Aiding or Abetting? A Micro-evaluation of Foreign Aid and the Relapse of Fatal and Non-Fatal Local Conflict.

Doris Aja-Eke

Samuel Brazys[1]

Abstract

Can foreign assistance contribute to localized post-conflict stabilty? While numerous studies have examined cross-country associations or individualized cases, few have systematically analysed the impact of local aid on proximate post-conflict stability. In this paper, we take advantage of micro-level, geo-referenced, data on both local conflict and foreign aid to estimate site-period fixed-effects models with neighbor comparisons to evaluate the relationships between foreign aid and local conflict relapse. Our micro-foundation based expectations explore the potential for heterogeneous impacts based on the type of conflict. Despite differential expectations, our results find that aid reduces the likelihood of local conflict relapse. We supplement these findings with stylized qualitative evidence from two conflict-affected regions in Nigeria.

Introduction

Does foreign aid fuel or mitigate political instability, violent unrest and civil war? Understanding the consequences of inter-state intervention is a fundamental line of inquiry in international relations and the utilization of aid as a foreign policy and development strategy has spawned large and diverse literature on impact and effectiveness in developing nations (Burnside and Dollar 2000; Easterly 2005; Moyo 2009; Deaton 2013). One particularly important area of focus in this field is the relationship between foreign aid and conflict. This literature focuses on the impact of conflict on aid allocation (Balla and Reinhardt 2008; Lis 2018) or of aid on the stability and development of conflict-prone regions (de Ree and Nillesen 2009; Findley 2018; Nielsen *et al.* 2011). However, definitive consensus on the extent to which foreign aid entices or restrains conflict remains elusive (Narang 2014; Addison and McGillivray 2004; Doyle and Sambanis 2006; Li, Long, and Jiang 2022; Walter 2011). Although a recent systematic review suggests that, on average, aid is more likely to increase, rather than reduce, violence in conflict zones (Zürcher 2017).

One of the many challenges in untangling the relationship is adequately and appropriately measuring conflict at the level at which it happens. While most conflicts are *micro* (sub-national and local), a wide swathe of the literature employs *macro* (country-level) analysis due to issues of data availability (Addison and McGillivray 2004; Binetti 2023; Collier and Hoeffler 2004a; Flores and Nooruddin 2009; Chauvet et al. 2010; Gutting and Steinwand 2017; Donaubauer et al. 2019; Bluhm et al. 2020). These analyses can be skewed by the geographic and/or temporal distribution of foreign aid or conflict within the same country making it difficult to establish the association between foreign aid and conflict. Areas yet to attain peace or post-conflict stability may obscure peace and post-conflict stability in other localities within the same country when post-conflict peace and reconstruction are viewed from a country-level perspective. Beyond this, aid is not randomly allocated and, in fact, is likely to be allocated based on the local conflict environment (BenYishay, DiLorenzo, and Dolan 2022). While local conflict, affects the general stability of a country, the impacts it has on the affected locality differs from other localities within the country. Likewise, while the allocation of aid in a particular locality generally influences or is being influenced by national factors, the impact

of aid in that locality is most likely going to be different in other localities within the same country.

This paper builds on recent work that has taken advantage of localized information to support more fine-grained analyses of these dynamics (Findley et al. 2011; Strandow et al. 2016; Sexton 2016; Findley et al. 2023) by utilizing *spatial-temporal* information on both aid and conflict to focus on establishing a relationship between localized aid and localized conflict *relapse*, that is, recurrence of conflict in the same geographic area after a period of peace. Conflict relapse is an important measure of stability as Walter (2010, p. 1) finds that "90% of conflicts initiated in the 21st century are in countries that had already experienced a civil war". While Walter (2010) focuses on civil wars, this paper focuses on local/micro-level conflicts, which have different dynamics from civil wars/national conflicts and international conflicts. As discussed above, peaceful coexistence in one locality or a number of localities in a country does not equate to a generalised peace at the national level or the country as a whole and vice-versa, nor does all parts of a country feel the same heat of conflict from national conflicts like civil wars. Additionally, while most existing studies use conflict data from one source, we utilize Donnay et al.'s (2019) MELTT aggregation algorithm to combine data from four conflict databases: the Armed Conflict Location and Event Data Project (ACLED), the Georeferenced Event Dataset (GED) (Sundberg and Melander 2013; Stina 2019), the Global Terrorism Database (GTD), and the Social Conflict Analysis Database (SCAD) lessening the likelihood that our results suffer from bias from omitted observations. Finally, we consider and address the Modifiable Areal Unit Problem (MAUP) which can plague spatial studies by using a base of five-minute grid-cell centroids across a continuous range of capture distances in order to assess the robustness of our results to the MAUP.

Our identification strategy relies primarily on the fact that we can construct a panel of spatial units to observe the *timing* of both local aid projects and local conflict relapse. To mitigate against the fact that there is likely selection bias, i.e. aid may be systematically more or less likely to go to spatial units with a greater/lesser chance of conflict relapse, our approach is to restrict our sample to only those spatial units that will receive aid at some point in the study period and their *neighboring* units who are at risk of conflict relapse but who do not receive aid, while using spatial unit-period fixed effects to account for unobservable spatial-temporal

confouding. This allows for a within unit comparison where we effectively compare the probability of conflict relapse for time periods before and after the arrival of aid *in a given spatial unit*. This "neighbor" approach mitigates unit selection effects, but also allows for a difference-in-difference like comparison between the "treated" sites and their "untreated" neighbors.

Theoretically, we consider contrasting explanations based on the underlying logics that aid could help to alleviate local grievance, but also could provide a "honey pot" of local resources which may incite or exacerbate conflict. Accordingly, we think that aid could either exacerbate or mitigate incidence of conflict replace. Yet, despite this two-sided expectation, we find broad support that aid decreases the likelihood of conflict relapse. Digging further, we find that this finding remains robust when considering different types of aid. To evaluate the basis of theoretical support for these statistical findings, we utilize original data from 13 focus groups and 6,866 individual surveys from the South-East and South-South regions of Nigeria examining the Biafra and Niger-Delta (post)conflict settings. Collectively, our findings suggest that aid can increase post conflict stability.

In the sections that follow, we first briefly review the aid and conflict literature before outlining the theoretical arguments about how foreign aid might increase or decrease incidence of conflict relapse. We then use our geo-spatial data to analyse the impact of aid on conflict. We illustrate some of the potential causal pathways for our statistical findings with our qualitative evidence before concluding with broader thoughts on the implications for foreign aid, development, and conflict.

Aid and Conflict Relapse

Conflict is basically a situation where by two or more rival parties have conflicting interests. Both violent and non-violent conflict (in all its forms) are conflicts because they all involve groups with varying/conflicting interests, albeit expressed differently. In addition to this, all forms of non-violent conflicts have a tendency to escalate into violent conflict, whether they do or not is a different issue which has to do with various factors, which could be influenced by the "leadership, dynamics, structures and mobilisation methods" (Goodhand, 2001).

Therefore, one of the goals of most peace and conflict resolution strategies is to de-escalate conflicts – that is reducing/ending violent conflict or addressing issues that give rise to non-violent conflict and preventing non-violent conflict from becoming violent. This explains why this paper studies the impacts of foreign aid on all types of conflict (relapse) – whether violent or non-violent conflict.

Broadly speaking, the literature examining the impact of foreign aid on conflict has been mixed with different studies finding aid to be effective, ineffective, or conditional in mitigating conflict based on the methodological approach and outcome criteria. A review by Findley (2018) categorized findings of foreign aid on the onset, dynamics, and recurrence of conflict as direct, conditional or indirect effects – which different studies found to be either positive or negative. The literature on the direct effect of foreign aid on conflict generally states that foreign aid, as an additional source of resources within a state, can exacerbate conflict by encouraging kleptocracy, intensifying the struggle for power and access to resources, promoting rent-seeking, or outright looting of aid (Arcand and Chauvet 2001; Addison et al. 2002; Nielsen *et al.* 2011; Nunn and Qian 2014). This invokes a "honey pot" (Soysa 2002) logic, wherein aid resources act as a prize over which competing interests seek to exert control. Especially if and when there is insufficient *securitization* from a central authority, rival local factions may engage in (fatal) conflict in order to secure the resources which they may then distribute to build legitimacy and support (Duffy 2020). A recent sub-national study by Findley et al. (2023), finds that concentrations of aid lead to increased conflict intensity, as measured by military fatalities, suggesting a "honey pot" effect.

However, a second strand of the literature that considers the effect of foreign aid on conflict highlights how foreign aid affects individual needs (Collier and Hoeffler 2002; Collier and Hoeffler 2004b; Azam and Delacroix 2006; Jablonski 2014). For instance, the level of humanitarian needs, infrastructural needs, as well as the needs for different types of aid can be influenced and determined by the type and scale of conflict. For instance, conflicts such as civil war which generally causes more damage, including more fatal rates, may require more urgent and arguably more financial needs/aid than protest and other non-violent conflicts. Therefore, the dynamics of how foreign aid influences different types of conflicts may differ, as well as the dynamics of different types of aid and conflict. Civil unrest, in particular, is often

the result of citizens protesting against non-provision of (basic) governmental goods and services (Taydas and Peksen 2012). Citizens may protest when faced with inadequate health or education services or when basic nutritional or other fundamental needs are unmet. The arrival of aid, which may improve these services or meet this need, can quell citizen unrest. In this way, aid may address local concerns and diminish the likelihood of renewed conflict. Likewise, aid might also pacify conflict via other means. Savun and Tirone (2011) find that "democracy aid" can mitigate conflict during democratic transitions as it can reduce the commitment problems faced by fledgling governments.

A subset of the literature has focused on conflict relapse, or recurrence. As noted by Walter (2004), conflict relapse is a substantively different type of event than an initial conflict. Whereas initial conflict is usually the result of the types of tensions rising past a "tipping point", Karlen (2017) highlights how traditional arguments suggest conflict recidivism is the result of underlying economic or state-capacity grievances that were not adequately addressed (or indeed exacerbated) by the conflict (Fearon and Laitin 2003; Walter 2010); the lack of a decisive victor (Mason et al. 2011); the characteristics of the conflict (including duration, combatant type or goals (Walter 2004); and/or the presence of international peacekeeping missions (Quinn et al. 2007). Others have suggested that when participants in a conflict have been supported by outsiders, the conflict is more likely to reoccur (Karlen 2017).

These logics suggest conflicting expectations about how aid might influence the likelihood of local conflict relapse. While aid may pacify local populations and settle grievances through the provision of both public and private goods and services, it may exacerbate conflict between local actors who wish to capture and/or serve as the provider of those goods and services in order to bolster their own legitimacy and control. Accordingly, we do not have a strong unidirectional hypothesis but we do investigate if the relationship may depend on the type of aid or the type of conflict. To that end, in the analyses below, we differentiate conflict based on the presence of fatalities and "major" fatal conflict.

Previous work has expounded on the differences between fatal and non-fatal conflicts in events data (Eck 2012). These types of conflict map onto our discussions above. As stated

above, this paper is interested in all forms of conflict because non-violent conflict, in all its forms and no matter the type, can escalate into violent conflict. Therefore, one of the goals of most peace and conflict resolution strategies, including this paper, is to de-escalate conflicts (i.e., reducing/ending violent conflict or addressing issues that give rise to non-violent conflict and preventing non-violent conflict from becoming violent). In the same light, while violent conflict has a higher likelihood of being fatal, non-fatal conflicts can be either violent or non-violent (Croicu & Eck, 2022). This further explains why the reduction and adequate handling of all forms of conflicts is imperative for this study. This also shows the overlaps between violent, non-violent, fatal, and non-fatal conflicts. Irrespective of the type of conflict, fatal conflict tends to have more cost on the conflicting parties. The study by Murray et al., (2002) shows that armed and violent conflict does not only lead to death on the battlefield but can equally lead to death by causing disruption of health services, displacement, destruction of properties, and a host of other factors caused by the conflict. Therefore, it is imperative to study the impacts of foreign aid on both fatal and non-fatal conflicts as they have varying levels of impact on society.

In the conflict data we use below, non-fatal conflicts include (non-fatal) protests or riots, (violent or peaceful) demonstrations, (non-fatal) mob violence, strikes, or a range of (non-fatal) terror activities.[2] These types of activities are more likely to stem from *individual* grievances, rather than large-scale political violence, and, as such, are more amenable to amelioration by the arrival of local foreign aid. If individuals protest because their socio-economic needs are not being met, the arrival of aid may provide for these needs to thus quell the unrest. However, in line with the "honey pot" and "aid concentration" logics, the aggregating of these resources could also spur local competition for control.

Fatal conflicts are qualitatively different. While acknowledging that fatalities can and do occur within, or resulting from, the types of non-fatal activities discussed above, we posit that the majority of fatal events occur between militarized factions seeking to assert local control or

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[2] From the ACLED (https://www.acleddata.com/wp-content/uploads/dlm_uploads/2017/10/ACLED_Codebook_2019FINAL_pbl.pdf), SCAD (https://www.strausscenter.org/wp-content/uploads/SCAD_33_Codebook.pdf), and GTD (https://www.start.umd.edu/gtd/downloads/Codebook.pdf) codebooks. Accessed 25-10-20.

the resumption of large-scale political or economic violence. Again, the definitions from the datasets we use support this classification where fatal events include battles, armed clashes, taking of territory, explosive attacks, air-strikes, shelling, pro or anti-government violence, intra or extra-government violence, or fatal terrorist events.[3] Major conflict is generally spurred by extreme grievance with the existing status quo and can be grouped into two main categories: *Conflict caused by diversity and group intolerance* especially in a heterogenous society (such as religious extremism, ethnic intolerance, different political dissatisfaction and orientation, or ethnic intolerance (Gunning and Jackson 2011; Asal and Phillips 2018; Cederman et al. 2010)) and *conflict caused by structural socioeconomic conditions* (such as systemic unemployment or poverty (Abadie 2006; Piazza 2011)). To the extent that foreign aid can effectively address these systemic failings, it may well lessen the chance of conflict relapse. However, if aid is ineffective in its aims (as much literature would suggest) then (the concentration of) aid would both fail to resolve the underlying source of conflict while also providing resources over which to quarrel.

While the "honey pot" theory as discussed above could make foreign aid more attractive for violent and large-scale conflict, foreign aid can still be attractive and hijacked by different groups (mostly political) in non-violent and low-scale conflicts due to the general fungibility of aid (Feyzioglu et al., 1998). In addition to this, while foreign aid may have a greater impact on reducing the likelihood of low-scale and non-violent conflicts, it does not rule out the fact that foreign aid could also reduce violent and larger-scale conflict, due to the general conditional impacts (Burnside & Dollar, 2000; 2004) and heterogeneous impacts of aid – such as how the type, donors, and modes of foreign aid allocation influences its effectiveness (Brazys 2010; Berthélemy 2006; Cordella and Dell'Ariccia 2007; Dietrich 2013). In addition to this, while donors allocate aid for various egoistic (Bermeo 2017; Fuchs & Vadlamannati 2013), altruistic (Azam & Laffont 2003; Sumida 2017) or mixed reasons (Berthélemy 2006; Hoeffler & Outram 2011), the basic intention of aid is to enhance development (Sachs, 2006), although this could be thwarted by various actors, as stated above. Therefore, while we are geared towards the conditional impacts of aid, and the literature on aid is ambiguous, the following hypotheses will guide this paper:

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[3] From the codebooks in FN2 and the UCDP GED (https://ucdp.uu.se/downloads/ged/ucdp-ged-50-codebook.pdf) codebook. Accessed 25-10-20.

H1: Foreign aid reduces the likelihood of conflict relapse

H2: Foreign aid tends to reduce non-violent conflict relapse
more than violent conflict relapse

Data and Research Design

This paper makes use of a spatial-temporal approach to analyse the impacts of foreign aid on post-conflict societies using georeferenced data on foreign aid and conflict in 12 countries across Latin America, sub-Saharan Africa and Central Asia.[4] These countries are selected as they are 12 countries for which the AidData project has developed and geo-coded data from nearly all foreign aid donors via Aid Information Management Systems (AIMS) (AidData, 2016a; 2016b; 2016c; 2016d; 2016e; 2016f; 2016g; 2016h; 2016i; 2016j; 2016k; 2017a; 2017b). The completeness of this coverage leaves us reasonably assured that the data capture the population of aid projects, thus mitigating a potential missing data bias. These data form the basis for our aid "treatment" condition described further below. The data contain 7,547 projects at 62,973 project locations. Of these, 1,868 projects at 30,489 locations are coded at precision code "2" or better, meaning that they are located to within 25km precision. These are the projects we use in the main models below.

Our dependent variables are measures of conflict relapse which are derived from four geo-referenced violent conflict and protest event datasets: the Armed Conflict Location and Event Data Project (ACLED), the Social Conflict Analysis Database (SCAD), the Georeferenced Event Dataset (GED), and the Global Terrorism Database (GTD). Donnay et al. (2019) note that while each of these datasets have various strengths, none is complete in its coverage of violent conflicts and protests. Accordingly, in that paper they develop a "Matching Event Data by Location, Time and Type (MELTT) algorithm" that allows for the identification of duplicate events and combining of multiple event datasets. We employ that algorithm to create a combined event dataset for our 12 AIMS countries. While full details can be found in the

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[4] Afghanistan, Burundi, Colombia, Congo DR, Honduras, Iraq, Nepal, Nigeria, Senegal, Sierra Leone, Somalia and Uganda.

supplemental online appendix, the algorithm finds 200,507 unique event entries and 10,079 duplicate entries. To illustrate the spatial dispersion of the aid (blue circles) and conflict data (red and grey trinagles and red astricies), we illustrate the locations of both in one of our study countries, Nigeria, in Map 1, below. As shown there, both aid projects and conflict events are well-distributed across the country, an important feature for our spatial estimation strategy described below. Likewise, there is a good mix and distribution of the conflict event types across the countries. As shown in the Appendix Maps A1 and A2, aid and conflict are quite well dispersed across all of our study countries.

In order to build our dataset we start with a panel of 1,687,741 five-minute grid-cell centroids from 1990 to 2018 across our 12 study countries. We then spatially join these to our MELTT conflict data. We

Map 1: Aid and Conflict in Nigeria
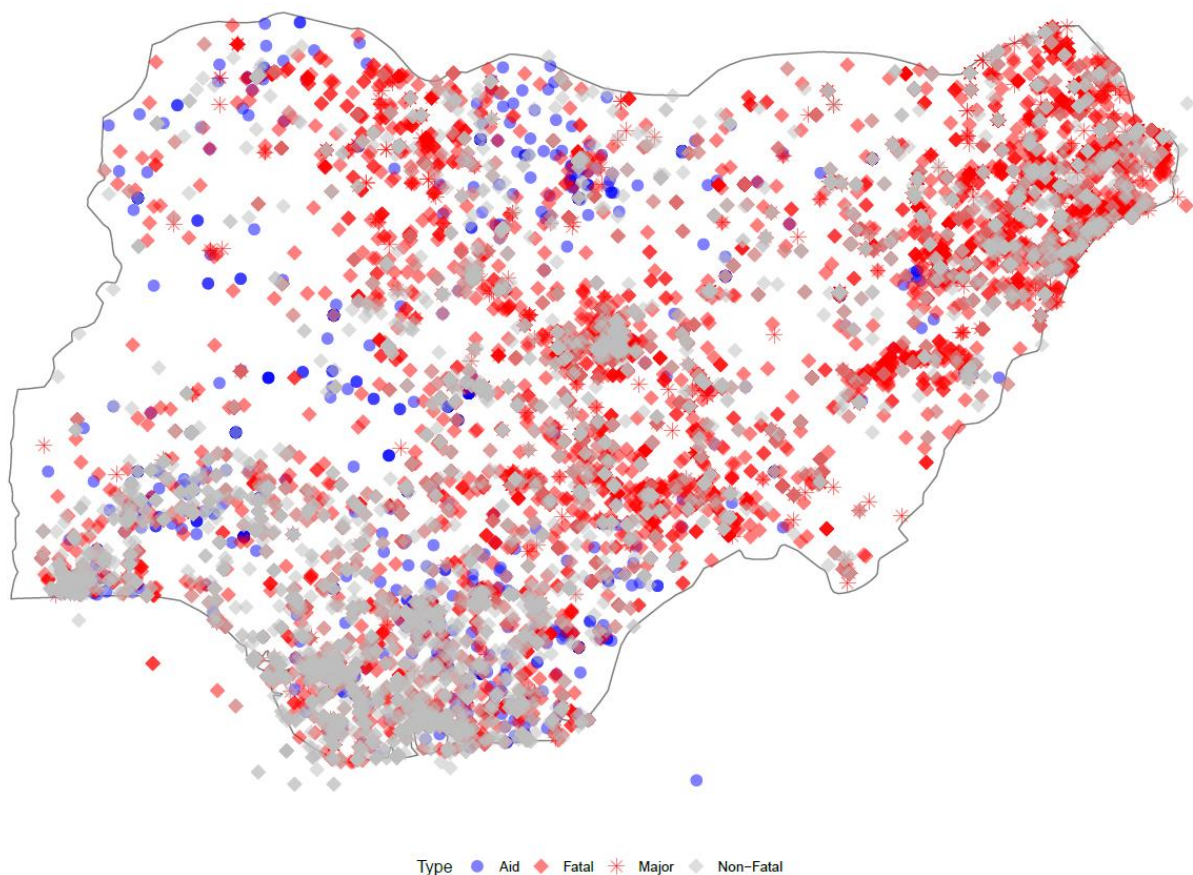
identify the nearest grid-cell centroid for each conflict in our dataset. These distances range from 0.4km to 6.53 km. We identify 46,545 location-years that have at least one conflict

during the period of our study. We restrict our panel to these units as our outcome of interest is conflict *relapse*. We build an unbalanced panel of these locations where spatial locations enter our dataset in the third year following the *first* conflict at a given site since it is from this time that the site is at risk of a conflict *relapse*. We then create a binary outcome variable that equals "1" in any year there is at least one further conflict (and "0") otherwise. In our main models, we consider relapse only when there has been a peace interval of at least 2 years, however, we check the robustness of this to alternative durations in the robustness checks. Under this construction, we identify a total of 7,354 relapse events of any type, 4,041 relapses of a fatal conflict from a fatal conflict and 1,488 relapses of a non-fatal conflict from a non-fatal conflict. Finally, we identify 124 major relapse events, classified as those with at least 25 deaths in the location-year. As recurrence of conflict is a duration-specific risk, i.e. a recurrence becomes more likely over time, we include fixed effects for the years since the initial conflict in all models below (Brazys et al. 2023).[5] In the first instance, we examine relapse of *any* type of conflict from any type of conflict. However, to investigate conflict type heterogeneity, we then consider relapses of the different types of conflict: non-fatal, fatal, and major fatal (25 or more deaths). Importantly, in these models we only consider "like-for-like" relapses from the same type of conflict – i.e. a fatal relapse after a peace interval from a *fatal* conflict.

Our "treatment" variable is a binary indicator *active aid* that equals "1" in the initial and all subsequent years for which a site has an aid project, and "0" otherwise. This type of spatial treatment is similar to that used in other studies of the impact of mining, aid or FDI on corruption (Knutsen et al. 2017; Brazys and Kotsadam 2020). Again, in the first instance, we consider the treatment to be *any* type of aid. However, we then consider the possibility of aid heterogeneity based on the *types* of aid including peacebuilding, private, and public goods aid. We use the AidData sector and purpose codes to identify these different types of aid. Full details on the classifications can be found in the supplemental online appendix.

Determining the capture radius at which to assign the aid "treatment" is ultimately an empirical question that depends on the spatial extent to which we think aid might influence

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[5] Our results are also robust to the exclusion of this measure.

conflict relapse. If we make the capture distance too narrow, our sample of "treated" spatial units will be very small. If we make it too large, we might be including "untreated" areas in the treatment group which would cause attenuation bias. We also must be cognizant of the spatial precision of our data. Accordingly, in the main models below, we use a capture distance of 25km, matching the precision of our AidData and in line with other studies using this method (Brazys and Kotsadam 2020). However, using any arbitrary cut-off potentially introduces bias resulting from the modifiable areal unit problem (MAUP) (Fotheringham and Wong 1991). By employing a discrete cut-off, we run the risk of non-random inclusion of aid and/or conflict event just inside/outside the boundary. Accordingly, in the robustness checks below, we also test our main model using cut-off radii from 2 km to 50 km at 2km increments. As the intensity of the impact of aid on conflict relapse is likely to exhibit a spatial decay, i.e. we would expect noisier, but larger, estimates at smaller capture radii, and more precise, but smaller estimates at larger radii due to the attenuation bias. If the estimates follow a relatively smooth decay, the MAUP is unlikely to be a major concern.

Our identification strategy needs to cope with the fact that aid is not allocated randomly across sites. Indeed, Flores and Norruddin (2009) find that aid selection depends on the underlying probability of conflict reoccurrence. In other words, a higher or lower "baseline" probability of conflict relapse may influence the decision of where to send aid. This may work in either direction. Security concerns may inhibit allocation of aid to site locations with a high probability of conflict relapse. In contrast, areas that are deemed very unlikely to have a conflict relapse may not be assessed eligible to receive peacebuilding or reconstructive aid. Empirically, Flores and Norruddin (2009) find that World Bank aid chooses countries with a *lower* ex ante probability of conflict relapse.

In order to address partially address this problem, our primary investigatory approach utilizes the panel nature of our data wherein we only consider those sites that *will have* an aid treatment at some point in the panel and their neighbors that are also at risk for conflict relapse and then employ site fixed effects. The use of fixed effects with this sample permits within-site comparisons where we consider the likelihood of a conflict relapse before and after the arrival of aid at the sites that do receive aid. A further advantage is that this type of fixed-effect also accounts for any time-invariant conflict or site characteristics that may

influence the probability of relapse. However, this approach necessitates an assumption that the precise timing of the arrival of aid, post-conflict, is sufficiently exogenous to the probability of conflict relapse. This assumption could be problematic when considering aid, especially when considering peacebuilding aid, as discussed above. This aid often accompanies (multilateral) peacekeeping security missions and thus any change in conflict relapse after the arrival of this aid may well be attributable to the peacekeeping mission rather than the aid. However, the arrival of any aid could also coincide with the arrival of other increased (state-led) securitization efforts, making it impossible to disentangle the effects (Campbell and DiSalvatore 2024). Unfortunately, we do not have localized, temporal, information on securitization efforts. As such, while there are compelling theoretical reasons to think that it is the arrival of aid which impacts conflict relapse, we cannot strictly rule out alternative causal explanations.

Figure 1: Aid Site and Neighbor Parallel Trends Pre-Post aid arrival
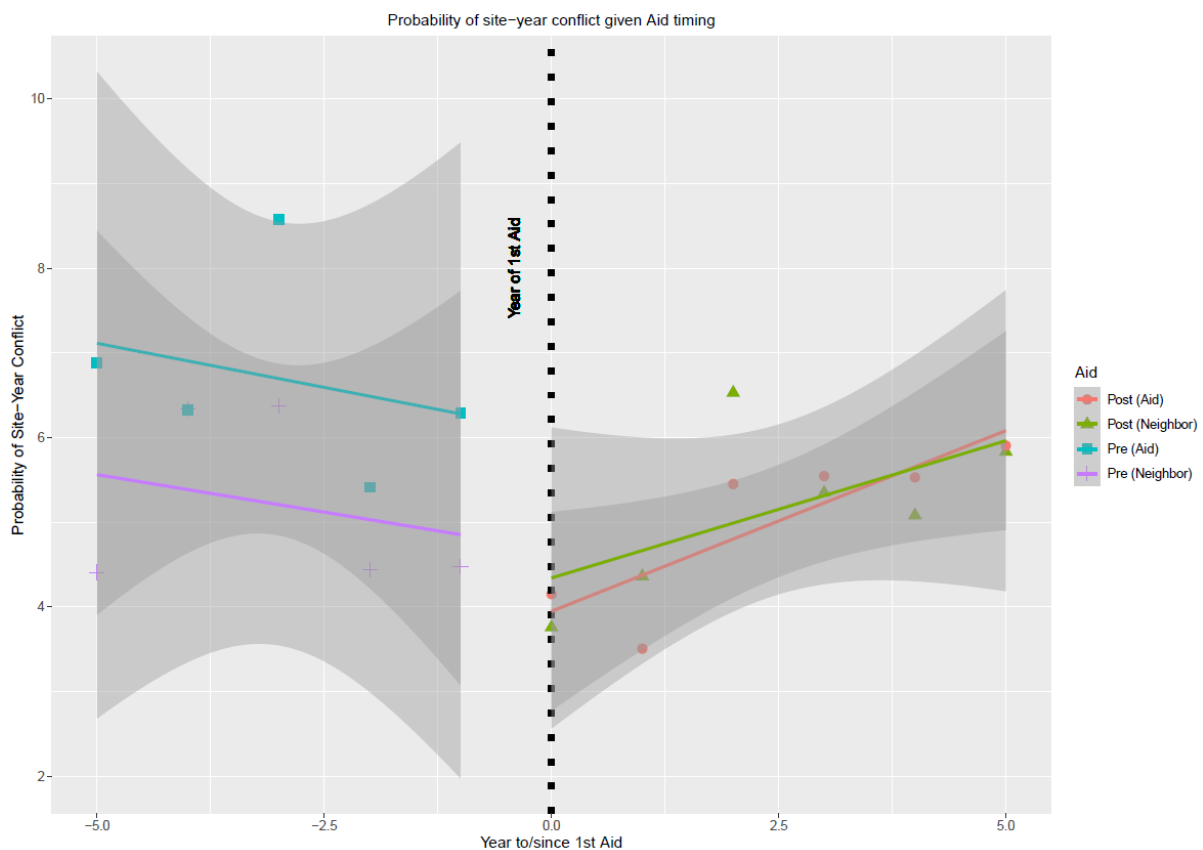
In order to avoid ending up with inferences that are only applicable to sites that (eventually) receive aid, we need a comparator group. To approximate this "untreated" comparator group, we follow Christensen (2019) by using locations that *neighbor* our "treated" units.

However, since sites only enter our sample if they have an *initial* conflict, we only include neighbors that also meet that criteria (and are thus at risk for a conflict relapse). This allows for a difference-in-difference like approach where the comparison observations include these neighboring locations. The assumption is that these neighboring sites should be similar enough to the aid sites in terms of the characteristics that might bias aid selection like poverty, ethnic makeup, political importance or the underlying probability of relapse. To examine the plausibility of this assumption, we create an outcome plot of the probability of conflict relapse at "treated" sites and at neighboring sites for the 5 years before and after active aid in figure 1. In the case of the neighboring sites, we set the timing from the arrival of aid at the nearest neighboring site with aid. As shown there, while aid sites do have a higher probability of conflict relapse pre-aid compared to their neighbors, the trends look reasonably parallel. Likewise, post aid the trends are again almost identical, but the conflict relapse probability in the aid sites has dropped considerably while in non-aid sites the drop is much smaller. In a difference-in-difference like framework, this suggests that the negative association of the aid intervention on conflict was much larger at the aid sites when compared to the neighbor sites who did not receive aid but were also at risk of conflict relapse.

However, using site fixed effects alone would miss the influence of site-level characteristics which vary over time. It is plausible that factors like local levels of economic development, ethnic homogenization, the arrival of foreign direct investment, or natural resource development may change over time and influence the probability of conflict (relapse). Two-way fixed effects, including both site and year, would not capture *site-specific* temporal variation and have recently been shown to have other limitations (Imai and Kim 2021). Accordingly, we again take our cue from Christensen (2019) and incorporate site-*period* fixed effects, using 5-year periods.[6] While not perfectly capturing unobserved, time-varying, site level factors, this approach at least mitigates the risk of severe omitted variable bias from time-varying influences.

We employ linear estimators in our main models for ease of interpretation and because the use of site fixed effects in a panel logit model can encounter the incidental parameter problem

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[6] Where we cannot include site-year fixed effects as these would perfectly fit the model.

(Lancaster 2000). That said, we also employ a logit model in the robustness checks. The reduced form specification of our baseline model is:

$$Y_{it} = \beta_1 * active_{it} + \alpha_{it} + \delta_t + \varepsilon_{it}$$

where the binary conflict relapse outcome, *Y,* measured at site *i* in time *t,* is regressed on *active* Aid at site *i* in year *t*. The baseline regression includes site-year (α_{it}) and time-since-conflict (δ_t) fixed effects. As mentioned above, these latter effects account for the fact that conflict relapse is a duration specific risk. We employ Conley (1999) standard errors, ε_{it}, by site to account for potential spatial-temporal dependence in the data.

Results and Discussion

Our results using all types of aid and all conflicts are presented in Table 1. We see that active aid is associated with a *decrease* in the likelihood of conflict relapse for all conflict types. Substantively, the effects are modest but meaningful. The underlying probability of site-year conflict relapse in our sample is 5.96%. Accordingly, the change in model 1 indicates that active aid is associated with a decrease in the probability of conflict relapse by about 39% of that mean value. Similarly sized substantive impacts are visible when considering all fatal conflict (~32%) (model 2) or non-fatal conflicts (~36%) (model 3). However, the impact on major conflicts is substantially larger, as the underling probability of a major-conflict relapse is only 0.11%, so the coefficient in model 4 indicates aid is associated with a decrease in the probability that is roughly 170% of the mean value, although this result is only significant at the 10% level.

Table 1: Aid and Conflict Relapse

VARIABLES	(1) All Conflict	(2) Fatal	(3) Non-Fatal	(4) Major
Active Aid	-0.021***	-0.018***	-0.011**	-0.008*
	(0.006)	(0.007)	(0.004)	(0.004)
Observations	69,595	41,138	29,162	16,963
Number of gid	5,487	2,985	1,905	1,112
Site-Period FE	17,371	10,189	7,096	4,134
Time Elapsed FE	YES	YES	YES	YES

Collectively, this evidence supports our the theoretical arguments that aid can reduce conflict relapse. There is no support that aid serves as a "honey pot" to induce further conflict. Instead, aid, in the aggregate at least, seems to not only pacify non-violent (or at least non-fatal) conflict, but also assuage both fatal and major conflict. As such, it appears that aid can contribute to more table localized post-conflict environments.

Robustness Checks

We submit our results to several robustness checks. In the first instance, we attempt to address the MAUP by considering if our results hold using different capture radii for conflicts and aid projects. To this end, we re-run model 1 from table 1 using data built with all capture radii from 2 km to 50 km. As seen in figure 2, our results are quite stable at different capture radii with no abrupt changes in the point estimate. As expected, there are nosier estimates at lower capture radii where we have fewer "treated" sites. The absolute value of the point estimate is largest, -0.025, at the 18km capture radius. As the estimates are both stable and smooth across the range of capture distances, we find it unlikely that the MAUP is introducing substantial bias into our results.

Table 2: Robustness Checks

| VARIABLES	(1) Logit	(2) Pre-2000 omit	(3) 1 Year Peace	(4) 3 Year Peace	(5) 10 Year Window	(6) Placebo	(7) Escalate	(8) Descalate	(9) ADM2
Active	-0.177**	-0.024***	-0.021***	-0.018***	-0.018***	-0.003	-0.006*	-0.011***	-0.041**
	(0.064)	(0.006)	(0.007)	(0.005)	(0.006)	(0.005)	(0.003)	(0.003)	(0.017)
Observations	41,459	64,562	69,595	69,595	43,601	68,817	66,393	66,320	9,906
N Units	2,810	5,487	5,487	5,487	5,487	5,487	5,427	5,415	740
Conley SE	NO	YES	YES	YES	YES	YES	YES	YES	YES
Site-period FE	NO	15,938	17,371	17,371	11,599	17,047	17,170	17,141	2,399
Site FE	YES	NO	NO	NO	NO	NO	NO	NO	NO
Elapsed FE	YES	YES	YES	YES	YES	YES	YES	YES	YES

We next consider several alternative model specifications and estimators, presented in full in the Appendix in Table A1. In all instances, we use all conflicts and all aid at the 25km capture radius. First (model 1) we use a non-linear logit estimator with site fixed effects despite the concern of the incidental parameter problem. Second, while our AidData technically includes data from 1988, 99% of our projects date from 2000. This introduces two potential problems. First, early years may well have missing data which could bias our findings. Second, not knowing a site's previous "aid history" hinders our identification of the first year of the aid "treatment". Accordingly, we estimate our model (2) omitting all years prior to 2000, decreasing the likelihood that "inactive" site-years are incorrectly identified. Next, we consider our original model but use different "peace duration" intervals for the relapse, with a minimum one year interval in model 3 and a minimum three-year interval in model 4. In model 5, we consider only relapses which occur within 10 years follow the "peace duration" internal. Models 7 and 8 consider only "descalatory" and "escalatory" relapse, respectively. For example, a descalatory relapse would be a non-fatal relapse from a fatal revent (and vice-versa). Model 9 collapses our data to "administrative two" (ADM2) levels, (i.e. a district level). Finally, in models 10 and 11 we replace our binary indicator of aid with the amount of aid commitment or disbursement (in 10s of millions of USD), respectively, during the active period. In all of these instances, the direction of the relationship is the same as in Table 1, model 1, and is statistically significant at at least the 5 percent level, with the exception of the relationship with "escalatory" relapse, which is significant at the 10% level. We also perform two placebo tests. First, in model 6, we set the treatment indicator "active" 5 years prior to when it actually is active to evaluate if the potential for conflict relapse might induce siting of aid. We find no statistically significant effect. Second, we generate a randomly assigned "placebo" indictor for both the presence and timing of "active" aid onto the sites in our sample. We conduct this placebo test 100 times. As seen in figure 3, the placebo results are randomly clustered around 0.[7]

In the appendix in Table A4, we also expand our analysis with a preliminary investigation into the possibility that there is heterogeneity in the relationships between different types

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[7] For computational efficiency these models are run with clustered standard errors at the site level rather than Conley standard errors as the latter models take up to an hour each to run. However, the Conley standard errors should are, if anything, larger further emphasizing the placebo "non-result".

of *aid* and conflict. We broadly catergorize the aid into "public-goods", "private-goods" and "peacekeeping" aid and look at the relationship with all conflict types. While the "public goods" and "private goods" types of aid are again associated with a reduced risk of conflict relapse, peacekeeping aid is associated with an *increased* risk of *non-fatal* conflict relapse. While aid type, or even aid-donor, hetereogeniety could be an useful avenue for future research, we speculate that the peacekeeping aid could provide a securitization function which makes a locality safer for non-fatal protest.

Figure 2: Coefficient on Active for All Conflict Relapses at Different Capture Radii
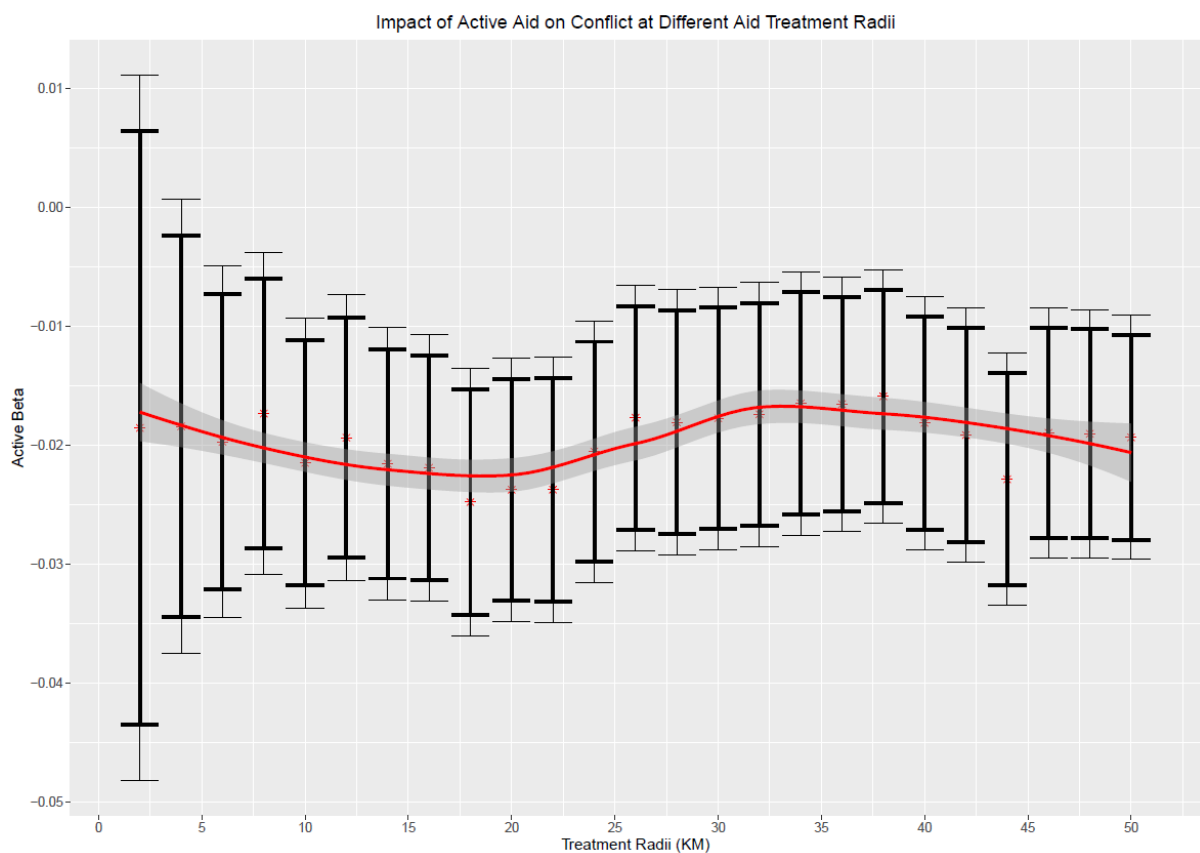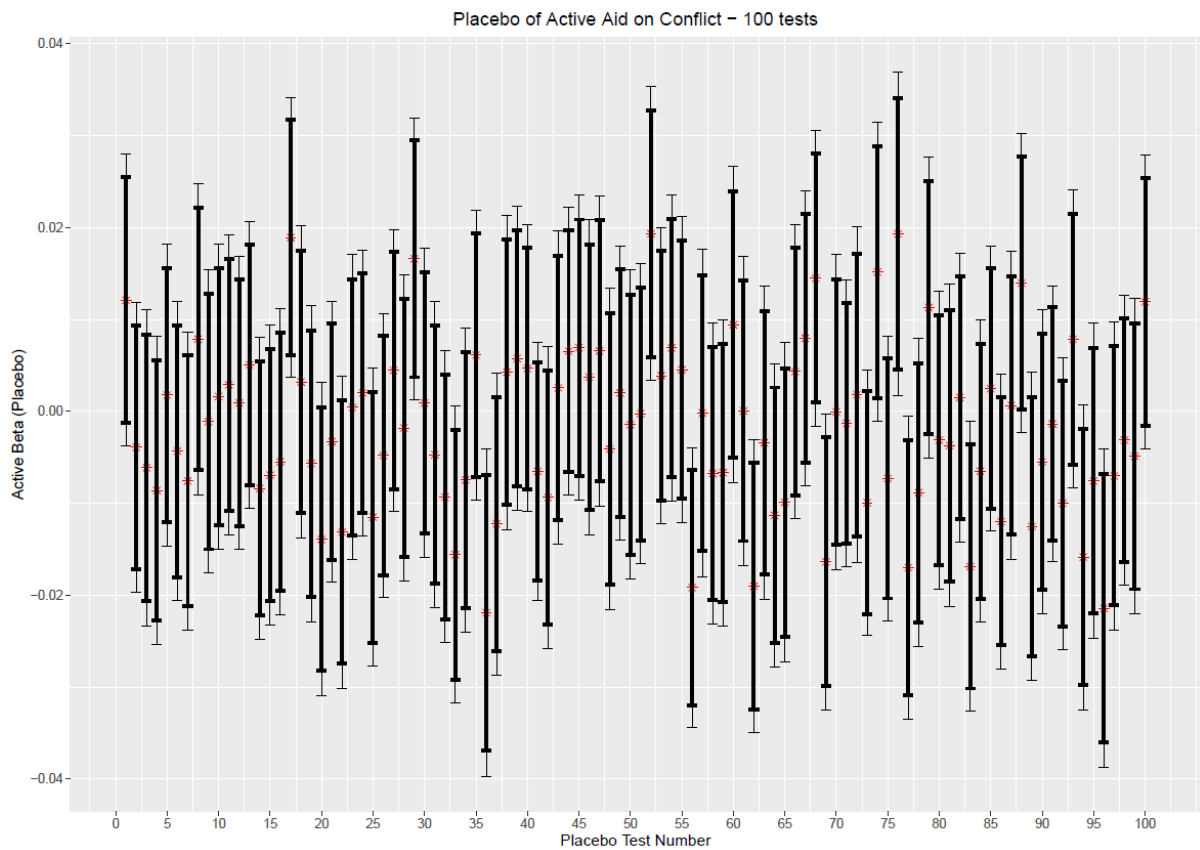

Conley SEs with 95% Confidence Intervals in Grey, 90% Confidence Intervals in Black

Qualitative Evidence from Nigerian Conflicts

In this final section, we investigate the plausibility of the observed statistical findings via the interrogation of qualitative evidence from 6,866 individual surveys and 13 community focus-groups gathered in two post-conflict areas in Nigeria: the South-East region (Biafra conflict) and the South-South region (Niger-Delta conflict) conducted in the summer of 2019. These

regions are selective as "illustrative, plausibility-probe" cases (Levy 2008). While the information may not be generalizable to other post-conflict settings, they are examples of areas which have seen conflict, peace intervals and, in some instances, recurrent conflict while also encompassing local areas which do or do not receive foreign aid. To structure the investigation, two states were selected from each geopolitical zone – making a total of four state sites (Enugu State and Anambra State from the South-East region, and Rivers State and Akwa Ibom State from the South-South Region). The selection of these four state sites were selected using a most-similar case selection logic – where the cases were similar in all possible explanatory variables save that of interest (aid) but differ on (the intensity of) the outcome variable (conflict relapse). For the survey, stratified random sampling techniques were used to distribute questionnaires and collect data from different sectors and locations in each state. Focus group participants were selected by a snowballing process. Summary statistics from the survey can be found in the supplemental appendix.

Figure 3: 100 Placebo Tests

Clustered SEs with 95% Confidence Intervals in Grey, 90% Confidence Intervals in Black

The Biafran conflict in Nigeria can be traced down to the early post-colonial era in Nigeria between the Northern and South-Eastern (and some parts of the South-South) regions of Nigeria. This led to the Biafran/Nigerian Civil War between 1967 to 1970 (Plotnicov, 1971). The conflict heightened with the secession movement spearheaded by the Igbo ethnic group due to an aggrieved feeling of dominance from the Northern region, particularly the Hausa/Fulani ethnic group.

While the South-East Region is dominated by people from the Igbo ethnic group, the Niger-Delta/South-South region is a heterogenous region made up of people from multiple ethnic groups. This region is the oil production hub of the country, which forms a large proportion of the government's budget and exports (Kadafa, 2012). Due to the heterogeneous nature of this region, the Biafran secession movement is not as pronounced as it is in the South-East region. The prominent conflict in the Niger-Delta region arose from feelings of exploitation. People in the South-South region feel that they contribute far more than what they receive from the federal system, the government, and/or the oil companies operating in the region (Mevayerore, 2020). Despite different (post)conflict reconciliation programmes and amnesty granted to some of the surrendered militants by the government, the region remains a fragile region with different sparks of conflicts and violence (Aghedo, 2013; Kadafa, 2012).

Although the civil war ended over 50 years ago, tensions persist and some areas still see periodic conflicts and attract relatively paltry amounts of foreign aid[8]. This has made the Biafran and Niger-Delta conflicts ideal for this study. In addition to receiving significant amounts of aid, these conflicts have experienced different forms and waves of violent, non-violent, fatal and non-fatal evemts which is relevant for this study.

Our survey and focus group evidence from these regions suggests stylized support for the theoretical mechanisms implied by our quantitative findings above. A majority (70.1%) of survey participants either agreed or strongly agreed that unfavourable individual socio-economic conditions, precisely poverty, heighten conflict. In conjunction, 63.9% agreed or strongly agreed that foreign aid can help reduce conflict agitation, and 82.6% agreed that

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[8] https://www.amnesty.org/en/latest/news/2016/11/peaceful-pro-biafra-activists-killed-in-chilling-crackdown/

foreign aid was useful overall. For instance, in reply to a question if foreign aid could be used to reduce conflict, one focus group participant from Enugu state responded:

> "Yes, because conflict comes when people feel inadequately catered for. This is one of the reasons for conflict. When foreign aid comes in to correct the imbalance, it can be used to reduce agitation which would reduce conflict and the imbalance".[9]

When asked if this also influences the Biafran Conflict, the participant confirmed that it does. In response to the same question, with a particular reference to the Biafran conflict, another participant said:

> "Yes. What is that agitation? That agitation is hunger, you see people like this my young man here [she points to one of her staff], you see this young man will never go into crime because he has a job … So many people are made in the street because of what, hunger, insecurity … I begin to panic because of what is in the society now. You see people butchered like a goat, hen and all of that. So, they [foreign donors] should come and see how they can intervene."[10]

Likewise, participants from the focus groups in these conflict-affected areas noted that meeting basic needs was a primary concern. In all focus groups, the participants emphasized the different ways that the socioeconomic conditions in their community – particularly unemployment (which was identified in all the communities) – instigates grievance and conflict. For instance, a participant in Akwa Ibom State noted that:

> "the most challenging situation we are facing in this community is that boys do not have jobs. They have finished school, but they don't have jobs".[11]

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[9] Enugu State Focus Group 1, June 2019.
[10] Enugu State Focus Group 1, June 2019.
[11] Akwa Ibom Focus Group 1, August 2019.

This sentiment was supported by another participant who instantly said "we need jobs". [12] Likewise, other participants raised the prospect of how public infrastructure could alleviate grievance. For instance, one of the participants from Rivers State stated:

"all we need are infrastructure that will help alleviate poverty and help the community, we are willing to do business, this is a very peace loving community, but our peaceful nature is being interpreted as being foolish, but our elders used to advise us to still maintain the peace, so any project that is coming to us should come, this is not a violent community, we are very peaceful".[13]

Likewise, in Anambra state, the participants discussed how the problems in the provision of public services that they have in the community (inadequate power supply, lack of water) contributes to their agitation for the succession of Biafra.[14] Collectively, while styalized, this evidence suggests that the mechanisms we argue are revealed by the quantitative findings are, at a minimum, *plausible.* Individual or collective need can drive conflict grievances and that aid that alleviates those needs can mitigate the grievence and thus reduce the propensity to engage in conflict.

Conclusion

This paper examines the effects of foreign aid on post-conflict stability with georeferenced data and spatial-temporal analyses on aid and local conflicts. The utilization of georeferenced data and spatial-temporal analyses helps to mitigate some of the challenges encountered in country-level analyses such as the skewed distribution of foreign aid and conflict within a country and the different periods of attaining post-conflict peace across the different localities of a country. Drawing on the conflict recurrence literature, we examined if foreign assistance incites or inhibits a return to *local* violence.

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[12] Akwa Ibom Focus Group 1, August 2019.
[13] Rivers State Focus Group 1, July 2019.
[14] Anambra State Focus group 1, June 2019.

Our findings are more straightforward than the two-sided theoretical expectations would suggest. We find that in almost all instances, aid is associated with a *reduction* the likelihood of conflict relapse. This result holds for fatal, non-fatal, and major conflicts and also appears to hold when only considering aid that provides "public goods" or "private goods", respectively. These findings imply considerable relative support for the theoretical contention that aid may reduce *individual grievances* but lends little credence to the claim that aid creates a *honey pot* over which factions clash. Surprisingly, only "peacebuilding" aid appears to have any impact on increasing the likelihood of conflict relapse. However, we are wary of reading too much into this result as it is difficult to disentangle "peacebuilding" aid from the "peacekeeping" security operations that it often accompanies. As well as the likelihood that peacebuildimg aid and peacekeeping strategies may permit space for political *dissent* in the form of non-fatal protest that would previously have been repressed by combating forces. Using original survey, focus group, and elite interview data we find stylized support for the statistical findings. Notably, numerous focus group participants noted how individual needs stoke grievance, but how aid can pacify this.

The implications of our work are multi-fold. First is the headline finding that aid appears to lessen the propensity of both fatal and non-fatal conflict relapse. This would suggest that fears about aid acting as a "honey pot" are unfounded, a least at a local level, and should not be used as an argument against providing relief and support to households. Second, is the observation that this result appears to be largely unconditional to the type of aid or the type of conflict. This implies that donors need not worry to a great extent about the make up of their aid efforts, but instead are well-directed in supporting post conflict regions with foreign assistance. Notably, this finding is at odds with recent work which suggests that local aid may intensify local conflict (Findley et al. 2023). We would suggest that this difference may mainly be driven by the subtle, but meaningful, difference in the outcome under study. The intensity of conflicts which are occurring is very different from the likelihood of an area experiencing a conflict relapse. While aid may make (initial) conflicts more violent, in the aftermath of conflict, it could also help prevent a reocurrence. More broadly, our findings add to an increasingly nuanced literature on the institutional and socio-economic consequences resulting from foreign aid interventions. Aid to post conflict setting appears to be almost

unambiguously positive in helping build *post-conflict* peace. This is an encouraging result for aid effectiveness.

CONFLICT OF INTEREST STATEMENT

The authors report no conflicts of interest.

REPLICATION MATERIALS

Replication materials are available upon request from the authors.

REFERENCES

Abadie, A. (2006) 'Poverty, Political Freedom, and the Roots of Terrorism', The American Economic Review, 96(2), pp. 50-56.

Addison, T. and McGillivray, M. (2004) 'Aid to conflict-affected countries: lessons for donors', Conflict, Security & Development, 4(3), pp. 347-367.

Addison, T., Le Billon, P. and Murshed, S. M. (2002) 'Conflict in Africa: The cost of peaceful behaviour', Journal of African Economies, 11(3), pp. 365-386.

Aghedo, I. (2013) 'Winning the war, losing the peace: Amnesty and the challenges of post-conflict peace-building in the Niger Delta, Nigeria', Journal of Asian and African Studies, 48(3), pp. 267-280.

AidData (2017a) 'BurundiAIMS_GeocodedResearchRelease_Level1_v1.0 geocoded dataset ', Williamsburg, VA and Washington, DC: AidData.

AidData 2016a. AfghanistanAIMS_GeocodedResearchRelease_Level1_v1.1.1 geocoded dataset. Williamsburg, VA and Washington, DC: AidData. Retrieved from http://aiddata.org/research-datasets.

AidData 2016b. ColombiaAIMS_GeocodedResearchRelease_Level1_v1.1.1 geocoded dataset. Williamsburg, VA and Washington, DC: AidData. Retrieved from http://aiddata.org/research-datasets.

AidData 2016c. DRC-AIMS_GeocodedResearchRelease_Level1_v1.3.1 geocoded dataset. Williamsburg, VA and Washington, DC: AidData. Retrieved http://aiddata.org/research-datasets.

AidData 2016d. HondurasAIMS_GeocodedResearchRelease_Level1_v1.3.1 geocoded dataset. Williamsburg, VA and Washington, DC: AidData. Retrieved from http://aiddata.org/research-datasets.

AidData 2016e. IraqAIMS_GeocodedResearchRelease_Level1_v1.3.1 geocoded dataset. Williamsburg, VA and Washington, DC: AidData. Retrieved from http://aiddata.org/research-datasets.

AidData 2016f. NepalAIMS_GeocodedResearchRelease_Level1_v1.4.1 geocoded dataset. Williamsburg, VA and Washington, DC: AidData. Retrieved from http://aiddata.org/research-datasets.

AidData 2016g. NigeriaAIMS_GeocodedResearchRelease_Level1_v1.3.2 geocoded dataset. Williamsburg, VA and Washington, DC: AidData.

AidData 2016h. SenegalAIMS_GeocodedResearchRelease_Level1_v1.5.1 geocoded dataset. Williamsburg, VA and Washington, DC: AidData.

AidData 2016i. SomaliaAIMS_GeocodedResearchRelease_Level1_v1.1.1 geocoded dataset. Williamsburg, VA and Washington, DC: AidData. Retrieved from http://aiddata.org/research-datasets.

AidData 2016j. TimorLesteAIMS_GeocodedResearchRelease_Level1_v1.4.1 geocoded dataset. Williamsburg, VA and Washington, DC: AidData. Retrieved from http://aiddata.org/research-datasets.

AidData 2016k. UgandaAIMS_GeocodedResearchRelease_Level1_v1.4.1 geocoded dataset. Williamsburg, VA and Washington, DC: AidData.

AidData 2017b. SierraLeoneAIMS_GeocodedResearchRelease_Level1_v1.0 geocoded dataset. Williamsburg, VA and Washington, DC: AidData. Retrieved from http://aiddata.org/research-datasets.

Arcand, J.-L. and Chauvet, L. (2001) 'Foreign aid, rent-seeking behavior, and civil war', Understanding Poverty and Growth in Sub-Saharan Africa, Oxford.

Asal, V. and Phillips, B. J. (2018) 'What explains ethnic organizational violence? Evidence from Eastern Europe and Russia', Conflict Management and Peace Science, 35(2), pp. 111-131.

Azam, J. P. and Delacroix, A. (2006) 'Aid and the delegated fight against terrorism', Review of Development Economics, 10(2), pp. 330-344.

Azam, Jean-Paul, and Jean-Jacques Laffont. 2003. "Contracting for aid." Journal of Development Economics 70 (1): 25-58.

Balla, E. and Reinhardt, G. Y. (2008) 'Giving and Receiving Foreign Aid: Does Conflict Count?', World Development, 36(12), pp. 2566-2585.

Barma, N. H., Levy, N., & Piombo, J. (2017). Disentangling aid dynamics in statebuilding and peacebuilding: a causal framework. International Peacekeeping, 24(2), 187-211.

BenYishay, A., DiLorenzo, M. and Dolan, C. (2022) 'The economic efficiency of aid targeting', World Development, 160, pp. 106062.

Bermeo, Sarah Blodgett. 2017. "Aid Allocation and Targeted Development in an Increasingly Connected World." International Organization 71 (4): 735-766.

Berthélemy, Jean-Claude. 2006. "Bilateral Donors' Interest vs. Recipients' Development Motives in Aid Allocation: Do All Donors Behave the Same?" Review of Development Economics 10 (2): 179-194.

Binetti, M. N. (2023) 'Rebuilding energy infrastructures and the manufacturing sector in post-conflict countries', Energy Policy, 172, pp. 113298.

Bluhm, R., Gassebner, M., Langlotz, S., & Schaudt, P. (2021). Fueling conflict?(De) escalation and bilateral aid. Journal of Applied Econometrics, 36(2), 244-261.

Brazys, S., & Kotsadam, A. (2020). Sunshine or Curse? Foreign Direct Investment, the OECD Anti-Bribery Convention, and Individual Corruption Experiences in Africa. International Studies Quarterly, 64(4), 956-967.

Brazys, S., de Soysa, I., & Vadlamannati, K. C. (2023). Blessing or curse? Assessing the local impacts of foreign direct investment on conflict in Africa. Journal of Peace Research, 00223433231200928.

Brazys, Samuel. 2010. "Race to give? The selective effectiveness of United States trade capacity building assistance." Review of International Political Economy 17 (3): 537- 561.

Burnside, C. and Dollar, D. (2000) 'Aid, Policies, and Growth', The American Economic Review, 90(4), pp. 847-868.

Campbell, S. P., & Di Salvatore, J. (2024). keeping or building peace? UN peace operations beyond the security dilemma. American Journal of Political Science, 68(3), 907-926.

Cederman, L.-E., Wimmer, A. and Min, B. (2010) 'Why Do Ethnic Groups Rebel? New Data and Analysis', World Politics, 62(1), pp. 87-119.

Chauvet, L., Collier, P. and Duponchel, M. (2010) What Explains Aid Project Success in Post-Conflict Situations?

Christensen, D. (2019). Concession stands: how mining investments incite protest in Africa. International organization, 73(1), 65-101.

Collier, P. and Hoeffler, A. (2002) 'Aid, policy and peace: Reducing the risks of civil conflict', Defence and Peace Economics, 13(6), pp. 435-450.

Collier, P. and Hoeffler, A. (2004a) 'Aid, policy and growth in post-conflict societies', European Economic Review, 48(5), pp. 1125-1145.

Collier, P. and Hoeffler, A. (2004b) 'Greed and grievance in civil war', Oxford economic papers, 56(4), pp. 563-595.

Conley, Tomothy G. 1999. "Gmm Estimation with Cross Sectional Dependence." Journal of Econometrics 92(1):1-45.

Cordella, Tito, and Giovanni Dell'Ariccia. 2007. "Budget support versus project aid: a theoretical appraisal." The Economic Journal 117 (523): 1260-1279.

Croicu, M., & Eck, K. (2022). Reporting of non-fatal conflict events. International Interactions, 48(3), 450-470.

Currie-Alder, B. (2016) 'The state of development studies: origins, evolution and prospects', Canadian Journal of Development Studies / Revue canadienne d'études du développement, 37(1), pp. 5-26.

de Ree, J. and Nillesen, E. (2009) 'Aiding violence or peace? The impact of foreign aid on the risk of civil conflict in sub-Saharan Africa', Journal of Development Economics, 88(2), pp. 301-313.

Deaton, A. (2013) The great escape: health, wealth, and the origins of inequality. Princeton, N.J;Oxford;: Princeton University Press.

Denskus, T. (2007). Peacebuilding does not build peace. Development in Practice, 17(4-5), 656-662.

Department of Public Policy. https://cdr.lib.unc.edu/downloads/bk128h72m

Dietrich, Simone. 2013. "Bypass or engage? Explaining donor delivery tactics in foreign aid allocation." International Studies Quarterly 57 (4): 698-712.

Donaubauer, J., Herzer, D. and Nunnenkamp, P. (2019) 'The Effectiveness of Aid under Post-Conflict Conditions: A Sector-Specific Analysis', The Journal of Development Studies, 55(4), pp. 720-736.

Donnay, K., Dunford, E. T., McGrath, E. C., Backer, D., & Cunningham, D. E. (2019). Integrating conflict event data. Journal of Conflict Resolution, 63(5), 1337-1364.

Doyle, M. W. and Sambanis, N. (2006) Making war and building peace: United Nations peace operations. Princeton University Press.

Duffy, F. (2020). Foreign Intervention and Political Violence: Examining the Local Causes of Conflict. A dissertation submitted to the faculty at the University of North Carolina at Chapel Hill in

Easterly, W. (2005) 'What did structural adjustment adjust? The association of policies and growth with repeated IMF and World Bank adjustment loans', Journal of Development Economics, 76(1), pp. 1-22.

Eck, K. (2012). In data we trust? A comparison of UCDP GED and ACLED conflict events datasets. Cooperation and Conflict, 47(1), 124-141.

Fearon, James D & David D Laitin (2003) Ethnicity, insurgency, and civil war. American Political Science Review. 97(1): 75–90.

Feyzioglu, T., Swaroop, V., & Zhu, M. (1998). A panel data analysis of the fungibility of foreign aid. The World Bank Economic Review, 12(1), 29-58.

Findley, M. G. (2018) 'Does Foreign Aid Build Peace?', Annual Review of Political Science, 21(1), pp. 359-384.

Findley, M. G., Powell, J., Strandow, D., & Tanner, J. (2011). The localized geography of foreign aid: A new dataset and application to violent armed conflict. World Development, 39(11), 1995-2009.

Findley, M., Young, J. K., Strandow, D., & Cat, O. (2023). Aiding War: Foreign Aid and the Intensity of Violent Armed Conflict. International Studies Quarterly, 67(3), sqad048.

Flores, T. E. and Nooruddin, I. (2009) 'Financing the peace: Evaluating World Bank post-conflict assistance programs', The Review of International Organizations, 4(1), pp. 1-27.

Fotheringham, A. S., & Wong, D. W. (1991). The modifiable areal unit problem in multivariate statistical analysis. Environment and planning A, 23(7), 1025-1044.

Fuchs, A., and K. C. Vadlamannati. 2013. "The Needy Donor: An Empirical Analysis of India's Aid Motives." World Development 44: 110-128.

Goodhand, J. (2001). Violent conflict, poverty and chronic poverty. Chronic Poverty Research Centre Working Paper, (6).

Gunning, J. and Jackson, R. (2011) 'What's so 'religious' about 'religious terrorism'?', Critical Studies on Terrorism, 4(3), pp. 369-388.

Gutting, R. and Steinwand, M. C. (2017) 'Donor fragmentation, aid shocks, and violent political conflict', Journal of Conflict Resolution, 61(3), pp. 643-670.

Hirschmann, G. (2012). Peacebuilding in UN peacekeeping exit strategies: Organized hypocrisy and institutional reform. International Peacekeeping, 19(2), 170-185.

Hoeffler, Anke, and Verity Outram. 2011. "Need, Merit, or Self-Interest—What Determines the Allocation of Aid?" Review of Development Economics 15 (2): 237-250.

Imai, K., & Kim, I. S. (2021). On the use of two-way fixed effects regression models for causal inference with panel data. Political Analysis, 29(3), 405-415.

Jablonski, R. S. (2014) 'How aid targets votes: the impact of electoral incentives on foreign aid distribution', World Politics, 66(2), pp. 293-330.

Kadafa, A. A. (2012) 'Oil exploration and spillage in the Niger Delta of Nigeria', Civil and Environmental Research, 2(3), pp. 38-51.

Karlén, N. (2017). The legacy of foreign patrons: External state support and conflict recurrence. Journal of peace research, 54(4), 499-512.

Knutsen, C. H., Kotsadam, A., Olsen, E. H. and Wig, T. (2017) 'Mining and local corruption in Africa', American Journal of Political Science, 61(2), pp. 320-334.

Levy, J. S. (2008). Case studies: Types, designs, and logics of inference. Conflict Management and Peace Science, 25(1), 1-18.

Li, J., Long, X. and Jiang, Q. (2022) 'Aid and conflict: Evidence from Chinese aid', China Economic Quarterly International, 2(2), pp. 111-123.

Lis, P. (2018) 'The impact of armed conflict and terrorism on foreign aid: A sector-level analysis', World Development, 110, pp. 283-294.

Mason, T David; Mehmet Gurses, Patrick T Brandt & Jason Michael Quinn (2011) When civil wars recur: Conditions for durable peace after civil wars. International Studies Perspectives, 12(2): 171–189.

McGinnis, M. D. (2011). An introduction to IAD and the language of the Ostrom workshop: a simple guide to a complex framework. Policy Studies Journal, 39(1), 169-183.

Mevayerore, D. I. (2020) 'Natural-Resource Curse, Niger Delta Crisis and Oil Exploration in Nigeria: A Theoretical Analysis', World Scientific News, 141, pp. 1-11.

Moyo, D. (2009) Dead aid: why aid is not working and how there is another way for Africa. London: Allen Lane.

Murray, C. J., King, G., Lopez, A. D., Tomijima, N., & Krug, E. G. (2002). Armed conflict as a public health problem. Bmj, 324(7333), 346-349.

Narang, N. (2014) 'Humanitarian assistance and the duration of peace after civil war', The Journal of Politics, 76(2), pp. 446-460.

Newman, E. (2011). A human security peace-building agenda. Third World Quarterly, 32(10), 1737-1756.

Nielsen, R. A., Findley, M. G., Davis, Z. S., Candland, T. and Nielson, D. L. (2011) 'Foreign Aid Shocks as a Cause of Violent Armed Conflict', American Journal of Political Science, 55(2), pp. 219-232.

Nunn, N., & Qian, N. (2014). US food aid and civil conflict. American Economic Review, 104(6), 1630-66.

partial fulfillment of the requirements for the degree of Doctor of Philosophy in the

Piazza, J. A. (2011) 'Poverty, minority economic discrimination, and domestic terrorism', Journal of Peace Research, 48(3), pp. 339-353.

Plotnicov, L. (1971) 'An early Nigerian civil disturbance: the 1945 Hausa-Ibo riot in Jos', The Journal of Modern African Studies, 9(2), pp. 297-305.

Quinn, Jason M; T David Mason & Mehmet Gurses (2007) Sustaining the peace: Determinants of civil war recurrence. International Interactions, 33(2): 167–193.

Sachs, Jeffrey D. 2006. The end of poverty: Economic possibilities for our time. Penguin.

Savun, B., & Tirone, D. C. (2011). Foreign aid, democratization, and civil conflict: how does democracy aid affect civil conflict?. American Journal of Political Science, 55(2), 233-246.

Sexton, R. (2016). Aid as a tool against insurgency: Evidence from contested and controlled territory in Afghanistan. American Political Science Review, 110(4), 731-749.

Soysa, I. D. (2002). Ecoviolence: Shrinking pie, or honey pot?. Global Environmental Politics, 2(4), 1-34.

Stina, H. (2019) 'UCDP GED Codebook version 19.1 ', Department of Peace and Conflict Research, Uppsala University.

Strandow, D., Findley, M. G., & Young, J. K. (2016). Foreign aid and the intensity of violent armed conflict. AidData Working Paper 24.

Sumida, Sugata. 2017. "Donor's motivation of the educational aid." International Journal of Educational Development 55: 17-29.

Sundberg, R. and Melander, E. (2013) 'Introducing the UCDP Georeferenced Event Dataset ', Journal of Peace Research, 50, pp. 523-532.

Taydas, Z., & Peksen, D. (2012). Can states buy peace? Social welfare spending and civil conflicts. Journal of Peace Research, 49(2), 273-287.

Walter, B. F. (2010). Conflict relapse and the sustainability of post-conflict peace (No. 62026, pp. 1-41). The World Bank.

Walter, Barbara F (2004) Does conflict beget conflict? Explaining recurring civil war. Journal of Peace Research, 41(3): 371–388.

Zürcher, C. (2017). What do we (not) know about development aid and violence? A systematic review. World Development, 98, 506-522.

Appendix

Table A1: Robustness Checks

VARIABLES	(1) Logit	(2) Pre-2000 omit	(3) 1 Year Peace	(4) 3 Year Peace	(5) 10 Year Window	(6) Placebo	(7) Escalate	(8) Descalate	(9) ADM2	(10) Aid Commitments	(11) Aid Disbursements
Active	-0.177**	-0.024***	-0.021***	-0.018***	-0.018***	-0.003	-0.006*	-0.011***	-0.041**	-0.005***	-0.010***
	(0.064)	(0.006)	(0.007)	(0.005)	(0.006)	(0.005)	(0.003)	(0.003)	(0.017)	(0.002)	(0.003)
Observations	41,459	64,562	69,595	69,595	43,601	68,817	66,393	66,320	9,906	69,595	69,595
N Units	2,810	5,487	5,487	5,487	5,487	5,487	5,427	5,415	740	5,487	5,487
Conley SE	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Site-period FE	NO	15,938	17,371	17,371	11,599	17,047	17,170	17,141	2,399	17,371	17,371
Site FE	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Elapsed FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

Standard errors in parentheses

** p<0.01, * p<0.05, † p<0.1

Table A2: Model Summary Statistics (25km capture)

| Variable	Source	Mean	Min	Max	N
Conflict_Relapse	(GED) https://ucdp.uu.se/downloads/index.html#ged_global (GTD) https://www.start.umd.edu/gtd/ (SCAD) https://www.strausscenter.org/form/10-download-scad-africa.html?tmpl=component (ACLED) https://acleddata.com/data-export-tool/ Author's Calculations using MELTT (Donnay et al. 2019)	0.060	0	1	69,595
Active Aid	https://www.aiddata.org/datasets Author's Calculations	0.683	0	1	69,595
Time Since First Conflict	(GED) https://ucdp.uu.se/downloads/index.html#ged_global (GTD) https://www.start.umd.edu/gtd/ (SCAD) https://www.strausscenter.org/form/10-download-scad-africa.html?tmpl=component (ACLED) https://acleddata.com/data-export-tool/ Author's Calculations using MELTT (Donnay et al. 2019)	11.062	3	28	69,595

Table A3: Nigeria Survey Respondent Summary Statistics

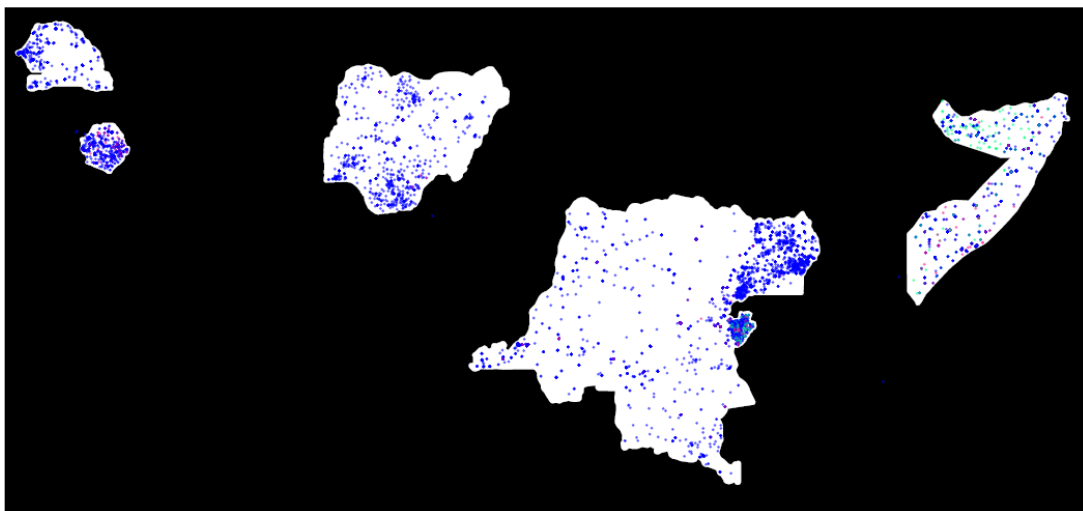| Variable	Mean	Min	Max	N
Male	0.51	0	1	6,685
Age	28.71	14	95	6,435
Income (NGN)	61,413.64	0	5,000,000	5,783

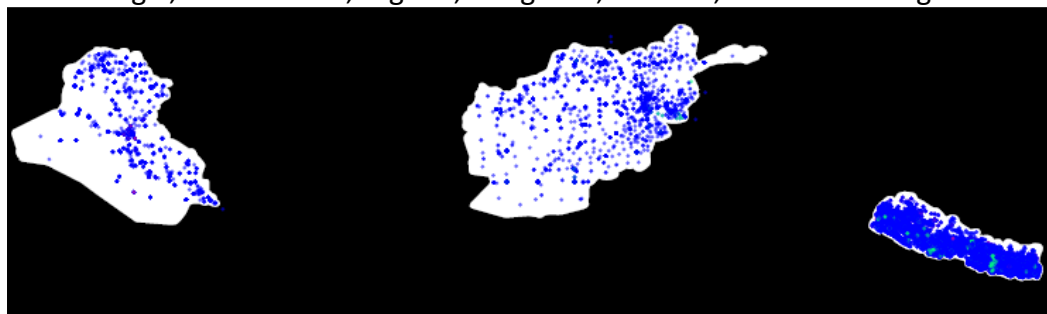Figure A1: MELTT Results
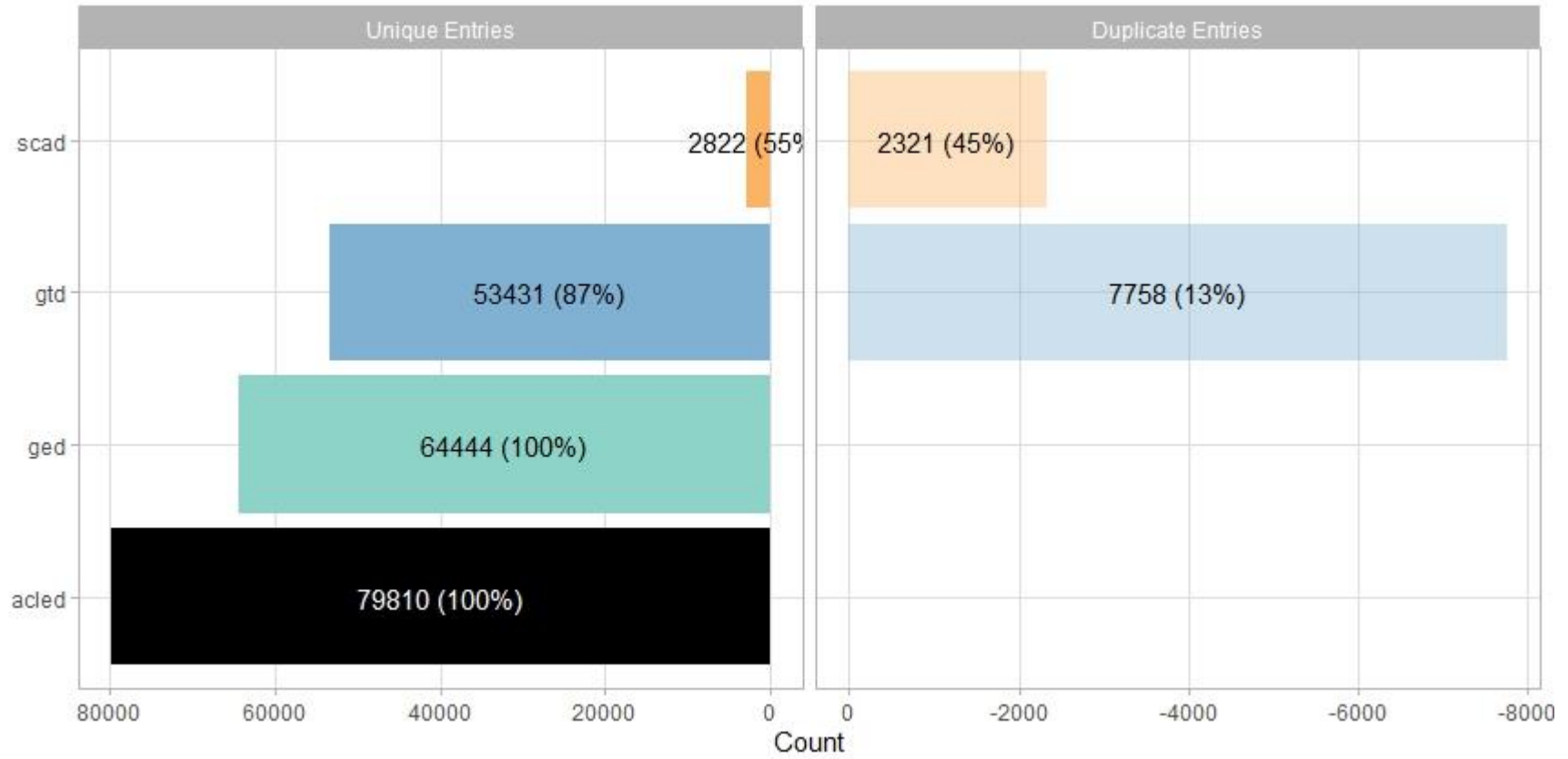
Map A1: Aid by Type in AIMS Countries
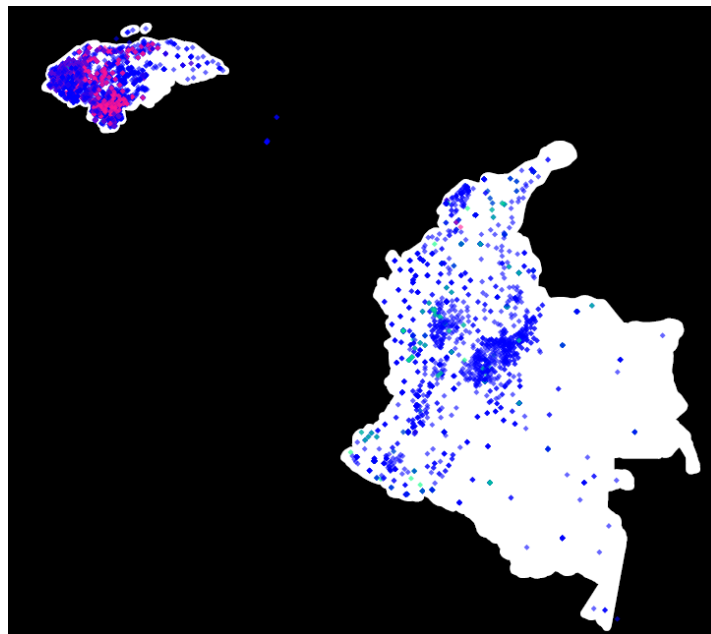
Honduras and Colombia

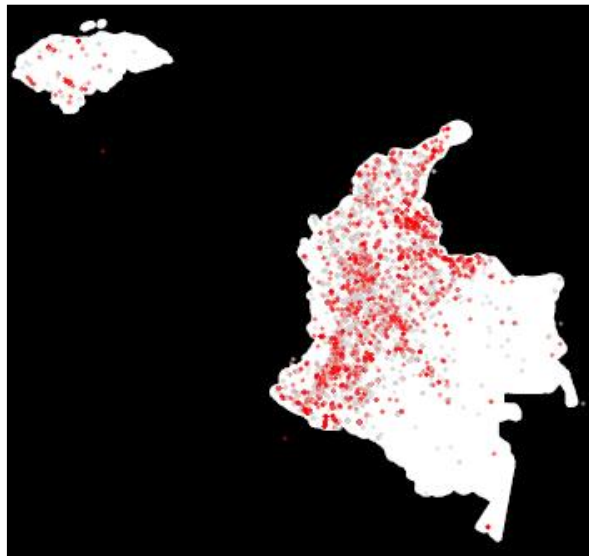Senegal, Sierra Leone, Nigeria, Congo DR, Somalia, Burundi and Uganda

Iraq, Afghanistan, and Nepal
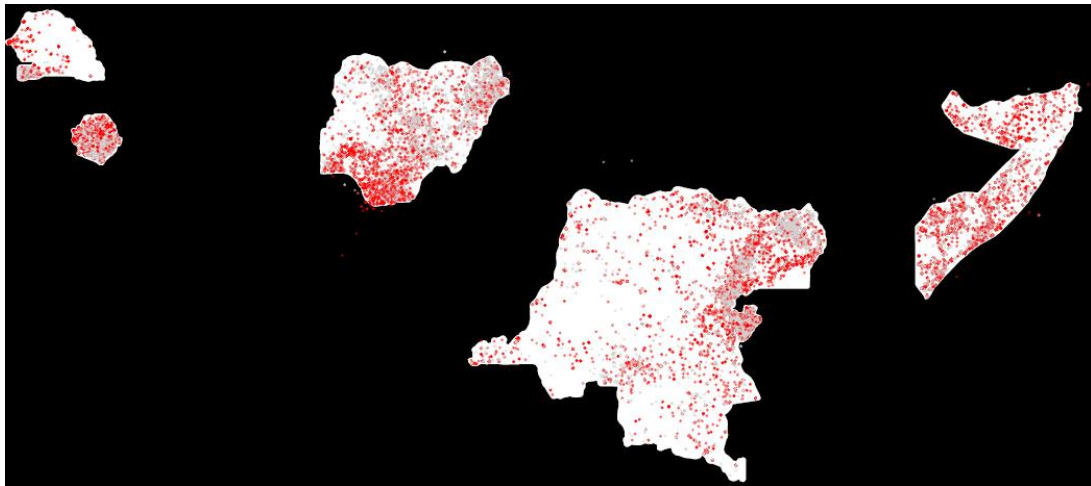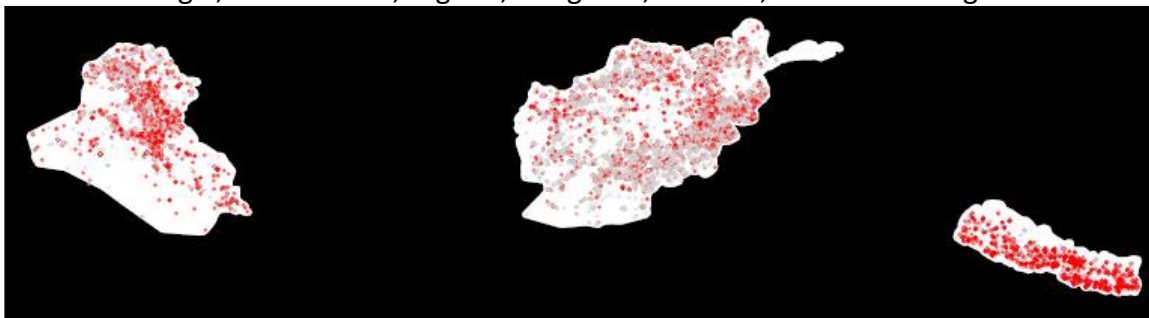
Peacebuilding   Private   Public

Aid Type

Map A2: Conflict by Type in AIMS Countries

Honduras and Colombia

Senegal, Sierra Leone, Nigeria, Congo DR, Somalia, Burundi and Uganda

Iraq, Afghanistan, and Nepal

Fatal ◆ No ◆ Yes

Conflict Type

Aid Heterogeneity

We also consider the possibility that different types of *aid* may have different effects on the likelihood of conflict relapse. The logic of our main argument rests on the ability of aid to meet individuals' needs and the ability of local factions to appropriate and utilize aid as a basis for garnering political support. While we do not propose to develop a full theoretical argument here, in the context of a goods typology, we would suggest that different goods types may be more or less amenable to these purposes (McGinnis 2011). Aid which provides goods that are excludable and/or subtractable, i.e. private goods, may be more likely to have direct benefits to individuals that relieve *immediate,* individual, socio-economic need. We assume that aid which provides private goods such as cash, consumer goods, or supplies such as food aid or other types of humanitarian relief, may be smaller in terms of the value of the resources but will benefit individuals most directly, alleviating grievances among these indivdiuals. However, we also acknowledge that these goods are easier to seize and distribute in order to build a base of support. In contrast, we assume that aid which provides at least partially non-excludable and/or non-subtractable public goods, particularly economic or social goods like transportation or utility infrastructure, school or hospital buildings, will be larger in terms of overall resources. While these goods are not as easily seized or distributed, contending factions may still wish to control them in order to engage in credit claiming for the provision of the public good. However, again, effective provision of public goods may effectively address the grievances prompted by individual development needs.

Beyond this, some aid is explicitly branded as post-conflict peacebuilding support and has featured since the end of the Cold War as a means of state-building to reduce the likelihood of conflict relapse (Barma and Levy 2017). As discussed by Newman (2011, p. 1738) this peacebuilding aid supports activities such as:

> *"ceasefires and peace processes; demobilisation and disarmament of former combatants and reintegrating them into society; stabilising the economy; employment creation and economic development; repatriation (or resettlement) of refugees and internally displaced persons; responding to food insecurity; responding to acute health concerns; strengthening law and order; promoting and facilitating democratic practices; strengthening institutions of justice and legislation; resuming and*

strengthening public service delivery; promoting human rights and reconciliation; addressing land reform claims; and constitutional drafting or amendments"

Despite the fact that peacebuilding aid has attracted the attention of critical scholars who assert that these efforts amount to little more than "buzzwords" (Denskus 2007), we treat it as a separate category with a distinct hypothesis given the explicit intention of this aid to prevent conflict recurrence, especially because they may be more structured to address the distinct causes of conflict in the allocated region and/or site. However, this type of aid is also the most likely to be endogenous to the probability of conflict relapse as it may be accompanied by increased securitization via a peacekeeping mission (Hirschmann 2012). Indeed, and as discussed further below, it is empirically difficult to separate the effect of this aid from the effect of potential contemporaneous local peacekeeping missions. Accordingly, we are wary of placing too much causal emphasis on any statistical findings for this type of aid. Accordingly, there are reasons to think that broadly different types of aid may have different relationships with conflict relapse.

We investigate this possibility by classifying aid projects as "public", "private" or "peace-building" and re-examining our main models (classification code shown below). The results, in Table A1, suggest that public aid has the largest and most significant association with a *reduction in* all types of conflict relapse. Private aid also is associated with a reduction in conflict relapse, although the result is only statistically significant when considering all types of conflict in aggregate (model 5). The only exception is that peacekeeping aid is not only not associated with a reductionin conflict relapse, but in the case of non-fatal conflicts (model 6) appears to be associated with an *increase* in it. Again, we think that the peacebuilding result may again stem from our inability to disentangle this kind of aid from securitization efforts which may accompany it. Securitization aid, in particular, might be more likely to select into sites where relapse is more likely. Alternatively, the presence of an external securitization effort may give a secure political space for formerly repressed grievances to be aired non-violently. In other words, the arrival of peacekeepers may permit space for political *dissent* in the form of non-fatal protest that would previously have been repressed by combating forces. This is an interesting result which may merit a further, more detailed, investigation. Finally,

we note that sub-setting our data does reduce the power of these models, and we cannot rule out that the results are an artifact of that issue.

Table A4: Aid Heterogeneity and Conflict Relapse

VARIABLES	(5) All Conflict	(6) Non-Fatal	(7) Fatal	(8) Major	N=
Active Public	-0.019***	-0.004*	-0.010**	-0.002*	68,564
	(0.006)	(0.002)	(0.004)	(0.001)	
Active Private	-0.018**	-0.006	-0.008	0.000	23,415
	(0.008)	(0.004)	(0.005)	(0.000)	
Active Peacebuilding	0.015	0.015**	-0.002	0.000	16,707
	(0.013)	(0.007)	(0.07)	(0.001)	
Site-Period FE	YES	YES	YES	YES	YES
Time Elapsed FE	YES	YES	YES	YES	YES

Robust standard errors in parentheses
*** $p<0.01$, ** $p<0.05$, * $p<0.1$

In sum, we think that the results are strongly indicative of aid providing private resources and promoting public development which may quell the underlying needs and grievances which lead to the relapse of conflict. We are surprised that the results indicate little, if any, support for the "honey pot" logic. While we opine on this unexpected finding in more detail in the conclusions, we preview those thoughts by suggesting that the honey pot might be a more applicable logic at the level of national or widespread conflict where the prize is control of the state. Local conflicts may or may not be a part of these broader struggles and may be the reason for the unexpected finding.

PEACEBUILDING AID

```
gen aid_peacebuilding=strpos(ad_purpose_names, "peace-building")>0
replace aid_peacebuilding=1 if strpos( ad_purpose_names, "reconstruction")>0
replace aid_peacebuilding=1 if strpos( ad_sector_names, "reconstruction")>0
replace aid_peacebuilding=1 if strpos( ad_sector_names, "conflict prevention")>0
```

PRIVATE AID

```
gen aid_private=strpos( ad_sector_names, "general budget")>0
replace aid_private=1 if strpos(ad_sector_names, "food aid")>0
replace aid_private=1 if strpos(ad_sector_names, "emergency")>0
replace aid_private=1 if strpos(ad_sector_names, "humanitarian")>0
replace aid_private=1 if strpos(ad_sector_names, "relief")>0
replace aid_private=1 if strpos(ad_sector_names, "food security")>0
replace aid_private=1 if strpos(ad_purpose_names, "ngos")>0
replace aid_private=1 if strpos(ad_purpose_names, "nutrition")>0
replace aid_private=1 if strpos(ad_purpose_names, "welfare services")>0
replace aid_private=1 if strpos(ad_purpose_names, "social services")>0
replace aid_private=1 if strpos(ad_sector_names, "social services")>0
replace aid_private=1 if strpos(ad_sector_names, "welfare services")>0
replace aid_private=0 if aid_peacebuilding==1
```

PUBLIC AID

```
gen aid_public=0
replace aid_public=1 if aid_private==0 & aid_peacebuilding==0
```