H i C N Households in Conflict Network The Institute of Development Studies - at the University of Sussex - Falmer - Brighton - BN1 9RE

Local Government Proliferation, Diversity, and Conflict^{*}

Samuel Bazzi[†] and Matthew Gudgeon[‡]

HiCN Working Paper 205

December 2015

Abstract:

A key feature of decentralization in developing countries has been the creation of new local governments. The implications of this process for violent conflict are not well understood. On the one hand, bringing representative government closer to the electorate can reduce heterogeneity in preferences, thereby mitigating conflict. On the other hand, creating local government institutions also leads to a large increase in rents that may be contested violently. Group cleavages can determine which of these two effects prevails. Identifying these distinct channels empirically has proven difficult. This paper resolves these challenges by exploiting a natural experiment in the ethnically and religiously diverse context of post-authoritarian Indonesia where rapid decentralization was accompanied by dramatic growth in the number of new districts and a resulting decline in ethnolinguistic fractionalization. We use new microdata on conflict from 2000-2014 and leverage the plausibly exogenous timing of redistricting due to a government moratorium. Overall, redistricting has small and insignificant average effects on conflict. However, areas that experience greater ethnolinguistic and religious homogenization as a result of splitting experience a significant reduction in conflict. At the same time, we find a differential increase in violence in areas that receive a new government and are also ethnically polarized. These differential increases in violence are most pronounced around the time of the first election and for types of violence associated with contestation of public resources and institutions. These results suggest that allowing for redistricting along group lines can reduce conflict, but the benefits of reduced diversity may be undone if the newly governed population is highly polarized. In such cases, conflict may then simply shift from the original seats of government to newly created ones.

JEL codes: D72, D74, H41, H77, O13, Q34

Keywords: Conflict, Polarization, Ethnic Diversity, Decentralization

^{*} We thank Claudio Ferraz, Thiemo Fetzer, Hiroaki Kaido, Kevin Lang, Dilip Mookherjee, Ben Olken, as well as seminar participants at Boston University, the BREAD/NBER pre-conference meeting, and NEUDC for helpful comments. Gudgeon is grateful to the Weiss Family Program Fund for financial support. We thank Jan Pierskalla, Audrey Sacks and the Indonesian National Violence Monitoring System for sharing data. Andrea Adhi provided excellent research assistance. All errors remain ours.

[†] Boston University and BREAD. Department of Economics. 270 Bay State Rd., Boston, MA 02215. Email: sbazzi@bu.edu.

[‡] Boston University. Department of Economics. 270 Bay State Rd., Boston, MA 02215. Email: mgudgeon@bu.edu.

1 Introduction

The age-old question of how to draw political borders has resurfaced with the 2014 referendum in Scotland to secede from the United Kingdom and Catalonia's push to secede from Spain. This question is especially pertinent in developing countries today as decentralization has led to a proliferation of new governments at the subnational level (Grossman and Lewis, 2014)—a process we refer to as redistricting. These boundary changes affect access to public goods and often alter the ethnic and religious composition of the governed population. The associated tradeoffs between diversity and the efficiency of public goods provision have well-established implications for the optimal size of political units (Alesina and Spolaore, 2003; Alesina et al., 2004). The implications for conflict are much less well understood.

This paper examines the effects of local government creation on violence. A more homogenous population located closer to the government should be easier to govern, improving welfare and reducing conflict. However, the creation of new local governments also creates new rents associated with, among others, public sector jobs and control over the policymaking process. These public prizes may be contested violently, particularly when the newly created administrative units give rise to a new power struggle between different ethnic or religious groups. Disentangling these offsetting effects on conflict empirically has been difficult due to a host of identification and measurement challenges.

We resolve these challenges by studying the effects of redistricting on conflict in the ethnically and religiously diverse setting of contemporary Indonesia. Decentralization reforms begun in the late 1990s greatly eased the process of redistricting and led to a dramatic increase in the number of local governments from 302 in 1999 to 514 in 2014 (see Figure 1). Crucially, the timing of redistricting was staggered across locations in a plausibly exogenous way. The creation of new local governments caused significant local changes in the composition of the electorate and the value of contestable public prizes. We use new, high frequency microdata on conflict to examine how the effects of redistricting vary with these changes.

Our key contribution is to identify how diversity affects conflict in the context of a shock to the value of contestable public resources. Although overall violence remains relatively unchanged after redistricting, we find differential reductions in violence in areas that experience large reductions in ethnolinguistic and religious diversity. These results are in line with predictions in Alesina et al. (2004), who argue that the optimal number of local governments increases with heterogeneity in preferences, and hence removing barriers to the creation of more homogeneous units is expected to increase welfare. At the same time, local violence is higher on average in areas that receive a new government, and ethnic polarization in particular amplifies these differences. These findings provide support for a theory of ethnic conflict due to Esteban and Ray (2011a), who show that incentives to compete over a public prize are highest in polarized areas. The results also build upon Alesina et al. (2011) and Michalopoulos and Papaioannou (2015), who highlight the adverse consequences of arbitrary ethnic partitioning across national borders. We identify similar consequences for violent conflict in the policy-relevant context of decentralization.

Our primary goal is to understand whether increased homogeneity in the electorate reduces conflict, or whether this is offset by violent contestation of new government institutions and resources. We first estimate the net effect of redistricting on conflict and then delve into these distinct mechanisms. We estimate this net effect at the original district boundaries in 2000, comparing districts that split earlier to districts that split later in a generalized difference-in-difference framework. The many steps in the

process of redistricting create idiosyncratic variation in the timing of approval, but most importantly, the national government placed a moratorium on district splitting between 2004 and 2006. Nearly all of the splits in our 2000–2014 sample either occur in 2002–3 or 2007–8, a convenient window for examining the effects of splitting on violence.¹

To understand the role of increased homogeneity, we examine how the effects of redistricting are mediated by changes in diversity. Ethnic fractionalization declines substantially on average at the original district level. However, some of the newly drawn borders encompass fewer, large groups, thereby increasing polarization. We account for this by using universal Population Census data from 2000 to construct measures of how homogenized the new districts are relative to the original district in terms of these two fundamental diversity metrics. To further investigate the contestation of public institutions and rents, we allow redistricting to differentially affect the new child districts, which acquire a new seat of government, and the now smaller parent districts, which retain the old seat of government.² We also examine how conflict dynamics are shaped by the diversity in these new districts as well as the idiosyncratic timing of post-redistricting elections. At all levels, we are able to identify the mediating effects of (changes in) diversity because the timing of redistricting is unrelated to underlying diversity and other district-specific characteristics.

Our study is well suited to identify *how* diversity matters for conflict. Drawing upon Esteban and Ray (2011a), we focus on the distinction between fractionalization and polarization. Fractionalization captures the likelihood of meeting someone outside your group, while polarization captures differences in preferences across groups as well as the strength of association within one's own group. When a contested good is private and divisible among members, inter-group distances play less of a role while increases in group size reduce payoffs, bringing fractionalization to the forefront. On the other hand, polarization amplifies conflict incentives when the prize is more public and cannot be fully excluded from losing groups. When the public prize affects everyone but can be tailored to the winning groups' preferences—as with control over local government institutions—inter-group distances matter. Moreover, payoffs to seizing such institutions are not as diminished by group size, and larger cohesive groups are more able to mobilize to their cause, bringing polarization to the forefront.

Redistricting constitutes a major increase in the value of public prizes, and we exploit the differential incidence of these prizes between parent and child districts to identify the role of rapacity in shaping conflict. The new seat of government in the child comes with a host of contestable resources, including revenue transfers from the center as well as positions in the local executive, parliament, and regional government institutions. Meanwhile, in the parent district, relatively less changes in terms of available fiscal resources and government positions per capita. In the child district, subdistricts and villages, often clustered along ethnoreligious lines, want the new public goods spending to cater to their own preferences and hence have strong incentives to involve one of their own members in the new government.

Indonesia offers an ideal setting for examining the effects of diversity on conflict. It has over 700 ethnolinguistic groups and although majority Muslim, it is also home to minority Christian, Hindu and

¹These refer to the date the formal law approving the creation of the new district was passed. This is similar to the identifying variation used in Burgess et al. (2012).

²We refer to the original land area as the *original district*. After a split, the original district is divided into one area containing the original capital and a new area with a new capital. We refer to the former as the *parent* or *parent* district and the latter as the *child* district (see Figure 2 for an example).

Buddhist groups. We construct standard measures of ethnic fractionalization and religious polarization. To construct ethnic polarization, we follow Fearon (2003) and Esteban et al. (2012) and use linguistic distances to capture differences between groups. We view these diversity measures as proxies for the potential identity-based coalitions around which political action and mobilization take place.

Moreover, contemporary Indonesia is a natural context for testing theories of social conflict. Large communal conflict largely subsided by 2003 and is replaced by more sporadic, routine violence. Our study is geared at picking up the latter, which include flare ups of identity-based conflict, resource-related violence such as land disputes, and local electoral violence (Barron et al., 2014). These types of local violence remain a major policy concern in countries like Indonesia given not only their large economic costs but also their potential to escalate into more systematic large-scale conflict.³

We draw upon new geospatial conflict data developed by the Indonesian National Violence Monitoring System (known by its Indonesian acronym of SNPK). This is the largest single country conflict database in the world with over 230,000 recorded incidents between 2000 and 2014. Based on reporting in over 100 local newspapers, these detailed data allow us to explore mechanisms in a way that is not possible in most cross-country conflict datasets (see Bazzi and Blattman, 2014). We examine the incidence of any violence including crime-related violence and non-crime-related conflict. We focus on the latter and also examine salient types of conflict most plausibly associated with contestation of public prizes including identity, resource, and electoral violence.

We find that the small average effect of redistricting on conflict masks considerable heterogeneity. Amalgamations that split up into more homogeneous units experience reductions in violence, with changes in ethnic and religious polarization being the most significant. At the more disaggregated level, child districts with high ethnoreligious diversity experience a differential increase in conflict after redistricting, and this translates into an overall increase at sufficiently high levels of diversity. These differential changes in child districts after splitting are consistent with conflict over new, contestable public resources.

Taken together, these results suggest not only that increasing public prizes in polarized areas increases conflict but also that increased homogeneity may help to reduce it. Overall results are muted in part because these forces offset each other and potentially because violence may be relocating from parent to child within the original district borders. The results can also be interpreted through the lens of state capacity (Besley and Persson, 2009, 2010). Child districts may have limited institutional capacity for dealing with, for example, violent contestation of elections or resource disputes. Additionally, more inclusive governments in homogenous areas may simply invest more in state capacity to mitigate conflict (Michalopoulos and Papaioannou, 2013).

Using the granularity of the new conflict data, we provide evidence on the mechanisms underlying the link between redistricting and violence. First, we show that the increase in violence in child districts is most pronounced around the time of the first election after splitting. No such differential is found for parent districts. Within child districts, though, ethnic polarization is not only associated with greater violence after redistricting, but it also amplifies violence around the first election. This is consistent

³In our data, even if we examine the least violent years and restrict to non-crime violence, we observe around 500 annual deaths, 7,000 annual injuries, and 1,500 annual buildings damaged. Including crime and domestic violence more than doubles these numbers. Using a methodology due to Fearon and Hoeffler (2014), we estimate that the direct costs of non-crime conflict in the post-2005 period range from 0.2% - 0.5% of GDP.

with ethnicity and religion capturing differences in preferences as well as facilitating mobilization. The post-redistricting violence in child districts appear to be driven by contestation of resources, identity, and governance based on subclassifications within the violence data. Meanwhile, predetermined differences in voting preferences between parent and child districts are associated with greater violence in the parent district before redistricting and less violence after, which provides further evidence on the conflict-reducing effects of preference homogenization.

Our paper is related to three strands of the literature. First, we add to a small but growing body of work on optimal borders by identifying the effects of an increasingly common policy of administrative unit proliferation on conflict. The question of how to optimally draw political borders dates at least back to Plato. Recent work highlights the tradeoffs between diversity and economies of scale (e.g., Alesina et al., 2004) as well as the structure of fiscal and other policy incentives (e.g., Weese, forthcoming). Our findings on the heterogeneous effects of ethnoreligious diversity and the creation of new local rents have important implications for the design of future redistricting programs. Recent work shows how jurisdictional changes can amplify negative externalities associated with pollution or deforestation that were better internalized by larger administrative units (Burgess et al., 2012; Lipscomb and Mobarak, 2013).⁴ Our findings on conflict point to similar unintended consequences of this common decentralization reform aimed at improving social welfare.

Second, we provide new evidence on the importance of conflict over public resources and rents, which is a salient albeit controversial mechanism in the conflict literature. Recent studies use shocks to the price of taxable commodities, such as oil and minerals, as sources of variation in the value of the state, but there is mixed evidence on whether conflict responds to these shocks (Bazzi and Blattman, 2014; Dube and Vargas, 2013). Our key innovation is to exploit exogenous variation in the creation of local governments coupled with detailed data on the particular types of conflict, which can be directly linked to conflict over public prizes. These findings build upon recent work on ethnoreligious diversity and conflict (Amodio and Chiovelli, 2015; Caselli and Coleman, 2013; Esteban and Ray, 2011a,b; Esteban et al., 2012; Mitra and Ray, 2014; Morelli and Rohner, 2014) by providing causal estimates of the effect of policy-induced *changes* in ethnic diversity within local government boundaries.⁵

Finally, our work highlights an important consequence of decentralization in diverse societies with limited state capacity. Our focus on conflict as a key outcome goes beyond the standard questions of capture and corruption that pervade the literature on decentralization (see Mookherjee, forthcoming). Our findings on the importance of diversity in shaping conflict complement work showing how ethnic divisions shape public goods provision (Alesina and La Ferrara, 2005; Burgess et al., 2015; De Luca et al., 2015; Habyarimana et al., 2007; Miguel and Gugerty, 2005). We take a step back and provide new evidence on conflict over control of the government institutions that allocate these goods.

The paper proceeds as follows: In Section 2, we detail the context of district proliferation in Indonesia. In Section 3, we discuss how redistricting affects locals rents and ethnoreligious diversity. In Section 4, we present the new geospatial conflict microdata. In Section 5, we detail our empirical strategy and how it allows us to sort through the different implications of redrawing borders. In Section 6, we present the

⁴Two recent studies identify largely positive effects of new state formation on economic development outcomes in India, mediated in part by improved schooling and access to government services (Asher and Novosad, 2015; Shenoy, 2015).

⁵This recent work was motivated in part by earlier cross-country work linking ethnic fractionalization or polarization to adverse economic outcomes as well as conflict (e.g., Fearon and Laitin, 2003; Montalvo and Reynal-Querol, 2005a,b).

main results and highlight key mechanisms. In Section 7, we conclude.

2 District Proliferation in Indonesia

This section provides background on Indonesia's extensive district proliferation. We first describe the important role districts play in Indonesia's government. We then document the wave of redistricting that led to a more than 60 percent increase in the number of districts in 15 years, elaborating on the delays and moratoria in the splitting process that we exploit for identification. For reference, the timeline in Figure 3 provides a summary of the key events over our study period.

2.1 Decentralization and the Political Context

Indonesia has four main tiers of government. The largest tier is the province, of which there were 34 by 2014. Provinces are divided into districts known as *kabupaten* and *kota*, the main administrative unit of analysis in this paper. In 2014, there were 514 districts.⁶ Districts are in turn divided up into 7,094 sub-districts (*kecamatan*), which are further subdivided into into more than 80,000 villages, the smallest unit of government.

Our study focuses on districts from 2000 to 2014. The start of this period was characterized by farreaching decentralization reforms. The resignation of President Suharto in May 1998 ushered in a wave of laws that rapidly shifted the balance of power away from the central government and towards the districts.⁷ Effective January 2001, districts took over responsibility for nearly all public policy and service provision with the exception of the few areas naturally reserved for the central government (i.e., defense and security, foreign affairs, fiscal and monetary policy).

Major electoral reforms also accompanied decentralization. With the 1999 reform, district heads (known as *bupatis* and *walikotas*) were locally elected for the first time since independence. At first, they were elected via majority vote by members of the local parliament, who were in turn popularly elected according to a closed-list proportional representation system. Beginning in 2005, district heads and their running mates were directly elected by majority vote. District heads and members of parliament serve for 5 years. Parliamentary elections occur at the same time as national elections (1999, 2004, 2009, 2014), whereas district head elections vary in their timing across districts due to predetermined path dependence (Skoufias et al., 2014). The timing of these elections will play an important role in our investigation of mechanisms in Section 6.2.

Decentralization also led to a large increase in local government revenue per capita. Over our study period, 90 percent of district revenue comes from the central government with few strings attached (Hill, 2014). Real revenue per capita for the median district nearly doubled in real terms from USD 110 in 2000 to USD 205 in 2010.⁸ Spending decisions are primarily made locally: budgets are proposed by a board

⁶*Kabupaten* tend to be more rural than *kota*. We treat them similarly in the empirical analysis and refer to both as districts unless otherwise specified.

⁷Provincial power was greatly limited by the original decentralization laws due to fears that consolidated power at such a large regional level would lead to secession, a very real concern given the 1999 secession of East Timor by referendum (Fitrani et al., 2005). While this largely continues today, the province's spending power is not trivial. In 2012, districts captured three quarters of total subnational spending with provinces making up the rest (Lewis, 2014).

⁸The revenue figures are calculated from the World Bank's Indonesia Database for Policy and Economic Research (DAPOER). Approximately 60 percent of these funds come from a general allocation grant (*Dana Alokasi Umum*, DAU). Shared taxes,

overseen by the district head after a bottom up process that begins with requests at the village level. Budgets are then approved by the local parliament.

In sum, our study spans a period when district governments are becoming increasingly important and decisions on who controls and who spends the public purse increasingly local. It is in this context that requests to carve out new districts from larger pre-existing ones gathered force.

2.2 Creating New Districts

Concurrent with the wave of decentralization, the Indonesian government created many new districts through a process known colloquially as *pemekaran* or blossoming. This section provides institutional details on the redistricting process and highlights the sources of our empirical identification.

After remaining steady from 1980 to 1998, the number of districts ballooned from 302 in 1999 to 514 in 2014 (see Figure 1). Most of the redistricting took place in 2001–3 and 2007–8.⁹ This proliferation of districts occurred across the archipelago as shown in Figure 4. New districts are formed when existing subdistricts break off from their original district and create their own local government, complete with a new capital, district head, parliament, and government apparatus. On occasion, one district can mushroom into multiple new districts.

We will refer to the total land area on which redistricting takes place as the *original district*. After a split, the original district is divided into two: one area containing the original capital replete with preexisting local government institutions, and a new area with a new capital and government. We will refer to the area that gets a new government as the *child district* and the now reduced area with the original capital as the *parent district*. Figure 2 provides an example of this distinction based on the splitting of Buru district into Buru (the parent) and South Buru (the child). Crucially, we are able to use sub-district data to construct key variables at the child and parent district level over the entire study period 2000– 2014, *despite the fact that these areas did not exist as separate entities before redistricting*.

We construct a new panel dataset that links the districts observed in 2014 back to their original district in 1980, identifying each new district created in between. We identify children as areas that split and had a change in administrative code.¹⁰ In order to pick up any conflict generated in the interim period, we base the timing of redistricting on the month in which the new district is approved by the National Parliament, as indicated in legal documents. This granular district–month panel serves as our main data structure throughout the paper.

Redistricting Process. The redistricting mandate passed into law in 2000 and stipulated several relevant conditions. First, the new district must have a minimum of three subdistricts. Second, there must

shared natural resource rents, and the special allocation grant (*Dana Alokasi Khusus*, DAK) each accounted for around 8 percent of total revenues, while own revenue capacity is quite limited, comprising most of the remainder (Lewis, 2014). On average, districts spend 55 percent of their budget on infrastructure, health care, and education and 33 percent on administrative costs. ⁹Only one area in our study splits again after 2008 (in January 2013), and for simplicity we drop observations in 2013 and 2014 for this district. Results are unchanged under other treatments. Four other areas split for the first time in late 2012–13. However, we exclude these from the analysis in order to focus on areas that are credibly affected by a moratoria on redistricting that we describe below. The redistricting in 1999 occurred before the new government regulation on *pemekaran* was established and likely differ in nature from later redistricting. For example, a number were longstanding requests, and others were initiated by the central government (Fitrani et al., 2005). These areas only enter our data if they later split again.

¹⁰Following Pierskalla (forthcoming), we also cross-check with DAPOER to ensure these are indeed child districts that get a new funding stream.

be public support for the split among district parliamentarians and the district head in the parent district as well as in the relevant province. Third, the proposing parties must present technical research demonstrating the socioeconomic capacity of the new district in terms of potential GDP, physical area, financial institutions, education and health facilities, tourism, transport and communication, places of worship, and sports facilities. Most proposals were submitted to and approved directly by the national parliament (Pierskalla, forthcoming), and we have not found any evidence that parliament ever formally rejected proposed splits during years in which proposals were allowed.

The central government has twice halted the redistricting process by issuing national moratoria on the creation of new regions, the first of which occurred from 2004–6 and the second from 2009–2012.¹¹ Both periods are clearly seen in Figure 1. We exploit the first moratorium for identification purposes, building upon the strategy used by Burgess et al. (2012). Areas that were close to having the process completed in 2003 but not quite prepared had to wait until at least 2007 to be created. Although we do not have data on the number of proposals in progress or already submitted in 2004, a report by the National Development Planning Agency notes that 114 proposals for new districts were awaiting consideration in 2005–6 (BAPPENAS, 2007). The process of splitting has extensive scope for administrative delays, which likely adds further idiosyncratic variation to the date of approval beyond that provided by the moratorium.¹² We revisit these idiosyncrasies in the timing of redistricting in developing our identification strategy in Section 5.

After the law approving the new district has passed, there is an interim period before a new district head can be elected. During this interim period, an interim district head is appointed by the central government from a list of candidates generated locally. The interim district head establishes the most essential ministries/offices and partially staffs them. With the exception of the few early splits (2001 and 2002), redistricting was followed by a direct popular election for district and vice-district head within two years. The average time between passing of the law and the district head election is 21 months.

While our identification relies only on variation in the timing of redistricting, it is informative to understand why a collection of nearby subdistricts may want to break away from the center and form their own district. The potential incentives, among others, efficiency gains (smaller districts can better provide public goods), homogeneity (less heterogeneity in taste allows public goods to be better targeted), electoral gerrymandering, and rent seeking (new districts come with new jobs and 'pork'). The incentives are weaker, albeit still salient, for parent districts for which little is lost in terms of revenue transfers per capita, and there may be small gains in terms of the number of civil servant and parliamentarian positions per capita. Moreover, the local government no longer has to govern over such a vast and potentially heterogeneous area and may experience more favorable electoral chances. Prior studies have documented some of the correlates of splitting, finding support for theories of rent-seeking, ethnic homogenization, and size-based efficiency arguments (see, e.g., Fitrani et al., 2005; Pierskalla, forthcoming).

¹¹The stated reasons for the moratoria were the political and rent-seeking (as opposed to needs-based) nature of many splits, the lack of adequate welfare improvements in new districts that had already been created, and the drain on fiscal resources. At the end of the first moratorium, the government tightened the law on redistricting. First, the minimum number of subdistricts increased to five. Second, these subdistricts must be within a parent district that had existed for at least seven years.

¹²For example, in field interviews conducted in June 2015, we learned that the process to redistrict Manggarai began in 2000 but was not finalized until 2003 in the case of the first child district of Manggarai Barat and 2007 in the case of the second child district Manggarai Timur. We provide further details on this particular case in the Appendix.

3 Redistricting and Changes in Rents and Diversity

Redistricting led to dramatic changes in the ethnoreligious composition of districts as well as the incidence of local rents. In this section, we first show that splitting increases government jobs and fiscal rents. Next, we discuss our measures of diversity and show that, on average, new districts were drawn in a way that increased ethnic and religious homogeneity. We end by discussing key testable implications for conflict.

3.1 Local Rents

Here, we document the large change in local rents resulting from redistricting. A new (child) district comes with (i) a new local parliament and district head who jointly make decisions regarding, among others, public expenditures and staffing; (ii) up to 30 new regional ministries/departments and corresponding new civil servant jobs; and (iii) a new flow of fiscal transfers from the center.

Size of Government. The creation of a new local government in the child district is the most direct consequence of redistricting. After the interim period, a new district head is elected. In addition to setting the budget, the head has the important role of staffing each of the district's up to 30 new government agencies. In the typical district, between 1200 and 2000 new jobs are created, with at least 30 new upper echelon positions, staffed by a high ranking civil servant.¹³ We have not found evidence to suggest that the total number of offices and jobs decrease in the parent district. Thus, the overall number of civil servants per capita increases dramatically with splitting. These newly created jobs are important for setting and executing public policy.¹⁴

The district executive branch is complemented by a local parliament. The number of seats is determined by population size according to a step function, and the number of seats necessarily increase with district splitting.¹⁵ For example, if a district has 400,000 people initially it would have 40 seats. If it split into two equally sized districts, each would have 30 seats for a total of 60 compared with 40 originally.

Fiscal Rents. The increase in the number of government positions is followed by an increase in overall transfers from the central government. Using the World Bank's Indonesia Database for Policy and Economic Research (DAPOER), which contains data on fiscal transfers from the Ministry of Finance, we estimate the effect of district splitting on per-capita transfers at the original district level.

Figure 5 compares original districts with no splits to ones that had splits in 2002–3 and 2007–8, respectively.¹⁶ All districts had similar average transfers until 2006, when areas that split in 2002–3 experienced

¹³The numbers for jobs are estimated based on field interviews conducted by the authors as well as province-level totals for 2008–12 reported by the National Development Planning Agency.

¹⁴For example, small government projects can be directly assigned to contractors by the heads of the relevant office, once the budget has been approved by parliament. Hence, in addition to holding a high-paying position, the top civil servants are directly involved in public service provision.

 $^{^{15}}$ In particular, < 100,000 people get 20 seats, between (100,000, 200,000) get 25, (200,000, 300,000) get 30, (300,000, 400,000) get 35, (400,000, 500,000) get 40, (500,000, 1,000,000) get 45, and > 1,000,000 get 50 seats.

¹⁶Results are unchanged if we also include 2001 splits. We drop districts in Java given that they follow a very different trajectory. After doing so, there are 137 districts with no splits, 59 districts that split between 2002–3 and 23 districts that split between 2007–8. We also estimate the effect of splitting on per capita transfers within our final estimation sample of districts that split, using our identification strategy detailed in Section 5. Redistricting increases per capita transfers by USD 53–90, or 20–35

a differential increase in average transfers of around USD 100 per capita. While average real transfers decline in 2009 and 2010 for districts that never split or districts that split in 2002–3, they increase for districts that split in 2007–8. This difference is smaller, but still sizable at around USD 50 per capita. These flows constitute a sizable increase in rents given that average district revenue per capita is less than USD 300. The fact that these differences appear 2-4 years after the splits is consistent with the fact that transfers to the child districts take at least 1-2 years to start flowing and tend to begin small.

Nearly all of the increase in average per capita transfers accrues to the child districts with relatively little change observed for parents. Like other districts, approximately 40 percent of these transfers will be spent on government wages and the rest will be spent on public goods in the new district. The decision on how to do so is entirely at the discretion of the new local executive and parliament.

To summarize, redistricting creates new contestable public prizes associated with the infusion of revenue from the central government and opening of new government positions responsible for public expenditure. These gains are concentrated in the child districts, with the parent likely having greater government positions per capita, but no increase in transfers per capita. We now turn to documenting how splitting changes the ethnoreligious diversity of the governed populace.

3.2 Changes in Ethnolinguistic and Religious Diversity

Indonesia is the fourth most populous country in the world and home to remarkable diversity. There are over 700 ethnolinguistic groups. It is predominantly Muslim, with minority Christian, Hindu, and Buddhist groups. The contemporary ethnic, linguistic and religious diversity is the result of long-run settlement processes dating back many centuries. As of the late 20th century, the distribution of different groups across administrative boundaries could be largely traced back to (i) subdistrict borders drawn by the Dutch colonial authorities before independence, and (ii) large waves of population resettlement from Java/Bali to the Outer Islands in the 1970s and early 1980s (see Bazzi et al., 2015). Here we describe the measures of ethnic and religious diversity at the core of our empirical analysis.

Measuring Diversity. We capture this ethnic and religious diversity using micro data from the universal 2000 Population Census. This data allows us to map the initial subdistricts in 2000 to their final 2010 district boundaries, providing us with measures of diversity in the child and parent districts as well as within the original district boundaries. We focus on three measures of diversity: ethnic fractionalization, ethnic polarization, and religious polarization.

Calculating ethnic fractionalization and religious polarization is straightforward. Ethnic fractionalization measures the probability that two randomly chosen individuals belong to different groups, and as such increases with the number of equally sized groups. Formally, fractionalization in district *d* is given by $F = \sum_{g=1}^{M_e} \pi_g (1 - \pi_g)$, where M_e is the number of ethnic groups in the district, and π_g is the population share of group *g* as reported in the 2000 Census. Religious polarization, $R = \sum_{g=1}^{M_r} \sum_{h=1}^{M_r} \pi_g^2 \pi_h$, where M_r is the number of religious groups, and $\pi_g (\pi_h)$ is the population share of group *g* (*h*). Note that this measure does not admit any notion of distance between religions. There are seven religions recorded in the Census, but in most districts, there is a single cleavage between a Muslim and a non-

percent of the mean, comparable to the estimates reported in this paragraph based on Figure 5.

Muslim, typically Christian, group. As a result religious polarization is effectively identical to religious fractionalization in our data (with a correlation of 0.96).

Meanwhile, ethnic polarization is defined as $P = \sum_{g=1}^{M_e} \sum_{h=1}^{M_e} \pi_g^2 \pi_h \kappa_{gh}$, where M_e , π_g , and π_h are as defined before, and κ_{gh} is the distance between groups g and h. Following Fearon (2003), we use linguistic differences to proxy for differences in preferences between groups. We map each of the over 700 ethnic groups in the 2000 Census to a language in *Ethnologue*, which provides a full classification of the linguistic origins of each language (see Appendix A). We set $\kappa_{gh} = 1 - s_{gh}^{\delta}$, where s_{gh} is the degree of similarity between the languages spoken by g and h as given by the ratio of common branches on the language classification tree to the maximum possible (14), and δ is a parameter that selects the level of linguistic dissimilarity to be emphasized. Low δ s emphasize differences between languages with the fewest branches in common; as δ increases, smaller differences become relatively more important until in the limit all differences are equal to 1 unless groups share a common language. We set $\delta = 0.05$ following Esteban et al. (2012), but our results are robust to other values as discussed in Section 6.3.

Ethnic polarization differs from fractionalization in two key respects. First, the squaring of the own group term emphasizes the role of own group identification in increasing tensions between groups. As such, it attains its maximum when there are two distinct, equally sized groups. Second, it formally incorporates distances between groups while fractionalization treats the difference between any two groups identically.¹⁷ Running a horse race between these distinct measures will be important in testing recent theories of diversity and conflict. P and F are correlated at around 0.3, suggesting considerable scope for identifying differential effects.

Panel A in Figure 6 shows the distribution of each diversity measure for the parent and child districts in our study. There is considerable heterogeneity within and between the group of parent and child districts. Table 1 provides additional summary statistics demonstrating this variation.

Changes in Diversity. Each of the diversity measures is computed at both the original district level and at the smaller, future child and parent district levels (from predetermined data), so we can see how the redrawing of boundaries affected diversity. To examine changes in diversity at the original district level, we compute the population-weighted average polarization/fractionalization in the new units (children and parent district) and subtract the polarization/fractionalization in the original district, expressing the final measure in percentage terms. For example, if an original district *A* becomes parent district *B* and child *C*, we calculate $\Delta P = \frac{\left(\frac{N_B}{N_A}P_B + \frac{N_C}{N_A}P_C\right) - P_A}{P_A}$. It is worth noting that Δ fractionalization, computed in this manner, is mechanically less than or equal to 0. Panel B in Figure 6 plots these percentage changes in diversity.

Overall, the redistricting process has indeed homogenized the ethnoreligious composition of governed regions. Table B.1 shows that ethnic fractionalization and religious polarization fall on average. These changes are statistically different from zero (see Appendix Table B.1). The findings on ethnic fractionalization parallel those in Alesina et al. (2014). However, ethnic polarization increases on average by around 3 percent.

These average changes in diversity mask interesting heterogeneity. To get a sense of the heterogene-

¹⁷We also explore the Greenberg-Gini index $G = \sum_{g=1}^{M_e} \sum_{h=1}^{M_e} \pi_g \pi_h \kappa_{gh}$, which is an alternative measure of fractionalization that incorporates distances between groups (see Esteban and Ray, 2011a).

ity, consider the following two examples. The district of Ngada split into Ngada and Nagekeo, and was roughly divided along ethnic lines with ethnic Ngada living in Ngada district and ethnic Nagekeo in Nagekeo district. Ethnic polarization declined from 0.43 to about 0.01 in both districts, and ethnic fractionalization declined from 0.7 to an average of 0.4. On the other end of the spectrum, Maluku Utara split into five new areas, three of which had increased ethnic polarization relative to the original area (about 0.6 relative to 0.4 originally). One of these was Pulau Morotai, which is composed of 43 percent Galela and 30 percent Morotai ethnics. Fractionalization in Maluku Utara was very high initially (0.92) and declined in all areas.

In sum, the new boundaries were drawn in a way that reduced ethnic fractionalization and religious polarization, but not ethnic polarization. We view these measures of diversity as proxies for the potential identity-based coalitions around which political action and mobilization takes place (see Aspinall, 2011, for a related discussion on ethnicity and politics in Indonesia). As a result, the variation in realized diversity across the new districts has important implications for conflict that we describe next.

3.3 Implications for Conflict

The process of redistricting provides a natural laboratory for exploring the drivers of conflict through the lens of new theories of conflict. New borders change the ethnoreligious composition of the governed populations. While these borders are determined by local parties, the timing of this shock is subject to many factors outside of local control. At the same time, new districts are endowed with a new set of valuable contestable public prizes, which further shape conflict incentives.

The first question we bring to the data is whether overall violence decreases after splitting up the area into smaller, more homogeneous units. If homogeneity attenuates tensions as predicted in Esteban and Ray (2011a) and Alesina et al. (2004), we expect violence to decline after redistricting, particularly in districts that experienced the largest reduction in ethnoreligious diversity. The Δ diversity measures noted above are well suited to test this hypothesis at the original district level.

However, the large increase in contestable rents associated with the new district governments may increase the incentives for violence. Control of parliament and district leadership carry large returns for the group in power in terms of the monetary rewards associated with civil servant jobs and non-monetary rewards in the form of setting policy and deciding on public goods expenditures. The new public prizes are not only larger than what were at stake in the area prior but also physically closer since distance to the new capital decreases for the average resident of child districts.¹⁸ The district head elections following the split are also the first time that a leader will be chosen based on these new boundaries. With all of these changes, we expect some form of contest over who gets to allocate the increased public goods and how they do so. Ideally, this occurs peacefully through the democratic process, but violence may be used to influence electoral results or the existing allocation of rents.

Moreover, drawing upon Esteban and Ray (2011a), we hypothesize that conflict will be most likely in areas with the most polarized preferences. The relative publicness of the prizes associated with the new government imply an important role for inter-group differences and the strength of own-group identifi-

¹⁸Using data administrative village-level data from *Podes*, we show that the (population-weighted) average village-level distance to their district capital falls from 85 to 45 kilometers between 2000 and 2011. This decline is explained almost entirely by the child districts whose residents experience an average decline from 130 to 60 kilometers.

cation. Hence, polarization will be more important than fractionalization, and the effects of redistricting should differ across child and parent districts.

Our goal is to understand whether a policy of locally-driven government creation can reduce violent conflict by creating more homogeneous governmental units or whether increases in rents and newly salient group cleavages can offset and perhaps undo the potential gains from homogenization. We test these hypotheses by using multiple empirical strategies and drawing upon newly available data on conflict described below.

4 Conflict: Context and New Data

The recent history of Indonesian conflict can roughly be classified into two periods: (i) collective violence during the democratic transition and initial decentralization reforms (1998–2003), and (ii) routine local violence from 2004–present. Violence in the first period included anti-Chinese riots, large-scale interethnic and interreligious violence (e.g., in Maluku), separatist conflicts between the central government in Aceh and Papua, and terrorist acts by fundamentalist Islamic groups (Barron et al., 2009, 2014). Since 2004, large-scale conflict has transitioned into more sporadic violence, characterized by fewer fatalities, albeit still concentrated in the same regions with a history of violence. Ethno-communal violence and low-level religious violence remain important, and we see an increase in resource, particularly land related, disputes as well as violence relating to elections and governance.

We focus largely on the second period of violence. Our study spans 2000–2014, and hence includes some of the large-scale conflict episodes. However, these episodes are rare events and outliers in many respects. Sporadic outbursts of local violence are much more common. Understanding these sporadic, albeit increasingly routine, episodes of violence is of direct policy relevance to Indonesia today. These low intensity social conflicts are precisely the sorts of violence that are most plausibly related to redistricting and the creation of new local governments within countries.¹⁹ Moreover, these small scale incidents often reflect the ways in which power is violently contested in new democracies and as such pertain to a host of other developing countries.

We draw upon new monthly data on conflict from the Indonesian National Violence Monitoring System. Hereafter, we refer to the data by its Indonesian acronym (SNPK). Like other geospatial conflict databases such as the Armed Conflict Location & Event Data (see, e.g., Michalopoulos and Papaioannou, 2015), the SNPK data is based on reports of violence in local media. Coverage begins in 1998 for nine conflict-prone provinces and increases to 15 provinces plus parts of 3 provinces in greater Jakarta beginning in 2005.²⁰ Thus, the data is not formally representative of Indonesia, but it does span all major island groups and covers a majority of the Indonesian population. Multiple regional newspapers are

¹⁹In this sense, our context is particularly well suited to testing the Esteban and Ray (2011a) model. As they note, "... social conflict need not manifest itself in civil war alone, and there are various other measures (that incorporate, for instance, strikes, demonstrations, riots, assassinations, political prisoners, and the like). Our model should certainly not be seen as an attempt to explain the onset of civil war, and perhaps should not be used in such a context. It may be somewhat better for civil war incidence, but its most satisfactory application should be—data permitting—as a potential explanation for the broader range of [social] conflicts described here."

²⁰These late entrants pose no challenge to our identification. We know when these areas split (even if it is before 2005), and hence we allow them enter the data as post-split if they have already split or as non-split if they are redistricted after 2005. Thus they simply pose a missing data problem. Our results are robust to dropping these entrants, but we retain them in our baseline so as to take advantage of all possible information.

collected for each province to ensure district coverage. However, newspaper coverage is unreliable in the earliest years and hence we exclude 1998 and 1999 from the data. Crucially, conflict locations are recorded at the 2011 district level, despite using newspapers that date back to years before these districts existed. This is possible because most incidents recorded have a subdistrict specified in the newspaper (see Appendix A).

Coders read articles and then use a standardized template to code the incident based on the underlying trigger. The incidents are first coded as domestic violence, violent crime, violence during law enforcement, or conflict. Within conflict, the coders further sort into identity, elections/appointments, governance, resource violence, popular justice, separatist, and other (could not be classified). In our baseline specifications, we analyze three main groupings of incidents: (i) *All*, which includes any reported incidents; (ii) *Non-Crime*, which drops the crime and domestic violence meta-categories; and (iii) *Salient*, which includes identity, elections/appointments, governance, resource violence, and other.

The Salient category is intended to capture conflicts most plausibly associated with the changing rents and changing ethnoreligious diversity that results from redistricting. Conceptually, elections/appointments and governance should capture conflict over who gets to allocate the public good. Resource violence should pick up disputes over the existing allocation of both public and private goods. Identity violence is the most likely candidate to pick up differences in public goods preferences between groups as well as changes resulting from changes in the composition of the governed population. One might worry about miscoding of incidents, given that it is no easy task to identify the unique trigger of a conflict.²¹ This is why we include all incidents. Given that crime and domestic violence are relatively easily identified, this should also ease concerns about selective coding.

The richness of the SNPK data allow us to identify changes in the geography of violence over the last 15 years amidst the massive wave of redistricting. In order to focus on the more sporadic albeit still quite costly violence, we examine the extensive margin of moving from no incidents to one or more incidents at the monthly level. These measures ensure that we are picking up changes in the average frequency of routine violence over time.

Summary statistics for our main conflict outcomes can be seen in Table 1. Violent non-crime incidents occur in around 36 percent of the district–months based on the 2010 borders. Salient types of violence comprise a majority of these events and occur with around a 20 percent probability. Appendix Table B.2 provides a further, detailed breakdown of sub-types of violence in 2006, offering a sense of the typical incident in each category. For example, electoral/appointment violence most commonly relates to district-level politics. Its consequences are typically non-lethal and tend to be particularly concentrated on buildings. Governance violence is also not typically deadly and is more evenly spread out across all sub-categories. Resource violence is the most deadly of the salient categories, with the majority of disputes being about land. Identity violence in this year tends to have a religious component. Finally, popular retaliation for perceived injustice is the most common form of non-crime-based violence, and is typically retaliation over theft, insult or assault.

²¹Based on interviews with the coding staff in Indonesia, if a conflict episode satisfies multiple categories (e.g., resource dispute and identity-based conflict), then it is typically assigned the category that is most salient in that location. For example, if there is a violent dispute over newly developed land between two ethnic groups with longstanding animosity, then that episode is likely classified as ethnic conflict.

5 Empirical Strategy

This section develops our empirical strategy in two steps. First, we describe the baseline estimating equations for identifying the change in the average incidence and geography of conflict after redistricting. Second, we detail the framework for estimating heterogeneous effects based on population diversity. In both sections, we develop and test the identifying assumptions necessary to recover causal effects.

5.1 Identifying the Average Effect of Redistricting

We restrict our econometric analysis to districts that split between 2000 and 2014 and are also found in the SNPK database. Nearly all of these splits occur in the two years before and after the moratorium on splitting from 2004–6. This gives us 52 original districts, *d*, in 2000 that broke apart into 133 districts by 2014. Among these, 29 original districts are observed from 2000–14 while 23 enter the data in 2005. These districts span 19 provinces across the country as seen in Figure 4.

Our main empirical strategy is a generalized difference-in-difference approach that exploits the plausibly exogenous timing of district splits. Our baseline specification is estimated on a monthly panel of original districts defined according to the boundaries in January 2000:

$$conflict_{dt} = \nu + \alpha conflict_{d,t-1} + \beta split_{d,t>s} + \theta_t + \theta_d + \theta_d \times t + f(media_{p(d)t}) + \varepsilon_{dt}, \tag{1}$$

where β identifies the overall change in some measure of conflict after a redistricting of *d* is announced relative to the change over the same period for those districts that have not yet split due to the moratoria and other administrative delays. The parameters θ_t , θ_d , and $\theta_d \times t$ are month fixed effects (FE), district FE, and district-specific linear time trends. $split_{d,t>s}$ is an indicator equal to one for all months *t* after the district's first post-1999 redistricting was officially passed into law in month s.²² The month FE sweep out shocks to conflict incidence that are common across all districts (e.g., if there is a national policy innovation associated with conflict). The district FE take out time-invariant level differences in conflict incidence across districts, which is important given that certain regions of Indonesia are historically more prone to violence than others. Meanwhile, the district-specific time trends allow for differential pre-split trends in conflict, which is particularly important given (i) the secular decline in violence across Indonesia over this period (see Appendix Figure B.1), and (ii) the cessation of major hostilities in the longstanding violence in the provinces of Aceh and Maluku by the mid-2000s as noted in Section 4. The lagged dependent variable accounts for persistence in the unobservable shocks to conflict across months. Given our long monthly panel ($T > 100 \forall d$), there is little concern about dynamic panel bias, which is

²²Districts that split into three or four all at once pose no particular difficulty. Districts that split at two different points in time are more of a nuisance. Consider, for example, Manggarai district, which first created one child, Manggarai Barat in 2003, and then later the parent district was further subdivided to create Manggarai Timur in 2007. Out of 52 original districts, 11 split at multiple points in time. In our baseline setup, we only use the information provided by the first instance of redistricting. Results are robust to dropping these multi-split areas or to assigning the date of the split to the month in which the most splits took place for the given original district. At the more disaggregated level, we code the child district as splitting when they get their new government ratified and leave parents as having their first split. For example, Manggarai Timur would split in 2007 despite the fact that it was part of an area that was subjected to a split in 2003. The parent district of Manggarai meanwhile retains its status as having split since 2003. Note that it is extremely rare for child districts to subsequently split (we only have one case late in our sample period) largely because of a law passed in 2007 that required districts to have been in existence for at least seven years before redistricting.

equivalent to 1/T (Nickell, 1981).²³ Finally, in order to flexibility account for differences in the quality of reporting, we control for the number of active *media* sources used by coders for province *p* in month *t* (see Appendix A). These controls are included in all specifications in the paper (albeit not listed in equations below).²⁴

In our baseline approach, we focus on conflict incidence in terms of any reported incidents in the given month. We focus on the extensive margin of any incidents rather than the number of incidents because the monthly variation in conflict occurs primarily along the extensive margin.²⁵ We estimate all equations using linear probability models (LPM) and cluster standard errors at the original district *d* level. The LPM estimator is preferable to nonlinear approaches such as conditional FE logit given the large number of FE and time trends and our primary interest in recovering causal estimates rather than predicting conflict per se.

Next, we disaggregate the original districts d into parent d_o and new children d_c as observed at the end of 2010. In this case, our baseline specification is estimated on a monthly panel of parent d_o and child d_c districts while retaining the $f(media_{dt})$ controls:

$$conflict_{it} = \nu + \alpha conflict_{i,t-1} + \tau split_{i,t>s} + \eta \left(split_{i,t>s} \times \mathbf{1}(i=d_c) \right) + \theta_t + \theta_i \times t + \varepsilon_{it}, \quad (2)$$

where τ identifies the post-split change in conflict on the territory within the parent district boundaries $(i = d_o)$, and η identifies the differential effect on conflict within the child boundaries $(i = d_c)$. This specification average changes in conflict for child and parent districts. Given the discussion in Section 3.3, we hypothesize that the effects may differ given that the child districts experience a substantially larger change in contestable rents.

Recovering causal effects in equations (1)–(2) requires that two main identifying assumptions hold. First, there must be parallel deviations from trends in conflict among districts that recently split and those that have not yet split. Second, the timing of redistricting (passage into law) must be orthogonal to unobservable determinants of violence. We provide evidence in support of these assumptions.

We first show that more diverse, conflict-ridden districts did not split earlier than other districts. In Table 2, we regress the timing of the initial split in original district *d*—measured as the number of months since January 2000—on predetermined ethnic and religious diversity as well as conflict incidence. We normalize all variables to have mean zero and standard deviation one for comparison purposes relative to the mean of 53 months until the initial split. Column 1 reveals no significant effect of initial ethnic and religious diversity (within the original district borders in 2000) on the timing of the split. A one standard deviation increase in ethnic polarization is insignificantly associated with splitting a mere two months earlier. The two measures of violence in the initial year of the panel are negatively correlated with timing, which suggests that more violent districts may have split earlier, but neither is significant.

Similar non-correlations can be shown for political party connections to the center and natural resource intensity. Column 4 repeats column 1 for the 49 original districts for which we have additional data on these other controls. The results are similar to those for the full sample and point to only one

 $^{^{23}}$ All results are robust to alternative formulations of the lag structure, including dropping the lag altogether.

²⁴These media controls largely serve to soak up noise and improve the efficiency of the estimates.

²⁵In Section 6.3, we show robustness to looking instead at the intensive margin of the number of incidents. We can also restrict to incidents in which there are reported injuries, deaths, or damage to buildings. Doing so leaves our results unchanged, and we retain the unrestricted measure to allow for possible misreporting of these various outcomes.

significant correlate: districts with a relatively larger share of employment in forestry split earlier. Overall, the general lack of significance in Table 2 remains if we instead look at an indicator for whether the district split before or after the 2004–6 moratorium.

5.2 Ethnic Diversity and Heterogeneous Effects of Redistricting

We proceed to examine how the effects of splitting vary with ethnoreligious diversity. Given the relative publicness of the prize associated with the new district governments, we expect ethnic polarization to matter relatively more than ethnic fractionalization (see Section 3.1). Moreover, we also consider religious polarization given the salience of religious identity in many areas of Indonesia. Although the three diversity measures are mutually correlated, there is significant scope for disentangling the separate contribution of each given the ethnoreligious variation across the country.²⁶

We begin by examining how the effects of splitting at the original district level vary with ethnic diversity by augmenting equation (1):

$$conflict_{dt} = \nu + \alpha conflict_{d,t-1} + \beta split_{d,t>s} + \sum_{j \in \{F,P,R\}} \phi_j \left(split_{d,t>s} \times \Delta j_d^0 \right) + \theta_t + \theta_d + \theta_d \times t + \varepsilon_{dt}$$
(3)

where Δj_d^0 are the percentage change in diversity between 2000 and 2010 borders (see Section 3.2) for ethnic fractionalization (j = F), ethnic polarization (j = P), and religious polarization (j = R) indices based on the inhabitants of the original district *d* in the year 2000. The goal of this regression is to identify whether areas that split into more homogeneous and less polarized units experience a differential reduction in violence as compared to districts that did not draw their boundaries in this manner. As such, we use this specification to investigate whether homogeneity of preferences within a governed region matters for conflict.

Recovering causal estimates of ϕ from equation (3) requires that the timing of splits are independent of the way in which the new borders are drawn. We validate these assumptions in Table 2. Columns 2 and 5 show that changes in ethnic and religious diversity at the original district level (constructed using only 2000 data) are not statistically significantly associated with the timing of the split.

Despite the lack of significance in Table 2, there are still concerns that the diversity measures are merely correlated with other time-invariant unobservable characteristics of districts that split. For example, places that reduced fractionalization the most upon splitting may also have had the best pool of public servants and highest resulting state capacity. We address these concerns in Section 6.3 through the standard approach of interacting post-split with an array of time-invariant district characteristics besides ethnoreligious diversity. We include key confounders like initial public good levels, ethnic residential segregation (Alesina and Zhuravskaya, 2011), nighttime light intensity as a proxy for income (Henderson et al., 2012), average distance to the capital and security offices, initial political polarization in local parliament vote shares, the extent of resource sharing, and the relative importance of cash crops in overall agricultural revenue. Results for our diversity measures remain broadly unchanged.

While equation (3) examines how changes in violence resulting from redistricting are mediated by

²⁶In the 52 original districts, ethnic polarization has a correlation of -0.01 (0.30) with religious polarization (ethnic fractionalization), and ethnic fractionalization has a correlation of 0.44 with religious polarization. The correlations are all below 0.4 for the diversity measures based on the eventual parent and child district boundaries.

changes in diversity, it is important to keep in mind that with these changes in the diversity of the governed groups come changes in rents. To clarify this additional implication of redistricting, we proceed to the more disaggregated units of analysis, child and parent districts, where changes in rents are more easily distinguished.

We allow for differential heterogeneous effects between parent and child districts based on the following equation:

$$conflict_{it} = \nu + \alpha conflict_{i,t-1} + \beta split_{i,t>s} + \sum_{j \in \{F,P,R\}} \phi_j \left(split_{i,t>s} \times j_i^0 \right) + \theta_t + \theta_i \times t + \varepsilon_{it}, \quad (4)$$

which we estimate separately for parent $i = d_o$ or child $i = d_c$ districts and compare coefficients across equations. As noted in Section 3.3, we hypothesize that polarization will be relatively more important than fractionalization, and we expect this differential effect to be even more pronounced in child districts.

The key idea underlying the estimates in equation (4) is that the redistricting led to a sharp change in the salience of ethnic and religious affiliation of those individuals within the newly formed borders, whereas before the split, the ethnoreligious diversity of the entire original district was plausibly more salient. The ϕ coefficients identify whether placing a new government in more polarized/fractionalized areas has differential effects on conflict compared to less polarized/fractionalized areas.

The identifying assumptions underlying equation (4) are similar to those for (3). We require that initial diversity within the child and parent borders is uncorrelated with timing and that these variables are not simply picking up other time-invariant characteristic. Columns 3 and 6 in Table 2 show that these characteristics are not significantly correlated with timing. Section 6.3 shows that results are robust to including interactions between post-split and a host of other time-invariant district characteristics.

Overall, the results in Table 2 rule out first order concerns about endogeneity in the timing of district splits. Consistent with Burgess et al. (2012), the evidence suggests that the moratorium and idiosyncrasies in the application and approval process created plausible exogeneity in the time of new district creation across the country. Moreover, by including a lagged dependent variable and district-specific time trends in all specifications, we ensure that secular declines in conflict and persistent unobservable shocks are not confounding our interpretation of the split as an exogenous shock.

6 Results: District Proliferation and Conflict

First, we show that there is no decline in the average incidence of conflict after redistricting. However, we find relatively larger reductions in violence after splitting in those original districts that experienced the largest reductions in ethnoreligious diversity. We then investigate the factors that may be moderating changes in conflict. We identify differential changes in conflict in child and parent districts. In particular, child districts exhibit slightly more violence than parents after splitting, and these differences are largest in child districts with high ethnic polarization and around the time of the first election. Meanwhile, parent districts that have dissimilar voting preferences with child districts pre-split experience relatively less violence after redistricting. Finally, we subject the main results to a battery of robustness checks. Overall, the findings suggest that the reductions in violence associated with increased homogeneity after redistricting may be offset by changes in contestable rents and the composition of the electorate.

6.1 Main Results

We distinguish two first order implications of redistricting: (i) the increase in government capacity and accountability associated with bringing government closer to the governed in terms of physical proximity and preference alignment, and (ii) the change in the existence and size of local rents associated with control of public resources and institutions. If redistricting leads to more ethnically and religious homogeneous districts, then we may see a reduction in conflict if (i) matters. However, the large increase in contestable public rents may lead to an increase in conflict if (ii) matters, particularly if the redrawing of district boundaries increased group polarization, the diversity metric expected to matter in conflicts over public prizes.

Overall Violence: Original District. The estimates of equation (1) in Table 3 provide an initial sense of which of these two forces dominates in the average district. Column 1 shows a null effect of splitting on the likelihood of any violent incidents at the original district level. The point estimate is very small relative to the mean of around 86 percent of district–months with any reported incidents. The same holds for non-crime violence in column 2. Column 3 focuses on those categories of violence most plausibly associated with conflict over public resources and identity politics (see Section 4). Although imprecise, the estimate is economically significant, implying a 10 percent reduction in the likelihood of these types of violence.

Overall, though, the estimates in Table 3 point to small average effects of splitting on overall violence. As we argue in the remainder of this section, these weak average effects mask important changes in the geography of violence and, especially, the composition of the electorate in terms of ethnoreligious and political preferences.

In Table 4, we show how changes in ethnic and religious diversity shape the overall change in conflict after redistricting. We report estimates of equation (4) at the original district level for the three main violence outcomes from the previous table. Redistricting caused a large change in ethnoreligious composition of districts within the original 2000 district borders. Given that the extent of compositional changes is not correlated with the timing of redistricting (see Table 2), we can examine heterogeneous effects along this important dimension of change.

The estimated heterogeneous effects in Table 4 offer suggestive insights into the potential channels linking redistricting to conflict. First, we see that ethnic and religious polarization have positive differential effects on the change in conflict after splitting, particularly when focusing on non-crime related violence. Meanwhile, ethnic fractionalization, which is falling everywhere by definition, has much weaker differential effects that are close to zero.

The positive differential for polarization is consistent with Esteban and Ray (2011a) who show that polarization should matter more than fractionalization when the resources being contested are relatively more public than private as is arguably the case with the redistricting process. Importantly, the null results for fractionalization are not driven by measurement error in the definition of groups, or rather the absence of intergroup distances. In Appendix Table B.4, we look instead at the Greenberg-Gini index, which incorporates linguistic distances between groups, and find similarly small and insignificant heterogeneous effects. Moreover, this differential between polarization and fractionalization holds up to the inclusion of a host of other predetermined district characteristics (plausibly correlated with changes

in diversity) times the post-split indicator as discussed in Section 6.3.

Second, we find that districts with large reductions in diversity experience a statistically and economically significant decrease in the likelihood of salient types of violent conflict after splitting. For example, for an original district at the 10th percentile of the change in ethnoreligious diversity— $\Delta F = -0.24$, $\Delta P = -0.09$, and $\Delta R = -0.16$ —the estimates imply around a 36 percent decline in the likelihood of violence. We find a large reduction of 12 percent even in the median district. This is consistent with the conflict-reducing effects of a more homogenized population dominating the conflict-inducing effects of increased public prizes in such homogenized areas. These patterns can be seen in column 3 at the bottom of the table where we compute the overall change in conflict for districts at the 10th, 50th, and 90th percentile of the changes in diversity.²⁷

Meanwhile, we find moderate increases in conflict for original districts at the 90th percentile where we see an increase in ethnic polarization ($\Delta P = 0.19$). The increase is only statistically significant for the broader set of non-crime violence in column 2. This suggests that in the absence of sufficient homogenization from splitting, there may be limited or no reductions in violence to be gained from redistricting. However, as we show next these overall results mask substantial heterogeneity across parent and child districts.

Geography of Violence: Parent vs. Child. Although informative about overall changes in violence, estimating the model at the original district level obscures the very different implications of redistricting for parent and child districts. Given the granularity of our data, we turn now to disentangle these implications. In all subsequent analysis, we retain this disaggregated look across parent and child districts in order to highlight important changes in the geography of violence caused by redistricting.

Table 5 reveals a small differential increase in violence in child districts after splitting relative to parent districts where we see no change in violence on average. These estimates of equation (2) are somewhat imprecise but point in column 1 to an economically significant difference with child districts experiencing roughly a 7 percent increase in the likelihood of violence after the new borders are formally recognized. When focusing only on non-crime related violence in column 2, we find smaller insignificant results, suggesting that some of the average increase in violence in child districts may be due to crime. Yet, column 3 reveals a larger differential when restricting to those types of violence most plausibly associated with identity politics and resource contestation. These results point to conflict over the *allocation* of *new rents* associated with the creation of a new government.

Moreover, the estimates in column 3 imply negative effects of splitting on these salient types of conflict in parent districts. Although statistically insignificant, the negative estimates both for the original district level in column 3 of Table 4 and for the parent district here are consistent with redistricting leading to a reduction in local grievances. In the parent district, the preexisting government is now responsible for a smaller and geographically proximate population. This bringing of the government closer to the governed may therefore be offsetting any potential increase in conflict over the *reallocation* of *old rents* after the split. We further bolster this explanation below by considering the role of predetermined ethnoreligious heterogeneity within and political differences between parent and child districts.

²⁷In practice, no district is simultaneously at the given percentile of all three diversity measures. However, there is no theoretical reason why such a possible configuration of changes in diversity could not arise in practice. Indeed some districts lie quote close to these percentiles.

Table 6 allows for differential effects of redistricting across child and parent districts with varying degrees of initial ethnoreligious diversity. In columns 1-3, we find that child districts with greater ethnoreligious diversity experience differentially more conflict after redistricting. Interestingly, which diversity metric matters depends on the type of violence. In column 1, ethnic fractionalization has a large, statistically significant effect on the incidence of any violence whereas ethnic and religious polarization have much weaker effects. The opposite is true in column 2 when excluding all crime-related incidents. Noncriminal conflict plausibly involves fighting over resources that are relatively more public than those involved in most criminal incidents. As such, the larger differential positive effect of ethnic polarization (fractionalization) in columns 2-3 (column 1) can be interpreted as further evidence in support of Esteban and Ray (2011a).²⁸ That is, fractionalization amplifies conflict incentives when the prize being contested is one that can be fully excluded from the losing groups, whereas polarization amplifies incentives when the prize cannot be fully excluded but can be shaped in a way that implies higher relative returns to one's own group as is the case with control over the newly created government institutions after redistricting.

Overall, we find evidence of both positive and negative effects of splitting on conflict in the newly created child districts. For child districts at the 90th percentile of ethnoreligious diversity, we see systematic increases in conflict on the order of 25 percent for all violent incidents in column 1 and the most salient categories of violent non-crime related conflict in column 3. Meanwhile we see a reduction in all incidents for those districts at the 10th percentile. Interestingly, though, we do not see that reduction for the salient categories of conflict, suggesting that conflict over public resources and identity are pervasive in newly created districts. In general, these results point to the importance of drawing new district borders (i.e., grouping subdistricts) in a way that does not result in extreme polarization or fractionalization.

While we find large heterogeneous effects for child districts, the amplification effects of ethnoreligious diversity are weaker for parent districts. Ethnic fractionalization has a small and statistically insignificant positive differential effect on all three measures of conflict after splitting whereas ethnic polarization has a negative and insignificant heterogeneous effect. However, religious polarization seems to amplify non-crime and especially salient types of conflict after splitting. In Appendix Table B.3, we show that this result is driven by resource violence, which may point to a few districts on the island of Maluku with religious polarization between Muslims and Christians from the same ethnic groups.

Overall, the differences between parent and child districts are consistent with the change in the value of contestable public resources being larger in the latter. The other noteworthy difference is that parent districts with very low ethnoreligious diversity (at the 10th percentile) experience a decline in all types of violence after redistricting with the largest and most significant decline happening for those salient types of resource- and identity-based conflict. Again, this is consistent with ethnoreligiously homogenous parent districts finding it easier to govern and placate various interest groups, as we document further below, thereby reducing incentives to conflict. It is also consistent with violence moving from parent to child post-split, to the extent that these non-local violent expressions occur.

Discussion. Null average effects of splitting on violence mask compelling heterogeneity. On the whole,

²⁸As with the earlier original district-level results, these different effects of ethnic polarization and fractionalization also hold when accounting for linguistic distances in the fractionalization index, suggesting the intergroup differences do not explain all of the difference. These findings also hold when looking at the diversity indices separately, which is important given the high correlation between, for example, ethnic polarization and the Greenberg-Gini index of fractionalization.

results are supportive of important work in the literature. Firstly, at the original district level, large reductions in diversity as a result of redistricting lead to a sizable reduction in the incidence of violence most plausibly related to contests over the determination of public goods. Homogenization appears to outweigh any increased conflict over new rents in such cases, likely because incentives for conflict over how to distribute such rents is lower in homogenized areas.

Turning to the more disaggregated units, there is clear evidence consistent with newly generated public sector rents inducing conflict, particularly in polarized areas. Meanwhile, child districts with low diversity see reductions in violent crime, but even in children with low diversity we do not see a reduction in salient types conflict. In the parents, where changes in contestable prizes are less extreme, we again see reductions in violence of all types—and especially within the salient category—at low diversity levels.

The findings are largely supportive of Esteban and Ray (2011a) in that capturing the new local government is a prize worth fighting for and incentives to do so are strongest in polarized areas. The evidence also supports Alesina et al. (2004) in that heterogeneity in preferences within a governing unit is costly. Reducing heterogeneity appears to reduce conflict within the salient categories of violence in the parent area and in the original district as whole.

It is important to note that when examining the more disaggregated units, we cannot rule out movements in violence from the parent to the child. That is, we cannot distinguish between a genuine reduction in violence in the parent offset by new violence in the child versus a movement of the same violent actors from parent to child committing similar acts.²⁹ No matter which is occurring, we are more likely to observe an increase in violence, be it reallocated or entirely new, in ethnically polarized child districts. Moreover, the original district results point to genuine decreases in violence post-split in areas with more homogeneity within the new borders, which suggests that the redistricting process can generate economically meaningful reductions in violence as opposed to just reallocating it.

The results presented in Tables 3–6 paint a suggestive picture of the potential channels through which redistricting can affect conflict in diverse settings. In general, these results hold up to a battery of robust-ness checks discussed in Section 6.3. We turn now to investigate a few key mechanisms aimed at further clarifying the two countervailing effects of redistricting on conflict.

6.2 Mechanisms Linking Redistricting and Conflict

Several mechanisms can help explain why we see relatively small average effects of redistricting on conflict but large heterogeneous effects both within and between parent and child districts. We focus here on three key results. First, we identify differential increases in violence in newly created districts around the time of the first election after redistricting. Second, we provide two pieces of evidence on how changes in the composition of the electorate affect violence: (i) The violent surges around election time only occur for child districts and are amplified in ethnically polarized areas, highlighting the contest over public prizes. (ii) Predetermined differences in voting preferences between parent and child districts are as-

²⁹The SNPK data suggest little cross parent/child border violence before or after redistricting (there are only 105 incidents out of 53,144 that have two subdistricts recorded as their location). The splitting process requires approval in the parent district which likely helps to ensure that accepted splits will not be further contested between parent and child districts. This further motivates the sample splitting approach in equation (4). Of course, it may nevertheless be the case that violence moves from the parent beforehand to the child afterwards, following the construction of the new capital.

sociated with greater violence in the parent district before redistricting and less violence after, which is consistent with the conflict-reducing effects of preference homogenization. Finally, we examine further breakdowns in the conflict typology in order to clarify which types of non-crime violence are driving the key results above.

Election Period Violence. If the increase in violence after redistricting is due to contestation of public prizes, then we should observe a differential increase in violence around the time of the first direct election for the head of the newly created district governments. The district head plays a crucial role in allocating many of the public prizes detailed in Section 3. Additionally, these effects should be more pronounced in child districts in which new government institutions, jobs, and resources are concentrated. We provide direct evidence of these patterns in Table 7 by augmenting our baseline specification in equation (2) with indicators for the district-specific election periods before and after redistricting. In all cases, we define the election period as a six month window centered on the date of the election.

In Table 7, we find systematic differences in the likelihood of violence around election time after redistricting. In column 2 for child districts, violence is 13 percent more likely during the election period than during other months after redistricting. Recall that these direct elections only took place for the first time beginning in 2005, and occur within 1.5–2.5 years of splitting. These results suggest that mobilization around election times is a particularly important feature of the conflict landscape after redistricting. Indeed, in column 3, we find a significantly larger differential effect when focusing on those types of violence most directly associated with identity and resource politics. Recall that one of the subcategories of such violence is, in fact, electoral.³⁰ The absence of a differential effect in column 1, which includes crime-based violence, is reassuring insomuch as it suggests that there is not simply a general increase in reporting of violence around election periods due to more intense media coverage.

Meanwhile, before redistricting, we find no differential upsurge in violence in child district areas around election times when residents were voting for the head of the original district based in the capital (of the parent district).³¹ This difference pre- and post-split is consistent with the large change in contestable rents experienced by residents of child districts. It may also be explained in part by the possibility that conflict-prone groups from the child district who used to travel to the original district capital to engage in violence around election times naturally reallocate efforts towards the newly created district capital after redistricting.

At the same time, we find no differential violence around election times when turning to parent districts newly separated from the neighboring child(ren).³² Despite the scope for formation of new electoral coalitions and reallocation of rents, there does not appear to be any more violence around election times in the new parent districts. This apparent difference with child districts can be explained in part by the fact that the scale of the change in contestable rents is relatively smaller in the newly created parent districts. Moreover, as we show below, these parent districts may have had different underlying political preferences than the child districts, and hence after splitting, the political process may have been less polarized and generally more amicable, a claim we support next.

³⁰In results available upon request, we show that the electoral violence subcategory is an important albeit not exclusive contributor to this large differential effect.

³¹Note that this result is only identified off of districts that split after the moratorium ended in 2006.

³²The elections in child and parent districts belonging to the same original district occur at different times after redistricting.

Composition of the Electorate. Given the strong patterns of violence around elections in child districts, we now consider how ethnoreligious diversity in the child districts shapes this violence. If contestation over control of the new public prizes is driving this violence, then we should observe relatively more violence around elections in those districts where the newly relevant electorate is more polarized. Table 8 provides evidence in support of these predictions by interacting the post-split \times first election period indicator with the initial ethnic diversity of the child district.

Child districts with greater initial ethnic polarization are relatively more likely to experience violent conflict around election times. This effect is borne out for nearly all types of violence and is particularly significant for salient categories of violence in column 3. However, this amplification effect extends outside the election period as well. In particular, ethnic polarization retains a positive coefficient on both the interaction with the post-split indicator as well as the triple interaction with post-split and first election period. The latter coefficient is twice as large, suggesting that the conflict-inducing effects of polarization may still be relatively stronger around election periods. In contrast, ethnic fractionalization retains its significant relationship with overall violence after redistricting as seen in column 1, but we see no associated amplification around election times. Overall, these patterns in Table 8 provide further evidence in line with the predictions of the Esteban and Ray (2011a) model on the nature of violent conflict over prizes that differ in the extent to which they can be excluded from losing parties.

We return now to the parent districts in order to further understand how changes in the electorate affect violence after redistricting. Although we find no differential violence around election times in parents, Table 7 shows that these null results documented earlier mask an important source of heterogeneity associated with the differences in voting preferences between parent and child districts. If part of the impetus for splitting lies in the homogenization of political preferences to ease social conflict, then we expect violence to be differentially lower around election time after redistricting in parent districts with relatively more dissimilar voting preferences compared to their neighboring child areas. Moreover, we expect the opposite around election time before redistricting given that parent districts hosted the political seat of the original district where some of the pre-split violence around elections took place.

To test these predictions, we construct an index that captures the similarity in vote shares in the country's first parliamentary elections of the post-Suharto era in 1999. In particular, we define the dissimilarity in voting preferences between parents and children as $\Delta_{vote} = \sum_{c \in C} \pi_c \sum_{i=1}^{I} |share_{ip} - share_{ic}|$ where $share_{ip}$ is the share of votes for party *i* in subdistricts within the parent borders, $share_{ic}$ is the same share for party *i* within the child borders, and I = 5 includes the five parties with the most votes in the overall original district (see Appendix A for details on the voting data). We sum over multiple children in the cases where C > 1, and the weight π_c captures the share of the total child population in 2000 that each child makes up. From an identification perspective, it is important to note that original districts with high Δ_{vote} split no earlier than those with low Δ_{vote} (see Table 2).

Overall, parent districts with divergent voting preferences compared to neighboring child districts experience relatively more violence before splitting and less violence after splitting, with both differential effects concentrated around election times. We see this in column 1 for all violence with the interaction of Δ_{vote} and election period having roughly equal and opposite sign pre and post-split. Reassuringly, these effects seem to be driven by the salient subcategories of violence in column 3. Here, we also find that vote

share dissimilarity is associated with lower violence even in non-election periods after redistricting. All of these results point to the potential reductions in violence afforded to parent districts after separating from children with distinct political preferences. This may explain some of the parent district's support for redistricting.

Conflict Typologies. Having identified systematic differential violence in child districts around election periods, we now use the disaggregated categories of violence to better understand the nature of conflict induced by redistricting. The first set of results in Table 10 provide deeper insight into the types of conflict being amplified by ethnoreligious diversity in the wake of redistricting.

Column 1 shows that some of the heterogeneous effects of ethnic polarization on violence in Table 6 can be traced to conflict over resources. This category includes violence associated with disputes over a range of public and private resources. Despite this positive differential for ethnic polarization, we find no overall effects on the change in resource conflict for districts across the different percentiles of ethnoreligious diversity.

In columns 2 and 3, we find a statistically and economic significant increase in conflict over governance and electoral processes in child districts with high levels of ethnoreligious diversity. A plurality of the incidents in these categories is associated with district-level elections and appointments. The likelihood of conflict associated with the implementation of government programs and services and the appointment of public officials nearly doubles after redistricting in child districts at the 90th percentile of ethnoreligious diversity. We see a corresponding decline in electoral albeit not governance-based violence at the 10th percentile. Religious rather than ethnic polarization differentially increases governancebased conflict whereas ethnic fractionalization amplifies conflict over electoral activities. The former is consistent with the public prize interpretation of conflict over public office and policymaking, but the latter is not. However, given the discussion in Section 4, it is not necessarily the case that the electoral violence category captures all conflict related to contests over government institutions if, for example, law enforcement- or identity-based violence are also associated with those institutions (but not classified as such due to the single category assignment rule).

Turning to identity-based violence in column 4, we find that ethnic polarization exerts a positive differential effect whereas ethnic fractionalization exerts a negative differential effect. Both of these results are statistically significant and consistent with the theoretical difference between the two measures. Holding group sizes constant, in districts with many groups and hence high fractionalization, the salience of within group identity is relatively weaker than in districts with fewer groups of equal size where polarization is higher. These offsetting effects of ethnic polarization and fractionalization on identity-based violence in the average district imply null overall effects across districts at different levels of ethnoreligious diversity.³³

Additionally, ethnic polarization has similarly large differential effects on violence associated with popular justice and law enforcement, perhaps suggesting that state capacity in the newly created districts is declining in the degree of ethnic polarization. Looking at the remaining other types of violence, we find no systematic relationship across all three diversity measures, which is reassuring given that columns 1-6 capture the most salient types of conflict associated with contestation of rents and state capacity.

³³We find similar patterns in parent districts but the results are less precisely estimated (see Appendix Table B.3).

Overall, the results in Table 10 highlight a few important ways in which ethnoreligious diversity shapes the effects of redistricting on conflict. However, as noted in Section 4, we recognize that the coding of these categories is often at best arbitrary and at worst systematically biased towards the particular mechanisms we have in mind. Given the lack of alternative conflict data for validation, we turn to a set of robustness checks with these findings and particular caveat in mind.

6.3 Robustness

Before concluding, we provide evidence on the robustness of key results in Tables 4 and 6. Most importantly, in Appendix Tables B.5–B.6 we interact the post-split indicator with a host of other initial district characteristics that may be correlated with ethnoreligious diversity or the (eventual) location of the child district. These include political polarization, the extent of resource sharing with and size of transfers from the central government, the relative importance of cash crops in overall agricultural revenue, the share of the labor force in agriculture and forestry, ethnic residential segregation (Alesina and Zhuravskaya, 2011), nighttime light intensity as a proxy for income (Henderson et al., 2012), the number of post-primary educational institutions per capita, the number of health clinics and hospitals per capita, and the average village-level distance to the district capital and security offices. The latter controls capture the extent of initial local state capacity. We prefer to retain these specifications as a robustness check since they reduce the sample size due to missing data for some districts.

Overall, the results are robust to this demanding specification.³⁴ At the original district level in Table B.5, the key point estimates on the diversity measures \times post-split remain largely unchanged. At the disaggregated child and parent level in Table B.6, ethnic fractionalization matters relatively less for crime-based violence in child districts and relatively more in parent districts compared to the baseline. The effects of religious polarization after redistricting are also slightly muted in child districts. However, the main heterogeneous effect of ethnic polarization remains unchanged. This reinforces the main finding that in newly created districts that are highly polarized, the contestation of public rents and associated amplification of identity politics tend to outweigh the benefits of bringing local government closer to the constituents it serves.

The baseline results are also robust to generalizing the dependent variable to the count of the number of incidents occurring in the given district–month. In Table B.7 (B.8), we reestimate the specifications in Table 4 (6) using conditional fixed effects Poisson to account for the count nature of the dependent variable. The coefficients in these tables can be interpreted as average marginal effects (AMEs) by simply multiplying by the mean of the dependent variable reported at the bottom of the table. Although some are imprecisely estimated, the sign and magnitude of the AMEs are broadly in line with the estimated effects reported in our baseline tables. We retain the extensive margin as the baseline given that the lion share of the variation in conflict incidents at the monthly level lies in moving from none to any rather than along the intensive margin of number of incidents.

We also implement additional tests (not reported) aimed at further corroborating the validity of the identification strategy and measurement of key variables. First, we omit Aceh from the sample, allowing

³⁴Among the few significant changes include (i) a dampening of the importance of the change in religious polarization on the likelihood of conflict at the original district level in Table 4, and (ii) an increase in the importance of ethnic fractionalization in amplifying crime in parent districts after redistricting.

for the possibility that conflict dynamics differ there given the longstanding separatist violence, which ended with the post-tsunami peace accord in 2005. Second, we drop original districts that experienced two splits over the sample period, which complicate the definition of the timing of redistricting. Finally, we consider an alternative measure of polarization by setting the linguistic distance parameter $\delta = 0.3$, which serves to amplify smaller differences relatively more than our baseline $\delta = 0.05$ as in Esteban et al. (2012). In all cases, we find no systematic changes in the significance of the main results.

Finally, it is important to note that any systematic uptick in violence aimed at pressuring a split should work against much of the findings presented above.³⁵ If violence spikes before redistricting, we should see a decrease in violence post-split. If the pre-split spike is exacerbated by ethnoreligious diversity, then we should see less violence in polarized districts after splitting. Overall, the findings point to the opposite.

7 Conclusion

Overall, our results indicate, as expected by theory, that greater homogeneity reduces incentives to conflict over public prizes. However, the policy implications are nuanced. In practice, in an ethnically diverse country like Indonesia, redistricting may result in higher polarization within new borders. Combined with an increase in contestable rents and potentially low state capacity, this is sufficient to offset, and in some cases reverse, any gains from bringing government institutions closer to the governed. In such cases, it is important to ensure proper expectations, free and fair elections, and sufficient state capacity to ensure the transition proceeds smoothly.

We conclude with two important caveats. Redistricting until one reaches a homogenous group is certainly not an appropriate solution, particularly given that we have not accounted for economies of scale or other consequences of smaller administrative units. Moreover, this study does not address potential long term implications of reduced interactions with other groups; it may well be that the optimal longterm decision to create a new government involves having multiple groups. We simply caution that care must be taken when such a new valuable public prize is placed in polarized areas. This is particularly important in the short- to medium-run period as new government institutions are formed.

³⁵There are reported cases of protest and other pressure on the local or national government in order to get a split approved. The data include an explicit subcategory called "Violence triggered by regional splitting or redistricting," but this is often about village redistricting and village-level border disputes, as can be gleaned from reading the detailed incident reports for these episodes. There are 100 incidents in this category which falls within Governance (1173 incidents in total) as compared to 21,839 total non-crime incidents.

References

- Alesina, A. and E. La Ferrara, "Ethnic Diversity and Economic Performance," *Journal of Economic Literature*, 2005, 43, 762–800.
- _ and E. Spolaore, *The size of nations*, Mit Press, 2003.
- __ and E. Zhuravskaya, "Segregation and the Quality of Government in a Cross Section of Countries," American Economic Review, 2011, 101 (5), 1872–1911.
- __, C. Gennaioli, and S. Lovo, "Public goods and ethnic diversity: evidence from deforestation in Indonesia," Technical Report, National Bureau of Economic Research 2014.
- __, R. Baqir, and C. Hoxby, "Political Jurisdictions in Heterogeneous Communities," *Journal of Political Economy*, 2004, 112 (2).
- _, W. Easterly, and J. Matuszeski, "Artificial states," Journal of the European Economic Association, 2011, 9 (2), 246–277.
- Amodio, F. and G. Chiovelli, "Ethnicity, Migration and Conflict: Evidence from Contemporary South Africa," Technical Report 2015.
- Asher, Sam and Paul Novosad, "The Impacts of Local Control over Political Institutions: Evidence from State Splitting in India," Technical Report 2015.
- Aspinall, E., "Democratization and ethnic politics in Indonesia: Nine theses," *Journal of East Asian Studies*, 2011, 11 (2), 289–319.
- BAPPENAS, Evaluasi Pemekaran Daerah, Bappenas, 2007.
- Barron, P., K. Kaiser, and M. Pradhan, "Understanding variations in local conflict: Evidence and implications from Indonesia," *World Development*, 2009, 37 (3), 698–713.
- __, S. Jaffrey, and A. Varshney, "How Large Conflicts Subside: Evidence From Indonesia," Indonesia Social Development Paper, 2014, (18).
- Bazzi, S., A. Gaduh, A. Rothenberg, and M. Wong, "Skill Transferability, Migration, and Development: Evidence from Population Resettlement in Indonesia," Technical Report 2015.
- _ and C. Blattman, "Economic shocks and conflict: Evidence from commodity prices," American Economic Journal: Macroeconomics, 2014, 6 (4), 1–38.
- Besley, T. and T. Persson, "Repression or civil war?," The American Economic Review, 2009, 99 (2), 292–297.
- _ and _ , "State capacity, conflict, and development," Econometrica, 2010, 78 (1), 1–34.
- Burgess, R., M. Hansen, B. A. Olken, P. Potapov, and S. Sieber, "The Political Economy of Deforestation in the Tropics," *The Quarterly Journal of Economics*, 2012, 127 (4), 1707–1754.
- __, R. Jedwab, E. Miguel, A. Morjaria, and G. Padró i Miquel, "The value of democracy: evidence from road building in Kenya," American Economic Review, 2015.
- **Caselli, F. and W. J. Coleman**, "On the theory of ethnic conflict," *Journal of the European Economic Association*, 2013, *11* (s1), 161–192.
- Dube, O. and J. F. Vargas, "Commodity price shocks and civil conflict: Evidence from Colombia," The Review of Economic Studies, 2013, 80 (4), 1384–1421.
- Esteban, J. and D. Ray, "Linking conflict to inequality and polarization," *American Economic Review*, 2011a, 101 (4), 1345–1374.
- _ and _ , "A model of ethnic conflict," Journal of the European Economic Association, 2011b, 9 (3), 496–521.
- _ , L. Mayoral, and D. Ray, "Ethnicity and Conflict: An Empirical Study," American Economic Review, 2012, 102 (4), 1210–1342.
- Fearon, J. and A. Hoeffler, "Benefits and Costs of the Conflict and Violence Targets for the Post-2015 Development Agenda," *Conflict and violence assessment paper, Copenhagen Consensus Center*, 2014.
- Fearon, J. D., "Ethnic and cultural diversity by country," Journal of Economic Growth, 2003, 8 (2), 195–222.
- _ and D. D. Laitin, "Ethnicity, insurgency, and civil war," *American Political Science Review*, 2003, 97 (01), 75–90.
- Fitrani, F., B. Hofman, and K. Kaiser, "Unity in diversity? The creation of new local governments in a decentral-

ising Indonesia," Bulletin of Indonesian Economic Studies, 2005, 41 (1), 57-79.

- Grossman, G. and J. Lewis, "Administrative Unit Proliferation," American Political Science Review, 2014, 108 (01), 196–217.
- Habyarimana, J., M. Humphreys, D. N. Posner, and J. M. Weinstein, "Why does ethnic diversity undermine public goods provision?," American Political Science Review, 2007, 101 (04), 709–725.
- Henderson, J. V., A. Storeygard, and D. N. Weil, "Measuring economic growth from outer space," American Economic Review, 2012, 102 (2), 994–1028.
- Hill, H., Regional Dynamics in a Decentralized Indonesia, Vol. 501, Institute of Southeast Asian Studies, 2014.
- **Lewis, B.**, "Twelve years of fiscal decentralization: a balance sheet," *Regional Dynamics in a Decentralized Indonesia*, 2014.
- Lipscomb, M. and A. M. Mobarak, "Decentralization and Pollution Spillovers: Evidence from the Re-drawing of County Borders in Brazil," 2013.
- Luca, G. De, R. Hodler, P. A. Raschky, and M. Valsecchi, "Ethnic Favoritism: An Axiom of Politics?," Unpublished Manuscript, 2015.
- Michalopoulos, S. and E. Papaioannou, "Pre-Colonial Ethnic Institutions and Contemporary African Development," *Econometrica*, 2013, 81 (1), 113–152.
- _ and __, "The long-run effects of the scramble for Africa," Technical Report, National Bureau of Economic Research 2015.
- Miguel, Edward and Mary Kay Gugerty, "Ethnic diversity, social sanctions, and public goods in Kenya," *Journal* of *Public Economics*, 2005, 89 (11), 2325–2368.
- Mitra, A. and D. Ray, "Implications of an Economic Theory of Conflict: Hindu-Muslim Violence in India," *Journal* of Political Economy, 2014, 122 (4), 719–765.
- Montalvo, J. G. and M. Reynal-Querol, "Ethnic Polarization, Potential Conflict, and Civil Wars," American Economic Review, 2005a, 95 (3), 796–816.
- _ and _ , "Ethnic diversity and economic development," Journal of Development Economics, 2005b, 76 (2), 293–323.
- Mookherjee, D., "Political Decentralization," Annual Review of Economics, forthcoming, 7, 231–249.
- Morelli, M. and D. Rohner, "Resource Concentration and Civil Wars," Technical Report, National Bureau of Economic Research 2014.
- Nickell, S., "Biases in dynamic models with fixed effects," Econometrica, 1981, pp. 1417–1426.
- **Pierskalla, J. H.**, "Splitting The Difference? The Politics of District Creation in Indonesia," *Comparative Politics*, forthcoming.
- Shenoy, A., "Divided We Stand: The Economic Benefits of State Secession," Unpublished Manuscript, 2015.
- Skoufias, E, A. Narayan, B. Dasgupta, and K. Kaiser, "Electoral Accountability and Local Government Spending in Indonesia," World Bank Policy Research Working Paper, 2014, (6782).
- Weese, E., "Political Mergers as Coalition Formation: An Analysis of the Heisei Municipal Amalgamations," *Quantitative Economics*, forthcoming, (1022).





Notes: These figures capture the evolution of new districts across Indonesia from 1980–2014 based on the month each district was passed into law.





Notes: This figure provides an example from Buru district of the redistricting process as well as our nomenclature for the different administrative divisions.

Figure 3: Timeline of Events

Sample Period Parliamentary elections occurred in 2004, 2009, and 2014 Direct elections of district executive staggered throughout post-2005 period



Major decentralization laws passed





Notes: This map plots the original and new district borders based on district-level shapefiles for 2000 and 2010.





Notes: This figure plots the evolution of average central government transfers to three different groups of districts: (i) those that did not split between 2000 and 2010, (ii) those that split in 2002–3 right before the moratorium (in dashed lines), and (iii) those that split right after the moratorium in 2007–8. The data are from the DAPOER database from the World Bank.

Figure 6: Distribution of (Changes in) Ethnoreligious Diversity

50-2. 4.5 ---- child ---- child ---- child parent parent parent 40-1.5 Kernel density 20-3.5 kernel density kernel densit) 3 2 10-.5 2 .2 .4 ethnic fractionalization 0 .05 ethnic polarization (δ=0.05) .15 0 .05 .1 religious polarization .2 .25 0 .8 Panel B: Δ Diversity at the Original District Level 10 6 kernel density 4 kernel density 5 kernel density 5 2 -.6 ..4 ∆ethnic fractionalization -.2 -.5 0 ∆ethnic polarization (δ=0.05) 0 - 8 0 -.6 -4 -.2 ∆religious polarization .2

Panel A: Initial Diversity in Parent and Child Districts

Notes: The figures in Panel A plot the distribution of initial levels of ethnoreligious diversity in parent and child districts realized by 2010 (i.e., based on the 2000 populations). The figures in Panel B plot the distribution of our measures of the percentage change in ethnoreligious diversity at the original district level, Δ diversity measures in the paper.

Tables

			2000 Bord	lers: Original I	Districts	-
		Conflict Incidents				
	Any	Any Non-Crime	Any Salient	Post-Split	Entered Data in 2005	-
Mean	0.861	0.631	0.413	0.787	0.347	
Standard Dev.	0.346	0.483	0.492	0.409	0.476	
	Ethnic Polarization	Ethnic Fractionalization	Religious Polarization	Δ Ethnic Polarization	Δ Ethnic Fractionalization	Δ Religious Polarization
Mean	0.017	0.612	0.119	0.032	-0.091	-0.045
Standard Dev.	0.016	0.256	0.070	0.206	0.141	0.094
Min	0.003	0.062	0.001	-0.565	-0.732	-0.552
Median	0.013	0.689	0.130	0.007	-0.047	-0.008
Max	0.095	0.957	0.233	0.736	-0.000	0.090
			2010 Borders:	Parent and Ch	ild Districts	
		Conflict Incidents				
	Any	Any Non-Crime	Any Salient	Post-Split	Child Indicator	Entered Data in 2005
Mean	0.616	0.364	0.204	0.607	0.768	0.356
Standard Dev.	0.486	0.481	0.403	0.489	0.422	0.479
	Ethnic Polarization	Ethnic Fractionalization	Religious Polarization	Δ Ethnic Polarization	Δ Ethnic Fractionalization	Δ Religious Polarization
Moon	0.017	0 531	0.114	0.038	-0 119	-0.039
Standard Dov	0.017	0.331	0.114	0.0364	0.119	-0.039
Min	0.010	0.030	0.070	-0 709	-0.941	-0.997
Median	0.013	0.629	0.124	0.012	-0.067	-0.004
Max	0.131	0.943	0.247	1.405	1.214	1.507

Table 1: Summary Statistics

Notes: At the 2000 level there are 52 Districts and 15 Years, for 7,956 monthly observations. At the 2010 level there are 133 Districts and 15 years, for 20,220 monthly observations. *any* includes all crime and non-crime violence; *non* – *crime* restricts to non-crime violent conflict; and *salient* restricts to those categories of violence most plausibly associated with the implications of redistricting including identity, elections/appointments, governance, resource violence, and other.

		Dep	. Var.: mo	onths unt	il split	
	Μ	ain Sam	ple	Robu	istness Sa	ample
	(1)	(2)	(3)	(4)	(5)	(6)
ariginal district athrea fractionalization	2 58			2 00		
original district ethnic fractionalization	2.30 (E.0E)			2.90		
	(5.95)			(7.27)		
original district ethnic polarization	-1.99			-0.65		
	(3.27)			(5.53)		
original district religious polarization	-2.47			0.03		
	(4.93)			(6.81)		
original district crime violence, initial year	-1.40	-2.16		-1.23	-1.30	
	(7.00)	(6.91)		(9.89)	(9.94)	
original district non-crime violence, initial year	-5.21	-4.98		-4.78	-6.22	
	(5.14)	(4.85)		(9.03)	(6.37)	
original district Δ ethnic fractionalization		4.57			4.71	
Ũ		(4.26)			(5.18)	
original district Δ ethnic polarization		1.26			0.07	
8 F		(5.49)			(5.91)	
original district Λ religious polarization		-0.57			-2 73	
		(3.04)			(5.03)	
child district athnic fractionalization		(0.01)	-0.65		(0.00)	-1 34
clind district curric mactonalization			(8.65)			(10.05)
child district athnic polarization			(0.03)			5.60
child district ethnic polarization			(2.14)			(4.22)
			(3.14)			(4.23)
child district religious polarization			-0.80			-7.90
			(6.96)			(7.60)
parent district ethnic fractionalization			4.66			6.91
			(8.00)			(9.48)
parent district ethnic polarization			3.68			7.34
			(6.05)			(8.81)
parent district religious polarization			3.75			4.31
			(6.92)			(7.94)
child district crime violence, initial year			1.40			-8.30
			(13.68)			(13.03)
child district non-crime violence, initial year			5.37			11.99
			(13.43)			(14.26)
parent district crime violence, initial year			-2.82			0.56
			(8.50)			(10.91)
parent district non-crime violence, initial year			-10.52			-11.58
			(9.59)			(15.23)
vote dissimilarity between parent and child				-5.08	-4.37	-6.63
, <u>1</u>				(5.82)	(6.33)	(5.75)
original district vote polarization				-3.04	-1.18	0.33
8				(6.19)	(6.50)	(8.31)
original district share of workers in agriculture				0.05	-1.63	0.35
original aburet shale of workers in agriculture				(8.64)	(8.04)	(9.16)
original district share of workers in forestry				-10 74	-11 43	-12 41
original district share of workers in forestry				(7.65)	(6 71)*	(8.21)
original district cash gron share by value				(7.03)	(0.71)	6.67
onginal abunct cash crop shale by value				-1.04 (7.87)	-1.97 (6.71)	(7.82)
original district resource revenues				-0.29	0.42	1 76
original district resource revenues				(7.01)	(6 00)	-1.70
				(7.21)	(0.00)	(0.94)
No. of Districts	EO	FO	EO	40	40	40
INU. UI DISTRICTS	52	52	52	49 52	49	49
wean Dep. var.	55	55	53 0 597	55	53 0 501	53
p-value: joint sig. diversity terms	0.923	0.410	0.586	0.958	0.581	0.432

Table 2: Plausibly Exogenous Timing of Redistricting

Notes: This table regresses the month that each original district split minus the months since January 2000 on the incidence of conflict (number of episodes) in the initial year of the given district's data in SNPK (2000 or 2005), labor force shares in agriculture and forestry in 2000, natural resource and transfer revenue from the central government, measures of political polarization within and between parent and child districts in the 1999 parliamentary election, and different measures of ethnoreligious diversity at the original district and parent/child levels based on the 2000 Population Census. Columns 1-3 are the main sample of original districts, and in columns 4-6, we are restricted to 49 original districts for which we have additional controls as used in the robustness checks discussion in Section 6.3. All regressions also control for the year of entry into SNPK (2000 or 2005). Robust standard errors are in parentheses. Significance levels: *: 10% **: 5% ***: 1%;

	Dep. Va	ar.: any ir	cidents
	all	non-crime	salient
	(1)	(2)	(3)
lagged conflict	0.082	0.052	0.038
	(0.022)***	(0.014)***	(0.012)***
post-split	-0.000	-0.010	-0.044
	(0.019)	(0.024)	(0.027)
Observations	7904	7904	7904
District Borders in	2000	2000	2000
No. of Districts	52	52	52
Mean Dep. Var.	0.862	0.631	0.413
Time FE	Yes	Yes	Yes
District FE	Yes	Yes	Yes
District Time Trends	Yes	Yes	Yes

Table 3: Average Effects of Redistricting on Conflict

Original District Level

Notes: The dependent variable in all columns is an indicator equal to one if there was any violent incidents of the given categorization in that district—month. *all* includes all crime and non-crime violence; non - crime restricts to non-crime violent conflict; and *salient* restricts to those categories of violence most plausibly associated with the implications of redistricting including identity, elections/appointments, governance, resource violence, and other. Lagged conflict is simply the one month lag of that indicator. *post* – *split* is an indicator equal to one for all months after which the original or parent district experiences its first redistricting and the child district is officially passed into law. All specifications include month FE, district FE, and district-specific monthly time trends. Standard errors are clustered by original district, of which there are 52. Significance levels: *: 10% **: 5% ***: 1%;

	Dep. Va	ar.: any ir	ncidents
	all	non-crime	salient
	(1)	(2)	(3)
lagged conflict	0.081	0.051	0.037
	(0.022)***	(0.014)***	(0.012)***
post-split	-0.025	-0.025	-0.054
1 1	(0.028)	(0.028)	(0.029)*
$post-split \times \Lambda$ other fractionalization	-0.255	_0 100	_0 138
post-spint $\wedge \Delta$ ethnic fractionalization	(0.231)	-0.199	(0.140)
	(0.231)	(0.100)	(0.140)
post-split $ imes \Delta$ ethnic polarization	0.259	0.341	0.287
	(0.152)*	(0.102)***	(0.117)**
post-split $\times \Lambda$ religious polarization	0.314	0.520	0.437
post spin // _ rengious pomination	(0.236)	(0.209)**	(0.217)**
Observations	7004	7904	7904
District Bordors in	7904 2000	2000	2000
No. of Districts	2000	2000	2000
Moan Don, Var	0.862	0.631	0.413
A conflict diversity 10th petile	0.002	0.031	0.415
Δ connect, diversity four petile	-0.000 [0.256]	[0.012]	-0.150 [0.008]
A conflict divorcity 50th notile	0.013	$\begin{bmatrix} 0.012 \end{bmatrix}$	0.000
Δ connect, diversity 50th period	-0.013	-0.017	-0.049
A conflict diversity 00th notile	[0.338]	[0.495]	0.079
Δ connet, diversity 90th petile	0.047	[0.073]	0.020
Time EE	[U.221] Voc		[0.499] Voc
IIIIE FE District EE	ies Voc	Tes Voc	Tes Voc
District Time Trends	ies Vaa	ies Vaa	ies Vec
District time trends	ies	res	ies

Table 4: Ethnoreligious Diversity and the Effects of Redistricting on Conflict

 Original District Level

Notes: The dependent variable in all columns is an indicator equal to one if there was any violent incidents of the given categorization in that original district–month (see the notes to Table 3). *post* – *split* is an indicator equal to one for all months after which the original district experiences its first post-2000 redistricting. Δ of the given diversity measure captures the percentage change in diversity between the original district in 2000 and the population-weighted average of initial diversity within the emergent parent and child districts in 2010. All specifications include month FE, district FE, and district-specific monthly time trends. Standard errors are clustered by original district, of which there are 52. Significance levels: *:10% **:5% ***:1%;

	Dep. Va	ar.: any in	cidents
	all	non-crime	salient
	(1)	(2)	(3)
lagged conflict	0.075	0.062	0.048
	(0.011)***	(0.013)***	(0.010)***
post-split	-0.004	-0.003	-0.024
	(0.022)	(0.025)	(0.022)
post-split \times child	0.042	0.007	0.035
	(0.024)*	(0.026)	(0.022)
Observations	20087	20087	20087
District Borders in	2010	2010	2010
No. of Districts	133	133	133
Mean Dep. Var.	0.616	0.364	0.204
Time FE	Yes	Yes	Yes
District FE	Yes	Yes	Yes
District Time Trends	Yes	Yes	Yes

Table 5: Average Effects of Redistricting on Conflict

Child and Parent District Level

Notes: The dependent variable in all columns is an indicator equal to one if there was any violent incidents of the given categorization in that original district-month (see the notes to Table 3). *post* – *split* is an indicator equal to one for all months after which the original or parent district experiences its first redistricting and the child district is officially passed into law. The child indicator equals one for child districts. There are 52 parent and 81 child districts. All specifications include month FE, district FE, and initial district-specific monthly time trends. Standard errors are clustered by original district, of which there are 52. Significance levels: *: 10% **: 5% ***: 1%;

	Dep. Var.: any incidents						
	all	non-crime	salient	all	non-crime	salient	
	(1)	(2)	(3)	(4)	(5)	(6)	
		Child Distric	ts	P	arent Distric	ets	
lagged conflict	0.074 (0.013)***	0.071 (0.015)***	0.061 (0.012)***	0.071 (0.018)***	0.048 (0.014)***	0.030 (0.014)**	
post-split	-0.115 (0.046)**	-0.053 (0.040)	-0.034 (0.029)	-0.080 (0.058)	-0.071 (0.055)	-0.114 (0.037)***	
post-split \times ethnic fractionalization	0.232 (0.075)***	-0.015 (0.059)	-0.007 (0.044)	0.146 (0.106)	0.071 (0.073)	0.049 (0.070)	
post-split \times ethnic polarization	-0.054 (0.861)	1.695 (1.006)*	1.230 (0.378)***	-2.249 (2.119)	-1.465 (1.807)	-1.180 (1.707)	
post-split \times religious polarization	0.290 (0.298)	0.259 (0.183)	0.197 (0.161)	0.151 (0.331)	0.435 (0.277)	0.625 (0.209)***	
Observations	12183	12183	12183	7904	7904	7904	
District Borders in	2010	2010	2010	2010	2010	2010	
No. of Districts	81	81	81	52	52	52	
Mean Dep. Var.	0.536	0.286	0.152	0.739	0.484	0.284	
Δ conflict, diversity 10th pctile	-0.095	-0.044	-0.027	-0.072	-0.068	-0.111	
	[0.030]	[0.222]	[0.317]	[0.130]	[0.159]	[0.001]	
Δ conflict, diversity 50th pctile	0.067	-0.007	0.004	0.009	0.010	-0.021	
	[0.004]	[0.779]	[0.831]	[0.729]	[0.747]	[0.461]	
Δ conflict, diversity 90th pctile	0.143	0.036	0.037	0.011	0.041	0.031	
	[0.001]	[0.317]	[0.083]	[0.783]	[0.309]	[0.406]	
Time FE	Yes	Yes	Yes	Yes	Yes	Yes	
District FE	Yes	Yes	Yes	Yes	Yes	Yes	
District Time Trends	Yes	Yes	Yes	Yes	Yes	Yes	

Table 6: Ethnoreligious Diversity and the Effects of Redistricting on Conflict

Child versus Parent Districts

Notes: The dependent variable in all columns is an indicator equal to one if there was any violent incidents of the given categorization in that original district-month (see the notes to Table 3). post - split is an indicator equal to one for all months after which the child district is passed into law or the parent district experiences its first redistricting (i.e., is split out from an original district and loses the child district). The ethnoreligious diversity measures are based on the population residing within the eventual parent and child district boundaries in 2000. There are 52 parent and 81 child districts. All specifications include month FE, district FE, and initial district-specific monthly time trends. Standard errors are clustered by original district, of which there are 52. Significance levels: *: 10% **: 5% ***: 1%;

Table 7: Differential Effects During Election Time

		De	ep. Var.: any	inciden	ts	
	all	non-crime	salient	all	non-crime	salient
	(1)	(2)	(3)	(4)	(5)	(6)
	C	hild Distric	ts	Pa	rent District	ts
lagged conflict	0.077 (0.013)***	0.071 (0.015)***	0.061 (0.012)***	0.072 (0.018)***	0.048 (0.014)***	0.033 (0.014)**
post-split	0.040 (0.024)	-0.005 (0.024)	0.001 (0.017)	-0.008 (0.021)	0.001 (0.027)	-0.027 (0.026)
pre-split election period (original district)	-0.015 (0.021)	-0.008 (0.021)	-0.004 (0.019)	0.003 (0.034)	-0.059 (0.039)	-0.010 (0.039)
1st election period post-split	-0.014 (0.023)	0.038 (0.020)*	0.060 (0.021)***	0.026 (0.044)	-0.011 (0.049)	0.027 (0.048)
Observations	12064	12064	12064	7785	7785	7785
District Borders in	2010	2010	2010	2010	2010	2010
No. of Districts	80	80	80	51	51	51
Mean Dep. Var.	0.540	0.289	0.153	0.735	0.476	0.278
Time FE	Yes	Yes	Yes	Yes	Yes	Yes
District FE	Yes	Yes	Yes	Yes	Yes	Yes
District Time Trends	Yes	Yes	Yes	Yes	Yes	Yes

Child versus Parent Districts

Notes: The dependent variable in all columns is an indicator equal to one if there was any violent incidents of the given categorization in that parent or child district—month (see the notes to Table 3. *post — split* is an indicator equal to one for all months after which the child district is passed into law or the parent district experiences its first redistricting (i.e., is split out from an original district and loses the child district). The pre-split election period equals a 6 month window around the the district-specific date of the election for the district head at the level of the original district. This is only possible for districts that split after 2006 because before 2005, these elections were not held as the district head was appointed by the central government. The pre-split election time is the same for both parent and child districts. The first post-split election period is defined similarly and varies across (parent and child) districts. There are 52 parent and 81 child districts. All specifications include month FE, district FE, and initial district-specific monthly time trends. Standard errors are clustered by original district, of which there are 52. Significance levels: *: 10% **: 5% ***: 1%;

	Dep. V	ar.: any ir	ncidents
	all	non-crime	salient
	(1)	(2)	(3)
lagged conflict	0.074	0.070	0.059
	(0.013)***	(0.015)***	(0.012)***
post-split	-0.104	-0.046	-0.032
	(0.045)**	(0.040)	(0.029)
post-split $ imes$ ethnic fractionalization	0.223	-0.032	-0.020
	(0.073)***	(0.060)	(0.043)
post-split $ imes$ ethnic polarization	-0.271	1.610	1.046
	(0.884)	(1.038)	(0.405)**
post-split $ imes$ religious polarization	0.301	0.241	0.205
	(0.295)	(0.175)	(0.162)
		0.072	0.001
Ist election period post-split	-0.077	-0.073	-0.021
	(0.040)*	(0.047)	(0.040)
athnic fractionalization × 1st election period post-split	0.053	0 136	0 000
enfine fractionalization × 1st election period post-spin	(0.053)	(0.066)**	(0.099
	(0.072)	(0.000)	(0.004)
ethnic polarization × 1st election period post-split	2,331	1,101	2,169
	$(1.271)^*$	(0.691)	(0.838)**
	(1.2.1)	(0.072)	(0.000)
religious polarization \times 1st election period post-split	-0.058	0.208	-0.066
8 - I	(0.217)	(0.261)	(0.232)
	()	()	()
Observations	12064	12064	12064
Mean Dep. Var.	0.540	0.289	0.153
Time FE	Yes	Yes	Yes
District FE	Yes	Yes	Yes
District Time Trends	Yes	Yes	Yes

Table 8: Ethnoreligious Diversity, Elections and Conflict

Child Districts

Notes: The dependent variable in all columns is an indicator equal to one if there was any violent incidents of the given categorization in that parent or child district—month (see the notes to Table 3). See the notes to Table 7 for details on the election variable. post - split is an indicator equal to one for all months after which the child district is passed into law or the parent district experiences its first redistricting (i.e., is split out from an original district and loses the child district). The ethnoreligious diversity measures are based on the population residing within the eventual child district boundaries in 2000. There are 81 child districts. All specifications include month FE, district FE, and initial district-specific monthly time trends. Standard errors are clustered by original district, of which there are 52. Significance levels: *: 10% **: 5% ***: 1%;

Fable 9: Political I	Preference	Differences,	Elections	and	Conflict
----------------------	------------	--------------	-----------	-----	----------

	Dep. Va	r.: any in	cidents
	all	non-crime	salient
	(1)	(2)	(3)
lagged conflict	0.072	0.047	0.035
	(0.019)***	(0.015)***	(0.014)**
post-split	-0.012	0.042	0.022
	(0.045)	(0.055)	(0.048)
pre-split election period (original district)	_0 131	_0 0 2 9	-0.165
pre-spin election period (original district)	-0.131	(0.121)	-0.105
	(0.007)	(0.121)	(0.079)
vote share dissimilarity \times election period pre-split	0.703	-0.141	0.781
	(0.287)**	(0.507)	(0.401)*
1st election period post-split	0.162	-0.118	0.156
ist election period post spin	(0.094)*	(0.137)	(0.100)
			. ,
post-split $ imes$ vote share dissimilarity	-0.001	-0.183	-0.228
	(0.201)	(0.205)	(0.156)
vote share dissimilarity \times 1st election period post-split	-0.732	0.495	-0.634
	(0.362)**	(0.571)	(0.464)
	, , , , , , , , , , , , , , , , , , ,		, , , , , , , , , , , , , , , , , , ,
Observations	7427	7427	7427
Mean Dep. Var.	0.750	0.486	0.282
Time FE	Yes	Yes	Yes
District FE	Yes	Yes	Yes
District Time Trends	Yes	Yes	Yes

Notes: The dependent variable in all columns is an indicator equal to one if there was any violent incidents of the given categorization in that parent or child district-month (see the notes to Table 3). See the notes to Table 7 for details on the election variable. *post* – *split* is an indicator equal to one for all months after which the child district is passed into law or the parent district experiences its first redistricting (i.e., is split out from an original district and loses the child districts for the top five parties in the 1999 parliamentary elections at the original district level (see Appendix A for details). All specifications include month FE, district FE, and district-specific monthly time trends. Standard errors are clustered at the original district level in all columns. Significance levels: *: 10% **: 5% **: 1%;

Table 10: Dissecting Conflict

Dependent Variable			Any	Incider	its		
Category	resource (1)	governance (2)	electoral (3)	identity (4)	pop. just. (5)	law enforce (6)	other (7)
lagged conflict	0.039 (0.012)***	0.026 (0.017)	0.109 (0.024)***	0.113 (0.026)***	0.030 (0.020)	0.006 (0.014)	0.007 (0.029)
post-split	-0.018 (0.019)	-0.012 (0.012)	-0.023 (0.008)***	0.012 (0.017)	-0.010 (0.031)	-0.027 (0.017)	0.004 (0.007)
post-split \times ethnic fractionalization	0.007 (0.021)	0.000 (0.020)	0.045 (0.017)***	-0.067 (0.026)**	-0.049 (0.049)	-0.003 (0.033)	0.003 (0.015)
post-split \times ethnic polarization	0.811 (0.258)***	-0.082 (0.365)	0.100 (0.180)	0.578 (0.261)**	1.303 (0.753)*	0.963 (0.340)***	0.201 (0.240)
post-split \times religious polarization	0.015 (0.088)	0.176 (0.070)**	0.004 (0.058)	0.036 (0.071)	0.031 (0.130)	0.012 (0.100)	-0.001 (0.042)
Observations	12183	12183	12183	12183	12183	12183	12183
Mean Dep. Var.	0.057	0.036	0.032	0.024	0.104	0.065	0.021
Δ conflict, diversity 10th pctile	-0.013	-0.011	-0.019	0.010	-0.007	-0.022	0.005
	[0.465]	[0.288]	[0.014]	[0.523]	[0.806]	[0.159]	[0.447]
Δ conflict, diversity 50th pctile	-0.002	0.010	0.007	-0.017	-0.020	-0.015	0.008
	[0.859]	[0.190]	[0.350]	[0.087]	[0.310]	[0.275]	[0.266]
Δ conflict, diversity 90th pctile	0.012	0.025	0.018	-0.020	-0.010	-0.001	0.011
	[0.263]	[0.040]	[0.060]	[0.122]	[0.731]	[0.961]	[0.260]
Time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
District FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
District Time Trends	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Child Districts

Notes: The dependent variable in all columns is an indicator equal to one if there was any violent conflict incidents of the given categorization in that district-month. *post* – *split* is an indicator equal to one for all months after which the parent district experiences its first redistricting (i.e., is split out from an original district and loses the child district). The ethnoreligious diversity measures are based on the population residing within the eventual child district boundaries in 2000. There are 81 child districts. All specifications include month FE, district FE, and initial district-specific monthly time trends. Standard errors are clustered by original district, of which there are 52. Significance levels: *: 10% **: 5% *** : 1%;

Appendix

A Data and Variables

We describe here the key variables and data sources used in the paper.

A.1 Administrative Divisions

Original District: This administrative unit defines all areas based on the 2000 boundaries.

Child District: This represents the subdistricts that eventually become their own new district with an accompanying capital.

Parent District: This represents the subdistricts that stay with the original district capital after other subdistricts split off.

Post-Split: This is an indicator that turns on after the month that parliamentary legislation first established a new district within the original district boundaries. In most cases there is only one split event per original district. Multi-splits have a second split at a later date. We explore robustness to alternate ways of handling multi-splits.

A.2 Conflict

The conflict data comes from the Indonesian National Violence Monitoring System (known by its Indonesian acronym SNPK). The data are reported at the 2011 district level, and hence we can calculate conflict within both the 2010 and 2000 borders over the years 2000–2014. Our main conflict measures are binary indicators for any conflict in a given district–month, but we also consider the number of incidents as a robustness check.

Any Incident: A dummy for whether SNPK recorded any violent incident in the given month.

Any Non-Crime Incident: A dummy for whether SNPK recorded any non-crime and non-domestic violence incidents in the given month.

Any Salient Incident: A dummy for whether SNPK recorded any resource, governance, election, identity or non-classified violent conflict incident in the given month. Resource conflict is triggered by resource disputes (most commonly land and restricted access to public locations). Governance conflict is triggered by disputes over government policies or programs (most commonly corruption and poor public service quality). Election incidents are triggered by electoral competition or bureaucratic appointments (most commonly pertaining to the district level). Identity-based incidents are incidents that are triggered by disputes between ethnicities, religions, or long-standing enmity between resident groups (most commonly religious or between residents of different areas).

Active Media: Using data obtained directly from SNPK managers on newspaper availability and usage by province and month, we calculate the number of papers used in any given province-month. All conflict specifications control flexibly for media availability by including dummies for the number of active papers in any given province-month.

Entered 2005: SNPK coverage begins in 1998 for nine conflict-prone provinces and increases to 15 provinces plus parts of 3 provinces in greater Jakarta beginning in 2005. The data are not reliable for

1998 and 1999, and hence we focus on 2000-2014 in the paper.

A.3 Diversity

All measures are computed using the universal 2000 Population Census. Since this contains data at the village level, metrics can be constructed at both the 2000 and 2010 borders.

Ethnic Fractionalization: Ethnic fractionalization in district *d* is given by $F = \sum_{g=1}^{M_e} \pi_g (1 - \pi_g)$, where M_e is the number of ethnic groups in the district, and π_g is the population share of group *g* as reported in the 2000 Census. We observe over 1000 ethnicities and sub-ethnicities speaking over 400 languages. We also consider the related Greenberg-Gini version, which allows for non-binary distances between groups: $G = \sum_{g=1}^{M_e} \sum_{h=1}^{M_e} \pi_g \pi_h \kappa_{gh}$ where κ_{gh} captures the linguistic distance between groups *g* and *h* as detailed below.

Religious Polarization: Religious polarization, $R = \sum_{g=1}^{M_r} \sum_{h=1}^{M_r} \pi_g^2 \pi_h$, where M_r is the number of religious groups, and $\pi_g(\pi_h)$ is the population share of group g(h). There are seven religions recorded in the Census, but in most districts, there is a single cleavage between a Muslim and a non-Muslim group. As a result religious polarization is effectively identical to religious fractionalization in our data (with a correlation of 0.96).

Ethnic Polarization: $P = \sum_{g=1}^{M_e} \sum_{h=1}^{M_e} \pi_g^2 \pi_h \kappa_{gh}$, where M_e , π_g , and π_h are as defined before, and κ_{gh} is the distance between groups g and h. We map each ethnic group in the 2000 Census to a language in *Ethnologue*, which provides a full classification of the linguistic origins of each language (see Bazzi et al. (2015)). We set $\kappa_{gh} = 1 - s_{gh}^{\delta}$, where s_{gh} is the degree of similarity between the languages spoken by g and h as given by the ratio of common branches on the language classification tree to the maximum possible (14), and δ is a parameter that selects the level of linguistic dissimilarity to be emphasized. We set $\delta = 0.05$ in our baseline, but consider alternate values. Ethnicities with missing languages are given province-specific average pairwise distances (κ s) between all other languages. Missing ethnic groups are necessarily grouped together, but separately from others, and also given province-specific average distances. We drop foreigners as they represent a minute fraction of the population, but we retain the ethnic Chinese.

Ethnic Residential Segregation: Following Alesina and Zhuravskaya (2011), we use the 2000 census to compute Ethnic segregation by comparing ethnic fractionalization at the sub-district level to that of the district level. Specifically we compute:

$$S = \frac{1}{M-1} \sum_{m=1}^{M} \sum_{s=1}^{S} \frac{t_s}{T} \frac{(\pi_{sm} - \pi_m)^2}{\pi_m}$$

M is the number of ethnic groups, T is the total population of the district, t_s is the population in subdistrict s, π_m is the fraction of group m in the district, and π_{sm} is the fraction of group m in sub-district s. We drop the smallest 1% of ethnic groups so that M remains reasonable (< 25). We compute this for both the 2000 and 2010 boundaries (using 2000 data).

The following measures are constructed only at the original district level:

 Δ **Ethnic Polarization**: To examine changes in diversity at the original district level, we compute the population-weighted average polarization in the new units (children and parent district), subtract the polarization in the original district, and express it in percentage terms. For original district *OD* becoming parent district d_1 and child(ren) d_2 (d_3 and so forth if multiple children), with populations $N_{d_1}+N_{d_2}+...=$

 N_{OD} and ethnic polarization levels P_{d1}, P_{d2}, P_{OD} , we calculate $\Delta P = \frac{\sum_{d \in D} \left(\frac{N_d}{N_{OD}} P_d\right) - P_{OD}}{P_{OD}}$.

 Δ Ethnic Fractionalization: For original district *OD* becoming parent district d_1 and child(ren) d_2 (d_3 and so forth if multiple children), with populations $N_{d_1} + N_{d_2} + ... = N_{OD}$ and ethnic fractionalization levels F_{d_1}, F_{d_2}, F_{OD} we calculate $\Delta F = \frac{\sum_{d \in D} \left(\frac{N_d}{N_{OD}}F_d\right) - F_{OD}}{F_{OD}}$. It is worth noting that Δ fractionalization, computed in this manner, is mechanically less than or equal to 0.

 Δ **Religious Polarization**: For original district *OD* becoming parent district d_1 and child(ren) d_2 (d_3 and so forth if multiple children), with populations $N_{d_1} + N_{d_2} + ... = N_{OD}$ and religious polarization levels R_{d_1}, R_{d_2}, R_{OD} we calculate $\Delta R = \frac{\sum_{d \in D} \left(\frac{N_d}{N_{OD}} R_d\right) - R_{OD}}{R_{OD}}$.

A.4 Government Transfers

Total District Revenue Per Capita: District revenue figures come from the World Bank's Indonesia Database for Policy and Economic Research (DAPOER), which in turn obtains data from the Indonesia ministry of finance data. They are given for each district at the time of existence. We aggregate up to the 2000 district boundary and separately also consider only parents. Population data is taken from the same dataset. All figures are inflation adjusted using 2010 as the base year.

DAU/DAK Revenue Per Capita: District revenue in Indonesia is divided into a general allocation grant (*Dana Alokasi Umum*, DAU), some shared taxes, shared natural resource rents, and the special allocation grant (*Dana Alokasi Khusus*, DAK), as well as limited own revenue. DAU/DAK revenue focuses on the portion of revenue not due to natural resources or shared taxes.

Initial Resource Revenue: Natural resource revenue such as that from oil/gas and mines is first transferred to the center and then partly returned to the district (and to a lesser extent nearby districts) based on percentages that vary by product and over the course of the study period. We use the level in 2000 to proxy, albeit imperfectly, for the presence and value of natural resources in the original district.

A.5 Voting

1st Election Period: Direct local elections for district head first occurred in June 2005. Newly split districts typically have an election 1.5–2.5 years after splitting. We collected data on the date of elections in each district and construct an indicator that equals one in the 6 month window around the election date. Most child district's first election is a direct election. The only exception is 2001-2002 during which the split district head their district head elected by the new local parliament, in accordance with practice at the time.

Vote Share Dissimilarity: We use data on vote share by party and sub-district in the 1999 district parliamentary (DPRDII) elections—the first of the post-Suharto era—to construct a measure of vote share dissimilarity between what ends up as the parent district and what ends up as the child district. Fortyeight parties competed in these elections. We compute dissimilarity in vote shares of the top 5 parties by vote share at the original district level: $\Delta_{vote} = \sum_{c \in C} \pi_c \sum_{i=1}^{I} |share_{ip} - share_{ic}|$ where $share_{ip}$ is the share of votes for party *i* in subdistricts within the parent borders, $share_{ic}$ is the same share for party *i* within the child borders, and I = 5 includes the five parties with the most votes in the overall original district. We sum over multiple children in the cases where C > 1, and the weight π_c captures the share of the total child population in 2000 that each child makes up.

A.6 Other Variables

Light Intensity: We use night lights in 2000 to proxy for initial GDP (Henderson et al., 2012). We use mean stable light intensity at the village level, which ranges from 0 to 63. This attempts to filter out background noise and unstable sources of light. We compute the (population weighted) average light intensity across villages at the 2000 and 2010 boundary level (using 2000 data).

Cash Crop Share: We use the 2003 administrative village census (*Potensi Desa* or *Podes*) to calculate the value (price \times quantity) of each crop produced within the 2000 and 2010 district borders. To proxy for agricultural resources, we compute the fraction of district agricultural output that is composed of nearly 30 cash crops, the most important among which include palmoil, rubber, coffee, and cocoa.

Agriculture and Forestry Employment Share: From the universal 2000 census we compute the fraction of workers in agriculture and the fraction of workers in forestry, fishing and livestock for the 2000 and 2010 district borders.

Distance to capital and police post: Using *Podes*, we compute average (population) weighted distance to the district capital and to the nearest police post or police station. We use the 2000 and 2011 rounds of *Podes* to compute these variables for both the 2000 and 2010 district borders.

Number of Health Clinics and Hospitals Per-Capita: Using the 2000 round of *Podes*, we construct the number of health clinics and hospitals per-capita at both the 2000 and 2010 district borders.

Number of post-primary educational institutions: Using the 2000 round of *Podes*, we compute the number of junior secondary schools, senior secondary schools, and universities per-capita at both the 2000 and 2010 district borders.

B Additional Results



Figure B.1: Trends in Violence, 2000–2014

Notes: These figures use SNPK data to plot the evolution of conflict across provinces and across typologies.

	Average					
	ΔE thnic	Δ Religious	ΔE thnic			
	Fractionalization	Polarization	Polarization			
Non-Splitters	0	0	0			
-	-	_	_			
District Split Since 2000	-0.065	-0.006	-0.001			
-	(0.010)	(0.003)	(0.001)			
p-value: Difference-in-Difference	[<0.001]	[0.003]	[0.366]			
No. of Districts non-split	223	223	223			
No. of Districts split	213	213	213			
Mean for 304 Districts in 2000	0.421	0.069	0.015			
Mean for 436 Districts in 2010	0.443	0.075	0.016			

Table B.1: Changes in Ethnoreligious Diversity Across Districts, 2000–2010

Notes: This table reports the average difference between each diversity measure in the original district in 2000 and the diversity measures for that districts' parent and child districts that came into being by 2010. Both measures in the difference are based on the populations living within the given boundaries in the year 2000 as reported in the Population Census. The measures of fractionalization and polarization are as defined in the paper. If the original district did not experience any redistricting by 2010, then its difference is zero by definition.

	Category	ry Sub-Categories									
Num of Incidents	Elections 42	Other 2	National 0	Provincial 5	District 20	Sub-District 0	Village 7	Other office 1	In Pol Party 7		
Num of Deaths	0	0	0	0	0	0	0	0	0		
Num of Injuries Num of Buildings Destroyed	62 83	0	0	2	49 80	0	6	0	5		
Num of Kidnappings	0	0	0	0	0	0	0	0	0		
Num of Sexual Assaults	0 Category	0	0	0	0 Sub-Cat	0 agories	0	0	0		
	GOVERNANCE	Other	Tenders	Corruption	Public Serv	Prices/Subsidies	Programs	Splitting	Law Enforcement		
Num of Incidents	80	0	11	7	14	3	18	6	21		
Num of Deaths Num of Injuries	3 48	0 0	0 4	0 5	0	0 1	0 11	3 2	0 19		
Num of Buildings Destroyed	49	0	0	0	5	0	1	41	2		
Num of Sexual Assaults	0	0	0	0	0	0	0	0	0		
	Category				Sub-Categories						
Num of Incidents	RESOURCE 179	Other 6	Land 87	Nat. Res 13	Man-made Res. 8	Access 33	Environment 11	Salary/Labor 21			
Num of Deaths	31	4	14	2	3	7	1	0			
Num of Injuries Num of Buildings Destroyed	156 74	3 0	102 71	5	5	22	7	12 2			
Num of Kidnappings Num of Sexual Assaults	0	0	0	0	0	0	0	0			
Tuni or ocxun rissiuns	Category		0	0	0	Sub-Categori	es	0			
Num of Incidents	IDENTITY 49	Other 0	Inter-Eth 0	Inter-Rel 26	Intra-Rel 8	Migrants 0	Migrants/Eth 0	Village 3	Gender 0	Sports 0	School/Uni 12
Num of Deaths	5	0	0	5	0	0	0	0	0	0	0
Num of Injuries	40	0	0	6	7	0	0	6	0	0	21
Num of Buildings Destroyed Num of Kidnappings	42 2	0 0	0	5 2	37 0	0	0	0	0	0	0
Num of Sexual Assaults	0	0	0	0	0	0	0	0	0	0	0
	Category					Sub-Categori	es				
Num of Incidents	POPULAR RETALIATION 494	Other 0	Insult 86	Traffic Accident 8	Debt 4	Theft 299	Vandalism 1	Sex Indiscretion 21	Assault 70	Vice 2	Sorcery 3
Num of Deaths	34	0	7	1	0	22	0	2	2	0	0
Num of Buildings Destroyed	603	0	129	8	0	0	3 0	26	13	0	0
Num of Kidnappings Num of Sexual Assaults	1 0	0 0	1 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0
Num of Incidents	Category Other Conflict 88										
Num of Deaths	8										
Num of Injuries	73										
Num of Kidnappings	1 0										
Num of Sexual Assaults	0										
Num of Incidents	Category SEPARATIST VIOLENCE 3										
Num of Deaths	1										
Num of Injuries	2										
Num of Kidnappings	0										
Num of Sexual Assaults	U Category VIOLENCE DURING LAW ENFORCEMENT										
Num of incluents	505										
Num of Deaths Num of Injuries	36 380										
Num of Buildings Destroyed	0										
Num of Sexual Assaults	0										
Num of Incidents	Category Domestic Violence 544										
Num of Deaths	118										
Num of Injuries	263										
Num of Kidnappings	5										
ivum of Sexual Assaults	177										
	Category VIOLENT CRIME										
Num of Incidents	3517										
Num of Deaths	490										
Num of Injuries Num of Buildings Destroyed	1735 158										
Num of Kidnappings Num of Sexual Assaults	28 915										

Notes: All columns are counts in 2006, the last year of the moratorium. Counts are for the 133 districts in our estimation sample (2010 borders). For descriptions of the 10 categories see Section 4. For further details on each sub-category see http://www.snpk-indonesia.com. Other conflict, separatist vilence, violence during law enforcement, domestic violence, and crime have no further subcategories.

Dependent Variable	Any Incidents						
Category	resource (1)	governance (2)	electoral (3)	identity (4)	pop. just. (5)	law enforce (6)	other (7)
lagged conflict	0.043 (0.016)***	0.020 (0.012)	0.092 (0.025)***	0.080 (0.023)***	0.037 (0.018)**	0.032 (0.015)**	-0.009 (0.020)
post-split	-0.068 (0.034)*	-0.031 (0.030)	-0.032 (0.020)	0.034 (0.025)	-0.044 (0.048)	-0.002 (0.046)	-0.033 (0.025)
post-split \times ethnic fractionalization	0.063 (0.046)	0.031 (0.043)	0.038 (0.042)	-0.140 (0.061)**	0.004 (0.067)	0.012 (0.054)	0.076 (0.038)*
post-split \times ethnic polarization	-0.350 (1.020)	0.272 (1.010)	-1.099 (0.810)	0.905 (1.526)	0.107 (1.545)	-0.331 (1.299)	-1.367 (0.812)*
post-split \times religious polarization	0.325 (0.159)**	0.066 (0.117)	0.008 (0.129)	0.134 (0.130)	0.153 (0.236)	0.032 (0.294)	0.109 (0.121)
Observations	7904	7904	7904	7904	7904	7904	7904
Mean Dep. Var.	0.132	0.068	0.052	0.057	0.220	0.166	0.054
Δ conflict, diversity 10th pctile	-0.060 [0.043]	-0.025 [0.317]	-0.033 [0.041]	0.020 [0.334]	-0.042 [0.319]	-0.002 [0.955]	-0.030 [0.177]
Δ conflict, diversity 50th pctile	0.009	0.001	-0.019	-0.034 [0.040]	-0.022 [0.476]	0.005	0.014
Δ conflict, diversity 90th pctile	0.048	0.018	-0.031 [0.097]	-0.030 [0.212]	-0.004 [0.893]	0.005	0.015
Time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
District FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
District Time Trends	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table B.3:	Dissecting	Conflict:	Parent	Districts
------------	------------	-----------	--------	-----------

Notes: The dependent variable in all columns is an indicator equal to one if there was any violent conflict incidents of the given categorization in that district-month. *post* – *split* is an indicator equal to one for all months after which the parent district experiences its first redistricting (i.e., is split out from an original district and loses the child district). The ethnoreligious diversity measures are based on the population residing within the eventual child district boundaries in 2000. All specifications include month FE, district FE, and initial district-specific monthly time trends. Standard errors are clustered by original district, of which there are 52. Significance levels: *: 10% **: 5% ***: 1%;

	Dep. Var.: any incidents				
	all	non-crime	salient		
	(1)	(2)	(3)		
lagged conflict	0.081	0.051	0.038		
	(0.022)***	(0.014)***	(0.012)***		
nost split	0.006	0.014	0.045		
post-spin	(0.000)	-0.014	-0.043		
	(0.029)	(0.027)	(0.029)		
post-split $ imes \Delta$ Gini-Greenberg index	0.077	-0.091	-0.046		
	(0.253)	(0.171)	(0.163)		
post-split $ imes \Delta$ ethnic polarization	0.131	0.309	0.256		
	(0.166)	(0.124)**	(0.124)**		
post-split $\times \Lambda$ religious polarization	0 158	0 477	0.398		
	(0.245)	$(0.231)^{**}$	(0.218)*		
	(0.2.00)	(0.202)	(0,220)		
Observations	7904	7904	7904		
District Borders in	2000	2000	2000		
No. of Districts	52	52	52		
Mean Dep. Var.	0.862	0.631	0.413		
Δ conflict, diversity 10th pctile	-0.075	-0.122	-0.146		
	[0.205]	[0.017]	[0.015]		
Δ conflict, diversity 50th pctile	0.003	-0.014	-0.045		
	[0.897]	[0.589]	[0.097]		
Δ conflict, diversity 90th pctile	0.043	0.075	0.029		
	[0.268]	[0.028]	[0.501]		
Time FE	Yes	Yes	Yes		
District FE	Yes	Yes	Yes		
District Time Trends	Yes	Yes	Yes		

Table B.4: Accounting for Intergroup Distances in the Fractionalization Index

Notes: The dependent variable in all columns is an indicator equal to one if there was any violent incidents of the given categorization in that original district–month (see the notes to Table 3). *post* – *split* is an indicator equal to one for all months after which the original district experiences its first post-2000 redistricting. Δ of the given diversity measure captures the percentage change in diversity between the original district in 2000 and the population-weighted average of initial diversity within the emergent parent and child districts in 2010. All specifications include month FE, district FE, and district-specific monthly time trends. Standard errors are clustered by original district, of which there are 52. Significance levels: *: 10% **: 5% ***: 1%;

	Dep. Var.: any incidents				
	all	non-crime	salient		
	(1)	(2)	(3)		
lagged conflict	0.074	0.045	0.038		
	(0.027)***	(0.015)***	(0.013)***		
post-split	0.063	1.005	0.082		
r ··· · r	(0.595)	(0.565)*	(0.649)		
	(0.070)	(0.000)	(0.01))		
post-split $ imes \Delta$ ethnic fractionalization	-0.446	-0.189	-0.293		
	(0.262)*	(0.257)	(0.303)		
post-split $ imes \Delta$ ethnic polarization	0.317	0.257	0.288		
	(0.134)**	(0.099)**	(0.110)**		
post-split $ imes \Delta$ religious polarization	0.206	0.533	0.434		
	(0.246)	(0.225)**	(0.221)*		
Observations	7069	7069	7069		
District Borders in	2000	2000	2000		
No. of Districts	47	47	47		
Mean Dep. Var.	0.882	0.652	0.428		
Δ conflict, diversity 10th pctile	0.012	-0.093	-0.057		
	[0.820]	[0.136]	[0.422]		
Δ conflict, diversity 50th pctile	0.024	0.007	0.014		
	[0.076]	[0.616]	[0.407]		
Δ conflict, diversity 90th pctile	0.091	0.074	0.083		
	[0.024]	[0.012]	[0.011]		
Time FE	Yes	Yes	Yes		
District FE	Yes	Yes	Yes		
District Time Trends	Yes	Yes	Yes		
Full post-split \times time-invariant controls	Yes	Yes	Yes		

 Table B.5: Full Controls Robustness Check on Table 4

Notes: The dependent variable in all columns is an indicator equal to one if there was any violent incidents of the given categorization in that original district-month (see the notes to Table 3). *post* – *split* is an indicator equal to one for all months after which the original district experiences its first post-2000 redistricting. Δ of the given diversity measure captures the percentage change in diversity between the original district in 2000 and the population-weighted average of initial diversity within the emergent parent and child districts in 2010. All specifications include interactions of postsplit and *initial* political polarization (vote shares), the extent of resource sharing with and size of transfers from the central government, the relative importance of cash crops in overall agricultural revenue, the share of the labor force in agriculture and forestry, ethnic residential segregation (Alesina and Zhuravskaya, 2011), nighttime light intensity as a proxy for income (Henderson et al., 2012), the number of post-primary educational institutions per capita, the number of health clinics and hospitals per capita, and the average village-level distance to the district capital and security offices. The regressions also include month FE, district FE, and district-specific monthly time trends. Standard errors are clustered by original district, of which there are 52. Significance levels: *: 10% **: 5% ***: 1%;

	Dep. Var.: any incidents						
	all	non-crime	salient	all	non-crime	salient	
	(1)	(2)	(3)	(4)	(5)	(6)	
		Child Distric	ts	P	arent Distric	ts	
lagged conflict	0.073 (0.014)***	0.070 (0.016)***	0.063 (0.013)***	0.075 (0.018)***	0.050 (0.015)***	0.031 (0.014)**	
post-split	0.209 (0.560)	0.446 (0.521)	0.592 (0.468)	0.410 (1.067)	1.628 (0.944)*	-0.068 (0.748)	
post-split \times ethnic fractionalization	0.151 (0.127)	-0.061 (0.080)	-0.024 (0.067)	0.224 (0.095)**	0.104 (0.074)	0.052 (0.065)	
post-split \times ethnic polarization	-0.022 (0.859)	2.062 (0.785)**	1.019 (0.405)**	-2.487 (2.987)	-3.191 (2.321)	-3.242 (2.146)	
post-split \times religious polarization	0.363 (0.402)	0.018 (0.204)	0.149 (0.206)	-0.127 (0.450)	0.183 (0.587)	1.036 (0.273)***	
Observations	10990	10990	10990	7427	7427	7427	
District Borders in	2010	2010	2010	2010	2010	2010	
No. of Districts	74	74	74	49	49	49	
Mean Dep. Var.	0.563	0.303	0.159	0.751	0.492	0.288	
Δ conflict, diversity 10th pctile	0.014	0.006	0.004	0.016	-0.003	-0.006	
	[0.208]	[0.394]	[0.403]	[0.454]	[0.848]	[0.628]	
Δ conflict, diversity 50th pctile	0.141	-0.009	0.018	0.105	0.052	0.117	
	[0.081]	[0.867]	[0.637]	[0.132]	[0.434]	[0.018]	
Δ conflict, diversity 90th pctile	0.206	0.008	0.040	0.090	0.034	0.175	
	[0.072]	[0.908]	[0.447]	[0.430]	[0.757]	[0.032]	
Time FE	Yes	Yes	Yes	Yes	Yes	Yes	
District FE	Yes	Yes	Yes	Yes	Yes	Yes	
District Time Trends	Yes	Yes	Yes	Yes	Yes	Yes	
Full post-split × time-invariant controls	Yes	Yes	Yes	Yes	Yes	Yes	

Table B.6: Full Controls Robustness Check on Table 6

Notes: The dependent variable in all columns is an indicator equal to one if there was any violent incidents of the given categorization in that original district-month (see the notes to Table 3). *post* – *split* is an indicator equal to one for all months after which the child district is passed into law or the parent district experiences its first redistricting (i.e., is split out from an original district and loses the child district). The ethnoreligious diversity measures are based on the population residing within the eventual parent and child district boundaries in 2000. There are 52 parent and 81 child districts. All specifications include interactions of post-split and *initial* political polarization (vote shares), the extent of resource sharing with and size of transfers from the central government, the relative importance of cash crops in overall agricultural revenue, the share of the labor force in agriculture and forestry, ethnic residential segregation (Alesina and Zhuravskaya, 2011), nighttime light intensity as a proxy for income (Henderson et al., 2012), the number of post-primary educational institutions per capita, the number of health clinics and hospitals per capita, and the average village-level distance to the district capital and security offices. The regressions also include month FE, district FE, and district-specific monthly time trends. Standard errors are clustered by original district, of which there are 52. Significance levels: *: 10%

	Dep. Var.: any incidents				
	all	non-crime	salient		
	(1)	(2)	(3)		
lagged conflict	0.018	0.023	0.064		
	(0.003)***	(0.005)***	(0.010)***		
post-split	-0.085	0.008	-0.241		
	(0.063)	(0.091)	(0.133)*		
post-split $\times \Delta$ ethnic fractionalization	-1.875	-0.705	-0.692		
	(0.571)***	(1.006)	(0.822)		
post-split $ imes \Delta$ ethnic polarization	1.006	0.310	1.010		
	(0.436)**	(0.531)	(0.800)		
post-split $ imes \Delta$ religious polarization	1.902	1.471	2.110		
	(0.678)***	(0.845)*	(1.253)*		
Observations	7904	7904	7904		
District Borders in	2000	2000	2000		
No. of Districts	52	52	52		
Mean Dep. Var.	7.594	2.622	0.873		
Time FE	Yes	Yes	Yes		
District FE	Yes	Yes	Yes		
District Time Trends	Yes	Yes	Yes		

Table B.7: Intensive Margin Conditional FE Poisson version of Table 4

Notes: The dependent variable in all columns is the number of violent incidents of the given categorization in that original district-month (see the notes to Table 3). The coefficients reported are based on conditional fixed effects Poisson and can be converted to average marginal effects by simply multiplying by the mean of the dependent variable at the bottom of the table. *post* – *split* is an indicator equal to one for all months after which the original district experiences its first post-2000 redistricting. Δ of the given diversity measure captures the percentage change in diversity between the original district in 2000 and the population-weighted average of initial diversity within the emergent parent and child districts in 2010. The regressions also include month FE, district FE, and district-specific monthly time trends. Standard errors are clustered by original district, of which there are 52. Significance levels: *: 10% **: 5% ***: 1%;

	Dep. Var.: any incidents					
	all	non-crime	salient	all	non-crime	salient
	(1)	(2)	(3)	(4)	(5)	(6)
		Child District	s	P	arent Distric	ts
lagged conflict	0.055 (0.005)***	0.089 (0.013)***	0.161 (0.025)***	0.018 (0.002)***	0.026 (0.005)***	0.069 (0.008)***
post-split	-0.101 (0.186)	0.205 (0.226)	-0.299 (0.330)	-0.293 (0.180)	0.086 (0.222)	-0.159 (0.259)
post-split \times ethnic fractionalization	0.033 (0.279)	-0.560 (0.421)	-0.014 (0.558)	0.321 (0.395)	-0.042 (0.530)	-0.833 (0.385)**
post-split \times ethnic polarization	1.820 (2.065)	6.663 (3.308)**	10.328 (4.242)**	5.162 (6.359)	5.852 (7.814)	-7.182 (10.277)
post-split \times religious polarization	1.480 (1.051)	0.100 (1.305)	1.244 (1.561)	-0.090 (1.215)	-2.416 (1.589)	3.398 (1.797)*
Observations District Borders in	12183 2010	12183 2010	12183 2010	7904 2010	7904 2010	7904 2010
No. of Districts	81	81	81	52	52	52
Mean Dep. Var.	1.645	0.533	0.215	5.059	1.800	0.542
Time FE	Yes	Yes	Yes	Yes	Yes	Yes
District FE	Yes	Yes	Yes	Yes	Yes	Yes
District Time Trends	Yes	Yes	Yes	Yes	Yes	Yes

Table B.8: Intensive Margin Conditional FE Poisson version of Table 6

Notes: The dependent variable in all columns is the number of violent incidents of the given categorization in that original district-month (see the notes to Table 3). The coefficients reported are based on conditional fixed effects Poisson and can be converted to average marginal effects by simply multiplying by the mean of the dependent variable at the bottom of the table. *post* – *split* is an indicator equal to one for all months after which the child district is passed into law or the parent district experiences its first redistricting (i.e., is split out from an original district and loses the child district). The ethnoreligious diversity measures are based on the population residing within the eventual parent and child district boundaries in 2000. There are 52 parent and 81 child districts. The regressions also include month FE, district FE, and district-specific monthly time trends. Standard errors are clustered by original district, of which there are 52. Significance levels: *: 10% **: 5% **: 1%;