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The Role of External Support on the Use of Terrorism in Civil War

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Abstract

The Role of External Support on the Use of Terrorism in Civil War
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What prompts the use of terrorism (intentional civilian targeting) in civil wars? Despite widespread belief that the targeting of civilians in war is morally incorrect, numerous examples of horrific civilian casualties as a result of war persist. Scholars have studied various motivational factors of the state government and the rebel group(s) that have been thought to contribute to the use of terrorism in civil wars. In an increasingly globalized world, modern civil wars often are influenced by external factors beyond the borders of a nation. This paper expands the scope of analysis to examine the role of third parties, by way of external support, in the use of terrorism in civil war. With a primary focus on rebel groups, two competing theories are highlighted in the literature as to whether or not external support increases or decreases the use of terrorism by a rebel group in civil war. Compiled panel data on external support and civilian and noncombatant[1] deaths by dyadic civil war year is used in this paper to analyze the role of different types of external support, as well as other characteristics of the conflict, on the use of terrorism in civil war. Random-effects Poisson regression modeling is used to provide empirical analyses of the data. While findings on the effects of the two competing theories remain inconclusive in regard to rebel group strategy, external support is shown to have a significant impact on the use of terrorism by warring parties in the civil war conflict. Further research into the nuances of the external support relationship between the third party and the warring parties is suggested in order to better capture the dynamics of the decision-making involved when terrorism is used by a rebel group in a civil war.

[1] "civilians" and "noncombatants" are used interchangeably in the first portion of the paper, but are differentiated in the empirical analysis as "noncombatants" is used to refer to the sum of "civilians" and "unknown"

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I. Introduction

Terrorism and civil war are two phenomena in conflict studies that have gripped public attention in the past two decades due to the horrific impact they have on victims and societies. According to scholars, civil wars have increased in frequency and are more common than interstate war. Terrorism caught international attention after 9/11 and subsequent attacks. Civil wars exhibit a wide variance in character (in terms of motivations and actors involved) and strategies employed. Scholars have examined many of the factors affecting civil war and terrorism individually, but less attention has been given to the overlap between the two: the use of terrorism within the context of civil war. This paper addresses the question: under what circumstances is terrorism used by rebel groups in civil wars? Terrorism refers to the targeting of noncombatants (those who cannot be identified as a member of a rebel group or as an agent of the state) within the civil war context. The question raised is significant because previous studies have found that there is substantial overlap between terrorism and civil war (Sambanis 2008; Findley and Young 2012), that a majority of all terrorism is domestic terrorism (LaFree and Dugan 2007), and that there is the potential for domestic terrorism to have a spillover effect on transnational terrorism (Enders, Sandler and Gaibulloev 2011). While the literature provides reasoning for the use of terrorism in civil wars (Findley and Young 2012; Fortna 2015; Kydd and Walter 2006), these evaluations are limited in scope to the state experiencing the civil war and do not account for external influences. In order to reflect the influences of globalization on modern civil wars, this paper expands the relationship of the actors in a civil war beyond that of simply the state and the rebel group(s) to include the potential for third-party involvement by way of external support.

Past research on the use of terrorism in civil wars has looked within the context of both autocracies (Conrad, Conrad and Young 2014) and democracies (Ghatak, Gold and Prins 2017), as well as across different regime types. These studies have found that the frequency of domestic terrorism varies across different regime types occurring more often in democratic states than autocracies (Conrad, Conrad and Young 2014; Ghatak, Gold and Prins 2017). However, most civil conflicts in recent periods have been subject to external involvement in some form (Gleditsch 2007; Karlen 2017). Specifically, the majority of rebel groups since the end of World War II have either the explicit or alleged support of a foreign state (Cunningham, Gledistch and Salehyan 2009). To examine the effect that the high probability of external involvement in civil war may have on the use of terrorism, this paper will also address a more specific question: what are the effects of external support on the use of terrorism in civil wars?

Focusing primarily on external support given to rebel groups, this paper presents two theoretical explanations: resource mobilization theory and community support theory. The resource mobilization theory argues that external support provides a rebel group with greater resources, making it less likely that a group will choose to resort to terrorist strategies under the assumption that terrorism is an unpreferable but low-cost strategy. The community support theory argues that external support leads to a decreased incentive to win the "hearts and minds" of civilians, thus making terrorism more likely because the rebel group no longer needs resources from the local population. The two theories present contrasting predictions about how external support for rebel groups affect their use of terrorism.

The theories are not necessarily mutually exclusive, and it is possible that both theories may be observed since the theories operate under different circumstances. For example, an increase in resources under resource mobilization theory makes terrorism less attractive to the

rebel group, while simultaneously making the rebel group less accountable to the local population, making terrorism more likely as the rebel group no longer faces the disincentive of the loss of local support. However, the effects of these theories may not be equal in magnitude under different circumstances. In an alternate scenario, where the transportation of resources is costly and resources are abundant in the rebel group's territory, it is more likely that the community support theory will dominate. While in a contrasting scenario, where the civil war is an ethnic conflict and the rebel group's territory is mostly civilians of another ethnicity, the resource mobilization theory is likely to dominate. In order to understand the effect and magnitude of each theory, the empirical analysis seeks to evaluate the overall effect that external support has on the use of terrorism.

Data is compiled from the Uppsala Conflict Data Program's (UCDP's) Georeferenced Event Dataset (GED), Dyadic Dataset, and External Support Dataset to conduct an empirical analysis of the effect of external support on the use of terrorism in civil wars. In the analysis, terrorism is measured as the number of civilian and noncombatant (includes civilian deaths and deaths that could not be attributed to any party) deaths for the identified observation. Since Findley and Young (2012) have found that there is a high degree of overlap between terrorism and ongoing civil war (as opposed to before or after civil war), the data identifies observations that occurred during civil wars. A random-effects Poisson regression model is utilized to provide empirical analyses across rebel groups, comparing the magnitude of terrorism of those that received external support against groups who did not receive external support. Additional analyses disaggregate the types of external support received and categorize them according to possible strategies that the rebel group may pursue.

This paper contributes to the existing literature by furthering research on the intersection between terrorism and civil war studies, expanding upon the work that examined the effects of domestic regime type (Conrad, Conrad and Young 2014; Ghatak, Gold and Prins 2017) to account for external influence on the civil war (Gleditsch 2007; Salehyan 2010; Karlen 2017). The analysis conducted bridges previous research on external support in civil wars (Byman et al. 2001; Salehyan, Gleditsch and Cunningham 2011; Salehyan, Siroky and Wood 2014) to account for nuances unique to the use of terrorism. The theory contributes to previous research by presenting competing hypotheses derived from the literature that each provide an explanation for external support and by expanding the dimensions of the external support that are evaluated in the empirical analysis.

II. Terrorism in civil wars

A civil war is defined as an armed conflict between the government of a sovereign state and rebel group(s), where a rebel group is defined as a domestic, politically organized group that has the capability to effectively resist and engage the state in relatively continuous fighting (Stanton 2013). Within the armed conflict of a civil war, a rebel group has a choice of two targets: state agents and noncombatant (civilian) targets. An attack by the rebel group against a state target falls within the norms of violence (ex. a rebel group attacking a military base), while an attack by the rebel group against a civilian target violates the norms of violence (ex. a rebel group attacking a shopping mall). Terrorism, as it is used in this paper, is defined as the use of violence against noncombatant targets. A defining characteristic of terrorism is in regard to the costs involved. In material terms, it is less costly for rebel group to use terrorism to attack civilian targets than it is to attack military targets because civilian targets are often left undefended and easy to infiltrate (Fortna 2015). These characteristics identify terrorism as a

unique tactic used by rebel groups under particular circumstances. As a result, the strategic benefit of terrorism only arises in certain situations.

Noncombatant civilians play a unique role in civil wars. Warring parties (consisting of the state and any rebel groups) rely upon noncombatants, to varying degrees, for the resources necessary to wage civil war. As a result, warring parties compete with one another over the support of the noncombatant population. Consider a simple model of a civil war that consists of the state, a rebel group, and the noncombatant population. The noncombatants are divided into three groups: those who support the state, those who support the rebel group, and those who remain undecided (latent supporters). However, the noncombatant population consists of a variety of overlapping subgroups (ex. ethnicity, religious groups, language groups, etc.) that contribute to the fractionalization of the population. Warring parties each face different contextual conditions within the civil war and can employ different strategies by which they may retain and garner greater support from the noncombatant population. One of these available strategies is terrorism.

The strategy of terrorism in civil wars

In the literature, there are five arguments for the use of terrorism by rebel groups in civil wars: attrition, mobilization, provocation, outbidding, and spoiling (Findley and Young 2012; Fortna 2015; Kydd and Walter 2006). There are both advantages and disadvantages to the use of terrorism in each of these strategies, which must be considered by rebel groups before deciding whether or not to employ terrorism.

Attrition refers to the undermining of the opponent's capacity to fight by imposing costs. Terrorism may be used in civil war to decrease the opponent's will to fight due to the use of extreme tactics that are difficult to defend against (Pape 2003). The use of terrorism can signal

the rebel group's resolve to use extreme measures to attain their goals and may be effective particularly against democratic regimes (Kydd and Walter 2006). However, a war of attrition can also be fought without terrorism by using guerrilla tactics. Since terrorism by definition does not target combatants, it does not directly decrease the government's military capacity. However, it may undermine civilian support for the government by making the government appear weaker. In addition, since terrorism is relatively inexpensive and breaks the norms of warfare by targeting noncombatants, it may undermine the rebel group's future credibility and increase grievances in possible negotiations (Fortna 2015).

Terrorism may be used to mobilize support by placing the rebel group at the center of public attention. Since terrorist attacks break the norms of warfare, they tend to generate more publicity than standard attacks, which can then publicize the rebel group's grievances as the attack garners interest. According to this argument, terrorism mobilizes the pool of latent supporters who had previously been undecided. However, there is a clear disadvantage to the strategy because it makes the rebel group more extreme in the public eye, antagonizes those who do not support the rebel group, and may actually draw attention away from the goals of the rebel group (Abrahms 2012).

Terrorism may be used to provoke the government into overreacting and persuade the domestic audience to resist against the regime (Kydd and Walter 2006). The strategy uses terrorism to initiate a government crackdown on the population that creates or exacerbates grievances, leading to an increase in the rebel group's support. However, employment of the provocation strategy requires rebel groups to walk a fine line between triggering a hard enough crackdown so as to give rise to grievances, but not so hard that it crushes the rebel group itself by drawing negative public attention and losing support (Fortna 2015).

In conflicts with multiple rebel groups, terrorism may be used by a rebel group in order to outbid other rebel groups for the support of the population (Bloom 2005). The situation for outbidding arises when the population is unsure of the preferences of the different rebel groups. In this case, a rebel group may use terrorism in order to signal its commitment to the cause (Kydd and Walter 2006). However, the role of terrorism, specifically, is unclear in the outbidding strategy because, while it signals the group's commitment, it also signals the rebel group's relative military weakness compared to other groups and to the government (Fortna 2015). The signaling effect occurs because both the state and rebel group are equally aware that terrorism is a low-cost strategy.

Terrorism may be used by a rebel group to disrupt the peace process by spoiling the prospect of peace in conflicts with multiple rebel groups. The group can exercise veto power in the form of terrorism in order to induce doubt regarding the moderate groups' ability to commit and disrupt the peace process occurring between the groups at the negotiating table (Cunningham 2011). Research has shown that terrorism is effective in preventing a peaceful, durable resolution of civil wars (Findley and Young 2015). However, while terrorism is effective in spoiling the peace process and can contribute to the rebel group's survival by making negotiated settlements less likely, it does not guarantee that the final outcome of the civil war will be any more favorable to the rebel group (Fortna 2015).

Alternatively, there is reasoning by which the state may elect to use terrorism against noncombatants in conflicts (Downes 2008). Similar to the rebel group's strategy, terrorism may be used by the state in a war of attrition, as the state attempts to coerce the rebel group. In this case, the state is not likely to be intentionally targeting noncombatants, but civilian casualties occur as the state fails to differentiate the rebel group from the civilian population. Another

mechanism by which states may use terrorism is in seeking to reclaim territory inhabited by the rebel group(s), where the state may attack indiscriminately within a confined area believed to shelter the rebel group(s), thus resulting in civilian casualties. A key distinction to make with these reasonings Downes presents is that the arguments are proposed for primarily interstate conflicts rather than civil wars. Recalling the simple model of a civil war presented previously, the significance of Downes' arguments is likely to overstate the state's incentives to use terrorism in a civil war context. Since the state relies upon its own population for a certain degree of support, the use of terrorism against members of the state's own noncombatant population (as is the case in civil war) is more likely to undermine support for the state than if the state used terrorism against an enemy state's noncombatant population (in the case of conventional war). As a result, the true magnitude of the incentive the state has to pursue the use of terrorism in the civil war context remains ambiguous.

III. External support in civil wars

External influence in civil wars has been found to change the dynamics of the conflict, making the war last longer, more deadly, and more difficult to resolve (Cunningham 2011; Salehyan, Gleditsch and Cunningham 2011). For these reasons, it is important to understand how external influence is exerted in a civil war in the form of external support to rebel groups. While external support can be given to other actors, the focus here is on external support to rebel groups because it is the action that most directly goes against the state. However, it is important to note that the state can also receive external support, which can increase the state's capacity and shift the balance of power in a civil war (Karlen 2017). This factor will be accounted for in the research design in order to better assess the effect that external support to rebel groups has on their use of terrorism.

Principal-agent model

In the literature, external support to rebel groups is most commonly modeled using principal-agent analysis in which the foreign actor is the principal and the rebel group (in the rival state) is the agent – an approach that is adopted in this paper (Byman and Kreps 2010[2]; Salehyan 2010; Salehyan, Gleditsch and Cunningham 2011; Karlen 2017). In this framwork, external support requires the consent of both parties and involves an evaluation of both supply-side and demand-side determinants – the foreign actor must offer support to the rebel group (supply-side) and the rebel group must accept support from the foreign actor (demand-side).

External support may be offered by a foreign actor that aims to destabilize the government in which the civil war occurs. The foreign actor may be motivated by a combination of ethnic, political, or economic reasons and may be a state, diaspora, refugee group, or some other non-state actor. However, foreign states remain the most important and active supporter of rebel groups in civil wars (Byman et al. 2001) and therefore are the primary focus of the principals in the principal-agent model. The foreign state has a variety of options by which it can weaken rival states, of which providing support to an opposing rebel group is one (Salehyan 2010). The foreign state faces tradeoffs for each option. In providing support to a rebel group, the foreign state faces lower costs than going to war directly with the rival state but exerts less control over the actions of the rebel group than it would over its own forces (Salehyan, Gleditsch and Cunningham 2011). In particular, agency slack occurs if the preferences and goals of the rebel group are not closely aligned with the preferences and goals of the foreign state, which results in a high potential for the foreign state to lose control over the rebel group (Salehyan, Gleditsch and Cunningham 2011). Given the tradeoff that supporting a rebel group presents, the

[2] Identifies the terrorist group as the agent, but it is adapted to apply to the rebel group in this paper

foreign state will be more likely to support a rebel group in a rival state when the costs of interstate war are high and when the potential for agency slack is low. In instances of multiple rebel groups, foreign states will not support the weakest rebel groups and instead prefer a rebel group that shares similar preferences and goals.

On the other hand, the rebel group also faces choices when deciding whether or not to accept external support. In general, rebel groups want to maximize their resources and retain autonomy over their actions. Each rebel group may have different objectives that fall under a variety of goals like policy change, territorial autonomy, regime change, etc. Since rebel groups operate counter to the government, they are usually at a disadvantage in terms of their resource endowment, which is critical to the group's survival (Collier and Hoeffler 2004). Rebel groups face a tradeoff between resources and autonomy. While a group can gain resources by accepting external support, they may lose autonomy over their actions and ultimate goals if they are aligned with the foreign state. Due to the resource-autonomy tradeoff, rebel groups will prefer domestic support bases and resource streams when all other factors are held equal. However, this requires that the rebels are able to consistently draw resources to fund their operations, which is only accessible to the rebel groups that are quite strong relative to the government (Salehyan, Gleditsch and Cunnngham 2011). As a result, the rebel groups who are willing to accept external support are neither the strongest nor the weakest rebel groups, and instead are groups who fall in between and can find a willing foreign state sponsor with preferences and goals similar to those of the rebel group.

Motivational types and extent of external support

The foreign state's decision to provide external support to a rebel group may be motivated for a by a variety of reasons (Byman et al. 2001). These reasons can be categorized

into three main types: ideological, ethnic/religious, and geopolitical opportunity. However, these categories are not mutually exclusive (reasons may fall into multiple categories). The categorization of the different types of motivation for external support is shown in *Figure 1*.

Figure 1. Byman et al. (2001) Third-Party Motivations

Ideological	Ethnic/Religious	Geopolitical Opportunity
- Prestige - Rivalries - Leftist ideology - Nationalism	- Prestige - Coethnic/coreligionist - Irredentism - Rivalries	- Regional influence - Rivalries - Internal stability - Economic benefit - Plunder

While most these reasons are self-explanatory (regional influence, coethnic/coreligionist, leftist ideology, and nationalism), some reasons prompt further explanation. Prestige refers to the reputation of the foreign state, which may increase with its involvement and victories in a conflict in civil war state. Irredentism refers to a movement that seeks to claim/reclaim a territory that is considered historically or culturally important. Rivalries refers to tensions that may exist between the foreign state and the civil war state. Internal stability refers to the use of an external conflict to increase the foreign state's domestic stability. Economic benefit and plunder refer to the use of the civil war state to promote greater economic benefit (through better trade relations or the outright taking of resources) for the foreign state. Note that some of the reasons fall into multiple categories, as the same reasoning may be subject to different or multiple motivation types.

The extent of external support offered to a rebel group is reflected in the utility they are able to derive from the support. Byman et al. (2001) distinguish three categories of external support according to the amount utility provided to the rebel group: critical, valuable, and minor. The categorization of the different types of external support is shown in *Figure 2* below.

Figure 2. Byman et al. (2001) Types of External Support

Critical	Valuable	Minor
- Safe haven and transit - Financial resources - Political support and propaganda - Direct military support	- Training - Weapons and materials	- Voluntary fighters - Intelligence - Organizational aid - Inspiration

IV. External support and terrorism

Two alternate theories are presented to explain the possible effect that external support may have on rebel groups' use of terrorism in a civil war: the resource mobilization theory and the community support theory. In addition, the paper looks at the possible effects that the regime type of the foreign state may have on the use of terrorism by rebel groups in civil war.

Resource mobilization theory

The resource mobilization theory argues that external support provides a rebel group with greater resources, suggesting fewer instances of terrorism under the assumption that terrorism is a low-cost strategy (Fortna 2015). The theory is derived from the fact that the resource endowment of the rebel group increases after it receives external support in the principal-agent model and that terrorism is an inexpensive method that does not signal credible commitment. While terrorism signals a willingness to use extreme tactics and violate norms of violence, it is not necessarily a sign of the group's resolve and it undermines the group's ability to credibly signal commitment to an agreement. Since rebel groups want to achieve certain objectives and goals, they still want to be able to credibly commit in case a peace agreement is reached that they agree with. If the rebel group cannot credibly commit, then they risk the peace agreement falling through. As a result, a rebel group will only use terrorism when the group's resources constrain them from other methods of inflicting costs (Fortna 2015). Terrorism is often a tactic of last

resort, used when resources are limited because it is a relatively cheap method since noncombatant targets are minimally, if at all, defended and the materials required for a terrorist attack are inexpensive. Since a group's resources increase after receiving external support, they are more likely to use methods other than terrorism to inflict costs on the government.

H1: Rebel groups that receive external support are less likely to use terrorism

Community support theory

The community support theory argues that external support leads to a decreased incentive to gain local support, suggesting an increase in terrorism as the rebel group no longer needs resources from the local population (Salehyan, Siroky and Wood 2014). When a rebel group receives external support, there is decreased reliance on the local population to provide resources (Weinstein 2007). As a result, the rebel group faces reduced incentives to win over the "hearts and minds" of civilians. Due to the shift in accountability from local populations to the foreign sponsor, the rebel group faces a relative increase in incentives to use terrorism in order to demonstrate its commitment to the foreign state. In addition, the foreign state sponsor generally has less incentive to negotiate or signal its credible commitment via the rebel group since it bears lower costs of fighting (Cunningham 2010). The rebel group is motivated to demonstrate commitment to its foreign sponsor in order to maintain external support from the foreign state, due to the rebel group's dependency on external support.

H2: Rebel groups that receive external support are more likely to use terrorism

Behind the theories

The theories operate under the assumption that external support is equivalent in value to lucrative natural resources. If this is the case, then the effect of increasing external support should be the same as an increase in any other natural resource. However, not all types of external support have the same motivation, nor is the extent of support provided to the rebel

groups the same. External support can be categorized according to the motivation of the foreign state and the extent of support provided to the rebel group. As a result, additional hypotheses are made that relax this assumption and allow for variation in support motivation according to Byman et al.'s categorization of external support types.

H3a: Rebel groups that receive greater utility from external support are less likely to use terrorism than rebel groups that receive less utility from external support

H3b: Rebel groups that receive greater utility from external support are more likely to use terrorism than rebel groups that receive less utility from external support

The hypotheses above each apply to different theories: *H3a* applies to the resource mobilization theory and *H3b* apples to the community support theory. In general, greater utility from external support is expected to enhance the predicted effects of the theory. Under the resource mobilization theory, greater utility from external support implies better resource extraction from external support, making terrorism less likely since the rebel group is able to afford the use of other tactics. Under the community support theory, greater utility from external support implies less reliance on local communities, making terrorism more likely since they held less accountable to the local communities. Since the theories propose contrasting arguments, the effect of greater utility flows in two different directions.

Beyond the theories

Using the data compiled for testing the core hypotheses, further empirical analyses may be conducted on the role of external support in the civil war context. A key characteristic of external support is that it may be given in a variety of forms. While Byman et al. presents one method of categorizing the types of support that may be given, the UCDP data further disaggregates the different types of support into ten different categories, which can then be categorized in terms of direct military support and nonmilitary support. Military support refers to support that directly bolsters the military strength of the receiver of the support, which means

that military support is more likely to prompt a quicker effect on the actions of the receiver and the receiver is constrained in the ways that it can use military support (ex. it's difficult to use a tank for something other than warfare). While military support is more likely to have a relatively strong effect on the actions of the receiver, it's difficult to determine how military support will affect the use of terrorism by the receiver but may still provide interesting results when examining the data.

Another set of analyses may be conducted on the effect of external support on the state's use of terrorism in the civil war. Downes (2008) argues that the state is more likely to use terrorism when it receives external support (*H4a*). However, when the argument is adapted for application in the civil war context, terrorism presents the possibility for real audience costs and may undermine civilian support for the state (*H4b*). As a result, external support may increase or decrease the state's use of terrorism in civil war via two possible mechanisms:

H4a: A state is more likely to use terrorism in civil war if it receives external support

H4b: A state is less likely to use terrorism in civil war if it receives external support

Analysis on external support and the state may be further broken down by disaggregating the types of external support. By recombining some of the types of external support into military support and nonmilitary support, an analysis of external support to the state may be presented in a slightly different form. Similar to the logic presented on military and nonmilitary support and the rebel group, the effect of military and nonmilitary support to the state may be ambiguous.

Due to the contradictory nature of the hypotheses presented, it's possible that the significance of the analyses may be constrained. As a result, an additional analysis may be conducted on the extreme cases of external support: cases in which both the rebel group and the state receive external support and cases in which neither the rebel group nor the state receive

external support. In addition, an analysis of cases in which any warring party received external support is another extreme case to consider.

H5: The use of terrorism in conflicts in which both the rebel group and the state receive external support is not equal to the use of terrorism in conflicts in which neither the rebel group nor the state receive external support

H6: The presence of any external support in a civil war conflict results in some effect on the use of terrorism

While there is still the potential for contradictory effects of external support (it may promote terrorism for the rebel group while discouraging terrorism for the state, or vice versa), these effects would have appeared in earlier analyses that pertained to the rebel group and the state, individually. However, if earlier analyses did not reveal definitive effects of external support, then these hypotheses may be used to see if there is any effect of external support within a civil war conflict.

V. Research Design

The Data

In order to test the hypotheses, the dataset must include information on external support in civil wars, identification of rebel groups and the state involved, and some measure of terrorism. Using data from the Uppsala Conflict Data Program (UCDP), panel data is compiled at the dyadic-year level for civil wars. Three different datasets from the UCDP are used in conjunction to form the necessary panel dataset: the UCDP Dyadic Dataset, the UCDP Georeferenced Event Dataset (GED), and the UCDP External Support Dataset[3].

[3] Two versions of the external support dataset (Primary Warring Party and Disaggregated/Supporter Level) are available. Either may be used to compile the panel data, but the Primary Warring Party Dataset allows for a more streamlined process.

The dyadic dataset is a dyad-year version of the UCDP/PRIO Armed Conflict Dataset in which a dyad consists of two opposing actors in an armed conflict. An armed conflict is defined by UCDP as, "a contested incompatibility that concerns government and/or territory where the use of armed force between two parties, of which at least one is the government of a state, results in at least 25 battle-related deaths in a calendar year." (Themner 2017). Since the analysis focuses on civil wars, only instances of intrastate conflict are used. As a result, the data drawn from the dyadic data has dyads that consist of the government of a state and a rebel group. The state refers to the internationally recognized (or internationally uncontested) sovereign government controlling a specified territory and the rebel group is defined by the UCDP as "any non-governmental group of people having announced a name for their group and using armed force to influence the outcome of the stated incompatibility." (Themner 2017). In instances where there are multiple rebel groups within the same civil war, each state-rebel group combination composes a different dyad.

The GED dataset covers individual events of organized violence and contains information on the number of casualties (deaths) of state actors, rebel group actors, civilians, and unknown (casualties without a definitive attribution) as a result of the violent events (Croicu and Sundberg 2017). The data used from the GED data includes events that resulted in at least 1 direct civilian or unknown death in instances of civil war, which are used to generate the dependent variables in the analysis. Instances of civil war identified in the dyadic data are used in the GED data to isolate civil wars. Since the observations in the GED data are by event, events are aggregated by dyad-year to allow for the compilation of the data.

The external support dataset provides annual information on the existence, type, and provider of external support for all warring parties coded as active in the UCDP data (Croicu et

al. 2011). The data drawn from the external support dataset is used to generate the independent variables for the analysis and includes instances of external support to a warring party from a third-party state or third-party states in a given year. Since the data only records positive instances of external support, it is assumed that in all other years for the actor that they did not receive external support. In instances of missing or unclear entries of external support, the data is recoded to assume that, unless proven to exist, the external support was not present. The data is separated by warring party, where instances in which the state received external support is differentiated from instances in which the rebel group received external support. These data are then organized by dyad-year to allow for the compilation of the data. As a result, the compiled data reflects the external support data twice: once for the state and once for the rebel group.

The three UCDP datasets are compiled into a panel dataset organized by dyad-year. The dataset includes data on external support, warring parties, and terrorism in civil wars from 1989 to 2009. A brief description of each of the variables that are contained in the final panel dataset is given in *Figure 6*.

Variations in External Support

The existence of external support is one of the independent variables used in the analysis. In preliminary analysis, it is clear that external support is an important characteristic of many

civil wars. Out of the 926 dyad-years observed in the data, 66.85% of the dyad-years observed at least one instance of external support (the rebel group and/or the state as the receiver).

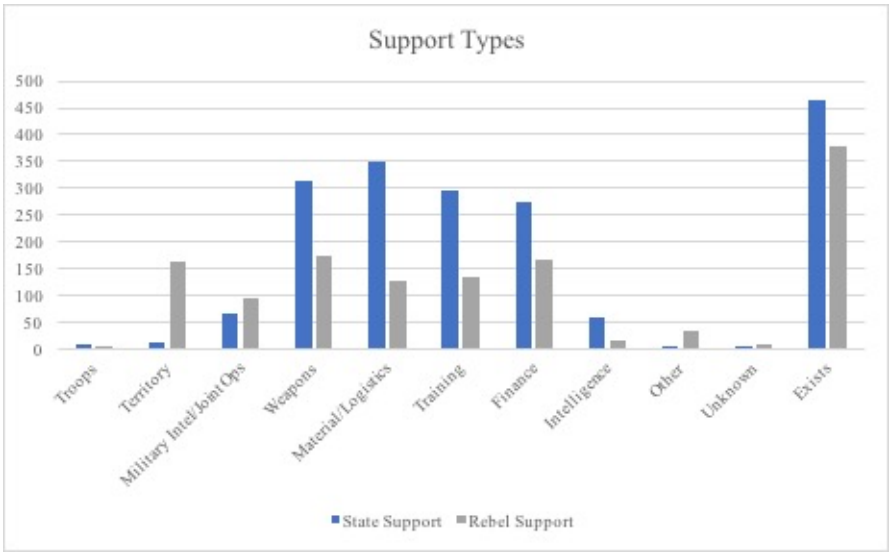

Figure 3. UCDP Support Types

Additional independent variables are generated using the disaggregated external support types presented in the data. The external support data disaggregates external support into ten different categories[4]: troops as a secondary warring party (troops), access to military or intelligence infrastructure/joint operations (military intel/joint ops), access to territory (territory), weapons, material/logistics support (material/logistics), training/expertise (training), funding/economic support (funding), intelligence, other forms of support, and unknown types of support (Croicu et al. 2011). A preliminary analysis of the different types of support is provided in *Figure 1*. The number of instances of each type of support received is compared between the rebel group and the state. Overall, the most typical forms of support are in the form of weapons or material/logistical support for both rebel groups and the state. Additionally, a substantial number of instances of external support involve multiple types of external support, since

[4] Further information on the different types of external support is provided in the UCDP External Support codebook (Croicu et al. 2011)

instances of external support existing is less than the sum of instances of each of the external support types. In general, the state receives more instances of support, but rebel groups are more likely to receive support in the form of territory and military intel/joint ops from a third party.

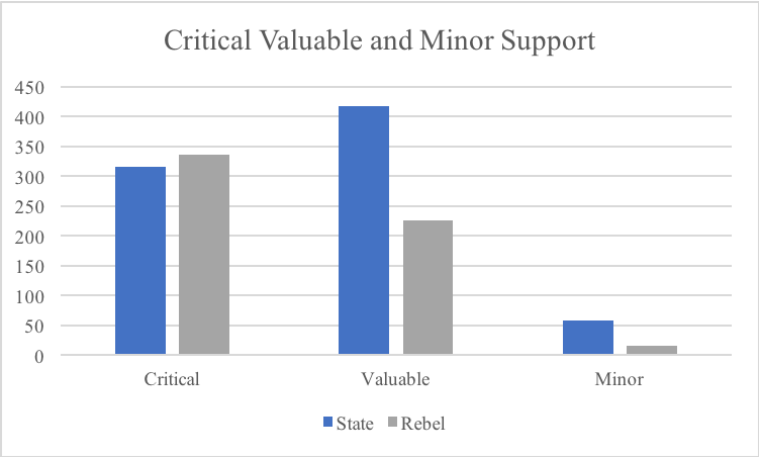

Figure 4. Byman et al. (2001) Support Types

The "other forms of support" and the "unknown types of support" are disregarded from the categorization strategies used in the analysis, since they are relatively small and do not directly fall into any of the categories. The remaining categories of external support from the UCDP are used to generate two sets of independent variables in accordance with Byman et al.'s argument on external support utility and whether the third party provides direct military support or nonmilitary support. Following Byman et al., critical, valuable, and minor levels of support are generated as dummy variables and are identified as follows: critical support is present if troops, military intel/joint ops, funding, and/or territory is provided, valuable support is present if training, weapons, and/or material/logistics is provided, and minor support is provided if intelligence is provided. A brief comparison of these variables between the state and the rebel group is shown in *Figure 2*. Even though the state receives external support more often than the rebel group, the rebel group receives support of critical utility more often than the state. Thus, further empirical analysis testing the Byman et al. differentiation of external support types is

necessary in order to evaluate the effect of these support types of the use of terrorism. While the UCDP external support data doesn't provide information on all the types of support outlined in Byman et al., the omitted types of support are more difficult to definitively observe (political support and propaganda, organizational aid, and inspiration) and the data supplied should be sufficient to demonstrate the presence of any effect on the use of terrorism.

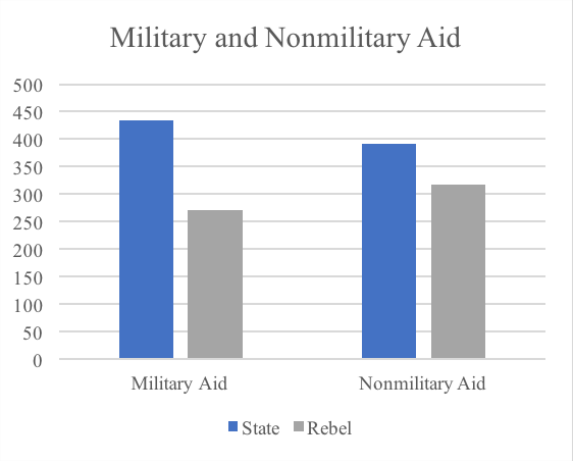

Figure 5. Military vs Nonmilitary Support

An additional set of independent variables to test the possible effects of military and nonmilitary support is generated using the disaggregated forms of the UCDP's external support data. Dummy variables for military support and nonmilitary support are generated if one or more of the respective identified external support types are present in the data: military support is present if external support exists in the form of troops, military intel/joint ops, weapons, or training, while nonmilitary support is present if external support exists in the form of funding, material/logistics, territory, or intelligence. A comparison of these variables between the state and the rebel group is shown in *Figure 3*. Overall, the state receives the greatest number of instances of external support and is more likely to receive military aid from the third party, while the rebel group is more likely to receive nonmilitary aid from the third party.

A last set of independent variables is generated based upon whether or not external support exists for the rebel group and/or for the state. These independent variables are used to create extreme cases of external support that disregard the identity of warring party: both are supported if both the rebel group and the state receive external support, any are supported if either the rebel group and/or the state receive external support, and none are supported if neither the rebel group nor the state receive external support.

Civilians and Noncombatants

The panel dataset includes the number of civilian and unknown deaths for each dyad-year. These are deaths that have been associated with the civil war conflict and includes attacks that intentionally targeted civilians and those in which civilians were killed as collateral damage. The category of unknown deaths refers to the deaths of peoples of unknown status. Since the unknown deaths are not explicitly associated with the state or the rebel group (clearly were not combatants), these deaths are summed with civilian deaths in order to generate a new dependent variable of noncombatant deaths. While civilians and noncombatants were used interchangeably earlier in this paper, references to the panel data and subsequent empirical analyses discriminate between the two terms in this way.

Control Variables

In order to minimize the possible confounding bias present in the empirical analyses, eight different variables are introduced into the panel data. These variables are used to control for other factors of a civil war conflict that may impact a warring party's decision to use terrorism. Three of these control variables are drawn or developed from the UCDP dyadic dataset. Two of the controls, intensity and incompatibility, already existed in the dataset, while the control variable for the number of rebel groups was developed from the dataset. Intensity attempts to

capture the level of violence in a conflict and is coded into two different categories: minor refers to conflicts with between 25 and 999 battle-related deaths in a given year and war refers to conflicts with 1000 or more battle-related deaths in a given year (Themner 2017). Incompatibility is used to differentiate between possible simultaneous conflicts and is coded into three different categories based upon the position of incompatibility between the state and the rebel group, which may include territory, government, and territory and government (Themner 2017). In addition, a control variable for the number of rebel groups involved in a civil war is introduced by aggregating the number of different dyads involved in the same civil war conflict in the same year.

Five other control variables are introduced into the panel dataset from the Quality of Government Institute's (QoG's) Standard Time-Series dataset. The QoG dataset contains over 2,000 variables aggregated from other sources that allow for the comparison of the quality of government and its correlates (Teorell et al. 2018). From the large dataset, five control variables were selected based upon their potential impact on warring parties' decisions to use terrorism, availability of the data, and significance on the empirical results[5]. These variables represent characteristics of the civil war conflict that may influence the state or rebel group's decision on whether or not they use terrorism. The variables provide measures of the fractionalization of the population, the durability of the regime, the level of democracy, the level of government accountability/corruption, and the economic status of the country. Fractionalization of the population is measured by religious fractionalization, which represents the probability that two randomly selected people from a given country belong to the same religious group (Alesina et al. 2003). The measure varies from 0 to 1, with a higher number reflecting a more fractionalized

[5] Alternative measures of fractionalization, democracy, and government accountability/corruption were considered, but proved to be of little significance in the empirical analysis

population. The durability and level of democracy measures are drawn from the Polity IV Annual Time-Series dataset (Marshall et al. 2018). Regime durability refers to the number of years since the most recent regime change or the end of a transition period defined by the lack of stable political institutions. The level of democracy of a regime is given by the revised combined polity score, which scores each regime along a unified polity scale ranging from -10 (most autocratic) to 10 (most democratic) (Marshall et al. 2018). The level of government accountability/corruption is measured by the Bayesian Corruption Index (BCI), which is a composite index of the perceived overall level of corruption based on 20 different surveys (Standaert 2015). The BCI values lie between 0 and 100, with an increase in the BCI corresponding to an increase in the level of corruption. Economic status is measured using estimates of real gross domestic product (GDP) per capita, which is expressed in constant US dollars with a base year of 2000 (Gleditsch 2002).

VI. Results and Discussion

Since the compiled dataset consists of panel-data and the dependent variables (civilian and noncombatant deaths) are count variables, the hypotheses are tested via random-effects Poisson regression models. In regard to the death variables, the natural log of each of the variables is taken due to the rightward skew in the distribution of the deaths data[6]. *Table 1* below tests the predictions of the resource mobilization and community support theories reflected in *H1* and *H2*. The rows of independent variables reflect the possible variations in the existence of external support to the rebel group on the death variables (civilian and noncombatant) produced by the regression while controlling for the other variables, as presented previously. In addition,

[6] See *Figure 7* and *Figure 8* for a comparison of the distribution of civilian deaths before and after the application of the natural log and *Figure 9* and *Figure 10* for a similar comparison of the distributions of noncombatant deaths

Table 1 provides analysis of the effect of external support on the use of terrorism by the state (*H4a* and *H4b*). The second row of variables under "Exists (State)" are used to test these hypotheses while also considering variations in conflicts, including those in which neither the state nor the rebel group has received support and those in which both the state and rebel group has received supported. The estimated Poisson regression coefficients in each of the tables are interpreted as the natural log of the natural log (since the dependent variable is already a natural log) of the count of the dependent variables. Thus, while these coefficients appear small, their effect on the count of the dependent death variables are actually exponentially larger[7].

[7] Since the regression coefficients in the analysis are ln(ln("death variable")), the actual predicted effect of the coefficient on the death variable is $e^{e^{"coefficient"}}$

Table 1: Role of External Support

VARIABLES	(1) Civilian (ln)	(2) Noncombatant (ln)	(3) Civilian (ln)	(4) Noncombatant (ln)	(5) Civilian (ln)	(6) Noncombatant (ln)
Neither Receive Support	-0.19*	-0.057				
	(0.099)	(0.073)				
Exists (State)			0.13	0.055		
			(0.14)	(0.069)		
Exists (Rebel)			0.17	0.12*		
			(0.22)	(0.069)		
Both Receive Support					0.20	0.11*
					(0.16)	(0.064)
Intensity	0.63**	0.55***	0.64**	0.54**	0.63**	0.54***
	(0.26)	(0.20)	(0.31)	(0.21)	(0.26)	(0.20)
Incompatibility	0.34***	0.077	0.31**	0.073	0.34***	0.072
	(0.13)	(0.076)	(0.13)	(0.079)	(0.13)	(0.078)
Number of Rebel Groups	-0.0048	-0.014	0.00075	-0.014	0.00040	-0.012
	(0.025)	(0.024)	(0.026)	(0.029)	(0.024)	(0.025)
Real GDP per Capita	0.000028**	0.000019*	0.000022	0.000017	0.000026**	0.000017*
	(0.000012)	(0.000010)	(0.000014)	(0.000012)	(0.000011)	(0.000010)
BCI	0.0050	0.015**	0.0044	0.016**	0.0033	0.015**
	(0.012)	(0.0073)	(0.015)	(0.0079)	(0.012)	(0.0073)
Regime Durability	-0.0055**	-0.0052	-0.0049	-0.0045	-0.0049*	-0.0049
	(0.0028)	(0.0037)	(0.0032)	(0.0038)	(0.0030)	(0.0038)
Polity Score	0.021	-0.0060	0.024	-0.0034	0.021	-0.0061
	(0.016)	(0.0060)	(0.017)	(0.0064)	(0.017)	(0.0059)
Fractionalization	0.54**	0.45***	0.45*	0.37**	0.51*	0.42**
	(0.27)	(0.17)	(0.28)	(0.18)	(0.27)	(0.17)
Any Receives Support			0.0035	-0.061		
			(0.29)	(0.099)		
/lnalpha	-1.19	-2.30	-1.46	-2.37	-1.26	-2.30
	(2.44)	(2.80)	(3.28)	(3.00)	(2.69)	(2.91)
Constant Ldeaths_civilians	-1.33		-1.37		-1.34	
	(0.90)		(1.09)		(0.94)	
Constant Lnoncombdeath		-0.64		-0.70		-0.63
		(0.64)		(0.66)		(0.63)

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

The estimated Poisson regression coefficients in *Table 1* demonstrate positive values for both measures of the dependent variables ("Exists (Rebel)" > 0 for civilian and noncombatant deaths). These analyses provide tentative support for the community support theory (*H2*) since the result for the noncombatant variable is significant at the 10% level. In addition, the estimated Poisson regression coefficients also demonstrate positive values for the state ("Exists (State)" > 0 for civilian and noncombatant deaths), though these coefficients are less than those presented for

the rebel group. While these results provide tentative support for *H4a*, neither of the findings regarding external support to the state (when controlling for support to the rebel group) are statistically significant, so the findings remain inconclusive.

There are at least three reasons for inconclusive results when testing *H1* and *H2* (and one reason that applies to *H4a* and *H4b* as well). One reason for the rebel group is that the predicted effects of the resource mobilization theory and community support theory are in opposition with one another and may operate simultaneously. If these theories are of similar magnitudes, then it is possible that the effects cancel each other out. Another reason may be that the resource mobilization theory and community support theory have insignificant to no effects on the use of terrorism in civil war conflicts. An additional reason may be that the existence of external support is too broad and may obscure the effects that specific types of external support may have on the decisions of the rebel group and the state. While the first two reasons are difficult to analyze in the given data, the third reason may be examined in greater detail by disaggregating the analysis by the type of external support received by the rebel group. The findings of the fully disaggregated types of external support (according to UCDP categorization) received by the rebel group and the state are shown in *Table 2* and *Table 3* in the Appendices.

In addition to instances of external support to the rebel group and the state, *Table 1* includes analyses of cases of civil war conflicts in which neither the rebel group nor the state received external support and cases in which both the rebel group and the state received external support. These results show significance at the 10% level, with a negative coefficient for the "neither" case and a positive coefficient for the "both" case. These results reflect that external support does indeed play a significant and influential role in a civil war conflict.

Two sets of analyses are conducted by regrouping the types of external support received by the rebel group into according to two different strategies[8]. The first set of analyses rearrange external support types according to Byman et al.'s categorization by the level of utility provided to the rebel group, where utility levels are "critical," "valuable," and "minor." The second set of analyses rearrange the external support types in accordance to whether or not the support provided constitutes direct military aid or nonmilitary support. The two sets of analyses are shown in *Table 4* and *Table 6*.

[8] Similar analyses are provided to test the effect of different support categorizations on the use of terrorism by the state in *Table 5* and *Table 7* in the Appendices.

Table 4: Critical Valuable and Minor Support for Rebel Groups

VARIABLES	(1) Civilian Deaths (ln)	(2) Noncombatant Deaths (ln)
Critical (Rebel)	0.063	0.015
	(0.084)	(0.070)
Valuable (Rebel)	0.036	0.088
	(0.17)	(0.081)
Minor (Rebel)	0.95	0.082
	(1.29)	(0.20)
Exists (State)	0.14*	0.022
	(0.074)	(0.070)
Intensity	0.65**	0.54**
	(0.32)	(0.23)
Incompatibility	0.33**	0.076
	(0.14)	(0.078)
Number of Rebel Groups	0.0035	-0.014
	(0.028)	(0.031)
Real GDP per Capita	0.000024*	0.000018
	(0.000014)	(0.000013)
BCI	0.0057	0.017**
	(0.016)	(0.0084)
Regime Durability	-0.0049	-0.0046
	(0.0033)	(0.0040)
Polity Score	0.024	-0.0029
	(0.020)	(0.0062)
Fractionalization	0.50*	0.36*
	(0.30)	(0.19)
Constant Ldeaths_civilians	-1.48	
	(1.13)	
/lnalpha	-1.37	-2.39
	(3.43)	(3.13)
Constant Lnoncombdeath		-0.74
		(0.69)

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

Table 4 presents the random-effects Poisson regression results from the Byman et al. strategy of categorization for external support provided to the rebel group. The first, second, and third rows present the independent variables for the analyses ("Critical (Rebel)," "Valuable (Rebel)," and "Minor (Rebel)," respectively), and the corresponding effects that each of these variables have on the prevalence of civilian and noncombatant deaths. While each of utility categories of external support to the rebel group positively affect the number of civilian and

noncombatant deaths, these results are not conclusive since they are not significant. Thus, the predictions presented by *H3a* and *H3b* remain ambiguous as to which one is supported. The results are not significant, and the magnitude of the coefficients of civilian deaths in the analyses both increase and decrease as the utility of the support provided increases, making the interpretation of the results difficult. Possible support for *H3a*, and thus the resource mobilization theory, may be present when observing the coefficients of noncombatant deaths as they decrease as the utility of support increase. However, these findings are not significant, so not conclusive interpretations may be made. An interesting observation of this analysis is that, when the rebel group's external support is disaggregated into the utility categories and controlled, the existence of external support to the state proves to positively affect the number of civilian deaths and is significant at the 10% level.

Table 6: Military and Nonmilitary Support for Rebel Groups

VARIABLES	(1) Civilian Deaths (ln)	(2) Noncombatant Deaths (ln)
Military Support (Rebel)	0.017	0.057
	(0.14)	(0.066)
Nonmilitary Support (Rebel)	0.17**	0.047
	(0.076)	(0.071)
Exists (State)	0.12	0.020
	(0.074)	(0.067)
Intensity	0.64**	0.54**
	(0.31)	(0.22)
Incompatibility	0.32**	0.073
	(0.14)	(0.078)
Number of Rebel Groups	0.0075	-0.014
	(0.029)	(0.033)
Real GDP per Capita	0.000023	0.000018
	(0.000014)	(0.000013)
BCI	0.0053	0.017**
	(0.016)	(0.0083)
Regime Durability	-0.0051	-0.0046
	(0.0031)	(0.0038)
Polity Score	0.025	-0.0029
	(0.018)	(0.0063)
Fractionalization	0.45	0.37**
	(0.28)	(0.18)
Constant Ldeaths_civilians	-1.43	
	(1.13)	
/lnalpha	-1.47	-2.38
	(3.13)	(3.05)
Constant Lnoncombdeath		-0.74
		(0.67)

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

Table 6 shows the effects of military and nonmilitary support provided to the rebel group have on the prevalence of civilian and noncombatant deaths. Both military and nonmilitary support to the rebel group results in positive coefficients for the death variables. While nonmilitary support to the rebel group is significant at the 5% level for civilian deaths, the other findings on military and nonmilitary support given to the rebel group are not significant. Another finding of the analysis is that, when a rebel group receives military support and when the state

receives external support in some form, the state is more likely to commit actions that result in civilian deaths as it has a positive coefficient, but these results are not significant.

Due to the prevalent lack of significant findings in the empirical analyses, an additional comparison of independent variables is considered. These variables indicate if external support exists for both the state and the rebel group ("Both Receive Support"), neither the state nor the rebel ("Neither Receive Support"), and if either the state and/or the rebel group receive external support ("Any Receive Support"). These three cases represent extreme cases that disregard the identity (state or rebel group) of the warring party to examine if external support has any effect on the use of terrorism by a warring party involved in civil war. The results from analyses of these variables are shown in *Table 8*.

Table 8: Extreme Cases

VARIABLES	(1) Civilian (ln)	(2) Noncombatant (ln)	(3) Civilian (ln)	(4) Noncombatant (ln)	(5) Civilian (ln)	(6) Noncombatant (ln)
Both Receive Support	0.20	0.11*				
	(0.16)	(0.064)				
Any Receives Support			0.28***	0.091		
			(0.091)	(0.093)		
Neither Receive Support					-0.19*	-0.057
					(0.099)	(0.073)
Intensity	0.63**	0.54***	0.62**	0.54**	0.63**	0.55***
	(0.26)	(0.20)	(0.31)	(0.23)	(0.26)	(0.20)
Incompatibility	0.34***	0.072	0.34***	0.077	0.34***	0.077
	(0.13)	(0.078)	(0.13)	(0.076)	(0.13)	(0.076)
Number of Rebel Groups	0.00040	-0.012	0.00044	-0.012	-0.0048	-0.014
	(0.024)	(0.025)	(0.023)	(0.025)	(0.025)	(0.024)
Real GDP per Capita	0.000026**	0.000017*	0.000026*	0.000017	0.000028**	0.000019*
	(0.000011)	(0.000010)	(0.000013)	(0.000012)	(0.000012)	(0.000010)
BCI	0.0033	0.015**	0.0046	0.015**	0.0050	0.015**
	(0.012)	(0.0073)	(0.013)	(0.0076)	(0.012)	(0.0073)
Regime Durability	-0.0049*	-0.0049	-0.0052*	-0.0052	-0.0055**	-0.0052
	(0.0030)	(0.0038)	(0.0028)	(0.0039)	(0.0028)	(0.0037)
Polity Score	0.021	-0.0061	0.023	-0.0054	0.021	-0.0060
	(0.017)	(0.0059)	(0.018)	(0.0061)	(0.016)	(0.0060)
Fractionalization	0.51*	0.42**	0.52*	0.44***	0.54**	0.45***
	(0.27)	(0.17)	(0.27)	(0.17)	(0.27)	(0.17)
/lnalpha	-1.26	-2.30	-1.21	-2.28	-1.19	-2.30
	(2.69)	(2.91)	(2.92)	(3.04)	(2.44)	(2.80)
Constant Ldeaths_civilians	-1.34		-1.53		-1.33	
	(0.94)		(1.06)		(0.90)	
Constant Lnoncombdeath		-0.63		-0.70		-0.64
		(0.63)		(0.66)		(0.64)

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

The key findings of the extreme cases are shown in the first, second, and third rows ("Both Receive Support," "Any Receives Support," and "Neither Receive Support," respectively) of *Table 8*. The results of the analysis support *H5* since the coefficients of "Both Receives Support" are positive (significant at the 10% level for noncombatant deaths) and the coefficients of "Neither Receives Support" are negative (significant at the 10% level for civilian deaths). While the significant coefficients occur for two different measures, the results are promising in their preliminary support of *H5*, supporting the argument that external support is an important factor in the use of terrorism in civil wars. Further supporting this argument is the

coefficients of "Any Receives Support," which is positive and significant at the 1% level. These analyses are used to test the predictions of *H6*, and further support the argument for the importance of external support in the use of terrorism by warring parties in civil wars.

Across the analyses conducted on variations of external support and the death variables, there is a general lack of significance. However, the preliminary data analyses seem promising in supporting the argument that external support is an important factor in the use of terrorism by warring parties in civil war conflicts. Aside from the primary independent and dependent variables, the control variables used proved useful since all (except for "Number of Rebel Groups" and "Polity Score") were significant in at least some of the analyses. Notably, "Intensity" and "Fractionalization" frequently proved to be powerfully significant and may be a possible area of interest for further research.

VII. Conclusion

This study highlights the prevalence and importance of external support in modern civil war conflicts, particularly within the lens of the use of terrorism by warring parties. Panel data on external support in civil wars and instances of civilian and noncombatant casualties was compiled to generate empirical analyses of this relationship. Two competing theories were presented as arguments for when terrorism is used by a rebel group, while multiple methods of categorizing the disaggregated types of external support were used to provide deeper analyses. While the empirical analyses provided preliminary support for both the community support theory and the resource mobilization theory in different contexts regarding rebel groups, further research is necessary in order to improve the significance of these findings. One mechanism by which the analyses may be improved is by expanding the range of the dataset, which was limited

to 1989-2009 by the range of data available at the time of this writing. Further, new measures of the level of terrorism in a civil war may be introduced into the dataset.

Developing upon the findings of this paper, further research into the nuances of the external support relationship between the third party and the warring parties is suggested in order to better capture the dynamics of the decision-making involved when terrorism is used by a rebel group in a civil war. While this paper focused on the warring parties and characteristics of the civil war conflict, characteristics of the third party may be incorporated into future research. The panel data compiled for this paper allows for the addition of the third-party dimension since the UCDP External Support Dataset has an alternate Disaggregated/Supporter Level version that identifies each third party. These changes would improve the dataset's ability to reflect the components involved in a warring party's decision-making and their choice of strategies in the civil war conflict.

The role of external support is shown to have importance in civil wars as it may affect the strategies used by the warring parties. As data continues to be collected on external support, terrorism, and the dynamics of the relationship between third parties and warring parties in civil wars, future research on civil war conflicts is expected to serve as an informative basis for the minimization of civilian casualties.

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IX. Appendices

Figure 6. Codebook

dyad_id	*integer*. Unique identifier of all dyads, corresponding to Version 18.1 of the UCDP Dyadic Dataset
conflict_id	*integer*. Identifies which conflict in the UCDP/PRIO Armed Conflict Dataset any given dyad is a part of.
year	*year*. Year of observation
cowcode	*integer*. Identifies conflicts according to the Correlates of War classification.
side_a	*text.* Name of the state government.
side_a_id	*integer*. The unique identifier of the state government.
side_b	*text*. Name of the rebel group.
side_b_id	*integer*. The unique identifier of the rebel group taken from the UCDP Actor Dataset.
intensity	*numeric*. The intensity level of the conflict coded at two levels: minor armed conflicts with between 25 and 999 battle-related deaths in a given year (coed as 1) and war with 1000 or more battle-related deaths in a given year (coded as 2)
incompatibility	*integer*. The general position of incompatibility in the conflict coded as three categories: territory (coded as 1), government (coded as 2), and government and territory (coded as 3).
rebgroups	*integer*. The number of rebel groups identified within a conflict in a given year.
al_religion	*numeric*. The probability that two randomly selected people from a given country will not belong to the same religious group. The higher the number, the more fractionalized the society. (Alesina et al. 2003)
bci_bci	*numeric*. The Bayesian Corruption Index (BCI) is a composite index of the perceived overall level of corruption as a result of the information from different surveys. BCI values lie between 0 and 100, with an increase in the index corresponding to an increase in the level of corruption .(Standaert 2015)
p_polity2	*integer*. Revised combined polity score, which is computed by subtracting the autocratic polity score from the democratic polity score, resulting in a unified polity scale ranging from -10 (strongly autocratic) to 10 (strongly democratic). (Marshall et al. 2018)
p_durable	*integer*. Regime durability: The number of years since the most recent regime change (defined by a three point change in the polity score over a period of three years or less) or the end of a transition period defined by the lack of stable political institutions. (Marshall et al. 2018)
gle_rgdpc	*numeric*. The estimate of real GDP per capita in constant US dollars with 2000 as the base year. (Gleditsch 2002)

external_exists	*dummy variable*. The variable takes the value of 1 if the state received any form of clearly established external support.
external_name	*text*. The name(s) of the external supporter(s) to the state.
external_code	*text.* Variables identifying the type of support received by the state. (support provider: code of support provided)
external_type	*text*. Name of supporter and type of support provided to the state.
external_comment	*text.* Comments on external support to the state, usually providing contextual information.
external_type__X	*dummy variable.* Support given to the state. Troops as a secondary warring party to fight alongside a primary warring party.
external_type__L	*dummy variable*. Support given to the state. Access to territory, permits sanctuary or cross-border military action. (Only coded when it is clear that the support was intentional)
external_type__Y	*dummy variable*. Support given to the state. Access to military or intelligence infrastructure. Alliances and joint operations.
external_type__W	*dummy variable*. Support given to the state. Donations, transfers, supplies, or loans of weapons or ammunition of any kind, including sales on conciliatory terms.
external_type__M	*dummy variable*. Support given to the state. Material and logistics support, which includes non-weaponry and non-ammunition supplies along with logistics assistance, as well as repair and support facilities.
external_type__T	*dummy variable*. Support given to the state. Training of any kind as well as expert personnel and foreign military advisors that are not directly engaged in combat operations.
external_type__S	*dummy variable*. Support given to the state. Any form of economic aid to be used to fund the waging of the armed conflict. (Typically does not include humanitarian, development, or balance of payment aid/loans)
external_type__I	*dummy variable*. Support given to the state. Any form of intelligence material presented by an external supporter.
external_type__O	*dummy variable*. Support given to the state. Types of support not covered in previous categories.
external_type__U	*dummy variable*. Support given to the state. Support where reliable sources report support but do not specify of what type.
milaid	*dummy variable*. Support given to the state. Direct military support: includes troops, military intelligence/joint operations, weapons, and/or training.
nonmilaid	*dummy variable*. Support given to the state. Nonmilitary support: includes economic funding, material/logistics support, access to territory, and/or intelligence.
critical	*dummy variable*. Support given to the state. Categorized according to Byman et al. 2001. Critical: includes troops, military intelligence/joint operations, economic funding, and/or territory.

valuable	*dummy variable*. Support given to the state. Categorized according to Byman et al. 2001. Valuable: training, weapons, and/or material/logistics.
minor	*dummy variable*. Support given to the state. Categorized according to Byman et al. 2001. Minor: intelligence.
rebext_exists	*dummy variable*. The variable takes the value of 1 if the rebel group received any form of clearly established external support.
rebext_name	*text*. The name(s) of the external supporter(s) to the rebel group.
rebext_code	*text.* Variables identifying the type of support received by the rebel group. (support provider: code of support provided)
rebext_type	*text*. Name of supporter and type of support provided to the rebel group.
rebext_comment	*text.* Comments on external support to the rebel group, usually providing contextual information.
rebext_type__X	*dummy variable*. Support given to the rebel group. Troops as a secondary warring party to fight alongside a primary warring party.
rebext_type__L	*dummy variable*. Support given to the rebel group. Access to territory, permits sanctuary or cross-border military action. (Only coded when it is clear that the support was intentional)
rebext_type__Y	*dummy variable*. Support given to the rebel group. Access to military or intelligence infrastructure. Alliances and joint operations.
rebext_type__W	*dummy variable*. Support given to the rebel group. Donations, transfers, supplies, or loans of weapons or ammunition of any kind, including sales on conciliatory terms.
rebext_type__M	*dummy variable*. Support given to the rebel group. Material and logistics support, which includes non-weaponry and non-ammunition supplies along with logistics assistance, as well as repair and support facilities.
rebext_type__T	*dummy variable*. Support given to the rebel group. Training of any kind as well as expert personnel and foreign military advisors that are not directly engaged in combat operations.
rebext_type__S	*dummy variable*. Support given to the rebel group. Any form of economic aid to be used to fund the waging of the armed conflict. (Typically does not include humanitarian, development, or balance of payment aid/loans)
rebext_type__I	*dummy variable*. Support given to the rebel group. Any form of intelligence material presented by an external supporter.
rebext_type__O	*dummy variable*. Support given to the rebel group. Types of support not covered in previous categories.
rebext_type__U	*dummy variable*. Support given to the rebel group. Support where reliable sources report support but do not specify of what type.
rebmilaid	*dummy variable*. Support given to the rebel group. Direct military support: includes troops, military intelligence/joint operations, weapons, and/or training.

rebnonmilaid	*dummy variable*. Support given to the rebel group. Nonmilitary support: includes economic funding, material/logistics support, access to territory, and/or intelligence.
rebcritical	*dummy variable*. Support given to the rebel group. Categorized according to Byman et al. 2001. Critical: includes troops, military intelligence/joint operations, economic funding, and/or territory.
rebvaluable	*dummy variable*. Support given to the rebel group. Categorized according to Byman et al. 2001. Valuable: includes training, weapons, and/or material/logistics.
rebminor	*dummy variable*. Support given to the rebel group. Categorized according to Byman et al. 2001. Minor: intelligence.
bothsupp	*dummy variable*. Instances in which both the state and the rebel group receive external support.
nosupp	*dummy variable*. Instances in which neither the state nor the rebel group receive external support.
totevent	*integer*. A count of the number of events in a given year with at least 1 civilian or unknown death.
deaths_a	*integer*. The best estimate of deaths sustained by side a.
deaths_b	*integer*. The best estimate of deaths sustained by side b.
noncombdeath	*integer*. The sum of civilian and unknown deaths used to estimate noncombatant death
deaths_civilians	*integer.* The best estimate of civilian deaths in the event; the number of collateral damage resulting from fighting between side a and side b.
deaths_unknown	*integer*. The best estimate of deaths of persons of unknown status.
Lnoncombdeath	*numeric*. The natural log of noncombatant deaths.
Ldeaths_civilians	*numeric*. The natural log of civilian deaths.
Ldeaths_unknown	*numeric*. The natural log of unknown deaths.

Figure 7. Distribution of Civilian Deaths

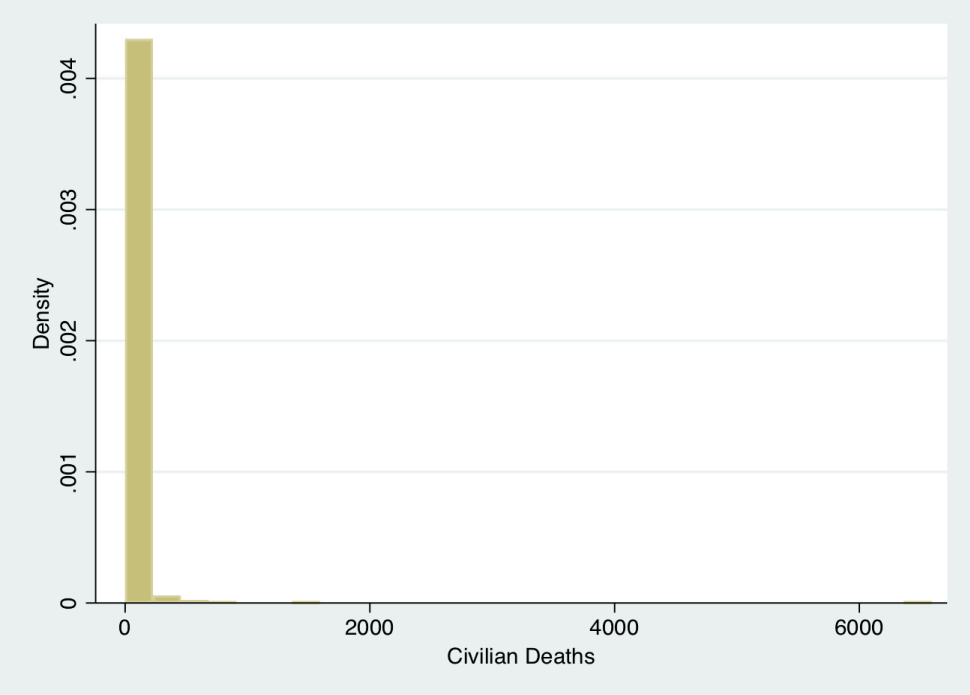

Figure 8. Distribution of the Natural Log of Civilian Deaths

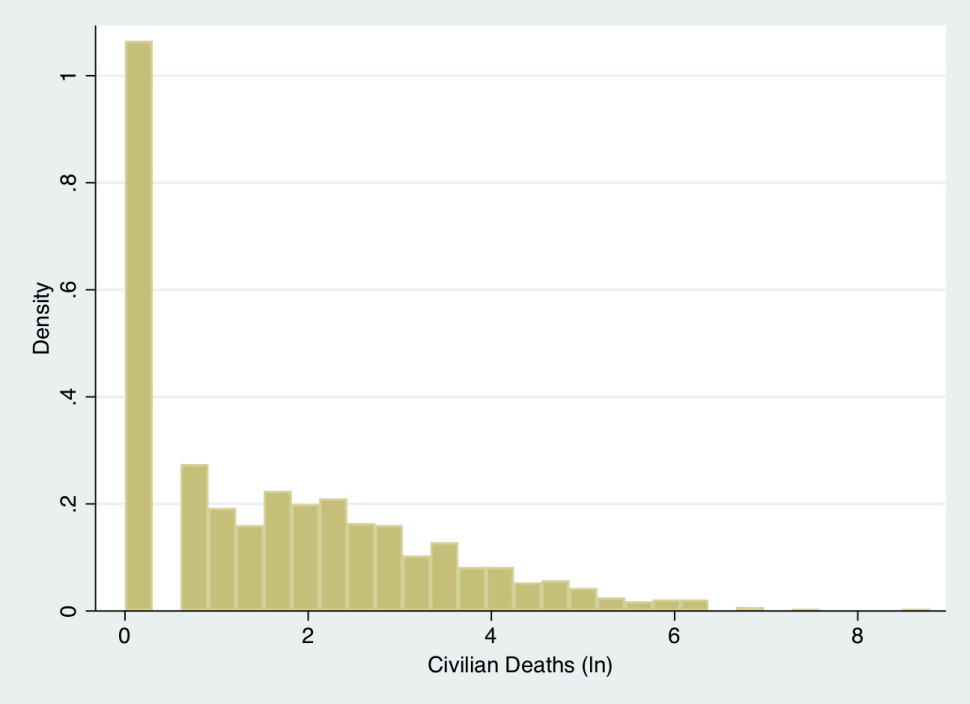

Figure 9. Distribution of Noncombatant Deaths

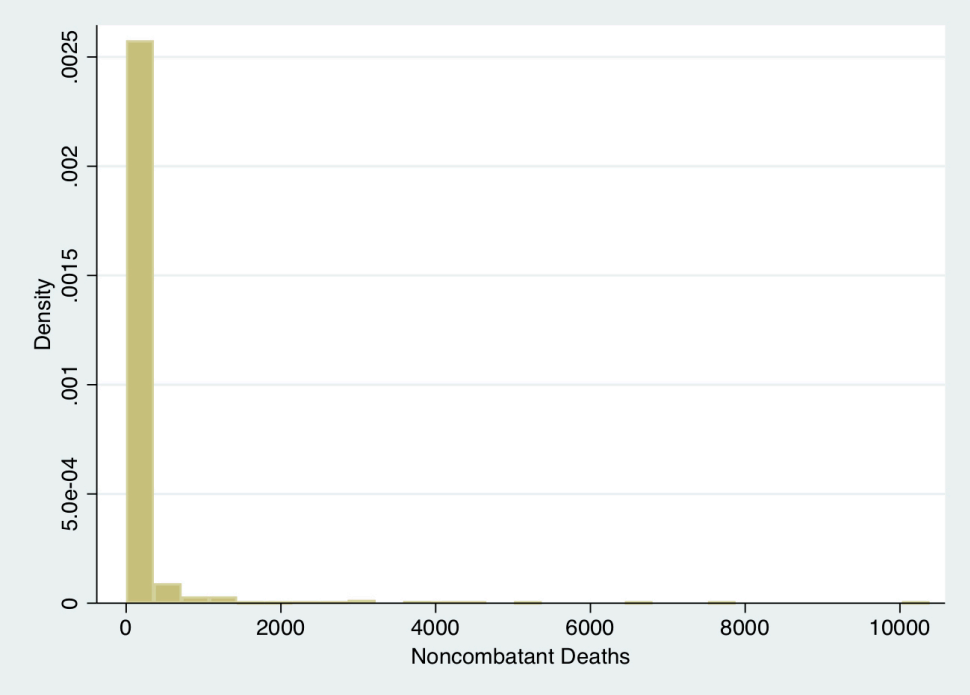

Figure 10. Distribution of the Natural Log of Noncombatant Deaths

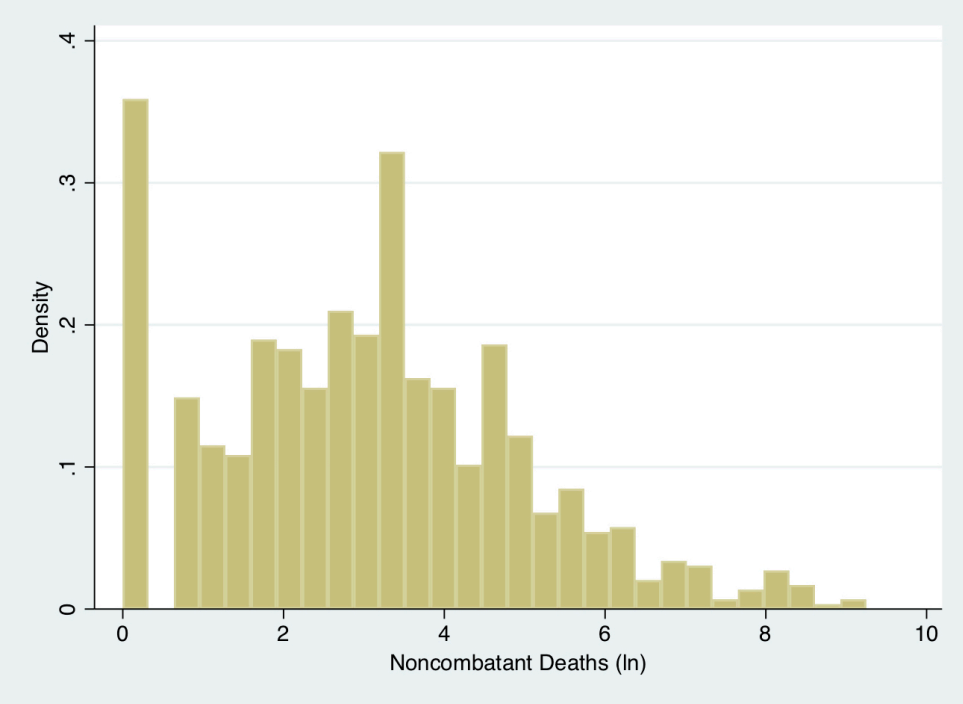

Table 2: Types of Support for Rebel Groups

VARIABLES	(1) Civilian Deaths (ln)	(2) Noncombatant Deaths (ln)
Military Intelligence/Joint Operations (Rebel)	0.18	0.066
	(0.12)	(0.093)
Territory (Rebel)	-0.039	-0.020
	(0.11)	(0.069)
Weapons (Rebel)	-0.011	0.082
	(0.29)	(0.086)
Material/Logistics (Rebel)	0.28	0.18*
	(0.18)	(0.11)
Training (Rebels)	-0.12	-0.10
	(0.091)	(0.10)
Financial (Rebel)	-0.0038	-0.018
	(0.12)	(0.060)
Intelligence (Rebel)	0.87	-0.023
	(1.93)	(0.28)
Exists (State)	0.14*	0.013
	(0.077)	(0.072)
Intensity	0.66*	0.54**
	(0.35)	(0.21)
Incompatibility	0.27	0.032
	(0.18)	(0.082)
Number of Rebel Groups	-0.0079	-0.018
	(0.030)	(0.034)
Real GDP per Capita	0.000024	0.000019
	(0.000017)	(0.000014)
BCI	0.0028	0.016*
	(0.020)	(0.0089)
Regime Durability	-0.0050	-0.0046
	(0.0039)	(0.0045)
Polity Score	0.027	-0.0013
	(0.024)	(0.0060)
Fractionalization	0.46	0.32
	(0.33)	(0.21)
Troops (Rebel) = o,	-	-
Other (Rebel)	0.072	0.12
	(0.19)	(0.14)
Unknown (Rebel)	0.52	0.23
	(0.56)	(0.21)
Constant Ldeaths_civilians	-1.22	
	(1.34)	
/lnalpha	-1.49	-2.48
	(4.15)	(3.34)
Constant Lnoncombdeath		-0.62
		(0.69)

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

Table 3: Types of Support for the State

VARIABLES	(1) Civilian Deaths (ln)	(2) Noncombatant Deaths (ln)
Troops (State)	0.27	0.031
	(0.20)	(0.098)
Military Intelligence/Joint Operations (State)	0.096	-0.014
	(0.077)	(0.074)
Territory (State)	-0.044	-0.054
	(0.12)	(0.15)
Weapons (State)	-0.22	-0.011
	(0.15)	(0.10)
Material/Logistics (State)	0.24	0.11
	(0.17)	(0.079)
Training (State)	0.014	-0.057
	(0.086)	(0.080)
Financial (State)	0.063	0.013
	(0.17)	(0.11)
Intelligence (State)	0.26***	0.14
	(0.093)	(0.086)
Exists (Rebel)	0.23**	0.11*
	(0.11)	(0.060)
Intensity	0.65**	0.54**
	(0.28)	(0.23)
Incompatibility	0.29**	0.062
	(0.14)	(0.078)
Number of Rebel Groups	0.0021	-0.012
	(0.023)	(0.026)
Real GDP per Capita	0.000024	0.000014
	(0.000015)	(0.000012)
BCI	0.0023	0.015*
	(0.015)	(0.0082)
Regime Durability	-0.0051*	-0.0053
	(0.0027)	(0.0038)
Polity Score	0.020	-0.0060
	(0.016)	(0.0062)
Fractionalization	0.40	0.40**
	(0.28)	(0.18)
Other (State)	-1.33***	0.12
	(0.092)	(0.077)
Unknown (State)	-20.5***	-0.25
	(1.22)	(0.20)
Constant Ldeaths_civilians	-1.28	
	(1.10)	
/lnalpha	-1.26	-2.30
	(2.95)	(3.22)
Constant Lnoncombdeath		-0.63
		(0.68)

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

Table 5: Critical Valuable and Minor Support for the State

VARIABLES	(1) Civilian Deaths (ln)	(2) Noncombatant Deaths (ln)
Critical (State)	0.029	-0.0043
	(0.12)	(0.069)
Valuable (State)	0.13	0.069
	(0.13)	(0.094)
Minor (State)	0.26***	0.13
	(0.096)	(0.082)
Exists (Rebel)	0.20*	0.10*
	(0.12)	(0.058)
Intensity	0.63**	0.54**
	(0.28)	(0.22)
Incompatibility	0.31**	0.060
	(0.13)	(0.078)
Number of Rebel Groups	0.0071	-0.0086
	(0.024)	(0.024)
Real GDP per Capita	0.000023*	0.000016
	(0.000013)	(0.000013)
BCI	0.0031	0.015*
	(0.016)	(0.0079)
Regime Durability	-0.0063*	-0.0056
	(0.0032)	(0.0040)
Polity Score	0.023	-0.0055
	(0.017)	(0.0064)
Fractionalization	0.49*	0.41**
	(0.29)	(0.18)
Constant Ldeaths_civilians	-1.35	
	(1.14)	
/lnalpha	-1.27	-2.27
	(3.04)	(3.10)
Constant Lnoncombdeath		-0.65
		(0.68)

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

Table 7: Military and Nonmilitary Support for the State

VARIABLES	(1) Civilian Deaths (ln)	(2) Noncombatant Deaths (ln)
Military Support (State)	-0.0081	-0.040
	(0.12)	(0.062)
Nonmilitary Support (State)	0.22	0.13
	(0.17)	(0.087)
Exists (Rebel)	0.20	0.10*
	(0.13)	(0.058)
Intensity	0.61**	0.53**
	(0.29)	(0.22)
Incompatibility	0.34***	0.072
	(0.13)	(0.078)
Number of Rebel Groups	0.0018	-0.012
	(0.025)	(0.026)
Real GDP per Capita	0.000022	0.000015
	(0.000014)	(0.000012)
BCI	0.0032	0.015*
	(0.016)	(0.0084)
Regime Durability	-0.0049*	-0.0050
	(0.0030)	(0.0039)
Polity Score	0.023	-0.0054
	(0.019)	(0.0061)
Fractionalization	0.49	0.40**
	(0.30)	(0.18)
Constant Ldeaths_civilians	-1.40	
	(1.13)	
/lnalpha	-1.24	-2.27
	(2.93)	(3.08)
Constant Lnoncombdeath		-0.65
		(0.69)

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