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# ASSESSING THE TIMING OF ONE-SIDED VIOLENCE IN CIVIL CONFLICT

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## ABSTRACT

Nicholas C. Galanos: Assessing the Timing of One-Sided Violence in Civil Conflict

Under the direction of Dr. Jacob Kathman, Dr. Jeff Carter, and Dr. Susan Allen

*In times of civil conflict, civilians often attempt to distance themselves from the horrors of combat. However, noncombatants play an integral role in the prospects of victory for both an incumbent and an insurgency. By choosing to support a belligerent in times of civil conflict, civilians can become targets. This thesis looks to determine at what points during civil conflict are noncombatants likely to be targeted by either an incumbent or an insurgent group. Through logistic regression, using Uppsala Conflict Data Program data, this thesis finds that insurgents increase the likelihood of committing one-sided violence after the initial months of conflict. However, as conflict drags on, the probability of insurgents harming noncombatants declines. Conversely, the longer conflict continues, the more likely it is for incumbents to perpetrate acts of one-sided violence.*

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## THE PUZZLING NATURE OF ONE-SIDED VIOLENCE

During civil conflict, civilians often choose to be neutral bystanders. However, the decision to be nonaligned with a particular group does not always guarantee the safety of a noncombatant. Civilians can find themselves as targets, which warring factions may oppress in order to achieve victory in a civil conflict. Some scholars have contended that violence against civilians, when used by insurgent groups, is a tactic that compels cooperation and illustrates a government's inability to protect its citizens (Kalyvas 1999, 257). Conversely, others have noted that states may resort to physically harming civilians in order to weaken support for insurgent groups and damage morale (Downes 2006, 189). The act of civilian victimization is a tactic often employed by all belligerents in a civil conflict. While the reasons for harming noncombatants are varied, belligerents utilize this tactic as a method for possibly improving their prospects of victory in conflict. Through one-sided violence, incumbents can weaken their opposition and insurgents can accrue resources necessary for combat.

Another dynamic to keep in mind when analyzing the use of one-sided violence is determining how the length of conflict may influence an incumbent or insurgent to force cooperation amongst a civilian population. Civilian victimization is likely to benefit insurgent groups in the short-term; as the legitimacy of a regime may be undermined and forced collaboration can provide rebels with tangible resources (Wood 2010, 605). Incumbents, however, may be more likely to use civilian victimization strategies as conflict duration increases. As combat drags on, insurgents can establish a level of civilian support, creating supply and communication networks in communities that they have come to control (Balcells

2010, 297). By increasing their capabilities through the course of extended conflict, insurgents pose a greater threat to incumbents due to their ability to mobilize resources and find refuge within a civilian population.

This paper looks to provide an illustration as to which faction is more likely to target civilians at a certain stage of conflict. Specifically, this analysis posits that civilian violence is a tactic most likely to be used by insurgent groups after the initial stages of conflict, while incumbents are more likely to target civilians as war drags on. Insurgents harm civilians in order to compel cooperation and garner resources necessary for fighting, if they cannot achieve civilian support without force. However, this tactic is not a method of long-term success (Kalyvas 2007, 190). If insurgents continue to repress noncombatants, there is less incentive for a civilian to cooperate. Conversely, incumbents will be more likely to victimize as conflict duration increases, serving as a last resort to destroy insurgent power bases, weakening their ability to fight.

In order to test this theory, this analysis will utilize a logit model to test the occurrence of civilian violence. It is expected that the probability of the occurrence of noncombatant violence committed by insurgents will increase after the initial stages of conflict, only to decline as conflict drags on. Additionally, as the duration of conflict increases, the likelihood of civilian violence perpetrated by incumbents is more likely to proliferate.

In the following sections, this manuscript will seek to explain when civilians are most likely to be targeted, and by whom. First, the literature concerning the use of civilian victimization is examined in order to establish the theoretical underpinnings of this thesis. Second, this paper will detail the theoretical framework, establishing expectations for the empirical analysis. Third, the research design and empirical findings of the study will be



presented, displaying the results of the logit models. Finally, a discussion section provides clarity as to what the empirical findings suggest.

## ONE-SIDED VIOLENCE IN CIVIL CONFLICT

The literature concerning the use of civilian victimization is diverse and varied, with a portion demonstrating that warring groups often believe that harming noncombatants can lead to success on the battlefield. However, an overwhelming amount of the literature also indicates that either belligerent in civil conflict must have the assistance of the noncombatant population in order to achieve victory. During civil conflict, control over the civilian population is vital, as noncombatant support is a main determinant in achieving a successful war outcome (Hultman 2007, 207). It is imperative for belligerents in civil conflict to attain noncombatant backing and loyalty in order to sustain combat efforts (Kalyvas 2006, 167). Civilians can often provide insurgents with provisions, sanctuary, and information in an effort to minimize the capability gap an incumbent regime possesses over them (Scott et al. 1970, 74). Noncombatant support is equally critical for governments, as insurgent efforts can be simply stifled with a large amount of civilian favor shifted towards the incumbent. Insurgent organizations will find it incredibly difficult to acquire the resources necessary for victory without the cooperation of a sizable noncombatant population.

Yet, when a civilian population chooses to not cooperate with a belligerent, incumbents or insurgents may target noncombatants in order to improve their prospects of success against an opponent. Kalyvas (2006, 165) points out that political actors employ the use of violence as a means of achieving multiple goals. Namely, a group will choose to harm civilians in order to intimidate a population into cooperation, mobilize resources, or eliminate opposition support. The reasons why a particular group chooses to target civilians are numerous, however, common

motives for the use of one-sided violence by either party are forcing compliance and weakening support for the opposition (Kalyvas 2006, 98).

The relationship between belligerents and noncombatants in civil conflict is truly a bewildering one. While both an incumbent and an insurgent's chances of victory hinge on the support of a noncombatant population, either belligerent may be willing to harm these individuals if the action will translate into an advantage over an opponent. This section aims to provide clarity as to why belligerents choose to target the individuals they are dependent on for victory. Often, insurgents and incumbents choose to victimize noncombatants out of necessity, rather than choice. Future sections of this thesis will illustrate that civilian victimization is utilized as a last-ditch effort, not as an initial strategy.

One of the more notable causes for insurgent one-sided violence is the capability disadvantage rebels face when fighting an incumbent. Weak insurgent groups are often unable to provide civilians with positive enticements in order to take up their cause. Conflict resources, such as manpower and capital, are at a premium for rebel organizations. If civilians are unwilling to aid rebels in the beginning stages of conflict, insurgents will likely turn to force as a means of attaining the resources necessary to defeat an incumbent.

As noted by Zahar (2000, 112), insurgent organizations are dependent on noncombatants in order to gain revenue and manpower. In an effort to close the capability gap against their opponents, rebels will resort to punishment strategies in order to mobilize civilian support (Wood 2010, 604). One of the most effective measures in which rebels facilitate noncombatant cooperation is to physically harm civilians as a method of displaying power. With the threat or display of violence, insurgents force civilian populations to provide supplies, shelter, information, and possibly recruits in order to sustain conflict efforts. Refusal to aid a particular

insurgent group may cost a civilian his or her life. Once an insurgent group shows the willingness to use force as a means of compelling cooperation, civilians are likely to collaborate with an insurgency as they may feel as if they are left with no other choice.

Civilians are likely to respond to threats of violence as they are most concerned with matters of security and their general well being (Migdal 1974, 137). With personal safety as a primary concern, noncombatants are not likely to assess the political objectives of a particular group. Instead, they are inclined to side with a group or organization that can provide the most basic need during war – security. By harming civilians, rebels are able to illustrate that a government is unable to provide protection to its citizens. In this sense, one-sided violence serves as a motivator for noncombatants to support insurgent groups, while minimizing the capability gap that frequently plagues rebel factions.

This was the case when the Liberation Front of Mozambique bombarded noncombatant populations in order to show civilians that the Portuguese army was incapable of protecting them during the group's effort to establish Mozambique's independence (Henriksen 1983, 121). Noncombatants are far more likely to cooperate with a faction when their lives are threatened. In such instances, civilians are shortsighted, concerned with their immediate safety.

Furthermore, one-sided violence is such an effective method of forcing cooperation by insurgent groups due to the apolitical nature of civilians embroiled in civil conflict (Migdal 1974, 254). When threatened with violence or the possibility of death, noncombatants often throw what political preferences they may have aside. Ideological inclinations are often secondary, as matters of security and siding with the faction that is most likely to win the conflict are more significant concerns in the decision-making calculus of noncombatants. The threat of

mistreatment or physical harm is typically all the incentive needed for noncombatants in order for an insurgent group to gain their cooperation.

Additionally, civilian violence is an effective way in which insurgents can establish supply hubs within a civilian population. Noncombatants are seen as a resource base for insurgents, as they can provide recruits, supplies, information, and shelter (Mason 1996, 66). Through the use of force, insurgents are able to take, or coerce, noncombatants into giving materials necessary to sustain fighting against an incumbent. However, once rebel groups have established power in a particular area, they can begin to provide security or revenue to the civilian population in an effort to encourage noncombatant collaboration without force, solidifying their power base amongst a civilian population (Wood 2010, 602). Once an insurgent group's power is solidified in a particular area, rebels can entice civilian cooperation through positive incentives, making noncombatant support more likely and sustainable (Mason 1989, 477).

While insurgents use violence as a tool to coerce civilians into providing insurgents with supplies and information, governments target noncombatants as a method to weaken support for the opposition. Incumbents will most likely harm civilians if they are believed to be aiding insurgents, contributing to the strength of an opposition group. However, much like insurgents, incumbents face the incredibly difficult task of identifying insurgent supporters, as noncombatants can discretely provide support to opposition groups. This often makes civilian victimization an incredibly risky tactic for incumbents, as it can backfire and provide even further support for rebel organizations if noncombatants are overly repressed. By escalating the level of civilian violence in a particular conflict, noncombatant support for insurgents may actually increase (Mason and Krane 1989, 184-185). Incumbents may wrongfully identify and

kill those that are believed to be supporters of an insurgency, creating a backlash effect (Leites and Wolf 1970, 112-115). Additionally, insurgents risk losing the public support they hold by demonstrating the willingness to harm their own citizens.

Incumbents may view civilian victimization as an inexpensive tactic, which can undermine an opposition's ability to fight. Yet, this strategy is often counterproductive. Incumbents can lose the support of civilians once they have perpetrated acts of violence against them. The choice to target noncombatants can produce numerous problems for incumbents, such as alienating supporters, provoking a greater opposition, and implicate third parties (Valentino, Huth, Balch-Lindsay 2004, 402). By choosing to target civilians, an incumbent can be portrayed as an enemy of the people, resulting in noncombatants lending aid to government opposition groups. Long-term violence against a civilian population by a government cannot be sustained, as it can shift support from incumbent to insurgent (Kalyvas 2004, 135).

Downes (2006, 161) points out that by choosing to target civilians, governments act out desperation. Essentially, civilian victimization is used as a last-ditch effort to weaken rebel capability. One-sided violence becomes a more likely option for incumbents when governments face an opponent of equal military strength, or because a regime must continue to fight in an inexpensive manner (Downes 2006, 162-163). Targeting noncombatants that are believed to be aiding opposition groups is a low-cost method that undermines an insurgent's ability to fight. By harming civilians, incumbents can cut off insurgent aid with little risk of military casualties. However, this is not a desired method of fighting for incumbents, as it would be preferable to defeat insurgent groups in a more conventional way.

If possible, governments seek to eliminate the opposition on the battlefield. As referenced earlier, incumbent regimes can make a costly gamble once they have chosen to victimize their

own population. Such actions can provide legitimacy to an insurgent movement, turning government supporters into rebel backers. Furthermore, incumbents may lose their most loyal civilian aides by engaging in an overly violent effort to eliminate rebel aides, killing individuals falsely believed to be providing assistance to an insurgency (Lake 2002, 23).

However, civilians can prove to be attractive targets for incumbents due to their ability to sustain an insurgent group's conflict efforts. Balcells (2010, 297) illustrates that civilians can hide rebels, provide safe transportation for supplies, or provide valuable information to insurgents and misinformation to incumbents. Through social networks, insurgents can establish a resource system that allows them to sustain an effective level of opposition to incumbent forces. Once an insurgent group has established a substantial level of support within a civilian population, these areas become prime targets for incumbents. By harming civilians in suspected rebel strongholds, incumbents are likely to drain rebel resource bases, and deter noncombatants from further collaborating with insurgents (Valentino, Huth, Balch-Lindsay 2004, 402-403). Additionally, as a conflict continues, rebel support in a particular area may be concentrated. Thus, civilian populations can prove to be valuable targets for incumbents as conflict drags on. However, identifying insurgent hubs is somewhat of a difficult and expensive task for incumbents.

Kalyvas (2004, 130) notes that locating and eliminating civilians whom are aiding the opposition can be a costly initiative to undertake. Governments may discover that they lack the information or resources needed to properly identify and neutralize an enemy combatant or enabler (Kalyvas 2004, 130). From a cost standpoint, it is cheaper for states to target a wide range of noncombatants. While incumbents may be aware that not all of the civilians targeted are lending some form of support to an insurgent effort, by indiscriminately victimizing

noncombatants, government forces can be sure that they are harming the opposition's cause in some capacity.

As evidenced by the literature, there are various reasons as to how incumbents and insurgents can benefit from civilian victimization. However, it is equally important to determine why belligerents would choose to harm the individuals that are critical to their success. Arendt (1970, 56) illustrates that continuous violence does not allow for a power base to be maintained. Similarly, Kalyvas (2004, 135) demonstrates that one-sided violence is an ineffective long-term strategy for incumbents. If these tactics can backfire so easily, why do belligerents in civil conflict continually attempt to use one-sided violence as a means of success? Often, it is the dynamics of conflict that force belligerents to victimize noncombatants. Insurgents and incumbents are likely to commit one-sided violence due to different circumstances during combat, in addition to the length in which conflict has been ongoing. The act of one-sided violence, and the group that decides to perpetrate it, often depends on conflict duration and the capability of a belligerent.



## DOES CONFLICT DURATION AFFECT ONE-SIDED VIOLENCE?

When examining the reasons for committing noncombatant violence, it is critical to keep in mind that conflict duration may play a critical role in a belligerent's likelihood of committing one-sided violence. Based on the literature referenced thus far, one could posit that insurgents and incumbents choose to harm noncombatants, not because it is a desirable strategy, but because one-sided violence is the only option left for belligerents if they have any hopes of winning a conflict. Thus, one-sided violence may not be a first option for either party, however, the dynamics of conflict force incumbents and insurgents to utilize the strategy. In the initial phases of conflict, it is unlikely noncombatants will be targeted by either incumbents or insurgents, as both parties look to attain victory without wanting to take the risks that come with noncombatant victimization. However, as conflict drags on, the chances of the use of one-sided violence can increase for incumbents and insurgents.

As indicated by Wood (2010, 602) insurgents resort to civilian violence when the strategic environment is not favorable for them to attain success. Additionally, Salehyan (2005, 18) demonstrates that rebel organizations are typically at a significant military disadvantage compared to the state at the outset of civil conflict. Incumbents have an established and trained military that is typically more advanced in terms of weaponry, when compared to insurgents. Incumbents usually have a greater supply of superior munitions available to them in addition to the means of moving military personnel and supplies throughout the state, all of which are by and large unavailable to insurgents. Thus, a rebel group's ability to mount a credible threat is

dependent on an insurgency's ability to mobilize resources and have a pool of recruits to draw upon.

Munitions, manpower, and weapons are not easily available to rebels. The simplest way in which insurgents can gather recruits, supplies, and information is through a general population base. The level of noncombatant support for an insurgency can greatly increase or decrease the group's chances of winning (Collier et al. 2003, 56). The most common and cost-effective method in which insurgent groups attempt to garner noncombatant support is attempting to appeal to civilians from an ideological or ethnic standpoint. In these cases, rebel groups attempt to make their cause attractive by identifying with noncombatants through class solidarity, nationalist sentiments, and community ties (Sambanis 2001, 265-266). Insurgents often make the case that they are "fighting the good fight", attempting to put an end to the repressive ways of a particular government or leader. Rebels hope that many within a population will identify with an insurgency's cause, and choose to no longer support the efforts of the incumbent (Fearon and Laitin 2000, 851).

However, due to their apolitical nature, noncombatants are not typically motivated by ideological appeals. In many instances, rebel organizations find that there is not an overwhelming amount of civilian support for their cause. If an insurgent group is unable to generate support within a civilian population, it may be left with no choice other than to force cooperation. Once rebel groups realize they are unable to gain support from noncombatants voluntarily, they will likely target civilians in an effort of forced support to sustain their conflict efforts. Insurgents believe one-sided violence will yield battlefield success, through the acquisition of resources from a civilian population. In turn, military triumphs can translate to voluntary support for rebel organizations. The Lord's Resistance Army in Uganda provides an

example to such cases. While the LRA's motives have been met with little public support, the organization has been able to fight the government by forcing cooperation amongst noncombatants in parts of Uganda, resulting in the control of several regions within the state (Hultman 2007, 216).

According to Wood (2010, 603), ideological appeals are frequently used by rebel organizations because it is one of the cheapest methods of attracting noncombatant support. However, such strategies often fail because civilians are typically apolitical (Migdal 1974, 254). Hence, when insurgent efforts to connect with noncombatants from an ideological perspective fail, rebels attempt to broaden their human resource base through victimization and fear. One-sided violence may not be the first option for insurgents to garner civilian support, however, it can sometimes be the only option.

Insurgents must resort to force in order to gain recruits and supplies necessary for fighting if they are unable to persuade civilians to support their cause through ideological appeals or positive incentive. By forcing cooperation, insurgents can quickly establish a resource base that allows them to sustain fighting even when they are at a capability disadvantage. The Sri Lankan civil war provides an illustration to this situation. When facing a superior incumbent force, the Liberation Tigers of Tamil Eelam held noncombatants in the conflict zone while committing one-sided violence (Amnesty International, 2009). As Tamil Tigers faced military and strategic setbacks, the level of violence perpetrated against civilians increased, and the organization forced noncombatants to cooperate with the organization by using civilians as a source of slave labor.

While the chances of an insurgent group perpetrating one-sided violence are expected to increase after the opening stages of conflict, it is not likely that a rebels' probability of targeting

civilians will continually increase throughout conflict. Rather, it is more probable that the chances an insurgent group will harm noncombatants decreases the longer conflict drags on. The decreased likelihood of one-sided violence can be attributed to two causes. First, it may become apparent to a civilian population that an insurgent group will use force even if they are collaborating with rebel efforts, providing no incentive for cooperation. In these cases, noncombatants may refuse to cooperate knowing that they are likely to be harmed regardless of whether they aid a rebel organization or not. This will force an insurgent group to lessen the degree in which it harms noncombatants, as one-sided violence can no longer allow for an insurgent group to increase in capability. In these instances, insurgents victimize noncombatants simply as a means of survival, not for the purposes of garnering resources necessary to defeat an entrenched regime.

Second, a rebel organization may decrease the likelihood of committing one-sided violence because civilian victimization is no longer needed in order to obtain cooperation from noncombatants. Once an insurgent group has solidified its power in a particular region, it may be able to provide incentives for cooperation or noncombatants may be intimidated into cooperation, knowing they may be abused if they refuse to aid the insurgency. The Farabundo Martí National Liberation Front was able to successfully partition areas of control in El Salvador, providing civilians with government programs and medical assistance (Hammond 1999, 73). When a rebel organization increases in strength, one would expect the likelihood of perpetrating one-sided violence to decrease.

Due to these dynamics, the likelihood of one-sided violence perpetrated by insurgents should be fluid. Rebels would prefer to gain support from a civilian population without the use of force, making ethnic and ideological appeals to a population. However, noncombatants are

unlikely to respond to such pulls, leaving rebel organizations with no choice other than to force cooperation. Thus, it is expected there is a low probability of an insurgent group will target noncombatants in the opening period of conflict. The likelihood of one-sided violence will rise, however, after the initial stages of conflict as non-violent attempts of cooperation have failed. Yet, rebel organizations will not continually increase their likelihood of perpetrating violence against noncombatants. While the chances of committing one-sided violence increases after the initial phase of conflict, an insurgent group's probability of victimizing civilians will decrease as conflict drags on.

It is unlikely rebels will continually harm noncombatants as they may have gained control over a particular area, providing civilians with positive incentives for collaboration. Additionally, through one-sided violence, insurgents may have increased in capability and achieved military success against an incumbent. With greater resources, a rebel organization improves its prospects of victory, enticing noncombatants to voluntarily support an insurgency. In sum, it is expected that the likelihood of insurgent one-sided violence will begin to increase after the initial stages of conflict, however, the probability of civilian victimization will decline as conflict duration increases.

**Hypothesis 1:** *The likelihood of insurgent one-sided violence will increase early on in conflict, however, the likelihood of insurgent one-sided violence will decrease as conflict duration increases.*

While insurgents are likely to find strategic success by targeting civilians after the initial phase of conflict, incumbents will be much more likely to harm civilians as war drags on.

Increased conflict duration can likely be attributed to insurgent success and growing noncombatant support for an insurgency, sustaining rebel efforts. One of the most effective methods of weakening insurgent strength, when there is no other viable option, is civilian victimization. Incumbent one-sided violence is a response to insurgent success and increased capabilities that diminish a government's chances of success.

As mentioned earlier, a crucial component to rebel success is the cooperation of a civilian population. Noncombatants who lend aid to insurgent organizations are valuable assets to rebel efforts, however, they are also prime targets for incumbents. As conflict drags on, and rebel groups are able to achieve a level of combat success, incumbents are likely to seek civilian populations that allow insurgents to sustain fighting. By supporting rebel objectives, noncombatants become marks that are as important to neutralize as insurgent troops. Due to noncombatant cooperation, the most effective way to weaken rebel strength is by harming civilian populations. However, it is difficult to identify pro-insurgent populations at the outset of conflict. Insurgent power bases are likely to be revealed over time, as incumbents gain more information about an opposition's capability through conflict and surveillance. Additionally, it takes time for insurgent groups to develop a support base that can be consistently counted upon to provide the resources needed in order to defeat an opponent.

Furthermore, Kalyvas (2004, 131) points out that incumbent use of civilian victimization is a low-cost tactic for diminishing the chances of insurgent success. Incumbents may lack the tools necessary for targeting specific insurgent sympathizers and are forced to target an entire population, believing many are supporting rebel efforts. Civilian victimization by incumbents signals a strain on the resources available to a government, diminishing their capacity to fight. A limited amount of incumbent resources are likely due to the duration of conflict. As fighting

continues, governments must devote more manpower and capital into neutralizing opposition efforts. Furthermore, as the length of fighting drains incumbent resources, the most cost-effective way in which governments may be able to weaken insurgents is by targeting their civilian support. In this sense, the toll of continued fighting becomes too much for an incumbent to bear, forcing a government to harm its own citizenry.

Finally, incumbents most likely harm civilians as fighting drags on because they are left with no other option. Downes (2006, 161) notes that civilian victimization is an act of desperation by a government. Strategically, it is counterproductive for an incumbent to harm civilians at the outbreak of conflict. Incumbents likely possess a capability advantage over their opponent and are able to provide civilians with public services. Additionally, incumbents would likely prefer to defeat an insurgent force in a traditional way, using the military to defeat opposing combatants. Conventional military victory is the most desirable outcome for an incumbent, as a regime does not want to risk the backlash that can occur by harming its own civilian population. It would seem unnecessary for an incumbent to victimize a portion of its population unless it is forced to. Thus, when governments choose to harm noncombatants, it is likely due to the fact that all other options have been exhausted. As conflict duration increases, and other methods of combating the opposition have failed, incumbents must turn to civilian violence as a means weakening support for insurgent groups.

Several factors indicate that civilian victimization tactics are most likely to be employed by incumbents the longer conflict drags on. First, if insurgents are able to establish bases of support amongst civilian populations early in conflict, these locations are likely to be located and targeted later in combat. Rebel power bases do not appear over night, they take time to grow in strength and develop. Second, as incumbent resources are exhausted throughout conflict,

governments will look for low-cost methods in which insurgents can be weakened. This can be done through targeting a population of noncombatants believed to be aiding opposition forces. Finally, governments may choose to harm civilians because they are left with no other option. If incumbents have trouble finding success on the battlefield, they will be forced to target noncombatants believed to be aiding insurgents. In other words, civilian victimization is neither a primary nor desirable tactic for incumbents.

**Hypothesis 2:** *Incumbents will be more likely to commit one-sided violence as conflict duration increases.*



## RESEARCH DESIGN

The data used in this analysis comes from the UCDP/PRIO Armed Conflict Dataset, version 4 (Harbom and Wallensteen 2009). The data encompasses 38 African civil wars ranging from 1991 to 2008. The unit of analysis is conflict-episode month, aggregating the number of deaths per month during a civil war. Civil wars are defined as instances in which a government faces at least one opposing faction, and all parties have suffered at least 25 battle-related deaths per year.

The dependent variables in the analysis measure the occurrence of civilian violence for incumbents and insurgents. Both variables are dichotomized, and simply coded “1” for instances in which noncombatants were intentionally killed in a particular month by a particular group, and “0” if no civilians were intentionally killed. It is important to keep in mind that the dependent variables only takes on two values because this analysis seeks to determine the occurrence of one-sided violence, not measure the level of violence. The theoretical arguments laid out in this analysis simply provide an explanation as to why belligerents may choose to harm noncombatants at certain points during conflict, not why the reasons for one-sided violence would impact the magnitude of violence committed against a civilian population.

This thesis makes no assumptions as to why the amount of noncombatants killed by a rebel organization would make civilians more or less willing to cooperate with an insurgency. Working under the position that one-sided violence alters a civilian’s preference to remain neutral in times of civil conflict (Lichbach 1995, 58), inflicting harm against a civilian population, to any degree, allows an insurgent organization to display its ability to willingly and

capably create security concerns for noncombatants. In these instances, insurgents construct an environment of fear, which can be used to their advantage (Wood 2010, 604). Thus, this thesis views the occurrence of violence as the more appropriate measurement for the dependent variable, not the raw number of one-sided violence fatalities in a given month of conflict.

In order for civilian violence to be observed, there must be intentional, one-sided violence from either an incumbent or insurgent group directed against noncombatants. Because the analysis measures insurgent and incumbent one-sided violence, there are two dependent variables, measuring each belligerent's use of civilian violence. The occurrence of rebel civilian victimization is measured by all rebel violence directed towards noncombatants during conflict. Likewise, incumbent use of noncombatant victimization is measured by all government violence that targets civilians in a conflict.

The previously mentioned hypotheses will be tested by means of a logistic regression, which is appropriate for the dichotomous nature of the dependent variables. The logit model allows for the prediction of the probability of the dependent variables, given the set of independent variables. Because the dependent variables only take on two values, "1" or "0", a logistic regression is an acceptable way to illustrate the relationship between the dependent variable and the set of independent variables.

## INDEPENDENT VARIABLES

*Episode Duration*, *Episode Duration Squared*, and *Episode Duration Cubed* – Episode duration accounts for the number of ongoing days during a conflict episode (Harbom and Wallensteen 2009). It is expected that as this variable increases, the occurrence of rebel one-sided violence will decrease. Conversely, as conflict drags on, the probability of the occurrence of government civilian victimization is expected to increase. *Episode Duration Squared* also is incorporated in the analysis as it is expected that the relationship between belligerents and one-sided violence is curvilinear. *Episode Duration Cubed* captures and enhances the expected curvilinear effects, allowing them to be observed.

*Regime Type* – Rummell (1995, 19-20) demonstrates that a state's political institutions can greatly impact its ability and willingness to target its own civilians. It is suggested that non-democracies are more likely to harm their own citizens, as autocracies and anocracies face fewer institutional checks that limit their power. When entangled in civil conflict, non-democracies may be more willing to target civilians without fearing political backlash from institutional restraints (Gates and Aydin 2008, 25).

In order to measure this, the Polity IV dataset is utilized to determine the regime authority of the states in which civil conflict is occurring. Polity IV encapsulates regime characteristics for all independent states with a total population of 500,000 or more, measuring regime authority on a scale of -10 to +10. States within the dataset are categorized into three categories – autocracies, anocracies, and democracies. States receiving a score ranging from -10 to -6 are considered

autocracies, countries having scores ranging from -5 to +5 are deemed as anocracies, and democratic states are those maintaining scores ranging from +6 to +10 (Marshall and Jaggers 2010).

Four variables will be created in order to test the impact of regime type, *Polity Score*, *Autocracy*, *Anocracy*, and *Democracy*. The *Polity Score* variable simply codes a country within the dataset with the proper score listed in the Polity IV data series. The remaining regime variables will be dichotomized, and countries will be coded according to their respective polity regime scores. Countries will be coded “1” if their polity score matches the criteria of one of the three regime types, and “0” if it does not (e.g. Somalia has a score of 0, meaning it will be coded “1” in the *Anocracy* variable, but “0” in the *Democracy* and *Autocracy* regime variables).

*Type of Conflict* – Fearon (2004, 277) suggests that civil conflicts emerging from a coup tend to be relatively short, when compared to conflicts with secessionist motives. If this is the case, the type of conflict may also influence the likelihood of either incumbent or insurgent groups to target civilians. It is expected that conflicts concerning government control are more likely to increase the probability of rebel violence towards civilians, as these conflicts tend to be shorter. Insurgents will be more likely to target civilians in the initial phases of conflict, in order to mount a credible threat against an incumbent. Territorial conflicts, on the other hand, are more likely to increase the probability that a government will target civilians, as these conflicts tend to be drawn out and long-lived. As conflict drags on, incumbents will find it difficult to defeat insurgents in instances of secessionist-driven combat without targeting civilian populations, as rebels will have partitioned themselves in the periphery of a state, drawing upon civilians for resources to continue fighting. *Type of Conflict* is simply dichotomized, indicating “1” for

territorial or secessionist conflicts, and “2” for conflicts concerning government control (Harbom and Wallensteen 2009).

*Number of Battle Deaths Sustained by either Warring Faction* – Downes and Cochran (2010, 26)

demonstrate that states will be more willing to target noncombatants believed to be aiding insurgents in an attempt to limit their own casualties. Additionally, Hultman (2007, 213) illustrates that rebels are likely to resort to tactics of terror when facing strategic setbacks. It is expected that when either an incumbent or insurgent group sustains a large amount of military casualties, the probability that both will choose to target civilians will increase. As resources become depleted, insurgents will likely target civilians to force cooperation and increase their supplies and number of recruits. Governments are also more likely to target civilians after suffering major military casualties, as civilian victimization is a cost-effective method of weakening insurgent support and aid. This measurement is divided into two separate variables (“Govt. Military Deaths” and “Rebel Military Deaths”), comprised of the number of battler-related deaths sustained by either a government or insurgent group in a month of ongoing conflict (Harbom and Wallensteen 2009).

*GDP* – The World Bank provides gross domestic product information<sup>1</sup> for the dataset, and figures are measured in billions of U.S. dollars (World Bank, 2012). Fearon and Laitin (2003, 75) demonstrate the poor economic performance is often one of the chief causes for the outbreak of civil conflict. With poorer countries having the highest risk of enduring civil conflict, it is expected that insurgents and incumbents in countries with lower GDPs will be more likely to

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<sup>1</sup> GDP figures were unavailable for Somalia. This is likely due to the fact that the country has lacked a central government, which controls a majority of the state. Thus, it is incredibly difficult to determine state figures.

employ the use of one-sided violence. Poorer incumbents will be driven to the use of one-sided violence as they lack the military and reconnaissance means to properly identify rebel supporters, targeting and harming a significant portion of a civilian population. Insurgents will force cooperation in times of economic instability as they lack ability to buy provisions, sustaining conflict efforts.

## FINDINGS

Four series of logit analyses were conducted in order to test the two hypotheses. First, a model was run for both incumbents and insurgents with the *Polity Score* variable, comprising Model 1 for each belligerent. Next, the various regime variables were tested in Models 2, with *Anocracies* serving as the baseline outcome. The first analysis pertains to *Hypothesis 1*, and Table 1 displays the results of the two logistic regressions, which demonstrate the likelihood of one-sided violence committed by insurgents in relation to the independent variables. The results presented in Table 2 pertain to the use of one-sided violence committed by incumbents in relation to the independent variables. Coefficients are listed in bold, with standard errors in parentheses. The asterisks next to the coefficients denote statistical significance.

As illustrated in Table 1, all of the duration variables reach statistical significance in the first model. However, in the Model 2, only *Episode Duration* reaches statistical significance. Furthermore, *Episode Duration* and *Episode Duration Squared* are positively and negatively signed, respectively, in both models. *Episode Duration Cubed* is also positively signed in each model. Even when looked at together (Brambor, Clark, and Golder 2006, 65), the duration coefficients provide little insight in determining the likelihood of insurgent one-sided violence throughout civil conflict, which is why this thesis will rely on predicted probabilities to determine the effect of the duration variables on one-sided violence.

Perhaps some of the most telling variables within each model are *Regime Type*, *Type of Conflict*, *Rebel Military Deaths*, and *GDP*, all of which reach considerable levels of statistical significance in all four models. Model 2 indicates that, when compared to anocratic states,

insurgents in autocracies and democracies are less likely to target noncombatants in civil conflict. In the case of autocracies, this finding is somewhat unexpected, as one might anticipate rebels would have to use force in order to gain cooperation from noncombatants under the rule of an autocratic leader. However, perhaps insurgent groups within autocratic states rely heavily on ideological appeals in order to distinguish themselves from an autocrat, generating public support.

Additionally, the type of conflict greatly impacts a rebel group's strategic choice to target noncombatants. As expected, relative to territorial conflicts, conflicts concerning government control are much more likely to yield one-sided violence from rebels, as demonstrated by both models. Furthermore, the significance of *Rebel Military Deaths* in each model strongly suggests that as insurgents sustain military losses, they are much more likely to harm civilians. This finding should come as no shock, as rebels are likely to force coercion amongst a civilian population when their capabilities are diminished.

Finally, *GDP* is positively signed and highly significant in both insurgent models. The logit results indicate that in countries with relatively high GDPs, rebel organizations are more likely to utilize the tactic of one-sided violence. This finding is somewhat surprising, as it was expected that provisions and monies are not easily attainable for rebel organizations, and are especially scarce in times of economic crisis. Thus, the easiest way for insurgents to attain these goods is through forced cooperation. However, perhaps insurgents are more likely to commit one-sided violence in relatively wealthy countries due to the capability disparity between an incumbent and rebel organization. Because wealthier incumbents are at such an advantage at the outset of civil conflict, it is even more imperative for insurgents to quickly garner resources, minimizing the capability gap.



Turning to Table 2, one can see the effects of the independent variables on the occurrence of incumbent one-sided violence. *Episode Duration* and *Episode Duration Squared* are statistically significant in addition to being positively and negative signed, respectively, in all models. *Episode Duration Cubed* is also significant and positively signed in each model. Much like in Table 1, however, when simply looking at coefficients of each of the duration variables, little can be determined about an incumbent's likelihood of committing one-sided violence. In order to have a more detailed illustration of a government's chances of perpetrating acts of violence against noncombatants, the predicted probabilities will be generated.

Similar to Table 1, *Regime Type*, *Government Military Deaths*, and *GDP* are telling predictors of one-sided violence. Compared to anocracies, autocracies are more willing to harm their citizens while democracies are far less likely to target noncombatants in civil conflicts. *Government Military Deaths* reaches the highest level of statistical significance in both models and is highly suggestive. The positively signed coefficients illustrate that, much like insurgents, as governments sustain losses of military personnel, they are more likely to target civilians.

Interestingly, the *Type of Conflict* variable is insignificant in the first model, but significant in Model 2. Model 2 indicates, relative to territorial conflicts, conflicts concerning government control are much less likely to yield one-sided violence from incumbents. Model 2 is consistent with the previous assumptions made regarding the impact of the type of conflict on the use of one-sided violence. Conflicts concerning the control of the government are typically much shorter than secessionist-driven conflicts; decreasing the likelihood an incumbent will harm its on citizens.

Lastly, the *GDP* variable in each model indicates that wealthier countries are more willing to harm their own citizens. Positively signed and highly significant in both models, the

variable points out that favorable economic performance often signals that countries will be more likely to employ the tactic of one-sided violence. This finding was also somewhat surprising, considering wealthier countries do not face the same military deficiencies that poorer states face, such as insufficient reconnaissance means to properly identify rebel supporters.

**Table 1**  
***Insurgent One-Sided Violence***

| <i>Independent Variables</i> | Model 1<br>(Polity Score)      | Model 2<br>(Regime Type)     |
|------------------------------|--------------------------------|------------------------------|
|                              | <i>Coefficients</i>            |                              |
| Episode Duration             | <b>0.02***</b><br>(0.005)      | <b>0.01***</b><br>(0.005)    |
| Episode Duration Squared     | <b>-0.0001***</b><br>(0.00005) | <b>-0.00008</b><br>(0.00006) |
| Episode Duration Cubed       | <b>3.19**</b><br>(1.34)        | <b>7.89</b><br>(1.57)        |
| Polity                       | <b>0.03*</b><br>(0.01)         | -----<br>-----               |
| Autocracy                    | -----                          | <b>-0.65***</b><br>(0.13)    |
| Democracy                    | -----                          | <b>-0.99***</b><br>(0.34)    |
| Type of Conflict             | <b>2.42***</b><br>(0.27)       | <b>2.45***</b><br>(0.25)     |
| Rebel Military Deaths        | <b>0.01***</b><br>(0.002)      | <b>0.007***</b><br>(0.002)   |
| Govt Military Deaths         | <b>0.0002</b><br>(0.0003)      | <b>0.0004</b><br>(0.004)     |
| GDP                          | <b>0.03***</b><br>(0.01)       | <b>0.03***</b><br>(0.006)    |
| Constant                     | <b>-6.28***</b>                | <b>-6.09***</b>              |

N = 2,134. Log Likelihoods: Model 1 = -1001.47, Model 2 = -987.69

\*p<.1, two-tailed. \*\*p<.05, two-tailed. \*\*\*p<.01, two-tailed.

**Table 2**  
***Incumbent One-Sided Violence***

| <i>Independent Variables</i> | Model 1<br>(Polity Score)     | Model 2<br>(Regime Type)       |
|------------------------------|-------------------------------|--------------------------------|
|                              | <i>Coefficients</i>           |                                |
| Episode Duration             | <b>0.02**</b><br>(0.006)      | <b>0.01**</b><br>(0.006)       |
| Episode Duration Squared     | <b>-0.0002**</b><br>(0.00006) | <b>-0.0002***</b><br>(0.00006) |
| Episode Duration Cubed       | <b>5.62**</b><br>(1.67)       | <b>5.12***</b><br>(1.76)       |
| Polity                       | <b>0.03*</b><br>(0.02)        | -----<br>-----                 |
| Autocracy                    | -----                         | <b>0.35**</b><br>(0.15)        |
| Democracy                    | -----                         | <b>-1.82***</b><br>(0.59)      |
| Type of Conflict             | <b>-0.01</b><br>(0.18)        | <b>-0.34**</b><br>(0.17)       |
| Rebel Military Deaths        | <b>0.0003</b><br>(0.001)      | <b>0.0003</b><br>(0.001)       |
| Govt Military Deaths         | <b>0.003***</b><br>(0.0007)   | <b>0.003***</b><br>(0.0007)    |
| GDP                          | <b>0.02***</b><br>(0.007)     | <b>0.02***</b><br>(0.006)      |
| Constant                     | <b>-2.17***</b>               | <b>-1.55***</b>                |

N = 2,134. Log Likelihoods: Model 1 = -889.54, Model 2 = -879.61

\*p<.1, two-tailed. \*\*p<.05, two-tailed. \*\*\*p<.01, two-tailed.

The results of the logit models appear to confirm many of the predictions laid out in the previous section. The use of one-sided violence by rebels and incumbents does vary across regime types. Compared to anocracies, insurgents in autocracies and democracies are less likely to target noncombatants in civil conflict. In the case of incumbent civilian victimization, autocracies are more willing to harm their citizens while democracies are far less likely to target noncombatants in civil conflicts, compared to anocracies. Finally, the models indicate relatively high GDP and increased military losses increase a rebel and an incumbent's likelihood of committing one-sided violence, regardless of regime type<sup>2</sup>.

While the logit results provide a hint as to how the likelihood of one-sided violence committed by belligerents can change over time, they do not offer an in-depth portrayal of how patterns of one-sided violence are dynamic in conflict. In order to demonstrate the likelihood of one-sided violence committed by belligerents at different phases of conflict, the Clarify Software is utilized (Tomz, Wittenberg, and King 2003). The software simulates quantities of interest from the logit model, assessing the change in probabilities for each outcome according to the varying time periods set.

First, the respective regressions utilized to produce Model 1 in Tables 1 and 2 were administered through the program, generating simulations for each parameter and producing the

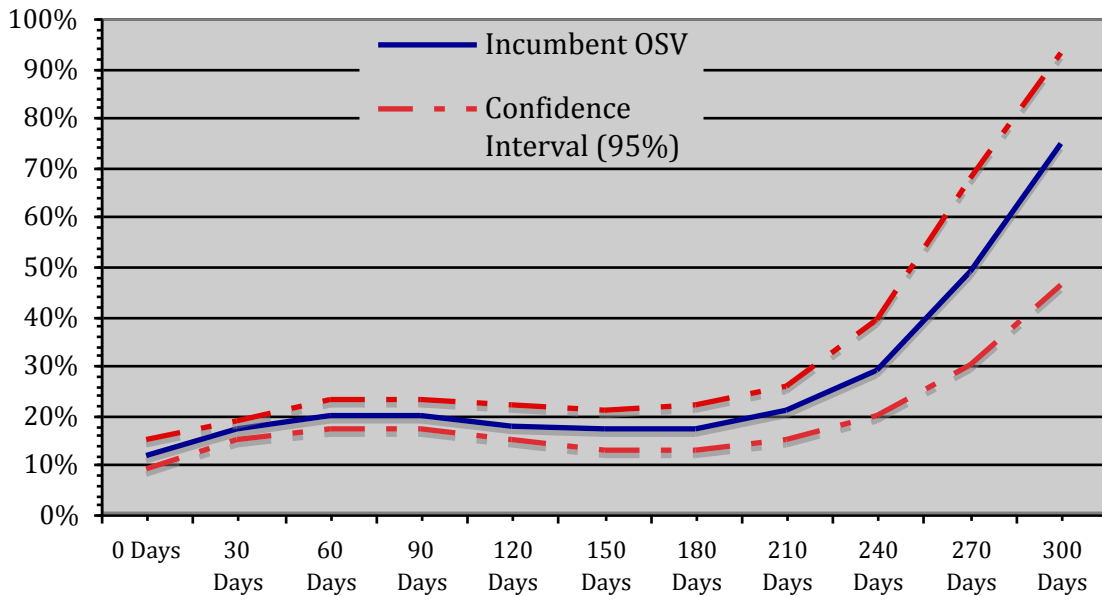
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<sup>2</sup> As noted earlier, the logit models used in this analysis only account for the occurrence of belligerent one-sided violence. The logit results are unable to determine increases or decreases in the rate of civilian victimization perpetrated by either belligerent. In order to determine if the likelihood of committing one-sided violence is consistent with the rate in which belligerents choose to harm civilians, a separate logit model was employed. Using the same regressions, a threshold was set only testing for the highest quartile of one-sided violence-related deaths in the data. By setting this threshold, the model can determine if the occurrence of one-sided violence and a high degree of one-sided violence possess similar effects. The models produced were consistent with those presented in this thesis for both incumbents and insurgents. Additionally, while the values were different, these models also produced patterns of one-sided violence similar to Figures 1 and 2 for both belligerents when generating predicted probabilities. In sum, regardless of testing for the occurrence or a high degree of one-sided violence, the effects and predicted probabilities produced are comparable.

same coefficients and Z-scores. Next, the *Episode Duration* variable was set to 0 days and increased in increments of 30, and the *Episode Duration Squared* and *Episode Duration Cubed* variables were set and increased accordingly. Additionally, the remaining independent variables were set to their mean, with the exception of *Type of Conflict*. The predicted probabilities do not break down the effects of regime type, as Models 2 in Tables 1 and 2 do. Rather, the results reflect the Polity scores administered in the *Polity* variable.

**Figure 1**

**Likelihood of Insurgent One-Sided Violence**



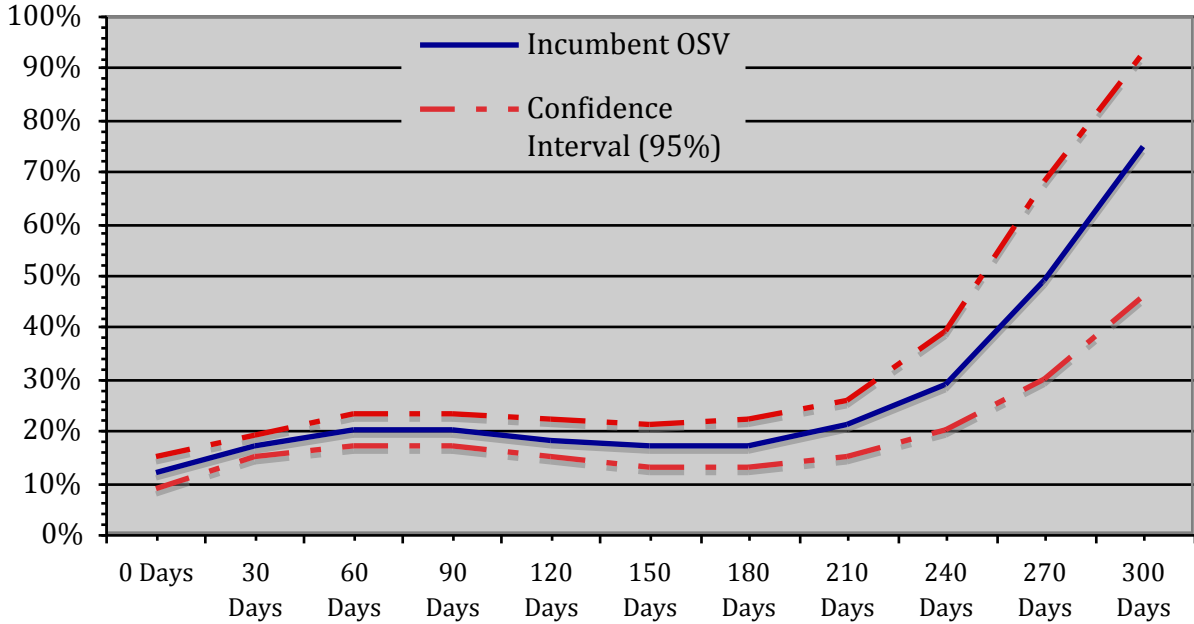
The results shown in Figures 1 and 2 provide an interesting addition to the findings of the logit models. As one can see, insurgents do appear to steadily increase their persecution of civilians within the first 3 months of conflict to a likelihood of 30 percent. However, after 3

months, the likelihood of rebel violence committed against noncombatants steadily decreases, lowering the likelihood of one-sided violence to 19 percent. Additionally, insurgents are slightly more likely to target noncombatants in the beginning stages of conflict, when compared to incumbents.

At the 3-month period, there is a 30 percent chance that insurgents will harm civilians, increasing from 15 percent at the outset of conflict. Within the first three months of conflict, an insurgent's likelihood of committing one-sided violence doubles. Yet, once conflict duration surpasses 3 months, the prospects for rebel civilian victimization gradually decline. The predicted probabilities confirm the first hypothesis, the likelihood of one-sided violence increases for insurgents in the initial months of conflict, only to decrease as combat drags on.

**Figure 2**

**Likelihood of Incumbent One-Sided Violence**



When looking at incumbent one-sided violence, in Figure 2, the predicted probabilities lend support to the second hypothesis. Initially, a government’s likelihood of harming noncombatants is lower than that of a rebel organization, at 12 percent. Yet, as conflict endures, the chances of an incumbent committing one-sided violence rapidly escalate. If the length of conflict approaches the 8-month mark, incumbents become far more willing to harm noncombatants. From the 8 to 10-month period of civil conflict, an incumbents chances of committing one-sided violence jumps from 29 percent to 75 percent. Additionally, as conflict duration approaches the 10-month mark, governments are 56 percent more likely than insurgents to harm noncombatants.



## DISCUSSION

The findings of the logit analyses lend credence to the theoretical arguments exhibited earlier in this thesis. The use of one-sided violence by belligerents is affected by the duration of conflict. The likelihood that an incumbent group will harm civilians increases as combat duration increases, while insurgents are less likely to target noncombatants the longer fighting continues. The literature concerning one-sided violence in civil conflicts often provides explanations as to why belligerents choose to harm noncombatants, yet the literature fails to account for when civilian victimization is likely to occur. The duration of conflict, as shown in this thesis, may be a useful tool when predicting one-sided violence.

Additionally, military losses by either an insurgent or incumbent group greatly increase the likelihood of civilian victimization. This finding should come as no surprise, considering rebels would be more likely to force cooperation once their military capabilities have been diminished. If insurgents find themselves in a disadvantageous position during conflict, due to the loss of combatants, rebels are left with no other option than to force civilians to provide them with recruits. Incumbents, on the other hand, are forced to harm civilians after military setbacks as noncombatants may be viewed as rebel supporters, and civilian victimization is a cheap method of weakening an opposition's strength while not risking further loss of military personnel.

Also, as expected, conflict type matters when predicting insurgent one-sided violence. When compared to territorial conflicts, conflicts concerning government control are much more likely to yield one-sided violence from rebels. Assuming Fearon (2004, 277) is correct, conflicts

pertaining to control of the government are shorter, providing little opportunity for the chances of incumbent one-sided violence to exceed that of rebels. Since these conflicts are shorter, we would expect insurgents to act quickly, in terms of forcing cooperation with noncombatants. Conflicts concerning government control rarely take place in the periphery of a state; thus, attrition strategies are not suitable for rebels in these instances. Insurgents must swiftly establish civilian resource bases throughout a state when attempting to topple a regime, as their window for success is much shorter when compared to conflicts of territorial autonomy.

The *Regime Type* variables were also consistent with much of the literature regarding the relationship between regime type and noncombatant repression. Looking back to Table 2, democratic states were found to be the regime type least willing to harm their citizens, while autocracies maintained a high probability of targeting their population in times of civil conflict, when compared to anocracies. The logit findings seem to support the conjectures put forth by Gates and Aydin (2008, 25), demonstrating that non-democracies are more willing to target civilians due to the few institutional checks the general population may exercise over an autocratic regime.

Regardless of regime type, favorable economic performance was shown to increase both insurgents and incumbents' likelihood of committing one-sided violence during civil conflict. This was perhaps the most surprising finding of the analysis, as it was unexpected that wealthier countries would be more likely to perpetrate acts of one-sided violence. Wealthier countries are likely stronger and more advanced in terms of military capability, allowing them to identify rebel supporters more effectively. Additionally, with a stronger military, wealthier countries should be able to defeat an insurgency without the use of one-sided violence.

Likewise, economic conditions also affect the decision calculus of rebel organizations. Prior to civil conflict, insurgents are typically at a capability disadvantage, struggling to pool the resources necessary for fighting. This weakness is likely exacerbated when facing a wealthy incumbent, as monies and provisions are not easily attainable. Insurgents will be more inclined to force cooperation when facing a wealthier incumbent because the capability disparity between an incumbent and an insurgent organization is so great. In these instances, it is even more imperative for insurgents to quickly garner resources, minimizing the capability gap.

Perhaps the most valuable aspect of the analyses conducted was the predicted probabilities that were produced. When looking back to Figures 1 and 2, one can truly envision the effects of conflict duration on one-sided violence. For insurgents, not only do the predicted probabilities illustrate a dynamic relationship between conflict duration and civilian victimization, they also provide statistical evidence to support the theoretical arguments laid out in this thesis. Insurgents possess a relatively low probability of harming noncombatants in the opening weeks of conflict. However, when conflict duration reaches the two-month mark, a rebel organization's chances of committing one-sided violence increase significantly. Yet, this probability does not consistently increase. After roughly 3 months, an insurgent's likelihood of harming the general population steadily declines.

This would seem to indicate that if rebel organizations were unable to appeal to noncombatants from an ideological perspective, they would turn to violence as a means of expanding their human resource base. Ethnic and ideological ties may have failed to yield the voluntary public support in which insurgent groups had hoped for at the outset of conflict, leaving rebels with no option other than the use of force as method of accruing the resources necessary for defeating an incumbent. However, insurgents do not continually commit acts of

violence against a civilian population. Over time, an insurgent's probability of committing one-sided violence gradually declines.

As referenced earlier, insurgents may choose to decrease their level of violence because they have grown in capability. Through civilian victimization, rebel organizations increase the ability in which they can defeat an incumbent regime. With increased capability and power, insurgents are more likely to see success on the battlefield, improving their prospects for victory and swaying noncombatant support in their favor. Once an insurgent group reaches a certain level of power, the prospects for one-sided violence decline, as it is no longer necessary. As rebel organizations increase in strength, they can provide noncombatants with positive incentives for collaboration, such as political freedoms and protection. Additionally, insurgent groups may become imposing enough to control a portion of the state. Once a rebel organization has established its command over a particular region, they may simply use the fear of one-sided violence to maintain authority over a civilian population.

Thus far, the explanations of the empirical findings assume that the likelihood of insurgent one-sided violence decreases after 3 months of conflict because rebel organizations have achieved some level of success through civilian victimization. However, the causes for the reduction of insurgent one-sided violence could also be attributed to the possibility that the strategy is counterproductive for rebel organizations. Essentially, insurgent groups may have increased their capabilities through means of civilian victimization, yet as the strategy was continually used, noncombatants refused to cooperate. Kalyvas (2004, 135) demonstrates that one-sided violence is a poor long-term strategy, as continued levels of violence against a civilian population can shift support of one party to another. If one were to believe this assumption, it would suggest that an insurgent's likelihood of one-sided violence does not decrease because

rebel organizations have grown in strength or influence. Rather, the likelihood decreases because insurgent groups can no longer increase in capability through civilian victimization.

If rebel organizations are unsuccessful in augmenting their strength through one-sided violence, they may continue to use the strategy for survival. While the tactic may not yield the resources or cooperation needed to defeat an incumbent, rebel organizations can always maintain their existence through violence. The Revolutionary United Front (RUF) terrorized areas of Sierra Leone, roaming from village to village, taking food and kidnapping children (Mkandawire 2002, 200). While the group received little support from the public and was feared by a majority of noncombatants, the group was able to sustain itself through one-sided violence. In these cases, noncombatants are unwilling to cooperate with insurgents; however, rebel organizations maintain a low level of one-sided violence for the purposes of survival.

The predicted probabilities also provide interesting theoretical inferences when observing an incumbent's likelihood of committing one-sided violence. As illustrated in Figure 1, the likelihood of incumbents committing one-sided violence steadily increases as conflict drags on. One reason for the use of this tactic is that a government may be facing an insurgent group that is difficult to defeat, forcing an incumbent to target civilian populations that are believed to be aiding rebel efforts.

Another possibility is that incumbent groups ignore the presence of insurgents because they are seen as relatively weak, or unable to pose a credible threat against the government. Yet, as insurgent groups increase in strength, incumbents realize the danger they can pose to the existence of a regime. Incumbents are then in a position of fighting against an insurgent force that is much stronger than when it was originally observed, and incumbents are faced with a more difficult task of defeating a capable oppositional force. In these instances, one of the more

effective ways in which incumbents can defeat an insurgent group is to harm the noncombatants that are believed to be sustaining oppositional efforts.

The most likely cause, however, for an incumbent's increased chances of targeting noncombatants is their lack of credible information. Regardless of the dynamics of a particular civil conflict, one can reasonably assume that incumbents harm numerous noncombatants because they are unable to identify those that are knowingly collaborating with insurgents, or the insurgents themselves. Governments likely believe that part of a civilian population may be aiding a rebel organization, however, they are unable to determine who is deliberately providing an insurgent group with food, shelter, etc. Additionally, once a government identifies a civilian population to be a source of support for insurgent efforts, an incumbent may assume that all noncombatants within the population are insurgent sympathizers. An example of this is the Indonesian National Revolution, where Dutch forces were unable to identify guerilla forces. Dutch troops, "though skilled at killing ... lacked the local knowledge and intelligence sources to act effectively against the guerillas" (Cribb 1991, 151). Misinformation likely increases an incumbent's chances of committing one-sided violence, as governments are unable to properly identify insurgent supporters<sup>3</sup>

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<sup>3</sup> Separate models were also conducted in order to determine if there are strategic considerations made by belligerents in their decision to commit one-sided violence, based on the actions of an opponent. Specifically, does a belligerent choose to avoid the use of one-sided violence if an opponent employs the tactic, in order to gain favor with the noncombatant population? Or, will a belligerent still commit one-sided violence even if their adversary has, as a form of retribution? By controlling for an opponent's use of one-sided violence, the model results indicate that if the belligerent's adversary commits one-sided violence, it increases the likelihood that the belligerent will as well. Thus, it appears belligerents target civilians as a mean of retribution, even if their opponent has harmed noncombatants.

## CONCLUSION

This paper has argued that, in civil conflicts, the probability of one-sided violence committed by belligerents varies according to the length of combat. Specifically, insurgents are more likely to harm noncombatants after the initial stages of conflict as a means of closing the capability disparity between an incumbent and establishing their influence in a particular region. Insurgents likely delay the excessive use of one-sided violence as they try to appeal to civilians from an ideological perspective, yielding voluntary support from a population. Incumbents, on the other hand, are believed to be more likely to target civilians as conflict drags on, based on the effectiveness of harming noncombatants as a means of weakening insurgent strength and lack of credible information.

As suggested by the statistical models and the predicted probabilities, the presented hypotheses were supported. The statistical results illustrate that insurgents increase their chances of committing one-sided violence within the first 3 months of conflict, then decrease the likelihood of victimizing noncombatants as fighting approaches the 10-month mark. Conversely, an incumbent's likelihood of targeting civilians rapidly increases once conflict reaches the 8-month period. Regime type, GDP, and military battle deaths were also shown to greatly impact whether either belligerent harmed civilians, and conflicts concerning government control were shown to increase the probability of rebels harming noncombatants.

The findings presented in this analysis are by no means to be taken as a benchmark in the study of civilian victimization; however, they do provide insight as to how conflict duration can affect one-sided violence. Further research must hash out what causes belligerents to increase

and decrease the likelihood of committing one-sided violence throughout civil conflicts. The theories presented in this thesis have attempted to explain why the likelihood of victimizing civilians is fluid, but they are far from definitive. Nevertheless, this analysis has shown that timing does matter, and conflict duration can shape patterns of one-sided violence.



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