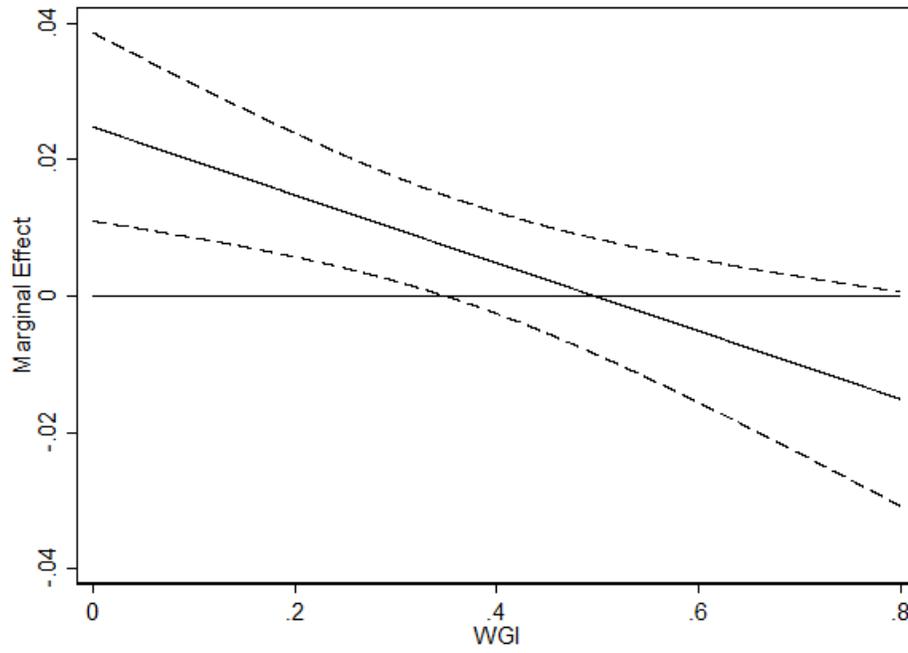
Tables and Figures

Table 1: Effect of Ethnic Inequality on Ethnic Voting

| | All Regimes | | Partial and Full Democracies | |
|--------------------------|------------------------|-------------------------|------------------------------|------------------------|
| | (1) | (2) | (3) | (4) |
| BGI | 0.0248*** (0.00706) | 0.0279*** (0.00625) | 0.0258*** (0.00735) | 0.0242*** (0.00609) |
| WGI | -0.0326 (0.110) | -0.0929 (0.0918) | -0.0337 (0.118) | -0.144 (0.0998) |
| BGI*WGI | -0.0499*** (0.0163) | -0.0584*** (0.0164) | -0.0527*** (0.0172) | -0.0465*** (0.0160) |
| Group size | -0.0457*** (0.0144) | -0.0339 (0.0249) | -0.0406*** (0.0152) | -0.0344 (0.0262) |
| Poor | -0.0152 (0.0104) | -0.0107 (0.0130) | -0.0114 (0.0111) | -0.00993 (0.0140) |
| GDP pc (logged) | 0.0234* (0.0130) | 0.0148** (0.00587) | 0.0256* (0.0140) | 0.0246*** (0.00641) |
| Polity score | 0.000491 (0.00380) | 0.00859*** (0.00142) | -0.0144 (0.0109) | -0.000895 (0.00424) |
| Ethnic fractionalization | | 0.00961 (0.0391) | | 0.0523 (0.0418) |
| Federalism | | -0.0746*** (0.0152) | | -0.109*** (0.0163) |
| PR | | -0.0569*** (0.0151) | | -0.0670*** (0.0156) |
| Latinobarometer | 0.0234 (0.0155) | -0.158*** (0.0217) | 0.0182 (0.0158) | -0.181*** (0.0224) |
| WVS | 0.0247 (0.0189) | -0.0168 (0.0258) | 0.0257 (0.0198) | -0.0251 (0.0264) |
| Afrobarometer | -0.0123 (0.0360) | -0.0478 (0.0299) | -0.00412 (0.0386) | -0.0789** (0.0322) |
| Country FEs | Y | N | Y | N |
| # Countries | 65 | 64 | 58 | 58 |
| # Ethnic groups | 208 | 205 | 182 | 182 |
| N | 602 | 599 | 541 | 541 |
| R2 | 0.643 | 0.278 | 0.644 | 0.293 |

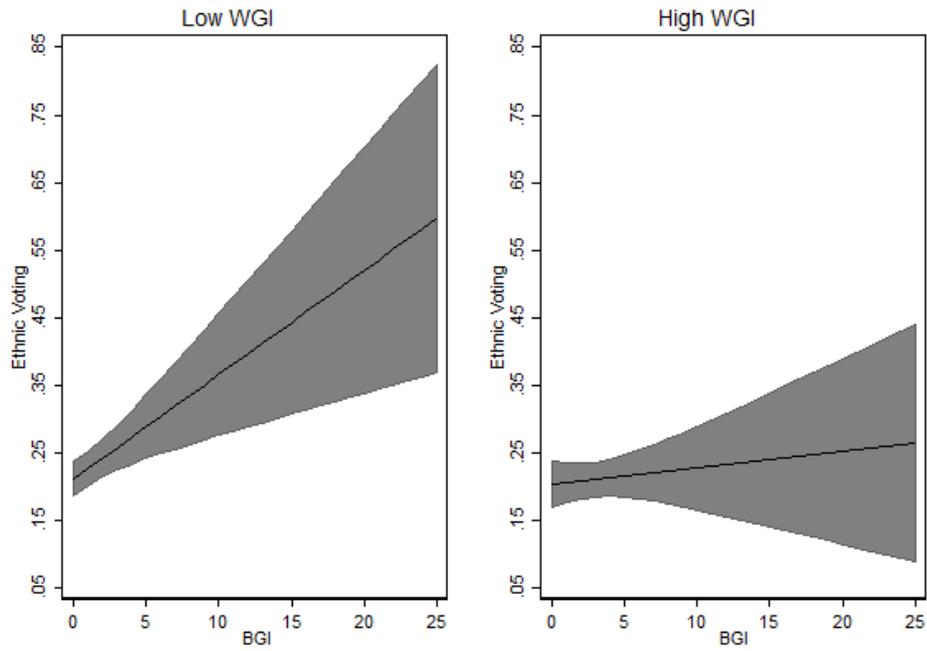
Note: OLS estimates. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Figure 1: Marginal Effect of BGI on Ethnic Voting Across WGI Levels



Based on Model 1 of Table 1. Dashed lines are 95 percent confidence intervals.

Figure 2: Predicted Ethnic Voting Values



Based on Model 1 of Table 1. Shaded areas are 95 percent confidence intervals.

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¹ Huber and Suryanarayan (2016) and Kolev and Wang (2010) do look at the first issue but not the second (the question of the interaction between BGI and WGI). Moreover, these cross-national tests employ the country-survey year as the unit-of-analysis, while ours uses the ethnic group-year.

² Huber and Suryanarayan (2016) also report a group-level analysis, but it is restricted to India.

³ This contrasts with an older approach which attempted to parse the effect of distinct cleavages (e.g., Lijphart, 1979).

⁴ Other authors have proposed alternative explanations for why ethnic voting has been muted in Senegal, but we suggest that they are incomplete. First, although ethnicity is partially cut across by religious cleavages – in particular by the Islamic Sufi brotherhoods (Osei, 2013) – given the concentration of Christianity among certain groups, we might expect ethno-religious voting to be higher than it is. Second, although it is the case that the boundaries of the majority Wolof ethnic group are often crossed with migrants adopting the Wolof language and culture as their own (O'Brien, 1998), this raises the question of *why* non-Wolofs chose to integrate rather than retain a distinct ethnic identity. Third, while clientelistic ties have tended to undercut rather than promote ethnicization, as they have more of a spatial than ethnic focus (Koter, 2013), this again raises the question of why political groups have chosen to develop such coalitions.

⁵ We excluded ethnic groups that for which we had less than 40 respondents and political parties that were supported by less than 20 respondents.

⁶ Our measure is somewhat different than theirs in that they calculate the difference in ethnic voting between pairs of ethnic groups, while we instead compare a given ethnic group to all other ethnic groups of the same country.

⁷ Houle (2015) also uses data from the Demographic and Health Surveys (DHS) and the International Social Survey Program (ISSP). We do not use these surveys because they have no information on the preferences of respondents over political parties.

⁸ It must be noted that when we use only full democracies, however, the interaction term is no longer statistically significant (Table A10, online appendix). Yet the coefficient is negative, and therefore the results still suggest that while BGI increases ethnic voting at low WGI, its effect weakens (and falls out of significance) as WGI increases.

⁹ As discussed above, Huber and Surayanaran (2016) and Kolev and Wang (2010) also test the effect of BGI but they do not account for whether the relationship depends on inequality within groups, which is a key dimension of the argument on reinforcing and cross-cutting cleavages.