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*A Theory of Indiscriminate Violence*

A DISSERTATION PRESENTED  
BY  
YURI MAXIMOVICH ZHUKOV  
TO  
THE DEPARTMENT OF GOVERNMENT

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS  
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## *A Theory of Indiscriminate Violence*

### ABSTRACT

This dissertation addresses a simple puzzle: why do governments use indiscriminate violence against civilians? To deter a population from rebelling, a government should make rebellion costlier than the alternatives. Yet indiscriminate violence can make neutrality costlier than rebellion. With the help of mathematical modeling, archival data and micro-comparative evidence from dozens of armed conflicts, I show that indiscriminate violence makes civilians less likely to remain neutral, but not necessarily more likely to support the opponent. There is a threshold level of violence, beyond which it can become safer for civilians to cooperate with the more indiscriminate side. As long as civilians believe that supporting the rebels will be costlier than supporting the government, they will generally support or not actively resist the government – even if the government is responsible for more civilian deaths overall. The amount of violence needed to meet this threshold depends on the combatants' relative informational endowments. If a combatant can selectively punish her opponents, she can employ a relatively low level of violence. Where she lacks the information for selective punishment, she will use methods more indiscriminate in targeting and more massive in scale. Violence is a substitute for intelligence.

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*The absolute fundamental prerequisite of countering an insurgency is to either control the population, or to earn their support.*

Colonel Peter Mansoor, U.S. Army (Ret.)  
Executive Officer to Commander, MNF-Iraq, 2007-08

# 1

## Introduction

On April 19, 2013, U.S. law enforcement agencies launched a manhunt for Dzhokhar Tsarnaev, a suspect in the Boston Marathon bombings. When a resident of Watertown, Massachusetts spotted a wounded man hiding in his boat that evening, he quickly notified the police. The authorities surrounded the boat, let loose a 12-second barrage of gunfire, and apprehended Tsarnaev.<sup>1</sup> No one apart from the suspect was harmed in the incident, and the boat's owner promptly received compensation for property damage.

The same week in Dagestan – the North Caucasus republic where Tsarnaev spent his childhood – Russian security services conducted their own search for suspected Islamist militants in the village of Gimry. In contrast to the tips and active support U.S. authorities received in Watertown, Gimry's residents greeted government forces with wariness and obstruction. One journalist observed, "In

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<sup>1</sup>Gagen (2013)

the North Caucasus, if someone sees a terrorist hiding in their backyard, no one will rush to call [the police]. Not because he sympathizes with the terrorist, but because other terrorists might come by later and kill him.”<sup>2</sup> During the course of the operation – in which three insurgents were killed – authorities established a blockade of the village, evacuated 300 residents, subjected the surrounding area to air strikes and artillery shelling, conducted a house-to-house search, destroyed 11 residential buildings and inflicted heavy damage on another 43. In subsequent days, Gimry’s residents – many of them now homeless – filed 420 complaints over destruction of property.<sup>3</sup>

Why would a political actor devastate a village to find three rebels? To deter a population from rebelling, a government should make rebellion costlier than the alternatives. Yet by hurting non-combatants more than rebels, a government makes neutrality costlier than rebellion. The indiscriminate violence in Gimry seems to punish the wrong kind of behavior.

This dissertation advances and tests a new theory of indiscriminate violence. With the help of mathematical modeling, archival data and micro-comparative evidence from dozens of armed conflicts, I show that indiscriminate violence makes civilians less likely to remain neutral, but not necessarily more likely to support the opponent. There is a threshold level of violence, beyond which it can become safer for civilians to cooperate with the more indiscriminate side. As long as civilians believe that supporting the rebels will be costlier than supporting the government, they will generally support the government – even if that side is responsible for more civilian suffering overall.

The existence of this threshold creates incentives for escalation on both sides. But these incentives are strongest for the combatant with an informational disadvantage. If a combatant has the information to selectively punish her opponents, she can reach the threshold with a relatively low level of violence. Where such information is unavailable – and fewer bullets hit the right targets – more violence is needed to achieve the same effect. Violence is a substitute for intelligence.

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<sup>2</sup>Latynina (2013).

<sup>3</sup>Kadzhieva (2013).

This research contributes to the literature in several ways. First, I offer an explanation of indiscriminate violence that challenges dominant perspectives. Whereas Kalyvas (2006, 167) expects indiscriminate violence to only occur in equilibrium where the opponent is too weak to protect the population, I find that a combatant's violence will be most indiscriminate and most intense where her opponent is in the stronger coercive position. In contrast to arguments that random targeting drives unaligned civilians to support the opposition (Mason and Krane, 1989), I find that "backlash mobilization" has limits, and – if used on a massive scale – indiscriminate force can still deter or prevent civilians from rebelling. These findings question the conventional view of indiscriminate violence as generally counterproductive (Arreguin-Toft, 2001, Condra and Shapiro, 2012, Kalyvas, 1999, Mason, 1996). I also explain why these measures often do not work: it can take an exceedingly large amount of effort (and a general lack of normative constraints) to defeat an opponent with such a blunt instrument.

Second, I argue that an important dimension of indiscriminate violence has gone overlooked: it is not always coercive. We tend to think of violence in war as a coercive effort to "shape the behavior of a targeted audience by altering the expected value of a particular action" (Kalyvas, 2006, 26). Yet much of the violence we observe operates not by punishing bad behavior, but by restricting choice. Measures like mass population resettlement are generally ineffective at reducing motivations for rebellion – they harm principally noncombatants, causing widespread suffering and resentment. Scholars often see such measures as "exterminationist" and off-the-equilibrium-path, unless the perpetrator has no intent to govern the population (Levene, 2005, Mann, 2005, Sémelin, 2009). I disagree, and show that combatants may use these methods not to coerce or annihilate, but as "brute force" efforts to deny rebel resources and prevent mobilization.

Third, this dissertation offers one of the most detailed empirical examinations of indiscriminate violence yet fielded in the literature. To keep an analytical focus on local sources of variation (i.e. "why certain actions occurred in village A but not village B"), while accounting for a host of cross-national differences, I examine district-week level patterns of violence in 80 armed conflicts from 1979 to 2013. I

supplement this cross-national analysis with an in-depth study of four conflicts in Russia and Ukraine, using micro-level data from Soviet secret police archives and electronic sources.<sup>4</sup> I focus on Russia and the Soviet Union for two reasons: more civilians were killed there than in any other political entity during the 20th Century, and new data opportunities permit a rigorous empirical investigation into why these deaths occurred in some places, but not in others. My data contribution – the first of its kind for an autocratic state – includes over 70,000 declassified incident reports on uprisings in the Caucasus and Eastern Europe, from 1919 to the present day, representing the real-time information on which Soviet and Russian commanders based their policing decisions.

### 1.1 COMPETING PERSPECTIVES ON INDISCRIMINATE VIOLENCE

An ongoing debate among scholars of civil war, rebellion and international security has centered around the relative efficacy of two technologies of violence: (1) selective violence, where combatants choose targets on the basis of individual action and attributes, and (2) indiscriminate violence, where combatants select targets on the basis of some collective criterion, like location or ethnicity.

A dominant view among social scientists and practitioners is that indiscriminate violence is counterproductive, because it decouples the probability of punishment from a target's actions. A second school of thought disagrees, noting that indiscriminate violence can disrupt an opponent's ability to mobilize and organize military activity. I will refer to these two perspectives as the *inflammatory* and *suppressive* models of indiscriminate violence.

The motivating puzzle for both schools of thought is that indiscriminate violence often produces the opposite of its intended effect, escalating a conflict rather than compelling the opponent to stop fighting. Such tactics seem to violate the basic logic of coercion: if a target cannot avoid punishment by changing her behav-

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<sup>4</sup>Replication data for this volume are available through the author's Dataverse (<http://thedata.harvard.edu/dvn/dv/zhukov>), and the Harvard Government Department Dataverse (<http://thedata.harvard.edu/dvn/dv/GovDept>), Study Global Id: doi:10.7910/DVN/25790.

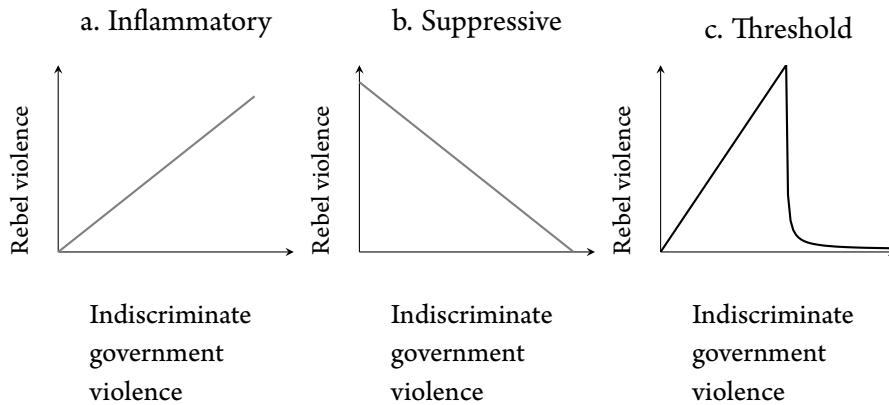
ior, she has little incentive to comply with the punisher's demands. In the context of an irregular armed conflict, cooperation with combatants is inherently dangerous. Combatants deter civilians from cooperating with their opponents by making that cooperation as costly as possible – punishing informants and warning future collaborators. When punishment is indiscriminate, this deterrent loses its force. Staying neutral no longer guarantees safety, and civilians face pressures to cooperate with whichever side can credibly protect them. Rather than suppress violence, indiscriminate force brings previously passive actors into the fight.

The locus of the debate hangs on how these new recruits tend to behave: do they oppose or support the indiscriminate side? An underlying assumption of the inflammatory school is that rational civilians should oppose the side that inflicts the most harm. The suppressive school, by contrast, assumes that a population can be terrorized into submission. This behavior is highly consequential for strategic choice. If the use of indiscriminate violence drives civilians into the arms of the enemy, the inflammatory view will blame this result on *too much* violence, and the suppressive school will blame it on *too little*.

The inflammatory and suppressive views are both rooted in the logic of collective action. Both assume that (1) individuals are security-seeking, rational actors, (2) participation in armed conflict is individually costly, and (3) combatants secure individuals' cooperation through selective incentives: punishing opponents and protecting supporters. Further, both agree that this coercive leverage declines when incentives are no longer selective and the innocent are punished along with the guilty. The main disagreement is whether combatants may overcome this inefficiency by escalating or de-escalating their use of force.

My *threshold* model of indiscriminate violence (Figure 1.1.1) attempts to reconcile the two schools of thought. It posits that indiscriminate violence can both inflame and suppress. If a combatant escalates violence past the point where civilians lose confidence in the opponent's ability to protect them, the effect will be suppressive. If she does not or cannot escalate to this point, her violence will be inflammatory. A Soviet secret police officer explained this reasoning succinctly,

**Figure 1.1.1:** THREE MODELS OF INDISCRIMINATE VIOLENCE. The inflammatory model holds that an increase in indiscriminate government violence leads to an increase in rebel violence; the suppressive model expects a decrease in rebel violence; the threshold model holds that the relationship is non-monotonic, with indiscriminate government violence having an inflammatory effect at lower levels of intensity, but a suppressive effect at higher levels.



“We need to ensure... that the peasants are more afraid of us than they are of the bandits.”<sup>5</sup> To have a coercive impact, indiscriminate violence must be used on a massive scale.

As I show formally and in a series of empirical tests, information-scarce environments require a threshold level of violence that exceeds what most combatants are capable and willing to generate. As a result, we rarely observe “successful” cases of indiscriminate coercion. What we observe instead are “successful” cases of indiscriminate brute force – where violence limits opportunities for rebellion without necessarily affecting the motivations. If coercion derives its suppressive effect from behavioral changes on the part of civilians, brute force simply restricts the range of options available to civilians – by confiscating their weapons, limiting their mobility, resettling them to other areas, or otherwise isolating them from rebels. Because such measures require little knowledge about the enemy to be effective, governments will be most inclined to use them where intelligence is in short supply.

<sup>5</sup>State Archive of Lviv Oblast (DALO), Fond. 5001, Op. 6, Spr. 53, Ark. 132-134



### 1.1.1 THE INFLAMMATORY VIEW

The central claim of the inflammatory view is that indiscriminate violence alleviates the opposition's collective action problems. Participation in armed conflict is individually costly, and any collective benefits received from victory are uncertain and distributed in the future (Lichbach, 1998). Absent selective incentives for direct participants of the costly activity (Olson, 1965, Popkin, 1979, Tullock, 1971), rational civilians can be expected to abstain from participation and "free ride" on the actions of others.<sup>6</sup>

Kalyvas and Kocher (2007) note that the central implication of public goods models – that rational civilians will prefer sitting on the fence to fighting – rests on the assumption that non-participation is costless. For this to be true, punishment would need to be imposed selectively on those who actively provide support to combatants, with the passive members of the population left unharmed. Such a scenario may be plausible where the monitoring and surveillance capacity of the specialist in violence is sufficiently pervasive to identify all political opponents without error and impose punishment in a targeted manner. In an irregular war, however, combatants tend to hide among the civilian population in a conscious effort to avoid punishment. Coercive efforts require information about who the enemy is. Where such information is lacking, the resulting violence will be indiscriminate, hurting civilians as well as combatants. In such environments, "free riding" is no longer free and participation can potentially minimize the expected costs of war.

In the civil war literature, the most influential recent proponent of the inflammatory perspective is Kalyvas (2006, 151), who writes that "indiscriminate violence is at best ineffective and at worst counterproductive." When violence is indiscriminate, "compliance guarantees no security [and] joining the opponent can actually increase the probability of individual survival" (Kalyvas, 1999, 251). The arbitrary, inconsistent and disproportionate nature of indiscriminate violence "fails to gen-

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<sup>6</sup>Such incentives may be material (Azam and Hoeffler 2002, Gates 2002, Grossman 1991, 1999, but see Oliver 1993) or non-pecuniary rewards based on group identification and social norms (Weinstein, 2007).

erate a clear structure of incentives for non-collaboration with [the opponent]” (Kalyvas, 2006, 154). Selective violence, by contrast, “personalizes threats and endows them with credibility, for if people are targeted on the basis of their actions, then refraining from such actions guarantees safety” (Kalyvas, 2004, 105).

The argument that indiscriminate violence solves an opponent’s collective action problem is not new. The inflammatory view has long been a conventional wisdom among scholars of civil war and insurgency. In their classic study of insurgency and counterinsurgency in Vietnam, Leites and Wolff, Jr. (1970, 101-102) observe that

A side choosing coercion may genuinely want to convince its targets that it knows how to pick out all the guilty ones and only them, even when they are in close collocation with innocents... The less complete the enforcement of a rule, by incapacity or discrimination, the lower the compliance.

Skepticism of indiscriminate violence as a coercive pathway is a central theme of the “population-centric” school of counterinsurgency policy research, as exemplified by Galula (1964), Kitson (1971), Nagl (2002), Smith (2007), Thompson (1966) and Kilcullen (2009). This view is widespread among policy practitioners in the United States, and is embedded in counterinsurgency doctrine (Field Manual No. 3-24). As commander of U.S. and NATO forces in Afghanistan, General Stanley R. McChrystal (ret.) issued strict directives to avoid civilian casualties, citing “insurgent math” – the rule of thumb, that “for every innocent person you kill, you create ten new enemies” (Hastings, 2010).

The idea that physical insecurity can lead to increased participation is central to the phenomenon Kilcullen (2009, 40) – a former advisor to General David Petraeus in Iraq – calls the “accidental guerrilla,” where the dynamics of local violence, rather than any a priori preference for the rebel or incumbent, draw members of the civilian population into the fight. “When the battle was right there in front of them,” Kilcullen asks, “how could they not join in?”

The inflammatory perspective is similarly dominant among social scientists study-

ing civil war and terrorism (Abrahms, 2006, Arreguin-Toft, 2001, 2003, Carr, 2002, Findley and Young, 2007, Heath et al., 2000, Mason, 1996), many of whom base their theoretical claims on the same coercive logic cited by practitioners:

If applied imperfectly, [coercive strategies] can increase the level of nonelite support for the rebels and shift preferences in favor of the rebels... The problem [government forces] face is that of distinguishing the guerrilla irregular (and his/her active supporters) from the uninvolved peasant (Mason, 1996, 79-80).

Recent empirical work has lent support to the inflammatory perspective. On the macro level, Lyall and Wilson (2009) attribute the declining success rate of counterinsurgents over the last two centuries to the increased prevalence of mechanized units – which limit an army’s ability to collect local intelligence and target insurgents selectively. Elsewhere, in a matched study of Russian-led and Chechen-led counterinsurgency sweep operations in Chechnya, Lyall (2010, 14) finds raids by co-ethnics to be far more successful, in part because “Chechens soldiers are much more selective in their efforts.” In their study of micro-level patterns of violence in Iraq, Condra and Shapiro (2012, 167) find that both rebels and the government are punished for the collateral damage they inflict: “Coalition killings of civilians predict higher levels of insurgent violence and insurgent killings predict less violence in subsequent periods.” Kocher et al. (2011, 2) uncover similar dynamics using village-level data on aerial bombardment in Vietnam: “Higher frequencies of bombing correspond unambiguously to higher levels of downstream control by the Viet Cong.”

These findings are consistent with earlier research on strategic bombing in irregular and interstate wars. Pape (1996, 177-194), for instance, attributes the failure of Operation Rolling Thunder in 1965-1968 to North Vietnam’s low vulnerability to some coercion strategies, a view echoed by Horowitz and Reiter (2001, 163):

Targets whose military assets are vulnerable to aerial attack are more likely to submit to a coercer’s demands, whereas the vulnerability of

a target's civilian assets to aerial attack has no effect on the likelihood that it will submit.

More generally, Pape (1996, 21) finds hardly any strategic bombing cases in which punishment – a coercive strategy to persuade an enemy to take (or refrain from taking) some action by inflicting pain on civilians – succeeded in extracting major concessions. Industrial economies can use substitution, stockpiling, and the shifting of low-level military assets to soften the economic blow of coercive bombardment. Punishment is more likely to provoke resentment against the attacker, producing a rally-round-the-flag effect.

Support for the inflammatory view extends beyond the security studies literature. A sizable body of research on protest cycles and political dissent has argued that state repression can amplify incentives for participation in opposition movements. Lichbach (1987) and Mason and Krane (1989) argue that individuals may join a rebellion in pursuit of security from victimization at the hands of the state. Petersen (2002) attributes this inflammatory effect to emotional responses to state violence. Murdie and Bhasin (2011) argue that repressive states are more likely to attract the attention of international NGO's, increasing external support for protestors and rebellions. Francisco (2004) notes that repression can produce a violent backlash if information about state coercion can be easily disseminated. Saxton and Benson (2008) also find that heavy policing makes protestors more likely to escalate to violence. Fox (2004) finds that the effect of repression varies by target, but more widespread repression generally increases the risk of future conflict. Work by Lichbach and Gurr (1981), Ziegenhagen (1986) and Francisco (1996) has produced additional support for a positive relationship between repression and dissent.

#### 1.1.2 THE SUPPRESSIVE VIEW

A competing perspective holds that the escalation of coercive force – even if indiscriminate – can be an effective tool of deterrence and pacification. The suppressive view of indiscriminate violence shares the premise that individual safety

is the driving mechanism behind decisions to abstain or participate in armed conflict. The disagreement is over how escalation affects the “free rider” problem for unaffiliated individuals. While the inflammatory school assumes that indiscriminate force increases the value of protection offered by the other side, the suppressive school maintains that it remains safer to abstain from participation (Tullock, 1971). In this line of reasoning, indiscriminate force increases the absolute costs of both neutrality and participation, but relative costs continue to favor neutrality. If an individual’s objective is to seek the highest level of personal security that her existing options permit, non-participation remains her safest bet.

Another variant of the suppressive view goes a step further, suggesting that sufficient quantities of coercive force not only deter support for a rival, but can actually compel cooperation with the perpetrator. Coercion is essential to the extraction of resources necessary for state-building (Tilly, 1985). Tilly (1978, 7.29) argues that an increase in government revenue (e.g. increased taxation, military conscription, commandeering of property) can be realized in only one of two ways: “greatly increasing the coercion applied to the more vulnerable segments of the population in order to bring up the yield of resources for reallocation [or] breaking commitments where that will incite the least dangerous opposition.” As Luttwak (2007) notes, “as soon as the state’s coercive power is disrupted, the populace ceases to obey it.”

The suppressive view has found support among some repression scholars (e.g. Hibbs 1973). Langer (1969, 321-322) contends that the European revolutions of 1848 could have been prevented had governments not bungled their repression of various popular movements. Weyland (2009, 398, 400) and Weyland (2010, 1158) argue that the use and threat of repression can deter challengers, particularly if the state is perceived to be strong. Beissinger (2007) also expects mobilization difficulties in repressive states. On a cross-national level, Weidmann (2009) and Braithwaite (2010, 314) argue that a state’s ability to deploy coercive force and secure borders can prevent the diffusion of civil conflict.

A small, but influential strain of counterinsurgency scholarship echoes this perspective. The strategic thinker perhaps most commonly associated with the sup-

pressive school is Trinquier (1961, 8-9), who discounts the whims of popular support, and insists that “Victory will be obtained only through the complete destruction of [the insurgency’s political and military] organization.” Along these lines, Merom (2003, 2004) attributes the roots of counterinsurgency failure – particularly among democracies – to an unwillingness to escalate military activity. In his study of the Guatemalan civil war, Stoll (1993) cites indiscriminate reprisals by the military against peasants in rebel strongholds as key contributors to counterinsurgency success. In a spirited critique of the U.S. Army’s Counterinsurgency Field Manual, Peters (2007) writes

Over the past 3,000 years, insurgencies overwhelmingly have been put down thoroughly by killing insurgents... insurgencies and insurrections have been defeated only with military force, from the Whiskey Rebellion, through a long succession of Indian wars, our Civil War, the Boxer Rebellion, the Moro insurrection, any number of “banana wars” and right down to the 2001 destruction of the Taliban regime.

On the quantitative side, Lyall (2009) finds that indiscriminate artillery bombardment in Chechnya caused a significant decrease in rebel activity over time, compared to similar villages that were not shelled. In explaining this phenomenon, Lyall (2009, 336-37) argues that “widespread indiscriminate violence creates enormous logistical problems for insurgencies... erode rebel resources [and] undermine an insurgent organization’s military effectiveness by driving a wedge between locals and insurgents.”

In a similar vein, Downes (2008) finds that “eliminationist” civilian victimization can be effective as an interdiction strategy, severing contact between the insurgents and civilians. Drawing on evidence from the Boer Wars, Downes writes,

When the population from which the guerrillas draw support is relatively small, the land area in which the insurgents operate is similarly constricted, and external sanctuary and supply is not available, governments have been able to strangle rebel movements with indiscriminate violence. In these circumstances, it is possible to sever

completely the insurgents' ability to receive supplies and information from the population, rendering the guerrillas incapable of continuing the war (Downes, 2007a, 440).

Downes and Cochran (2010, 12) echo this morbid assessment with the following insight: "killing the population (or otherwise eliminating it) in a contested area prevents either the other side (in conventional wars) or rebels (in civil wars) from recruiting new participants or obtaining logistical support from the residents of that territory." Valentino (2004, 66) agrees: "mass killing occurs when powerful groups come to believe it is the best available means to accomplish certain radical goals, counter specific types of threats, or solve difficult military problems."

## 1.2 COERCION AND BRUTE FORCE

If both sides of the debate are grounded in the same collective action paradigm, why do they yield such different predictions? The inflammatory and suppressive schools, after all, make the same assumptions about individual rationality, incentives to free-ride, and the promise of selective incentives. Their disagreement regards what happens when these incentives – specifically, punishment – are no longer selective, and whether combatants can overcome the resulting inefficiency by escalating force. Here, the suppressive school is far more optimistic.

At the root of the suppressive school's optimism, however, is a tacit departure from coercive logic. The destruction of an opponent's political and military organization – as Trinquier (1961) and his intellectual successors contend (Luttwak, 2007, Merom, 2003, Peters, 2007) – can be achieved by attrition alone, with little or no reference to civilian preferences or incentives. Trinquier (1961, 59,64) writes that "the destruction of the enemy's potential for warfare" can be accomplished by "cut[ting] the guerrilla off from the population that sustains him." In the explanations offered by Downes and Cochran (2010), Downes (2007a, 2008) and Lyall (2009), indiscriminate force becomes an instrument of interdiction rather than deterrence. Artillery shelling and mass killing "work," according to these accounts, by simply separating rebels from their potential supporters, not by chang-

ing the supporters' minds.

This is a strictly supply-side argument: if opportunity for rebellion is minimized, motivation to rebel – the benefits of protection, or the costs of non-rebellion – becomes irrelevant. Violence ceases to be a selective incentive – or an incentive of any sort. Violence becomes brute force.

The conceptual distinction between coercion and brute force was most famously articulated by Schelling (1966, 4-5). In the first instance, one threatens to inflict pain on the target if it does not take action, thereby giving the target the choice of acting. In the second instance, one physically forces the target to take the action, denying the target any choice in the matter. In simple terms, brute force is taking what you want, coercion is making someone give it you. Schelling explains,

To hunt down Comanches and to exterminate them was brute force; to raid their villages to make them behave was coercive diplomacy, based on the power to hurt... If Indians were killed because they were in the way, or somebody wanted their land, or the authorities despaired of making them behave and could not confine them and decided to exterminate them, that was pure unilateral force. If *some* Indians were killed to make *other* Indians behave, that was coercive violence – or intended to be, whether or not it was effective (Schelling, 1966, 5).

Variations on this distinction are common in the security studies literature. Arreguin-Toft (2001, 100-102) distinguishes between direct attack, or “the use of the military to capture or eliminate an adversary’s armed forces, destroying the adversary’s capacity to resist,” and an indirect approach, which targets an enemy’s will to fight. Mueller (2001) draws a similar distinction between brute force destruction, which includes efforts to “remove the capability to take some action that the attacker does not like, but... is indifferent to the enemy’s will,” and two variants of strategic coercion: punishment, which seeks to “change the adversary’s policy choice without affecting its abilities,” and denial, which “involves changing the enemy’s behavior by making the undesired course of action appear pointless.” He elaborates,



Denial has much in common with destruction: both seek to make the enemy's objectives unachievable in some sense, and usually focus on attacking military forces or the resources and infrastructure that support them. However, denial is coercive, for it is directed against the adversary's beliefs about the future, and it calls upon the adversary to make a policy choice (Mueller, 2001).

The conceptual similarity of brute force and denial is also evident in the definition provided by Horowitz and Reiter (2001, 150-52), who see denial actions – in the context of strategic bombing – as primarily counterforce efforts “aimed at disrupting the military capabilities of the defender.” Countermilitary targeting, however, can be coercive if it “involves persuading an opponent to stop an ongoing action or to start a new course of action by changing its calculations of costs and benefit” (Pape, 1996, 12). Byman and Waxman (2000, 9) and Horowitz and Reiter (2001, 149) agree: countermilitary targeting is coercive as long as it does not utterly destroy the target's ability to resist, and hence leaves some room for agency.

Some 130 years before Schelling, Clausewitz (1832/1984, 77) distinguished between the use and threat of disarmament in terms strikingly similar to contemporary discourse on brute force and coercion:

If the enemy is to be coerced you must put him in a situation that is even more unpleasant than the sacrifice you call on him to make... The worst of all conditions in which a belligerent can find himself is to be utterly defenseless. Consequently, if you are to force the enemy, by making war on him, to do your bidding, you must either make him literally defenseless or at least put him in a position that makes this danger probable.

Coercion, as Pape (1996, 12) observes, lies less in the intent of the coercer, as in the nature of decisions available to the target. Coercion implies the existence of bargaining space, where “the ability of one participant to gain his ends is dependent to an important degree on the choices or decisions that the other participant will make” (Schelling, 1980, 5). Brute force, meanwhile, implies a situation where

“military action [is] seen as an *alternative* to bargaining, not a *process* of bargaining” (Schelling, 1966, 16).

In this sense, the situation described by the suppressive school appears to leave little room for bargaining. The overwhelming use of indiscriminate force does not compel rebels to make concessions. It separates insurgents from their base of support, thereby rendering the former incapable of organizing and executing further military operations. Such strategies do not rule out coercion if they can achieve their aims by merely demonstrating the attacker’s ability to render the opponent impotent. It is not clear, however, how the type of indiscriminate violence cited by the suppressive school can possibly meet Schelling (1966, 2,4)’s criteria for coercive success:

To be coercive, violence has to be anticipated. And it has to be avoidable by accommodation. The power to hurt is bargaining power... The pain and suffering have to appear *contingent* on [the target’s] behavior... Coercion requires finding a bargain, arranging for [the target] to be better off doing what we want – worse off not doing what we want – when he takes the threatened penalty into account.

Taking Lyall (2009) as an example, the Russian army’s random artillery shelling of Chechen villages is – by definition – neither anticipated nor avoidable by accommodation. Insofar as a coercive intent existed in Russian military planning, any reduction in rebel activity would be difficult to attribute to coercive success. As Pape (1996, 15) writes, “if a coercive attempt is made but the war ends only when one side is decisively defeated, then coercion has failed, even if the coercer wins the war.” In the Chechen case, what Lyall seems to find is both counterinsurgency success and coercion failure.

Brute force lies outside the scope of leading theories of civil war. Kalyvas (2006, 26) limits his focus to coercive violence “intended to shape the behavior of a targeted audience by altering the expected value of particular actions.” Brute force actions like mass deportation, ethnic cleansing, and “physical destruction” are seen as non-instrumental (i.e. hurting the target is an end in and of itself), and likely

to be used only where the political actor does not intend to govern the targeted population.

The distinction between violence-as-coercion and violence-as-brute-force has implications beyond counterinsurgency and civil war. The extensive literature on state repression, for instance, has almost entirely avoided such a differentiation, ascribing a coercive intent to a broad variety of selective and indiscriminate actions. As defined by Davenport (2007a, 2),

Repression involves the actual or threatened use of physical sanctions against an individual or organization, within the territorial jurisdiction of the state, for the purpose of *imposing a cost* on the target as well as *detering specific activities and/or beliefs* perceived to be challenging to government personnel, practices or institutions. [emphasis added]

The types of state repression to which this coercive label applies ranges from genocide and mass killing (Harff, 2003, Krain, 1997) to torture (Hathaway, 2002), civil liberties restrictions (Davenport, 1995, King, 1998), personal integrity violations (Poe and Tate, 1994, Zanger, 2000), and various combinations thereof (Davenport, 2004). While a coercive intent is not inconceivable for some of these categories, it is doubtful that the targets of repression always face a meaningful choice between compliance and non-compliance with state demands, particularly on the more extreme end of the intensity scale.

The non-coercive nature of much indiscriminate violence is no less consequential for the now-dominant view of war – its initiation, prosecution and termination – as a bargaining process. The bargaining literature is motivated by the puzzle that war is *ex post* inefficient, and should be avoidable under complete information (Blainey, 1973, Fearon, 1995). As such, all bargaining models start with the premise that “exercising brute force to accomplish limited aims is generally misguided [since] if both sides knew that the attacker could conquer a small piece of territory, then they would peacefully exchange the territory rather than fight” (Reiter, 2003, 31). This literature has produced two interrelated “waves” of theoretical

work. The first focuses on the prewar choice between a military contest and a negotiated settlement, and treats war as a game-ending costly lottery (Blainey, 1973, Fearon, 1995, Gartzke, 1999, Leventoglu and Tarar, 2008, Powell, 1996, 1999). The second wave sees war as a costly process rather than a lottery, and models fighting as a continuation of bargaining by other means (Fearon, 2007, Filson and Werner, 2002, Langlois and Langlois, 2009, Powell, 2004c, 2012, Slantchev, 2003b, Smith and Stam, 2004, Wagner, 2000).<sup>7</sup> Since the outcome of the costly lottery reflects the underlying balance of power, the first wave effectively treats all violence as brute force. The second wave, with some exceptions (Langlois and Langlois, 2009), treats all violence as a screening mechanism used to ascertain the degree of coercive leverage available to the two sides.

The current study endeavors to take a deeper look into how the violent confrontation unfolds after the initial bargaining failure: the extent to which the military contest itself follows a coercive logic, and the conditions under which incentives for brute-force solutions emerge. In its theoretical focus on the dynamics of war, the current project speaks most directly to the costly process strain of intrawar bargaining literature. However, my study departs from the bargaining literature in three crucial ways.

First, while most existing costly process models are primarily concerned with explaining the duration of war, I am interested in explaining the type of violence combatants employ in pursuit of their aims: selective or indiscriminate, coercive or non-coercive. Second, I account for the fact that – to a far greater degree than in interstate war – the primary targets of coercion in civil conflicts are a third group of actors: unaffiliated civilians. By demonstrating their ability to inflict costs on each other’s supporters (or protect their own), combatants shape civilians’ incentives

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<sup>7</sup>Intrawar bargaining models have come in two variants. The first assumes that battle outcomes and settlement offers comprise a screening process that states use to resolve informational asymmetries over costs of fighting or the distribution of power. Here, bargaining continues until either the fighting sides reach an agreement or one of them collapses (Filson and Werner, 2002, Powell, 2004c, Slantchev, 2003b, Wagner, 2000, Wittman, 1979). The second allows fighting to occur for an extended period of time without any offers of negotiated settlement (Fearon, 2007, Langlois and Langlois, 2009, Powell, 2012, Smith and Stam, 2004), and battles are used to either sort weak types from the strong or achieve a decisive military victory through attrition.

to either cooperate with one of the fighting sides or “free ride” by staying neutral. Third, the nature of irregular warfare compels me to allow for a type of uncertainty missing from most costly process models – uncertainty over the identities and locations of targets – which limits the coercive leverage combatants enjoy. Where one has difficulty distinguishing enemies from neutral civilians, the ability to inflict costs on the former is diminished. Whether the reduced “power to hurt” in irregular war indeed creates incentives for de-escalation as the bargaining literature suggests (Slantchev, 2003a) is the central theoretical and empirical question that this dissertation seeks to address.

### 1.3 PLAN OF THE DISSERTATION

In the following chapters, I offer theory and evidence that bridge the divide between the inflammatory or suppressive schools. I show that indiscriminate violence makes it more costly for civilians to stay neutral, but does not necessarily create support for the opponent. There exists a threshold, beyond which it can become safer for civilians to support the more indiscriminate side. This threshold occurs where one side outproduces the other in selective violence, convincing civilians that supporting the opponent is the costliest option available. This can be accomplished in one of two ways: by using superior intelligence to selectively punish one’s enemies, or by substituting poor intelligence with firepower. In the second case, indiscriminate violence can have the same deterrent effect as selective violence – albeit at a higher cost.

Indiscriminate force, in this sense, is a response to informational disadvantage. Where a warring side has difficulty distinguishing her opponents from civilians, coercion will be inefficient, as much of the violence will be misdirected at the wrong targets. To achieve a coercive effect under poor information, combatants must escalate – quantitatively, by using more of the same type of coercive violence, or qualitatively, by using a more extreme form of violence. Where information problems render coercive violence too costly, combatants will use brute force to control the civilian population, interdicting support for the opponent rather than

attempting to deter it. When coercion is difficult, military activity becomes an alternative to bargaining, rather than a continuation of the bargaining process.

The dissertation has two parts. The first considers why indiscriminate violence often fails as coercion. I begin with a theoretical discussion of coercion in irregular war, and the influence of information asymmetries on the selectivity and intensity of violence. I outline this logic qualitatively (Chapter 2) and formally (Chapter 3), deriving several propositions about the informational origins of escalation, and their consequences for opponent strategy and capacity. I then test these propositions using microcomparative data on over 80 civil conflicts since 1979 (Chapter 4), as well as new disaggregated data on Russian counterinsurgency operations during the First Chechen War of 1994-96 (Chapter 5).

The second part of the dissertation considers why indiscriminate violence often succeeds as brute force. Chapter 6 extends the theoretical narrative by introducing several technologies of violence – blockades, disarmament and resettlement – that operate by limiting a population’s choices, rather than shaping its incentives. I outline the theoretical mechanisms by which these brute force actions might affect an opponent’s capacity to fight, and derive conditions for their use. Chapters 7-9 test these additional propositions using new disaggregated data on Soviet and Russian counterinsurgency operations in the North Caucasus (2000-12), Chechnya (1921-25) and Ukraine (1944-1955). Chapter 10 summarizes my findings and draws several implications for theory and policy.

*The contest between [government and rebels] is often as much a contest in the effective management of coercion as a contest for the hearts and minds of the people.*

Leites and Wolff, Jr. (1970, 155)

# 2

## The Logic of Indiscriminate Violence

In irregular war, indiscriminate violence is a response to informational disadvantage. The current chapter describes the intuition behind this claim, and outlines key concepts and assumptions.

### 2.1 THE NARRATIVE

Imagine a conflict zone inhabited by two groups of combatants – government forces and rebels – and a group of neutral civilians. Sovereignty is divided between the combatants, who seek to establish a monopoly on the use of force. Their ability to do so depends on the cooperation each group receives from civilians, in the form of intelligence, taxes, manpower and other types of support.

Civilians face a collective action problem because participation in conflict is individually costly, and benefits are non-excludable. Combatants overcome this

problem through coercion, which establishes a system of selective incentives. By punishing her opponents and protecting her supporters, each combatant seeks to make cooperation with the enemy more costly than cooperation with herself. Depending on the balance of incentives offered by the two combatants, civilians will cooperate with one of the two sides or remain neutral – whichever option they expect to be least costly.

These popular support dynamics create a spiral of coercive outbidding, leverage in which stems from the ability to selectively inflict costs – distinguishing opponents from civilians and applying punishment only to the former. In irregular war, coercive leverage is limited by the tendency of combatants' supporters to hide among the civilian population. Where a combatant's intelligence is robust – as in areas solidly under her territorial control (Kalyvas, 2006, 89-91) – she can selectively target her opponents with arrests, manhunts and assassinations. Where it is not, she must rely on less efficient technologies of violence, such as mass detentions, coerced interrogations and confessions, or indiscriminate weapons systems, like terrorism, air strikes and artillery shelling.

Where civilian neutrality does not guarantee safety, there is more demand for government or rebel protection – and hence more cooperation. Where her intelligence is poor, however, a combatant faces powerful incentives to escalate, compensating for a lack of information with firepower.

The following discussion breaks this narrative down into its component parts.

## 2.2 SCOPE CONDITIONS

I define an irregular war as an armed contestation of sovereignty between state and non-state actors.<sup>1</sup> A war is irregular if it lacks clearly delineated frontlines, and at least one of the parties hides among the civilian population and systematically avoids direct military confrontation (Kalyvas 2005, 90-92, Kalyvas and Kocher 2007, 186). Such fighting most often emerges during a civil war, where all par-

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<sup>1</sup>I define sovereignty as supreme, independent authority over a body politic in a geographic area (Web, 2012).



ties had previously been subject to a common state authority.<sup>2</sup> It also occurs in the context of anti-colonial and anti-occupational uprisings, popular revolutions and insurrections, partisan movements and ethnic insurgencies. The definition excludes political non-violence like street protests, and non-political violence like organized crime and low-level banditry (Friedrich 1972, 37, Kalyvas 2006, 17-19).

My theory does not explain why such wars begin. It explains the choices combatants make during the war. The narrative begins after government forces and rebels fail to reach a bargain that both prefer to warfare (Fearon, 1995, Powell, 2006, Reiter, 2003, Toft, 2003). Some subgroup of the population has reasoned that the expected gains of rebellion have exceeded those derived from the status quo – an uncontested government monopoly on the use of force and policymaking (Boix, 2008, 199) – and has resorted to the use of force to impose a change. This change may entail greater autonomy, independence or regime change, locally, regionally or country-wide. The narrative ends when one of the two sides re-establishes a monopoly, either through the other party's cessation of violence, or through the neutralization of their ability to generate it (Tilly, 1997, 7:5).

Following previous work in the field (Azam and Hoeffler, 2002, Gates, 2002), I assume that combatants have already overcome some of the collective action problems associated with organizing a rebellion or fielding an army. "Core" groups of rebel and government supporters already exist, and any remaining collective action problems pertain to the recruitment of new personnel. Rather than focusing on the factors that trigger the initial rebellion and civil war (ala Collier and Hoeffler 2004, Fearon and Laitin 2003, Hegre et al. 2001), this dissertation examines the subsequent violent interaction between armed groups, and their competitive efforts to build and maintain a base of support.

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<sup>2</sup>Civil war implies divided sovereignty, where two or more centers of authority are able to make competing, mutually exclusive claims to power (Tilly, 1978). The equivalency of divided sovereignty with civil war is a Hobbesian concept. To Hobbes, any limitation on sovereign authority effectively divides power against itself and returns the population to the state of nature they wished to escape: "a kingdom divided in itself cannot stand" (Hobbes, 1651/2010). If sovereignty is divided such that no single person or group retains final authority, then society becomes a "collection of men related to one another as enemies at war" (Hurtgen, 1979, 61).

### 2.3 POPULAR SUPPORT

“Sovereign power is conferred by the consent of the people” (Hobbes, 1651/2010, 162). To shoulder the costs of warfare, the government and rebels seek to maximize their respective shares of popular support. The ability to extract taxes, manpower, food, supplies and intelligence from the population is essential to the military effort and, ultimately, to state-building itself (Elton, 1975, Tilly, 1985). At a minimum, the combatants want the population not to actively oppose them.

The need to secure popular support has become a central tenet of counterinsurgency theory and practice. Perhaps the most famous modern articulation of the “population-centric” school of counterinsurgency was by Galula (1964), who reiterated the Hobbesian claim that “political power depends on the tacit or explicit agreement of the population or, at worst, on its submissiveness.” He writes, “If the insurgent manages to dissociate the population from the counterinsurgent, to control it physically, to get its active support, he will win the war” (Galula, 1964, 6).

The nature, extent and content of necessary civilian cooperation has been a matter of some debate, but most recent accounts place a central emphasis on the disclosure or non-disclosure of private information available to civilians. In the words of T.E. Lawrence (1920, 22), “[Rebels] must have a friendly population, not actively friendly, but sympathetic to the point of not betraying rebel movements to the enemy.” Leites and Wolff, Jr. (1970, 10) echo this perspective,

The only “act” that [rebels] need desperately from a large proportion of the populace is *non denunciation* (that is, eschewing from the act of informing against [them])... The rebels’ need not to be denounced by the population may be satisfied in some cases because the population is largely in sympathy with them. But it can also be satisfied because the people want to avoid [the rebels’] sanctions.

The U.S. Army’s current counterinsurgency field manual also embraces the informational focus: “Popular support allows counterinsurgents to develop the intelligence necessary to identify and defeat insurgents” (Field Manual No. 3-24, 1:29).

## 2.4 COERCION

To attract popular support or deny it to their opponents, combatants rely on a mix of positive and negative incentives. The positive incentives are benefits offered to civilians who cooperate, which include principally physical protection and payment. The negative incentives are costs imposed on those who defect, or cooperate with the opponent. These entail various forms of coercion, including assassination, arrest, kidnapping, torture, and the forcible requisition of taxes, property, crops or land (Leites and Wolff, Jr., 1970, 33). If a combatant has complete information about the decisions civilians make, neutral members of the population should receive neither rewards nor punishment.

While civilians are offered both rewards and punishment, the latter type of incentive ultimately proves more powerful. I assume that civilians are risk-averse, and prefer a course of action whose worst possible outcome is the least harmful of the alternatives (Rawls, 1999). Confronted with the possibility of being harmed by violence, civilians want to minimize the maximum potential damage they might suffer.

The assumption that civilians are security-seeking is a standard one in the literature on civil war and insurgency. Leites and Wolff, Jr. (1970, 126) observe that “the effort to limit damage may prevail over aspirations to better one’s condition or act according to one’s ideals.” Kalyvas (2008, 406) also posits that “irrespective of their preferences... most people prefer to collaborate with the political actor that best guarantees their survival.”

A French officer serving in Algeria described this behavior succinctly,

The villagers aren’t going to vote for those who build schools for them nor for those who promise independence; they are going to vote for the one who can hold the threat of death over them (Héduy, 1960, 133).

The central role of coercion in insurgent operations was not lost on Mao (1966, 119), who wrote in his handbook on guerrilla strategy and tactics,

In order to prevent the enemy relying on a hostile population... we must take special precautionary measures. Thus, by methods of intimidation we warn the local population, we arrest and detain people.

Bernard Fall (1965, 22) observed similar dynamics at work within resistance movements in German-occupied Western Europe during World War II,

Any sound revolutionary war operator... used small-war tactics – not to destroy the German Army, of which they were thoroughly incapable, but to establish a competitive system of control over the population. To do this... they had to kill some of the occupying forces and attack some of the military targets. But *above all they had to kill their own people who collaborated with the enemy* [emphasis added].

The effectiveness of these negative incentives hangs on a public perception of their selectivity: that collaborators are rewarded, defectors are punished, and the non-affiliated members of the population are left alone. This premium placed on selective violence reflects Schelling's "anticipated and avoidable" criteria for coercive success. As Leites and Wolff, Jr. (1970, 156) elaborate,

Effective coercion – "effective" in the sense of obtaining compliance from the population – depends on... (a) the degree of understanding on the part of the population as to what is intended and why; (b) the appropriateness of the penalties; (c) the extent of their enforcement through time; (d) the extent to which innocents are spared; and (e) the degree of protection available if compliance is forthcoming, in the face of counter-coercion by the other side.

Kalyvas (2006, 190) reiterates this logic,

To achieve deterrence, political actors must convince the targeted population that they are able to monitor and sanction their behavior with reasonable accuracy.

The logic of coercion requires that the target has it within her power to limit punishment by some known, feasible conduct, which is less costly than the damage that punishment entails. If it is not clear how the punishment can be avoided, “there is little coercion: hardly a lesson to be learned for future conduct” (Leites and Wolff, Jr., 1970, 102). To ensure that the public has a clear understanding of “punishable” behavior and the sanctions such behavior invites, coercers often rely on warnings and examples. Common among these is the public display of fresh corpses with written summaries of charges. During the Irish Revolution,

Many dead bodies, often of Irishmen who had served in the British Army, were found by the roadside, shot by the IRA with a label attached to them bearing the words: “Convicted as a spy. Spies and traitors beware” (Holt, 1961, 205).

In Western Ukraine after World War II, nationalist rebels routinely dumped the bodies of suspected Soviet informants where they would be easily discovered, and posted them with warnings that other collaborators “will suffer the same fate.” In one gruesome case, a cleaning woman in the stables of Lviv State University in June 1948 happened upon a pile of human legs belonging to 17 women and one boy, executed for crimes including “bringing milk for sale to a building where agents of the [Soviet secret police] lived” and having a “brother [who] had served in the Red Army” (Burds, 2001).

The Ukrainian example, however, raises the question of feasible compliance. The rebels’ demands could be honored only if their victims were indeed aware of government agents’ places of residence, or could have somehow prevented their family members’ being conscripted for military service. Yet where the feasibility of compliance is low – as was likely the case in Ukraine – “the demand itself becomes a mockery, a pretext for damaging which merely adds insult to injury” (Leites and Wolff, Jr., 1970, 104).

In irregular war, combatants frequently impose demands that the targets may not be able to meet. During the Peninsular War in Spain, French forces imposed fines on heads of household who could not account for absentee family members

(Beckett, 2004, 29). Similar practices occurred in Vietnam, as a South Vietnamese army colonel recalled:

In Viet Long, families with sons or husbands known to be fighting with the Viet Cong, or to have gone north in 1954 with the Viet Minh, were given three months to get them back... If their men are not back then, they go to a concentration camp and lose their property, which we divide up among those who are for us.

When an observer asked, “How on earth do you expect them to get their relations back from North Vietnam?” the colonel replied, “That’s their business” (Warner, 1964, 31).

The unavoidability problem is particularly acute where punishment is based on a principle of collective guilt. During the American Civil War, for instance, the Union Army issued General Order No. 60 in the western theater in July 1963, imposing collective responsibility for guerrilla activity on the local population. Any individuals suspected to have failed to stop a Confederate guerrilla raid could be subjected to the forcible requisition of property (Beckett, 2004, 30).

A notable counterexample – where punishment was selective, avoidable and anticipated – was offered by Lucien Bodard (1963, 445-446), during his time as a war correspondent covering the French-Indochina War:

The system of the Viets excludes all surprise. Every peasant knows what is going to happen to him, he knows in advance the consequences of his attitude, whether he behaves “badly” or “well.”

Coercive leverage rests on a demonstrated ability to locate those who provide support to the opponent, and to punish them in a manner appropriate in both severity and timeliness. Where a combatant lacks the capacity to discriminate in this fashion, the structure of incentives presented to uncommitted civilians does not present a clear motivation for compliance (Leites and Wolff, Jr., 1970, 137).

A key distinction between state building as conceived by Tilly (1985, 1997) and the irregular civil war scenario presented here, is the latter’s competitive nature.

Both combatants seek a monopoly on public support, and both are interested in compelling collaboration and deterring defection to meet this end. While a side may insist, with severe threats, that the population comply with its demands, it also faces the challenge of protecting its own supporters from punishment by the other side. As Galula (1964, 86) writes, “The counterinsurgent cannot achieve much if the population is not, and does not feel, protected against the insurgent.”

If popular support will flow to the side that can most effectively deter defection and compel collaboration, the combatants will be compelled to punish each other as much as possible. These dynamics set the stage for mutual escalation, as the government and rebels engage in a costly game of coercive out-bidding. As Leites and Wolff, Jr. (1970, 155) observe, “the contest between the [government and rebels] is often as much a contest in the effective management of coercion as a contest for the hearts and minds of the people.”

Where a combatant is less able or willing to follow through on her threats than her opponent, victory will be elusive. Walter Laqueur (1976, 210) makes this point forcefully in his discussion of partisan activity in German-occupied USSR:

Fearing for their life and property, many mayors and policemen appointed by the Germans opted for collaboration with the partisans. True, the German military command had published countless warnings that all those who gave cover or supplies to partisans would be executed. But the next German police post was far away, whereas the partisan was the man with the gun in the doorway. In these circumstances, the decision was not difficult to make.

A more personal account of coercive out-bidding was revealed during the interrogation of an elderly villager from Algeria, detained by French forces for cutting down telephone poles:

The French come and tell me: you mustn't saw off [telegraph] poles. if you do, you go to prison. I say to myself: I don't want to go to prison. I won't do it. The French leave. At night, the rebel comes and says: saw off the poles from here to there. I answer: no, the French

would put me into prison. The rebel tells me: You cut the poles or I cut your throat. I calculate: If I don't cut the poles, he'll surely cut my throat; he has done it to others, in the next village. I prefer going to prison. So, Sir, I cut the poles; you caught me; put me in prison! (Delarue, 1961, 24-25).

The efficient use of coercion assumes perfect and complete information. The combatant must be in a position to observe the population's behavior, distinguish compliant from noncompliant behavior, and control the distribution of rewards and punishments (Leites and Wolff, Jr., 1970, 141). In irregular war, however, this assumption is almost always violated.

## 2.5 INFORMATION PROBLEMS

Kalyvas (2006, 89-91) defines the central information problem of irregular warfare as comprising two components. The first is the indistinguishability of combatants from civilians. Rebels tend to employ extensive means of cover and concealment, wearing plain clothes and intermingling with the civilian population to avoid detection by the adversary. While the government's regular military forces and police typically wear uniforms and are deployed in highly visible locations (e.g. checkpoints, forts, administrative buildings), many of her informants, agents and enforcers operate underground, hiding in plain sight among civilians.

The second component of the information problem is the inability or reluctance of the local population to denounce (i.e. "snitch" or reveal the identities of) these combatants, spies and agents. Local civilians may be genuinely uncertain of who these agents are. More frequently, civilians may be unwilling to denounce from fear of retaliation. As Galula (1964, 87) writes, "Spontaneous information is hard to come by... because of the population's fear of the insurgent and because of its lack of confidence in the counterinsurgent. To overcome this attitude, would-be informers should be given a safe, anonymous way to convey information."

Protecting informants – like protecting supporters in general – is difficult where a combatant does not already enjoy a basic level of territorial control. This intuition



is embedded in U.S. Army doctrine: “People who do not believe they are secure from insurgent intimidation, coercion, and reprisals will not risk overtly supporting [counterinsurgency] efforts” (Field Manual No. 3-24, 5.20). Kalyvas (2008, 407) echoes this insight: “individuals want to denounce [supporters of a rival faction] only where it is safe for them to do so. This is the case in areas of full control (where political actors do not need their information) but not in areas of low control (where they are likely to face retaliation).”

Some basic information can be obtained through strictly administrative means, without a reliance on local informants. Chief among such sources is a general census of the local population. A census helps provides data on a number of revealing individual attributes, like age, ethnicity, religion, family structure, property ownership, credit and income. Such information can help detect whether an individual is of fighting age, has missing family members, legitimate reasons to travel, or whether they can afford to indulge in abnormal activities (Galula, 1964, 85). If government forces can become sufficiently acquainted with the population at the individual level, unusual behavior can be spotted more easily. The government’s ability to perform these basic collection duties, however, is highly variable.

Conducting basic human intelligence duties – recruiting informants, interviewing locals, interrogating detainees – is generally easier where ethno-linguistic differences do not impede communication or force a reliance on interpreters. Where routine business is conducted in a different language, the type of information the government would like to obtain – about people, products, prices, financial and commercial transactions, traffic flows, criminal records, places of residence, schooling, employment history – is costlier to acquire and more noisy.

Beyond linguistic differences between the incumbent and a local population, the degree of local in-group solidarity can further complicate intelligence gathering. Locally homogeneous populations can more efficiently monitor, regulate and punish the behavior of their members than ethnically divided populations (Habyarimana et al., 2007, Hechter, 1988). In such environments, potential informants face a greater risk of punishment at the hands of their co-villagers than in divided areas.

Other exogenous barriers to intelligence and surveillance include geography and terrain (Carter and Veale, 2013, Fearon and Laitin, 2003). Forested areas, for instance, allow rebels to exploit natural cover and concealment, and avoid detection by aerial surveillance, satellite imagery, and motorized patrols. Surveillance in such areas tends to be more expensive, less reliable and less timely than in open terrain.

The resulting information asymmetry tends to favor the rebels. Relative to regular government troops, guerrilla forces are more lightly equipped, more mobile and harder to locate. They tend to avoid direct engagements and positional battles, relying instead on hit-and-run attacks, ambushes and raids. When they are not conducting operations, guerrillas return to their home communities and blend into the civilian population.

The consequences of this asymmetry for coercive violence are illustrated tellingly by a pair of quotes from both sides of the French-Indochina War:

[French officer:] We whites are, after all, lost in the yellow mass as in a fog. We see badly, we divine badly, we are groping. [Hence] the Viets are beating us in the war of atrocities (Bodard, 1963, 452).

[Viet Minh officer:] I destroy the villages which must be destroyed. I kill those who have to be killed. But the French destroy and kill at random because they don't have the necessary information (Bodard, 1963, 287).

Where the ability to identify one's opponents is limited, incentives emerge for the escalation of coercive force. If one side has limited knowledge of the opponent's identity and whereabouts, the easiest way to inflict costs on the other side may be to harm anyone who may conceivably be connected to it, even if doing so risks harming some innocent civilians. The arithmetic is straightforward: if my opponent can hit three of my supporters for every four bullets, but I can only hit only one of hers with four bullets, then I will need twelve bullets just to keep the body count even. The flip side of this calculation is that for every one of my bullets that

correctly reaches its intended target, three may hit innocent civilians. Yet I must escalate my violence precisely because it is so indiscriminate. Inefficient force can only maintain its coercive effect if it is so overwhelming that the guilty are punished along with the innocent.



Where a combatant can identify and locate individual opponents with high precision, she can employ selective technologies of violence, like assassinations, detentions and kidnappings. Where the information problem is more acute and targeting is based on some collective criterion, she may need to rely on more indiscriminate methods. This relationship was on clear display in the case of mass detentions in Chechnya, as a Russian human rights activist reports,

Practically from the very start of the second war, detentions on Chechen territory had a massive and indiscriminate character. The lack of discrimination was a result of poor intelligence, planning and control, and their mass scale was supposed to compensate for that... Detainee testimonies became the only possible sources of evidence, so investigators and interrogators insisted on obtaining personal confessions from the detainees, primarily with the help of beatings, torture and rough treatment (Cherkasov, 2003).

Some journalists observed a reliance on similar methods during the early stages of the U.S.-led occupation of Iraq:

In the summer and fall of 2003, many... generals turned their men loose on Iraq's population, employing harsh measures to round up insurgents and compel civilians to hand them over. The central tactic was to sweep villages in the country's Sunni heartland – the center of the insurgency – and haul in the military-age men. These young men, who were mostly of no intelligence value, were often taken to Abu Ghraib [prison], where their anger ripened (Filkins, 2012, 78).

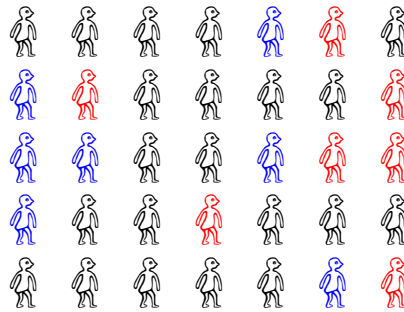
Targeting error can emerge as much from the information used to identify targets, as from the weapons technology used to deliver penalties. In this sense, the gov-

**Table 2.5.1: INFORMATION PROBLEM.**  is a uniformed combatant.  is a civilian. Blue figures are government supporters. Red figures are rebel supporters.

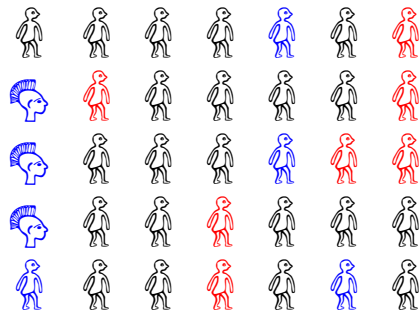
**Conventional war.** Clear front lines, combatants easy to identify.



**Irregular war.** Combatants hide among civilians, harder to identify.



**Asymmetric irregular war.** Government easier to identify than rebels...



ernment's general advantage in firepower can be a mixed blessing. It both enables an escalation of violence, and limits how efficiently this violence is carried out. In an influential study, Lyall and Wilson (2009, 101) find that a highly mechanized force structure places "severe restrictions on the ability... to acquire, process, and act upon the types of information necessary to render a counterinsurgent's efforts discriminate." By contrast, the rebels' light infantry footprint enables them to act on their information with technologies of violence that minimize error.

Che Guevara (1961, 45) observed this asymmetry firsthand:

The [government], well-supplied with ammunition, is characterized by impulsive fire in heavy volume. The guerrilla forces, not so favored, will fire sporadically – not one shot more than absolutely necessary.

A U.S. officer made a similar point in reflecting on counterinsurgency in South Vietnam,

This is a political war and it calls for discrimination in killing. The best weapon for killing would be a knife, but I'm afraid we can't do it that way. The worst is an airplane. The next worst is artillery. Barring a knife, the best is a rifle – you know who you're killing (Sheehan, 1988, 317).

For a variety of reasons including a desire to avoid close combat and save soldiers' lives (i.e. force protection), governments often tend toward the other extreme – relying on heavy firepower where intelligence is scarce and local support is limited. Andrew Krepinevich, Jr. (1988, 6) summarizes this pathology among U.S. forces in Vietnam with the army phrase "It's better to send a bullet than a man."

The tendency to substitute firepower for manpower was particularly pronounced in Soviet counterinsurgency practice. During the Tambov Uprising of 1920-21, Mikhail Tukhachevsky employed high-intensity artillery barrages to completely flatten three villages and clear forested areas with chemical weapons. Sennikov (2004) ascribes this indiscriminate use of firepower to the difficulty of executing

alternative combined arms tactics in rugged areas where civilian support was overwhelmingly on the side of the insurgents. Raids and ambushes claimed heavy casualties among the infantry, driving military leaders to rely increasingly on indirect fire (Zhukov, 2012c).

A variety of constraints – from situational factors like a lack of ammunition to systemic ones like restrictive rules of engagement and societal norms – may moderate the motivation for escalation. A substantial literature has sought to explain the extent to which these constraints are attributable to the government’s political system. Valentino et al. (2004, 382) and Valentino et al. (2006, 346) invoke democratic norms like “tolerance,” “nonviolence,” “respect for basic civil and human rights,” and “limits on the use of lethal force” as reasons why democracies fight with restraint. Davenport (2007b) finds support for a “democratic civil peace,” or the tendency of domestic political institutions to decrease state repressive behavior. Merom (2003, 33-47) argues that democratic polities’ abhorrence of brutality against civilians makes them less likely to escalate and hence less likely to win guerilla wars. As Rummel (1995, 4) explains, democratic norms place a premium on

rational debate, toleration, negotiation of differences, conciliation, and conflict resolution. Moreover, democratic leaders see others, even political opponents, as within the same moral universe, as equally nonviolent, as disposed to negotiate differences peacefully.

Confronted with an uprising in Aden between 1963 and 1967, British forces initially relied on aggressive detention and interrogation methods to compensate for a lack of intelligence from the population. Following a public outcry, the ruling Labour government imposed strict restrictions on British forces’ right to open fire first or use heavy weapons, even when ambushed (Beckett, 2004, 157).

Recent research has challenged this conventional wisdom. Downes (2007b) finds that, on average, democracies do not kill fewer civilians than non-democracies. In certain types of conflicts, democracies may be even more likely than autocracies to kill civilians on a massive scale. Others have advanced a “more murder in the middle” hypothesis, where mixed and transitional regimes are more coercive than

full autocracies and democracies (Fein, 1995, Regan and Henderson, 2002).

Insofar as constraints do exist on the use of force, one may ask how they affect strategic choice. Do restrained combatants simply concede the coercive competition to their adversaries, or do they seek alternative tools of pacification that might reach the same effect through different means?

A long-term solution might be to improve the government's capacity to collect, store, evaluate, retrieve and apply information. Intelligence drives the scope of counterinsurgency operations, but over time these operations can generate the intelligence that makes the next cycle of operations possible. Intelligence improvements – observed through a more selective allocation of punishment – signal an increased ability to protect informants and supporters, which makes giving information to that side appear less dangerous (Leites and Wolff, Jr., 1970, 139). Thompson (1966, 89) describes this endogenous dynamic colorfully in his study of the Vietnam war:

Good intelligence leads to more frequent and more rapid contacts. More contacts lead to more kills. These in turn lead to greater confidence in the population, resulting in better intelligence and still more contacts and kills. This, General, is why you should first worry about intelligence.

The recruitment and cultivation of an informant network, like the creation of a robust intelligence infrastructure more broadly, is a costly and time-consuming undertaking. Intelligence improvements are likely to be more rapid where baseline conditions already favor the incumbent – such as in cosmopolitan cities with ample opportunities for surveillance. Where the characteristics of the local geographic and social environment favor the rebels – as in physically isolated areas with impenetrable social and kin networks and difficult terrain – intelligence capacity-building will be more elusive.

The information problem has deep consequences for coercive leverage. Where a combatant has difficulty distinguishing compliant from non-compliant behavior, punishment cannot be administered selectively. To ensure that defection remains

more costly than cooperation, the disadvantaged combatant faces an incentive to escalate the use of force against defectors, even if doing so may harm the innocent more than the guilty. In an irregular civil war, the side with the greater informational disadvantage – the government – is also the one predisposed toward more indiscriminate technologies of violence. Having neither the basis of intelligence for the correct identification of opponents, nor the means to apply such knowledge accurately in targeting, the government can easily become incapable of coercion.

## 2.6 BALANCING AND BANDWAGONING

If the information asymmetries of irregular civil war push combatants toward an escalation of punishment – even at the expense of harming innocents – how do civilians cope with such a dangerous strategic environment? Because the information problem ensures that some proportion of the punishment will befall unaffiliated members of the population, escalation makes it increasingly costly for civilians to remain neutral. How this reality translates into a recruitment advantage for either of the two sides, however, is a subject of some debate.

Civilians may respond to collateral damage in one of two ways. They may either “balance” against the side that inflicts the most civilian costs, or “bandwagon” with it (Zhukov, 2012b). When civilians balance, popular support will flow to whichever side is best able to selectively punish defectors. When civilians bandwagon, support will go to the more indiscriminate side. This choice is not trivial for the incentives combatants face, or the outcome of the fighting. If civilians balance, whichever side inflicts the most harm on civilians, intentionally or not, will become increasingly unable to attract new supporters or retain existing ones. If civilians bandwagon, a terrorized population will flock to the more destructive side.

These two modes of civilian behavior mirror the academic and policy debate, discussed at length in the previous chapter, about the inflammatory and suppressive effects of indiscriminate violence. Scholars and practitioners in the inflammatory school (Abrahms, 2006, Arreguin-Toft, 2001, Kalyvas, 2006, Kocher et al.,



2011, Saxton and Benson, 2008) hold that balancing is the dominant civilian response to violence. Those in the suppressive school (Downes, 2007a, 2008, Hibbs, 1973, Luttwak, 2007, Lyall, 2009, Peters, 2007) contend that civilians can be compelled to bandwagon with the side that shows itself willing and capable of overwhelming force.

Given the relative dangers facing neutral civilians, government supporters, and rebel supporters, a rational, security-seeking individual will join the group she expects to be most immune from punishment. To this end, a combatant's reliance on indiscriminate force reveals valuable information. First, it reveals a lack of coercive leverage. A combatant is unlikely to resort to tactics like mass detentions and areal bombardment if she is able to identify, locate and target the opposition's supporters with a high level of accuracy. If she is unable to selectively punish her opponents, then joining her opponents may well increase an individual's security: the probability of being correctly punished as a member of the opposition may actually be lower than that of being erroneously punished as a neutral civilian.

Second, a side's reliance on indiscriminate force signals that the information problem is likely less acute for her opponent. Indiscriminate violence is generally a consequence of the local population's unwillingness to denounce individual members of the opposition, due in large part to fear of the opposition's retaliation. If cooperation with the indiscriminate side was more costly in the first place, future cooperation is unlikely to seem any safer.

Since a reliance on indiscriminate force reveals both an inability to selectively punish one's opponents, and an inability to protect one's supporters, scholars in the infammatory school (Arreguin-Toft, 2001, Kalyvas, 2006, Kalyvas and Kocher, 2007, Mack, 1975) expect security-seeking civilians to respond to violence by balancing against the more indiscriminate side. This view has ample historical support.

An early example of balancing behavior can be found in beginning stages of the Russian conquest of the Caucasus, where the Tsar's Proconsul, General Anatolyi Ermolov, relied on "punitive expeditions" to quell an uprising in Chechnya and Dagestan. After destroying six Chechen villages during one such expedition, in

September 1819, he ordered his subordinates to surround the village of Dadiyurt and slaughter all men, women and children within its borders – which they did. These actions had a profound impact on Chechen attitudes toward Russia, helping to solve the insurgents’ collective action problem and kickstarting a half-century of conflict. As Gammer (2006, 39) observes, “The main lesson the Chechens learnt from the events of 1817-21 was the need to unite against the invading enemy.”

Although less severe by an order of magnitude, early U.S. detention and interrogation practices in Iraq received much of the same type of criticism. Dexter Filkins (2012, 78) recalls witnessing several massive roundups of Sunnis in 2003, and concludes that “whichever of these men did not support the uprising when the raids began would almost certainly support it by the time the raids were over. Faced with a small but significant insurgency, American commanders employed a strategy that insured it would metastasize.”

Similar responses can accompany rebel uses of indiscriminate violence. Pike (1966, 251) writes that a need to avoid backlash from such actions featured prominently in the training of Viet Cong cadres:

Indoctrination sessions on the armed struggle cited the Malayan insurgency as a case where... indiscriminate terror... failed. “We were told,” said [a Viet Cong defector], “that in Singapore the rebels on certain days would dynamite every 67th streetcar that passed along a street, the next day it might be every 30th, and so on, but that this hardened the hearts of the people against the rebels.”

Perhaps nowhere is an expectation of balancing more pronounced than in attempts by rebel forces to provoke indiscriminate reprisals by government forces. Ellsberg (1970, 2) calls this approach “revolutionary judo,” which operates by “exploiting a stronger opponent’s political responses to various feints, threats, and provocations, [using] his own strength and momentum... to unbalance and overthrow him.” For such a strategy to work, the government response must be “blind,” “stupid” and “clumsy” (Ellsberg, 1970, 2). As historical anecdotes suggest, counterinsurgents tend to meet these criteria without much difficulty.

In occupied parts of the USSR during World War II, the supreme headquarters of the German army (Oberkommando der Wehrmacht, or OKW) issued directives that authorized executing between 50 and 100 “communists” and 10 civilians for every German soldier killed by the resistance (Bartov, 1985, Dallin, 1957). Soviet partisans exploited this policy to full effect. Following public warnings that any damage to German personnel or installations would be met with reprisals against the population living in the vicinity of the crime, partisans would often kill a German soldier in a safe location and leave his body in a visible place. The Germans “almost always... retaliated by burning down the village and killing its inhabitants, [though] often it was obvious that the body had been moved, because there was no blood on the ground” (Leites and Wolff, Jr., 1970, 113).

The French-Indochina War featured a similar tendency of government forces to launch punitive reprisals without questioning the motives behind the original provocation. As one veteran of the conflict recalls,

The French are blind. They fall into all the traps laid by the enemy. Once they discovered the body of one of their men, frightfully tortured, at the entrance to a village. They set fire to the village, having no inkling of the fact that it was pro-French (Bodard, 1963, 287).

Lieutenant General Dong Van Khuyen of the Army of the Republic of Vietnam (ARVN) observed such dynamics during the Vietnam War,

Communist guerrillas usually drew retaliatory fire from our gunships and artillery by sniping at our aircraft, convoys or outposts. More often than not, it was the local people who were exposed to our fire because by the time it came, the guerrillas had fled or taken shelter underground (Van Khuyen, 1980, 300).

The abundance of such examples highlights a puzzle: if civilians respond to indiscriminate violence by balancing, why don't combatants avoid such methods whenever possible? Given the risks, why do combatants so rarely exercise what General McCrystal has called “courageous restraint”: eschew escalation and hope that the

opponent's brutality alienates enough civilians to ensure the latter's defeat. Unless we are willing to assume that all instances of civilian victimization are the result of some error, miscalculation or lapse of rational judgment, we have to accept the possibility that combatants resort to indiscriminate force because they expect it to work. They must believe that civilians can be terrorized into bandwagoning with the side most willing and able to inflict great physical harm.

Bandwagoning expectations can be divined from the testimonies of the combatants themselves. General Ermolov explained his brutal approach to the Caucasus in the following terms: "Condescension in the eyes of the Asiatics is a sign of weakness, and out of pure humanity I am inexorably severe" (Baddeley, 1908/2005, 97). A German army officer used a similar logic in justifying indiscriminate force against the Soviet population: "the population must be more frightened of our reprisals than of the partisans" (Heilbrunn, 1967, 150). The assumption that the targeted population "understands only force" has endured in contemporary conflicts as well. In explaining reports of beatings and denial of medical treatment to suspected Iraqi insurgents in 2005, an officer in the Fourth Infantry Division opined, "To an American, this might upset our sense of decency... but the Iraqi mind-set was different. Whoever displays the most strength and authority is the one they are going to obey. They might be bitter, but they obey" (Filkins, 2005).

The answer to the puzzle lies in the logic of coercive outbidding. A strategic emphasis on escalation, even at the expense of civilian casualties, reflects not so much an assumption that civilians will always bandwagon, as an expectation that – if enough coercive pressure is applied – civilians will come to see bandwagoning as the safer of the two options. Implicit in this expectation of a "threshold" or "breaking point" (Friedman, 2012) is a distinction between two paths to securing popular support: *victory through balancing* and *victory through bandwagoning*.

*Victory through balancing* is possible only if a combatant enjoys an informational advantage *and* is able to inflict a greater degree of selective violence on her opponent's supporters than her enemy can. In this scenario, most of a combatant's violence is directed at her intended targets, while most of the opponent's violence is directed, erroneously, at civilians. Because the opponent's supporters are more

likely to be punished than one's own, a security-conscious civilian will respond by balancing against the opponent. In an asymmetric irregular war, this route is more accessible to the rebels than to the information-starved government.

*Victory through bandwagoning* becomes possible if a combatant has an informational disadvantage, *but* escalates violence to a level where the opponent's supporters nonetheless suffer higher costs than one's own. Here, civilians are the more likely victims of the combatant's violence, but this violence is so overwhelming that a sufficient number of opponents are punished – even if purely by chance – for the coercive balance to tip in the combatant's favor. If violence is sufficiently severe, the logic goes, the information problem need not render coercion impossible. Even if one's opponent is more selective, her supporters can still be punished at a higher relative rate than one's own. In this scenario, cooperation with the indiscriminate combatant is less costly than cooperation with her better-informed opponent, while remaining neutral is the most costly option of all. Security-seeking civilians will respond to this overwhelming violence by bandwagoning with the more indiscriminate side.

By this line of reasoning, halfway measures between McChrystal's "courageous restraint" and Ermolov's "inexorable severity" may "run greater risks of being both bloody and vain – of stimulating rather than intimidating – than either of these two policies" (Leites and Wolff, Jr., 1970, 97-98). Indiscriminate violence works, just not in moderation.

*I'm not afraid of death; I just don't want to be there when it happens.*

Woody Allen

# 3

## The Dynamics of Coercion

The current chapter formalizes the logic of indiscriminate violence. Using a dynamical model of coercion and popular support, I prove the existence of a violence threshold, beyond which civilians may support the more indiscriminate side. I show that both combatants will face incentives for escalation, but the side with less coercive leverage will escalate more. Information problems – difficulties distinguishing opponents from civilians – explain why combatants will sometimes use a disproportionately high level of force. I show this result in a basic setting, and explore several extensions, including cases where combatants receive external support, and where intelligence improves or worsens endogenously with the dynamics of fighting.

The theoretical discussion proceeds in several steps. I use a system of ordinary differential equations to describe a scenario where combatants compete for the support of a security-seeking population. I show that such a system will converge

to either a government or a rebel monopoly, depending on the relative costs the combatants inflict on each other's supporters. I use a simple ascending bid game to study the mutual escalation and predict how much violence each side will use in equilibrium. I show that the size of a coercive bid is decreasing in selectivity – the greater a combatant's informational disadvantage, the more violence it takes to meet the threshold. I close with a discussion of the model's observable implications.

### 3.1 MODELING CONCEPTS

I develop a dynamical model that describes the effect of key strategic choices and exogenous parameters on the outcome of an asymmetric irregular war. In particular, I examine the role of coercion, civilian cooperation, and information asymmetry on combatants' ability to establish a monopoly on the use of force within a conflict zone. I consider a scenario where government forces compete with a single homogeneous rebellion for the support of a security-seeking population, but each side's ability to punish the other is compromised by an inability to selectively target her opponents.

The current effort departs in several ways from existing formal models in the civil conflict literature – such as those based on bargaining games (Fearon, 1995, Powell, 2004b, Slantchev, 2003a), principal-agent relationships (Lskavyan, 2007) and other applications of microeconomic theory (Azam and Hoeffler, 2002, Esteban et al., 2010, Gregory et al., 2011, Leites and Wolff, Jr., 1970). First, it places population dynamics at the center of the analysis, enabling the derivation of predictions about the endogenous flow of public support from one fighting side to another. Second, the model is inherently dynamic, offering insights not only into what type of equilibrium is reached (i.e. government victory, rebel victory, stalemate), but also the nature of the process by which that equilibrium is reached. Third, it offers a flexible foundation for the study of irregular war, capable of accommodating increasing layers of causal complexity. This final property is particularly attractive, as it enables a close coupling between model parameterization

and qualitative accounts of asymmetric warfare in military doctrine and literature (e.g. Galula 1964, Field Manual No. 3-24, Nagl 2002).

The theoretical approach taken here combines modeling concepts from military operations research, mathematical epidemiology and game theory. In my attempt to model the dynamics of guerrilla warfare, I build most closely on the work of Atkinson and Kress (2012), Deitchman (1962), Kress and Szechtman (2009), MacKay (2013), Schaffer (1968), who adapt various extensions of Lanchester (1916) and Richardson (1935, 1919) combat and arms race models to an asymmetric setting.<sup>1</sup> Unlike Kress and Szechtman (2009), MacKay (2013) and related operations research efforts, my model more explicitly accommodates the role of civilian agency and two-sided information problems, and drops the Lanchester framework in favor of a simpler approach based on models of biological and ecological systems. Relevant work includes the application of Lotka-Volterra and other population models to the study of political violence (Francisco, 1996, Intriligator and Brito, 1988, Johnson and Madin, 2008), terrorism (Kaplan et al., 2005, Keohane and Zeckhauser, 2003), crime (Nuño et al., 2008) and recruitment dynamics (Caulkins et al., 2008, Jacobson and Kaplan, 2007), as well as models of epidemic and virological competition between rival parasite strains, rumors and ideas (Aparicio et al., 2004, Bettencourt et al., 2005, Beutel et al., 2012, Castillo-Chavez and Song, 2003, Daley and Kendall, 1965, May and Nowak, 1995, Nowak and May, 1994, Prakash et al., 2012).

Dynamical models are not without their limitations. By themselves, systems of differential equations tell us nothing about the incentives and trade-offs actors face, or the choices they are likely to make. Such models merely posit a functional dependence of conflict dynamics on strategic options available to the combatants, and analyze how these dynamics relate to long-term outcomes like victory and defeat (Gillespie et al., 1977, MacKay, 2013, Zinnes and Gillespie, 1976). Such models are very effective at predicting how group sizes change over time as a result of strategic choices and initial conditions. But they do not always consider the prefer-

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<sup>1</sup>For a recent review of this literature, see Kress (2012), MacKay (2013). For a critique and alternative approach to Lanchester theory, see Epstein (1985).



ences actors have over the outcomes, or how these preferences shape the nature of the strategic interaction. To accommodate some of these features, I adopt a hybrid approach that uses solution concepts from game theory to further explore combatant behavior in the dynamical system.

Although traditional dynamical models of combat (Lanchester, 1916, Richardson, 1919) and population ecology (Kermack and McKendrick, 1927, May and Nowak, 1995) take behavioral choice to be exogenous, my model considers optimizing strategic behavior on the part of the players.<sup>2</sup> Specifically, I employ a dynamical model of popular support to derive the conditions under which a government or rebel monopoly equilibrium is stable. I use these stability conditions to determine the expected payoffs players attach to various types of strategic interactions. I then use a simple auction game to predict how much coercion the two combatants are likely to use, and how information asymmetry shapes best response strategies.

### 3.2 COERCION AND POPULAR SUPPORT

Imagine a conflict zone populated by two combatants – government forces and rebels – and a group of neutral civilians. Sovereignty is divided between the combatants, each of whom seeks to establish a monopoly on the use of force – locally, regionally or country-wide. They pursue this goal by extracting the resources needed for the maintenance of military operations and the establishment of a viable state – principally taxes, intelligence, supplies and manpower – while denying these same resources to their opponent. The civilians – whose cooperation is needed to collect these resources – are interested in security above all else. Given the costs associated with membership in the government or rebel group, civilians will cooperate with one of the two sides or remain neutral – whichever option is least costly.

For the purpose of developing a “bare-bones” version of model, I make several

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<sup>2</sup>Earlier works that have considered adaptive behavior in epidemiological modeling include Epstein et al. (2008), Kremer (1996).

simplifying assumptions, each of which I will subsequently loosen to allow for a richer parameterization and a more realistic conflict environment. First, I assume that combatants receive all of their support from the local population, and none from external sources. The main motivation for this population's behavior is security, and civilians will cooperate with the side they expect to better ensure their survival. Second, I assume that the quality of the intelligence each combatant uses to punish her opponents is exogenous and fixed for the duration of the fighting. The information problem depends on pre-existing conditions (e.g. intelligence infrastructure, census, balance of territorial control), and any subsequent improvement or deterioration in intelligence collection capacity comes too late to exert a substantive effect on the selectivity of violence.

Although too restrictive to accurately convey the complexities of real-world combat, these assumptions are common ones in the civil war and counterinsurgency literatures (Hammes, 2006, Field Manual No. 3-24, Kalyvas, 2006, Lynn, 2005). I impose them here for the sake of parsimony and conceptual clarity.

I will also impose some temporary restrictions on the strategies available to combatants. In the current chapter, I consider a benchmark case in which combatants rely exclusively on coercion, defined as the use of punishment to deter or attract civilian cooperation. Later in this volume, I will consider several brute force strategies, which limit the resources available to one's opponent, without necessarily altering the costs and benefits associated with a certain course of action. These strategies – which purposefully target neutral civilians – include restricting the mobility of the population, forcibly disarming the population, and resettling the population.

Let  $G_t$  and  $R_t$  denote the sizes of government and rebel forces at time  $t$ . Let  $C_t$  denote the size of the neutral civilian population at time  $t$ . Let  $\pi_G(\mathbf{s}) = \frac{G_{eq}}{G_{eq}+R_{eq}} \in [0, 1]$  denote the government's payoff from strategy set  $\mathbf{s} = \{s_G, s_R, s_C\}$ , or the government's share of public support at equilibrium. Similarly, let  $\pi_R(\mathbf{s}) = \frac{R_{eq}}{G_{eq}+R_{eq}} \in [0, 1]$  denote the rebels' payoff. An equilibrium outcome with  $\pi_G = 1, \pi_R = 0$  is a case of *government victory*, in which the rebel population converges to zero and

**Table 3.2.1:** Notation Table

SYMBOL	DESCRIPTION
<b>POPULATION PARAMETERS</b>	
$C_t \in [0, \infty)$	total neutral civilians at time $t$
$R_t \in [0, \infty)$	total rebel supporters at time $t$
$G_t \in [0, \infty)$	total government supporters at time $t$
<b>STRATEGY CHOICES</b>	
$\rho_R \in (0, \infty)$	rebels' rate of punishment ( $s_R$ )
$\rho_G \in (0, \infty)$	government's rate of punishment ( $s_{G1}$ )
<b>EXOGENOUS PARAMETERS</b>	
$\theta_G \in (0, 1)$	government's selectivity
$\theta_R \in (0, 1)$	rebels' selectivity
$a_G \in [0, \infty)$	government's access to external resources
$a_R \in [0, \infty)$	rebels' access to external resources
$k \in (0, \infty)$	constant civilian immigration rate
$u \in (0, \infty)$	constant population death rate
<b>ENDOGENOUS PARAMETERS</b>	
$\mu_i = 1 - \frac{\rho_{-i}\theta_{-i}}{\rho_{-i} + \rho_i}$	rate of civilian cooperation with combatant $i \in \{G, R\}$ ( $s_C$ )
<b>OBJECTIVE FUNCTIONS</b>	
$\pi_C(\mathbf{s}) = -\kappa(i)$	minimize costs associated with membership in group $i \in \{G, R, C\}$ $\kappa(G) = \rho_R\theta_R, \kappa(R) = \rho_G\theta_G$ , and $\kappa(C) = \rho_R(1 - \theta_R) + \rho_G(1 - \theta_G)$
$\pi_G(\mathbf{s}) = \frac{G_{eq}}{G_{eq} + R_{eq}}$	maximize equilibrium share of popular support
$\pi_R(\mathbf{s}) = \frac{R_{eq}}{G_{eq} + R_{eq}}$	maximize equilibrium share of popular support

the government establishes a monopoly on the use of force. An outcome with  $\pi_G = 0, \pi_R = 1$  is a *rebel victory*, similarly defined. Let  $\pi_C\{\mathbf{s}\} = -\kappa \in (-\infty, 0]$  be the civilians' payoffs, defined as the costs inflicted on civilians by fighting between the combatants.

The combatants  $i \in \{G, R\}$  maximize their equilibrium shares of popular support by increasing the costs of cooperation with the opponents' group. Let  $s_R : \rho_R > 0$  be the intensity of rebel military operations against government forces and  $s_G : \rho_G > 0$  be the intensity of government operations against the rebels. As the relative intensity of violence inflicted against a group increases, cooperation with that group becomes more costly. However, the ability to selectively inflict these costs against one's opponents is complicated by the murky nature of irregular war, where combatants are dispersed throughout the civilian population and the enemy can be difficult to identify.

Let  $\theta_i \in (0, 1)$  denote the selectivity of a combatant's coercive force, such that  $\rho_i \theta_i$  is the proportion of punishment that  $i$  correctly inflicts against her opponent, and  $\rho_i(1 - \theta_i)$  is the share that erroneously befalls neutral civilians. Where selectivity is high, punishment is based on individual criteria (e.g. "target is a known rebel"). Where selectivity is low, punishment relies on collective criteria (e.g. "targets live where rebels are thought to be active"). The availability of individual-level information depends on exogenous barriers to intelligence collection, like ethno-linguistic differences and rough terrain, as well as the population's willingness to provide information.

Coercion with low selectivity is inefficient not only because it inflicts fewer costs on the opponents ( $\rho_i \theta_i < \rho_i$ ), but also because it inflicts harm on non-combatants. Civilians minimize the costs they expect to incur over the course of the conflict by staying neutral or joining one of the two combatants. If civilians join  $G$  or  $R$ , they will accrue costs at rates proportional to levels of selective violence inflicted against that group. If civilians stay neutral, they will accrue costs in proportion to overall indiscriminate violence directed at civilians.

**Lemma 1.** *If selectivity is imperfect ( $\theta_i < 1 \forall i \in \{G, R\}$ ), it is always more costly to remain neutral than to cooperate with one of the combatants.*

*Proof.* Appendix I.11.1

□

Lemma 1 states that the use of indiscriminate violence partially solves the combatants' collective action problem by rendering "free-riding" (i.e. staying neutral) more costly than cooperation (Kalyvas and Kocher, 2007). Because civilians absorb damage from both government and rebel violence, being a neutral civilian will always be strictly costlier than cooperating with the combatants – each of whom only absorbs damage inflicted by one side.

Let  $s_C : \mu_i \in [0, \infty)$  be the rate of civilian cooperation with group  $i$ . If civilians are driven foremost by security concerns rather than ideological appeals, they will cooperate with  $G$  and  $R$  in proportion to rates of survival in each group. An expression for  $\mu_i$  must then be monotonically decreasing in the costs inflicted selectively against  $i$  and remain non-negative for all levels of punishment. A simple formulation that meets these conditions is:

$$\mu_R = 1 - \frac{\rho_G \theta_G}{\rho_G + \rho_R} \quad (3.1)$$

$$\mu_G = 1 - \frac{\rho_R \theta_R}{\rho_G + \rho_R} \quad (3.2)$$

If  $G$  can inflict more selective violence against  $R$  than  $R$  can against  $G$  ( $\rho_G \theta_G > \rho_R \theta_R$ ), then  $C$  will cooperate with  $G$  at a higher rate than with  $R$  ( $\mu_G > \mu_R$ ).

Taken together, the conflict dynamics comprise the following system of ordinary differential equations

$$\frac{\delta C}{\delta t} = k - (\mu_R R_t + \mu_G G_t - \rho_R(1 - \theta_R) - \rho_G(1 - \theta_G) - u) C_t \quad (3.3)$$

$$\frac{\delta G}{\delta t} = (\mu_G C_t - \rho_R \theta_R - u) G_t \quad (3.4)$$

$$\frac{\delta R}{\delta t} = (\mu_R C_t - \rho_G \theta_G - u) R_t \quad (3.5)$$

where  $\frac{\delta i}{\delta t}$  is the rate of change in the size of group  $i$  over time,  $k$  is an immigration parameter and  $u$  is a natural death rate, interpreted as losses due to disease, natural

disasters and other exogenous factors that afflict civilians and combatants equally.<sup>3</sup>

As the fighting unfolds over time, the system in (3.3-3.5) will converge to one of two equilibria of primary interest – government monopoly or rebel monopoly. How sustainable are these equilibria? Might the trajectory of the fighting change due to small perturbations of initial conditions? The stability conditions for these equilibria depend on the strategic choices of combatants and civilians, and the initial balance of selectivity in the conflict zone. Since the results for the two equilibria are symmetrical, I focus the following discussion on conditions for government victory.

**Proposition 1 (“Coercive advantage”).** *A government victory equilibrium is stable if and only if the government’s rate of selective violence is greater than that of the rebels.*

*Proof.* Appendix I.1.1.2 □

Proposition 1 states that – if combatants rely exclusively on coercive violence to attract support – victory is sustainable if and only if cooperation with the opponent’s side is expected to be more costly. This result is in and of itself unsurprising, but it reveals an important threshold in the system.

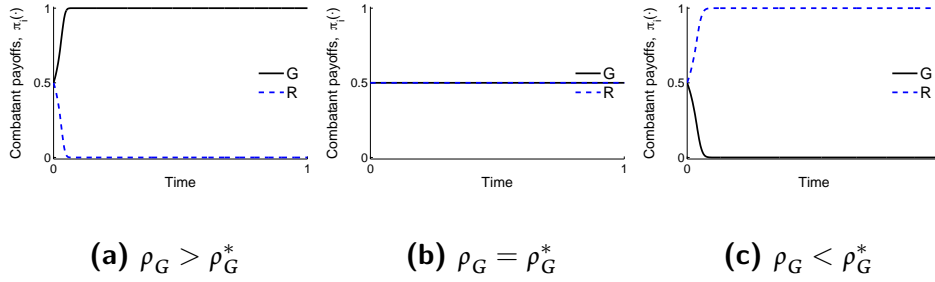
The *selective violence ratio*, or  $\frac{\rho_G \theta_G}{\rho_R \theta_R}$ , governs the trajectory and stability of the dynamical system. This figure has an interpretation similar to a loss-exchange ratio in attrition warfare (Biddle and Long, 2004, Dupuy, 1979). A ratio of 2-1 implies that the government can punish two rebels for every one government agent punished by the rebels. When this ratio is greater than 1, government forces have a *coercive advantage* and are able to inflict costs on the rebels at a higher rate than the rebels can against them, causing civilians to cooperate in greater numbers with the government. When the ratio is less than 1, the opposite is true. When  $\frac{\rho_G \theta_G}{\rho_R \theta_R} = 1$ , the system is at a stalemate.

To achieve a stable victory, each combatant must “outbid” her opponent’s use of coercion by choosing a  $\rho_i$  above a minimum *stalemate threshold*, where each com-

---

<sup>3</sup>The immigration-death process is traditionally used in mathematical epidemiology to ensure a stable, non-negative population (May and Nowak, 1995, Nowak and May, 1994).

**Figure 3.2.1: STALEMATE THRESHOLD.**  $\rho_G^* = \rho_R \frac{\theta_R}{\theta_G}$ .



batant matches the other's intensity of violence, scaled by the initial balance of selectivity between them:

$$\rho_i^* = \rho_{-i} \frac{\theta_{-i}}{\theta_i} \quad (3.6)$$

Figure 3.2.1 shows the dynamics of the system of equations (3.3-3.5).<sup>4</sup> The vertical axis displays the combatants' payoffs at each  $t$ , with  $\pi_G(\cdot) = \frac{G_t}{R_t + G_t}$ ,  $\pi_R(\cdot) = \frac{R_t}{R_t + G_t}$ . The government's payoffs are shown with a solid black line. A dashed blue line represents the rebels' payoffs. The horizontal axis shows the progression of time.

The behavior shown in Figure 3.2.1 is consistent with Proposition 1. The system converges to a government victory equilibrium ( $\pi_G(\cdot) = 1, \pi_R(\cdot) = 0$ ) where government forces have a coercive advantage ( $\rho_G > \rho_G^*$ , or equivalently,  $\frac{\rho_G \theta_G}{\rho_R \theta_R} > 1$ ).<sup>5</sup> Where the government is unable to reach this threshold ( $\rho_G < \rho_G^*$ ), counterinsurgency success becomes unsustainable and the system converges to a rebel victory equilibrium ( $\pi_G(\cdot) = 0, \pi_R(\cdot) = 1$ ). Where neither side has a coercive advantage ( $\rho_G = \rho_G^*$ ), a stalemate occurs, with active support evenly split

<sup>4</sup> For illustrative purposes, I chose a conflict zone that is at  $t = 0$  evenly contested by government and rebel supporters, and populated predominantly by neutral civilians, with  $C_0 = 100, R_0 = 5, G_0 = 5$ . For simplicity, I also assumed that the information problem is initially uniform, with  $\theta_{G,0} = \theta_{R,0} = .5$ . To ensure non-negative population values we choose a  $k$  above the lower bound described in the proof to Proposition 1 ( $k = 1000$ ), and took  $u = 1$ .

<sup>5</sup>Numerical values for  $\rho_G$  are  $2\rho_G^*$  in Figure 3.2.1a,  $\rho_G^*$  in Figure 3.2.1b, and  $\frac{1}{2}\rho_G^*$  in Figure 3.2.1c, with  $\rho_R = .1$ .

between the combatants ( $\pi_G(\cdot) = \pi_R(\cdot) = 1/2$ ).

### 3.2.1 BALANCING AND BANDWAGONING

A coercive advantage brings victory about by one of two mechanisms: civilian balancing or civilian bandwagoning. *Balancing* requires that the population cooperate in greater numbers with the side that inflicts the fewest costs on civilians:

$$\mu_i > \mu_{-i} \quad (3.7)$$

$$\rho_i(1 - \theta_i) < \rho_{-i}(1 - \theta_{-i}) \quad (3.8)$$

*Bandwagoning* implies a higher cooperation rate with side that inflicts the most civilian costs:

$$\mu_i > \mu_{-i} \quad (3.9)$$

$$\rho_i(1 - \theta_i) > \rho_{-i}(1 - \theta_{-i}) \quad (3.10)$$

The first approach hence penalizes the side that relies more on indiscriminate violence, while the second rewards it.

Either path can result in a sustainable victory, but balancing can only occur if a combatant has a significant informational advantage. Where this is the case, the combatant does not necessarily have to use a higher level of force than her opponent to achieve a coercive advantage. The statements (3.7,3.8) can be simultaneously true only if  $\theta_i > \theta_{-i}$ . As long as  $\theta_i > \frac{\rho_i - \rho_{-i}(1 - \theta_{-i})}{\rho_i}$ ,  $i$  can achieve victory at a lower level of violence than her opponent,  $\rho_i < \rho_{-i}$ . For all other  $\theta_i > \theta_{-i}$ ,  $i$  can always achieve victory with  $\rho_i > \rho_{-i}$ .

By contrast, a bandwagoning victory can occur if a combatant has an informational disadvantage, as long as she is willing to escalate violence. The statements (3.9,3.10), meanwhile, may hold if either  $\theta_i > \theta_{-i}$  or  $\theta_i < \theta_{-i}$ . In the first instance,  $i$  wins if  $\rho_i > \rho_{-i}$  and  $\theta_{-i} < \theta_i < \frac{\rho_i - \rho_{-i}(1 - \theta_{-i})}{\rho_i}$ . In the second, she wins if  $\rho_i > \rho_{-i}$  and  $\theta_{-i} > \theta_i > \frac{\rho_{-i}\theta_{-i}}{\rho_i}$ .

While a balancing victory places greater demands on a combatant's selectivity,



it also makes escalation less essential – since superior intelligence makes violence more efficient. For combatants with an informational disadvantage (e.g. governments fighting guerrilla opponents), bandwagoning offers a way to out-coerce the opponent despite a lack of coercive leverage.

### 3.2.2 COERCIVE OUTBIDDING

Absent any restraints on the use of force, equilibrium behavior becomes one of mutual escalation. If combatant  $i$  sets violence at a level  $\rho_i > \rho_{-i} \frac{\theta_{-i}}{\theta_i}$ , the opponent will respond by escalating  $\rho_{-i}$  to a level that meets or exceeds  $\rho_i \frac{\theta_i}{\theta_{-i}}$ .

Because the conflict is asymmetric, however, the two sides do not escalate equally. Where rebels enjoy an advantage in selectivity ( $\theta_R > \theta_G$ ), they are able to accurately identify and efficiently punish their government opponents. Due to their relative informational disadvantage, government forces will need to employ a higher level of force to break even. In areas where rebel selectivity is overwhelming ( $\theta_R \gg \theta_G$ ), government violence would have to be overwhelming ( $\rho_G \gg \rho_R$ ).

Such escalation can be perilous for two reasons. The first is that constraints often do exist, in the form of societal norms, restrictive rules of engagement, or even a lack of ammunition. Let  $\bar{\rho}_i$  be the maximum level of force that  $i$  can employ, such that  $\rho_i \in (0, \bar{\rho}_i]$ . If  $\rho_G^* > \bar{\rho}_G$ , then the government will be unable to achieve a favorable selective violence ratio, and will not be able to achieve victory.

Second, escalation by the more indiscriminate side makes it increasingly costly for civilians to remain neutral. If  $\theta_G < \theta_R$  and  $\theta_G + \theta_R = 1$ , then  $\rho_G(1 - \theta_G) > \rho_G\theta_G$ . If the government fails to exceed the threshold  $\rho_G \geq \rho_G^*$ , this increased flow of popular support will go overwhelmingly to the rebels.

To explore the role of constraints more fully, we can briefly consider the combatants' strategic interaction in the context of a simple ascending bid game. At the outset of the fighting, Nature specifies a profile  $\bar{\rho} = (\bar{\rho}_G, \bar{\rho}_R)$  of upper bounds on the use of force, one for each combatant  $i = \{G, R\}$ . Each combatant observes only her own upper bound  $\bar{\rho}_i$  and chooses a coercive bid  $b_i(\bar{\rho}_i) = \rho_i \in (0, \bar{\rho}_i]$ . A combatant achieves victory ( $\pi_i = 1$ ) if her bid is strictly higher than the stale-

mate threshold  $\rho_i^*$ . Defeat ( $\pi_i = 0$ ) occurs if the bid is below this threshold, and stalemate ( $\pi_i = 1/2$ ) occurs if it just matches it. We will assume that the combatants prefer a victory achieved by minimum force, and must pay an additional cost  $\rho_{-i}\theta_{-i}$ , determined by the rate of selective violence used by their opponent against them. The net benefits of fighting are then  $\pi_i(\bar{\rho}_i - \rho_i - \rho_{-i}\theta_{-i})$ . Because  $\pi_i = \frac{x_i}{\sum_i x_i}$  at equilibrium,  $i$  receives  $\bar{\rho}_i - \rho_i - \rho_{-i}\theta_{-i}$  if she wins and nothing if she loses.

**Proposition 2.** *If  $\bar{\rho}_i$  are uniformly distributed on  $[0, 1]$ , the unique Bayesian Nash Equilibrium is  $s_i(\bar{\rho}_i) = \frac{1}{1+\theta_i}\bar{\rho}_i/2 \forall i \in \{G, R\}$ .*

*Proof.* Appendix I.11.3 □

Proposition 2 states that – even if violence is subject to an exogenous constraint on the use of force – the information problem creates strong incentives for escalation. In equilibrium, combatants will employ levels of punishment well below their respective limits ( $\bar{\rho}_i$ ). How close they approach these limits depends on how easily they can identify and selectively punish their opponents. Where a combatant has very poor selectivity ( $\theta_i \rightarrow 0$ ), her equilibrium coercive bid will be up to twice as high as where her selectivity is almost perfect ( $\theta_i \rightarrow 1$ ).

The results shown so far have a quite dire policy implication. In conflict zones under the opponent's control, coercion is at once inefficient (fewer bullets reach their intended targets), risky (the remaining bullets hit the wrong targets) and quite rational (escalation is always the best response to what one's opponent is doing). From a government's perspective, a reliance on coercion generates an unenviable choice: either employ a massive level of force to compensate for a deficiency in intelligence – which may be undesirable or impossible due to a variety of political, material or normative constraints – or concede the battle to the rebels.

If this proposition is true, however, how can a counterinsurgent possibly defeat a rebellion, short of systematically killing scores of innocent civilians? I now proceed to relax some of the model's more restrictive assumptions, and examine whether combatants can increase their coercive leverage through external resources or dynamic improvements to intelligence.

### 3.3 EXTERNAL SUPPORT

The preceding discussion assumed that both combatants rely exclusively on the local population for support. We will now loosen this assumption and take a deeper look at how external support affects the decision calculus of the two sides.

Let  $a_i \in [0, \infty)$  be the rate at which combatant  $i$  receives support from outside the conflict zone. In addition to general necessities like water, food and ammunition,  $a_i$  may include some resources unique to each opponent. For the government,  $a_G$  may represent the ability to mobilize reserves, call up conscripts, and draw on any other sources of revenue and manpower that do not depend directly on the cooperation of local civilians. In a frontier, colonial or expeditionary conflict, such resources may be mobilized from regions closer to the state's administrative center, where the government's level of control is greater than in the periphery. For rebels,  $a_R$  may represent the ability to receive reinforcements, mobilize foreign fighters and units from sanctuary areas of neighboring states, or attract capital and labor from other regions, governments, charities, and ethnic diaspora elements located within or outside a country's borders.

To permit this diversification of combatants' sources of support, we modify the system of equations in (3.3-3.5) in the following manner:

$$\frac{\delta C}{\delta t} = k - (\mu_R R_t + \mu_G G_t - \rho_R(1 - \theta_R) - \rho_G(1 - \theta_G) - u) C_t \quad (3.11)$$

$$\frac{\delta G}{\delta t} = (\mu_G C_t + a_G - \rho_R \theta_R - u) G_t \quad (3.12)$$

$$\frac{\delta R}{\delta t} = (\mu_R C_t + a_R - \rho_G \theta_G - u) R_t \quad (3.13)$$

Note that unlike the flow of local support, which requires interaction with the local population ( $\mu_i C_t$ ), external support ( $a_i$ ) does not depend on any contact with civilians ( $C_t$ ). As such, this type of support also does not come at any direct cost to civilians.

**Proposition 3.** *If the government has sufficient sources of external support, a coercive advantage is not necessary for victory.*

*Proof.* Appendix I.11.4

□

Proposition 3 states that external support changes the conditions needed for government victory. Crucially, a coercive advantage ( $\frac{\rho_G \theta_G}{\rho_R \theta_R} > 1$ ) is neither necessary for victory, nor is it sufficient. The dynamics also depend on critical values of government and rebel external support,

$$\underline{a}_G = \frac{(\rho_G + \rho_R + u)(\theta_R \rho_R - \theta_G \rho_G)}{(1 - \theta_G) \rho_G + \rho_R} \quad (3.14)$$

$$\overline{a}_R = \frac{a_G(\rho_R + \rho_G(1 - \theta_G)) + (\rho_G + \rho_R + u)(\theta_G \rho_G - \theta_R \rho_R)}{\rho_G + \rho_R(1 - \theta_R)} \quad (3.15)$$

To evaluate the role of external support more intuitively, let us consider four scenarios, summarized in Table 3.3.1. In the first (upper left), the government has an advantage in both selective violence and external support. Because  $a_R > \underline{a}_G \forall a_R \in [0, \infty)$ , in this best-case scenario – and only in this scenario – a government victory equilibrium is always stable.

In the second scenario (upper right), the government retains a coercive advantage, but rebels have an advantage in external support. Here the government can sustain victory only if the rebels' rate of external support is below the critical value  $\overline{a}_R$ . Conversely, this result suggests that abundant external support for rebels can prevent government victory even where the latter has a decisive coercive advantage. If the rebels' external support advantage falls below this threshold, the government will lose the contest to the rebels – despite a more overwhelming use of coercion.

In the third scenario (lower left), the government has a disadvantage in selective violence, but an advantage in external support. Here, government access to external resources can compensate for a lack of coercive leverage, so long as  $a_R < \overline{a}_R$  and  $a_G > \underline{a}_G$ . In the fourth and worst-case scenario (lower right), where the government has neither a coercive advantage, nor an external support advantage, a government monopoly is never stable.

What determines the threshold levels of external support needed for victory? As

**Table 3.3.1:** STABILITY CONDITIONS FOR GOVERNMENT MONOPOLY, WITH EXTERNAL SUPPORT.  $\rho_G^* = \rho_R \frac{\theta_R}{\theta_G}$  is the stalemate threshold.

COERCION	EXTERNAL SUPPORT	
	G advantage ( $a_G > a_R$ )	R advantage ( $a_G < a_R$ )
G advantage ( $\rho_G > \rho_G^*$ )	Stable	Stable if $a_R < \bar{a}_R$
R advantage ( $\rho_G > \rho_G^*$ )	Stable if $a_R < \bar{a}_R, a_G > \underline{a}_G$	Unstable

the expression in (3.15) shows,  $\underline{a}_R$  is monotonically increasing in government external support ( $\frac{\delta a_R}{\delta a_G} > 0$ ), and in the size of the government's coercive advantage ( $\frac{\delta a_R}{\delta \Phi} > 0$ , where  $\Phi = \rho_G \theta_G - \rho_R \theta_R$ ). In other words, rebels can only use external support to compensate for a lack of coercive leverage if they (a) face governments with meager external resources, or (b) face governments whose own coercive advantage is razor thin. Because  $\frac{\delta a_R}{\delta \Phi} > 0$ , governments will face an incentive to offset external support for the rebels by increasing punishment, such that the selective violence ratio becomes much greater than one ( $\frac{\rho_G \theta_G}{\rho_R \theta_R} \gg 1$ ).

These conditions imply that external support for rebels can create additional incentives for the escalation of government violence. Let's assume that the government is relatively isolated from external sources of support, such that  $a_G < a_R$ , but enjoys a coercive advantage  $\frac{\rho_G \theta_G}{\rho_R \theta_R} > 1$ . If we solve 3.15 for  $\rho_G$  and take a partial derivative with respect to  $a_R$ , we obtain  $\frac{\delta \rho_G}{\delta a_R} > 0$  as long as  $a_G < \rho_R \theta_R + u$  or  $a_G < u$ . In other words, if a government's level of external support is by itself too low to offset her losses, she will need to compensate for this difference by using coercion to attract additional local support. Under these conditions, an influx of external support for the rebels only aggravates the government's supply problem in a relative sense, provoking higher levels of coercion.

### 3.4 ENDOGENOUS SELECTIVITY

Can gradual improvements in intelligence change combatants' incentives? The previous analysis rested on the assumption that combatants' ability to identify their opponents is a function of preexisting (i.e. prior to the fighting) levels of control or popular support.

Although such assumptions are common in the civil war literature (Balcells, 2010, 2011, Steele, 2011), they are obviously violated in practice. The U.S. Army's counterinsurgency field manual, for instance, notes that the frequency and quality of reporting depends on the dynamics of fighting and recruitment: "Intelligence drives operations and successful operations generate additional intelligence" (Field Manual No. 3-24, 3.25). As the number of rebel supporters in a conflict zone declines – due to attrition or defection – it becomes safer for civilians to cooperate with government forces. Meanwhile, if government operations alienate the populace – due to a lack of coercive leverage or any of the other reasons described above – it becomes less safe for civilians to offer information.

Let  $\theta_{it} \in [0, 1]$  be combatant  $i$ 's selectivity at time  $t$ . Given a starting level of selectivity at time  $t = 0$ , this parameter changes over time as a function of relative combatant support in the conflict zone:

$$\theta_{G,t+\Delta t} = \begin{cases} \theta_{G,0} & \text{if } t = 0 \\ f\left(\frac{G_t}{R_t+G_t}\right) & \text{if } t > 0 \end{cases} \quad (3.16)$$

$$\theta_{R,t+\Delta t} = \begin{cases} \theta_{R,0} & \text{if } t = 0 \\ f\left(\frac{R_t}{R_t+G_t}\right) & \text{if } t > 0 \end{cases} \quad (3.17)$$

where  $\theta_{i,0} \in [0, 1]$  is a constant initial value,  $f(\cdot)$  is a monotone increasing, continuous function on  $[0, 1]$ ,  $G_t$  is the number of active government supporters,  $R_t$  is the number of active rebel supporters, and  $R_t + G_t$  is the total combatant population in the conflict zone at time  $t$ .

As the proportion of government supporters in the local combatant population increases, the counterinsurgent's intelligence improves, enabling the government

to target rebels with higher precision and avoid civilian casualties. As the level of active support declines, the government's intelligence assets deteriorate, making it more difficult to generate selective violence.

By changing intelligence from a constant to a variable, we also induce changes to other parameters in the system, which depend directly or indirectly on  $\theta$ . If we substitute  $\theta_{i,t}$  for  $\theta_i$  in the expressions for civilian cooperation (3.1,3.2), we obtain time-varying civilian strategies

$$\mu_{R,t+\Delta t} = 1 - \frac{\rho_G \theta_{G,t}}{\rho_G + \rho_R} \quad (3.18)$$

$$\mu_{G,t+\Delta t} = 1 - \frac{\rho_R \theta_{R,t}}{\rho_G + \rho_R} \quad (3.19)$$

and a more complicated system of equations

$$\frac{\delta C}{\delta t} = k - \left( \mu_{R,t} R_t + \mu_{G,t} G_t - \rho_{R,t}(1 - \theta_{R,t}) - \rho_{G,t}(1 - \theta_{G,t}) - u \right) C_t \quad (3.20)$$

$$\frac{\delta G}{\delta t} = (\mu_{G,t} C_t - \rho_{R,t} \theta_{R,t} - u) G_t \quad (3.21)$$

$$\frac{\delta R}{\delta t} = (\mu_{R,t} C_t - \rho_{G,t} \theta_{G,t} - u) R_t \quad (3.22)$$

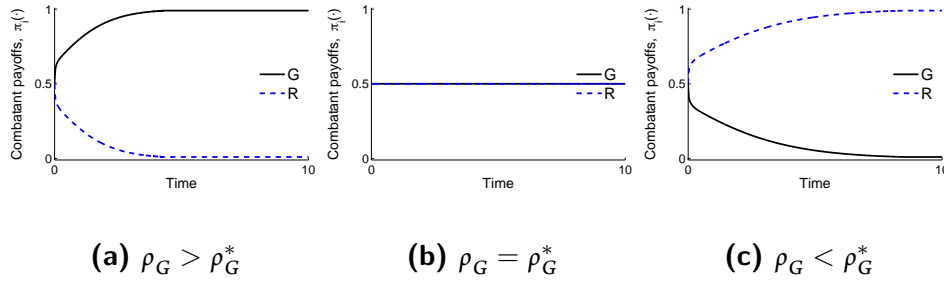
Compared to (3.3-3.5), the system now includes several new sets of endogenous, time-varying parameters. The only static terms remaining in the model are the immigration and death rates  $k$ ,  $u$ . Intelligence ( $\theta_{i,t}$ ) changes as a function of  $R_t$ ,  $G_t$  and civilian cooperation ( $\mu_{i,t}$ ) changes as a function of  $\theta_{i,t}$ . We also allow coercive strategies ( $\rho_{i,t}$ ) to adapt as new intelligence comes to light and opponents change their behavior.

These changes imply a new stalemate threshold

$$\rho_{i,t+\Delta t}^* = \rho_{-i,t} \frac{\theta_{-i,t}}{\theta_{i,t}} \quad (3.23)$$

To outbid her opponent, each combatant must determine an optimal level of punishment at the outset of the fighting ( $\rho_{i,o}$ ) – based on her opponent's initial choice

**Figure 3.4.1:** STALEMATE THRESHOLD, WITH ENDOGENOUS SELECTIVITY.



and the initial balance of selectivity – and then update it iteratively with new values of  $\theta_{i,t}$  and  $\rho_{-i,t}$ .

These modifications render the system in (3.20-3.22) too complex for a closed-form equilibrium solution of the type derived for Lemmas 2-3 (see appendix). To gain analytical traction and describe the behavior of the dynamical system over time, I turn to numerical methods. Specifically, I use 4th and 5th order Runge-Kutta numerical integration to solve the differential equations.<sup>6</sup>

How do improvements or deteriorations in intelligence impact the dynamics of irregular war? As Figure 3.4.1 suggests, the difference is one of duration rather than outcome. The equilibria reached (victory, stalemate, defeat) are the same as those in 3.2.1, which used the same initial numerical values for all parameters. However, the system converges to these equilibria more slowly than before. Holding everything else constant, the time needed to reach a government victory equilibrium is over 50 times longer than where intelligence is fixed.

What accounts for the longer duration? As the relative quality of intelligence changes over time (i.e. one combatant’s ability to identify opponents improves,

<sup>6</sup>For the purpose of the simulations, I assume a conflict zone that is at  $t = 0$  evenly contested by government and rebel supporters, and populated predominantly by neutral civilians, with  $C_0 = 100, R_0 = 5, G_0 = 5$ . For simplicity, I assume that selectivity is at the outset of the fighting equal across the combatants, and the information problem is initially uniform, with  $\theta_{G,0} = \theta_{R,0} = .5$ . I take the intelligence gathering function  $f(x) = fx$  to be linear, with  $f = 1$ . To ensure non-negative population values, I choose a  $k$  above the lower bound described in the proof to Proposition 1 ( $k = 1000$ ), and take  $u = 1$ .



while the other's declines), one side's use of coercion consequently becomes more selective, while the other's becomes more indiscriminate. As a result, cooperation with the indiscriminate side becomes gradually more costly, and civilians respond to this change by cooperating at greater rates with the more selective combatant. The indiscriminate combatant responds to civilian defection by attempting to make cooperation with her opponent more costly – escalating violence, even if this violence is very inefficient. As civilian cooperation with the opponent slows down, and the opponent becomes herself starved of new intelligence, her own violence becomes more indiscriminate and she faces the same pressures to escalate.

As a result, the stalemate threshold  $\rho_i^*$  increases exponentially over time, even if initial conditions do not favor either combatant. Adaptation to this escalatory dynamic tends to prolong the conflict, as both sides struggle to prevent civilian realignment by outbidding the other's use of coercive force. If no broad gap emerges between the relative costs of cooperation, it becomes more difficult for either combatant to rapidly consolidate civilian support.

### 3.5 OBSERVABLE IMPLICATIONS

If the model is valid, what patterns of violence should we expect to see? If the inflammatory view expects rebels to escalate in response to government violence and the suppressive view expects them to desist, the theory described here takes a middle road. There exists a threshold, at which the costs of supporting one of the combatants exceeds the costs of supporting her opponent. When this happens, security-seeking civilians flock to the other side, the besieged combatant is unable to recover losses, and the effect of violence changes from inflammatory to suppressive. The existence of this threshold creates incentives for escalation on both sides, and these incentives are strongest for the combatant with an informational disadvantage. While it is possible to reach the threshold with indiscriminate force, it takes much more violence to do so.

As we gradually transition from a purely theoretical discussion to the empirical test, it is necessary to consider what a physical manifestation of violence actually

means in formal terms. What we observe on the battlefield – and what later appears as integers in our spreadsheets – is not “strategy” as such (e.g. high  $\rho_R$  vs. low  $\rho_R$ ), but the implementation of that strategy by people (e.g. high  $\rho_R R$  vs. low  $\rho_R R$ ). As Clausewitz (1832/1984, Book 1, Ch. 1) observed, the power to wage war is “the product of two factors... namely, the sum of available means and the strength of the will.” For a violent event to occur in a particular space and time, combatant  $i$  must choose a punishment level above zero ( $\rho_i > 0$ ), and members of  $i$ 's group must be physically present to implement that strategy. Best response dynamics may well call for a strategy of “kill a thousand soldiers for every rebel dead,” but if the rebels have no forces in the area, they will do little killing.

A low level of violence may then indicate either a peaceful strategy being implemented by a large force, or a belligerent strategy implemented by a tiny force. One of the advantages of the dynamical model is that it accommodates predictions about both – including how force numbers might change over time as a result of the chosen strategy. If a particular strategy makes rebels quickly lose support, this numerical decline is built in to the model's predictions.

The intensity of violence is then a function of both punishment and local group size:

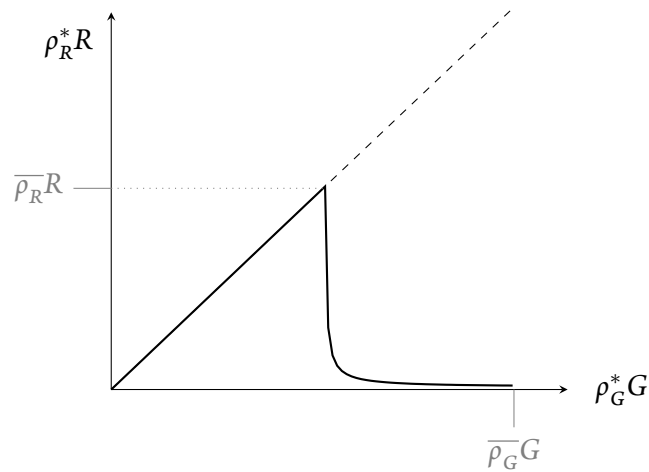
$$y_{G,t} = \rho_G^* G_t \quad (3.24)$$

$$y_{R,t} = \rho_R^* R_t \quad (3.25)$$

where  $y_{i,t}$  denotes total violence by group  $i$  at time  $t$ ,  $\rho_i^*$  is  $i$ 's equilibrium level of punishment, and  $i_t$  is the local size of  $i$ 's group at time  $t$ . Because group sizes are time-variant and endogenous to the other parameters, they cannot be ascertained from an analysis of closed-form equilibrium solutions. But we can use numerical integration to obtain estimates at specific intervals of time, or cumulative measures of violence over a conflict's full history.

Figure 3.5.1 plots the expected relationship between government and rebel violence. The solid black curve shows cumulative levels of rebel violence ( $\rho_R^* R$ , ver-

**Figure 3.5.1:** STALEMATE THRESHOLD. Government violence on the horizontal axis ( $\rho_G^*G$ ) and rebel violence on the vertical ( $\rho_R^*R$ ). The solid black curve shows the coordinate pairs  $(\rho_G^*G, \rho_R^*R)$ , with  $\rho_i^* = \rho_{-i} \frac{\theta_{-i}}{\theta_i}$  and  $\rho_i^* \leq \bar{\rho}_i$ . The dashed, diagonal line shows the same response curve without the upper bound on  $\rho_i^*$ .



tical axis) associated with each hypothetical level of government violence ( $\rho_G^*G$ , horizontal axis). The figure assumes that both sides punish at stalemate level  $\rho_i^* = \rho_{-i} \frac{\theta_{-i}}{\theta_i}$ , subject to the constraint  $\rho_i^* \leq \bar{\rho}_i$ . The dashed, diagonal line shows the rebels' response curve without this constraint.<sup>7</sup>

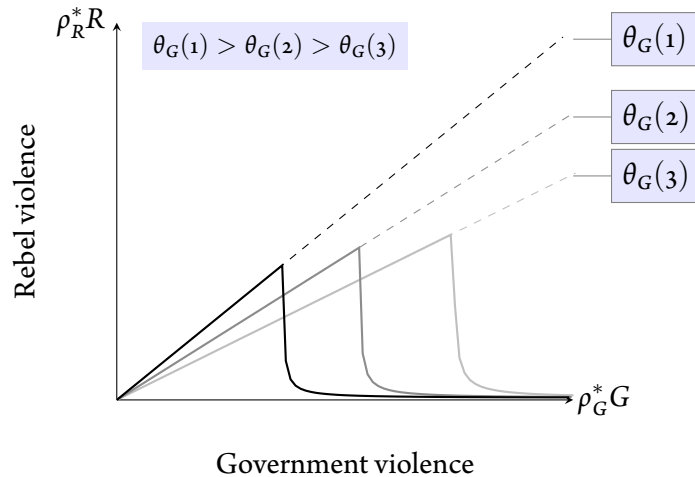
The threshold effect is readily visible in Figure 3.5.1. Rebel violence first rises in response to increases in government violence, and then drops exponentially. This change occurs where the government escalates to  $\rho_G = \bar{\rho}_R \frac{\theta_R}{\theta_G}$ , forcing the rebels to produce violence at maximum capacity. Because the rebels cannot employ a level of punishment greater than  $\bar{\rho}_R$ , they can no longer maintain a stalemate if the government escalates further. When the government does so, rebels start taking disproportionately high losses, security-seeking civilians begin cooperating with the government at higher rates, and the system starts to converge toward a government monopoly.

This pattern is starkly different from what we would observe in the absence of constraints on punishment (the dashed line in Figure 3.5.1). Here, the two sides continue in mutual escalation, with no discernible breakthrough. The contrast between the two lines highlights the difference in observable implications between the threshold model and the inflammatory model discussed in Chapter 1 (see Figure 1.1.1). It also recalls an inherent tension between strategic incentives to escalate toward the extreme, and physical limits on military power. As Clausewitz (1832/1984, Book 1, Ch. 1) wrote, “both [combatants] proceed to extremities, to which the only limitations are those imposed by the amount of counteracting

<sup>7</sup>The curve is based on numerical integration of the system in Equations 3.3-3.5. Numerical integration was necessary to obtain values for  $G_t, R_t$  at each  $t$ . I assume that  $G$  and  $R$  have the same share of initial supporters at  $t = 0$  ( $G_0 = R_0 = .01$ ) and most of the population is initially neutral ( $C_0 = .8$ ). I also assume that  $R$  has superior selectivity ( $\theta_G = .075, \theta_R = .925$ ), but  $G$  has a higher upper bound on punishment ( $\bar{\rho}_G = 100, \bar{\rho}_R = 50$ ). The natural immigration and death parameters were held constant at  $k = \frac{(\rho_R \theta_R + u - a_G)(\rho_G(1 - \theta_G) + \rho_R(1 - \theta_R) + u)}{\mu_G} + c$  (see Proof to Proposition 1),  $u = 1$ . To produce the curve, I modified the level of government punishment  $\rho_G^*$  over the interval  $(1, \bar{\rho}_G)$ , with both sides playing the strategy  $\rho_i^* = \begin{cases} \rho_{-i} \frac{\theta_{-i}}{\theta_i} & \text{if } \rho_i^* \leq \bar{\rho}_i \\ \bar{\rho}_i & \text{if } \rho_i^* > \bar{\rho}_i \end{cases}$ . I then evaluated the behavior of the system at each strategy profile  $(\rho_G^*, \rho_R^*)$ , and found the coordinate pairs  $(\rho_G^*G, \rho_R^*G)$  by integrating the expressions in 3.24-3.25 over  $(t_0, t_{max})$ , with  $t_0 = 0, t_{max} = 100$ .

force on each side.”

**Figure 3.5.2:** STALEMATE THRESHOLD AND SELECTIVITY. Government violence on the horizontal axis ( $\rho_G^*G$ ) and rebel violence on the vertical ( $\rho_R^*R$ ). The solid black curves show the coordinate pairs  $(\rho_G^*G, \rho_R^*R)$ , with  $\rho_i^* = \rho_{-i} \frac{\theta_{-i}}{\theta_i}$  and  $\rho_i^* \leq \bar{\rho}_i$ . Each curve assumes a different level of government selectivity  $\theta_G$ , with  $\theta_G(1) > \theta_G(2) > \theta_G(3)$ .



Does the threshold change when government violence becomes more or less indiscriminate? Figure 3.5.2 shows the same response curve with different values of the selectivity parameter  $\theta_i$ . The threshold occurs at a lower level of government violence when selectivity is high ( $\theta_G(1)$ ), and a higher level of violence when selectivity is low ( $\theta_G(3)$ ).<sup>8</sup>

As we should expect, higher selectivity increases the slope of the rebels’ response curve. When the government is better able to distinguish rebels from civilians ( $\theta_G(1)$ ), rebels need to use a higher level of punishment to keep up with the government’s coercive effort – causing them to hit their upper limit sooner. If, however, the government lacks such information and her violence is more indiscriminate

<sup>8</sup>Numerical values were  $\theta_G(1) = .06, \theta_G(2) = .075, \theta_G(3) = .095$  and  $\theta_R(1) = .94, \theta_R(2) = .925, \theta_R(3) = .905$ . All other parameters were the same as in in Figure 3.5.1.

( $\theta_G(3)$ ), the rebels can afford to punish at a lower rate, and the government will need to use more violence to reach the threshold.

### 3.6 CONCLUSION

This chapter presented a mathematical model of coercion and public support in irregular war. The model yields several empirical implications. First, it shows that victory (i.e. a monopoly on the use force) is sustainable only if a combatant can inflict more costs on her opponent than the opponent can against her. This condition holds if a combatant can exceed a *stalemate threshold* of selective violence, matching the opponent's level of punishment, weighted by how accurately each side can target her opponents.

The existence of this threshold implies that indiscriminate violence is not necessarily counterproductive. Where a combatant lacks the information needed for selective violence, she can substitute firepower for intelligence, and escalate punishment to the point where terrorized civilians bandwagon with the side capable of inflicting the most harm.

The model implies that mutual escalation is the dominant pattern of coercive behavior. If violence declines, it will be due to attrition rather than strategy change. If combatant capacity remains constant or improves, the model predicts more punishment. The only condition under which violence would decline is if coercion deters civilians from providing support (i.e. a drop in capacity).

The model further shows that the nature of escalation is asymmetric. The lower a side's ability to distinguish between her opponents and civilians, the higher her equilibrium level of punishment must be. Indiscriminate violence, in this sense, is less efficient than selective violence, since much more of it is needed to attain the same strategic effect. While it is possible to establish a monopoly on the use of force with poor selectivity, it takes considerably more resources to do so.

Before considering further extensions of the model, let us first evaluate the empirical validity of some of these claims. The next two chapters use micro-level data from dozens of contemporary armed conflicts to test Propositions 1 (“the stale-

mate threshold exists”) and 2 (“information problems drive escalation”). Chapter 4 offers a cross-national empirical test, with district-week level data on violent events in over 80 civil conflicts since 1979. Chapter 5 offers a more in-depth look at violence patterns within a single case: the First Chechen War of 1994-96. Chapter 6 then revives the theoretical discussion, by exploring several non-coercive uses of indiscriminate violence.

*There are many victories worse than a defeat.*

George Eliot

# 4

## Indiscriminate Violence in Irregular War,

1979-2013

The theoretical model outlined in the previous chapter makes several claims about violence in irregular war. First, to suppress a rebellion, a government must escalate coercion beyond a stalemate threshold, where she inflicts more costs on the rebels than the rebels can against her (Proposition 1). Second, incentives to escalate are stronger where the government has difficulty distinguishing between rebels and civilians (Proposition 2). Third, and related, indiscriminate violence is less efficient than selective violence at suppressing rebel activity.

The current chapter tests these propositions with disaggregated data on over 80 civil conflicts and insurgencies since 1979, from multiple event datasets covering Africa, Asia, Latin America and Europe. Using a novel cross-national sub-national time-series (CSNTS) research design, I exploit variation within and across conflict



zones, as well as over time, at a level of empirical detail previously infeasible due to limitations on data and computing power. In subsequent chapters, I supplement these results with a more detailed study of violence within individual conflicts in Russia and the Soviet Union.

The data show strong empirical support for the model's predictions. Across a diverse sample of contemporary civil conflicts, one pattern is nearly universal: coercion works, just not in moderation. Rebel attacks are highest following intermediate levels of government violence – high enough to provoke reciprocal escalation on the part of the rebels, but below the threshold needed to deter civilians from supporting them. This upside-down U-shaped curve holds for selective and indiscriminate violence.

As expected, the information problem helps explain much of the escalation. Government violence is most intense and most indiscriminate where geographic and ethnolinguistic conditions impede intelligence collection, making it difficult to distinguish rebels from civilians.

Finally, I find that selective tactics outperform indiscriminate ones in reducing rebel violence. When employed in similar contexts, operations involving indiscriminate tactics tended to precede a higher level of rebel activity than selective ones.

#### 4.1 DATA AND RESEARCH DESIGN

Two event data sources are well suited to test my theoretical propositions, although neither is ideal. The Armed Conflict Location and Event Data (ACLED) project includes data on the violent activities of governments, opposition groups, political parties, and militias across 58 countries in Africa, Asia and the Balkans, from 1997 to 2014 (Raleigh et al., 2010). For my purposes, ACLED has the advantage of distinguishing between violence directed against armed political actors and violence against civilians. The disadvantages of ACLED include purportedly “uneven quality control” standards in the collection stage, and the lack of consistent actor identifiers, which would enable us to track the behavior of a single warring party

over time (Eck, 2012). Further, even with over 80,000 events, ACLED contains only a fraction of the incidents that transpired in the relevant time period. For instance, ACLED records only 3325 events in Afghanistan between 1997 and 2010, while the U.S. Government's Worldwide Incidents Tracking System (WITS) reports 7846 for just four of these years, in 2005-2009.

The second event data source, the Global Database on Events, Language and Tone (GDELT), is the largest event data collection that currently exists in social science, covering over 200 million events around the globe, from 1979 to 2014 (Leetaru and Schrodt, 2013). Unlike ACLED, GDELT relies on the automated text analysis of news reports, through the CAMEO typology and TABARI coding system previously developed by Philip A. Schrodt and colleagues. The primary advantages of GDELT include its global scope and public availability. Yet this increased coverage implies a far larger noise-to-signal ratio than ACLED and a higher rate of false positives (Ward et al., 2013). Like ACLED, GDELT also lacks consistent actor identifiers and includes many events that lie outside the scope of our theory, like non-political violence (e.g. criminal activity) or political non-violence (e.g. peaceful protests).

These datasets are not the only resources of comparable scope and detail. Other large-scale manual data collection projects include the Uppsala Conflict Data Program Georeferenced Events Dataset (UCDP GED), Political Instability Task Force (PITF) Worldwide Atrocities Dataset, and the Social Conflict in Africa Database (SCAD). Among automated data collection efforts, GDELT's main peer competitors are the Integrated Crisis Early Warning System (ICEWS), King and Lowe (2003)'s "10 Million International Dyadic Events" data set and others coded using the Integrated Data for Events Analysis (IDEA) framework, and earlier datasets developed with Schrodt's Kansas Event Dataset (KEDS) program. Despite their limitations, ACLED and GDELT arguably represent the current state of the art in the field among, respectively, manual and automated event data collection projects with multi-national coverage.

The shortcomings of ACLED and GDELT – like those of their closest counterparts – are significant and probably intractable. As such, these data are appropriate

for only a tentative test of my theoretical predictions. Yet a tentative test can still shed useful light, particularly if I am able to detect the same empirical regularities in multiple datasets, in different conflicts, assembled by different research teams with vastly different methodologies. If my propositions find support in such disparate datasets, I can have more confidence in the validity of my theoretical claims. In subsequent chapters, I supplement these analyses with evidence from original subnational data, which I acquired through both automated event coding and manual archival research.

#### 4.1.1 DATA MANAGEMENT

The raw records released by ACLED and GDELT require extensive filtering and re-classification, to align the data with theoretically-relevant constructs and to prepare them for statistical analysis. The following discussion provides a brief overview of the process by which I organized the data into consistent typologies of events and levels of aggregation. I include a more detailed description – including country-specific actor classifications – in the appendix to this chapter.

At the atomic level, both ACLED and GDELT comprise individual event records, with information on dates, geographic coordinates, actors, targets, and event descriptions. Taken together, the data cover over 80 contemporary armed conflicts on four continents. ACLED includes data on over 80,000 events from 58 conflicts in 57 countries since 1997.<sup>1</sup> GDELT boasts global coverage since 1979, but I focused my efforts on a more limited subset of 1,861,050 events from 26 armed conflicts in 23 countries.<sup>2</sup>

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<sup>1</sup>The conflict zones include Afghanistan, Algeria, Angola, Benin, Bosnia and Herzegovina, Burkina Faso, Burundi, Cambodia, Cameroon, Central African Republic, Chad, Republic of Congo, Djibouti, Democratic Republic of the Congo (First and Second Congo Wars), Egypt, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Haiti, Côte d'Ivoire, Kenya, Kosovo, Laos, Lesotho, Liberia, Libya, Macedonia, Madagascar, Malawi, Mali, Mauritania, Morocco, Mozambique, Myanmar, Namibia, Nepal, Niger, Nigeria, Pakistan, Rwanda, Senegal, Sierra Leone, Somalia, South Africa, Sudan, Swaziland, Tanzania, Togo, Tunisia, Uganda, Zambia, Zimbabwe.

<sup>2</sup>The conflicts include Afghanistan (1979-1989), Afghanistan (1992-1996), Afghanistan (2001-2013), Djibouti (1991-1994), Georgia (1991-1993), Croatia (1991-1995), Iraq (1980-1988), Iraq (2003-2011), Israel (1987-1993), Kosovo (1991-1999), Libya (2010-2011), Sri

Not all of the events and actors included in the data are relevant to my theory, the scope of which is political violence by governments and non-state groups. The public release of ACLED and GDELT data as individual events, however, enables me to drop irrelevant categories, and aggregate the remainder of the data into a spatiotemporal unit of analysis that is directly comparable across countries and conflicts.

## ACTORS

For each event, I classified its initiators and targets into three categories: government, rebel and civilian. The government group includes the military, police, intelligence agencies and other federal, regional and municipal security services subordinate to the executive branch, as well as militias and paramilitary forces affiliated with the government or ruling party. The rebel category includes any armed opposition group seeking to challenge the government's monopoly on the use of force – locally, regionally, or nation-wide. This category includes organized insurgencies and terrorist organizations, revolutionary movements, paramilitary wings of opposition parties, secessionist groups, local “self-defense units” and ethnic militias outside the government's control. The civilian group includes all unarmed persons, demographic groups typically not subject to conscription or general mobilization (i.e. children, women, the elderly), as well as refugees, displaced persons and peaceful protestors.

Each country, conflict and time period featured specific constellations of actors, and a host of complicating factors – like changes of government, coalition building and realignments – that rendered a “cookie-cutter” actor classification infeasible. ACLED and GDELT also employ project-specific actor codes, names and abbreviations. For this reason, I created a custom actor dictionary for each conflict, which supplemented (or supplanted) these general classes of actors with the names of

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Lanka (1983-1987), Moldova (1990-1992), Mali (1989-1995), Nicaragua (1981-1988), Nepal (1996-2006), Peru (1980-1999), Sierra Leone (1991-1999), El Salvador (1979-1992), Somalia (1981-1991), Syria (1979-1982), Syria (2011-2013), Tajikistan (1992-1997), Turkey (1983-1999), Yemen (1986-1987), South Africa (1983-1994).

specific organizations and individuals (see Appendix II.12.1).

## TACTICS

I classified each violent event into one of two types: selective violence and indiscriminate violence. The theoretical model specifies the conceptual distinction between selective and indiscriminate violence as one of target selection. In selective violence, targets are punished according to individual criteria, like information that the target is a member of an opposing combatant group. The targets of indiscriminate violence are punished according to collective criteria, such as location or ethnicity. This difference in target selection can be the result of variation in accuracy (i.e. the ability to identify targets, which typically relates to the quality of intelligence) or precision (i.e. the ability to engage a target, which more closely relates to weapons systems or technologies of violence). Indiscriminate violence, in this sense, is less informationally intensive than selective violence, and does not require specific tips from informants, pervasive surveillance or direct interaction with each target. However, indiscriminate violence implies a higher error rate in target selection, and a higher rate of casualties among neutral civilians with no ties to the opposition.

Because GDELT offers substantially more information about tactics than ACLED, operational definitions do not perfectly align across the two datasets. ACLED contains a limited assortment of event types, the most common categories being “battle,” “violence against civilians” and “riots/protests.” Because the last category includes many non-violent events, I dropped it from the data. In keeping with the conceptual definition of selectivity as the ability to distinguish between combatants and civilians in the distribution of punishment, I treated cases of “violence against civilians” as indiscriminate and cases of “battle” as selective.

GDELT permits a richer operationalization of selective and indiscriminate violence, accounting for both targets and technologies of violence, accuracy and precision. Here, I narrowed the selective violence category to include uses of force directed against non-civilian targets, involving direct fire weapons or other dis-

criminating tactics, like firefights, arrests and assassinations. The indiscriminate category includes any use of force in which the targets were civilian, or which involved indirect fire weapons and tactics associated with collective targeting, like air strikes, artillery shelling, mass killings, resettlement and mobility restrictions. As with ACLED, I removed all categories of events that did not involve the political use of force.<sup>3</sup>

Equipped with these simplified, but relatively consistent categories of initiators, targets and tactics, I classified each event as a government or rebel-initiated use of force, involving selective or indiscriminate tactics. I also created a third category of violence, “any tactics,” which comprises both selective and indiscriminate violence, as well as any political use of force that I was unable to place in either category.

#### LOCATIONS AND DATES

To aggregate the individual incidents of violence into consistent units of space and time, I chose the district-week. Districts are second-order administrative divisions, lower than a province or governorate, but above a village or town. They are comparable in size to a U.S. county, German Kreis or Russian rayon. Districts are politically relevant as centers of local government power. While the scope of district-level government autonomy varies widely from state to state, core functions include at least partial authority over law enforcement and policing.

Temporal variation in violence can be studied on many scales, but I focus on variation across the week for several reasons. First, the time needed to plan and authorize an operation depends on the work schedules and competing priorities of staff officers and key decision-makers in the political and military chain of command. Unless the military engagement results from a routine patrol, these bureaucratic factors tend to create a lag from several hours to several days from the receipt of a critical piece of intelligence to the execution of an operation. Second, the logistical requirements of mobilizing and deploying units and redistributing

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<sup>3</sup>The CAMEO event codes I kept in the data include those beginning with the digits 14 (violent protests), 17 (coerce), 18 (assault), 19 (fight) and 20 (unconventional mass violence).

military resources across competing theaters of operation provide a further source of delay. An hourly or daily scale may be too granular to accommodate these complicating factors, but a month or year is too long given the time-sensitive nature of many counterinsurgency operations. Third, weather patterns may prevent or enable combatants to identify and strike targets. A higher-order temporal unit, like the month or quarter, obscures variation in the weather characteristics most likely to impact tactical decisions, such as cloud cover and precipitation.

For these and other reasons, the week has become a standard temporal unit of analysis in disaggregated conflict research (see, for instance, Condra and Shapiro 2012, Johnston and Sarbahi 2014). My theoretical model, however, makes predictions about long-run, equilibrium patterns of violence, not short-term fluctuations. To capture both the immediate and longer-term impact of violence, I conducted my analyses at multiple levels of aggregation – from one week to twelve.

#### CONTROL VARIABLES

In addition to the strategic interaction between government forces and rebels, several exogenous characteristics of the local environment may drive the quantity and quality of political violence. As previously discussed, I expect government violence to be more intense and indiscriminate where human intelligence collection is complicated by high local group solidarity and language barriers, and where heavy foliage and land cover preclude aerial reconnaissance and surveillance. I expect violence to be less intense and more selective where such barriers do not exist. At the same time, Proposition 2 implies that logistical factors, like physical distance from hubs of political and military power, may impose constraints on the government's ability to project and escalate the use of force. To account for variation in violence – and selectivity – due to pre-existing local geographic, demographic and ethno-linguistic conditions, I merged the district-week level event counts with geospatial data from various government and private sources. These include:

- **ETHNICITY AND LANGUAGE.** I acquired data on the ethnic and linguistic structure of the local population from two sources. I used the World Lan-

guage Mapping System dataset to calculate the number of languages spoken in each district, and to identify the names of those languages (Global Mapping International, 2006). I also used the Georeferencing of Ethnic Groups data – a digital version of the Soviet *Atlas Narodov Mira* – to calculate the number of distinct ethnic groups within each district, and their names (Weidmann et al., 2010).

- **LAND COVER.** I used USGS’s Global Land Cover Characteristics database to calculate the proportion of a district’s land covered by (a) forests, (b) open terrain, (c) wetlands, or (d) farmland (Loveland et al., 2000).<sup>4</sup>
- **ELEVATION.** I used the U.S. National Oceanographic and Atmospheric Administration’ ETOPO5 5-minute gridded digital elevation model to calculate summary statistics on the mean, minimum, maximum and standard deviation of elevation in each district (NOAA, 1988).
- **URBAN AREAS AND POPULATION DENSITY.** I used the USGS Global GIS database to calculate the number of unique built-up areas within each district (Hearn et al., 2005). I also calculated the proportion of a district’s territory designated as “urban” land use (Defense Mapping Agency, 1992, Loveland et al., 2000),<sup>5</sup> and used the Gridded Population of the World raster dataset to calculate average local population density in 1990, 1995, and 2000 (CIESIN and Columbia University, 2005).<sup>6</sup>
- **DISTANCE TO ADMINISTRATIVE CENTERS.** To capture the capacity of the government to project force outside her local hubs of power, I calculated

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<sup>4</sup>The IGBP land cover designations and codes for forests are: evergreen needleleaf, evergreen broadleaf, deciduous needleleaf, deciduous broadleaf, and mixed forests (codes 1-5). For open terrain: closed or open shrublands, woody savannas, savannas, grasslands, or barren/sparsely vegetated land (codes 6-10, 16). For wetlands: permanent wetlands and water bodies (codes 11, 17). For farmland: croplands and nanical vegetation mosaic (codes 12, 14).

<sup>5</sup>The IGBP land cover designation for urban terrain is “urban and built-up” (code 13).

<sup>6</sup>I used the most recent population density values wherever possible. Since the temporal domain of ACLED begins in 1997, I used data from either 1995 or 2000, depending on the year of observation. Because earlier satellite population data are not available, I used population density data from 1990 for all GDELT events prior to that year.



the distance of each district centroid from the nearest provincial capital. I also calculated distances from national capital cities.

- **ROADS.** To capture the logistical accessibility of a conflict zone, I used the Digital Chart of the World's vector data on primary and secondary roads to calculate the number of roads leading to and from each district, as well as the total length and density of roads within that district (Defense Mapping Agency, 1992).

Before we can proceed to the analysis, a few caveats are necessary. The near-global scope of the ACLED and GDELT conflict data required the collection of similarly global data on the geographic and demographic variables listed above. Such a broad scope almost always entails trade-offs in either the resolution of the data, their recency, or both. The current data collection effort was no exception. The Digital Chart of the World, for instance, was originally released in 1992. Although higher-resolution and more recent data are certainly available for individual countries and regions, systematic variation in the methodology and sources used to collect them would have significantly limited my ability to make cross-national comparisons. Insofar as measurement error and other sources of uncertainty might confound my statistical findings, the global scope of these data makes it safer to assume that the errors are relatively consistent across countries. In subsequent chapters, I conduct additional analyses with finer-grained subnational data, which help alleviate some of these problems.

#### 4.1.2 EMPIRICAL STRATEGY

The structure of the data and scope of the theoretical claims necessitate an array of statistical tests, including multilevel modeling, selection models and matching. The analysis here can be organized into three parts. First, I am interested in the shape of the relationship between government and rebel violence, and whether this relationship differs for selective and indiscriminate counterinsurgency tactics. Second, I am interested in the determinants of the government's tactical choices, particularly quantitative escalation in the number of operations, and qualitative

shift from indiscriminate to selective tactics. Third, I am interested in whether selective and indiscriminate tactics are differentially effective in the suppression of rebel violence.

#### PART ONE

For the first of these queries – the relationship between government and rebel violence – I employed a fixed-effects Poisson regression model, where the dependent variable  $y_{ijt}$  is the number of rebel attacks observed in district  $j \in \{1, \dots, J\}$  of conflict zone  $i \in \{1, \dots, N\}$ , during week  $t \in \{1, \dots, T_i\}$ . I assume that  $y_{ijt}$  follows a Poisson distribution, with rate parameter  $\lambda_{ijt}$ :

$$\ln \lambda_{ijt} = \gamma_1 z(\cdot)_{ijt-1} + \gamma_2 z^2(\cdot)_{ijt-1} + a_1 y_{ijt-1} + a_2 \mathbf{W}y_{ijt-1} + \beta \mathbf{x}_j + v_i + \varepsilon_t \quad (4.1)$$

where  $z_{ijt}(\cdot)$  is the number of incidents of government-initiated violence of type  $(\cdot) \in \{\text{selective, indiscriminate, any tactics}\}$  that took place in district  $j$  of conflict zone  $i$ , during week  $t - 1$ .<sup>7</sup> As regards the other terms of the model,  $y_{ijt-1}$  is a first-order temporal lag of the dependent variable,  $\mathbf{W}y_{ijt-1}$  is a time-lagged spatial lag,  $\mathbf{x}_j$  is a vector of the time-invariant district-level control variables listed in the previous section, while  $v_i$  and  $\varepsilon_t$  are conflict-level and temporal fixed effects.<sup>8</sup> By way of an additional robustness check, I ran an alternative model specification that replaced the term  $\beta \mathbf{x}_j$  with district-level fixed effects  $\zeta_j$ :

$$\ln \lambda_{ijt} = \gamma_1 z(\cdot)_{ijt-1} + \gamma_2 z^2(\cdot)_{ijt-1} + a_1 y_{ijt-1} + a_2 \mathbf{W}y_{ijt-1} + \zeta_j + v_i + \varepsilon_t \quad (4.2)$$

<sup>7</sup>Because the theoretical model predicts a non-monotonic, threshold relationship between government and rebel violence,  $z$  enters the right side of equation 4.1 as a quadratic term, although I also estimated a restricted version of the model that drops the squared term:  $\ln \lambda_{ijt} = \gamma_1 z(\cdot)_{ijt-1} + a_1 y_{ijt-1} + a_2 \mathbf{W}y_{ijt-1} + \beta \mathbf{x}_j + v_i + \varepsilon_t$

<sup>8</sup>For computational convenience, I estimated this model by maximum likelihood, with dummy variables for all groups  $i$  and  $t$  to directly estimate the fixed effects. This estimation strategy has been shown to yield identical estimates for the coefficient vector  $\beta$  and the associated covariance matrix as conditional likelihood (Cameron and Trivedi, 1998).

The expression in 4.1 represents a model for the SHORT-TERM impact of government violence on rebel attacks, which assumes that any effects of  $z$  on  $y$  extend only to the week immediately following a government use of force. To examine LONG-TERM impacts, I also ran a second model:

$$\ln \lambda_{ijt} = \gamma_1 z(\cdot)_{ijt-1} + \gamma_2 z^2(\cdot)_{ijt-1} + \alpha_1 y_{ijt-1} + \alpha_2 \mathbf{W}y_{ijt-1} + \beta \mathbf{x}_j + v_i + \varepsilon_t \quad (4.3)$$

where  $\lambda_{ij\tau}$  is the rate parameter for  $y_{ij\tau}$ , the number of rebel attacks in  $ji$  during the entire time window  $\tau = \{t, \dots, t + \Delta t\}$ . In the results presented below, I used  $\Delta t = 12$  weeks, although sensitivity analyses at other levels of aggregation were consistent.

While 4.1-4.3 permit unrestricted heterogeneity across conflicts and districts, the Poisson models still assume that the mean of each count must equal its variance. To account for potential over-dispersion in the data, I also estimated fixed-effects negative binomial models (Allison and Waterman, 2002), which assume that  $y_{ijt}$  follows a count distribution with a variance potentially exceeding the mean.

In addition to the hierarchical models in 4.1-4.3, I estimated separate regressions for each of the  $N$  conflict zones:

$$\ln \lambda_{jt} = \gamma_1 z(\cdot)_{jt-1} + \gamma_2 z^2(\cdot)_{jt-1} + \alpha_1 y_{jt-1} + \alpha_2 \mathbf{W}y_{jt-1} + \beta \mathbf{x}_j + \varepsilon_t \quad (4.4)$$

$$\ln \lambda_{j\tau} = \gamma_1 z(\cdot)_{j\tau-1} + \gamma_2 z^2(\cdot)_{j\tau-1} + \alpha_1 y_{j\tau-1} + \alpha_2 \mathbf{W}y_{j\tau-1} + \beta \mathbf{x}_j + \varepsilon_t \quad (4.5)$$

Unlike 4.1-4.3, the individual regressions assume that errors are independent across conflicts. Yet this additional test also helps guard against the possibility that the results of 4.1-4.3 are heavily driven by a handful of influential cases. I also ran random effects specifications of all the models listed here.

## PART TWO

For the second part of the analysis – the determinants of escalation – I employed two sets of models: a fixed-effects Poisson regression to model the determinants of quantitative escalation, and logit regression to model the determinants of quali-

tative choices to use indiscriminate tactics. The first of these takes a similar expression to 4.1, capturing SHORT TERM variation:

$$\ln \mu_{ijt} = \gamma_1 y_{ijt-1} + \alpha_1 z_{ijt-1} + \alpha_2 \mathbf{W} z_{ijt-1} + \beta \mathbf{x}_j + v_i + \varepsilon_t \quad (4.6)$$

where  $\mu_{ijt}$  is the rate parameter for  $z_{ijt}$ , the number of government-initiated acts of violence (of any type) in district  $j$  of conflict zone  $i$  during week  $t$ . As before, I also ran a model to explain LONG TERM variation:

$$\ln \mu_{ij\tau} = \gamma_1 y_{ij\tau-1} + \alpha_1 z_{ij\tau-1} + \alpha_2 \mathbf{W} z_{ij\tau-1} + \beta \mathbf{x}_j + v_i + \varepsilon_t \quad (4.7)$$

where  $\mu_{ij\tau}$  is the rata parameter for  $z_{ij\tau}$ , the number of government operations in  $ji$  during the time window  $\tau = \{t, \dots, t + \Delta t\}$ .

I model the qualitative choice between selective and indiscriminate violence through a slightly different approach. The first distinction is a change of unit of analysis from a district week to a counterinsurgency operation. This shift entails stripping the data of all observations in which the government did not conduct any operations (i.e. where  $z_{ijt} = 0$ ). For the remaining district-weeks, I created a dummy variable  $z(\text{indiscriminate})_{ijt}$ :

$$z(\text{indiscriminate})_{ijt} = \begin{cases} 1 & \text{if the government used indiscriminate tactics in } ijt \\ 0 & \text{if the government used } \textit{only} \text{ selective tactics in } ijt \end{cases} \quad (4.8)$$

I then modeled the conditional probability  $P(z(\text{indiscriminate})_{ijt} = 1 | \mathbf{x}_j, y_{ijt-1}, v_i, \varepsilon_t)$  with a mixed effects logit:

$$\eta_{ijt} = \gamma_1 y_{ijt-1} + \alpha_1 z(\text{indiscriminate})_{ijt-1} + \beta \mathbf{x}_j + v_i + \varepsilon_t \quad (4.9)$$

where  $\eta_{ijt}$  is the linear predictor in the inverse logit link function

$$P(z(\text{indiscriminate})_{ijt} = 1 | \mathbf{x}_j, y_{ijt-1}, v_i, \varepsilon_t) = \frac{\exp(\eta_{ijt})}{1 + \exp(\eta_{ijt})} \quad (4.10)$$

### PART THREE

For the third query – the relative effectiveness of selective and indiscriminate tactics – I employed statistical matching. Matching is a method for the statistical analysis of observational data, which seeks to minimize imbalance on pretreatment covariates between a treatment group (indiscriminate violence,  $z(\text{indiscriminate})_{ijt} = 1$ ) and a comparison group (selective violence,  $z(\text{indiscriminate})_{ijt} = 0$ ). By matching treatment cases to their closest comparison cases in the sample, and discarding data points without a close neighbor in the other group, matching seeks to ensure that treatment assignment is ignorable, or independent of the outcome conditional on observable pre-treatment covariates. The advantage of this technique is that it offers an intuitive way to reduce model dependence and avoid excessive extrapolation in statistical inference. The primary disadvantage is the assumption of no omitted variable bias. In the current example, however, the absence of a valid instrument with plausible exclusion restrictions rendered this assumption less problematic than those associated with alternative identification strategies.

I began with the operational-level dataset used to estimate 4.9, in which all district-week observations involved at least one incident of government violence. I separated these data into two groups: one in which government forces employed indiscriminate counterinsurgency tactics (treatment), and one in which all of the tactics used were selective (comparison). Because some districts experienced more than one episode of violence per week, I collapsed contemporaneous operations into single events. I classified cases where government forces employed both indiscriminate and selective tactics as indiscriminate. For each treatment case, I looked for a comparison case where selective tactics were used, but all other conditions – language, terrain, pre-existing levels of violence, and other factors – were as similar as possible. I matched exactly on some key parameters, like conflict zone  $i$  and

time period  $t$ .

As is widely recognized, but rarely addressed in practice, reliance on a single matching method can yield problematic inferences. For instance, King et al. (2011) show that the use of propensity scores with calipers can in some instances approximate random matching and lead to worse imbalance. To guard against the idiosyncrasies of any single approach, I employed an ensemble of matching solutions, including propensity scores, Mahalanobis distance, and coarsened exact matching.

Post-matching, I estimated the effect of indiscriminate violence on subsequent rebel activity with the following Poisson regressions:

$$\ln \lambda_{ijt} = \gamma_1 z(\text{indiscriminate})_{ijt-1} + \alpha_1 y_{ijt-1} + \alpha_2 \mathbf{W}y_{ijt-1} + \beta \mathbf{x}_j + v_i + \varepsilon_t \quad (4.11)$$

$$\ln \lambda_{ij\tau} = \gamma_1 z(\text{indiscriminate})_{ijt-1} + \alpha_1 y_{ijt-1} + \alpha_2 \mathbf{W}y_{ijt-1} + \beta \mathbf{x}_j + v_i + \varepsilon_t \quad (4.12)$$

where  $\lambda_{ijt}$  is the rate parameter for rebel violence ( $y_{ijt}$ ), 4.11 is the expression for SHORT-TERM effects and 4.12 is the expression for LONG-TERM effects. As before, I replicated all analyses with negative binomial models to account for over-dispersion.

## 4.2 SUPPRESSION OF REBEL VIOLENCE

The effect of government violence on the expected number of rebel attacks is curvilinear, first rising, and then declining. Figures 4.2.1 and 4.2.3 summarize the results of the first series of tests, run separately for all ACLED and all GDELT data. Figures 4.2.2 and 4.2.4 report results for individual conflicts within each dataset. Each set of figures comprises four graphics: (1) a map showing the spatial distribution of violence by district, over the full period of observation, (2) a simulation of the expected number of rebel attacks following a given number of government operations – of any type – per week, (3) the same simulations, only for selective government violence, and (4) the same simulations, for indiscriminate government violence.<sup>9</sup> Due to space considerations, I report only the LONG TERM models de-

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<sup>9</sup>All other variables held constant at their median values.

scribed in equations 4.3 and 4.5. The SHORT TERM results were broadly consistent with these.

The results support my theoretical predictions: almost all models and simulations show an “upside-down U” shaped relationship between government and rebel violence. Up to a certain threshold, an increase in counterinsurgent operations tends to provoke an increase in rebel activity. Once the government escalates beyond this threshold, each additional unit of effort tends to reduce subsequent rebel attacks.<sup>10</sup>

This pattern is consistent for both ACLED and GDELT data, in the combined models and in those estimated separately for each conflict. This pattern holds for the long-term effect of government violence on rebel attacks in the next 12 weeks, and for the short term impact during the one week immediately following the government operations. This result is robust to alternative model specifications, conditioning for district-level control variables, conflict-level, district-level, and temporal fixed and random effects.

The theoretical model explains this pattern as an outcome of two interrelated dynamics. First, equilibrium behavior is always one of mutual escalation: the combatants compete for popular support by convincing civilians that supporting the opponent is costlier than supporting them. This requires that they punish their opponents at a higher rate than the opponents can punish them (Proposition 1). Second, this mutual escalation will continue until one of the two sides exceeds the stalemate threshold – which depends less on the raw balance of power, than on physical and informational constraints on that power (Proposition 2). At this critical point – the vertex of the curves in Figures 4.2.1-4.2.4 – the strategic requirements of escalation begin to exceed the opponent’s capabilities. Rebel violence decreases not due to a strategy shift away from escalation, but because civilians find it too costly to join the rebellion, and the rate attrition surpasses rebels’ replacement capacity.

Two additional empirical patterns are worth highlighting. First, the curvilinear

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<sup>10</sup>Likelihood ratio tests confirm that including the quadratic terms significantly improves model fit.

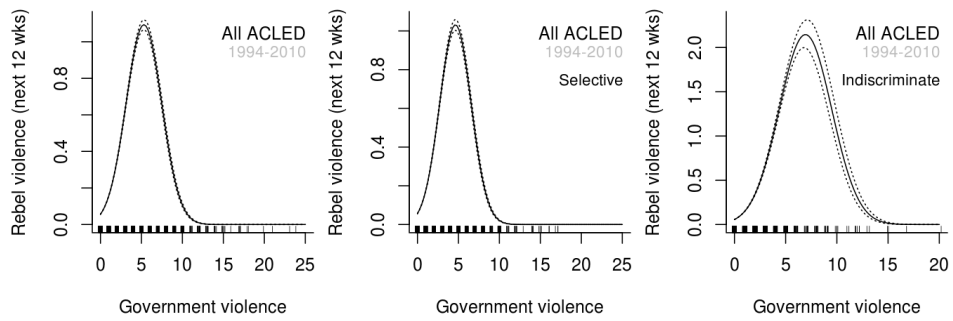
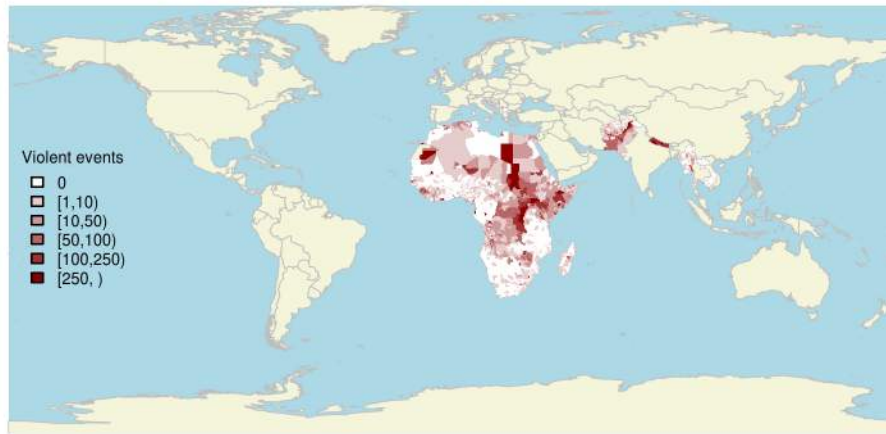
relationship holds for all forms of government violence, irrespective of how selective or indiscriminate it might be. However – consistent with the logic of the theoretical model – it takes more violence to reach the threshold with indiscriminate tactics. The vertex of the curves, where the slope changes sign from positive to negative, comes at a higher level of government violence in the indiscriminate case than in the selective case. In the ACLED data, the slope becomes negative after either 4.6 selective government operations per district-week, or 6.9 indiscriminate operations. In GDELT, the maxima occur at 30.1 and 71.6 selective and indiscriminate operations, respectively.

Second, the threshold is rarely surpassed in practice. The “rugs” at the bottom of the simulation plots, which show the empirical distribution of the data, are far denser at low-to-moderate levels of government violence than at higher levels. Just four percent of all district-weeks in the ACLED data featured a level of government violence exceeding the threshold in Figure 4.2.1. This frequency was even lower for indiscriminate government violence, where less than 1.4 percent exceeded the threshold, compared to 6 percent for selective violence.

While the models suggest that “more government violence is better,” the historical record reminds us that – even if this were true – relatively few counterinsurgents have been able to escalate past the rebels’ breaking point. One reason why scholars and practitioners may consider indiscriminate violence to be counterproductive is that we rarely observe cases where it is used at a sufficient rate.



**Figure 4.2.1:** ALL CIVIL CONFLICTS, 1994-2010. ACLED data.



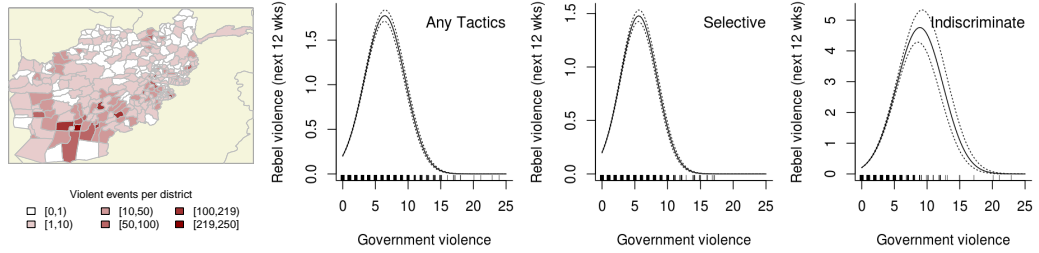
**(a)** All

**(b)** Selective

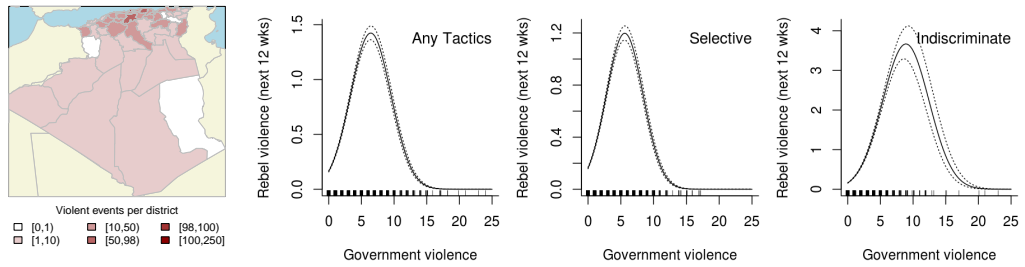
**(c)** Indiscriminate

**Figure 4.2.2: INDIVIDUAL CONFLICTS, 1994-2010. ACLED data.**

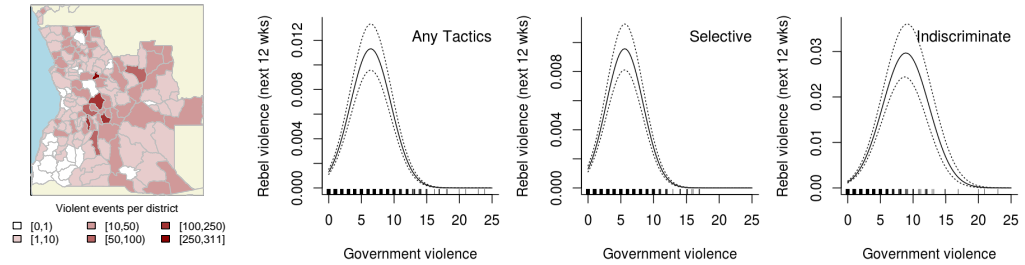
**Afghanistan (2004 - 2010)**



**Algeria (1997 - 2010)**



**Angola (1997 - 2009)**



**Benin (1998 - 2009)**

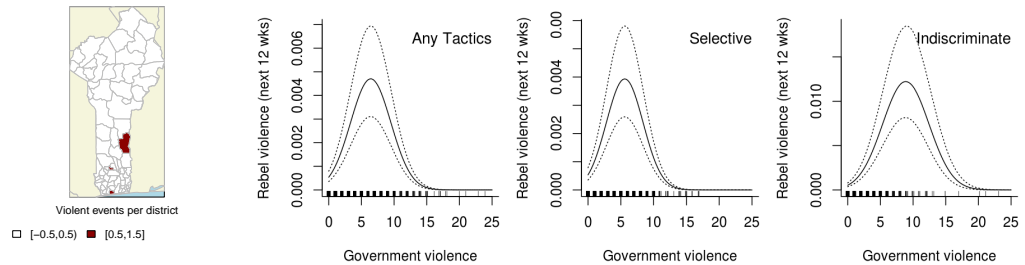
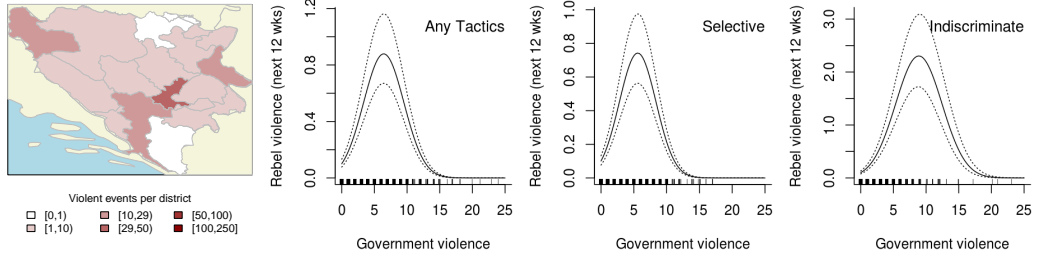
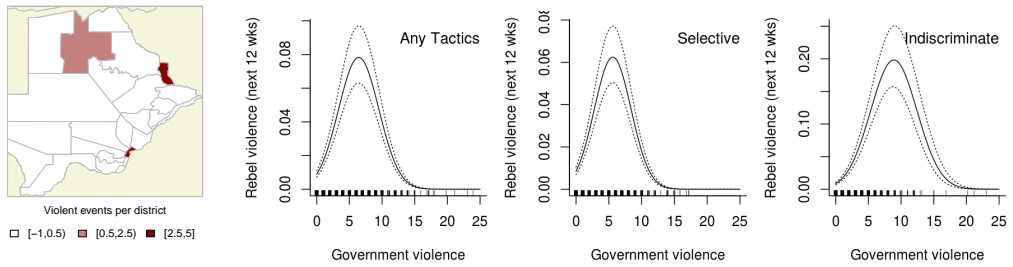


Figure 4.2.2: (continued)

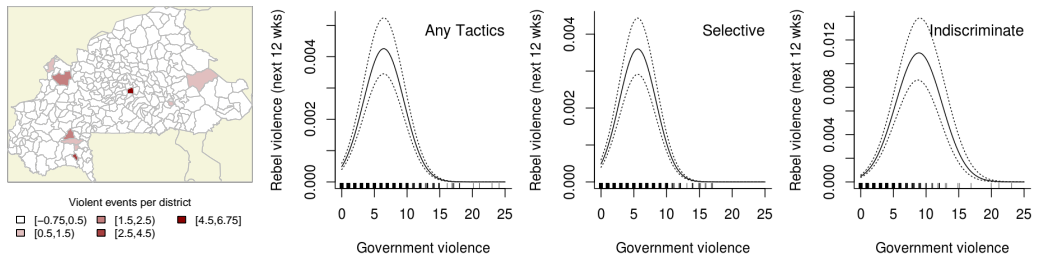
Bosnia and Herzegovina (1992 - 1999)



Botswana (2003 - 2010)



Burkina Faso (1997 - 2008)



Burundi (1997 - 2010)

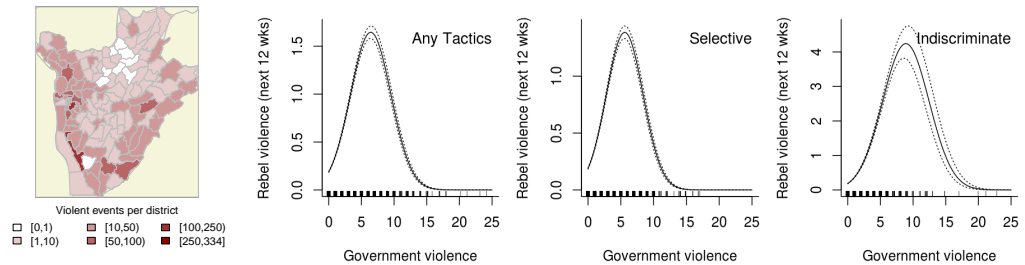
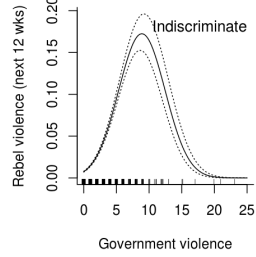
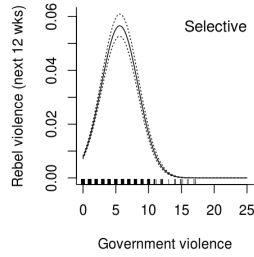
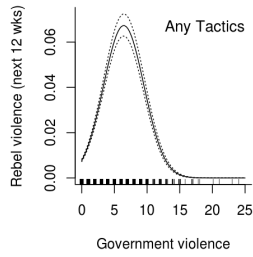
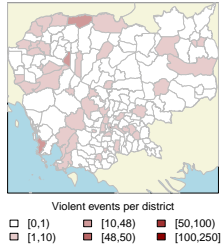
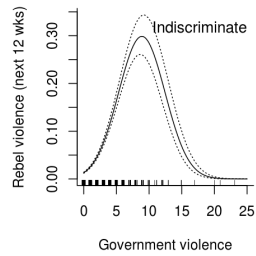
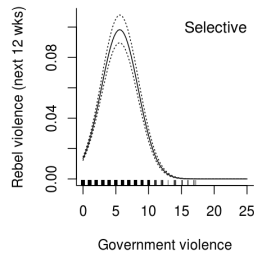
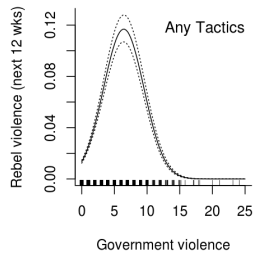
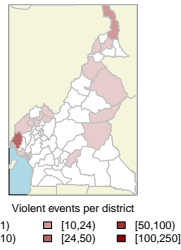


Figure 4.2.2: (continued)

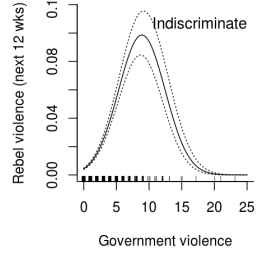
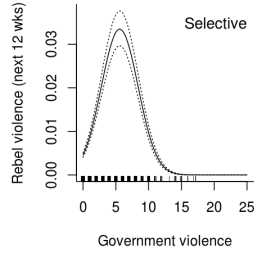
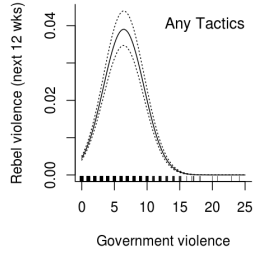
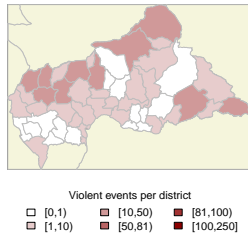
Cambodia (1997 - 2010)



Cameroon (1997 - 2010)



Central African Republic (1997 - 2010)



Chad (1997 - 2010)

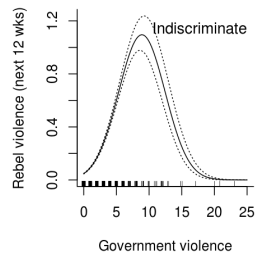
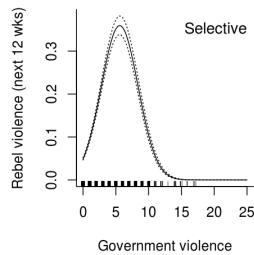
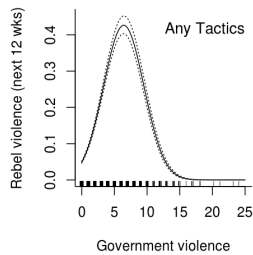
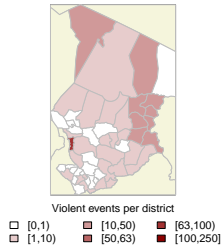
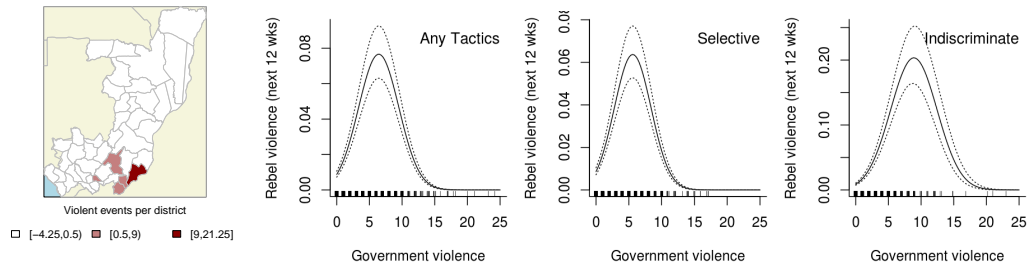
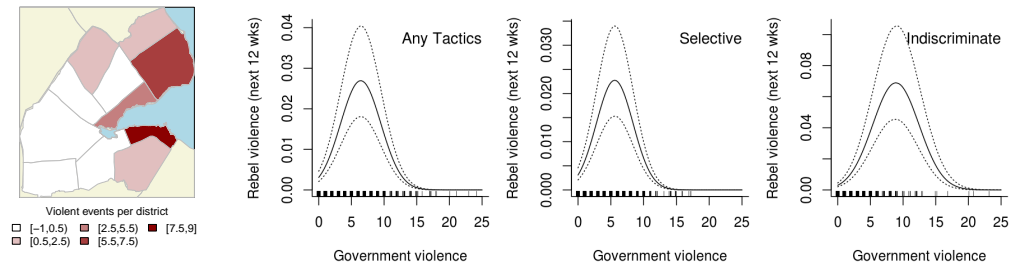


Figure 4.2.2: (continued)

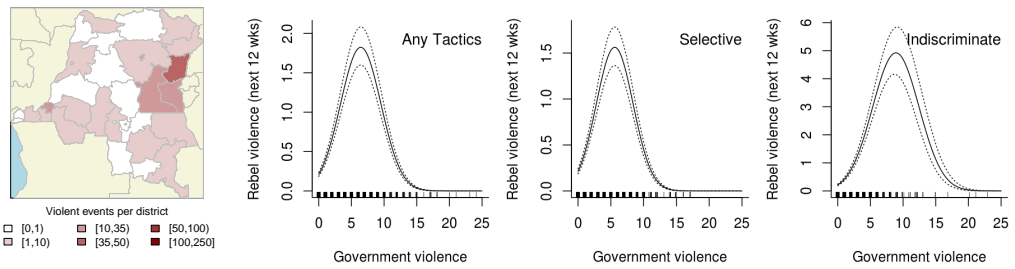
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Djibouti (1997 - 2010)



Democratic Republic of the Congo (1997 - 1997)



Democratic Republic of the Congo (1998 - 2010)

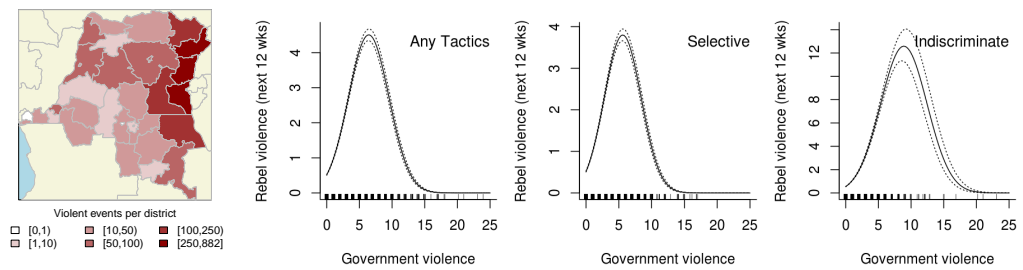
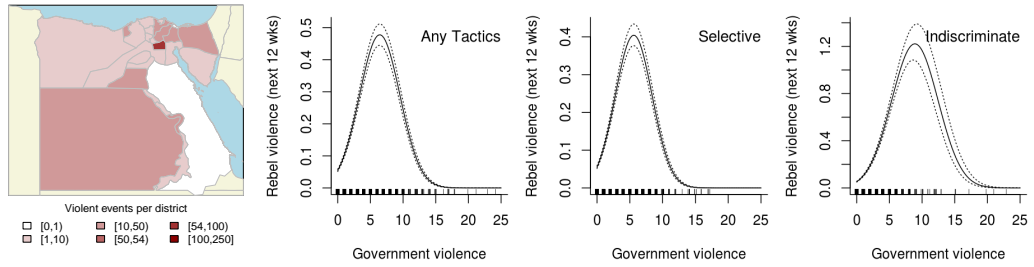
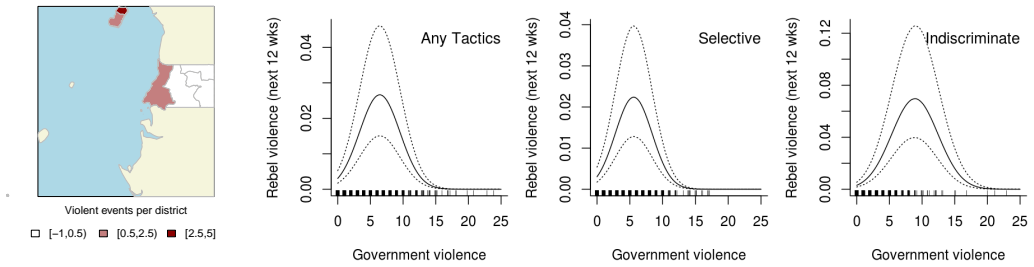


Figure 4.2.2: (continued)

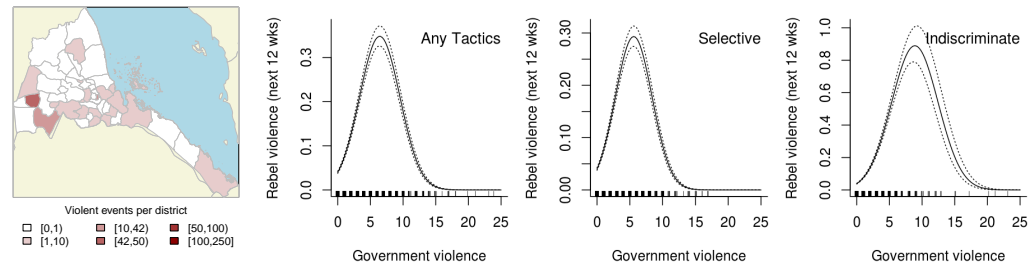
Egypt (1997 - 2010)



Equatorial Guinea (1998 - 2009)



Eritrea (1997 - 2009)



Ethiopia (1997 - 2010)

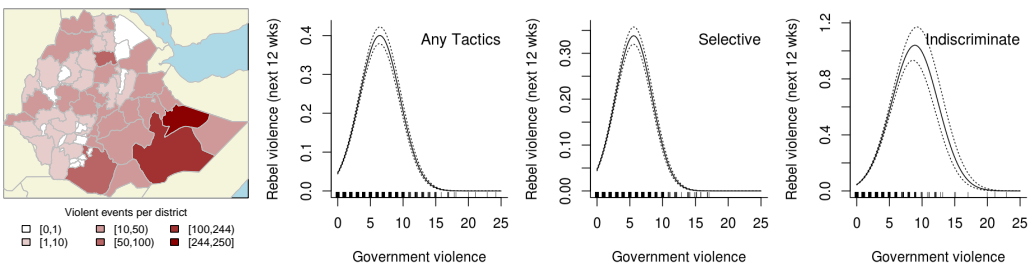
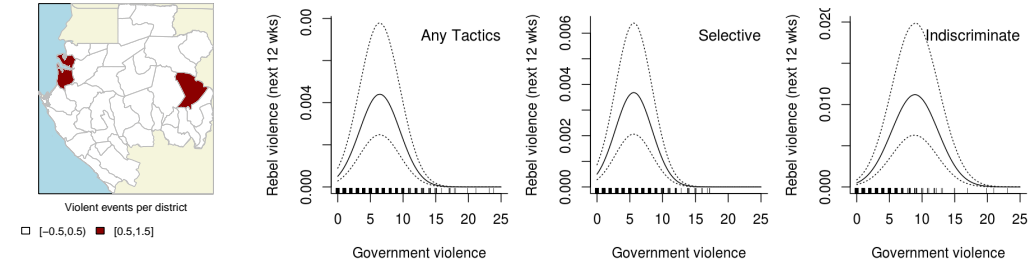
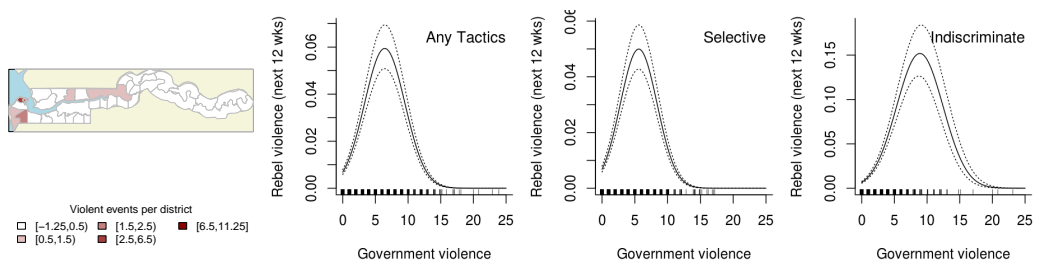


Figure 4.2.2: (continued)

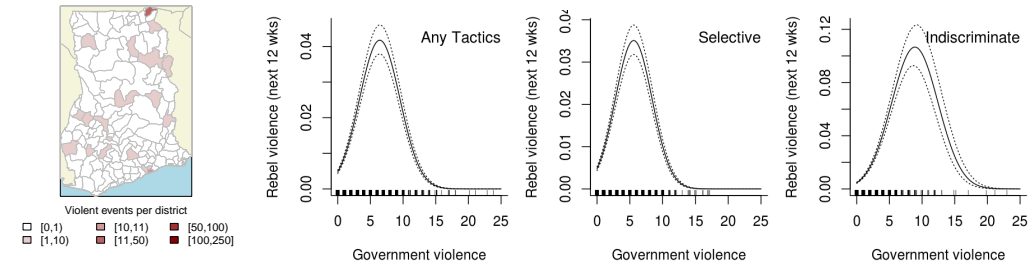
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Gambia (1997 - 2009)



Ghana (1997 - 2010)



Guinea (1998 - 2010)

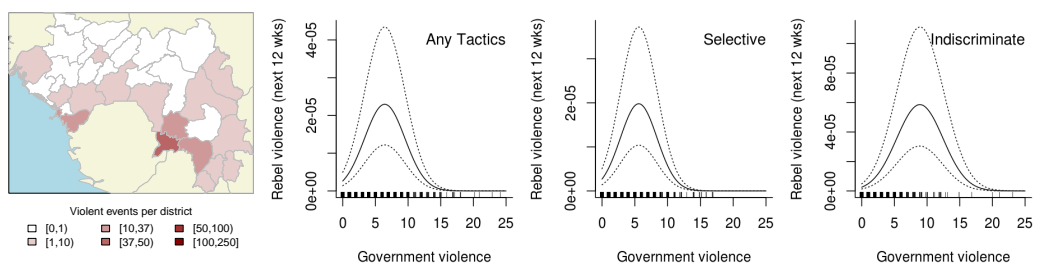
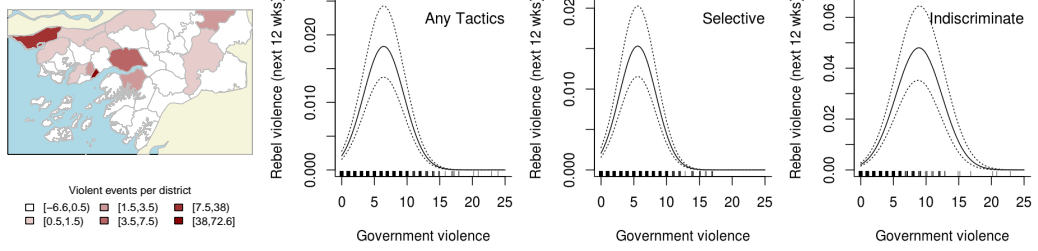
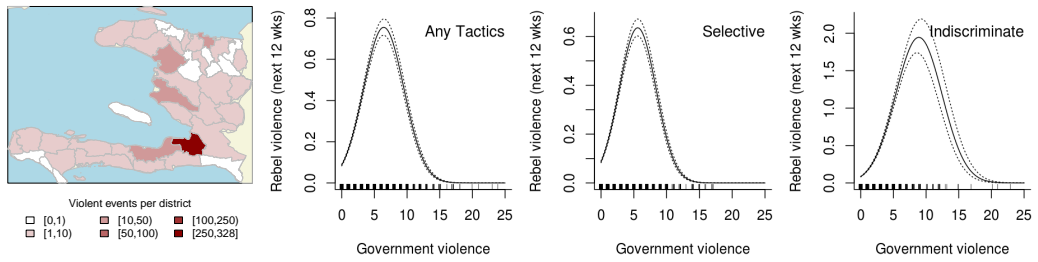


Figure 4.2.2: (continued)

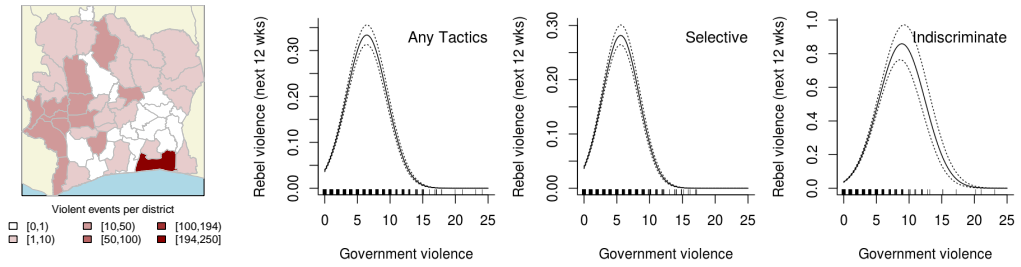
Guinea-Bissau (1998 - 2010)



Haiti (1997 - 2010)



Côte d'Ivoire (1997 - 2010)



Kenya (1997 - 2010)

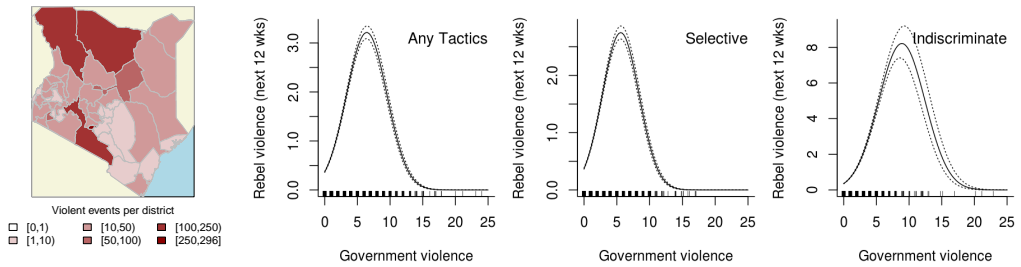
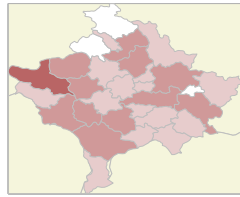




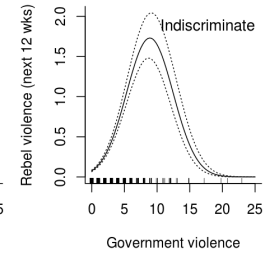
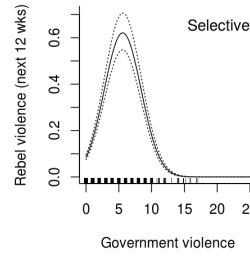
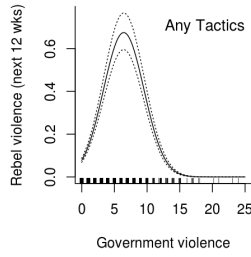
Figure 4.2.2: (continued)

Kosovo (1998 - 2000)

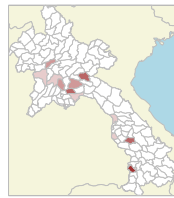


Violent events per district

[0,1)	[10,30)	[50,100)
[1,10)	[30,50)	[100,250]

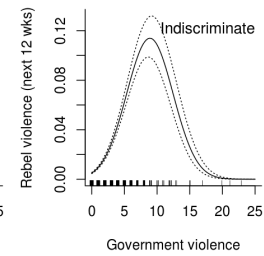
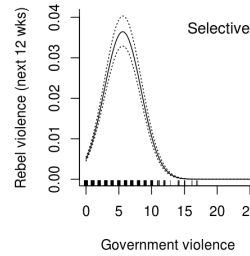
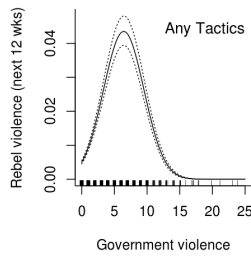


Laos (1998 - 2010)

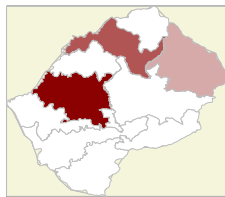


Violent events per district

[-2.5,0.5)	[1.5,2.5)	[3.5,14.5)
[0.5,1.5)	[2.5,3.5)	[14.5,27.5]

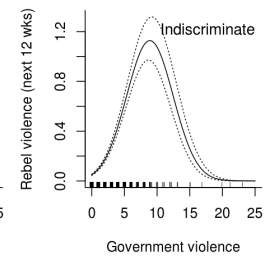
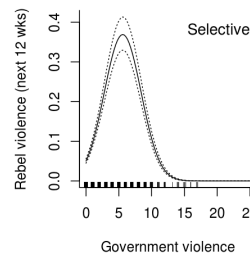
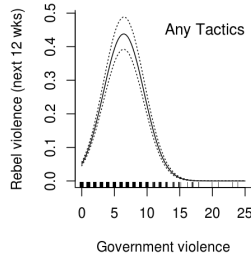


Lesotho (1997 - 2009)

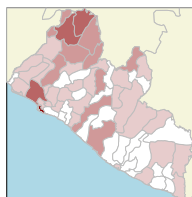


Violent events per district

[-11.5,1.5)	[3.5,36.5)
[1.5,3.5)	[36.5,80.5]



Liberia (1997 - 2010)



Violent events per district

[0,1)	[10,50)	[100,142)
[1,10)	[50,100)	[142,250]

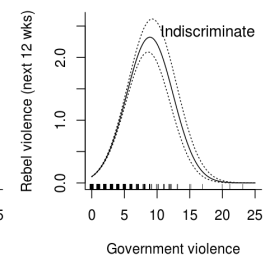
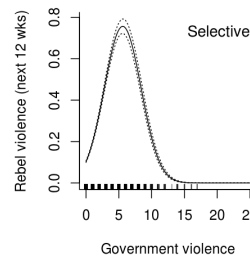
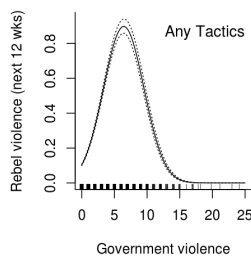
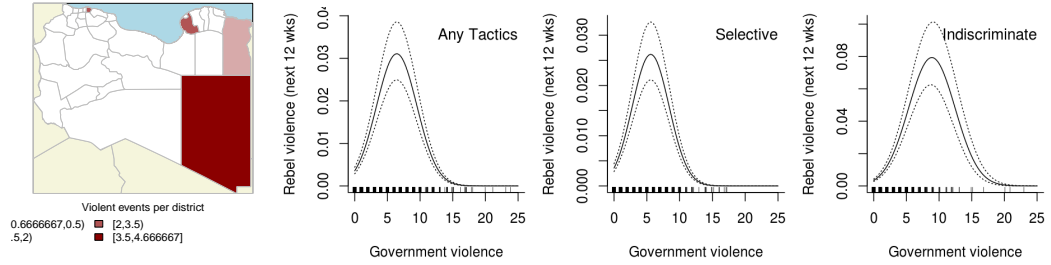
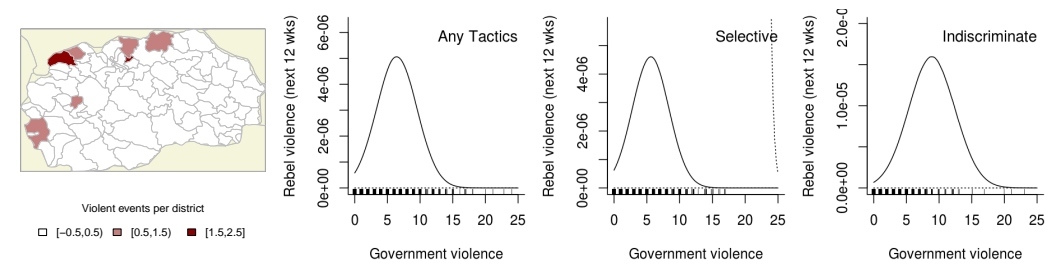


Figure 4.2.2: (continued)

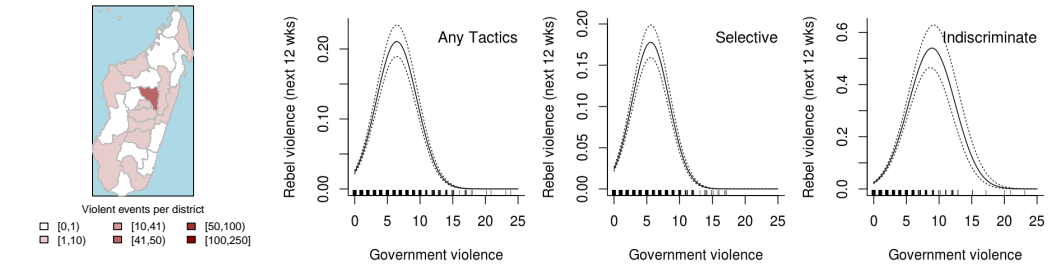
Libya (1997 - 2010)



Macedonia (2000 - 2001)



Madagascar (1997 - 2010)



Malawi (2000 - 2009)

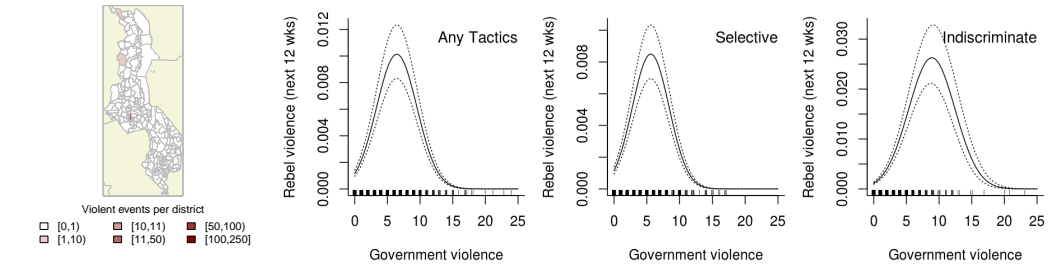
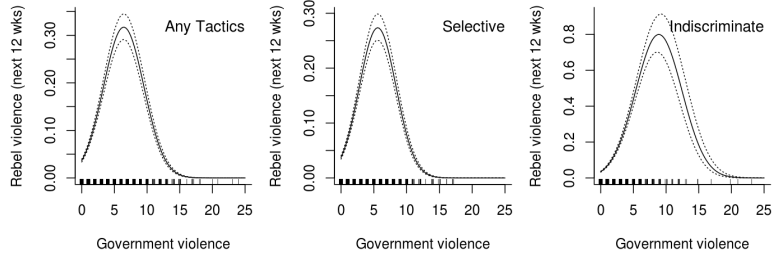
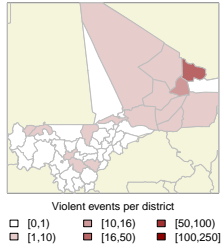
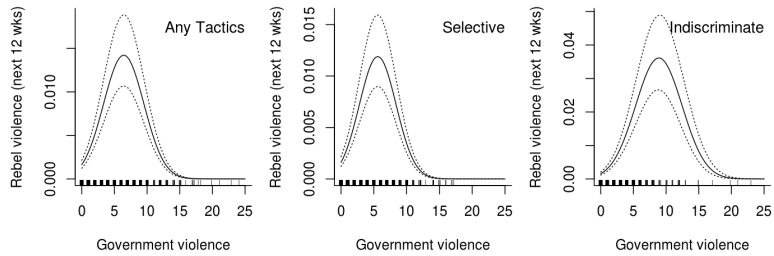
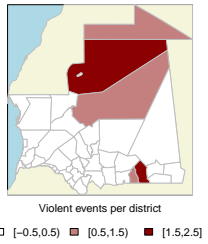


Figure 4.2.2: (continued)

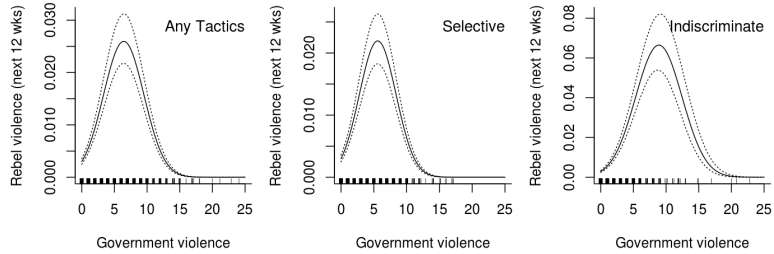
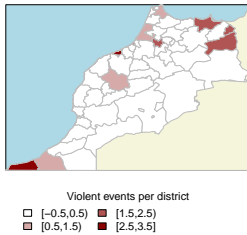
Mali (1997 - 2010)



Mauritania (1997 - 2010)



Morocco (1997 - 2010)



Mozambique (1997 - 2010)

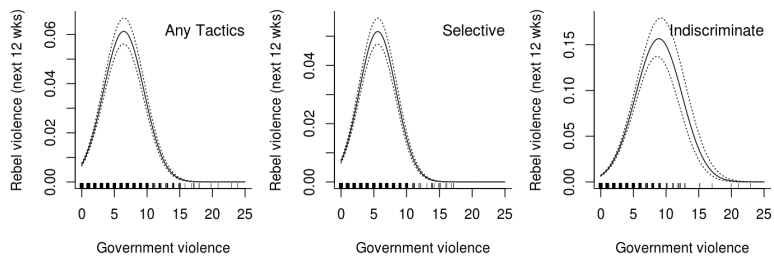
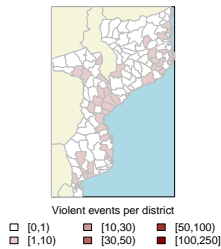
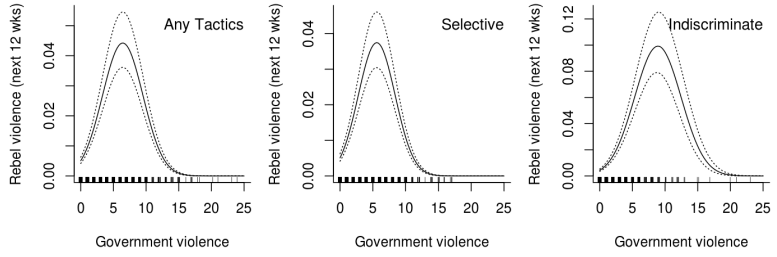
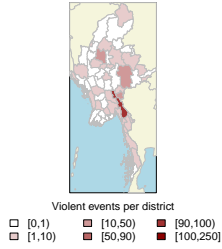
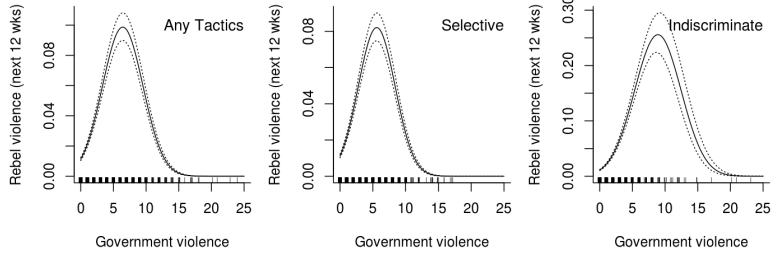
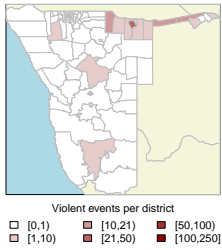


Figure 4.2.2: (continued)

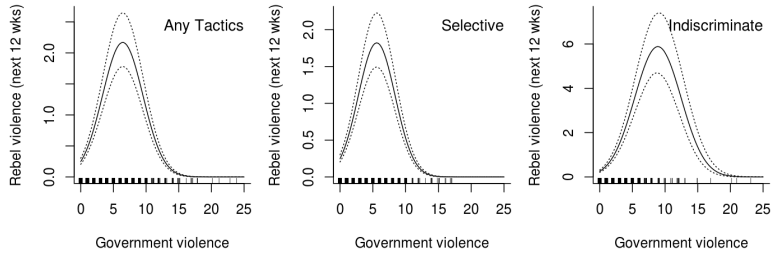
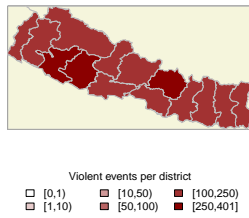
Myanmar (1996 - 2009)



Namibia (1999 - 2009)



Nepal (1996 - 2008)



Niger (1997 - 2010)

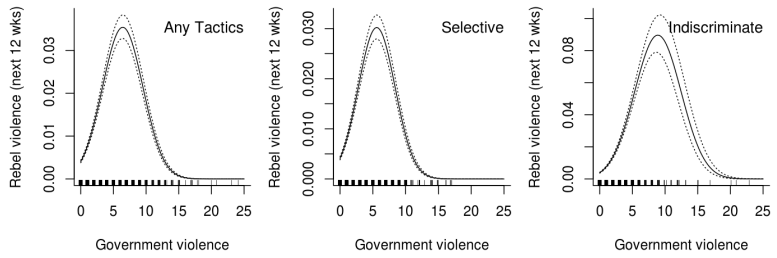
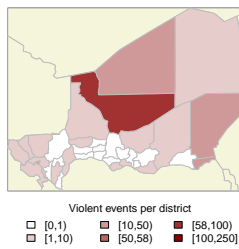
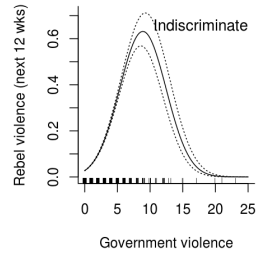
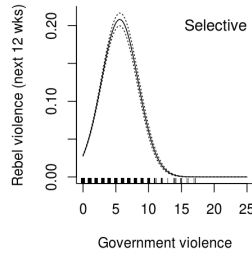
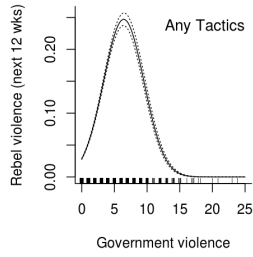
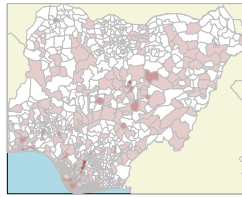
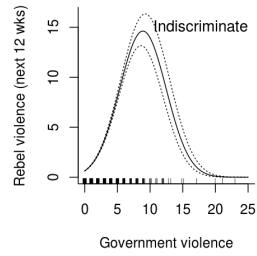
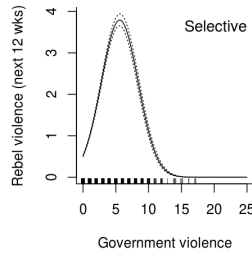
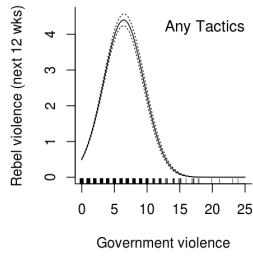
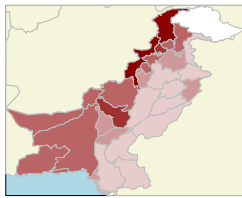


Figure 4.2.2: (continued)

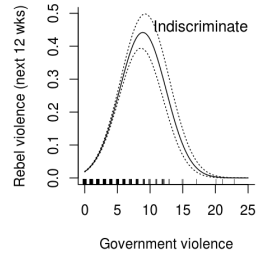
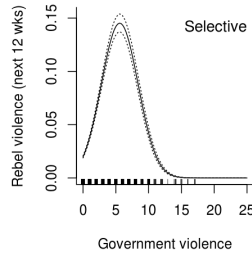
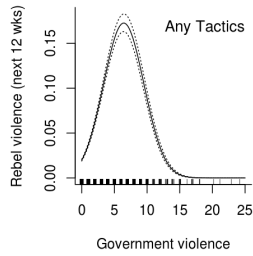
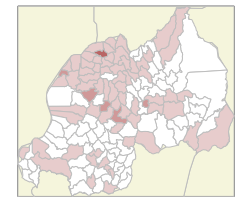
Nigeria (1997 - 2010)



Pakistan (2005 - 2009)



Rwanda (1997 - 2010)



Senegal (1997 - 2010)

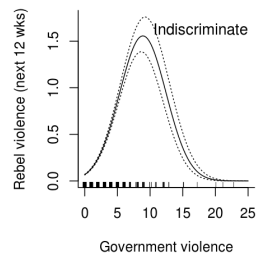
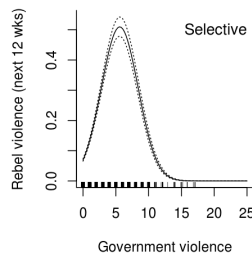
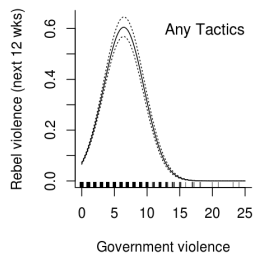
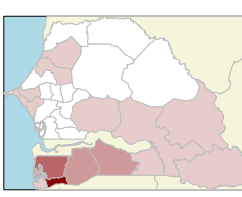
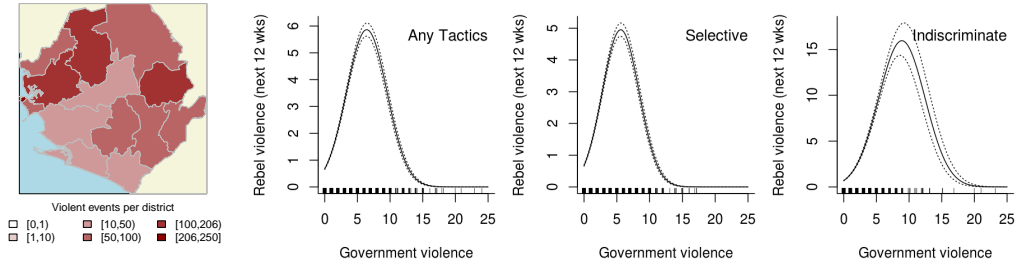
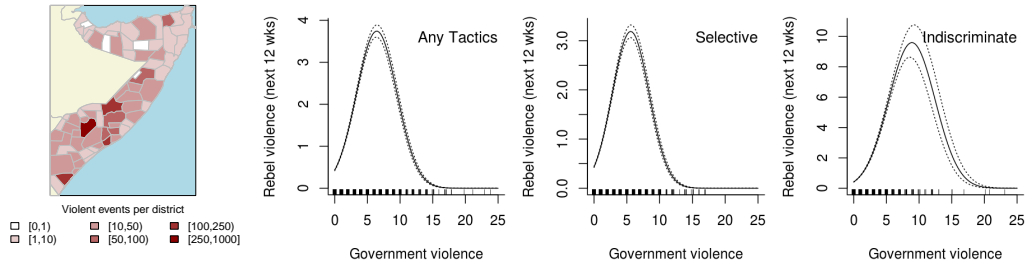


Figure 4.2.2: (continued)

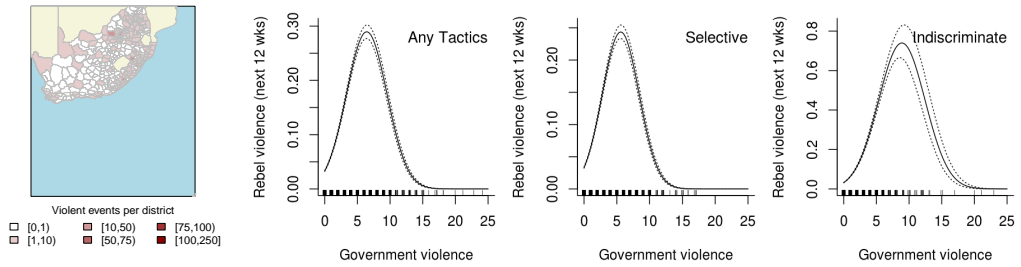
Sierra Leone (1997 - 2010)



Somalia (1997 - 2010)



South Africa (1997 - 2010)



Sudan (1997 - 2010)

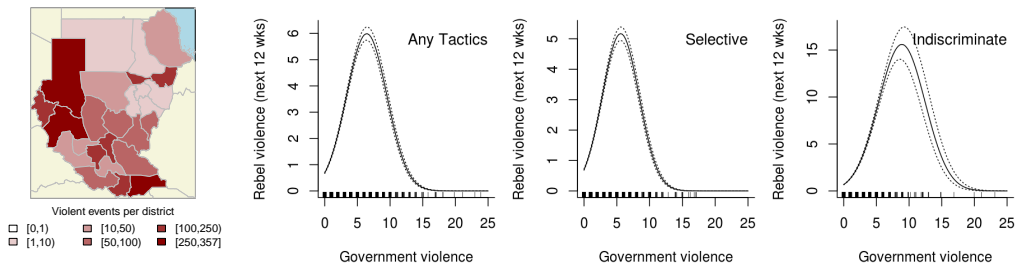
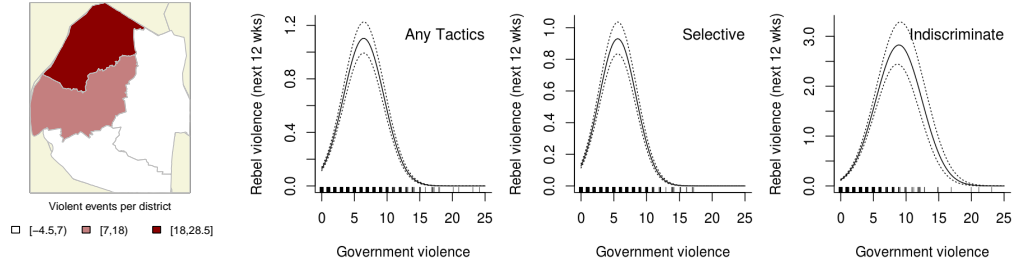
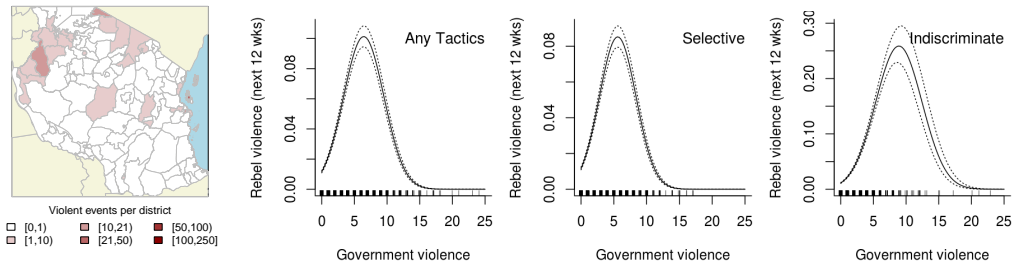


Figure 4.2.2: (continued)

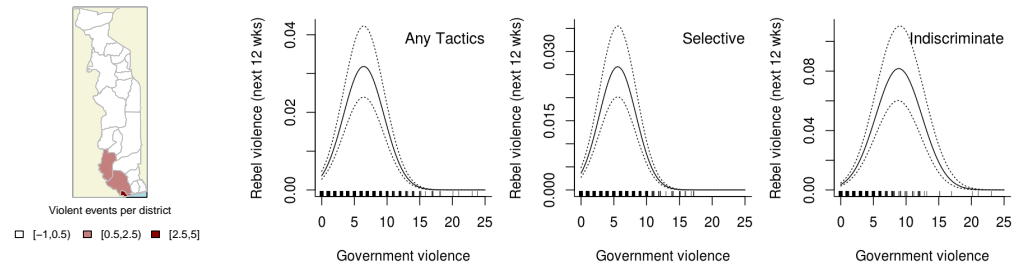
Swaziland (1997 - 2010)



Tanzania (1997 - 2010)



Togo (1997 - 2009)



Tunisia (1997 - 2010)

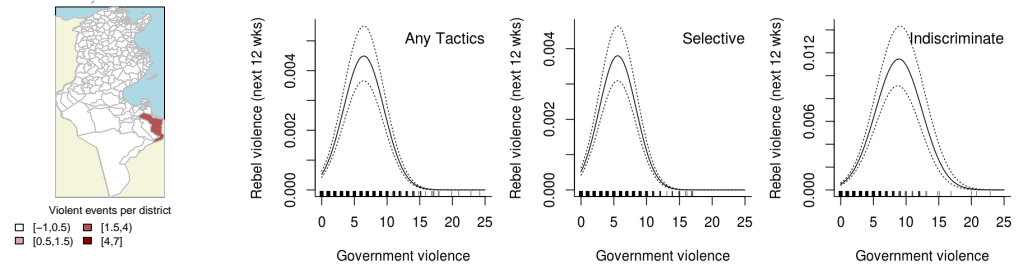
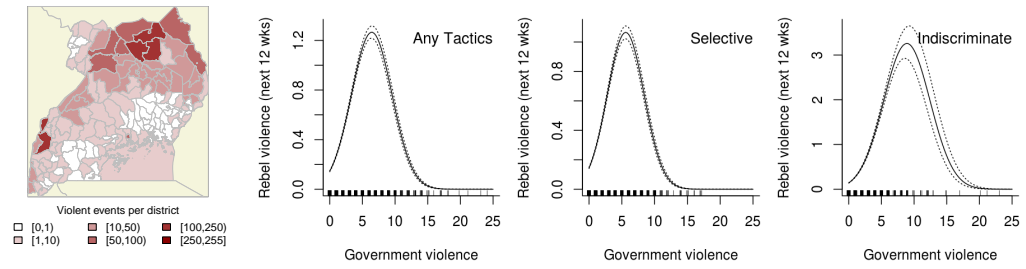
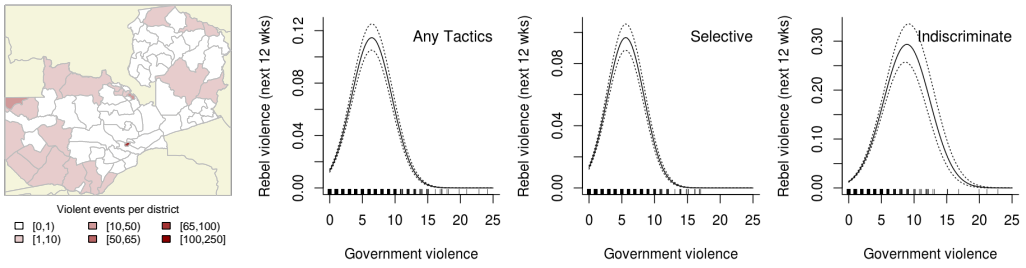


Figure 4.2.2: (continued)

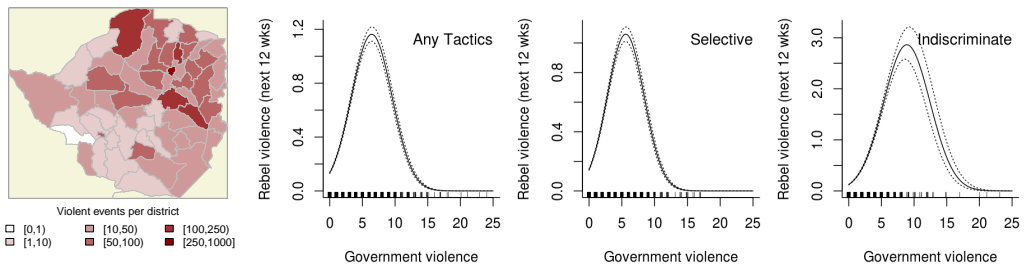
Uganda (1997 - 2010)



Zambia (1997 - 2009)

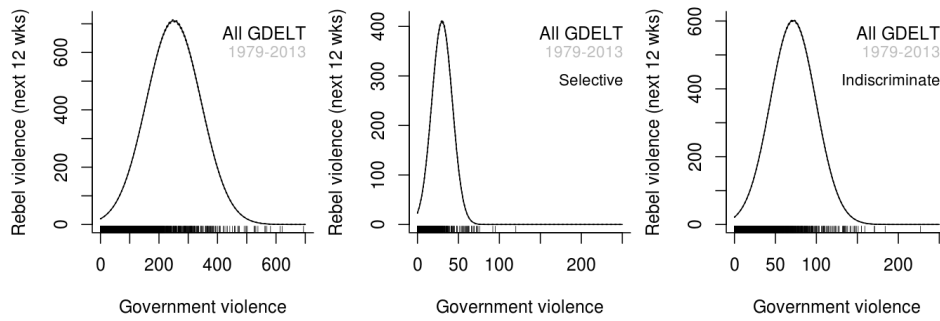


Zimbabwe (1997 - 2010)





**Figure 4.2.3:** ALL CIVIL CONFLICTS, 1994-2010. GDELT data.



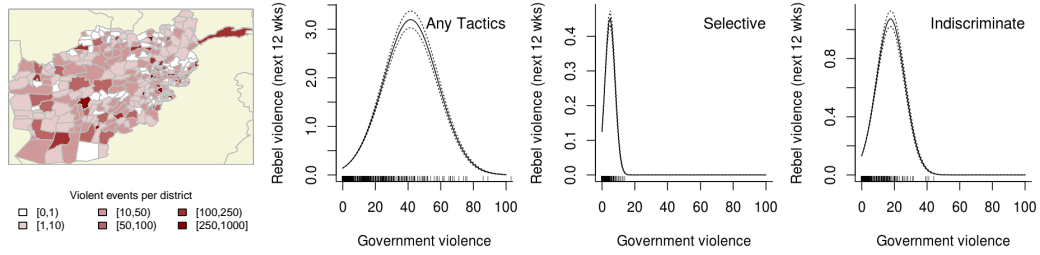
**(a)** All

**(b)** Selective

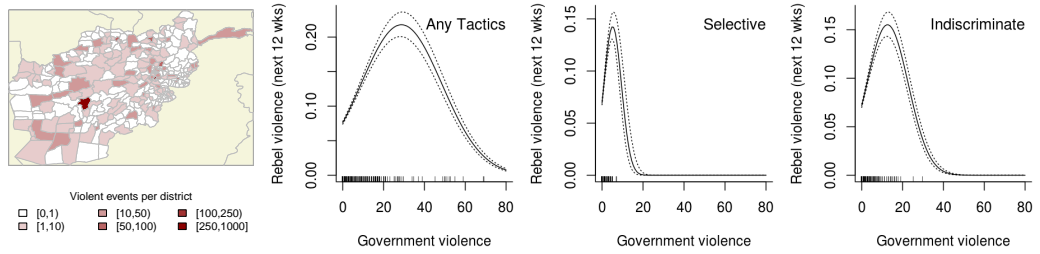
**(c)** Indiscriminate

**Figure 4.2.4:** INDIVIDUAL CONFLICTS, 1979-2013. GDELT data.

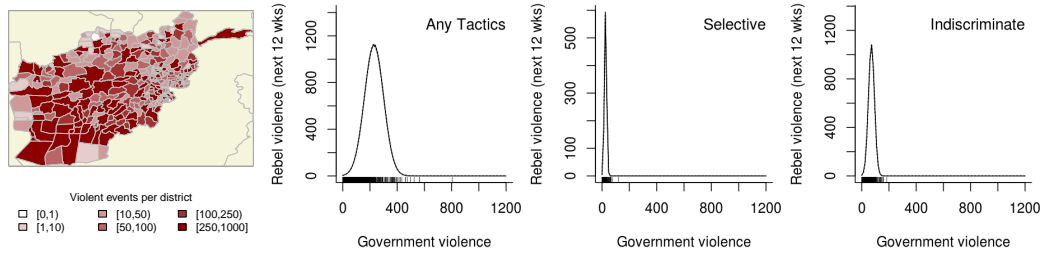
**Afghanistan (1979 - 1989)**



**Afghanistan (1992 - 1996)**



**Afghanistan (2001 - 2013)**



**Djibouti (1991 - 1994)**

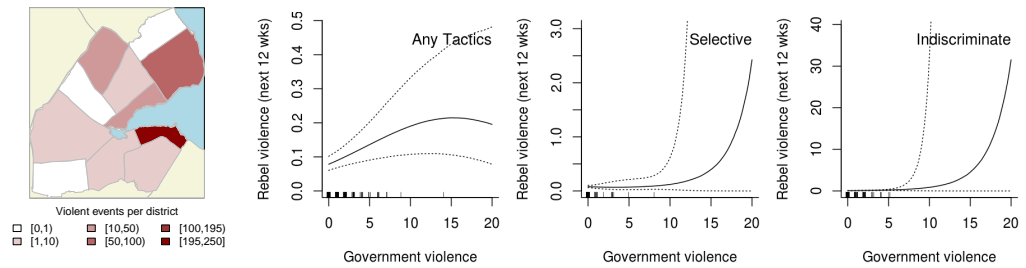
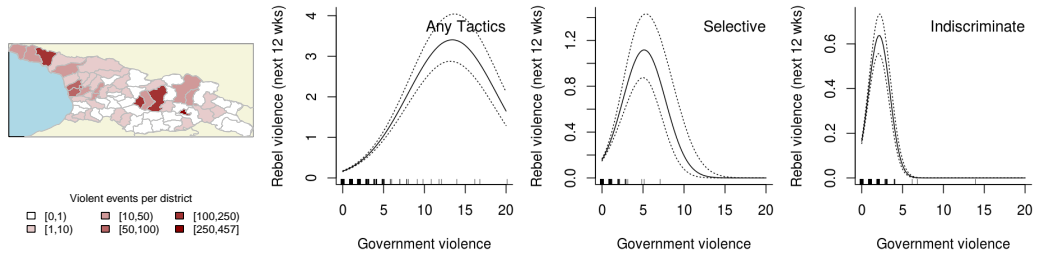
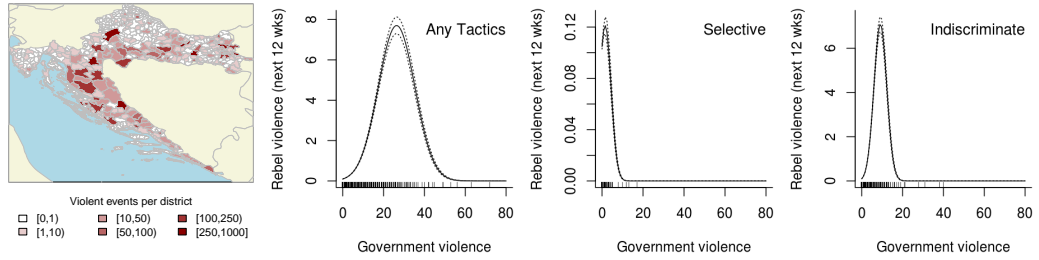


Figure 4.2.4: (continued)

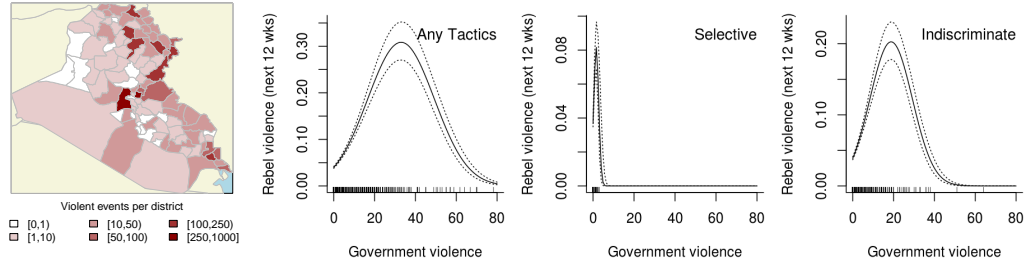
Georgia (1991 - 1993)



Croatia (1991 - 1995)



Iraq (1980 - 1988)



Iraq (2003 - 2011)

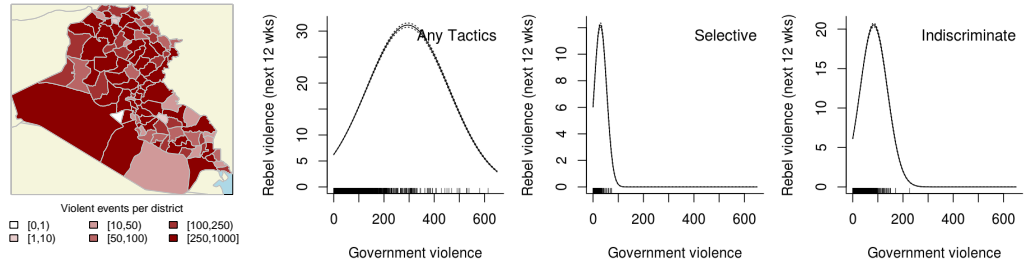
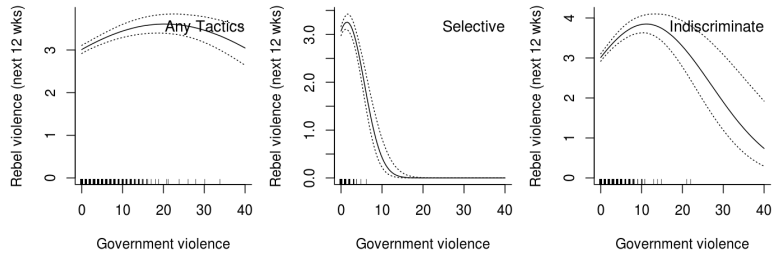
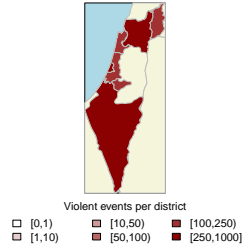
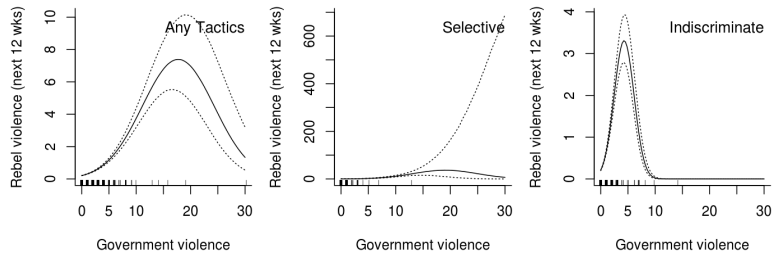
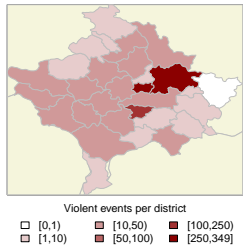


Figure 4.2.4: (continued)

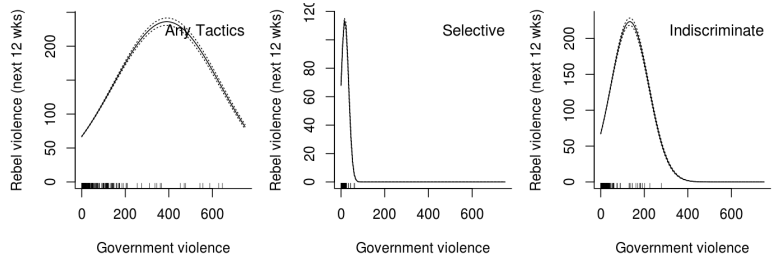
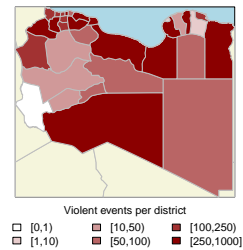
Israel (1987 - 1993)



Kosovo (1991 - 1999)



Libya (2010 - 2011)



Sri Lanka (1983 - 1987)

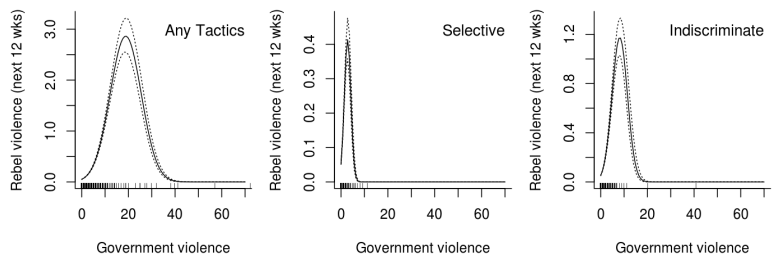
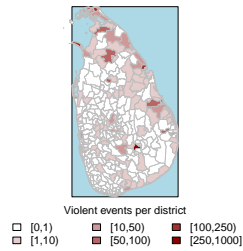
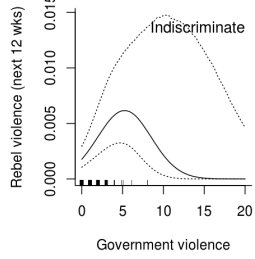
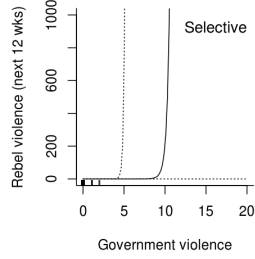
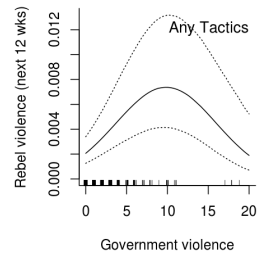
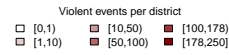
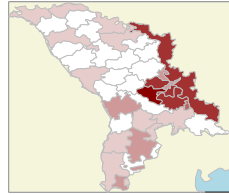
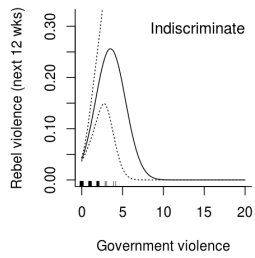
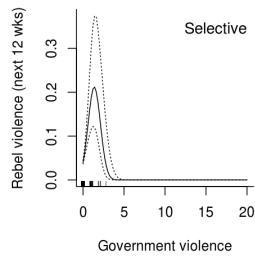
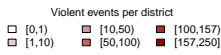
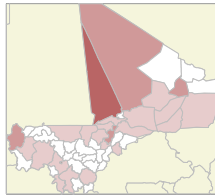


Figure 4.2.4: (continued)

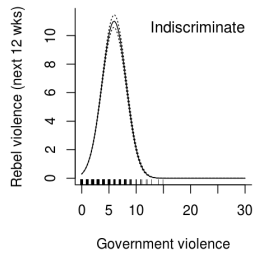
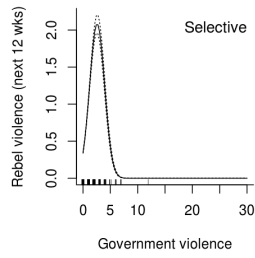
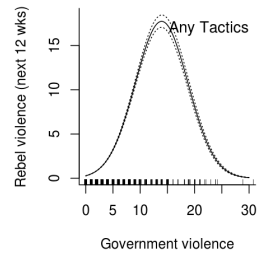
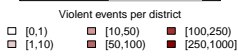
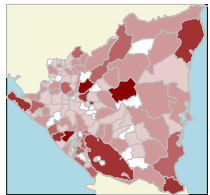
Moldova (1990 - 1992)



Mali (1989 - 1995)



Nicaragua (1981 - 1988)



Nepal (1996 - 2006)

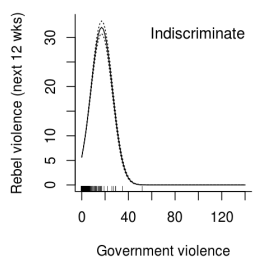
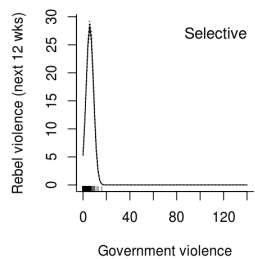
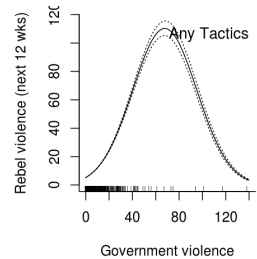
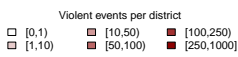
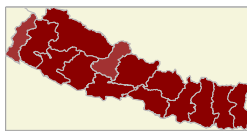
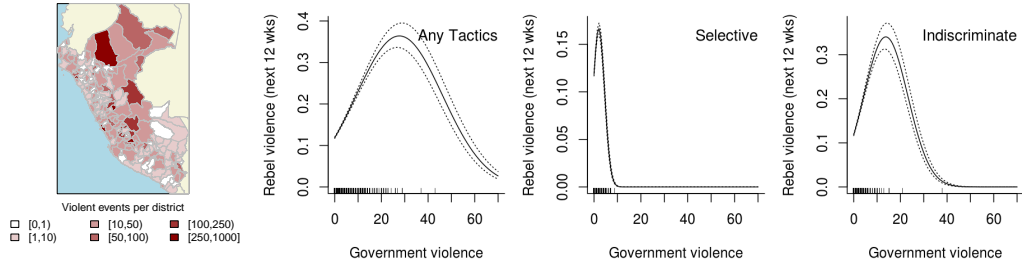
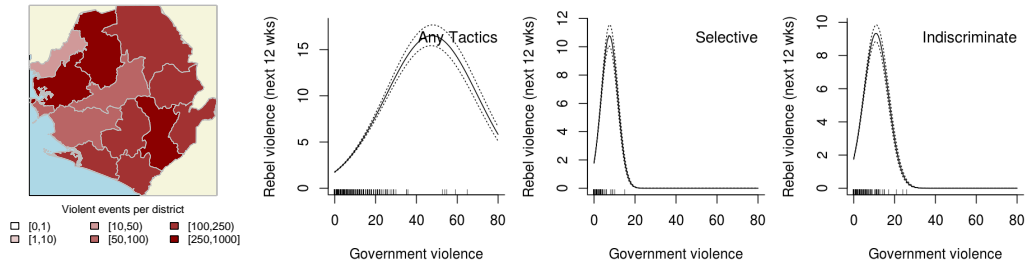


Figure 4.2.4: (continued)

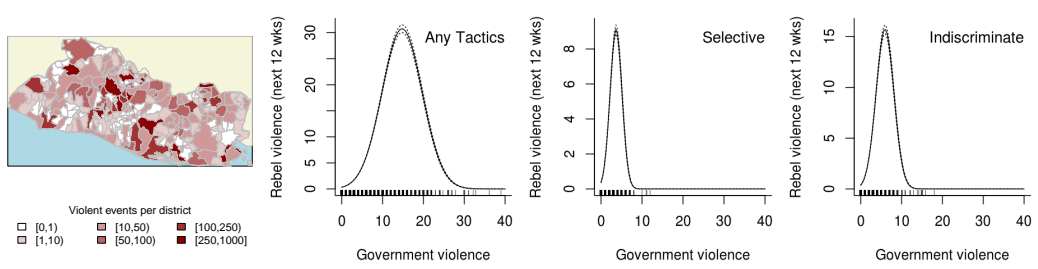
Peru (1980 - 1999)



Sierra Leone (1991 - 1999)



El Salvador (1979 - 1992)



Somalia (1981 - 1991)

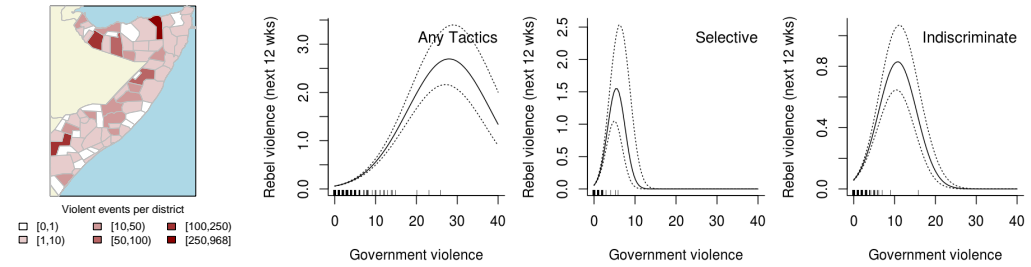
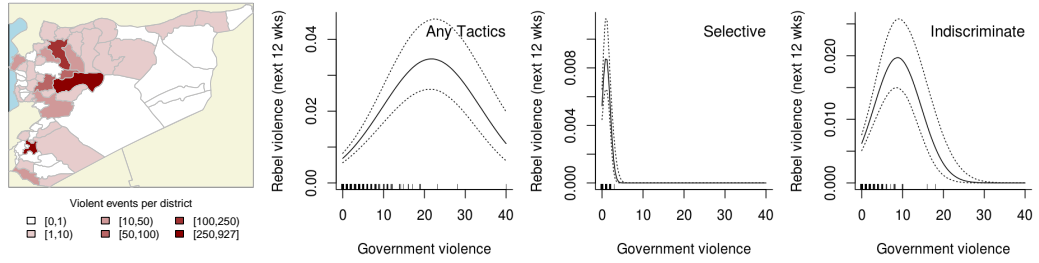
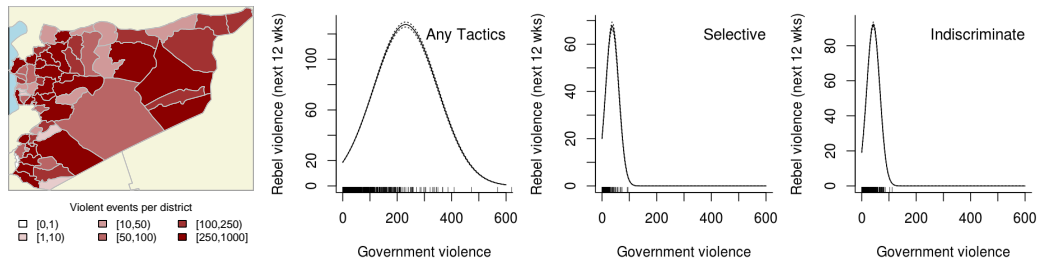


Figure 4.2.4: (continued)

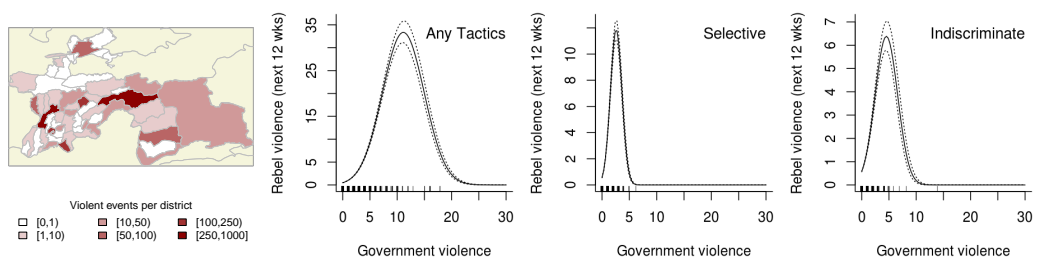
Syria (1979 - 1982)



Syria (2011 - 2013)



Tajikistan (1992 - 1997)



Turkey (1983 - 1999)

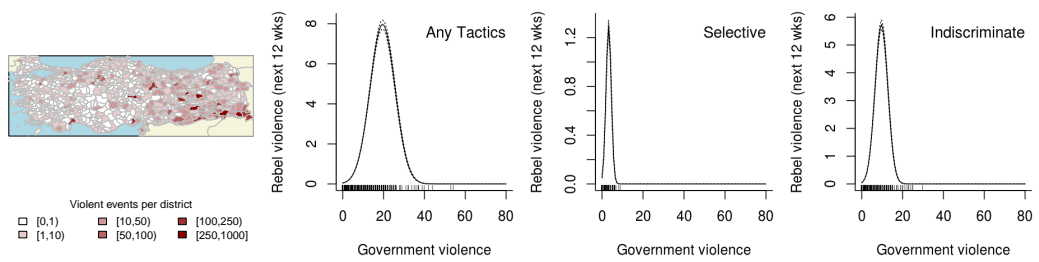
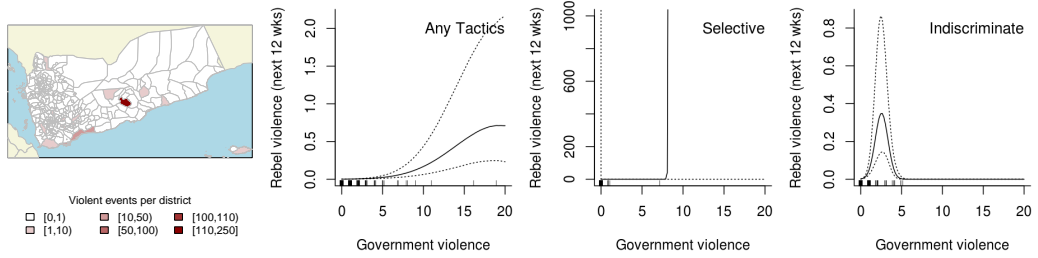
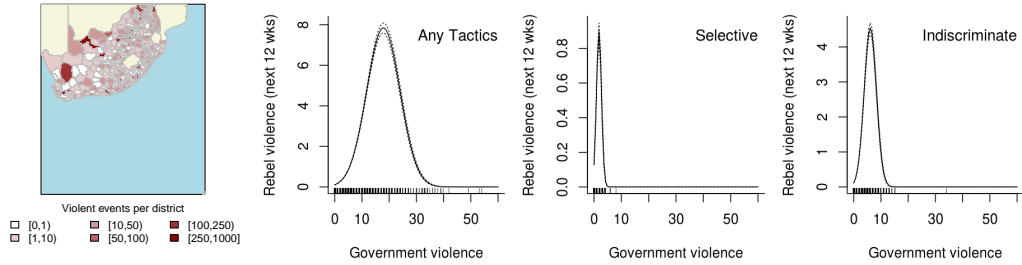


Figure 4.2.4: (continued)

Yemen (1986 - 1987)



South Africa (1983 - 1994)





### 4.3 DETERMINANTS OF ESCALATION

Under what conditions are governments likely to escalate – either by using a higher level of coercive force, or by switching from selective to indiscriminate tactics? The theoretical model predicts that incentives for escalation are greatest where selectivity is low – due to poor information about one’s enemies – and constraints on the use of force are limited (Proposition 2). The data support this view.

Figures 4.3.1-4.3.9 summarize the results of the second series of statistical tests, run separately for ACLED and GDELT data. The results are consistent across both datasets, and both sets of models (equations 4.6 and 4.9). Quantitative and qualitative escalation are likely in districts with (1) high ethnolinguistic barriers to human intelligence collection, (2) high physical barriers to aerial surveillance, and (3) low logistical barriers to force projection. In other words, governments are most likely to escalate where they have the logistical means to do so, but lack the information to do so selectively.

#### 4.3.1 BARRIERS TO HUMAN INTELLIGENCE COLLECTION

Government violence is most intense and most indiscriminate in localities where relatively few ethnolinguistic groups live. Figure 4.3.1- 4.3.2 present simulations of, respectively, expected numbers of government operations and predicted probabilities of indiscriminate tactics in a given district-week, as a function of how many ethnic groups reside in that district.<sup>11</sup> The relationships between these variables are strongly and significantly negative.

All else equal, districts dominated by one ethnic group experience, according to ACLED, 8.6 percent more (95% CI: 1.6, 15.8) government operations per week than ones with 15 ethnic groups. The probability of indiscriminate government violence is also 59 percent higher (95% CI: 36.0, 85.2) in mono-ethnic districts than in ones populated by 15 unique groups. According to GDELT, the same counterfactual produced a 53.2 percent rise (95% CI: 51.5, 54.9) in government opera-

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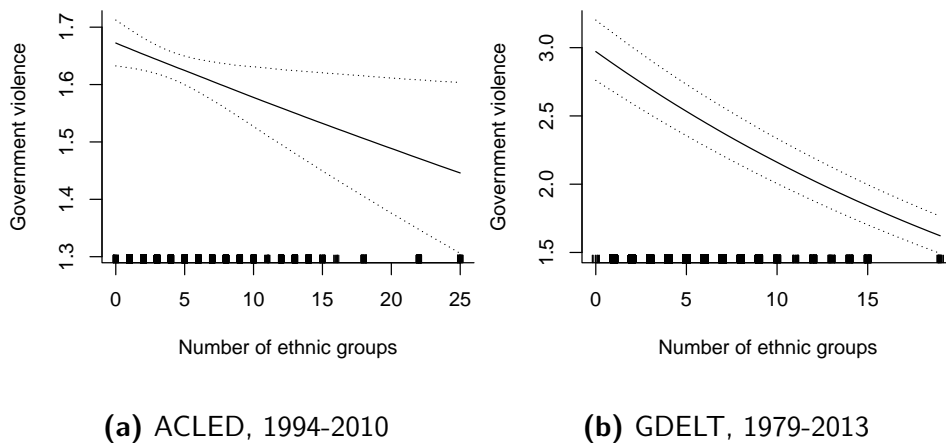
<sup>11</sup>All other variables held constant at their median values.

tions, and a 221.5 percent increase (95% CI: 43.2, 631.6) in the probability of indiscriminate tactics.

Language appears to have a stronger impact on qualitative than quantitative escalation (Figure 4.3.3).<sup>12</sup> Model simulations with ACLED show that the probability of indiscriminate violence is 166.0 percent higher (95% CI: 117.5, 221.9) in mono-linguistic districts than where 30 languages are spoken. With GDELT, the probability is 10.3 percent higher (95% CI: 5.4, 15.7).

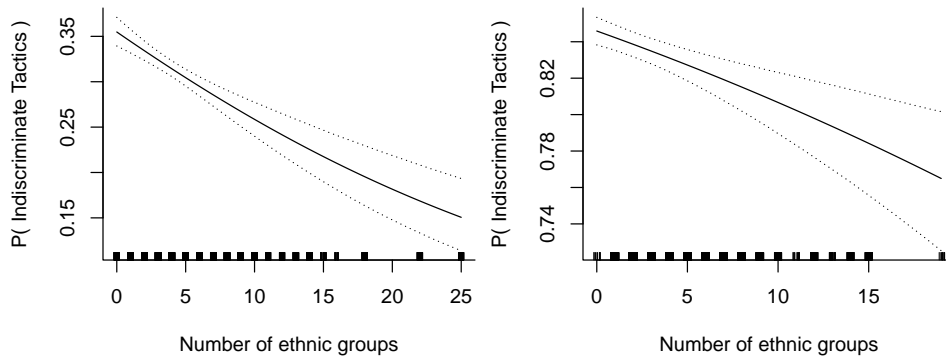
These findings confirm that difficulties acquiring human intelligence may make government violence both more indiscriminate and more frequent. Locations where relatively few ethnolinguistic groups live are ones where members of an out-group – typically representatives and supporters of the central government – are most visible, and where cooperation with that outside group can be most easily detected and punished. In such locales, the government also lacks options for divide-and-conquer strategies in forming local coalitions and recruiting informants. The data suggest that these potential difficulties in establishing an informant network create incentives to substitute firepower for intelligence, and increase the use of tactics that place innocent civilians in harm’s way.

**Figure 4.3.1: ETHNICITY AND ESCALATION.**



<sup>12</sup>The coefficient for the quantitative escalation model is negative and significant for ACLED, but not GDELT.

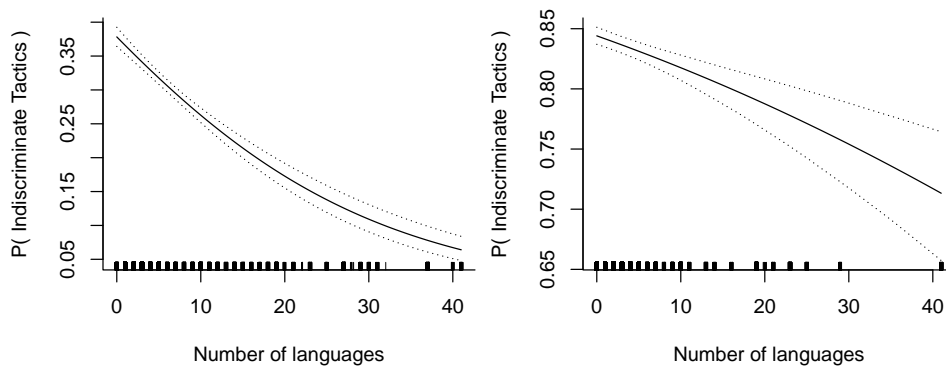
**Figure 4.3.2: ETHNICITY AND INDISCRIMINATE VIOLENCE.**



**(a) ACLED, 1994-2010**

**(b) GDELT, 1979-2013**

**Figure 4.3.3: LANGUAGE AND INDISCRIMINATE VIOLENCE.**



**(a) ACLED, 1994-2010**

**(b) GDELT, 1979-2013**

#### 4.3.2 BARRIERS TO SURVEILLANCE AND RECONNAISSANCE

Government violence is more intense and more indiscriminate where physical barriers preclude surveillance and reconnaissance. Figure 4.3.4- 4.3.5 present simulations of the expected number of government operations and predicted probability of indiscriminate tactics, as a function of the terrain in that district.<sup>13</sup> The “open terrain” value ranges from 0 to 1, and represents the proportion of the district’s territory covered by plains, grassland, shrubbery, savanna, desert, or other sparsely vegetated land. As the proportion of open terrain increases, both the number of government operations and the propensity to use indiscriminate tactics decrease.

According to ACLED and GDELT, respectively, districts covered by 100 percent open terrain experience between 4.4 (95% CI: -9.5, 0.9) and 9.2 percent fewer (95% CI: -9.6, -8.8) government operations per week than ones where that percentage is 0. The effect of open terrain on indiscriminate violence is even starker – the probability of indiscriminate government violence is between 35.5 (95% CI: -41.7, -28.7) and 2.8 percent lower (95% CI: -4.1, -1.5) in districts with completely open terrain than in ones with completely closed terrain.

As Figure 4.3.6 shows, the opposite relationship holds for terrain that precludes surveillance, like forests.<sup>14</sup> In the ACLED dataset, the probability of indiscriminate violence is 259 percent higher (95% CI: 231.6, 287.0) in districts covered completely by forests, than in ones completely without forests. This change is much smaller – 6.1 percent (95% CI: 4.6, 7.7) – but still positive according to GDELT.

These findings suggest that rebel opportunities for natural cover and concealment make government violence more indiscriminate and more pervasive. Vegetative cover allows rebels to establish base camps, masks rebel movements and capabilities from government monitoring, and offers an advantageous environment for the use of ambushes, hit-and-run attacks and similar guerrilla tactics. These challenges have on numerous occasions prompted government deforestation cam-

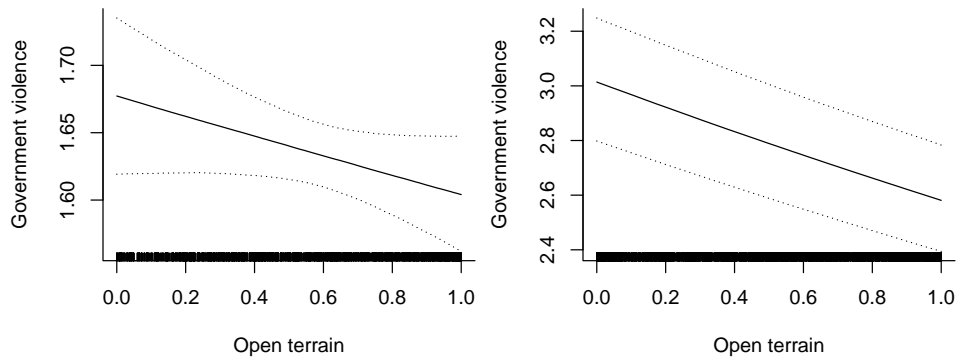
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<sup>13</sup>All other variables held constant at their median values.

<sup>14</sup>Because forested terrain is highly collinear with open terrain (two two are negatively correlated), these two sets of results come from separate models.

paigns, from Russia's logging efforts during the 19th Century Caucasus Wars, to the use of Agent Orange and other defoliants by British forces in Malaya and U.S. forces in Vietnam. The data show that these challenges have persisted in contemporary conflicts, and continue to create incentives for escalation and brutality.

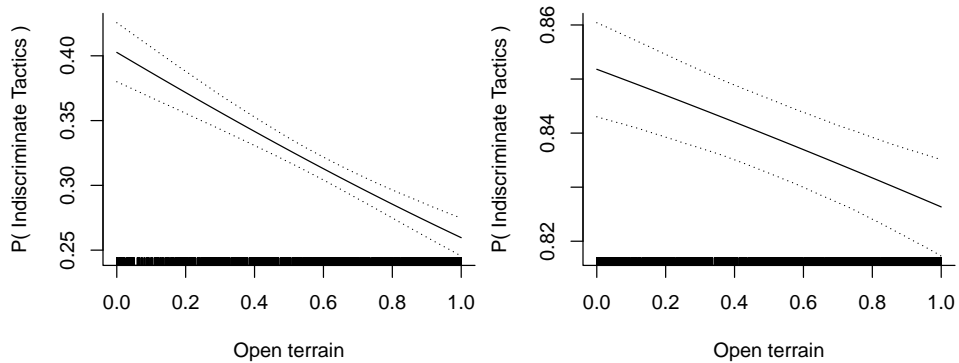
**Figure 4.3.4:** OPEN TERRAIN AND ESCALATION.



**(a)** ACLED, 1994-2010

**(b)** GDELT, 1979-2013

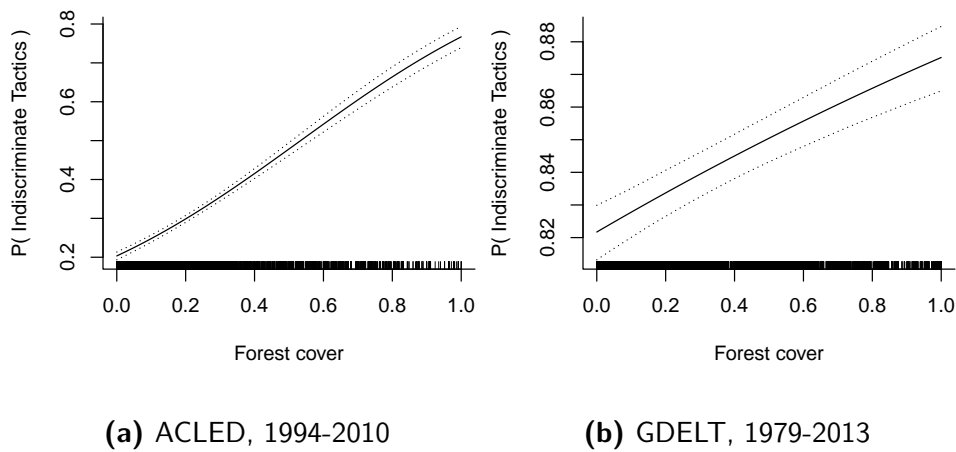
**Figure 4.3.5:** OPEN TERRAIN AND INDISCRIMINATE VIOLENCE.



**(a)** ACLED, 1994-2010

**(b)** GDELT, 1979-2013

**Figure 4.3.6: FORESTS AND INDISCRIMINATE VIOLENCE.**



#### 4.3.3 BARRIERS TO FORCE PROJECTION

Finally, the data suggest that localities where governments are most inclined to escalate are not necessarily ones where those governments are militarily weak. All other things equal, government violence will be more frequent and more indiscriminate in logistically accessible districts close to hubs of government power. As Proposition 2 predicts, equilibrium levels of punishment are decreasing in selectivity, but increasing in the upper bound on violence imposed by a combatant's normative and logistical constraints.

Figures 4.3.7- 4.3.8 show that districts highly accessible by roads experience significantly more government violence, and a significantly higher propensity for that violence to be indiscriminate.<sup>15</sup> All else equal, districts whose borders are intersected by 200 unique roads experience 7.2 (95% CI: 3.0, 11.6) to 255.5 percent more (95% CI: 252.4, 258.8) government operations per week than those with just one entry point, according to ACLED and GDELT, respectively. The corresponding increases in the probability of indiscriminate tactics are 45.2 (95% CI: 33.8, 57.2) and 13.4 percent (95% CI: 11.3, 15.5).

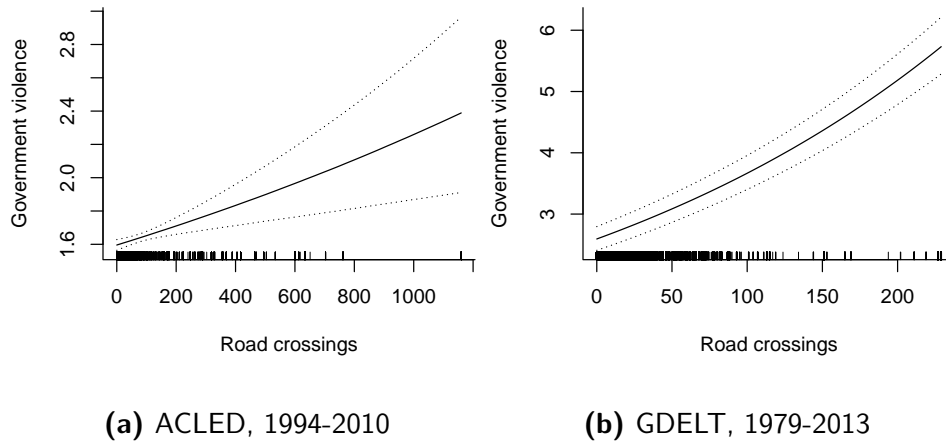
A second measure of power projection is the distance from a district's centroid

<sup>15</sup>All other variables held constant at their median values.

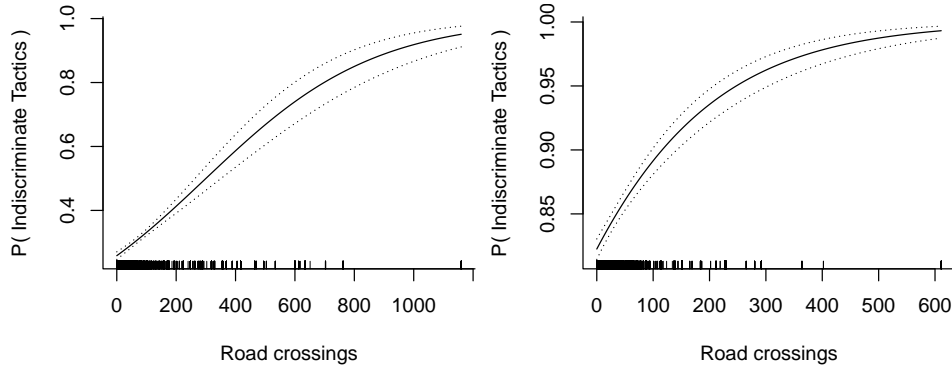
to a country's capital city. Contrary to the common view that indiscriminate violence is highest in peripheral areas where the state is weak, the probability of indiscriminate tactics is actually highest in areas proximate to hubs of government power. This probability is 16.7 percent lower (95% CI: -26.0, -6.5) 1000 km from a state capital than 1 km away, and 2.7 percent lower (95% CI: -4.2, -1.2) according to GDELT.

These findings remind us that a government's ability to escalate is not limitless, and is heavily constrained by logistics. Even if a government has a strong incentive to use heavy force in a forested, mono-linguistic area, she will have difficulty doing so if local infrastructure and lines of communication are underdeveloped. She will have similar difficulties at greater distances between the theater of operations to the hubs of her political and military power. If escalation were a consequence of state weakness, and not a lack of information, we would see the opposite trends. Government violence is most extreme and most indiscriminate where the incumbent is physically strong, but informationally deficient.

**Figure 4.3.7: ROADS AND ESCALATION.**



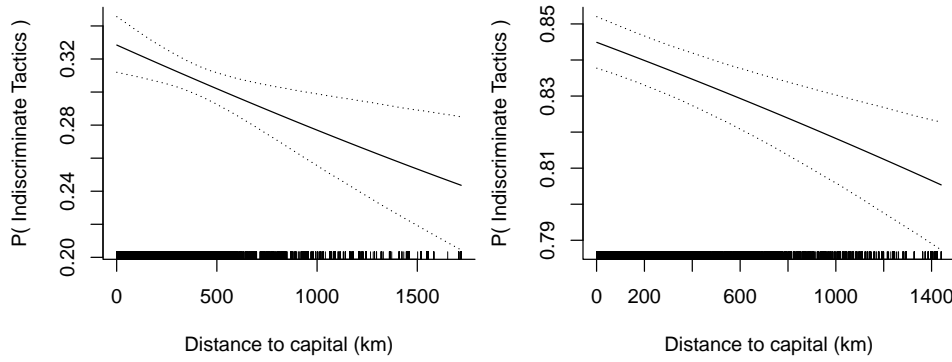
**Figure 4.3.8:** ROADS AND INDISCRIMINATE VIOLENCE.



**(a)** ACLED, 1994-2010

**(b)** GDELT, 1979-2013

**Figure 4.3.9:** DISTANCE FROM CAPITALS AND INDISCRIMINATE VIOLENCE.



**(a)** ACLED, 1994-2010

**(b)** GDELT, 1979-2013



#### 4.4 THE INEFFICIENCY OF INDISCRIMINATE VIOLENCE

Is indiscriminate violence less efficient at suppressing rebel attacks than selective violence? The theoretical model predicts that a higher rate of punishment is needed to meet the stalemate threshold if selectivity is low (Proposition 1). The simulations in Figures 4.2.1-4.2.4 lend some tentative support to this view: the maxima of the fitted curves occur at lower levels of government violence when the tactics are selective, and higher levels when tactics are indiscriminate.

It is, however, difficult to attribute the apparent inefficiency of indiscriminate violence to tactics alone. As the previous analysis has shown, there are systematic differences – ethnic, linguistic, geographic, logistical – between the environments where governments use selective versus indiscriminate tactics. The observation that it takes more effort to suppress rebellion with indiscriminate force may simply reflect the fact that such violence occurs where pacification is already difficult.

To address some of these concerns, I use matching, a two-step procedure involving, first, the selection of “balanced” sub-samples of treatment and comparison cases and, second, the analysis of differences in outcomes across these two groups (Ho et al., 2007). The goal of the procedure is to minimize differences in the joint distribution of observed pretreatment covariates across the two matched groups, so that any subsequent variation in the outcome (i.e. rebel violence) can be more plausibly attributed to the use or non-use of indiscriminate violence. The hope behind matching is that – in a perfectly balanced sample – the use or non-use of indiscriminate tactics can be more readily attributed to random chance, rather than systematic differences in the observed pre-treatment conditions.

ACLED includes 3,851 district-weeks in which government forces used only selective tactics (Comparison), and 7,873 in which they used indiscriminate violence at least once (Treatment). The corresponding group sizes are 11,143 (Comparison) and 31,396 (Treatment) for GDELT. In each case, I define indiscriminate violence as a use of force that directly targets the civilian population, or – in the case of GDELT – also entails the use of indirect fire weapons that are likely to cause civilian casualties through targeting error or low precision – like artillery

shelling and carpet bombing.

For each case of indiscriminate violence, I looked for the closest case where governments used selective violence, but all other conditions – pre-existing levels of rebel violence, ethnic and linguistic structure, land cover, forests, population density, urbanization, elevation, road accessibility, proximity to political centers, neighboring levels of violence – were nearly identical. I imposed the restriction that all matched pairs had to be from the same conflict and year. I also matched on the week of the observation, to ensure that treatment and comparison cases were from the same phase of the conflict, and same season of the year.

Although most applied research seeks to achieve balance across pre-treatment covariates with a single matching solution, I follow King et al. (2011) in employing a more extensive search across multiple matching designs, in an effort to simultaneously maximize covariate balance between treatment and comparison groups and the size of the matched sample. Specifically, I use a set of three common matching methods – propensity scores (PS),<sup>16</sup> Mahalanobis distance (MD),<sup>17</sup> and coarsened exact matching (CEM)<sup>18</sup> – and apply each to the data. This approach has a dual purpose. First, it enables me to select a matched sample that minimizes imbalance while maximizing statistical leverage. Second, if results are generally consistent across all methods, I can be reasonably confident that the estimated effect of indiscriminate violence is not an artifact of the underlying assumptions of any one matching technique.

Table 4.4.1 reports balance summary statistics for ACLED and GDELT data. In each case, matching produced only a modest improvement in balance – between 33 and 49 percent for ACLED and just 14 to 20 percent for GDELT. In both instances, coarsened exact matching outperformed the alternatives in reducing im-

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<sup>16</sup>PS minimizes the univariate distance between the propensity scores  $D_{PS}(X_i, X_j) = |P(T_i = 1|X_i) - P(T_j = 1|X_j)|$  of two observations  $X_i$  and  $X_j$ , where  $P(T_i = 1|X_i)$  is the conditional probability that observation  $i$  assigned to treatment, given observed pre-treatment covariates  $X_i$ .

<sup>17</sup>MD minimizes the multivariate distance between two observations  $X_i$  and  $X_j$  using  $D_M(X_i, X_j) = \sqrt{(X_i - X_j)\mathbf{S}^{-1}(X_i - X_j)}$  where  $\mathbf{S}$  is the sample variance-covariance matrix.

<sup>18</sup>CEM temporarily coarsens each pretreatment covariate, and sorts all units into strata, where each member has the same values of the coarsened variable. It then removes all strata that do not include at least one treated and one comparison unit (Iacus et al., 2012).

balance. Yet because substantial imbalance remained – not surprising for datasets that span such a diverse range of conflicts and regions – I used the pre-processed datasets generated by matching to estimate the Fixed Effect Poisson models in equations 4.11-4.12.

The results in Tables 4.4.2 and 4.4.3 suggest that switching from selective to indiscriminate tactics makes the suppression of rebel violence more difficult. District-weeks in which government forces used indiscriminate violence saw significantly more rebel attacks in the future – short-term and long-term – than otherwise similar district-weeks in which only selective government violence occurred. This result is consistent across the two datasets, and across all matching solutions.

According to ACLED data and the most conservative matching solution, CEM, a switch from selective to indiscriminate violence yields a 14.84 percent increase (95% CI: 10.6, 19.17) in local rebel attacks in the following twelve weeks, and a 8.85 percent increase (95% CI: 8.33,9.37) according to GDELT.<sup>19</sup> The short-term impact was in the same direction, though more uncertain. CEM predicts a 32.6 percent increase (95% CI: 1.77, 69.85) in rebel violence according to ACLED, and a 2.6 percent increase (95% CI: 0.94, 4.31) according to GDELT.

**Table 4.4.1:** MATCHING BALANCE SUMMARY. Standardized bias is defined as  $\frac{\bar{x}^{(T)} - \bar{x}^{(C)}}{\sigma(\bar{x}^{(T)})}$ .

	Indiscriminate (T)	Selective (C)	Standardized bias	% improvement
<b>ACLED</b>				
Pre-Matching	3851	7873	0.26	0.00
Mahalanobis	2754	1100	0.18	32.90
Propensity Score	2753	1161	0.18	31.50
CEM	1061	1894	0.13	48.72
<b>GDELT</b>				
Pre-Matching	31396	11143	0.20	0.00
Mahalanobis	29408	6632	0.18	13.88
Propensity Score	28698	7123	0.18	14.15
CEM	19197	8789	0.16	20.30

<sup>19</sup>All other covariates held constant at their median values.

**Table 4.4.2:** INDISCRIMINATE VIOLENCE AND REBEL VIOLENCE, ACLED. Values reported are Fixed Effects Poisson Regression coefficients for the treatment variable (switching from selective to indiscriminate violence). Coefficient estimates for other covariates are not reported in the table.

	Pre-Matching	Mahalanobis	Propensity Score	CEM
<b>SHORT-TERM</b>				
Treat	0.393*** (0.077)	0.281** (0.115)	0.450*** (0.119)	0.299** (0.134)
N	2,686	697	697	588
Log Likelihood	-2,252	-661	-638	-473
AIC	4,623	1,411	1,366	1,017
<b>LONG-TERM</b>				
Indiscriminate tactics	0.197*** (0.015)	0.043** (0.021)	0.234*** (0.022)	0.124*** (0.020)
N	11,171	3,854	3,914	2,955
Log Likelihood	-28,758	-9,821	-9,774	-9,066
AIC	57,668	19,770	19,676	18,240

\* p < .1; \*\* p < .05; \*\*\* p < .01

**Table 4.4.3: INDISCRIMINATE VIOLENCE AND REBEL VIOLENCE, GDELT.** Values reported are Fixed Effects Poisson Regression coefficients for the treatment variable (switching from selective to indiscriminate violence). Coefficient estimates for other covariates are not reported in the table.

	Pre-Matching	Mahalanobis	Propensity Score	CEM
<b>SHORT-TERM</b>				
Treat	0.634*** (0.008)	0.465*** (0.009)	0.236*** (0.009)	0.111*** (0.009)
N	23,945	22,017	21,072	16,893
Log Likelihood	-153,503	-146,919	-107,378	-69,487
AIC	307,138	293,970	214,888	139,106
<b>LONG-TERM</b>				
Indiscriminate tactics	0.741*** (0.002)	0.339*** (0.002)	0.273*** (0.002)	0.143*** (0.002)
N	40,467	36,040	35,821	27,986
Log Likelihood	-1,368,478	-1,323,472	-1,050,383	-429,438
AIC	2,737,089	2,647,075	2,100,895	859,007

\*p < .1; \*\*p < .05; \*\*\*p < .01

#### 4.5 THE LIMITS OF COERCION

These initial series of statistical tests point to a grim empirical regularity: coercion works, just not in moderation. Consistent with my theoretical expectations, government violence can suppress rebel attacks, but only if a government is willing to escalate beyond the stalemate threshold. If the government can use enough violence to convince civilians that supporting the rebels is more costly than supporting the government, the rate of attrition will exceed rebels' ability to replace their numbers. This drop in capacity will produce an associated drop in rebel violence. If the government is unable or unwilling to escalate to this point, it will only succeed in provoking greater escalation by the rebels.

This non-monotonic relationship can be observed in dozens of contemporary conflicts, in multiple event datasets assembled with different methodologies – man-

ual collection and automated text analysis. Importantly, this relationship holds for both selective and indiscriminate violence, although the threshold occurs at a smaller level of force in the selective case. Indiscriminate violence, in other words, is not necessarily counterproductive. It is just more inefficient, requiring a greater exertion of effort to achieve a favorable result. Not surprisingly, there are fewer empirical cases in which governments do use indiscriminate violence at rates high enough to exceed the stalemate threshold – which contributes to the common perception that indiscriminate violence almost always fails.

The data further support the expectation that not all circumstances call for the use of overwhelming coercive force. Government violence is most intense and most indiscriminate in environments where intelligence is difficult to collect, but force is easy to project – in districts where the ethnolinguistic structure precludes human intelligence, where vegetative cover precludes aerial surveillance, but where the road infrastructure is highly developed and deployment distances are not too great.

Even when one accounts for the disparities, and compares the consequences of indiscriminate and selective tactics in places where the two technologies of violence were about equally likely to be used (conditional on observed preexisting circumstances), this choice matters greatly for pacification. Indiscriminate violence is significantly less effective than selective violence in suppressing future rebel attacks. Operations involving indiscriminate tactics are followed by higher rates of rebel violence, short-term and long-term, across all datasets and matching solutions. Given this inefficiency, if local conditions necessitate the use of indiscriminate violence, a government may need to use far more of this violence than her normative or logistical constraints permit.

*We have not won anything in Chechnya; rather we have acted like a blindfolded, robust child, thrashing around blindly with an ax.*

Vladimir Lukin, Member of Russian State Duma, 1996

# 5

## Indiscriminate Violence in Chechnya, 1994-1996

The current chapter builds on the cross-national analysis by taking a deeper look at the history of one recent conflict: the First Chechen War of 1994-96. Due to its scale and brutality, this war has gained a reputation as a schoolbook example of what *not* to do in a counterinsurgency. This perception is widespread among political scientists (Evangelista, 2002, Lieven, 1999), historians (Gammer, 2006, Kramer, 2004, 2005), journalists (Grodnenskiy, 2004, 2010, Politkovskaya, 2002, 2007) and policy analysts (Celestan, 1996, Malashenko and Trenin, 2002, Oliker, 2001), in Russia and the West. The conventional wisdom attributes Russia's strategic and tactical choices to errors, miscalculations, organizational disarray and even alcohol (see, for instance, Felgenhauer 2002).

Almost all research on the First Chechen War has been qualitative and descrip-

tive. In contrast to the growing micro-comparative literature on the insurgency that began during the Second Chechen War in 1999 (Lyall, 2009, 2010, O’Loughlin and Witmer, 2011, O’Loughlin et al., 2011, Toft and Zhukov, 2012) – the focus of another chapter in this dissertation – the earlier conflict has received scant attention from quantitative scholars. The current chapter seeks to address this gap, with the help of qualitative anecdotal evidence and a novel event dataset of government and rebel violence in the region.

Contrary to popular perceptions of irrationality and disorder, I find that Russia’s reliance on overwhelming, indiscriminate force has followed a clear strategic logic: a desire to compensate for a lack of intelligence with firepower. In this sense, Russia’s challenges were similar to those we saw in dozens of civil conflicts in the previous chapter. Moscow’s search for coercive leverage was not entirely fruitless, and statistical evidence shows that Russian forces occasionally succeeded in escalating violence beyond the stalemate threshold. The curvilinear relationship detected on a cross-national level between government and rebel violence holds in the Russian case. As before, indiscriminate tactics did not always preclude success, but they were significantly less efficient than selective ones in reducing rebels’ capacity to fight.

## 5.1 HISTORY

Russia has been fighting rebels in the North Caucasus for almost 200 years. Sitting astride the tallest mountain range in Europe, the greater Caucasus region had historically lied at the intersection of the Russian, Persian and Ottoman empires. In part due to its geographic location and difficult terrain, the Caucasus is a place of significant ethnic, linguistic and religious diversity. The region is home to some 50 distinct ethnic groups, and dozens of mostly unrelated indigenous tongues, representing at least six major language families.<sup>1</sup>

Moscow had been organizing sporadic military raids into the Caucasus since the mid-sixteenth century, but a new phase of imperial expansion began in the late

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<sup>1</sup>Encyclopaedia Britannica (2013).



1700's. Following a series of successful wars against Persia and Turkey, Russia managed to seize much of the Caspian and Black Sea coasts, and established a protectorate in Georgia. By 1816, Russia had made significant territorial gains, bringing most of the region under its control. Despite this rapid expansion, much of the North Caucasus – particularly parts of contemporary Dagestan and Chechnya south of the Terek River – remained outside of Russia's political grasp.

During much of the nineteenth century, Russian power in the area was confined to a series of newly-established military outposts like the fortress of Groznaya – later renamed Grozny – which collectively comprised the so-called Caucasus Line. North of the Line were territories firmly under Russian control. The rural, mostly inaccessible mountain and forested areas south of the Line remained the domain of local tribes, khans and sheikhs, who gradually fell under the control of the Caucasian Imamate – a theocratic Islamic state led by Imams Gazi-Muhammad, Gamzat-Bek and Shamil.

The Imamate challenged local Russian authority, in part, by making life near the Caucasus Line very costly for the Russian settlers, Cossacks, and indigenous populations who resided there. These problems were especially acute in Chechnya. General Alexei Ermolov, who in 1816 became the first Russian pro-consul to the Caucasus, described the security situation in his memoirs,

The Chechens [are] the most vicious of all the bandits who attack the line. Their society is small in numbers, but has grown tremendously in the past few years, due to their embrace of all other peoples who left their lands after having committed various crimes. Here they found associates ready to exact vengeance or partake in raids, while they served as loyal guides in unfamiliar lands. Chechnya can be fairly called the nest of all bandits.<sup>2</sup>

In an attempt to secure the frontier and extend Russian sovereignty to the mostly lawless territory, Russia's Caucasus Corps adopted an aggressive counterinsurgency strategy, characterized by a heavy reliance on field artillery, spectacular offensive

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<sup>2</sup>Ermolov (1868).

operations, deforestation, mass deportation, and the systematic razing and depopulation of “rebellious” villages, suspected of providing shelter to insurgents. These practices achieved few tangible results, and the local insurrection persisted for nearly five decades until 1864.

The Chechens initially greeted the Russian Revolution of 1917 with some optimism, but – as we will see in subsequent chapters – the region gradually became a bastion of resistance to the emerging Soviet regime. A succession of rebel bands continued to operate in the North Caucasus in the 1920’s and 1930’s, conducting raids against railroads and Soviet administrative centers, while powerful local sheikhs made several attempts to establish a self-proclaimed Islamic state. The initially weak local communist authorities struggled to assert control, and two decades of counterinsurgency culminated in 1943-1944 with Stalin’s wholesale deportation of several Caucasian peoples – including the Chechens, Ingush, Balkars, Greeks, Kalmyks, Karachays, Meskhetian Turks and Nogays – to Central Asia.

Life in exile dealt a significant demographic blow to the “punished” populations of the North Caucasus. Deportation-related deaths claimed 20 percent of the groups’ initial numbers, and declining birth rates slowed demographic recovery for decades (Zemskov, 2005, 119, 164, 193-195). The Chechens, along with most other exiled groups, were “rehabilitated” and allowed to return in 1957-58. Moscow reconstituted the Chechen-Ingush Autonomous Soviet Socialist Republic (ASSR) – which had been dissolved following the mass deportation – with a capital in Grozny.

As the Soviet Union was disintegrating in November 1990, the First Chechen National Congress (OKChN) convened in Grozny. The Congress elected as its leader Dzhokhar Dudaev, an aspiring local politician and the first and only ethnic Chechen to reach the rank of General-Major (one star) in the Soviet Air Force. After his election, Dudaev began establishing parallel governing structures that directly challenged Soviet authority.

In September 1991, a group of armed fighters subordinate to the OKChN stormed a session of the Chechen-Ingush ASSR’s Supreme Soviet, assaulted several dozen parliamentary deputies, and threw Grozny’s city manager out of the window, to

his death. Within several days, the OKChN had seized control of Grozny's airport, television and radio stations, and blockaded the town center. The group organized popular elections for the following month, in which Dudaev won the Presidency with over 90 percent of the vote. Dudaev's first decree as Chechnya's President was to declare the establishment of a Chechen Republic of Ichkeria (ChRI), fully sovereign and independent from Moscow.

The Russian leadership never recognized Chechnya's declaration of independence, but was initially hesitant to take military action. Preoccupied with crises on multiple fronts, Russian President Boris Yeltsin declared a state of emergency in Chechnya in November 1991, but the Supreme Soviet never confirmed his order. Meanwhile, Dudaev's men quickly moved to occupy Soviet administrative buildings and army bases, disarm locally-stationed military units, and suspend all rail and air traffic in the republic. After the Soviet Union's collapse in December 1991, and for the better part of the next three years, ChRI existed as a *de facto* independent state.

The legitimacy of the Dudaev regime was a subject of almost immediate contestation, particularly on the part of local Chechen opposition forces. The first armed clashes between Dudaev's supporters and opponents began in December 1991. By 1993, the anti-Dudaev opposition had coalesced into a small-scale guerrilla movement, with clandestine support from Moscow. After a failed attempt to overthrow Dudaev in November 1994, the opposition collapsed, and Yeltsin issued an ultimatum for Dudaev's loyalists to disarm and hand over the prisoners captured during the failed coup. Dudaev refused, and Yeltsin ordered his top military commanders to launch a full-scale military intervention to "restore constitutional order in Chechnya" (Yeltsin, 1994).

The initial Russian campaign plan envisioned a short, conventional war. Four task groups – three from the Ministry of Defense (MOD) and one from the Ministry of Interior (MVD) – would advance on Grozny from three directions with combat air support, and encircle the Chechen capital. After a show of force, special operations units (Spetznaz) would seize the Presidential Palace, key ministries, television and radio stations and the railroad station. Once MOD troops secured

the capital, MVD would quickly assume responsibility for local law and order. Planners expected the entire operation – from deployment to transition – to last about one month (Celestan, 1996).

The plan never reached fruition. Some of the initial problems were organizational and doctrinal. MVD Internal Troops were unprepared for large scale maneuver warfare, and did not regularly train with Army units. The Army, for its part, was not well positioned for policing or governance duties, and had no doctrine for fighting in built-up terrain without inflicting heavy casualties on civilians. Its strategic focus remained on conventional war in Europe, with a heavy dependence on artillery, armor and air power (Oliker, 2001).

Many of the more persistent problems were informational. Chechnya had been outside of Moscow's control since 1991, and many local informants had been killed or captured during the intra-Chechen conflict of the intervening years. To locate ChRI fire positions, study the defensive systems of rebel-controlled villages, and identify high-value targets, Russia depended on reconnaissance troops, who were hastily inserted and extracted by helicopters, often without coordination with infantry and lacking even basic equipment like portable radios and binoculars (Thomas, 1997). With no reliable data on the disposition of ChRI units, Russian forces took heavy force protection measures, forcing air crews to operate at maximum range to avoid entering the kill zones of rebel defenses. This practice reduced accuracy – particularly given a reliance on unguided munitions – and increased the number of civilian casualties (Thomas, 1997).

Dudaev's forces were far better informed. Russian officers frequently complained that ChRI forces seemed well-briefed on every major government operation. Some of ChRI's intelligence came from intercepted communications and covert agents in the security services. Yet a more critical source – particularly after Chechen units lost their heavy hardware and retreated into the villages and forests – was the local population.

As Russian forces captured Grozny in January 1995 – and Yeltsin declared the military stage of the operation to be over – the regular ChRI Armed Forces re-organized into smaller units, typically comprising a field commander, chief of staff,

bodyguards, reconnaissance team, riflemen, snipers and a supply officer. These units, or “self-defense detachments,” recruited and fought locally, drawing most of their manpower and support from the residents of a single village (Kulikov, 2003). Sympathetic local villagers not formally part of the units acted as scouts, hid weapons caches, and spread disinformation among Russian forces.

The difficulty of distinguishing between these local sympathizers, plainclothes fighters, and neutral civilians frustrated Russian forces. As one retired colonel recalls,

Local residents would continuously show up near the locations of the federal forces’ garrisons, never showing any aggressive intentions. They would make contact with service personnel, bring them food, cigarettes, liquor, buy fuel and lubricants, or offer to buy ammunition. Once the personnel or individual soldiers relaxed their vigilance... [the villagers] would quickly overpower and disarm them. They would then also disarm, capture or kill the remaining personnel (Kulikov, 2003).

Armed with local knowledge about the terrain, the rebels combined these surprise attacks with quick withdrawals along special routes, luring the pursuing Russian forces into ambushes. Other tactics included “drive-by” shootings, roadside bombings, and sabotage of bridges and key logistical choke points (Troshev, 2001b).

By early 1995, Russian forces began expanding their operations into smaller towns and villages outside Grozny, where rebels were active. Yet entering these towns was dangerous due to a lack of information about rebel locations and capabilities, and ambiguity about the population’s loyalties.

The government-rebel interaction quickly settled into a pattern of local escalation, in which Russian forces surrounded a village, Chechen units responded by opening fire on Russian columns, and the Russians responded by launching an artillery barrage on the village until return fire stopped – typically because Chechen fighters had fled to the forest. This kind of interaction had a high human cost and resulted in occasional massacres, like the killing of 250 civilians during a single as-

sault on the village of Samashki in April 1995 (Amnesty International, 1996).

Given a choice between clearing Chechen villages block-by-block, or reducing these villages to rubble, government forces often favored the second option. If sufficiently heavy, Russian artillery, aviation and rocket attacks had the potential of eliminating ChRI firing positions and destroying physical units on the ground – even if by random chance. While using tons of ordinance to kill individual snipers was hardly an efficient use of firepower, commanders saw this approach – from a force protection standpoint – as potentially saving soldiers’ lives. Civilian deaths were less worrisome, particularly if these assaults could deter other villages from harboring guerrillas. As one American military analyst wrote at the time, “Previous Russian concerns about civilian casualties vanished in the face of the limited success from massed artillery strikes against the Chechens” (Celestan, 1996).

While these efforts to substitute firepower for intelligence were occasionally successful at local pacification, they failed to achieve the broader coercive impact the Russians hoped. In many parts of Chechnya, the Army had difficulty massing its artillery, which was organized into temporary units without a unified chain of command. This practice made it difficult for individual field artillery units to share intelligence about firing locations, maintain and coordinate their efforts, and exposed them to Chechen hit-and-run attacks. Army aviation had its own problems, including limited training time, old equipment, insufficient fuel, ammunition and spare parts. The result was a rate of fire that succeeded in flattening many residential buildings and killing innocent people, but not in inflicting heavy casualties on dispersed rebels hiding in underground bunkers and forests (Malashenko and Trenin, 2002, 136). According to General-Lieutenant (two star) Aleksandr Lebed – Russia’s then-Security Council chief – the civilian-to-rebel death ratio was nearly eight-to-one (Thomas, 1997).

The rebels’ resilience in the face of brutal, but inept Russian tactics sent two signals to the civilian population. First, remaining neutral did not guarantee safety. The overwhelming majority of those killed, wounded or displaced during the war were non-combatants. Both sides contributed to this toll, as evidenced by spectacular Chechen attacks against civilian targets like hospitals and maternity wards in

Budyonovsk, Pervomayskaya and Kizlyar. Yet more died by Russian bombs.

Second, if being neutral would not keep one safe, neither would supporting the Russians. The Army seemed incapable not only of punishing the rebels with any accuracy – they could not protect their own soldiers from the rebels that remained. ChRI fighters decapitated Russian prisoners and placed their heads on curbs leading into cities – including those, like Grozny, which were formally under Russian administration. Russian wounded and dead hung upside down in the windows of residential buildings, sending a clear message to any passers-by (Grau and Thomas, 2000). ChRI's network of scouts and informants made it difficult for villagers to approach Russian personnel without someone taking notice, and penalties for collaboration were severe.

The Chechen recapture of Grozny in 1996 was a testimony to the rebels' informational and tactical advantage. Ahead of the operation, ChRI had sent reconnaissance units into the city, who blended with the civilian population, and spent three months collecting intelligence on Russian positions, capabilities and communications. In early August, a battalion-equivalent of Chechen forces infiltrated the city, bypassing Russian checkpoints, and moved quickly to isolate and envelop the MVD units stationed in the city. The Russians and pro-Moscow Chechen policemen garrisoned in the city were unable to repel the attack before regular Army reinforcements could arrive – many of whom were at the time conducting a massive operation in the republic's mountainous south.

After a series of unsuccessful Russian counter-attacks, a day of heavy shelling, and a ceasefire, Grozny remained in Chechen hands. On August 30, Lebed and Chechen field commander Aslan Maskhadov signed the Hasavyurt Accords, which stipulated a full withdrawal of federal forces from Chechnya by the end of the year. Although the accord formally deferred an agreement on Chechnya's final status until 2001, the republic became *de facto* independent.

The costs of the rebels' victory fell disproportionately on civilians. Chechnya's economy and infrastructure were almost completely destroyed, and over 105,000 members of its prewar population, or 8.2 percent, were either dead or displaced.<sup>3</sup>

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<sup>3</sup>Unified Interdepartmental Statistical Information System of the Russian Federation (2014).

Yet the government had failed to inflict heavy costs on the rebels. Just three to six percent of all fatalities – 2,500 to 2,700 people – were members of the ChRI armed forces or affiliated militias (Cherkassov, 2004, Krivosheev, 2001). Russia's armed forces never admitted defeat, and almost immediately began training and planning for another attempt to retake Chechnya.

## 5.2 DATA AND RESEARCH DESIGN

This brief historical overview suggests that Russian conduct in the First Chechen War was broadly consistent with the theoretical model. Russian forces relied heavily on indiscriminate artillery shelling and aerial bombardment, in a seeming attempt to compensate for a lack of intelligence on rebel locations and identities. Other factors were certainly at play: a doctrinal orientation toward conventional warfare, organizational and bureaucratic inefficiencies, imprudent planning, a reliance on poorly-trained conscripts, low morale in the ranks and a general lack of discipline. Yet many of these problems were systemic features of Russian armed forces and security services in the mid-1990's, and would not explain why the same task groups might use different tactics in two different locations. A closer look at the data can reveal the sources of this variation, and whether different tactical choices could have altered the course of the war.

The following analysis employs a new dataset on counterinsurgency and rebel activity during the First Chechen War of 1994-96. The data compile incident reports initially collected by Orlov and Cherkassov (1996) and maintained by Russia's independent Memorial human rights NGO. Orlov and Cherkassov (1996)'s work is distinct from Memorial's more voluminous 'Hronika nasiliya [Chronicle of Violence]' timeline, which includes tens of thousands of reports on political violence in the Caucasus since 2000 – which I use as the empirical basis of a later chapter. Because Orlov and Cherkassov (1996)'s scope is limited to major events, I supplemented their reports with Grodnenskiy (2004)'s chronology of military operations and rebel attacks in Chechnya.

I used natural language processing to pre-filter the raw text, to include only en-



tries that contain specific dates, locations, actors, tactics, and – optionally – casualties.<sup>4</sup> I discarded reports of a historical nature and press releases, as well as duplicate entries across the two sources (i.e. same dates, locations and actors).

I classified the events into a typology analogous to that used for the ACLED and GDELT databases in the previous chapter. To classify actors into government, rebel or civilian groups, I created a custom Russian-language dictionary – with the names and designations of specific MOD, MVD and ChRI units, Russian and ChRI commanders, offices, and more general terms (e.g. “federal forces,” “guerrillas”). I used a separate Russian-language dictionary to classify tactics as selective – small-scale policing or punitive action directed against specific individuals (e.g. pursuit, firefight, arrest, execution, assassination, kidnapping, ambush, raid) – or indiscriminate – involving the use of weapons systems designed for conventional warfare (e.g. air power, armor and artillery) or otherwise involving the systematic collective targeting of individuals (e.g. cordon and search, mass detentions, mass killings). I geocoded the locations with fuzzy string matching of place names against the U.S. National Geospatial Intelligence Agency’s GeoNames database.

The dataset includes 13,298 violent events in Chechnya and two bordering republics, Ingushetia and Dagestan, in which some spill-over fighting also occurred. The earliest event occurred on November 7, 1991 (skirmishes following Dudaev’s declaration of Independence), and the last on August 22, 1996 (bombing of Grozny before ceasefire). 527 of these events were rebel-initiated, 12,757 were government-initiated, and 14 were civilian initiated incidents like violent protests and riots. The overwhelming majority (483, or 92 percent) of rebel-initiated events were selective. An even greater majority of government events were indiscriminate (11,971, or 94 percent).

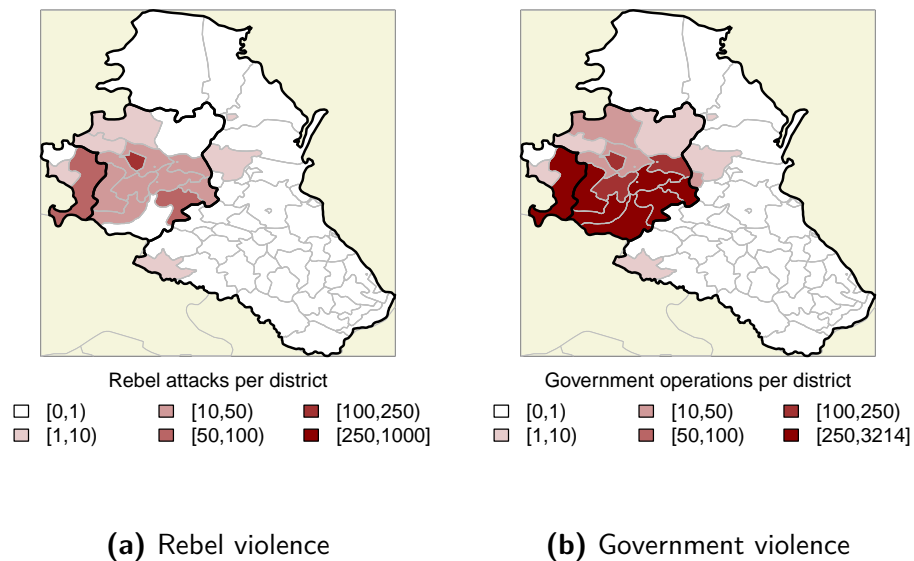
Following the same approach as in the last chapter, I aggregated these data to event counts the level of a district (rayon)-week and merged them with geospatial data on terrain, language, roads and other relevant characteristics (CIESIN and Columbia University, 2005, Defense Mapping Agency, 1992, Global Mapping In-

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<sup>4</sup>Orlov and Cherkassov (1996) is already organized as a timeline; I used the algorithm primarily to convert Grodnenskiy (2004)’s chronological prose to the same format.

ternational, 2006, Hearn et al., 2005, Loveland et al., 2000, NOAA, 1988, Weidmann et al., 2010). I supplemented these additional fields with more specialized geospatial data on the North Caucasus, like group settlement patterns and language fluency, from Tsitsuev (2007)'s ethnic and political atlas of the region. Figure 5.2.1 shows the overall distribution of rebel and government violence during the First Chechen War, by district.

**Figure 5.2.1:** DISTRIBUTION OF VIOLENCE, CHECHNYA, 1991-96. Black lines denote republic borders (left to right: Ingushetia, Chechnya, Dagestan). Grey lines denote district borders. Red shadings denote cumulative levels of violence (see legend).



### 5.2.1 EMPIRICAL STRATEGY

To maximize comparability with my cross-national ACLED and GDELT results, I ask the same questions of the Chechen data – with the same statistical toolbox – as before. Specifically, I use multilevel modeling, selection models and matching to study (1) the shape of the relationship between government and rebel violence,

(2) the determinants of the government's tactical choices, and (3) whether selective and indiscriminate tactics are differentially effective at pacification.

#### PART ONE

I examine the relationship between government and rebel violence with a fixed-effects Poisson regression model, where the dependent variable  $y_{ijt}$  is the number of rebel attacks observed in district  $j \in \{1, \dots, J\}$  of republic  $i \in \{\text{Chechnya, Dagestan, Ingushetia}\}$ , during week  $t \in \{1, \dots, T_i\}$ . I give the rate parameter  $\lambda_{ijt}$  of  $y_{ijt}$  the same expression as before:

$$\ln \lambda_{ijt} = \gamma_1 z(\cdot)_{ijt-1} + \gamma_2 z^2(\cdot)_{ijt-1} + \alpha_1 y_{ijt-1} + \alpha_2 \mathbf{W}y_{ijt-1} + \beta \mathbf{x}_j + v_i + \varepsilon_t \quad (5.1)$$

$$\ln \lambda_{ij\tau} = \gamma_1 z(\cdot)_{ij\tau-1} + \gamma_2 z^2(\cdot)_{ij\tau-1} + \alpha_1 y_{ij\tau-1} + \alpha_2 \mathbf{W}y_{ij\tau-1} + \beta \mathbf{x}_j + v_i + \varepsilon_t \quad (5.2)$$

where  $z_{ijt}(\cdot)$  is the number of incidents of government-initiated violence of type  $(\cdot) \in \{\text{selective, indiscriminate, any tactics}\}$  that took place in district  $j$  of republic  $i$ , during either week  $t - 1$  (SHORT TERM, 5.1) or time window  $\tau = \{t, \dots, t + \Delta t\}$  (LONG TERM, 5.2).<sup>5</sup> Other terms on the right side of the equation include a temporal lag of the dependent variable ( $y_{ijt-1}$ ), a time-lagged spatial lag ( $\mathbf{W}y_{ijt-1}$ ), a vector of time-invariant district-level control variables ( $\mathbf{x}_j$ ), and republic-level and temporal fixed effects ( $v_i$  and  $\varepsilon_t$ ). I also estimated similarly specified fixed-effects negative binomial models to account for potential over-dispersion, and – by way of an additional robustness check – random effects specifications of all models.

#### PART TWO

I examine the determinants of escalation with two sets of models: fixed-effects Poisson to model the determinants of quantitative escalation, and logit to model the determinants of qualitative choices between indiscriminate and selective tac-

<sup>5</sup>I used  $\Delta t = 12$  weeks here, although sensitivity analyses at other levels of aggregation were consistent.

tics. The first set takes a form similar to 5.1-5.2:

$$\ln \mu_{ijt} = \gamma_1 y_{ijt-1} + \alpha_1 z_{ijt-1} + \alpha_2 \mathbf{W} z_{ijt-1} + \beta \mathbf{x}_j + v_i + \varepsilon_t \quad (5.3)$$

$$\ln \mu_{ij\tau} = \gamma_1 y_{ijt-1} + \alpha_1 z_{ijt-1} + \alpha_2 \mathbf{W} z_{ijt-1} + \beta \mathbf{x}_j + v_i + \varepsilon_t \quad (5.4)$$

where  $\mu_{ijt}$  and  $\mu_{ij\tau}$  are rate parameters for  $z_{ijt}$  and  $z_{ij\tau}$ , the number of government-initiated acts of violence (of any type) in district  $j$  of republic  $i$  during, respectively, week  $t$  (SHORT TERM, 5.3) or time window  $\tau = \{t, \dots, t + \Delta t\}$  (LONG TERM, 5.4).

I model the qualitative choice between selective and indiscriminate violence with the counterinsurgency operation as the level of analysis. As before, I removed all district-week observations in which government forces were inactive (i.e. where  $z_{ijt} = 0$ ), and created a dummy variable for tactics,  $z(\text{indiscriminate})_{ijt}$ :

$$z(\text{indiscriminate})_{ijt} = \begin{cases} 1 & \text{if the government used indiscriminate tactics in } ijt \\ 0 & \text{if the government used } \textit{only} \text{ selective tactics in } ijt \end{cases} \quad (5.5)$$

I modeled the conditional probability  $P(z(\text{indiscriminate})_{ijt} = 1 | \mathbf{x}_j, y_{ijt-1}, v_i, \varepsilon_t)$  with a mixed effect logit:

$$\eta_{ijt} = \gamma_1 y_{ijt-1} + \alpha_1 z(\text{indiscriminate})_{ijt-1} + \beta \mathbf{x}_j + v_i + \varepsilon_t \quad (5.6)$$

where  $\eta_{ijt}$  is the linear predictor.

### PART THREE

I examined the relative effectiveness of selective and indiscriminate tactics with a combination of statistical matching and regression. I separated the operational-level data into groups where Russian forces employed indiscriminate counterinsurgency tactics, with  $z(\text{indiscriminate})_{ijt} = 1$  (treatment), and selective ones,

with  $z(\text{indiscriminate})_{ijt} = 0$  (comparison).<sup>6</sup> For each indiscriminate operation, I looked for an operation where the Russians used only selective tactics, but all other conditions – language, terrain, pre-existing levels of violence, and other factors – were very similar. I employed several matching algorithms toward this end, including propensity scores, Mahalanobis distance, and coarsened exact matching.

Post-matching, I estimated the effect of indiscriminate violence on subsequent rebel activity with the familiar Poisson regressions:

$$\ln \lambda_{ijt} = \gamma_1 z(\text{indiscriminate})_{ijt-1} + \alpha_1 y_{ijt-1} + \alpha_2 \mathbf{W}y_{ijt-1} + \beta \mathbf{x}_j + v_i + \varepsilon_t \quad (5.7)$$

$$\ln \lambda_{ij\tau} = \gamma_1 z(\text{indiscriminate})_{ijt-1} + \alpha_1 y_{ijt-1} + \alpha_2 \mathbf{W}y_{ijt-1} + \beta \mathbf{x}_j + v_i + \varepsilon_t \quad (5.8)$$

where 5.7 is the expression for SHORT-TERM effects and 5.8 is the expression for LONG-TERM effects.

### 5.3 SUPPRESSION OF REBEL VIOLENCE

A threshold effect was apparent in the relationship between counterinsurgency and rebel violence in Chechnya. Consistent with what we observed in the cross-national analysis, moderate levels of Russian violence inflamed Chechen rebel attacks, but high levels suppressed them – even when government tactics were indiscriminate.

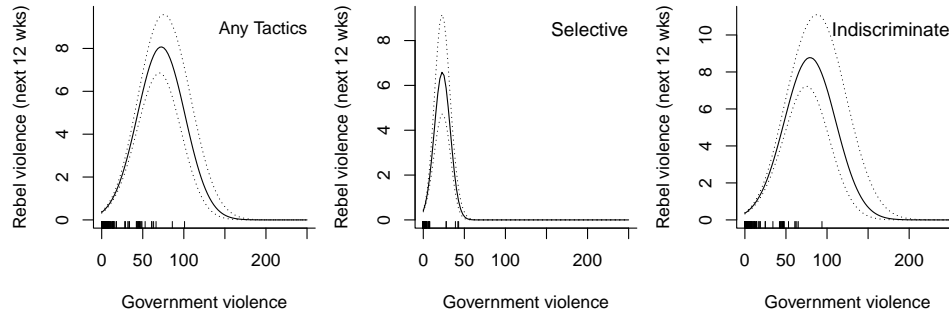
Figure 5.3.1 contains three sets of model-based simulations from Equation 5.2: (1) the expected number of rebel attacks following any government violence, (2) selective government violence, and (3) indiscriminate government violence.<sup>7</sup> All three curves support the theoretical expectation of a stalemate threshold, beyond which it becomes too costly for civilians to support the rebels. Below the threshold, we observe mutual escalation. Above the threshold, the rebels' rate of attrition

<sup>6</sup>I classified cases where government forces employed both indiscriminate and selective tactics as indiscriminate.

<sup>7</sup>All other variables held constant at their median values. Due to space considerations, I report only the LONG TERM models described in equation 5.2. The SHORT TERM results were broadly consistent with these.

exceeds replacement capacity, and they are unable to punish the government at a rate high enough to keep civilians from collaborating.

**Figure 5.3.1:** COUNTERINSURGENCY AND REBEL VIOLENCE IN THE FIRST CHECHEN WAR, 1994-1996. Dotted lines denote 95 percent confidence intervals.



It took more violence to reach this threshold when Russia’s tactics were indiscriminate. For selective tactics, the apex of the curve in Figure 5.3.1b – the point at which counterinsurgency ceases to be counterproductive – was at approximately 23 operations per district-week, or just over 3 per day. For indiscriminate tactics (Figure 5.3.1c), the slope of the curve changed sign at 78 operations – over 11 per day, per district. As the theoretical model notes, the relative inaccuracy of indiscriminate violence requires that more force be used to inflict the same number of casualties.

The amount of violence it would have taken to reach the Chechens’ breaking point is quite staggering. Indeed, the data suggests that – most of the time – the Russian government failed to meet this threshold. Just 12 percent of the district-weeks in which government violence occurred saw a tempo of operations exceeding the model’s critical point. The high prediction uncertainty in the right tails reflects this sparsity of experience at the extreme end of the violence spectrum.

The popular perception of Russia’s actions in Chechnya as a failure is not unfounded. In the overwhelming majority of cases, Russian counterinsurgency operations failed to pacify the targeted district. The data suggest – contrary to conventional wisdom – that this failure occurred not because Russia was too coercive,

but because she *wasn't coercive enough*. Considering the level of destruction and human suffering Russia's apparently "insufficient" acts of violence caused, it is difficult to imagine how the government could have changed the outcome of the war, short of turning Chechnya into a desert.

## 5.4 DETERMINANTS OF ESCALATION

If indiscriminate tactics made pacification so costly, why did Russian forces rely on them so much? Under what conditions were government forces willing and able to escalate? Figures 5.4.1-5.4.4 summarize model-based simulations from Equations 5.4 and 5.6. Each plot shows (a) expected numbers of government operations and (b) the predicted probability of indiscriminate violence at different values of exogenous variables associated with intelligence collection. As the cross-national analysis showed in a more general setting, Russian forces were most likely to escalate where they had the logistical means to do so, but not the information to do so selectively.

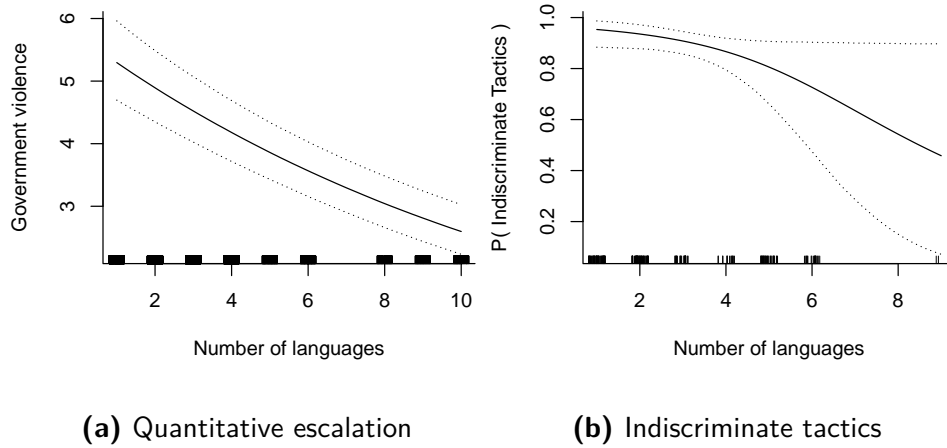
### 5.4.1 BARRIERS TO HUMAN INTELLIGENCE COLLECTION

The Russian government was most likely to escalate – either by using a higher level of force, or by using indiscriminate tactics – in relatively monolingual areas of Chechnya, and in districts with a relatively low ethnic Russian population.

Figure 5.4.1 shows the first of these results. On any given week, an average monolingual district experienced 104 percent more government operations (95% CI: 78.2, 132.8) than a district where 10 languages were spoken. The results for qualitative escalation were more uncertain, as we might expect given the uneven distribution of tactics between 94 percent indiscriminate and 6 percent selective. Yet the relationship here was in the same direction. The use of indiscriminate tactics was five times more likely in a monolingual district than in one with 10 languages. At the very least, government tactics were more consistently indiscriminate in monolingual locations. The probability of indiscriminate tactics in a 10-language district was .35, with a very wide confidence interval (95% CI: .03, .89).

The range of possible outcomes in a monolingual district was much smaller: a .96 probability of indiscriminate tactics, and a very small margin of uncertainty (95% CI: .88, .99).

**Figure 5.4.1: LANGUAGE AND GOVERNMENT VIOLENCE.**



**Figure 5.4.2: ETHNICITY AND GOVERNMENT VIOLENCE.**

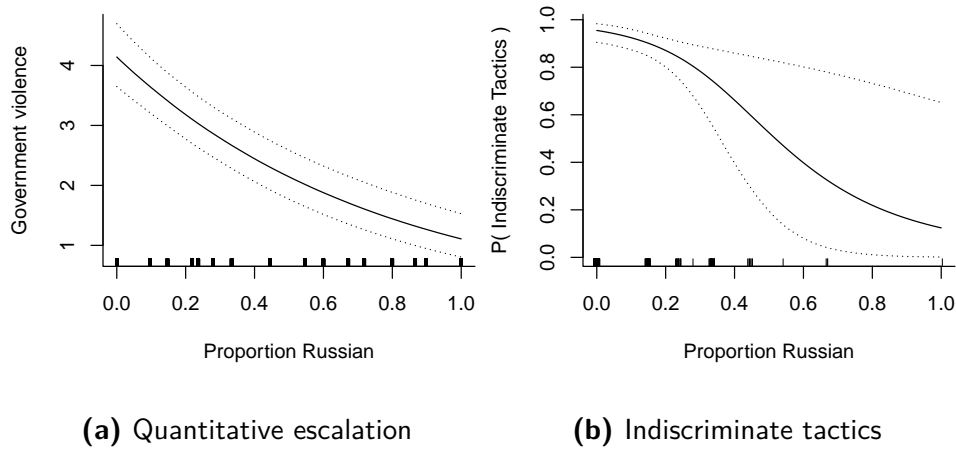


Figure 5.4.2 shows an even stronger relationship between the ethnic composition of a district and Russia's tactical choices. In districts where at least half the



population was ethnic Russian, there were 73 percent fewer (95% CI: -80.4, -63.7) government operations, and a 44.8 percent (95% CI: -80.0, -9.9) lower probability of indiscriminate tactics being used, compared to districts with a negligible Russian population.

Where federal forces were most likely to have difficulty acquiring human intelligence, their violence was more indiscriminate and more frequent. The heaviest fighting occurred in districts with small Russian populations, dominated by relatively few linguistic groups. Most such locations were homogeneous Chechen strongholds, where group solidarity was high, outsiders were easily identifiable, and cooperation with those outsiders was easily monitored and punished. At the opposite end of the spectrum were more diverse districts that were home to non-Chechen ethnic groups – primarily Russians, Ukrainians and Armenians – who had experienced heavy discrimination in the prewar years, and were likely more inclined to cooperate with government troops.

#### 5.4.2 BARRIERS TO SURVEILLANCE AND RECONNAISSANCE

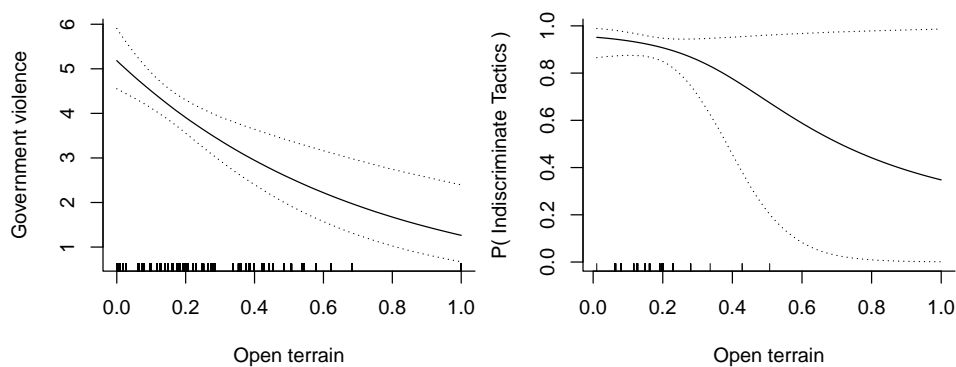
Russia faced greater incentives to escalate where features of natural terrain complicated the reconnaissance of Chechen positions. Figure 5.4.3 shows that government violence was less frequent – and somewhat less indiscriminate – in areas with less vegetative cover. Districts covered completely by open terrain experienced 73.8 percent fewer (95% CI: -88.2, -49.7) government operations per week than districts with no open terrain. The impact on indiscriminate tactics was in the same direction, though not statistically significant – a drop of 62.4 (95% CI: -99.9, 12.7) percent. One pattern, however, was clear. In districts with little or no open terrain, Russia was almost certain to employ indiscriminate violence (probability of .96, 95% CI: .86, .99).

Forest cover had the opposite impact, as Figure 5.4.4 reports.<sup>8</sup> All other things

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<sup>8</sup>Because forested terrain is highly collinear with open terrain (two two are negatively correlated), these two sets of results come from separate models.

**Figure 5.4.3:** OPEN TERRAIN AND GOVERNMENT VIOLENCE.



**(a)** Quantitative escalation

**(b)** Indiscriminate tactics

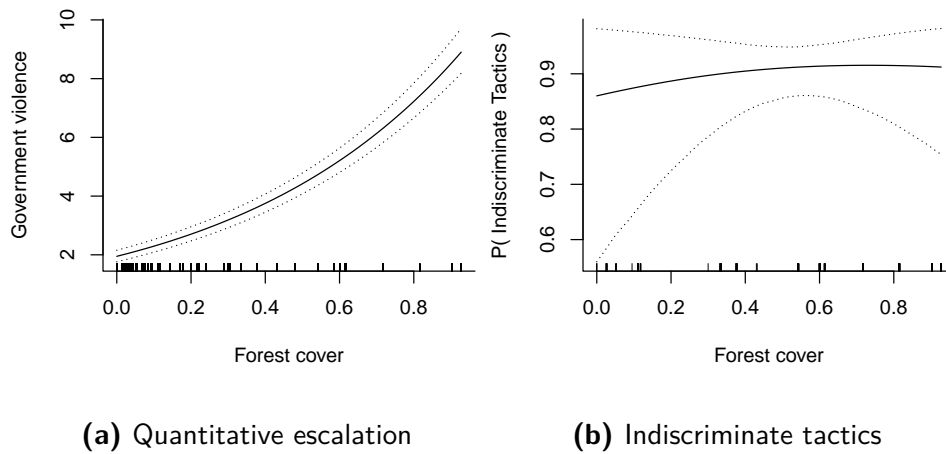
equal, completely forested districts experienced over five times as many government operations in an average week as ones without forests (414.5 percent increase, 95% CI: 365.6, 468.0). This relationship was also positive for choices to use indiscriminate violence, but not significant.

These results suggest that Chechen rebels “go to the forest” [“uhodyat v les”] for good reason. Areas with heavy vegetative cover amplify the government’s information problem and drain her resources. Where physical barriers exist to surveillance and reconnaissance, and rebel capabilities, positions and movements are masked from view, a government has to apply more force to inflict costs on the opponent.

#### 5.4.3 BARRIERS TO FORCE PROJECTION

In addition to information scarcity, logistical capacity influences government decisions to escalate. Figure 5.4.5 shows that government violence was substantially more frequent in districts close to the provincial capital. This city, Grozny, became home to a large Russian garrison after federal forces captured it in early 1995. The units stationed here – including the city’s pro-Moscow Chechen police – were frequent force contributors to operations elsewhere in the republic. During the Chechen re-capture of Grozny in August 1996, for instance, 1500 MVD troops

**Figure 5.4.4:** FORESTS AND GOVERNMENT VIOLENCE.



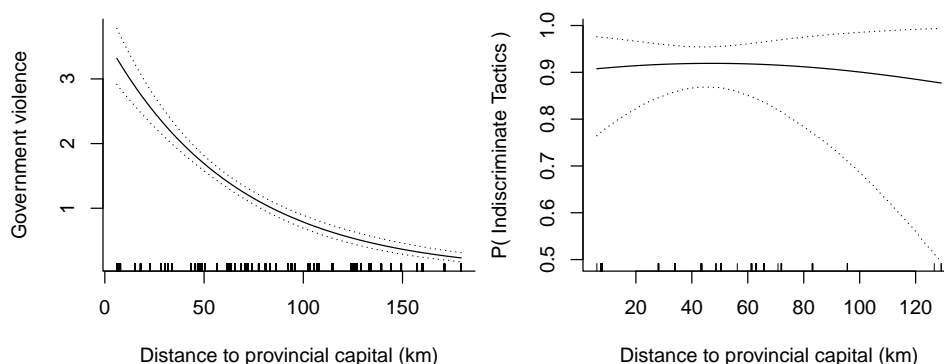
normally garrisoned in the city were supporting another operation in Alhan-Yurt (Grodnenskiy, 2004). As the distance from Grozny to any given district increased, so too did the opportunity cost of contributing forces to an operation in that district. The impact of distance on indiscriminate tactics was less profound.

The data suggest that government violence was much heavier closer to the Grozny garrison – a result which also holds if we exclude the city and district of Grozny from the data. As the theoretical model predicts, escalation is not an outcome of military weakness. It is most likely where a government is informationally weak, but militarily strong.

## 5.5 INEFFICIENCY OF INDISCRIMINATE VIOLENCE

The empirical challenge in studying the First Chechen War is that Russia's reliance on indiscriminate tactics was almost absolute. 94 percent of all government uses of force can be classified as such. Just 399 out of 12,757 government operations did not involve any use of air power, artillery, armor, or mass detentions. Many of these operations occurred close to each other in space and time. If we treat multi-

**Figure 5.4.5:** DISTANCE AND GOVERNMENT VIOLENCE.



**(a)** Quantitative escalation

**(b)** Indiscriminate tactics

ple operations in a district-week as single events, the data contain 189 observations of indiscriminate violence, and only 24 of selective violence.

While the small sample size makes it difficult to attain statistical leverage, the previous discussion nonetheless uncovered some important differences in the causes and consequences of these tactical choices. In particular, more violence was needed to meet the stalemate threshold when Russian tactics were indiscriminate, and the choice between indiscriminate and selective violence was influenced in part by the government's ability to acquire information on the opponent.

The 24 cases of selective violence, then, are potentially revealing. If we can select a subset of the data in which Russian forces employed indiscriminate and selective tactics under similar conditions, we can have a better sense of whether and how Russia's reliance on the former affected the intensity of rebel activity.

I used matching to minimize differences in the joint distribution of observed pretreatment covariates across cases of indiscriminate and selective government violence. In so doing, I followed the methodological template established in the previous chapter, and used an ensemble of three matching solutions – propensity scores (PS), Mahalanobis distance (MD) and coarsened exact matching (CEM) – to jointly optimize covariate balance and sample size.

Because the small sample size – 189 indiscriminate (Treatment) and 24 selec-

tive cases (Comparison) – makes it difficult to reduce covariate balance to statistically negligible levels, I used matching solely as a means to preprocess the data to reduce model dependence in subsequent tests. For the second stage of the analysis, I used the matched samples to estimate a series of Poisson fixed effects regression models, as specified in Equations 5.7 and 5.8.

Table 5.5.1 reports balance matching statistics for the three matching solutions, along with the raw data. Propensity scores yielded the largest improvement in balance, at 62 percent. The solution with the smallest sample size, CEM, was ironically the least effective at balance improvement. In all cases, substantial imbalance remained.

The regression results in Table 5.5.2 confirm that indiscriminate tactics were significantly less efficient at suppressing rebellion than selective ones. The results here are nowhere near as robust as in the cross-national analysis from the previous chapter. Yet even with a small sample of 16 to 189 treatment units and 7 to 24 comparison units, the differences stand out.

In every model where the treatment effect was statistically significant (i.e. in half of the models considered), districts in which Russian forces used indiscriminate tactics saw more rebel violence in subsequent weeks than where they used selective ones. According to the matching solution with the lowest covariate imbalance – Propensity Scores – a switch from selective to indiscriminate violence yielded a 25.9 percent increase (95% CI: 6.53, 47.49) in local rebel attacks in the following twelve weeks. The short-term effect was stronger, but much more uncertain: an increase of 333.7 percent (95% CI: 6.2, 1127.9).

**Table 5.5.1:** MATCHING BALANCE SUMMARY, CHECHNYA. Standardized bias is defined as  $\frac{\bar{x}^{(T)} - \bar{x}^{(C)}}{\sigma(\bar{x}^{(T)})}$ .

	Indiscriminate (T)	Selective (C)	Standardized bias	% improvement
Pre-Matching	189	24	0.43	0.00
Mahalanobis	139	16	0.24	44.07
Propensity Score	106	14	0.16	62.17
CEM	16	7	0.29	32.79

**Table 5.5.2:** INDISCRIMINATE VIOLENCE AND REBEL VIOLENCE, CHECHNYA. Values reported are Fixed Effects Poisson Regression coefficients for the treatment variable (switching from selective to indiscriminate violence). Coefficient estimates for remaining covariates not reported here

	Pre-Matching	Mahalanobis	Propensity Score	CEM
<b>SHORT-TERM</b>				
Indiscriminate tactics	-0.022 (0.156)	1.087*** (0.361)	1.238** (0.599)	0.214 (0.235)
N	161	155	120	25
Log Likelihood	-690.117	-707.357	-115.727	-58.442
AIC	1,404.234	1,426.713	243.455	126.884
<b>LONG-TERM</b>				
Indiscriminate tactics	0.133* (0.076)	0.125 (0.079)	0.231*** (0.086)	-0.122 (0.122)
N	161	155	120	25
Log Likelihood	-1,741.816	-1,712.652	-1,229.401	-62.165
AIC	3,507.632	3,449.304	2,480.802	140.330

\*p < .1; \*\*p < .05; \*\*\*p < .01

## 5.6 CONCLUSION

Russian soldiers in Chechnya often called their opponents *duhi*, or “ghosts” – the same term Soviet soldiers had used to describe Afghan mujahideen. Until one came under fire, the enemy was usually invisible. Without local informants or ample opportunities for surveillance, even a routine troop movement carried great risk. In a self-published memoir that has become a cult classic among Russian combat veterans of Chechnya, Vyacheslav Mironov recalls this predicament:

We all stared at the map, and it turned out that we were to cross the bridge at full speed. And what if we can't, or only part of the unit will slip through, and then the ghosts will blow up the bridge? Then those who did slip through, the bravest ones, would be sliced up in front of

our eyes, like sheep. No one liked this adventure... Here we needed either to drop an atomic bomb to end it once and for all, or work them long and hard with aviation and artillery (Mironov, 1997).

Setting ethical questions aside, Russia's reliance on air and artillery in the First Chechen War followed a clear strategic logic. Where rebels were difficult to identify and locate, indiscriminate shelling offered a crude way to inflict costs on the opponent, and potentially reduce the damage inflicted on one's own forces by Chechens waiting to ambush them. Unfortunately, winning in such a manner proved far more costly than the Russians might have anticipated.

As the theoretical model predicts, and the data tentatively confirm, it was not impossible to suppress rebel attacks with indiscriminate tactics. Yet the Russians were only able to accomplish this in a handful of cases, where the intensity of their violence was unusually high. Compared to selective tactics like arrests and targeted killings, indiscriminate force was very inefficient. My empirical model suggests that it would have taken at least 23 selective operations in a district-week to produce an improvement in security; anything less would be counterproductive, inciting an increase in rebel violence. By contrast, it would have taken a minimum of 78 operations per district-week to meet this threshold with indiscriminate tactics. Switching from selective to indiscriminate tactics caused, on average, a 26 percent increase in local rebel activity in subsequent weeks.

Switching tactics, of course, is no simple task. Less than four percent of Russia's operations in Chechnya did not involve indiscriminate force. This figure certainly speaks to the Russian Army's doctrinal unpreparedness, but it also attests to the difficulty of the operating environment: walking into Grozny in 1994 to arrest a specific individual would have been a challenge even if the Russians knew where to find him. Most of the variation was not in tactics, but in operational tempo – how many operations Russia would undertake in a unit of space and time. As the data show, this tempo was greatest where intelligence was most difficult to obtain: in areas where few Russians lived, few languages were spoken, and where the rebels benefited from natural cover and concealment. Firepower in Chechnya, as in many other cases, was a substitute for information.

*If you don't know it, we'll teach you. If you don't want to, we'll force you.*

Soviet Army proverb

# 6

## The Dynamics of Brute Force

Coercion is hard. To maintain military operations and establish a monopoly on the use of force, a combatant needs civilian cooperation, in the form of tax revenues, manpower, supplies, intelligence, and other critical resources. As the previous chapters have shown, such support can be exceedingly difficult to obtain. Where a combatant lacks the information needed to accurately identify and punish her opponents, she will have a hard time convincing members of the local population that it is in their interests to cooperate with her. To compensate for this inefficient targeting – and deter civilians from supporting her opponent – the combatant will feel compelled to escalate.

If it is true that “sovereign power is conferred by the consent of the people” (Hobbes, 1651/2010), an important question arises: why do combatants even give civilians a choice? If a combatant cannot deter a population from supporting the opponent, could she not at least try to physically prevent it from doing so?



Violence, as we have noted, can serve two purposes: coercion and brute force. In the first instance, violence seeks to shape the target's incentives. Combatants raise the costs associated with an undesirable action (i.e. cooperating with the opponent). If this punishment is anticipated and avoidable, a civilian weighs the costs and benefits of compliance, and makes a difficult, but conscious decision.

In the second instance, violence seeks to limit the target's choices. Combatants place civilians in a situation where they simply must take – or abstain from – a given action. Rather than attempting to deter support for the other side, brute force seeks to interdict it, making it difficult or impossible for the enemy to sustain an uprising. Civilians' preferences, in the second case, are of little consequence to the strategic interaction at hand. Denied meaningful agency, the population is unable to shape combatants' behavior or control their own fate.

Examples of brute force abound in the empirical record. Mobility restrictions, like border fences or more routine police checkpoints, constrain individuals' ability to go where they please, and interact with whom they wish. The confiscation of privately-held arms reduces the opposition's ability to generate violence against the state. The deportation or resettlement of a population limits civilians' access to the opposition, making it difficult for the latter to extract revenue and support. None of these efforts requires accurate information on who the opponent is, or how he may be located and punished. None requires that any party change its mind about whom it should support or why. Rather, these efforts operate by imposing substantial restrictions on the liberties hitherto enjoyed by a population. In the context of an irregular war, brute force is population control.

The current chapter seeks to explain the logic behind brute force. Under what conditions are combatants likely to pursue such methods, and how does their adoption change strategic dynamics and outcomes? I consider three such technologies of violence: blockade, disarmament, and resettlement.

## 6.1 BLOCKADE

It can be difficult to sustain an army with entirely local support, not least because – barring outright plunder – access depends on the good graces of the population. A reliance on resources from outside the conflict zone creates a different kind of vulnerability. External resources can be disrupted by an opponent’s efforts to control the movement of goods and people, like blockades, roadblocks, cordons and sieges. Such restrictions serve the dual purpose of preventing reinforcements and supplies from reaching the besieged, while keeping the besieged themselves contained and immobile.

A blockade entails the encirclement of a physical location by armed forces to prevent or regulate entry and escape. An ancient practice, blockades reemerged as the dominant form of warfare in early modern Europe. During this period, field armies grew in size, and the challenges of feeding on the march spawned a revolution in military logistics (Van Creveld, 2004, 41-42). Requisitions from the immediate neighborhood became too insufficient and uncertain to keep soldiers well-fed and stocked. To ensure that provisions kept flowing, armies created networks of supply convoys, garrisons and magazines, usually manned by local peasants and contractors. The trend away from local foraging and plunder shifted the focal point of military campaigns from pitched battles to the disruption of vulnerable lines of communications and the isolation of garrison cities (Rothenberg, 1986, 33). Warfare in the late seventeenth and eighteenth centuries devolved into an “interminable succession of sieges” (Guerlac, 1986, 73).

Although Napoleonic Era advances in military mobility and firepower reduced the utility of the siege in interstate war, these tactics remained widespread in counterinsurgency. The Russian Army employed siege warfare extensively during the Caucasus Wars, to contain Imam Shamil’s forces in fortified mountain settlements, where supplies of food and water would grow increasingly scarce (Baddeley, 1908/2005, 323). A century later, government forces in Malaya used an extensive system of checkpoints and rail and road traffic inspections to enforce a “food denial” policy aimed against the guerrillas’ supply chain (Komer, 1972, 59-60). In Algeria,

French forces devoted great resources to seal the border from Tunisia and Morocco, in a campaign so disruptive that the Front de Libération Nationale (FLN) eventually buried most of their automatic weapons for lack of ammunition (Galula, 1964, 30).<sup>1</sup>

These practices continue in contemporary conflicts. In the Syrian city of Homs, government troops cut off supply routes – along with electricity, telecommunications and water – to the rebel-controlled neighborhoods of Old City and Khalidiya. As one activist described it, “The only thing they haven’t blocked is the air we breathe” (Barnard, 2013). Similar efforts could be observed during the Serb siege of Dubrovnik, the Croat siege of Bihac, and the Serbian blockade of Sarajevo (Andreas, 2011, Waxman, 1998). Some governments have sought to erect permanent physical barriers, like the border fence separating Palestinian areas in the West Bank from Israeli territory.

A blockade does not require civilian support or acquiescence to be effective. Supply disruptions are consequences of physical inaccessibility, rather than a willingness or refusal of civilians to cooperate. Yet while harming a population’s physical and economic well-being is not necessary to achieve the desired effect, it is often unavoidable. By way of an example, some 500,000 civilians died of starvation during the Nigerian blockade of Biafra in 1967-1970 (de St. Jorre, 1972, 412).

Despite the historical prevalence of the practice, the blockade has received little explicit attention in the civil conflict literature. Kalyvas and Balcells (2010, 419) consider siege tactics to be a feature primarily of conventional wars, on par with trench warfare and set battles. As such, they lie outside the scope of Kalyvas (2006)’s influential theory of violence in irregular wars.

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<sup>1</sup>Government forces – as the side that relies even more heavily on external resources, particularly during expeditionary campaigns – have been no less vulnerable to supply disruptions. T.E. Lawrence observed that Turks’ long supply lines exposed them to blockades by rebels during the Arab Revolt (Lawrence, 1920, 1). More recent examples have included the Chinese communist blockade of Suchow in 1948, the siege of Khe Sahn during the 1968 Tet Offensive in Vietnam, the 1975 Khmer Rouge siege of Phnom Penh, and the road blockades used by the Forces démocratiques de libération du Rwanda (FDLR) to isolate areas of North and South Kivu (International Crisis Group, 2009). Yet governments have remained the more prolific proponents of these measures.

Some scholars have studied mobility restrictions in the context of broader campaigns of mass killings. Valentino (2000), in passing, notes that blockades entail heavy resource requirements, and concludes that states will engage in such actions where and when they are strong enough to do so. In a rare analysis of siege warfare in both conventional and irregular war, Waxman (1998, 403-404) makes the opposite case, noting that Serb forces in the Yugoslav Wars relied on the encirclement of Bosnian and Croat cities where and when they lacked resources for a direct assault. In the quantitative literature, Lyall (2010) and Zhukov (2012a) have both examined the use of cordon-and-search operations in the North Caucasus – which combine mobility restrictions with more directly coercive tactics. Toft and Zhukov (2012) disaggregate the two tactics, and find that mobility restrictions by themselves outperform both punishment and cordon-and-search in suppressing rebel violence.

These recent efforts notwithstanding, most research on conflict dynamics has avoided direct theoretical engagement with the questions of why combatants might choose blockade over other coercive measures, and how this choice is likely to affect the outcome of irregular wars.

### 6.1.1 LOGIC OF BLOCKADE

Can a combatant overcome the information problem by cutting off her opponent's supplies? To motivate incentives for the use of blockades, I return the theoretical model of irregular war discussed in Chapter 3, where two combatants use punishment to deter civilians from cooperating with their opponent (Equations 3.11-3.13):

$$\begin{aligned}\frac{\delta C}{\delta t} &= k - (\mu_R R_t + \mu_G G_t - \rho_R(1 - \theta_R) - \rho_G(1 - \theta_G) - u) C_t \\ \frac{\delta G}{\delta t} &= (\mu_G C_t + a_G - \rho_R \theta_R - u) G_t \\ \frac{\delta R}{\delta t} &= (\mu_R C_t + a_G - \rho_G \theta_G - u) R_t\end{aligned}$$

This benchmark case yielded a strong conclusion: where the government has difficulty identifying and locating rebels, her violence must be overwhelming to deter civilians from supporting the rebellion. Such a strategy may be infeasible due to restraints on the government's use of force, and is risky due to the inflammatory effects of collateral damage. As we saw in Chapter 3, incentives for escalation are even greater where rebels also have an advantage in external support ( $a_R > a_G$ ).

Let  $b \in [0, 1]$  be the proportion of rebel external support interdicted by government blockade. To accommodate these additional dynamics, I modify the system of equations in (3.11-3.13) in the following manner:

$$\frac{\delta C}{\delta t} = k - (\mu_R R_t + \mu_G G_t - \rho_R(1 - \theta_R) - \rho_G(1 - \theta_G) - u) C_t \quad (6.1)$$

$$\frac{\delta G}{\delta t} = (\mu_G C_t + a_G - \rho_R \theta_R - u) G_t \quad (6.2)$$

$$\frac{\delta R}{\delta t} = (\mu_R C_t + (1 - b)a_R - \rho_G \theta_G - u) R_t \quad (6.3)$$

such that the rebels receive only those external resources that government forces are not able to block ( $(1 - b)a_R$ ).

**Proposition 4.** *If the government blocks a sufficiently large proportion of rebels' external support, a coercive advantage is not necessary for victory.*

**Corollary 3.** *The government will block at a greater rate where selectivity is low and rebel external support is high.*

*Proof.* Appendix I.11.5 □

Proposition 4 shows that a blockade does not entirely solve the government's coercive challenges, but it can make victory possible under otherwise unfavorable conditions. When a blockade is used, a coercive advantage ( $\rho_G > \rho_R \frac{\theta_R}{\theta_G}$ , or  $\frac{\rho_G \theta_G}{\rho_R \theta_R} > 1$ ) is neither necessary nor sufficient for victory. The dynamics also depend on

critical values of government and rebel external support,

$$\underline{a}_G = \frac{(\rho_G + \rho_R + u)(\theta_R \rho_R - \theta_G \rho_G)}{(1 - \theta_G)\rho_G + \rho_R} \quad (6.4)$$

$$\overline{a}_R = \frac{\alpha_G(\rho_R + \rho_G(1 - \theta_G)) + (\rho_G + \rho_R + u)(\theta_G \rho_G - \theta_R \rho_R)}{(1 - b)(\rho_G + \rho_R(1 - \theta_R))} \quad (6.5)$$

we can use the second of these inequalities to obtain the critical minimum  $\underline{b}$ ,

$$\underline{b} = \left( 1 - \frac{\alpha_G(\rho_R + \rho_G(1 - \theta_G)) + (\rho_G + \rho_R + u)(\theta_G \rho_G - \theta_R \rho_R)}{\alpha_R(\rho_G + \rho_R(1 - \theta_R))} \right) \quad (6.6)$$

where  $\underline{b}$  is the minimum proportion of  $R$ 's external resources that  $G$ 's blockade must interdict to ensure that  $\alpha_R < \overline{a}_R$ .

To evaluate the role of blockade more intuitively, let us return to the four scenarios summarized in Table 6.1.1. As before, the only case in which a government monopoly equilibrium is always stable is one where the government has an advantage in both coercion and external support (upper left). Here, a blockade is unnecessary because the existing resource balance is already unfavorable to the rebels.

In the second scenario (upper right), the government keeps a coercive advantage, but rebels have more external support. Here the government can sustain victory if it can blockade at least a proportion  $\underline{b}$  of the rebels' external support, which guarantees that  $\alpha_R < \overline{a}_R$ .

In the third scenario (lower left), where the government has a disadvantage in coercion but an advantage in external support, a government monopoly is stable so long as both  $b > \underline{b}$  and  $\alpha_G > \underline{a}_G$ . In addition to preventing the rebels' external resources from reaching the conflict zone, the government must ensure that its own provisions keep flowing at a high rate. Indeed, if  $\alpha_G$  is sufficiently high  $\left( \alpha_G > \frac{\alpha_R(\rho_G + \rho_R(1 - \theta_R)) + (\rho_G + \rho_R + u)(\theta_G \rho_G - \theta_R \rho_R)}{(\rho_R + \rho_G(1 - \theta_G))} \right)$ , then  $\underline{b} < 0$ , and the government can achieve a monopoly without even resorting to blockade. If  $\alpha_G$  is too low, however, even a perfect blockade ( $b = 1$ ) cannot ensure victory.

The only case in which a government monopoly is never stable without a block-

ade is the fourth and worst-case scenario (lower right), where the government has neither a coercive advantage, nor an external support advantage. Whereas the government could potentially meet the  $b > \underline{b}$  condition with  $b = 0$  in the second scenario if  $\rho_G \gg \rho_G^*$ , and in the third scenario if  $a_G \gg \underline{a}_G$ , this is not possible in the fourth scenario. Here,  $\underline{b}$  is always greater than zero due to the constraints on  $\rho_G$  and  $a_G$ , and blockade offers the only path to victory.

**Table 6.1.1:** STABILITY CONDITIONS FOR GOVERNMENT MONOPOLY, WITH BLOCKADE.  $\rho_G^* = \rho_R \frac{\theta_R}{\theta_G}$  is the stalemate threshold.

COERCION	EXTERNAL SUPPORT	
	G advantage ( $a_G > a_R$ )	R advantage ( $a_G < a_R$ )
G advantage ( $\rho_G > \rho_G^*$ )	Stable	Stable if $b > \underline{b}$
R advantage ( $\rho_G < \rho_G^*$ )	Stable if $b > \underline{b}, a_G > \underline{a}_G$	Stable if $b > \underline{b}, a_G > \underline{a}_G,$ $b > 0$

How does the intensity of the blockade vary with the model's other parameters? The minimum value of  $\underline{b}$  (6.6) is monotonically decreasing in government external support ( $\frac{\delta \underline{b}}{\delta a_G} < 0$ ), and the size of the government's coercive advantage ( $\frac{\delta a_R}{\delta \Phi} < 0$ , where  $\Phi = \rho_G \theta_G - \rho_R \theta_R$ ). The strategic value of blockade is greatest where governments have limited external resources, and little or no coercive leverage. As coercive leverage increases – either through an increase in selectivity  $\theta_G$  or an escalation in punishment  $\rho_G$  – incentives to use a blockade begin to subside.

If both combatants punish at stalemate levels,  $\rho_i = \rho_i^* = \rho_{-i} \frac{\theta_{-i}}{\theta_i}$ , the expression 6.6 simplifies further to

$$\underline{b} = 1 - \frac{a_G}{a_R} \quad (6.7)$$

At the stalemate threshold,  $\underline{b}$  becomes orthogonal to selectivity, and is determined entirely by the balance of external support. Where the government has more exter-

nal resources than the rebels ( $a_G > a_R$ ),  $\underline{b}$  is negative and no blockade efforts are needed to win. Where  $a_R > a_G$ ,  $\underline{b}$  is positive and minimal blockade levels increase in  $a_R$  and decrease in  $a_G$ . The greater the rebels' external resource advantage, the more restrictive the blockade must be.

## 6.2 DISARMAMENT

Perhaps the most direct means of limiting an opponent's capacity to resist is to take away her guns. Even if rebels can overcome collective action problems associated with assembling a critical mass of supporters needed for an insurrection, they must still confront the task of organizing and maintaining a campaign of systematic violence against the state. Pivotal to the success of such an effort is a group's control over organized means of coercion in the population, including the ability to pool privately-held arms. As Tilly writes, "the greater the coercive resources. . . initially controlled by the revolutionary coalition, the more likely a transfer of power" (Tilly, 1997, 7.44).

Disarmament – a systematic effort to collect, document, control and discard privately-owned small arms, ammunition, explosives and heavy weapons – seeks to centralize control over coercive resources, thereby reversing a situation in which two or more centers of authority can make competing, mutually exclusive claims to power (Tilly, 1978).

Efforts to disarm a population may be consensual or forcible. *Consensual disarmament* – the focus of much research on civil war and peacekeeping – usually occurs following a negotiated settlement or a decisive military victory, with the explicit agreement of both sides. Here, members of the population wilfully surrender their arms to state authorities or a third party in exchange for protection, payments, or promises thereof. Consensual disarmament is only feasible, however, if the other party can credibly commit to keeping these promises in the future (Mason, 2012, Mattes and Savun, 2009, Walter, 1997, 2002).<sup>2</sup>

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<sup>2</sup>Scholars have identified several sources of commitment problems at the root of bargaining failure: anticipated shifts in relative power, as a result of which the rising power might press



For rebels confronting an incumbent government, commitment problems are particularly acute. Settlements to such conflicts typically require the rebels to cease to exist as a fighting entity, while the government retains substantial coercive capacity. This disproportionate imposition of costs leaves the weaker party facing significant mobilization disadvantages in the event that the opponent reneges and takes military action against it (Mattes and Savun, 2009, 739-740). As a result, rebels feel acutely vulnerable to the government's defection, and should be highly unlikely to voluntarily disarm. Even in the presence of third-party enforcement, these commitment problems can be difficult to overcome (Doyle and Sambanis, 2006, Fortna, 2004, Hegre et al., 2010, Regan et al., 2009, Walter, 2002). Defeated rebels may simply blend into the civilian population and suspend military activity, while maintaining a latent coercive capacity in anticipation of renewed conflict (Mason and Krane, 1989, Quinn et al., 2007, Toft, 2010).

Commitment problems are no less relevant for civilians. Where a state is unable to enforce laws or defend property rights, weapons confer defensive and economic power to their owners, and a reliance on the private provision of order and security. A "blood feud" system, for instance, secures peace among kin groups through fear of retaliation (Gluckman, 1955). Effective in-group policing may serve similar ends, potentially eliminating the need for inter-group retaliation (Fearon and Laitin, 1996). Yet absent a robust, institutionalized system of justice and conflict resolution, a group that disarms is one that cannot police its ranks or threaten reprisals. Insofar as an unfilled power vacuum remains, increased vulnerability and reluctance to disarm will pose critical barriers to any transition from privately-supplied security to centralized coercive power (Bates, 2001, 65).

Such dynamics have emerged in post-revolutionary Ukraine, where rioters looted up to fifteen thousand weapons – mostly assault rifles, handguns, light machine-guns and rocket-propelled grenades – from police depots during the popular up-

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for greater concessions on the part of the opponent (Powell, 2004a, 2006), concerns that an opponent will unilaterally defect and opportunistically exploit one's cooperation (Kydd, 2005), and "spoilers" who are not formally bound by the terms of the settlement and have an interest in continued unrest (Kydd and Walter, 2002, Lake and Rothchild, 1996, Stedman, 1997).

rising against President Viktor Yanukovich in February 2014.<sup>3</sup> Since then, nationalist groups like Pravyi Sektor have openly refused to comply with the new government's ultimatum to turn in unregistered weapons, and began actively recruiting new militia members in opposition to Ukraine's nascent National Guard. Speaking after a prominent Pravyi Sektor leader was killed in a shootout with police, First Deputy Interior Minister Volodymyr Evdokimov said, "The time for freely laying down arms is over. From now on, police will detain all citizens with illegal weapons."<sup>4</sup>

Given the often intractable challenges of consensual disarmament, many governments and peacekeepers have opted to confiscate weapons by brute force. *Forcible disarmament* involves the compulsory collection and disposal of privately held arms, against the will of the party being disarmed. Recent examples during multidimensional peacekeeping and peace enforcement missions include Somalia, Liberia, Haiti and Bosnia, where multinational forces were granted the authority to militarily confront non-compliant militias and irregular forces (Tanner, 1996, 190-195).

Forcible disarmament may also occur during the active phase of armed conflict – in the absence of a settlement or a decisive victory. Such disarmament is not designed to ensure compliance with the terms of an existing agreement, or consolidate power following rebel defeat. Disarmament is the means by which this defeat is sought. Operationally, these actions typically involve the formation of large cordons of military or law enforcement personnel to contain a population within a circumscribed area, followed by the search and seizure of all arms in the locality.

The Central African Republic has been the site of one such campaign since December 2013, when French and African Union forces began a major operation to disarm rival Seleka and Anti-Balaka militias. In neighborhoods of Bangui where militias were active, the troops went door to door confiscating weapons and munitions, and rounding up the groups' leaders. The operations were not immediately

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<sup>3</sup>RT (2014), Voice of Russia (2014)

<sup>4</sup>Kudrytski and Rudnitsky (2014), UNIAN (2014)

successful, often meeting armed resistance and widespread popular opposition.<sup>5</sup> As one local resident complained, “The national army is weak and the population is depending on the Anti-Balaka for protection.”<sup>6</sup>

To date, there has been little, if any, rigorous evaluation of why governments use forcible disarmament, or whether this practice is effective in reducing the scale of violence. The conventional wisdom among policy analysts, however, is that such methods can be extremely costly, to the forces conducting them as well as to innocent civilians. A recent study of such operations in Uganda’s Karamoja region, for instance, concluded that “Ugandan military operations to forcibly disarm the Karimojong . . . have destabilized an already volatile security situation, . . . resulted in civilian displacement and engendered widespread fear of the Ugandan military.”<sup>7</sup> Similarly, a South Sudanese disarmament campaign in central Jonglei in the first half of 2006 has been routinely criticized for the brutality of its execution (more than 1,000 deaths), along with “considerable human rights violations, significant internal displacement, and wide-scale looting and food insecurity.”<sup>8</sup>

Despite these criticisms, policymakers in unstable regions continue to see forcible disarmament as a potentially fruitful way to reassert state power. In response to the assassination of a senior intelligence official in July 2012, Tajikistan’s President Emomali Rakhmon ordered his security forces to “take all measures needed” to disarm militia members in the city of Khorog. The resulting operation seized 251 light arms and over 20,000 rounds of ammunition, and claimed the lives of 12 servicemen and 30 rebels.<sup>9</sup> A month earlier, Chechen President Ramzan Kadyrov advocated similar measures in his home republic, after being “amazed by the scores of young people walking in populated areas with a weapon on their belt.”<sup>10</sup> In March 2012, in response to continuing inter-communal violence in Jonglei state, the Government of South Sudan launched a new statewide disarmament campaign called

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<sup>5</sup>BBC (2014)

<sup>6</sup>Look (2014)

<sup>7</sup>Bevan (2008).

<sup>8</sup>Berman (2008).

<sup>9</sup>Rosbalt (2012), Yuldashev (2012).

<sup>10</sup>Dni.ru (2012).

“Operation Restore Peace,” which has been condemned by human rights groups for alleged abuses of civilians.<sup>11</sup>

Given the high costs and uncertain benefits associated with forcible disarmament, why would a government use it? Fearing vulnerability, a targeted population is likely to offer resistance. Civilian resentment and distrust are likely to increase. If a government’s objective is to consolidate the support of a divided polity, disarmament seems a needlessly risky way to do so. Yet unless the use of such methods is driven solely by repeated miscalculations or errors, we have to assume that governments employ them because they expect them to work. At the very least, they expect them to be at least as effective at pacification as the alternative.

I now return to our theoretical model of irregular war, and consider when and where incentives for forcible disarmament are likely to arise.

#### 6.2.1 THE LOGIC OF FORCIBLE DISARMAMENT

Let  $h \in [0, 1]$  denote the proportion of privately-held arms the government confiscates from the population. I will assume that the rebels depend on the pooling of private arms to generate punishment, while the government does not. When this proportion is high, rebel military operations inflict less damage per unit of effort on both government forces and the general population. Because the government’s ability to punish does not depend on the pooling of privately-held arms, disarmament does not have the same effect on government operations.

This modification yields new cooperation rates

$$\mu_R^* = 1 - \frac{\rho_G \theta_G}{\rho_G + (1-h)\rho_R} \quad (6.8)$$

$$\mu_G^* = 1 - \frac{(1-h)\rho_R \theta_R}{\rho_G + (1-h)\rho_R} \quad (6.9)$$

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<sup>11</sup>Human Rights Watch (2012).

and a new system of equations

$$\frac{\delta C}{\delta t} = k - (\mu_R^* R_t + \mu_G^* G_t - (1-h)\rho_R(1-\theta_R) - \rho_G(1-\theta_G) - u) C_t \quad (6.10)$$

$$\frac{\delta G}{\delta t} = (\mu_G^* C_t - (1-h)\rho_R\theta_R - u) G_t \quad (6.11)$$

$$\frac{\delta R}{\delta t} = (\mu_R^* C_t - \rho_G\theta_G - u) R_t \quad (6.12)$$

**Proposition 5.** *If the government confiscates a sufficiently large share of privately-held arms, a coercive advantage is not necessary for victory.*

**Corollary 4.** *The government will disarm at a greater rate where her selectivity is low.*

*Proof.* Appendix I.1.1.6 □

If we allow the government to reduce the supply of privately-held arms, then selective violence ceases to be indispensable for victory (Proposition 5). A government that disarms at a sufficiently high rate can win the contest despite a coercive disadvantage. The rebels, meanwhile, can lose the contest despite an coercive advantage.

The result depends on a critical value for disarmament,

$$\underline{h} = 1 - \frac{\rho_G\theta_G}{\rho_R\theta_R} \quad (6.13)$$

where  $\underline{h}$  is the minimum rate of disarmament needed to ensure a stable government victory equilibrium. This threshold value depends on the scope of the government's coercive disadvantage ( $\rho_R\theta_R - \rho_G\theta_G$ ). No disarmament is needed if the government can already inflict more costs on the rebels than the rebels can against the government ( $\rho_G > \rho_R\frac{\theta_R}{\theta_G}$ , or  $\frac{\rho_G\theta_G}{\rho_R\theta_R} > 1$ ). Where the government does not have a coercive advantage ( $\rho_G < \rho_R\frac{\theta_R}{\theta_G}$ , or  $\frac{\rho_G\theta_G}{\rho_R\theta_R} < 1$ ),  $\underline{h}$  will be increasing in the difference between  $\rho_R\theta_R$  and  $\rho_G\theta_G$ .

This result holds if we allow for a richer parameterization that includes external support. If we re-introduce  $a_G$  and  $a_R$  into equations 6.10-6.12, we obtain the

following system of equations

$$\frac{\delta C}{\delta t} = k - (\mu_R^* R_t + \mu_G^* G_t - (1-h)\rho_R(1-\theta_R) - \rho_G(1-\theta_G) - u) C_t \quad (6.14)$$

$$\frac{\delta G}{\delta t} = (\mu_G^* C_t + a_G - (1-h)\rho_R\theta_R - u) G_t \quad (6.15)$$

$$\frac{\delta R}{\delta t} = (\mu_R^* C_t + a_R - \rho_G\theta_G - u) R_t \quad (6.16)$$

and a new critical value for rebel external support

$$\bar{a}_R^* = \frac{a_G((1-h)\rho_R + \rho_G(1-\theta_G)) + (\rho_G + (1-h)\rho_R + u)(\theta_G\rho_G - \theta_R(1-h)\rho_R)}{(\rho_G + (1-h)\rho_R(1-\theta_R))} \quad (6.17)$$

note that 6.17 reduces to  $\bar{a}_R^* = a_G$  when  $h = \underline{h}$ . When disarmament is absolute,  $h = 1$ , the expression becomes  $\bar{a}_R^* = (1-\theta_G)a_G + \theta_G(\rho_G + u)$ .

Table 6.2.1 offers another view of how disarmament affects outcomes in the presence of external support. The most immediate difference between these results and those in Table 6.1.1 is the absence of a lower bound on  $a_G$ . In the lower left quadrant, where the government has a disadvantage in coercion but an advantage in external support, the government no longer needs to exceed some minimum  $\underline{a}_G$  for her monopoly to be sustainable. As long as the government succeeds in confiscating at least a proportion  $\underline{h} = 1 - \frac{\theta_G\rho_G}{\theta_R\rho_R}$  of arms from the population, victory does not depend on the extent of the government's resource advantage.

That said, if rebels do have an advantage in external support (lower-right), a high rate of disarmament is necessary, but no longer sufficient for victory. As in Table 6.1.1, an abundant rebel resource advantage will make a government monopoly unsustainable. Even if the government succeeds in confiscating *all* weapons, with  $h = 1$ , rebel external support must still be no greater than  $\bar{a}_R^* = (1-\theta_G)a_G + \theta_G(\rho_G + u)$  for a government monopoly to be stable. Because this new  $\bar{a}_R^*$  is increasing in  $\rho_G$  and  $a_G$ , this state of affairs creates a demand for the government to deploy more punishment and more external support – even in the unlikely event

**Table 6.2.1:** STABILITY CONDITIONS FOR GOVERNMENT MONOPOLY, WITH DISARMAMENT.  $\rho_G^* = \rho_R \frac{\theta_R}{\theta_G}$  is the stalemate threshold.

COERCION	EXTERNAL SUPPORT	
	G advantage ( $\alpha_G > \alpha_R$ )	R advantage ( $\alpha_G < \alpha_R$ )
G advantage ( $\rho_G > \rho_G^*$ )	Stable	Stable if $\alpha_R < \bar{\alpha}_R^*$
R advantage ( $\rho_G < \rho_G^*$ )	Stable if $h > \underline{h}$	Stable if $h > \underline{h}, \alpha_R < \bar{\alpha}_R^*$

that she can remove all weapons from private circulation.

Like blockade, disarmament is a strategy for “hard cases.” Incentives to forcibly disarm the population are strongest where the government has limited coercive leverage, due to difficulties identifying rebels and their supporters. In these situations, disarmament can offset the rebels’ advantage in selective violence and offer a path to victory under otherwise unfavorable circumstances. Yet, also like blockade, disarmament is no panacea. Where rebels are able to draw on a high level of external support, even a complete disarmament of the population may fail to prevent defeat. Even if the opponent has no weapons left, incentives for government escalation can remain.

### 6.3 RESETTLEMENT

If it is so difficult to locate rebels and remove them from the battlefield, why not remove the civilians instead? Rather than using violence to persuade a population that cooperating with the rebels is too costly, a government may opt instead to prevent this cooperation by physical isolation.

Resettlement – the forcible uprooting and relocation of civilians – has a simple logic. By removing civilians from a conflict zone, a government separates them from rebels. Because every local civilian is prospective rebel supporter, resettlement reduces the pool from which rebels can potentially recruit. Of course, by

taking this action, the government also reduces its own local recruiting pool.

Resettlement is an historically widespread practice, occurring in 90 of 307 modern counterinsurgencies since 1816, and 55 since World War II. These operations have gripped every region of the globe, with practitioners about evenly split between democracies and autocracies – with great powers among the worst offenders.<sup>12</sup> Most of these efforts have involved the compulsory relocation of civilians to special settlements or camps, either as retaliatory measures against suspected rebels' families and co-villagers (e.g. Spanish concentration camps in Cuba, Soviet deportations in the Baltic States), or as preventative measures for at-risk communities (e.g. New Villages in Malaya, *aldeamentos* in Mozambique, Strategic Hamlets in Vietnam) and potentially restive social groups (e.g. Seminoles in the 1840s, Crimean Tatars in 1944, Bosniaks in 1992).

Resettlement is also a war crime, according to Protocol II of the Geneva Convention. Yet this status has not prevented resettlement from occurring in at least 25 civil conflicts since the Protocol's adoption in 1977. To take one example, a UN report estimates that some 960 detention camps were established on the territory of former Yugoslavia in 1991-1994, primarily for the internment of non-combatant civilians.<sup>13</sup>

Before proceeding, it is important to clarify a few interrelated concepts. The term *forced displacement* denotes any population movement, in which people either choose to uproot themselves or are physically uprooted by a third party, in the absence of an original motivation to settle elsewhere (Kunz, 1973, 130). Such displacement comes in two forms: *flight* and *resettlement*. In the first, a combatant creates an environment in which civilians face strong incentives to leave – usually in response to high levels of physical and economic insecurity (Adhikari, 2012, Moore and Shellman, 2004). In the second, a combatant physically removes civilians from one location, and relocates them to another – as occurs during evacua-

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<sup>12</sup>The five most prolific practitioners of resettlement are the United States (13 conflicts), Russia/USSR (11), the UK (5), China (5) and Germany (4).

<sup>13</sup>M. Cherif Bassiouni, "Final report of the United Nations Commission of Experts established pursuant to security council resolution 780 (1992). Annex VIII - part 1/10. Prison camps," United Nations, S/1994/674/Add.2 (Vol. IV), 27 May 1994.



tions, deportations, or the expropriation of private land.<sup>14</sup>

The primary difference between flight and resettlement is the relative scope for civilian choice (Kunz, 1973, Petersen, 1958). In flight, the choice may be constrained and dreadful, but it is ultimately up to the civilian whether or not to leave. In resettlement, a combatant dictates the origin, destination and timing of a population movement, and imposes her choice on civilians.<sup>15</sup> Petersen (1958, 261) likens this difference to that “between the Nazis’ policy (roughly 1933-38) of encouraging Jewish emigration by various anti-Semitic acts and laws, and the later policy (roughly 1938-45) of herding Jews into cattle-trains and transporting them to camps.”

The shift of agency from civilians to combatants gives rise to a second distinction: destination. In the case of resettlement, a combatant typically moves civilians to areas where they can be more easily monitored and controlled – such as shelters, detention facilities, and internment camps. In the case of flight, where a combatant provokes civilian “self-deportation” without overseeing the logistics, the destination is more uncertain.<sup>16</sup>

Although the academic literature on conflict-induced displacement is rapidly expanding, it has had surprisingly little to say about population resettlement as military strategy.<sup>17</sup> With some notable exceptions, scholars have generally seen forced

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<sup>14</sup>For the purpose of this study, “evacuation” denotes temporary resettlement due to natural disasters, war or other immediate threats to civilian safety; “deportation” denotes resettlement to a different political jurisdiction.

<sup>15</sup>The conceptual distinction between flight and resettlement as one of civilian choice is not new. Petersen (1958) differentiated between “impelled” and “forced” migration, while Kunz (1973) distinguished between migration “by flight” and “by force.”

<sup>16</sup>The author is grateful to an anonymous reviewer for this insight.

<sup>17</sup>Academic research on forcible displacement falls into two broad categories. The first seeks to explain the determinants of wartime civilian displacement (Adhikari, 2012, Alvarado and Massey, 2010, Czaika and Kis-Katos, 2009, Davenport et al., 2003, Iqbal, 2007, Lubkemann, 2005, Melander and Oberg, 2006, Moore and Shellman, 2004, 2006, Morrison and May, 1994, Rubin and Moore, 2007, Schmeidl, 1997, Schultz, 1971, Steele, 2009). The second seeks to identify the effect of displacement on the occurrence of domestic and interstate conflict (Dowty and Loescher, 1996, Lischer, 2005, Posen, 1996, Salehyan, 2008, Salehyan and Gleditsch, 2006, Urdal, 2005). The first category has been primarily concerned with “push and pull” factors driving civilian flight, rather than combatant decisions to resettle. The second group mainly examines how inflows of displaced persons impact patterns of violence. Outside of the counterinsurgency

displacement either as an externality of war (Morrison and May, 1994, Schmeidl, 1997, Weiner, 1992) or as the rational behavior of security-seeking civilians (Adhikari, 2012, Davenport et al., 2003, Moore and Shellman, 2004). Even the international legal definition of a displaced person – one who “owing to a well-founded fear of being persecuted... is outside the country of his nationality, and is unable [or] unwilling to avail himself of the protection of that country” – implies some civilian choice (United Nations, 1951, Article 1).

Political science has mostly overlooked the strategic calculus of combatants in this process. The few studies examining armed group behavior have maintained a theoretical and empirical focus on civilian flight. Steele (2011) and Balcells and Steele (2012) show that armed groups use threats and intimidation to coerce civilians into fleeing their communities, particularly where information about civilian loyalty is readily available. Azam and Hoeffler (2002) show that displacing civilians can be a substitute for fighting, but limit their scope to refugee populations, rather than those forcibly removed and detained by their own governments.

A second gap in the literature pertains to the consequences of displacement. While several studies have sought to identify the effect of civilian flight on domestic and interstate conflict (Lischer, 2005, Salehyan, 2008, Salehyan and Gleditsch, 2006, Urdal, 2005), they have mainly focused on the destabilizing impact of refugee inflows. Beyond a handful of qualitative counterinsurgency policy studies (Greenhill and Staniland, 2007, Hack, 2009, Jundanian, 1974), there has been almost no empirical evaluation of how civilian outflows – particularly those due to resettlement – shape violence in migrants’ communities of origin.

A third gap is that – due to the compulsory nature of resettlement – it falls outside the scope of leading theories of violence in civil war. The conceptual distinction between flight and resettlement mirrors that between coercion and brute force (Schelling, 1966, 4-5). Much like blockade and disarmament, resettlement is generally not “intended to shape the behavior of a targeted audience by altering the expected value of a particular action” – the coercive logic that drives all vio-

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policy literature (Greenhill and Staniland, 2007, Hack, 2009, Jundanian, 1974), relatively few studies have addressed how civilian outflows shape violence in migrants’ communities of origin.

lence in Kalyvas (2006, 26). It seeks instead to deny the possibility of that action by brute force. If flight gives civilians a choice of “stay or go,” resettlement offers only “go.” As such, mass deportations – and forcible resettlement more generally – should be off the equilibrium path unless the combatant either does not intend to govern the targeted population, or the opponent is very weak (Kalyvas, 2006, 30-31, 167). The empirical puzzle, however, is that resettlement regularly occurs where an intent to govern does exist, and where rebels are quite strong.

The locus of our theoretical attention in such cases must necessarily turn on the strategic choices of combatants. Under what conditions is a government likely to use resettlement as a counterinsurgency strategy? Does resettlement bear the fruits that its practitioners expect, or does it further inflame the intensity of violence?

### 6.3.1 THE LOGIC OF RESETTLEMENT

Let  $d \in (0, 1)$  be the proportion of civilians displaced from the conflict zone. I assume that the net displacement rate  $d = f(\sum_i \rho_i) + r$  is a combination of flight ( $f$ ) and resettlement ( $r$ ), where  $f(\cdot) \geq 0$  is a continuous, monotonically increasing function of violence, while  $r \geq 0$  is determined by the government.

To stack the model against resettlement, I assume that displaced persons are potential supporters of either combatant – not just the rebels, as is the assumption in Azam and Hoeffler (2002). Civilians’ departure reduces the flow of local recruits available to *both* sides, such that  $\mu_i = (1-d) \left(1 - \frac{\rho_{-i}\theta_{-i}}{\rho_{ii} + \rho_i}\right)$ . The net flow of cooperation is increasing in the relative rates of survival, but decreasing in the proportion of the population displaced. Because resettlement affects neutral civilians indiscriminately, this policy necessarily also makes the government’s own mobilization less efficient: each person resettled is one less local resident (potentially) providing support, irrespective of her ultimate partisan affiliation.

**Proposition 6.** *If the government resettles a sufficiently large share of the civilian population, a coercive advantage is not necessary for victory.*

**Corollary 5.** *The government will resettle at a higher rate where selectivity is low, but the government has an external resource advantage.*

*Proof.* Appendix I.11.7 □

When resettlement is among the strategic instruments available to government forces, the incumbent has more than one path to victory. She may seek, as before, to escalate punishment to the point where joining the rebels becomes more costly than supporting the government. Alternatively, she may use resettlement to physically prevent civilians from cooperating with rebels. Note that resettlement does nothing to deter civilians from joining the rebellion, which remains the civilians' preferred strategy as long as  $\frac{\rho_G \theta_G}{\rho_R \theta_R} < 1$ . Incentives to use resettlement, however, arise precisely where this selective violence ratio is unfavorable. Rebels, meanwhile, now have a more limited path to victory. To achieve a sustainable monopoly on the use of force, not only must rebels have a coercive advantage, but government resettlement efforts must also be too low to offset cooperation with the rebellion.

Two critical values govern the dynamics of this system:

$$\bar{a}_R^\dagger = \frac{\alpha_G(\rho_G + \rho_R)(\theta_G \rho_G + u) + (\rho_G + \rho_R + u)(1 - d)(\theta_G \rho_G - \theta_R \rho_R)}{(\rho_G + \rho_R)(\theta_R \rho_R + u)} \quad (6.18)$$

where  $\bar{a}_R^\dagger$  is an upper bound on  $a_R$  and  $d = r + f(\rho_G + \rho_R)$ ; and

$$\underline{r} = 1 - \frac{\alpha_G(\rho_G \theta_G + u)(\rho_G + \rho_R) - \alpha_R(\rho_R \theta_R + u)(\rho_G + \rho_R)}{(\rho_G + \rho_R + u)(\rho_R \theta_R - \rho_G \theta_G)} - f(\rho_G + \rho_R) \quad (6.19)$$

where  $\underline{r}$  is a lower bound on  $r$ . Table 6.3.1 summarizes the conditions for a government monopoly. These conditions are more limited than in the previous two cases. Resettlement can help secure victory despite a coercive disadvantage (lower left). However, this is only possible where the government has an advantage in external resources. Where this is not the case, and rebels have greater access to external re-

**Table 6.3.1:** STABILITY CONDITIONS FOR GOVERNMENT MONOPOLY, WITH RESETTLEMENT.  $\rho_G^* = \rho_R \frac{\theta_R}{\theta_G}$  is the stalemate threshold.

COERCION	EXTERNAL SUPPORT	
	G advantage ( $a_G > a_R$ )	R advantage ( $a_G < a_R$ )
G advantage ( $\rho_G > \rho_G^*$ )	Stable	Stable if $a_R < \bar{a}_R^\dagger$
R advantage ( $\rho_G < \rho_G^*$ )	Stable if $r > \underline{r}$	Unstable

sources, no amount of population resettlement can prevent defeat.

Access to external resources can determine if resettlement succeeds or fails. From 6.19, we can see that if the government has access to fewer external resources than the rebels ( $a_G < a_R$ ), the lower bound on resettlement becomes impossibly high ( $\underline{r} > 1$ ). Because the government cannot remove more than 100 percent of the population, resettlement has no effect on relative rates of cooperation. It can, at most, buy time by slowing down the absolute rates of civilian cooperation.

When the government has an advantage in external resources, incentives for resettlement emerge. The amount of resettlement the government must use depends on how much external support she can muster. The greater the government's external resource advantage, the lower this threshold becomes. When external resources are limited, local civilian support for the rebels cannot be fully offset by an influx of revenues and loyalists from elsewhere. When external resources are plentiful – and the government becomes less dependent on the local population – incentives for resettlement recede.

An important puzzle remains, however. If displacement can be the outcome of either resettlement or civilian flight, why would the government prefer to resettle? The model suggests that resettlement and civilian flight serve the same strategic purpose, and that incentives to resettle are strongest where civilians are unable to “voluntarily” leave the conflict zone ( $r$  is decreasing in  $f$ ). Since the rate of flight depends in part on overall levels of violence, the government can avoid resettlement

by simply escalating punishment, and driving civilians to flee from harm. Yet there are at least two conditions under which such a strategy might fail: if a government faces normative or logistical constraints on the use of lethal force ( $\rho_G \in (0, \rho_G^{max}]$ ), or if geographical and political circumstances limit opportunities for civilian flight ( $f \in (0, f^{max}]$ ). If either of these is true, resettlement becomes more attractive. If, however, a government faces logistical constraints on resettlement, such that  $r \in (0, r^{max}]$ , she will rely more on punishment to provoke civilian flight.

The relative cost-effectiveness of resettlement (i.e. civilians displaced per unit of effort) depends, like almost all aspects of the model, on information. When government selectivity is low, rebels do not need to use a great deal of punishment to meet the stalemate threshold, as  $\rho_R^* < \rho_G^*$  when  $\theta_R > \theta_G$ . As a result, most of the violence needed to provoke civilian flight will need to come from the government, and punishment becomes a less cost-efficient means of displacement than resettlement. When government selectivity is high, rebels will be compelled to punish at a higher rate, and the same amount of displacement becomes possible at a lower level of punishment. As the information problem subsides, so do incentives for resettlement.

## 6.4 CONCLUSION

The three brute force tactics considered in this chapter – blockade, disarmament and resettlement – are not an exhaustive list. They are ideal types of innumerable approaches combatants use as substitutes for coercion in irregular war. They share important characteristics. Unlike punishment, which operates by increasing the costs of bad behavior, the success of these strategies does not hinge on civilian choice. It hinges on civilian choice becoming irrelevant. Roadblocks deny rebels access to external resources, disarmament reduces the number of weapons in circulation, and resettlement denies rebels access to local recruits. These are all supply-side solutions. They operate by reducing the opportunity for rebellion, without attempting to reduce motivation.

All three approaches, moreover, are symptomatic of coercive failure. Incentives

to blockade, disarm or resettle should not exist where the government is able to convince civilians that supporting the rebels is too costly – where she can identify and locate her opponents, and out-produce them in selective violence. Where selectivity is high and a coercive advantage already exists, the government does not need to offset the mobilizational impact of collateral damage by besieging a village, confiscating weapons, or displacing a large share of the civilian population. Brute force begins where coercion ends.

Despite these similarities, the three approaches are not perfect substitutes. Resettlement is most appealing where the government is relatively strong in resources, but poor in information. Where rebels have the external resource advantage, resettlement is of little practical use, but blockade can be highly effective. Disarmament offers the most direct means of limiting rebel coercive capacity. Yet it can be very inefficient, and – if rebel external support is sufficiently high – even a complete disarmament does not guarantee success.

These complementarities help explain why governments rarely rely on just one of the three. A cordon-and-search operation, for instance, often combines aspects of a blockade with the search and seizure of privately-owned weapons – as well as a heavy dose of punishment for those detained or hit by artillery shells.

Incentives to bundle these tactics together, however, make it difficult to empirically evaluate the validity of my theoretical claims. When combatants adopt an “all of the above” approach, what we observe are not individual treatments, but the interactions of multiple simultaneous treatments. Parsing out the determinants and consequences of roadblocks, disarmament and resettlement requires micro-level data on individual violent events – with sufficient variation in the actors, tactics and targets involved. To this end, I now turn to an empirical analysis of three conflicts in Russia and the Soviet Union, where – thanks in part to unusually detailed disaggregated data – it is possible to examine each of these approaches in turn, and potentially explain why government forces used them and whether they performed better than punishment alone.

*If the artillery had done its job, we would very soon be inside the town; but it is infinitely difficult to direct them. They are all men who have hardly ever seen a siege and who know only how to fire straight ahead.*

Sébastien Le Prestre de Vauban, 1703

# 7

## Blockades in the North Caucasus, 2000-2012

Russia's first attempt to conquer Chechnya and neighboring territories, during the Caucasus Wars of 1816 to 1859, was the most protracted conflict in Russia's modern history. For most of this period, insurgents loyal to the Caucasian Imamate – a de facto Islamic state that controlled much of modern-day Chechnya and Dagestan – fought to impede Russian imperial expansion, attacking Russian outposts, ambushing convoys and harassing pro-Russian settlements. In response, Russia oscillated between two modes of operation: the storm and the siege (Ol'shevskiy, 2003, 15).

The storm involved large seasonal offensives and smaller raids against villages in enemy territory. Russian forces would advance into the forests and mountains, launch artillery strikes against insurgent strongholds, raze villages unwilling to ac-



cept Russian rule, and return to their garrisons. As a strategy that sought rapid capitulation by raising the costs of resistance, the storm was the preferred approach of the often-impatient Tsars, and dominated Russian strategy for much of the war (Arreguín-Toft, 2005, 53).

By contrast, the siege emphasized logistics over killing: clearing roads in some places to improve government mobility, blocking roads in others to cut off insurgent supplies and prevent enemy raids (Gordin 2000, 272). Crucially, government forces established physical cordons around centers of violent insurgent activity, dividing the eastern Caucasus into several secluded enclaves, where the capabilities of insurgents could be diminished by isolation and attrition. These local blockades also served to separate pro-Russian villages in Chechnya and Dagestan from their restive neighbors, enabling the development of government institutions and trade without interference from outside (Degoyev, 2000, 142).

If elements of the storm defined Russia's heavy-handed performance in the the First Chechen War of 1994-1996, the siege was on far greater display in the conflict that began in 1999. The current chapter uses novel micro-level data on violence from the North Caucasus in 2000-2012 to evaluate the determinants and consequences of blockades (i.e. efforts to restrict access to and from populated areas) in modern counterinsurgency warfare.

I find that blockades can offset the government's coercive disadvantage and increase the likelihood of success (Proposition 4). Compared to government operations without roadblocks in similar environments and time periods, operations with roadblocks were followed by a significantly lower intensity of rebel violence. I further find that blockades occurred where the government had difficulty locating rebels, and where rebels had greater access to external resources (Corollary 3).

## 7.1 HISTORY

Between 1996 and 1999, post-war Chechnya rapidly descended into chaos. The war had devastated the republic's economic infrastructure, left most agricultural land uncultivable due to mines, displaced up to 50 percent of its population, and

left up to 80 percent of those remained without employment (Gammer 2006, 210-211, Souleimanov 2007, 127-128). To make an income, unemployed Chechen youth turned increasingly to kidnapping, smuggling, and the theft of cars, cattle and oil.

On a political level, the three years of independence saw an increasingly acrimonious split between nationalists like President Aslan Maskhadov – who sought to build a Chechen nation-state – and Salafi-Jihadists like field commander Shamil Basayev – who wanted to liberate the broader North Caucasus from the rule of non-believers (*kafirun*) and apostates (*munafiqun*), and unify the region under an Islamic flag. In August 1999, members of the second camp finally gave Moscow a compelling reason to intervene.

On August 7, 1999, Basayev and the Arab field commander Emir Khattab led a force of 3,000 fighters into the Tsumadi and Botlikh districts of Dagestan, where they promptly overran Russian garrisons and proclaimed an independent Islamic state (Soldat Udachi, 2003b).<sup>1</sup> Basayev was unable to hold the territory, and after a month of heavy fighting, troops from Russia's Ministry of Internal Affairs (MVD) and the Federal Security Service (FSB) pushed the Islamists back across the Chechen border and prepared for a larger-scale invasion.

Russia initially focused on establishing a *cordon sanitaire* to isolate Chechnya and prevent further rebel incursions. After two months of heavy aerial bombardment, Russian forces launched a full-scale ground invasion in October 1999, in which they quickly occupied most of the low-lying territory north of the Terek River, and turned their attention to securing the capital and key lines of communication. By February 2000, Russian ground forces had captured Grozny and established a presence in most of the republic's major urban centers. As rebel fighters fled to villages in Chechnya's rugged south, Moscow transferred operational authority from the Ministry of Defense to the FSB and MVD, and shifted its focus away from conventional operations to counterinsurgency and the establishment of a pro-Russian government in Grozny. Chechen rebels, for their part, tried to replicate their successful resistance from the first war.

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<sup>1</sup>Emir Khattab was the *nom de guerre* of Saudi-born Samir Salih 'Abdalla al-Suwaylim.

From the start of their guerrilla campaign in mid-2000, small units of Chechen fighters appeared able to attack Russian military and police at will, almost anywhere (Kramer, 2004). Using a combination of roadside bombings, ambushes, and mobile hit-and-run attacks, rebels outmaneuvered much heavier detachments of Russian troops, while suicide bombers drove explosive-laden trucks into government checkpoints and facilities. On a daily basis, members of local pro-Russian governments – in Chechnya and neighboring republics – fell victim to targeted assassinations, kidnappings and car bombs.

The rebels reserved particularly harsh treatment for *munafiqun* – “apostates” who cooperated with Russian authorities or failed to support the jihad. In a directive from December 2000, Emir Khattab ordered Chechen fighters to “compile lists of *munafiqun* executed by us,” videotape killings of Russian collaborators, and “publish the videos with corresponding explanations” (cited in Grodnenskiy 2010, 373). To diminish the population’s confidence in federal forces, Khattab suggested that rebels plant contraband in local houses, and provide Russians with false reports that the unsuspecting resident supplied weapons to the mujahideen (Grodnenskiy, 2010, 373).

The insurgency reached its climax in 2004, spreading beyond Chechnya into virtually every region of the North Caucasus. Over the course of five months starting in May, rebels assassinated Chechnya’s pro-Moscow president, killed dozens in raids against MVD, FSB, and army units in Ingushetia and Dagestan, seized the Ingush capital Nazran, killed over 120 police and government officials during a major offensive in Grozny, brought down two commercial airliners with suicide bombers, and killed 334 civilians – including 186 children – during a school hostage crisis in Beslan, North Ossetia (Izvestia, 2007, Kramer, 2004).

The core of the insurgency shifted away from separatist groups seeking Chechen independence to a region-wide Salafi-Jihadi movement seeking to establish a Caucasian Emirate. In addition to militias associated with a specific Chechen *teyp* (clan), the militant network included small *dzhamaats* tasked with combat, patrol and reconnaissance in the locations where their members lived. By 2005, this network had a presence in every region of the Caucasus, often at the district level.

In their efforts to contain the uprising, Russian forces seemed reluctant to abandon the “storm” strategy of the first war. Prior to the recapture of Grozny, federal forces almost completely leveled the city with thermobaric explosives, iron bombs, surface-to-surface missiles, massed artillery and tank fire (Grau and Thomas, 2000). Without concrete human intelligence, target selection for air strikes and shelling relied heavily on remote sensing and geographical signs of a rebel footprint (e.g. “presence of a forest with convenient accesses to a population center,” Soldat Udachi 2003a). The heavy bombardment succeeded in reducing the number of buildings in which snipers could hide, but inflicted relatively little direct damage on the rebels. Civilians living in the headily bombarded villages again paid the heaviest costs (Politkovskaya, 2002).

On the margins of this seeming replay of the first war was a noticeably greater commitment of government resources to population control. The invading force of 100,000 troops was nearly two-and-a-half times greater than in the first war, and a significant portion was tasked with regulating the movement of people and goods. 50,000 troops encircled Grozny in the initial stages of the war, blocking all points of entry and exit, and “making it much more difficult for the rebel force to get resupplies or to move out of the city and rest” (Grau and Thomas, 2000). This is something the Russians had failed to do in 1994-1995 (Celestan, 1996). A month after taking Grozny, 20,000 federal troops replicated this blockade effort in the Argun Gorge (Grodnenskiy, 2010, 251).

Behind the Russians’ seeming rediscovery of the “siege” was a perception that – despite good training and intimate knowledge of the local terrain – rebels were dependent on external support and vulnerable to supply shocks. General-Colonel (three star) Gennadiy Troshev – who commanded the North Caucasus Military District between 2000 and 2002 – observed in his war diary that rebels did not have the same level of popular support as they did in the first war, and had been experiencing “deficiencies in supplies, stocks of weapons, ammunition and materiel.” In response,

we took measures to reinforce and intensify the covering belt near mountainous districts. It was supposed to provide an impenetrable

system of fortified positions and minefields... This way, from early February 2000, band formations in the mountains were blocked by a covering belt to their north, and airborne troops to their south, which closed off the militants' routes of maneuver and the resupply of weapons and ammunition (Troshev, 2001a, Ch. 9).

From within the besieged area, residents would at first observe security personnel unraveling a metal "snake" of spikes and barbed wire to redirect all movement toward official checkpoints and roadblocks. Soon thereafter, the town would become closed, "markets empty, foodstuffs disappear from store shelves... life in the town comes to a dead stop" (Politkovskaya, 2002, 50-51). In the outlying areas, government snipers would take positions on the high ground, while tanks, armored personnel carriers and artillery units would mass around a town's periphery (Akhmednabiev, 2007).

Blockades appeared to have at least a short-term impact on rebel capacity. After escaping one such encirclement in 2000, it took Basayev's and Khattab's forces in Ulus-Kert "two weeks to restore their strength, replenish their stocks of weapons and food, until they were again capable of combat" (Grodnenskiy, 2010, 256).

Yet the siege policy was not without its downsides. In Vedenno district – Basayev's birthplace – the system of roadblocks and checkpoints left the local population in almost complete isolation from the outside world. The isolation was so extensive that even friendly villages – like Mahkety, where an anti-Basayev militia had formed – were cut off from all forms of material support. The government took no efforts to protect its potential allies or even to issue passports to permit them to leave, despite constant rebel reprisals and a humanitarian crisis (Politkovskaya, 2002, 41-42). Even local police sometimes found themselves stuck on the wrong side of the barricades (Politkovskaya, 2002, 51).

Some observers questioned the efficacy of the siege from a military standpoint. As Grodnenskiy opines,

even on an old map, one could count over twenty trails in one district. And how many more trails exist that are not marked on any

maps? To block each of these trails, it is necessary to send, at a minimum, a squad... With the forces at their disposal, only on paper were federal authorities capable of reliably blocking the bands, much less destroying them (Grodnenskiy, 2010, 256).

Due in part to limited resources, only a small proportion of government operations – 5.4 percent – involved efforts to fully block a populated area.<sup>2</sup> Regular patrols and searches either relied on pre-existing systems of checkpoints, or included more localized, roving mobility restrictions in the immediate vicinity of the operation. Many more operations fell back on the tactics that dominated the first war, in which “artillery and aviation would assault a village almost around the clock, while [ground] forces would hesitate to advance” (Grodnenskiy, 2010, 251). The shift in strategic emphasis from storm to siege was, at best, only partial.

Despite their relative infrequency, mobility restrictions proliferated beyond Chechnya over the course of the conflict. In Dagestan, federal forces regularly blockaded villages they suspected of being Salafist strongholds, like Balahani, Shamhal and Gimry. Untsukul district attracted special attention due to its strategic location near a tunnel linking nine highland districts of Dagestan to major cities like Makhachkala (Souleimanov, 2013).

Although violence in the North Caucasus has declined precipitously since the mid-2000’s, attacks against security forces and government officials continue on a weekly basis. Scholars of the region remain divided on whether any improvement in security can be attributed to blockades. Souleimanov (2013) notes that physical isolation has done little to prevent the emergence of local power vacuums in which federal laws have little or no force, and local police units are largely absent. He writes, “it is likely that Gimry-style efforts by federal authorities to put an effective end to local insurgency in the rural areas will lead to a renewed circle of violence.” Others have been more optimistic. Toft and Zhukov (2012) performed a quantitative analysis of roadblocks in the region, and found that such tactics can be effective at limiting the spillover of violence to neighboring villages, although

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<sup>2</sup>Data from Memorial (2013); see below.

their effect on pacification within the besieged areas is more uncertain.

In the following discussion, I take a deeper look at why government forces have used blockades in some situations, but not in others, and assess the relative effectiveness of these tactics in suppressing rebel violence.

## 7.2 DATA AND RESEARCH DESIGN

The following analysis utilizes new data on counterinsurgency from Russia's North Caucasus, compiled from incident reports maintained by the independent Memorial Center NGO. Memorial's 'Hronika nasiliya [Chronicle of Violence]', is a timeline of paragraph-length event summaries of political violence in the Caucasus, based on reporting by Russian and international media, as well as local independent human rights activists. I used automated text analysis to classify 63,673 records in Memorial's timeline between 2000 and 2012, and extract basic information (dates, geographic coordinates, participants, tactics, and casualties). After discarding reports of a historical nature and press releases, the script identified 43,336 unique violent events. I provide a detailed description of the data and event coding methodology in the appendix.

These events included 9,248 rebel attacks and 22,573 government operations. Of the latter, 11,125 involved only selective tactics directed against specific individuals, like pursuits, arrests, executions, firefights and small-scale policing actions. The remaining 11,502 involved at least some use of indiscriminate tactics, like cordon and search, mass detentions, artillery and air strikes, and similar actions defined by the systematic collective targeting of individuals. 562 of the government operations involved blockades. Following Toft and Zhukov (2012, 791), this figure excludes routine road obstructions, such as vehicle checkpoints, and includes only larger-scale operations, like efforts to establish a cordon around a whole village or town.

I aggregated the events to two levels of analysis. The first – district-week – enables a longitudinal study of violence patterns across all of the region's local administrative units, and over time. The dataset includes weekly statistics on rebel and

government violence in 200 districts (rayons) of the seven autonomous republics of the North Caucasus, and two adjacent provinces (oblasts), during the period 2000-2012. The regions include the republics of Adygea, Chechnya, Dagestan, Ingushetia, Kabardino-Balkaria, Karachaevo-Cherkessia and North Ossetia, as well as the majority ethnic Russian regions of Krasnodar and Stavropol'. The sample size is 125,400 (200 districts  $\times$  627 weeks).

The second – operational level – enables an event-level study of the tactics employed during each counterinsurgency operation. The sample includes 22,573 operations by government forces, observed between July 2000 and December 2011. To permit comparability with the longitudinal data, I treated multiple incidents in a single district-week as part of the same government operation. This aggregation scheme yielded 8,293 government operations.

In keeping with the research design of previous empirical chapters, I combined the data on violence with district-level information on local geography, language, demographics and infrastructure (CIESIN and Columbia University, 2005, Defense Mapping Agency, 1992, Global Mapping International, 2006, Hearn et al., 2005, Loveland et al., 2000, NOAA, 1988, Tsitsuev, 2007, Weidmann et al., 2010).

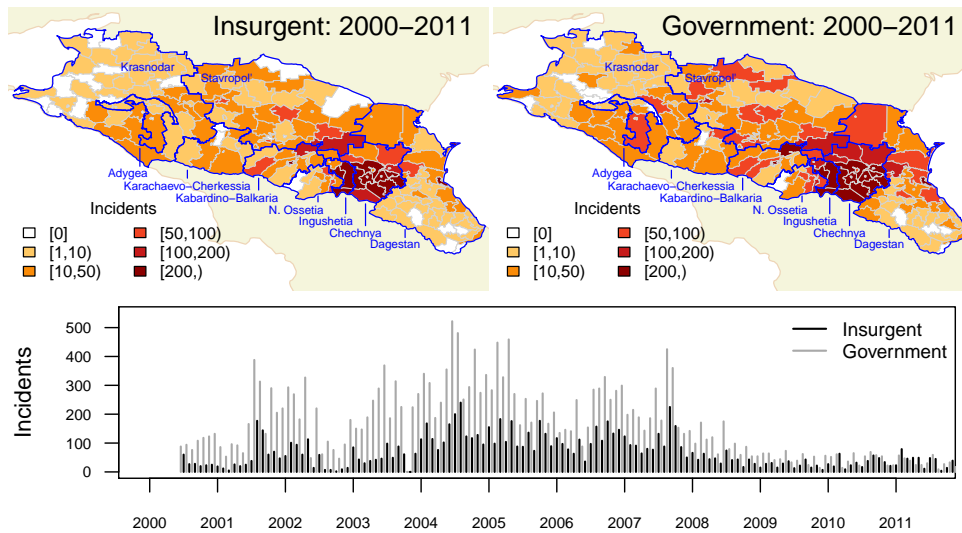
Figure 7.2.1 shows the distribution of rebel and government violence over space and time. Several patterns are visible from an initial glance at these data.

First, the time plot in Figure 7.2.1 indicates that government-initiated acts of violence occurred at a consistently higher rate than those by rebels. This imbalance reflects what we would expect to see of a combatant (i.e. the Russian government) with systematically inferior selectivity. Due to difficulties identifying and locating rebels, federal forces would have felt a strong incentive to substitute firepower for intelligence (Proposition 2). The empirical distributions support this view.

Second, rebel responses to government violence followed the same curvilinear relationship we observed during the First Chechen War (Figure 5.3.1) and cross-nationally (Figures 4.2.1, 4.2.2, 4.2.3 and 4.2.4). Figure 7.2.2 shows the results of a series of simulations based on the same statistical model used in Chapter 5 (Equa-



**Figure 7.2.1:** Distribution of Violence in the North Caucasus, 2000-2011



tion 5.2), now fitted with the more recent North Caucasus data.<sup>3</sup> As before, moderate levels of Russian violence inflamed rebel attacks, but high levels suppressed them. As Proposition 1 predicts, there is a threshold of government violence, beyond which the rebels' rate of attrition exceeds replacement capacity. Again, this threshold arrives at a lower level of violence when government tactics are selective – although the difference here is not as stark as it was in the first war.<sup>4</sup> In the Caucasus, as elsewhere, most government actions fell short of reaching this threshold.<sup>5</sup>

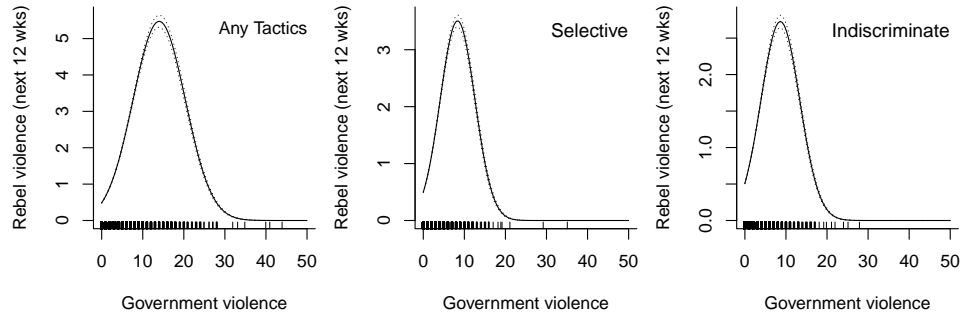
Third, the determinants of escalation were similar to those in 1994-96. Russian forces were likely to conduct more operations, and employ more indiscriminate force where information on the enemy was most difficult to obtain: where fewer local residents spoke Russian fluently, and where forests covered a large propor-

<sup>3</sup>All other variables held constant at their median values. Due to space considerations, I report only the LONG TERM models described in equation 5.2. The SHORT TERM results were broadly consistent with these.

<sup>4</sup>For selective tactics, the apex of the curve in Figure 7.2.2b is at approximately 8.3 operations per district-week. For indiscriminate tactics (Figure 7.2.2c), the slope of the curve changes sign at 8.7 operations.

<sup>5</sup>Just 2.3 percent of all district-weeks, or 102 observations, had a level of government violence exceeding the threshold.

**Figure 7.2.2:** COUNTERINSURGENCY AND REBEL VIOLENCE IN THE NORTH CAUCASUS, 2000-2011. Dotted lines denote 95 percent confidence intervals.



tion of territory. Model-based simulations (Equations 5.4 and 5.6) indicate that a district where just 40 percent of the population was fluent in Russian saw over five times as many government operations per week than a district with 80 percent fluency (458.9 percent increase, 95% CI: 433.8, 484.8), all else equal. Operations in these low-fluency districts were also 8.2 percent more likely to be of an indiscriminate nature (95% CI: 3.3, 13.1).

Similar problems emerged where opportunities for surveillance were complicated by vegetative cover. On an average week, a district where 95 percent of land was covered by forest experienced twice as many incidents of government violence as a district with just 5 percent forest cover (100.4 percent increase, 95% CI: 89.0, 112.2). Operations in such districts were also 9 percent more likely to involve indiscriminate tactics (95% CI: 2.9, 15.0).

Fourth, Russia's experience in the North Caucasus reiterates the inefficiency of indiscriminate violence. As before, I divided the government operations into two groups – one in which Russian security forces or their local proxies employed only selective counterinsurgency tactics (comparison), and one in which at least some of the tactics were indiscriminate (treatment). I then used an ensemble of matching algorithms to assign weights to each operation, such that only the most directly comparable operations remained in the sample. The matched analysis confirmed that, even in cases where both technologies of violence were about equally likely

to be used, a switch from selective to indiscriminate tactics increased subsequent rebel activity by 3 percent, on average (95% CI: 0.1, 6.1).<sup>6</sup>

The data suggest that Russia's challenges during the Second Chechen War and regional insurgency were familiar ones. Information problems forced a reliance on indiscriminate tactics. These tactics were inefficient at suppressing rebel violence, creating strong incentives to escalate, and substitute firepower for intelligence. My theoretical model (Proposition 4) holds that blockades may potentially offset some of these difficulties by restricting rebels' access to external resources. The following analysis offers a tentative test of this proposition.

### 7.3 WHEN AND WHERE DID BLOCKADES OCCUR?

There were 447 unique counterinsurgency operations in which Russian forces used a blockade and 8,293 in which they did not.<sup>7</sup> This relative infrequency suggests that government forces used these measures only in special cases. If the theoretical model is correct, blockades should be more common where selectivity is low and rebels have more external support (Corollary 3).

I measure the government's selectivity with two preexisting features of the local environment, that might make information about the rebels systematically more or less difficult to collect: (1) percent of a district's population with native fluency in Russian, and (2) percent of district's land covered by forest. Conducting basic human intelligence duties – recruiting informants, interviewing locals, interrogating detainees – is generally easier where ethno-linguistic differences do not impede communication or force a reliance on interpreters. On this metric, the North Caucasus exhibits significant variation. The level of Russian fluency in the region ranges from 30 percent (in parts of southern Dagestan) to 95 (in Stavropol'), with

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<sup>6</sup>This figure is based on a matched sample generated with Coarsened Exact Matching, which produced the best improvement in balance (82 percent). According to the second-best matched sample (Mahalanobis distance, 38 percent), the increase was of 14 percent (95% CI: 11.8, 16.3). In the unmatched data, the figure is 38.9 percent (95% CI: 36.2, 41.7).

<sup>7</sup>The full figure is 562. In the aggregation process, I counted multiple incidents in a single district-week as part of the same government operation.

a mean of 79. Forested areas further allow rebels to exploit natural cover and concealment, and avoid detection by aerial surveillance, satellite imagery, and motorized patrols. In the districts of the North Caucasus, heavily wooded areas comprise between 0 and 95 percent of all land, with a mean of 15.

I measure rebel external support as the minimum road distance from a district center to the Georgian or Azerbaijani border. Illicit cross-border flows of goods and people had increased during the interwar years, as Chechen militias expanded some mountain trails into unpaved roads capable of accommodating vehicular traffic (Grodnenskiy, 2010, 190-190). By 2000, at least 6,500 Chechens had taken up refuge in Georgia's Pankissi Gorge according to official statistics, and at least 700 remained there for the duration of the conflict (RIA Novosti, 2008, Vignanskiy, 2000). Russian forces were deeply concerned about rebel access to cross-border sanctuaries, and justified many of its blocking operations on the basis of closing "supply routes for weapons, ammunition and materiel" from the "near abroad" (Troshev, 2001a, Ch. 9).

I model the qualitative choice to use blockades at the operational level of analysis. As before, I removed all district-week observations in which government forces were inactive, and created a dummy variable for tactics,  $z(\text{block})_{ijt}$ :

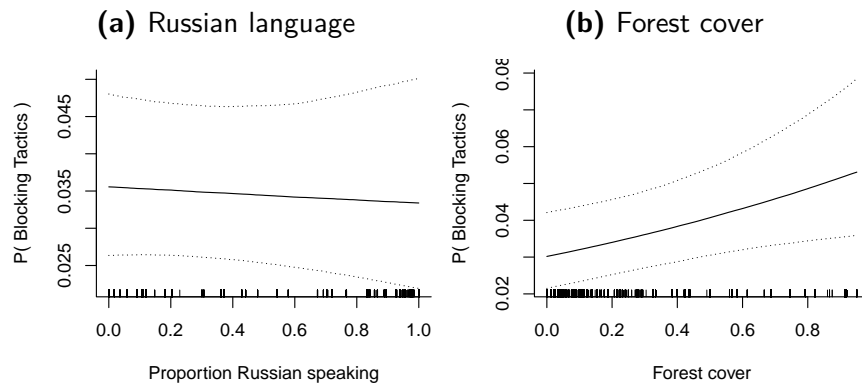
$$z(\text{block})_{ijt} = \begin{cases} 1 & \text{if the government used a blockade in } ijt \\ 0 & \text{if the government did not use a blockade in } ijt \end{cases} \quad (7.1)$$

where  $j \in \{1, \dots, J\}$  indexes the district,  $i \in \{\text{Adygea, Chechnya, Dagestan, Ingushetia, Kabardino-Balkaria, Karachaevo-Cherkessia, Krasnodar, North Ossetia, Stavropol}\}$  indexes the region, and  $t \in \{1, \dots, T_i\}$  indexes the week. I modeled the conditional probability  $P(z(\text{block})_{ijt} = 1 | \mathbf{x}_j, y_{ijt-1}, v_i, \varepsilon_t)$  with a mixed effect logit:

$$\eta_{ijt} = \gamma_1 y_{ijt-1} + a_1 z(\text{block})_{ijt-1} + a_2 \mathbf{W}z(\text{block})_{ijt-1} + \beta \mathbf{x}_j + v_i + \varepsilon_t \quad (7.2)$$

where  $\eta_{ijt}$  is the linear predictor,  $y_{ijt-1}$  is the number of rebel attacks in the previous time period,  $z(\text{block})_{ijt-1}$  is a time-lag of blocking operations,  $\mathbf{W}z(\text{block})_{ijt-1}$  is a

**Figure 7.3.1: SELECTIVITY AND ROADBLOCKS.**

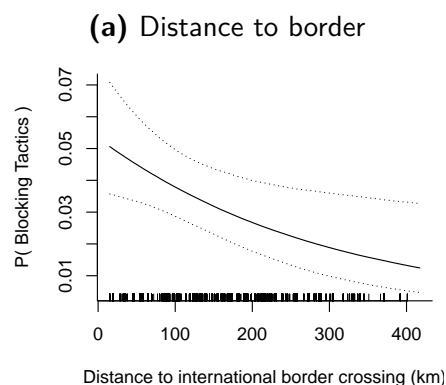


spatial time lag, and  $\mathbf{x}_j$  is a vector of district-level covariates (i.e. selectivity, external support). The model also includes regional ( $v_i$ ) and temporal ( $\varepsilon_t$ ) fixed effects.

Do the empirical determinants of blockades align with theoretical expectations? Figure 7.3.1 shows the predicted probability of a blockade, as a function of (a) the district population's Russian language fluency, and (b) forest cover. Language does not appear to be a strong predictor of such actions, but geographical barriers to selectivity have a far more pronounced impact. In an average week, the probability of that a counterinsurgency operation involves a blockade is 74.9 percent higher (95% CI: 11.1, 164.4) in a district where 95 percent of land is covered by forest, compared to one with just 5 percent forest cover.

Blockades are also more common where rebels can potentially receive supplies and reinforcements from cross-border sanctuaries. Figure 7.3.2 shows the predicted probability of a blockade, as a function of the district's road distance to the nearest international border crossing. This relationship is negative and highly significant. In districts within 10 kilometers of a border crossing, a counterinsurgency operation is almost three times more likely (197.4 percent increase, 95% CI: 22.9, 504.2) to include a blockade than in a district 300 kilometers from the border. Physical access to external support invites government efforts to limit that access.

**Figure 7.3.2:** EXTERNAL RESOURCES AND ROADBLOCKS.



#### 7.4 DID ROADBLOCKS WORK?

Are counterinsurgency operations with roadblocks more effective at suppressing rebel attacks than those without roadblocks? The theoretical model predicts that blockades can make it possible to achieve a government monopoly, even in the absence of a selective violence advantage (Proposition 4). If this is true, we should expect fewer incidents of rebel violence after operations with blockades, all other things equal.

The difficulty of evaluating the effectiveness of blockades lies in the fact that “all other things” are rarely “equal” in practice. As we have seen, the government does not choose tactics at random. An operation is unlikely to employ blockades where they are not needed – where information problems are relatively minor, and when rebels already lack access to external resources. Blockades occur in more difficult cases. As such, security gains observed after a blockade may simply reflect different operating conditions and baseline levels of violence, rather than rebel attrition.

In light of these challenges, I used matching to preprocess the data and find a more directly comparable subset of government operations. I began by dividing the operations into two groups: ones in which Russian security forces or their local proxies employed blockades (treatment, with  $z(\text{block})_{ijt} = 1$ ), and one in which they did not (comparison, with  $z(\text{block})_{ijt} = 0$ ). Because some districts experienced more than one episode of violence per week, I collapsed contemporaneous

operations into single events, and restricted the sample to the 8,740 cases where security forces conducted at least one counterinsurgency operation in a district-week (T: 447, C: 8293). For each treatment case, I looked for a comparison case where roadblocks were not used, but all other conditions – language, terrain, pre-existing levels of violence, and other factors – were as similar as possible. I employed the same ensemble of matching algorithms toward this end as in Chapters 4 and 5, including propensity scores, Mahalanobis distance, and coarsened exact matching.<sup>8</sup>

Post-matching, I estimated the effect of blockades on subsequent rebel activity with Poisson regression:

$$\ln \lambda_{ijt} = \gamma_1 z(\text{block})_{ijt-1} + \alpha_1 y_{ijt-1} + \alpha_2 \mathbf{W} y_{ijt-1} + \beta \mathbf{x}_j + v_i + \varepsilon_t \quad (7.3)$$

$$\ln \lambda_{ij\tau} = \gamma_1 z(\text{block})_{ijt-1} + \alpha_1 y_{ijt-1} + \alpha_2 \mathbf{W} y_{ijt-1} + \beta \mathbf{x}_j + v_i + \varepsilon_t \quad (7.4)$$

where 7.3 is the expression for SHORT-TERM effects and 7.4 is the expression for LONG-TERM effects.<sup>9</sup>

**Table 7.4.1:** MATCHING BALANCE SUMMARY, NORTH CAUCASUS. Standardized bias is defined as  $\frac{\bar{x}^{(T)} - \bar{x}^{(C)}}{\sigma(\bar{x}^{(T)})}$ .

	Blockade (T)	No blockade (C)	Standardized bias	% improvement
Pre-Matching	447	8293	0.18	0.00
Mahalanobis	446	407	0.03	82.21
Propensity Score	446	408	0.06	67.13
CEM	278	465	0.05	74.83

Table 7.4.1 reports balance summary statistics for the matched samples. Of

<sup>8</sup>To expand the space of potential solution, I modified various decision criteria (e.g. with and without replacement, with and without calipers, with alternative methods for breaking ties). Pre-treatment covariates on which I sought to minimize balance include the selectivity and external support variables considered above, along with the number of rebel and government attacks in the previous 12 weeks. To screen out the impact of secular trends and seasonal fluctuations in fighting, I chose only comparison cases from the same year and month. I also matched on the geographic coordinates of the operation, to account for remaining confounding factors that vary across space but not time.

<sup>9</sup>Although I discuss only the long term results in these pages, the model in 7.3 confirms these results.

the options considered, Mahalanobis distance matching produced the greatest improvement in multivariate balance (82 percent), while not discarding excessive data points (T: 446, C: 407).

Post-matching regression analyses align nicely with the theoretical model's predictions. Table 7.4.2 reports coefficient estimates on the treatment variable for all four data samples. After matching, blockades have a consistently negative effect on subsequent rebel violence. According to the matched sample with least imbalance – Mahalanobis – the use of roadblocks during a counterinsurgency operation reduced local rebel attacks in the following twelve weeks by 5.2 percent on average (95% CI: -8.75,-1.56). According to the smaller CEM sample, the change was -4.43 percent (95% CI: -8.51,-0.31).

The results in Table 7.4.2 reveal another important detail: without matching, the effect of blockades appears to be positive. When one compares an average blockade case to an average government operation without a blockade – while leaving unaddressed potentially high levels of pretreatment covariate imbalance – the level of rebel violence is 5.5 percent *higher* (95% CI: 2.55,8.54) after a blockade.

While stark, this disparity is not altogether surprising. Blockades, as we have seen, tend to occur in difficult environments where the government's coercive leverage is limited and rebels are well endowed with external support. According to the theoretical model, these are the types of environments in which containing a rebellion is most costly and strong incentives for escalation exist. These challenges, as previous pages have shown, are strong determinants of why a government is likely to use blockades in the first place. The comparison group, by contrast, includes many cases where blockades did not occur because the government probably saw them as unnecessary. The positive "effect" of blockades prior to matching is simply an artifact of this imbalance. Yet if we winnow the sample down to more directly comparable pairs of cases, the sign on the coefficient changes, and the security gains predicted by the theory become more visible.



**Table 7.4.2:** BLOCKADE AND REBEL VIOLENCE, NORTH CAUCASUS. Values reported are Fixed Effects Poisson Regression coefficients for the treatment variable (switching from no blockade to blockade). Covariates omitted.

	Pre-Matching	Mahalanobis	Propensity Score	CEM
Blockade	0.054*** (0.014)	-0.053*** (0.019)	-0.017 (0.020)	-0.045** (0.022)
N	8,716	853	854	743
Log Likelihood	-38,935.410	-4,972.434	-4,863.523	-3,771.839
AIC	77,888.820	9,962.868	9,745.047	7,561.679

\*p < .1; \*\*p < .05; \*\*\*p < .01

## 7.5 CONCLUSION

At the time of writing, Russia had spent nearly two decades of its post-Soviet history trying to reassert control in the Caucasus. Yet there has been remarkable continuity in both the types of challenges it has faced there, and the range of potential solutions. Shortly after assuming command of Russia's Caucasus Corps in 1816, General Aleksey Ermolov wrote,

The Caucasus is a giant fortress, defended by a half-million-strong garrison. We need either to storm [the fortress] or to envelop it with trenches. A storm will be expensive. So we will try a siege! (Mishkevich, 2003, 514)

Two centuries later, Ermolov's strategic calculus still rings true: Russian forces have preferred the siege where a storm has been too costly or too difficult to implement. In the First Chechen War and the Second, Russia has relied heavily on coercion: inflicting massive pain on rebels and their supporters, breaking their will to fight by increasing the costs of resistance. Such an approach, however, requires information on who should be punished and where they can be found. Where such information is difficult to obtain, punishment has proven costly and inefficient. To compensate for these information problems, Russia has responded by escalating the use of force, flying more sorties, employing heavier munitions, and causing far greater harm to civilians than rebels.

It is in these kinds of conditions that the siege has been most common and most effective. Rather than attempt to deter rebellion through a manipulation of expected costs and benefits, the second approach seeks to physically isolate the adversary, limit his strategic and tactical options, and undermine his perceived capacity to resist. Just as Ermolov's siege sought to "drive the enemy into the mountains, cutting him off from the plains where he receives provisions" (Ermolov, 1864/1991, 335), contemporary blockades and roadblocks have sought to keep the rebels in, while keeping supplies and reinforcements out.

As my data on the Caucasus conflict show, government operations with blockades have been more effective at pacification than otherwise very similar operations without blockades. Where coercion is difficult due to information problems and rebel access to external support, blockades can make it possible to reduce rebel activity despite a diminished ability to directly hurt the opponent.

My analysis also uncovers a potential reason why Russia's roadblocks have been unpopular among many observers of the conflict. Apart from the profound human suffering such measures can inflict on the besieged (Politkovskaya, 2002, 41-43, 50-52), a frequent line of criticism has questioned the effectiveness of blockades from a military standpoint (Grodnenskiy, 2010, Souleimanov, 2013).

The critics have not been entirely wrong: on the whole, blocked districts are subsequently more violent. Yet a more careful data analysis suggests that this perceived ineffectiveness reflects selection more than treatment. Blocked districts are more violent because blockades tend to occur in difficult environments, not the other way around. A matched analysis shows that – where initial conditions were more or less the same – blockades produced a tangible improvement in security.

The ethical implications of this result are not trivial, and warrant a serious normative discussion. Yet from the narrower standpoint of reducing future violence, Russia's roadblocks worked. At the very least, evidence suggests that avoiding the roadblocks would not have led to a more favorable outcome.

*If the opposition disarms, all is well and good. If it refuses to disarm, we shall disarm it ourselves.*

Joseph Stalin, 15th Congress of the C.P.S.U.(b.), 7  
December 1927

# 8

## Disarmament in the Soviet Caucasus, 1921-1925

In the early 1920's, Russia's North Caucasus region was a hub of rebellion, political violence and emerging Islamic governing structures that directly challenged the sovereignty of the nascent Soviet state. By late 1925 the uprising had largely subsided, and the Soviets asserted a near-monopoly on the use of force and policymaking in the region.

Historians are divided over how this result came about. Some attribute the pacification to an important, but understudied early experiment in forcible disarmament, in which – over the course of several years – the Soviets forcibly confiscated privately-owned weapons in key violent hot spots (Aptekar', 1995a,b, Galitsky, 2009). Others dispute this view, insisting that disarmament occurred mostly where violence was already on the decline, and that similar results could have been

achieved by more limited, conventional means (Gakaev, 1997, Zhupikova, 1998).

The 1920's Caucasus conflict offers a unique opportunity to evaluate theoretical claims about forcible disarmament. Yet the base of empirical research on this historical episode is surprisingly thin, in social science and the humanities, in Russia and the West.<sup>1</sup> As far as I am aware, there have been no micro-comparative efforts *in any region or conflict* to study the impact of forcible disarmament on rebel violence.

Using new declassified micro-level data from Russian archives, I endeavor to uncover the logic behind the Soviets' use of disarmament and identify what effect, if any, this practice had on rebel violence. As the theory predicts, I find that disarmament occurred where coercion failed due to poor intelligence (Corollary 4). In these circumstances, forcible disarmament was a reliably effective tool of pacification – short-term and long-term, locally and regionally (Proposition 5).

## 8.1 HISTORY

After the Bolshevik Revolution of 1917, the North Caucasus – a vast area extending from Rostov-on-Don near the Black Sea basin to Dagestan on the Caspian Sea – was one of the last pieces of Russian territory to come under Soviet rule. Home to an ethnically and economically diverse population of Cossacks, indigenous mountain tribes, wealthy landowners and peasants, the resource-rich North Caucasus

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<sup>1</sup>At the time of writing, the conflict has yet to be the subject of comprehensive works of primary-source research or dedicated edited volumes of archival materials. Most existing historical studies examine the region in the context of the Russian Civil War, and halt their chronology in 1920. For a recent historiography, see Zhupikova (2006, Ch. 1). Empirical investigation has been even more limited in political science, particularly compared to the careful attention devoted to the 19th Century Caucasus Wars and contemporary conflicts in Chechnya (Arreguin-Toft, 2001, Kramer, 2005, Lyall, 2009). Much of this inattention can be explained by the overshadowing roar of contemporaneous events during the turbulent transitional period between a country-wide civil war and the consolidation of a new Soviet state. Compounding this problem was an effective Soviet ban on the study of insurgent movements in the 1930's and 40's, and onerous restrictions on archival access and academic freedom until the late 1980's and early 1990's. This experience has recently regained the interest of Russian historians and policy analysts due to the release of new archival materials and their potential relevance to renewed fighting in the same region.

was prior to 1917 one of Russia's main agricultural and industrial centers, accounting for over 40 percent of the country's grain exports, and 75 and 20 percent of all coal and oil production (Kozlov, 1977).

During Russian Civil War in 1918-1919, the region became a bastion of the anti-Communist White Movement, due in part to the patronage of influential and conservative local clerics, landowners, merchants and industrialists (Zhupikova, 2006, 104). After General Anton Denikin's counter-revolutionary Armed Forces of South Russia retreated to Crimea in August 1919, his many active supporters dispersed across southern Russia and waited with trepidation for the arrival of the Bolsheviks. Demobilized pro-Communist civil war veterans, meanwhile, were rapidly becoming a liability for the new government. As Lenin (1970, 16-17) observed, "the peasant army's demobilization leaves behind hundreds and thousands of broken, restless people, who are accustomed only to war as their occupation."

Initial attempts to assert Soviet power in the region were fraught with difficulties, as the Communists struggled to implement radical and deeply unpopular political reforms, often at the expense of postwar economic recovery. Even the Bolsheviks' wartime allies – like the Chechens and other highlanders with historical grievances against the deposed regime – grew frustrated with the inefficiencies of Soviet administration, constant food shortages, and campaigns to institute rationing and the requisitioning of grain and livestock.<sup>2</sup> By late 1920, the area around Terskaya Oblast became a hotbed of insurrection, as rural authorities unwilling to implement Soviet policies began to publicly encourage anti-government demonstrations and boycotts.<sup>3</sup> In a classified report from July 12, 1921, the North Caucasus Military District's (SKVO) Main Intelligence Directorate described a rapidly accumulating set of motivations for rebellion:

Fundamentally poor management by organs of Soviet power, frequent use of repression, . . . unaccountable administration and criminal abuse of power, . . . a ban on free commerce, various mobilizations, annulment of currency, general disarray in agriculture, transport and in-

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<sup>2</sup>RGASPI, F. 17, Op. 12, D. 627, L. 4.

<sup>3</sup>RGASPI, F. 17, Op. 12, D. 205, L. 72.

dustry, have undercut regional quality of life and killed the initiative of freedom-loving Cossacks and highlanders – all of this has deeply angered the population, which has become ready to support any anti-Soviet action in the hope of liberating itself from the new order. . . . the more active elements of the population are beginning to leave for the mountains and forests, to form armed units in opposition to local Soviet authorities.<sup>4</sup>

Initially organized into small, autonomous insurgent groups without a central command structure, the rebels (or *bandits*, according to official parlance) began to carry out raids on local Soviet outposts, with the aims of either paralyzing state-building efforts or “retribution against select government officials for previous instances of repression.”<sup>5</sup>

Gradually, the rebels’ tactics and target selection began to indicate increasingly sophisticated levels of coordination and planning, and unified military-political objectives. The focus of rebel activity turned to the seizure of strategic choke points and fortified areas, and the destruction of Soviet logistical hubs, railroad infrastructure and supply dumps. While carrying out their raids, “the bandits killed mainly newly-arrived Soviet personnel and did not touch [the locals], as long as the latter remained neutral.”<sup>6</sup>

As the violence continued to unfold, its locus shifted from the plains of Stavropol’ and Kuban’ to the rugged, forested terrain of Chechnya, Ingushetia and Dagestan, where a group of charismatic clerics – most notably Nazhmutdin Gotsinsky, Ali Gadzhi Akushinskiy and Imam Shamil’s grandson Said-Bek – led a series of pan-Islamic uprisings with the goal of establishing a regional monarchy based on Sharia law. By 1923, some of these movements had succeeded in establishing elements of a parallel state, as in the vicinity of Dargo on the Chechen-Dagestani border, where Soviet governing structures effectively co-existed with ones loyal to Sheikh Akushinskiy (Galitsky, 2009, 41). Sharia courts oversaw almost all legal proceed-

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<sup>4</sup>RGVA, F. 25896, Op. 9, D. 436

<sup>5</sup>RGVA, F. 25896, Op. 9, D. 436

<sup>6</sup>RGVA, F. 25896, Op. 9, D. 436

ings. Clerical authority in Chechnya was so great, that “in 1923 it was impossible to organize a single public gathering without their approval” (Zhupikova, 2006, 124-125).

Over time, the violence in the region began to feed itself, blurring the distinction between an armed struggle for political objectives and the opportunistic exploitation of general unrest for economic gain. An epidemic of kidnappings, train robberies, and systematic looting of oil and livestock paralyzed the region’s political and economic development.<sup>7</sup>

Soviet efforts to pacify the region were problematic from the start. The Army was unable to effectively engage their highly mobile guerrilla opponents using conventional military strategy and tactics. As Soviet Army intelligence reported at the time, “Operations against the bandits forced regular units to outrun their logistics and rear services, and inevitably led to the Red Army’s reliance on self-supply at the expense of the local population, which provoked the latter’s exasperation and increased sympathies for the bandits.”<sup>8</sup>

More fundamental challenges stemmed from the Soviets’ considerable informational disadvantage. Government power in the region rested on “Soviet administrators dispatched from the center, unfamiliar with the region’s ethnic and cultural composition,” while the rebels “maintained a network of human intelligence assets, organized on the basis of a supportive population.”<sup>9</sup> This intelligence asymmetry complicated efforts to locate and identify the government’s opponents. As one intelligence report notes,

combat in populated areas required fully knowledgeable and reliable guides, but in Chechnya’s national circumstances one could not even rely on [Communist] Party members. Local guides confused unit operations, perhaps even knowingly. . . . Civilians on the street would conceal the movements of insurgents, who were impossible to distin-

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<sup>7</sup>RGVA, F. 25896, Op. 9, D. 454, L. 1.

<sup>8</sup>RGVA, F. 25896, Op. 9, D. 436

<sup>9</sup>RGVA, F. 25896, Op. 9, D. 436

guish from the peaceful population.<sup>10</sup>

Rebel infiltration of local political and security organs was widespread. Pre-revolutionary elites received seats on rural executive committees (*ispolkom*), while official interpreters would intentionally mis-translate Soviet announcements to inflame public discontent.<sup>11</sup>

The government's general inability to distinguish rebels from civilians necessitated a reliance on indiscriminate force, particularly the heavy use of artillery, light armor, and air power. Red Army intelligence readily acknowledged the futility of these methods:

The liquidation of banditism cannot be limited exclusively to the use of force, since this will first of all incite even greater antipathy among the population and induce a larger flow of reinforcements to the bands. . . . This will, at best, lead to either the bands' temporary dispersion, or to an even greater degree of hesitation and second-guessing in the conduct of military operations.<sup>12</sup>

This choice – between escalation at the expense of alienating the population, or restraint at the expense of ceding the military initiative – illustrates the scope of the problem Soviet commanders faced. Collateral damage was all but unavoidable given the poor quality of intelligence. Yet the non-use of force posed an even greater challenge to the integrity of the Soviet state, leaving a perpetual power and security vacuum in the North Caucasus. Ultimately, the Soviets chose a third way. Rather than to minimize grievances, they opted to minimize opportunities for the aggrieved to mobilize.

Among the legacies of the Russian Civil War in the North Caucasus was a general abundance of light arms. The region had historically been among the most heavily-armed in the Russian Empire. As a result of a nearly century-long confrontation with Tsarist forces, intergenerational blood feuds and constant territorial disputes with Cossacks and rival tribes, the local population had come to rely

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<sup>10</sup>RGVA, F. 25896, Op. 9, D. 346, L. 230.

<sup>11</sup>TsGA RO, F. 3758, Op. 1, D. 164, L. 96; Zhupikova (2006, 105).

<sup>12</sup>RGVA, F. 25896, Op. 9, D. 436



on self-defense to protect life and property, resolve conflicts and maintain local order. Even before Denikin's army left the region in June 1919, Georgian revolutionary Sergo Ordzhonikidze reported to the Council of People's Commissars, "There is hardly a single highlander who does not have a [7.62 mm Mosin] rifle with 150-200 rounds" (Ordzhonikidze, 1956, 89). Archival evidence suggests that both Party leadership and Red Army intelligence saw the heavily armed civilian population as a fundamental challenge to the government's monopoly on the legitimate use of force and a key factor facilitating the rebellion.<sup>13</sup>

Early Bolshevik conceptions of sovereignty and coercive power foreshadowed those articulated by Charles Tilly some 60 years later: the defining feature of a revolutionary situation is the potential of more than one polity to control significant coercive resources and make competing, mutually exclusive claims to power. As Trotsky wrote, "To overcome the 'anarchy' of this twofold sovereignty becomes at every step the task of the revolution – or the counter-revolution" (Trotsky, 1965, 224). The answer to the Soviets' dual sovereignty problem became forcible disarmament.

Disarmament operations typically proceeded as follows. Under the guise of "training exercises," regular army units would establish a cordon around a designated populated place, cutting off residents' communications with adjacent areas.<sup>14</sup> Officers from the People's Commissariat of Internal Affairs (NKVD, the secret police) would then address the population and issue an ultimatum to surrender all private weapons within two hours. When the ultimatum expired, regular forces would open a ten-minute indiscriminate artillery barrage on the village, usually at harassment strength, sometimes accompanied by air strikes. The commanding officer would then issue a new ultimatum with a shorter time window, after which NKVD paramilitary troops would initiate a house-to-house search and seizure. Archival evidence suggests that the the population's typical response ranged from passive to openly defiant.<sup>15</sup> Of 242 villages disarmed in 1925, 101 were sub-

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<sup>13</sup>RGVA, F. 25896, Op. 9, D. 454, L. 1.

<sup>14</sup>RGVA, F. 25896, Op. 9, D. 454, L. 75.

<sup>15</sup>RGVA, F. 25896, Op. 9, D. 454, L. 75.

jected to artillery strikes and 16 to aerial bombardment.<sup>16</sup>

The operational requirements of forcible disarmament were significant. The most ambitious of these operations – like those in late 1923 and 1925 – required several months of planning and the temporary deployment of over 7,000 personnel (Gakaev, 1997, Galitsky, 2009). These were large-scale combined-arms operations, requiring coordination and interoperability between multiple agencies and military services. Although more limited operations, in which the seizure of private arms accompanied routine patrols and sweeps, also took place, on the whole disarmament was a significant departure from conventional counterinsurgency warfare (Kulinchenko, 2011).

This difference in scale and resources underscores the obvious point that the timing and location of disarmament were not chosen randomly as in a controlled experiment, but were driven by commanders' assessments of security situations in various localities, and expectations of the relative likelihood of success. Historians are divided on the nature of this selection process, as well as the operational impact of disarmament. Zhupikova (1998) argues that disarmament was attempted mostly in "easy cases," where violence was already on the decline, the population was war-weary and Soviet intelligence capabilities were relatively robust. Aptekar' (1995a,b) and Galitsky (2009) contend that the targets were mainly "hard cases," where the insurgency was deeply entrenched and Soviet authority was mostly absent. This latter group has generally considered disarmament to have been decisive to the region's pacification. Scholars in the first camp are more skeptical.

The preceding narrative appears to be more supportive of the "hard case" position. Soviet intelligence in Chechnya and neighboring mountainous areas was dismal, particularly compared to majority-Russian and Cossack territories to the north, where insurgency was also rife but disarmament was not used. Conventional military operations proved extremely costly to civilians, and civilians responded to these costs by supporting the rebel side. The Soviets were highly dependent on external manpower and resources in their attempts to govern this region, yet these additional assets did not improve Moscow's informational grasp

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<sup>16</sup>RGVA, F. 25896, Op. 9, D. 286, L. 223.

of local dynamics. Given these conditions, we should expect powerful incentives for forcible disarmament. Do the declassified statistical data once used by Soviet commanders tell the same story?

## 8.2 DATA AND RESEARCH DESIGN

To facilitate a more fine-grained analysis of why the Soviets used disarmament and whether these efforts were successful, I introduce a new dataset of rebel and government military activity in the North Caucasus in the 1920's. These data are from the declassified archives of the USSR's North Caucasus Military District Intelligence Directorate.<sup>17</sup> They include geo-coded event-level information on 795 rebel raids, 1477 counterinsurgency operations and 272 instances of disarmament in Stavropol and Terskaya provinces, Dagestan and the administrative subjects of the Mountain Autonomous Soviet Socialist Republic, including the Karachay, Kabardin, Balkar, Digorskiy, Ossetian, Ingush, Sunzhenskiy-Cossack and Chechen districts.<sup>18</sup>

The maps in Figure 8.2.1 show the geographic distribution of these events. The time plot in Figure 8.2.2a shows variation over time. I combined this archival information with census data on local demographics (Central Statistical Directorate of USSR, 1928-1929), official lists of administrative units (People's Commissariat of Internal Affairs (NKVD), 1921), georeferenced maps of historical patterns of ethnic settlement in the region (Tsitsuev, 2007), and a global digital elevation model for characteristics of the local terrain (U.S. Geological Survey, 1996).

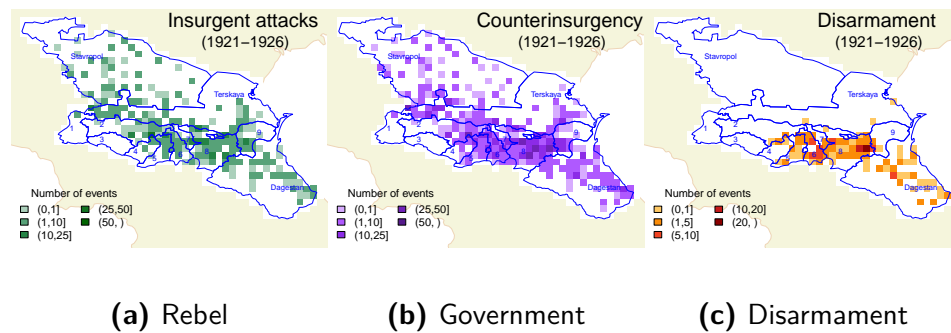
The unit of analysis is a government *counterinsurgency operation*, which I grouped into two types: (1) disarmament, involving a large-scale cordon-and-search operation to seize all privately-owned light and heavy arms, ammunition and explosives, or (2) conventional offensive operations like movements to contact, raids,

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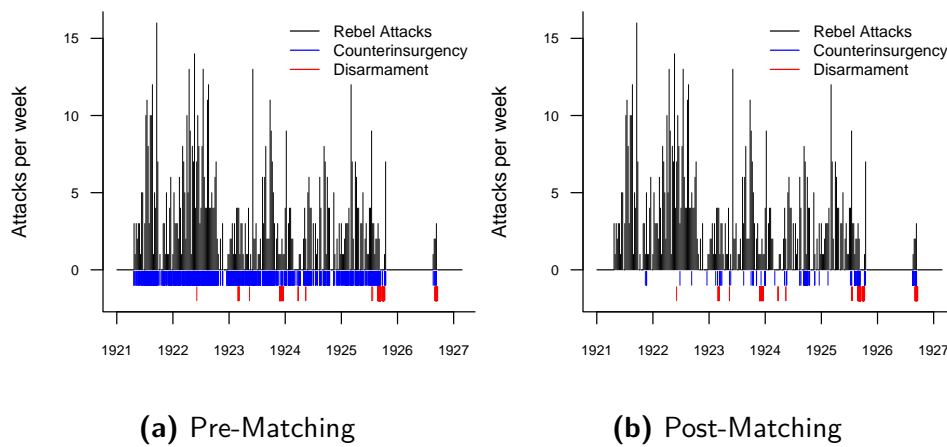
<sup>17</sup>Primary data sources include incident reports and chronologies catalogued in: RGVA, F. 25896 Op. 9 D. 269, 270, 273, 275, 276, 286, 287, 313, 319, 325, 346, 436, 454, 456.

<sup>18</sup>All events were geocoded at the village/municipality level.

**Figure 8.2.1:** GEOGRAPHICAL DISTRIBUTION OF VIOLENCE. 20km×20km grid shown. Mountain Republic districts: (1) Karachay, (2) Kabardin, (3) Balkar, (4) Digorskiy, (5) Ossetian, (6) Ingush, (7) Sunzhenkskiy, (8) Chechenskiy. Dagestan districts: (9) Hasavyurt.



**Figure 8.2.2:** TEMPORAL DISTRIBUTION OF VIOLENCE.



ambushes, pursuits, infiltrations, detentions and patrols. Operations in the first category comprise the study's *treatment group*. Operations in the second category comprise the study's *comparison group*. The main empirical task is to identify the extent to which changes in levels of rebel violence following each type of operation differed across and within these two groups.

Like all observational data, these archival records suffer from the problem of nonrandom treatment assignment – the Soviets employed disarmament in response to unfolding strategic circumstances rather than a need to achieve causal identification. In the context of a laboratory or field experiment, random assignment to treatment ensures that there are no systematic pre-existing differences between study groups. In military practice, random assignment is usually both infeasible and undesirable – due to ethical concerns as well as the high stakes of failure.

Unlike many observational event datasets used in political science, however, these data have an unusually attractive feature: they represent the real-time information used by Soviet commanders over the full course of the conflict. Insofar as Soviet decisions to use disarmament relied on an assessment of local capabilities, environment and unfolding events, the information used to make such decisions can be directly incorporated into empirical models of treatment selection.

The quantity of interest is the effect of disarmament on subsequent levels of rebel violence in a given locality, or the average difference between two potential outcomes: one where disarmament was used, and one where only conventional tactics were used.<sup>19</sup> To identify this effect, I use matching – a two-step procedure involving, first, the selection of “balanced” subsamples of treatment and comparison cases and, second, the analysis of differences in outcomes across these two groups (Ho et al., 2007).<sup>20</sup> To facilitate this analysis, I divided the study region

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<sup>19</sup>Because the counterfactual (“what would have happened if disarmament wasn’t used”) is unobserved in any given treatment case, I arrive at this quantity indirectly by comparing each post-disarmament outcome with an outcome from a comparison case that most closely matches the treated one, and averaging this figure across all pairs – the sample average treatment effect on the treated or SATT.

<sup>20</sup>The subsamples of treated and comparison units are chosen with the goal of minimizing differences in the joint distribution of observed pre-treatment covariates in the matched groups. As in a randomized experiment, the matches are selected without reference to any outcome data,

into a  $5\text{km} \times 5\text{km}$  spatial grid, and recorded the number of rebel attacks observed in each grid cell (hereafter referred to as “locality”) in the 15 weeks before and after the government operation. I selected this resolution based on archival accounts of the time needed to plan and implement a disarmament operation, as well as the need to capture both the immediate and longer-term effects of these operations on rebel activity. In the appendix, I provide sensitivity analyses at alternative spatio-temporal scales.

As the theoretical discussion suggests, the circumstances in which government forces are likely to employ disarmament may be qualitatively different from those where they do not. In particular, disarmament may be preferable to conventional counterinsurgency where a government’s selectivity is poor, and rebel resources are relatively high (Corollary 4). To account for this selection process, I seek to achieve balance on a variety of pre-treatment covariates. Conditioning on these variables should reduce underlying disparities between the treated and comparison groups, so that any subsequent variation in the outcome (i.e. rebel violence) can be more plausibly attributed to the use or non-use of disarmament.

**SELECTIVITY.** If disarmament is more likely where the government’s information problems are most severe (Corollary 4), the treatment group should include a higher proportion of cases where demographic conditions preclude the establishment of local informant networks, and the physical environment precludes surveillance and reconnaissance.

- *Russian* is a binary indicator of whether the dominant ethnic group in a locality is ethnically Russian. I expect government monitoring capacity to be more robust in a population of co-ethnics.
- *Chechen* is a binary indicator of whether the dominant ethnic group in a locality is ethnically Chechen. I expect Soviet monitoring capacity to be more limited in such areas.
- *Cossack* is a binary indicator of whether a locality is situated on historically

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so as to avoid bias in selecting a sample that achieves a desired result (Stuart and Rubin, 2008).

Cossack lands. I expect Soviet intelligence assets to be more robust in such areas due to the recent operational legacy of the Terek Cossack population's forcible resettlement in 1920.

- *Diversity* is the number of different ethno-linguistic groups residing within a given locality. Where diversity is high, the government may have more opportunities to recruit local collaborators through divide-and-rule strategies.
- *Percent Urban* is the proportion of a locality's population that resides in a settlement with least 3,000 residents, of whom no more than 15 percent are employed in the agricultural sector. I expect government monitoring capacity to be higher in urban areas due to a relatively pervasive security and law enforcement presence.
- *Population* is the natural logarithm of the total number of people residing in the locality's district (higher-order administrative unit). In sparsely-populated areas, the government's absolute presence is lower and rebels have more opportunities to establish sanctuaries.
- *Females per 1,000 males* reflects the sex ratio in a given locality. The supply of potential local recruits for a rebellion is higher where the sexual imbalance favors men (Hudson and den Boer, 2004), and conventional counterinsurgency measures can result in greater flows of active support to the opposition.
- *Elevation*, in meters above sea level, measures the altitude of each locality. By providing concealment from government surveillance, high-elevation areas are conducive to the establishment of rebel sanctuaries.
- *Slope*, in degrees, is an alternative measure of mountainous terrain. Where slope is high, rebels are more likely to establish base camps.

EXTERNAL SUPPORT. Because incentives to disarm depend on the balance of external support, we should expect the treatment group to include more cases where logistical constraints preclude government power projection.

- *Distance to rail* is the distance, in meters, from the center of a locality to the nearest railroad line. Where this distance is great, the government's power projection capability is lower.
- *Border* is an integer indicating the number of inter-provincial or inter-district border crossings contained within a locality. As we saw in the previous chapter, border crossings tend to attract a higher concentration of government checkpoints and patrols than inland areas, due to concerns over illicit cross-border trade and population movements.

DYNAMICS OF VIOLENCE. To ensure that the treatment group does not include a disproportionate share of "easy cases" where little resistance to disarmament was expected or "hard cases" where disarmament was seen as most urgent, balance is necessary on pre-existing trends in rebel and government violence.

- *Prior rebel activity* is the number of rebel attacks observed in a locality in the  $\Delta t$  weeks preceding a counterinsurgency operation.
- *Prior government activity* is the number of offensive government operations observed in a locality in the preceding  $\Delta t$  weeks.
- *Prior disarmament* is the number of government attempts to implement disarmament in a locality in the preceding  $\Delta t$  weeks.

SPACE AND TIME. Because key government capabilities like intelligence gathering and power projection may vary over time and space in otherwise unobserved ways, it is essential to ensure that treatment-comparison pairs include observations from the same general vicinity and period of the conflict.

- *Latitude and longitude* are the geographic coordinates of a locality.
- *Year and month* of the counterinsurgency operation.

I used an ensemble of matching solutions to minimize imbalance across these covariates. The optimal solution was genetic matching with a nested propensity score



model, which achieved the most accurate predictions of treatment assignment, superior goodness of fit, while maximizing balance at minimal data loss.<sup>21</sup> This solution produced 238 matched pairs. For brevity, I present only the genetic matching results below, but provide technical details and a full account of other matching results in Appendix II 2.3.

### 8.3 WHEN AND WHERE DID DISARMAMENT OCCUR?

The theoretical model predicts that incentives for disarmament are strongest where the government has difficulty identifying and selectively punishing her opponents (Corollary 4). Soviet archival data lend strong support to this claim. Figure 8.3.1 reports a summary of group means pre- and post-matching for all covariates, along with standardized bias and bootstrapped  $p$ -values from two-sample Kolmogorov-Smirnov tests.<sup>22</sup> As anticipated, treatment and comparison groups in the original data differed systematically on almost all pre-treatment variables of relevance to such information problems.

The Soviets were much more likely to use disarmament where demographic conditions complicated intelligence collection efforts, and coercion was likely to cause heavy collateral damage. Compared to non-treated units, disarmed localities were also more ethnically homogeneous and home to relatively few Russian co-ethnics. Chechen areas accounted for 18 percent of all conventional operations, but 45 percent of all disarmament efforts. For Russian areas, these figures were almost the opposite: 42 percent conventional and 4 percent disarmament. Historically Cossack lands – where Soviet intelligence capacity was slightly more sophisticated than in indigenous mountain areas – accounted for a similarly small, though not entirely insignificant, share of disarmament operations. Disarmament

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<sup>21</sup>The propensity score model used was  $\{\text{Disarmament} = \text{logit}^{-1}[\beta_0 + \beta_1\text{Russian} + \beta_2\text{Percent Urban} + \beta_3\log(\text{Population}) + \beta_4\text{Females per 1,000 Males} + \beta_5\text{Border} + \beta_6\text{Prior rebel activity} + \beta_7\text{Prior Disarmament} + \beta_8\text{Year} + f(\text{Month}) + f(\text{Long, Lat}) + \varepsilon]\}$ , where  $f()$  is a thin-plate spline.

<sup>22</sup>Standardized bias is defined as  $\frac{\bar{x}_t^T - \bar{x}_k^C}{\sigma(x_t^T)}$ .

was also far more common in rural areas with a sparse population and a relative abundance of males, than in densely-populated urban areas where Soviet security presence was more pervasive.

To a far greater degree than other forms of counterinsurgency, disarmament was likely where logistical realities limited Soviet access to reinforcements and supplies. A typical disarmed locality was almost twice as far from the nearest railroad as the average non-treated case. Rugged terrain was not a strong predictor of disarmament, although such operations did occur at a slightly higher altitude and steeper slope.

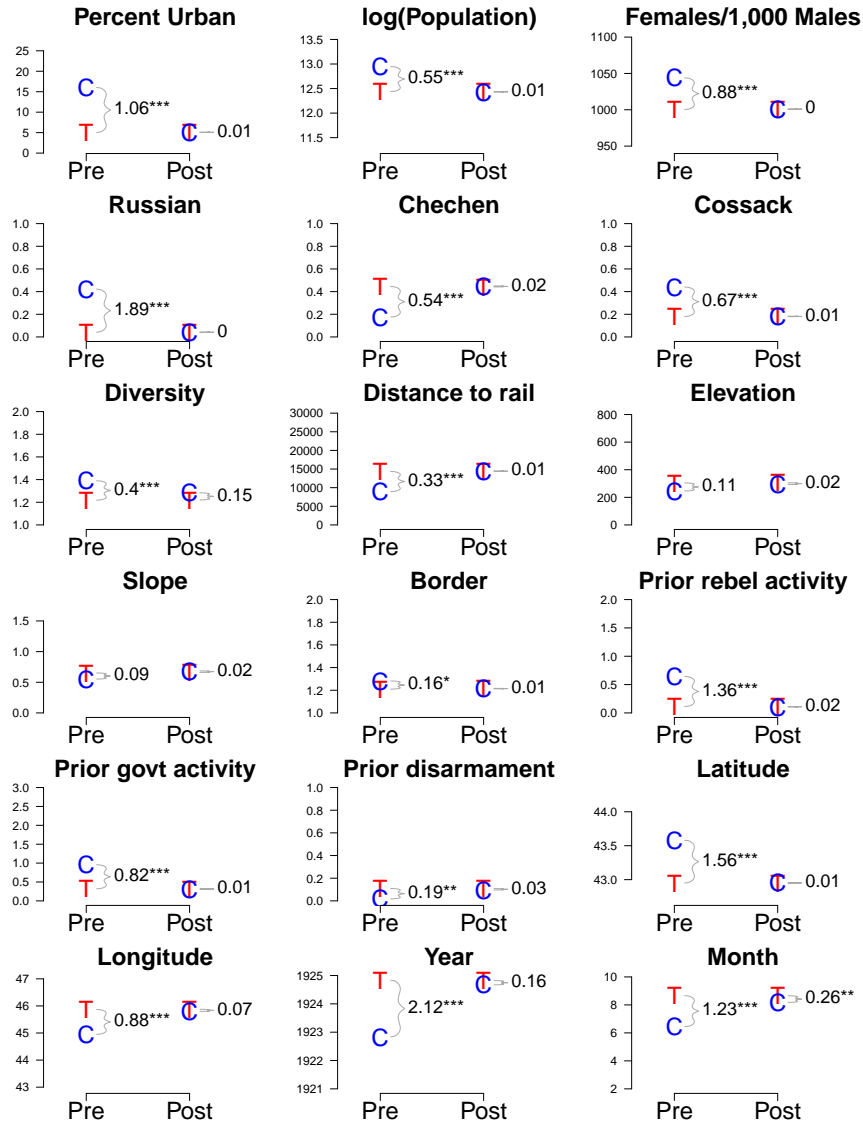
Finally, the geographic distribution of disarmament was concentrated to the south and east of most conventional operations. These efforts were also conducted later in the conflict (late 1924, compared to late 1922), and slightly later in the calendar year (mid-August compared to mid-June).

How effective was matching in reducing these differences? As Figure 8.3.1 suggests, the matched sample achieves a substantial improvement in balance. In the original data, differences in means were substantively large and statistically significant for all variables save elevation and slope, with an average standardized bias of 0.824. Post-matching, average standardized bias dropped to 0.046 – an improvement of 94 percent – and differences in means became statistically insignificant for almost all covariates.<sup>23</sup>

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<sup>23</sup>The only variable for which a significant difference remained was the month of the operation. On average, disarmament operations took place in mid to late August (8.65), while conventional operations took place slightly earlier that month (8.18). Since the main objective of close temporal matching on months is to reduce variance in climatic conditions, it is doubtful that an average difference of two-three weeks is substantively large enough to induce a heavy selection bias. Nonetheless, the limitations of the data necessitate that this remaining imbalance be dealt with by statistical modeling. Thanks to the much-improved overall balance, however, the dependence of empirical results on modeling assumptions is greatly reduced.

**Figure 8.3.1:** BALANCE SUMMARY STATISTICS. *T* and *C* are means for treatment and comparison groups, pre- and post-matching. Numbers next to curly brackets are standardized differences in means. Asterisks reflect bootstrapped *p*-values from Kolmogorov-Smirnov tests ( $***p < .001$ ,  $**p < .01$ ,  $*p < .05$ ).



## 8.4 DID DISARMAMENT WORK?

Did disarmament help reduce rebel activity in the North Caucasus? Archival evidence indicates that, yes, it did. Compared to conventional offensive counterinsurgency operations, disarmament had a consistently suppressive effect on rebel violence. The size of this effect was more modest than conventional wisdom suggests, but its existence is difficult to dispute. This result holds on the local and regional levels, short-term and long-term, under a variety of matching estimators.

I present these findings in four stages. First, I report the study's central quantity of interest – the average effect of disarmament in cases where it was most likely to be used or, formally, the sample average treatment effect on the treated (SATT). Second, I report a difference-in-difference estimate of the disarmament effect, which enables us to examine its impact both within the treatment group and relative to the comparison group. Third, I offer a model-based estimate of the disarmament effect, to screen out the influence of additional confounding factors. Fourth, I report estimates of the disarmament effect using larger and smaller treatment windows, different geographical scales, and alternative matching designs.

Localities where a disarmament operation took place saw an average reduction in rebel violence of  $-.24$  (95% CI:  $-.45, -.03$ ), compared to similar localities where these operations did not occur. By way of reference, the average number of attacks across all localities in the 15 week treatment window following a government operation was  $.16: .03$  in the treatment group (maximum of 3 attacks) and  $.28$  in the comparison group (maximum of 5 attacks). The use of disarmament reduced the average intensity of violence by 88 percent.

The impact of disarmament is more compelling still if one compares its “before and after” picture with that of conventional counterinsurgency in the North Caucasus. As shown in the difference-in-difference results in Table 8.4.1, disarmed localities saw a 70 percent drop in rebel attacks, from an average of  $.11$  in the pretreatment window to  $.03$  in the post-treatment window. Meanwhile, localities in the comparison group recorded a 168 percent *increase* in rebel violence, from  $.10$  pretreatment to  $.28$  post-treatment. The resulting difference-in-difference is  $-.25$ ,

or a 238 percent reduction in the average intensity of rebel violence.

This result is not surprising in light of the historical narrative presented earlier. As SKVO intelligence reports confirm, the Soviets had great difficulty using coercive counterinsurgency methods in Chechnya and neighboring areas without inflicting great costs on the local population and increasing support for the rebellion. Absent disarmament, this additional supply of recruits translated into a greater rebel capacity to generate political violence.

**Table 8.4.1:** DIFFERENCE-IN-DIFFERENCE RESULTS.

Quantity	No disarmament (C)	Disarmament (T)	Diff-in-Diff
$E[Y_{t=0}]$	0.10	0.11	0.01
$E[Y_{t=1}]$	0.28	0.03	-0.25
$E[Y_{t=1} - Y_{t=0}]$	0.18	-0.08	-0.25
Percent change	+168%	-70.37%	-238.37%

While matching screened out much of the pre-treatment imbalance in the data, we may worry that the reported disarmament effect is driven, at least in part, by confounding variables not formally considered in the estimation of the SATT or difference-in-difference. To address these concerns, I present two sets of additional results: the SATT estimated with a bivariate linear regression of post-treatment violence on disarmament, and a full model that controls for all covariates included in the best-fitting propensity score specification used as part of the genetic matching algorithm.<sup>24</sup> Although the inclusion of control variables reduces the size of the disarmament effect slightly, from -.25 (CI: -.33, -.16) to -.19 (CI: -.28, -.11), the direction and statistical significance of this estimate remain unchanged.<sup>25</sup> This result is robust to model specifications with alternative distributional assumptions,

<sup>24</sup>These variables include Russian, Percent Urban, log(Population), Females per 1,000 Males, Border, Prior rebel activity, Prior Disarmament and Year, as well as nonparametric spline of the Month of the operation and spatial spline of each locality's geographic coordinates.

<sup>25</sup>Confidence intervals based on HAC robust standard errors. The AIC statistics for the two models are 652.32 and 530.04, respectively, suggesting that the full model is a better overall fit to the data.

including Poisson and Negative Binomial, as well as logistic regression with a binary coding of the dependent variable (i.e. some violence vs. no violence).<sup>26</sup>

#### 8.4.1 ROBUSTNESS CHECKS

The results presented thus far are based on a single matching solution, which – of the options considered – produced the greatest improvement in balance with the least loss of data. One may wonder, however, whether the negative disarmament effect can still be identified at different levels of aggregation, or with different matching designs.

**Figure 8.4.1:** DISARMAMENT EFFECT OVER TIME. Genetic matching with propensity scores. Geographic scale: 5km×5km grid.

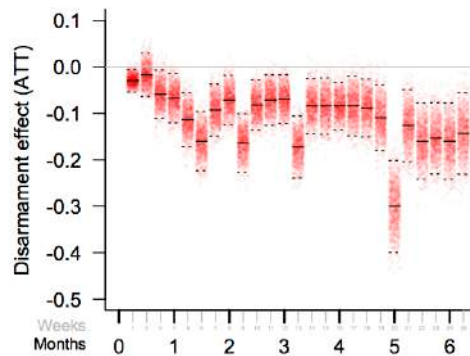


Figure 8.4.1 shows the SATT at the same level of spatial aggregation as before (5km×5km), but with treatment windows of varying sizes, from 1 week to 6 months. The red dots represent 1,000 Monte Carlo simulations of the SATT, estimated at each treatment window size. Solid lines are the means of the resulting distributions and dashed lines are 95 percent confidence intervals. The SATT is consistently negative at every treatment window size, and statistically significant in all cases except  $\Delta t = 2$  weeks. This ambiguous immediate-term effect probably re-

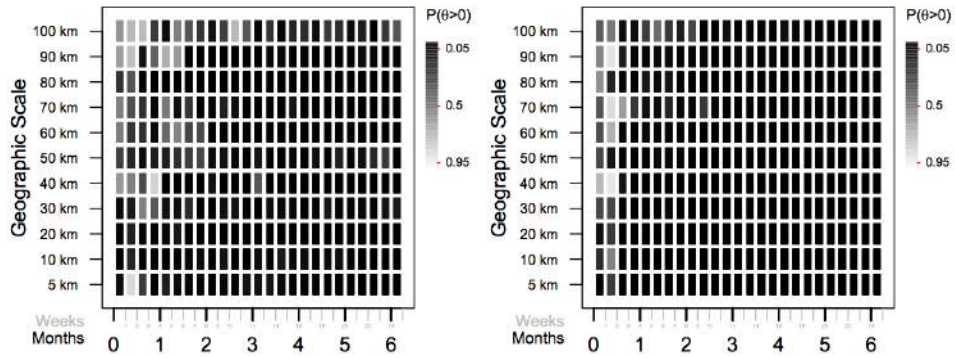
<sup>26</sup>Due to space constraints, I report these additional results in a supplemental appendix.

flects a temporary spike in retaliatory attacks following disarmament. In all other cases, disarmament has a consistent suppressive impact on violence.

The same general result holds when one examines the SATT at different spatial scales, and with different matching designs. Figure 8.4.2 shows four grids – one for each class of matching solutions – with the level of temporal aggregation on the horizontal axis and the geographic scale (i.e. cell size) on the vertical axis. The shadings correspond to the uncertainty of the SATT estimate – formally, the proportion of 1,000 random draws from the SATT’s posterior distribution that are greater than zero. Darker shades indicate that most of the distribution is negative, while lighter shades indicate the opposite.

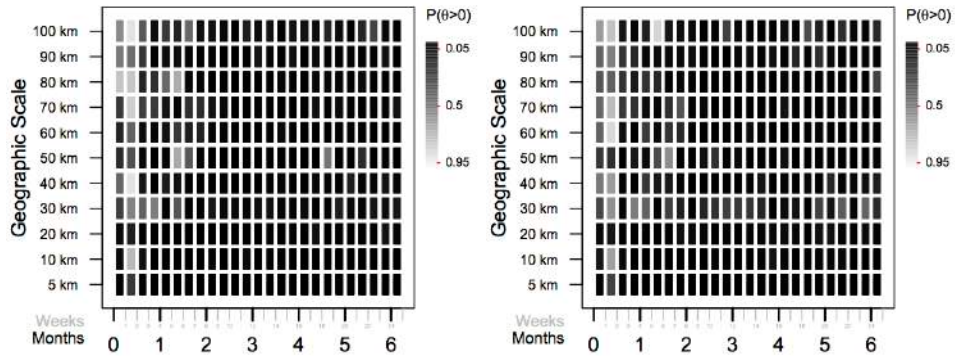
In the 1,100 matching solutions presented here, the disarmament effect (SATT point estimate) was negative 97 percent of the time. This estimate was negative and statistically significant in 65 percent of all cases, negative but insignificant 32 percent of the time, positive and insignificant 3.4 percent of the time. In not a single instance was the SATT estimate both positive and statistically significant. Uncertainty was greatest in the immediate aftermath of disarmament, within treatment windows of one to six weeks. Yet there and everywhere else, the effect of disarmament was usually suppressive, sometimes ambiguous, but never counter-productive.

**Figure 8.4.2:** UNCERTAINTY OF MATCHING ESTIMATORS. Shadings correspond to the quantity  $P(\theta > 0)$ , or the proportion of simulated SATTs greater than zero.



(a) Propensity score

(b) Mahalanobis distance



(c) Genetic matching

(d) Genetic matching with p.s.



## 8.5 CONCLUSION

Can forcible disarmament suppress rebellion? The Soviet experience appears to suggest that it can. At the very least, forcible disarmament was more effective in taming the 1920's North Caucasus insurgency than other methods in the government's arsenal. Forcible disarmament was the Soviet strategy of choice when and where more conventional counterinsurgency approaches fell short – where the government's information was deficient and it was difficult to deter civilians from supporting the opposition. In such circumstances, disarmament promised to at least limit the coercive resources available to potential rebels. If rebel capacity to sustain a military challenge could be made sufficiently low, the government could achieve pacification despite a deeply unfavorable operating environment.

From a policy standpoint, the Soviet success should be interpreted with some caution. The mere consideration of such methods is evidence of fundamental weaknesses in a government's local standing. Forcible disarmament should not be necessary where a population does not rely on self-defense, and where it sees the government as a credible provider of security. Nor is such an approach needed where the prospect of a government monopoly on the use of force is not a source of trepidation. Even in the context of an ongoing armed conflict, forcible disarmament is – at best – a tool of last resort. Where local conditions were more conducive to intelligence gathering and selective violence, the Soviets were less likely to use it.

While disarmament achieved discernible security gains in the Soviet case, one may ask whether a weaker incumbent with similar intelligence challenges could have reached the same result. Soviet security forces in the North Caucasus during this period were something of a “blind colossus” – a combatant with a dismal understanding of the local environment, but a great capacity for brute force. The USSR – even in her fledgling upstart years – could offset her dependence on local resources with labor and capital supplied from elsewhere, deploying reinforcements and reserves from other theaters, drawing on a revenue base outside the conflict zone and the availability of loyalist cadres ready to take on the role of local administrators. Although these additional sources of support did little on their

own to improve fundamental weaknesses in intelligence, they enabled the Soviets to plan and execute complex and ambitious operations, while partially insulating themselves from the whims of local support. This experience may be difficult to replicate if deficiencies in intelligence are not offset by fundamental strengths in other areas.

That said, there was little about the North Caucasus conflict itself that could be considered truly unique or idiosyncratic. The insurrection that gripped the region in the 1920's was typical of the low intensity violence that often occurs in the wake of a larger civil war. In the context of emerging anarchy, an abundance of privately owned arms becomes simultaneously a source of security for those who possess them, and an obstacle to actors seeking to fill the power vacuum with a centralized system of law and order. The fact that forcible disarmament – at least under some conditions – can help accelerate this consolidation of coercive power may explain why this practice has not disappeared along with the Soviet Union.

*Mark! where his carnage and his conquests cease,  
He makes a solitude and calls it – peace!*

Lord Byron, *Bride of Abydos*. Canto II. St. 20.

# 9

## Resettlement in Soviet Ukraine,

1943-1955

Between 1920 and 1952, the Soviet Union forcibly relocated 11,890,000 of its own citizens (Pobol' and Polyak, 2005, 12).<sup>1</sup> Most were residents of the USSR's western borderlands and North Caucasus, where central power was weak and an armed insurrection was either ongoing or anticipated. Although its scale varies widely, resettlement is a regular feature of counterinsurgency warfare. Of 307 counterinsurgency campaigns since the Napoleonic Era, incumbents used resettlement in at least 90.<sup>2</sup> Resettlement flourished after World War II, implemented by democratic and autocratic actors alike. British campaigns in Kenya and Malaya, the Algerian

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<sup>1</sup>Parts of this chapter previously appeared in Zhukov (2014).

<sup>2</sup>Sample based on Lyall and Wilson (2009)'s dataset of counterinsurgency campaigns (full enumeration in Table 9.5.1).

War of Independence, the U.S.-Vietnamese War, and more recent violence in the Balkans, Mali and southeastern Turkey have all seen the systematic resettlement of civilians.

Despite the persistence of this practice and the sheer number of people it affects, resettlement has mostly eluded rigorous study. Part of the problem is theoretical. The growing literature on conflict-induced displacement tends to view forced displacement either as a by-product of war (Morrison and May, 1994, Schmeidl, 1997, Weiner, 1992) or as an outcome of civilian flight (Adhikari, 2012, Davenport et al., 2003, Moore and Shellman, 2004). As Steele (2007, 2) notes, “scholars have focused primarily on the conditions that lead civilians to flee their communities, as opposed to when and why armed groups displace.” A no lesser challenge is empirical. Until recently, micro-level data on these sensitive operations have been difficult to obtain, impeding our ability to test theoretical models and draw meaningful inferences.

In the following chapter, I examine the strategic logic of resettlement using declassified data on 17,171 rebel attacks and government operations during Soviet counterinsurgency operations in Ukraine, 1943-1955. The Ukrainian nationalist uprising was the USSR’s most protracted and costly, resulting in the resettlement of over 266,000 individuals and the deaths of almost 130,000.<sup>3</sup> Consistent with the model’s predictions, I find that Soviet authorities used resettlement they had difficulty distinguishing individual rebels from civilians (Corollary 5). Where information problems limited coercive leverage, resettlement substantially reduced rebel activity (Proposition 6).

To evaluate the generalizability of these findings beyond the Soviet Union, I also provide a cross-national analysis of resettlement in dozens of armed conflicts since 1816. I find that resettlement was more likely during wars of occupation, and in conflict zones where relatively few languages were spoken – both environments in which information should have been harder for incumbents to collect. While counterinsurgency campaigns involving resettlement were slightly more likely to result in government victory than those which did not, this effect was not signifi-

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<sup>3</sup>GA SBU, F.13, D. 373, T. 103, L. 9-11.

cant. The causes and consequences of resettlement reside mostly at the local level.

## 9.1 HISTORY

The Organization of Ukrainian Nationalists (OUN) originated in Poland in 1929 as an activist group seeking the establishment of an independent Ukrainian national state. Following the Soviet annexation of eastern Poland in 1939 and the subsequent German invasion of the USSR in June 1941, the OUN began building a shadow political-administrative apparatus in north-western Ukraine and established a tenuous working relationship with occupying German authorities. The main local agents of the Soviet government during this period were Red Partisans, who launched their first raids in the region during the autumn of 1942.

Seeing the partisans as more dangerous political rivals than the Germans, nationalist forces loyal to Stepan Bandera (OUN-B) organized an armed militia (UPA) in late 1942, and began a campaign of violence and intimidation against Soviet agents. This confrontation escalated in 1943 as the Red Army pushed German forces to the west and began to reassert control over the restive region. Suffering heavy losses in conventional battles, the UPA dispersed into smaller units and adopted guerrilla tactics, using assassinations, ambushes and sabotage to paralyze Soviet state-building and reconstruction.

The UPA went to great lengths to make cooperation with Soviet authorities as costly as possible. UPA supreme commander Roman Shukhevych reportedly proclaimed, “[we] should destroy all those who recognize Soviet authority. Not intimidate but destroy. We should not be concerned that people might damn us for brutality” (Statiev, 2010, 131). Groups selected for punishment included “Komsomol [communist youth] members, Red Army officers, policemen... those who evade service in UPA, along with their families,” collectivization activists, peasants who conceded to Soviet grain requisitions, and civilians who paid government duties, voted in local elections or were even slightly suspected of treason (Statiev 2010, 124, Dyukov et al.). The OUN-B routinely dumped the bodies of its victims in public places, with written warnings that other collaborators will suffer the same

fate (N.D., 1991).

The Soviet agency overseeing counterinsurgency efforts in the region – the People’s Commissariat of Internal Affairs (NKVD) – struggled to protect its informants and deter potential rebel supporters. Starved of reliable human intelligence, the NKVD adopted increasingly indiscriminate tactics. A January 1945 decree by the Politburo of the Ukrainian Communist Party (KP(b)U) describes the problem,

The informant network used to fight the OUN is small in numbers [and lacks] informants capable of penetrating the nationalist underground... There are completely unacceptable cases, where individual troops and NKVD officers, without discrimination, use repression – burn huts and kill citizens with absolutely no connection to the bandits, thereby discrediting themselves and organs of Soviet power.<sup>4</sup>

Archival records suggest that up to 75.7 percent of the 107,792 persons the NKVD killed or captured in 1944 were unarmed.<sup>5</sup> Such practices limited the NKVD’s ability to attract support in the early stages of the conflict. In the words of a UPA defector from Rivne oblast in January 1945, “it is safer to hang yourself than to turn yourself over to the Goshchanskiy district precinct of the NKVD.”<sup>6</sup> While civilians took heavy losses, the UPA’s underground network remained largely intact.

From the conflict’s outset, Soviet counterinsurgency efforts relied heavily on forcible resettlement, removing over 266,000 civilians between 1944 and 1955, and relocating them to distant regions of the USSR, primarily Siberia, the Far East and Central Asia.<sup>7</sup> NKVD and Party leadership in Moscow set the overall policy, while delegating operational details to district-level commanders with the NKVD and, after 1946, Ministry of Internal Affairs (MVD) and Ministry of State Secu-

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<sup>4</sup>TsDAGO, F. 1, op. 16, spr. 29, ark. 1-12.

<sup>5</sup>Between February and December 1944, the NKVD reported 57,405 “rebels” killed and 50,387 captured. Over the same period, it seized just 26,199 weapons, mostly light arms (Gogun, 2012, 271-272).

<sup>6</sup>TsDAGOU, F. 1, Op. 23, Spr. 1700, Ark. 69-78

<sup>7</sup>The top three destinations were Kemerovo Oblast (28 thousand), Khabarovsk Krai (26 thousand) and Krasnoyarsk Krai (14 thousand). GARF, F. 9479, Op. 1, D. 597, L. 178-180.

urity (MGB). NKVD chief Lavrentiy Beria described the intended targets of resettlement in March 1944 as “families of OUN members in hiding... and residents of populated places where a large proportion of male residents are [OUN] members.”<sup>8</sup>

The scale of each resettlement operation was often pre-determined by quota. Party officials in Moscow based these quotas on the level of rebel activity in the place of origin, and the carrying capacity and labor needs of the destination. Regional commanders then compiled district- and village-level lists of specific families subject to resettlement, usually exceeding the quotas by a comfortable margin. For instance, in September 1947 the Soviet Council of Ministers ordered the resettlement of 20,000 Ukrainian families to coal-producing regions in the Far East, and the MVD resettled 26,644.<sup>9</sup>

In practice, identifying guerrilla supporters was no simple task. During a series of operations in October 1947, known rebels’ families accounted for 32 to 59 percent of resettled households.<sup>10</sup> To fill quotas, local officials often expanded the definition of “supporter” to those who failed to report the presence of guerrillas, as well as a “reserve” of individuals unconnected to rebels, but who were nevertheless subject to resettlement if rebel families could not be located.<sup>11</sup> Many families – including ones with relatives serving in the Red Army – were resettled by mistake.<sup>12</sup> An engineer at a Drogobych power station confided in a co-worker (and MVD informant), that “For as long as I’ve lived, I’ve never seen a government like this. These aren’t people, but barbarians. Without discrimination, they grab children, women, the elderly and, despite the winter, send them to Siberia.”<sup>13</sup>

The overwhelming majority of persons displaced by the UPA conflict attained this status through forcible resettlement rather than civilian flight. Since 1932, Soviet citizens were bound to “permanent places of residence” through internal

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<sup>8</sup>GARF, F. R-9401, Op. 2, D. 64, L. 170-172.

<sup>9</sup>GARF, F. R-9401, Op. 2, D. 199, L. 232-236

<sup>10</sup>TsDAGO, F. 1, op. 23, spr. 4969, ark. 133-38; TsDAGO, F. 1, op. 23, spr. 4963, ark. 61-72.

<sup>11</sup>TsDAGO, F. 1, op. 23, spr. 4963, ark. 31-35.

<sup>12</sup>TsDAGO, F. 1, op. 23, spr. 4976, ark. 2-14.

<sup>13</sup>TsDAGO, F. 1, op. 23, spr. 4963, ark. 28-30.

passports and *propiski* – residency permits issued on a limited basis by local police. Individuals were forbidden from seeking housing, employment and education where they had no such permit, under penalty of a fine and up to two years in prison.<sup>14</sup> The criminalization of internal migration constrained civilians' options during conflict. As of 1948, 12,877 Ukrainians had attempted to escape their designated places of settlement, and all but 4,282 were subsequently caught by authorities.<sup>15</sup>

The conflict's external refugee population is more difficult to ascertain, but estimates of total Ukrainian emigration during and after World War II are in the range of 250,000-300,000. This number includes some 177,000 prisoners of war and "Ostarbeiters" (German slave workers) – mainly from Central and Eastern Ukraine – who managed to avoid repatriation in 1945-46 (Latysh 2011, 14; Voronovich and Samatyia 2004, 69). Even in the unlikely case that the remaining 73,000-123,000 emigres were *all* refugees of the fighting, resettlement would still account for 266,000 out of 343,000-393,000 internally and externally displaced persons – or 68-78 percent.

Was resettlement coercion or brute force? Formally, relocation was conditional on a family's behavior, which most often meant turning over a relative suspected of rebel activity. In practice, avoiding resettlement was difficult. A 1945 KP(b)U decree ordered that "The relatives of those who cannot be located are to be warned in writing that if the [missing] persons do not report to Soviet organs, they will be considered members of bands and their relatives will be subject to repression, up to and including execution by firing squad and deportation."<sup>16</sup> How a family might produce their missing member – particularly if the latter had gone underground, fled the country, or died – was not clear. An open appeal to the MGB by residents of Gorodenkovskiy district illustrated the latter's inability to meet such demands: "We are criminals in the eyes of Soviet authorities, but we have no ties to the ban-

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<sup>14</sup>"70 let sovetskogo passporta [70 years of the Soviet passport]," *Demoskop Weekly* (93-94), 16-31 December 2002.

<sup>15</sup>GARF, F. R-9401, Op. 1, D. 3144, L. 20.

<sup>16</sup>TsDAGO, F. 1, op. 16, spr. 29, ark. 1-12



dits and want to faithfully serve Soviet power.”<sup>17</sup>

The covert nature of most resettlement operations further limited civilian agency. Whereas deterrence requires a public statement of demands and an opportunity for compliance, the Soviets went to great lengths to prevent public and even internal knowledge of locations, dates and targets. MGB commanders kept their plans secret from district-level KP(b)U leadership until 5 days prior, local MGB personnel until 1-3 days prior, and local party activists until several hours prior to execution.<sup>18</sup> The operations generally commenced in the middle of the night, and a village’s general population learned of them two to three hours after their start.<sup>19</sup> This compartmentalization was driven by three factors: general norms of operational secrecy, fears of leaks by OUN moles and sympathizers (Burds, 1997), and concerns over potential civilian evasion. The quota system reinforced these incentives – each civilian who had a chance to comply with the government’s demands made the quota that much harder to fill.

Despite this indiscriminate nature, many scholars consider resettlement to have been among the most decisive tools in the Soviet counterinsurgency arsenal (Kudelia, 2013, Vladimirtsev and Kokurin, 2008). To date, however, there have been no quantitative empirical efforts to understand why the NKVD used resettlement in some cases but not in others, or to identify their effect on subsequent patterns of rebel activity. New data opportunities offer fresh insights into the strategic calculus behind these decisions.

## 9.2 DATA AND RESEARCH DESIGN

The following analysis employs a new dataset of declassified incident reports from central, regional and local organs of the NKVD and KP(b)U, and collections of OUN-B/UPA documents captured by the Soviets or independently released.<sup>20</sup>

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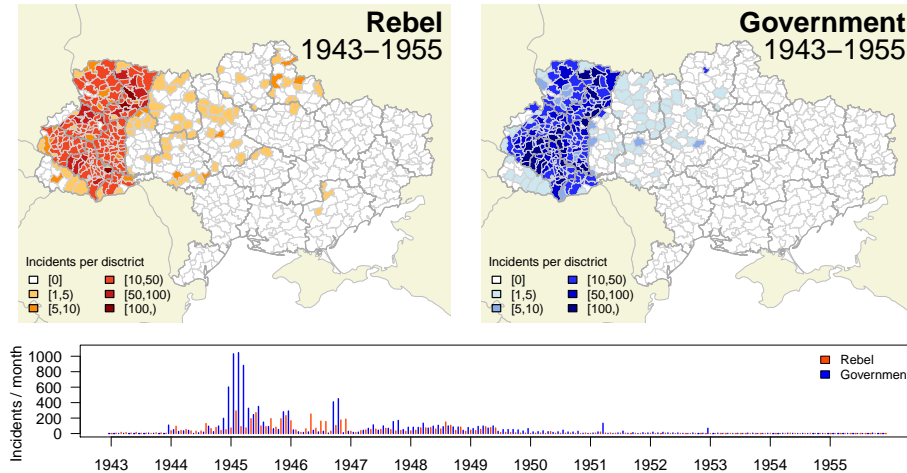
<sup>17</sup>TsDAGO, F. 1, op. 23, spr. 4963, ark. 61-72

<sup>18</sup>TsDAGO, F. 1, op. 23, spr. 4963, ark. 39-41.

<sup>19</sup>TsDAGO, F. 1, op. 23, spr. 4976, ark. 2-14.

<sup>20</sup>Key archival data sources include GARF R-9401, Op. 1-2; GARF, F. R-9478, Op. 1; GARF, F. R-9479, Op. 1; RGVA, F. 38650, Op. 1; TsDAGOU, F. 1, Op. 23.

**Figure 9.2.1:** REBELLION AND COUNTERINSURGENCY IN UKRAINE, 1943-1955.



The raw data include information on the locations, dates, casualties and tactics used in 17,171 violent events recorded between 1943 and 1955, including 6,190 rebel attacks and 10,981 government operations. 997 of the government events involved the resettlement of individuals and families to Siberia, the Far East and other distant provinces. The remaining government events were more conventional counterinsurgency operations like raids, sweeps, ambushes and pursuits.

These data represent the information commanders used in real time over the full course of the conflict, offering the most comprehensive and fine-grained empirical record of Soviet counterinsurgency yet fielded in political science, and a first-ever opportunity for multivariate statistical analysis at a disaggregated level.<sup>21</sup> Figure 9.2.1 shows the distribution of violence.

I aggregated the events to the level of a district (*rayon*)-week.<sup>22</sup> Rayons are second-tier administrative units, comprising an average of 22 villages, which are

<sup>21</sup>Previous work has relied on aggregate statistics and qualitative methods (Darden, 2011, Kudelia, 2013).

<sup>22</sup>I was able to geocode 94.93% of events to the village level, 97.96% to the district level and 98.65% to the oblast (province) level, using declassified Soviet military maps and annual geographic reference volumes from 1941-1955 (Appendix II.2.4).

politically relevant as the geographic units of organization of the NKVD's District Departments of Internal Affairs (ROVD). This level of aggregation yields 5,208 observations in which the Soviets used force at least once in a given district-week.

The data analysis proceeds in two stages. First, I employ a series of empirical models to ascertain why the Soviets used resettlement during some counterinsurgency operations but not others. The purpose of this analysis is to test Corollary 5, which holds that resettlement is most likely where the government is unable to selectively punish her opponents. Second, I use the results from the first set of analyses to identify the effect of resettlement on subsequent rebel activity. The purpose here is to test Proposition 6, which claims that, *ceteris paribus*, the use of resettlement should make government victory (i.e. a monopoly on the use of force) more likely. This proposition would find support in the data if – following the use of resettlement – we observe a decline in violent rebel activity over time.

The overall research design is one of matched sampling, which I use to preprocess the data and separate it into two groups.<sup>23</sup> The first is a treatment group of cases (i.e. district-week level observations) where the Soviets used resettlement. The second is a comparison group of otherwise very similar cases where counterinsurgency operations did not involve resettlement. The district-week level of aggregation yields 957 treatment cases and 4,251 comparison cases. In part one, I use the formal model's comparative statics to specify a theory-driven model of treatment selection. In part 2, I trim the sample to ensure that treatment and comparison units are as similar as possible on all observable pre-treatment characteristics, and estimate differences in post-treatment rebel activity within and across the two groups when everything else is held constant.

For each case, I recorded the number of rebel attacks and counterinsurgency operations observed in the same district in the 12 weeks preceding and following the government action. I chose a twelve-week treatment window for two reasons. First is the time needed to authorize, plan and implement a resettlement opera-

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<sup>23</sup>In addition to matching, Appendix II.4 shows that results are robust to an array of alternative estimators, including Heckman-style selection models, control function approaches, standard OLS and inverse probability weighted treatment effects estimates.

tion.<sup>24</sup> Second is the need to capture both immediate retaliatory attacks and any longer-term impact on rebel strategy, mobilization and fighting capacity. To ensure that my results are not heavily dependent on this choice, however, I provide a sensitivity analysis with a variety of alternative treatment windows (Appendix II12.4).

### 9.2.1 VARIABLE MEASUREMENT

If the model is correct, we should see more resettlement ( $r$ ) where the government had a coercive disadvantage ( $\rho_G < \rho_R \frac{\theta_R}{\theta_G}$ , or  $\frac{\rho_G \theta_G}{\rho_R \theta_R} < 1$ ). Where resettlement was used, we should see an eventual decline in rebel activity ( $\rho_R$ ). For each district  $j$  where a counterinsurgency operation occurred in week  $t$ , I measure these parameters as follows:

*Resettlement* (treatment):

$$\hat{r} = \begin{cases} 1 & \text{if resettlement was used in } j, t \\ 0 & \text{otherwise} \end{cases} \quad (9.1)$$

*Punishment* (pre-treatment):

$$\hat{\rho}_G^{pre} = \# \text{ of government-initiated operations in } j, \Delta t^- \quad (9.2)$$

$$\hat{\rho}_R^{pre} = \# \text{ of rebel-initiated operations in } j, \Delta t^- \quad (9.3)$$

*Selectivity* (pre-treatment):

$$\hat{\theta}_G^{pre} = \frac{\# \text{ rebels killed by government in } j, \Delta t^-}{\# \text{ rebels} + \# \text{ civilians killed by government in } j, \Delta t^-} \quad (9.4)$$

$$\hat{\theta}_R^{pre} = \frac{\# \text{ government forces killed by rebels in } j, \Delta t^-}{\# \text{ government forces} + \# \text{ civilians killed by rebels in } j, \Delta t^-} \quad (9.5)$$

<sup>24</sup>The archival record suggests the NKVD carried out resettlements in response to events as recent as one week old and as distant as three months old. GARF, F. 9479, Op. 1, D. 62, L. 72-73.

Rebel activity (post-treatment):

$$\hat{\rho}_R^{post} = \# \text{ of rebel-initiated operations in } j, \Delta t^+ \quad (9.6)$$

where  $\Delta t$  is a time window preceding ( $\Delta t^-$ ) and following ( $\Delta t^+$ ) the counterinsurgency operation. I chose a twelve-week treatment window, for two reasons. First is the time needed to authorize, plan and implement a resettlement operation.<sup>25</sup> Second is the need to capture the effect of resettlement on both immediate retaliatory attacks and any longer-term changes in rebel strategy, mobilization and fighting capacity. To ensure that my results are not heavily dependent on this choice, Appendix II 12.4 provides a sensitivity analysis with a variety of alternative treatment windows and estimators.

The variables in 9.2-9.5 permit an empirical estimate of the *selective violence ratio*. I measured the ratio using a three-tiered ordinal scale, indicating whether the government had a pre-treatment coercive disadvantage ( $\frac{\rho_G \theta_G}{\rho_R \theta_R} < 1$ ), parity ( $\frac{\rho_G \theta_G}{\rho_R \theta_R} = 1$ ) or advantage ( $\frac{\rho_G \theta_G}{\rho_R \theta_R} > 1$ ).<sup>26</sup> Recall that ratio values less than one indicate that it is safer for civilians to join the rebels than the government, and vice versa.

Beyond coercive leverage, the model expects resettlement to occur where the government lacks access to external support. The government's ability to extract such resources depends on access to an existing external revenue base, security infrastructure, and transport network. I measure this concept with five variables.

First is the the *number of rural party councils* established in each district.<sup>27</sup> These councils (*selsoviets*) were the lowest echelons of the USSR's Congress of People's Deputies, responsible for local administration, tax collection, census, education, labor organization, and law enforcement.

Second is an indicator of whether the district was under *partisan control* in late

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<sup>25</sup>The archival record suggests the NKVD carried out resettlements in response to events as recent as one week old and as distant as three months old (Appendix II 12.4). GARF, F. 9479, Op. 1, D. 62, L. 72-73.

<sup>26</sup>I used an ordinal scale because the ratio is undefined when rebel selectivity is zero.

<sup>27</sup>Source: Presidium of Supreme Soviet of USSR, Information-Statistical Division (1941/1946/1954).

1942.<sup>28</sup> Following wholesale German dismantlement of local Soviet administration in 1941, partisans represented the most visible element of Moscow's wartime presence in the region.<sup>29</sup>

Third is an indicator of whether a district was among the *new territories* of West Ukraine annexed from Poland after September 1939.<sup>30</sup> Rayon-level NKVD directorates were established in most of these areas between November 1939 and late 1940 – decades after similar structures in the east – and Soviet rule was never fully consolidated before the German invasion.<sup>31</sup>

Fourth is the *distance to oblast capital* from the district's administrative center, in kilometers.<sup>32</sup> Force projection capabilities decay with greater distances from hubs of political and military power, due to a shift in resources from intelligence and combat to supply and logistics (Boulding, 1962).

Fifth, I account for the distance from a district's administrative center to the *nearest railroad*, in kilometers.<sup>33</sup> In areas far removed from the rail network, the government is less able to to deploy units, resupply forces or draw on its resource advantage.

Taken together, external support should be lowest – and resettlement most pervasive – where the number of rural councils was low and partisan control was limited, in newly acquired territories, far away from oblast capitals and railroads. I consider the impact of each of these variables separately below, and provide addi-

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<sup>28</sup>Data sources: Main Topographic Directorate of USSR General Staff; Sokhan' and Potichnyj (2002/2003)

<sup>29</sup>As of 15 November 1942, 38 of the 55 partisan units based in occupied Ukraine (69 percent) were in regular communication with the partisan movement's central Ukrainian staff (UShPD). TSDAGOU, F. 57, Op. 4, spr. 190, ark. 193.

<sup>30</sup>These areas included Drogobychskaya, Lvovskaya, Rovenskaya, Stanislavskaya, Tarnopol'skaya and Volynskaya oblasts (incorporated December 1939), as well as Chernovitskaya (from Bessarabia and Bukovina, August 1940) and Zakarpatskaya oblast (from Slovakia, January 1946). Source: Presidium of Supreme Soviet of USSR, Information-Statistical Division (1941/1946/1954).

<sup>31</sup>GARF, F. R-9401, Op. 1a, D. 36, L. 225-228, 234-237.

<sup>32</sup>Source: Presidium of Supreme Soviet of USSR, Information-Statistical Division (1941/1946/1954).

<sup>33</sup>Source: Presidium of Supreme Soviet of USSR, Information-Statistical Division (1941/1946/1954).

tional analyses with a composite “mobilizational capacity index” in the Appendix.

The theoretical model describes a partial data generating process, whose predictions rest on the assumption that important aspects of the real world are held constant. In empirically modeling government decisions to resettle, I attempt to control for as many potentially confounding factors as the data permit. To screen out the impact of long-term trends (e.g. gradual improvements in intelligence) and seasonal fluctuations (e.g. limited mobility during rainy seasons), I match treatment and comparison cases on the *year* and *month* in which an operation took place. I also account for the contemporaneous inter-dependence of Soviet operations with a spatial lag: the proportion of *neighboring districts in which a resettlement operation took place* during the same week, weighted by the number of road connections.

Finally, I include an economic variable, *crop land*.<sup>34</sup> One of Moscow’s policy objectives in the region was the collectivization of agriculture, a system which was either abolished under German occupation or – in the case of new territories in the west – never fully established. As a result, areas with soil suitable for crop cultivation – as opposed to grazing or animal husbandry – became a high priority for pacification, and Soviet authorities saw the wealthy farmers (*kulaks*) who lived in these areas as a potential support base for the UPA (Polyan 2001, Kudelia 2013, Statiev 2010, 17).

### 9.3 WHEN AND WHERE DID RESETTLEMENT OCCUR?

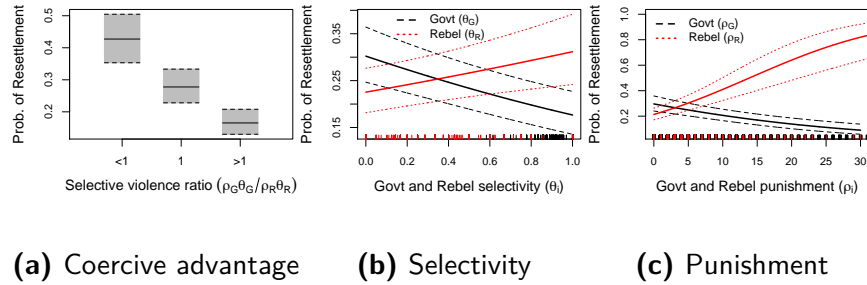
Consistent with Corollary 5, resettlement was most likely where the Soviets had difficulty selectively targeting their opponents, while rebels had little trouble targeting theirs. Figure 9.3.1a shows the predicted probability of resettlement (*y*-axis) at different values of the selective violence ratio (*x*-axis).<sup>35</sup> As predicted, the probability of resettlement was highest when and where the government had a co-

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<sup>34</sup>Source: Main Geodesy and Cartography Department of USSR Council of Ministers.

<sup>35</sup>These results are from 10,000 Monte Carlo simulations based on a generalized additive logit regression model, in which the dependent variable was the use/non-use of resettlement. I regressed this outcome on all of the explanatory variables described in the previous section.

**Figure 9.3.1: COERCION AND RESETTLEMENT.** Values reported are predicted probabilities of resettlement in a district/week ( $y$ -axis), given the value of each pre-treatment variable ( $x$ -axis). All other variables are held constant at their means. Solid lines are the means of 10,000 simulations. Dashed lines are 95% confidence intervals.



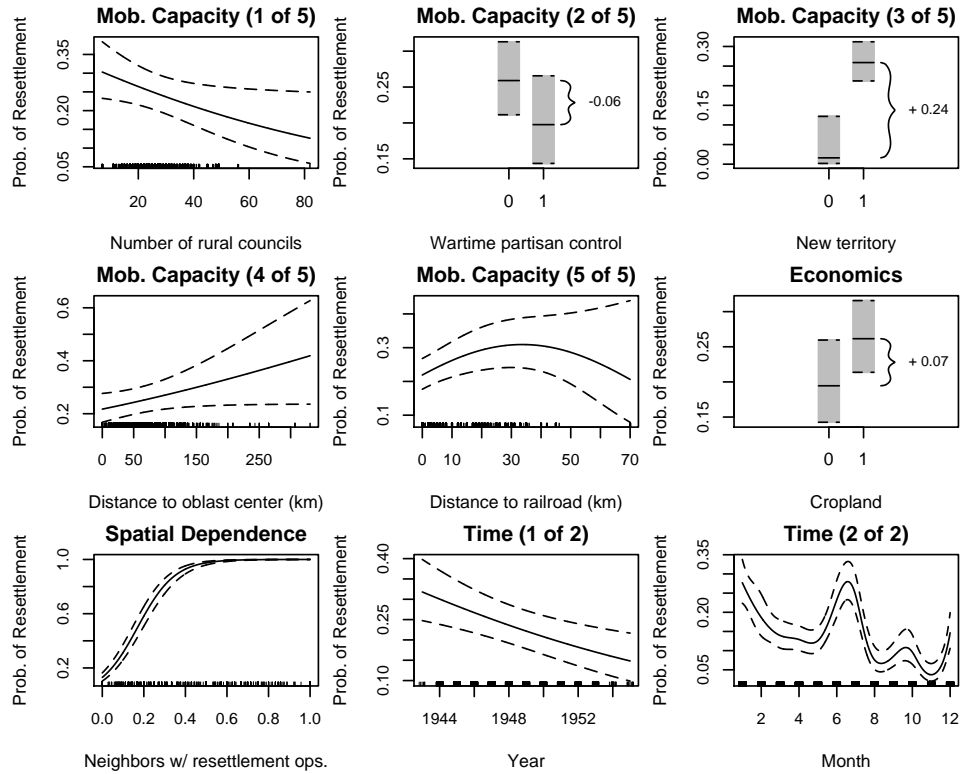
ercive disadvantage ( $\frac{\rho_G \theta_G}{\rho_R \theta_R} < 1$ ). In such contexts, the rebels were able to inflict more costs on government supporters than the government could against rebels. As a result, it was safer for civilians to cooperate with the rebels than with the government. The empirical results confirm that this dynamic created strong incentives to resettle the population, interdicting its cooperation with rebels rather than attempting to deter it. Where the government had an advantage in coercion ( $\frac{\rho_G \theta_G}{\rho_R \theta_R} > 1$ ), the probability of resettlement fell by 61 percent from .43 (95% CI: .35, .50) to .17 (.13, .21).

The same narrative holds if we disaggregate the selective violence ratio into its components (Figures 9.3.1b, 9.3.1c). Where government selectivity approached zero ( $\theta_G = 0$ ) – meaning that civilians were the sole targets of the government’s punishment – the probability of resettlement was .30 (95% CI: .25, .36). Where government selectivity was perfect ( $\theta_G = 1$ ) – and only rebels were punished – this probability fell by 41 percent to .17 (95% CI: .14, .23). An analogous change in rebel selectivity ( $\theta_R = 0$  to  $\theta_R = 1$ ) led to a 39 percent increase in the chances of resettlement, from .23 (95% CI: .18, .28) to .31 (95% CI: .23, .39).

As Figure 9.3.1c shows, resettlement also followed a relative lull in the tempo



**Figure 9.3.2: OTHER EMPIRICAL DETERMINANTS OF RESETTLEMENT.** Solid lines are the means of 10,000 simulations. Dashed lines are 95% confidence intervals.



of counterinsurgency,<sup>36</sup> and a relative spike in rebel activity.<sup>37</sup> This finding reflects both a competition for military resources and the use of resettlement primarily in restive areas, where other approaches proved ineffective.

In addition to these primary results, several ancillary ones are worth noting. As Figure 9.3.2 indicates, resettlement was most pervasive where external support was limited. The probability of resettlement was decreasing in both the number of rural

<sup>36</sup>The probability of resettlement was .29 (95% CI: .23, .35) where only one government operation occurred in the preceding 12 weeks, and .09 (95% CI: .06, .14) in districts that experienced 30 operations over the same period.

<sup>37</sup>The probability was at .23 (95% CI: .19, .28) in districts attacked by rebels only once in the previous 12 weeks, but .82 (95% CI: .64, .92) where 30 attacks occurred.

party councils previously established in a district,<sup>38</sup> and in levels of wartime partisan control.<sup>39</sup> As expected, the propensity for resettlement was far higher in the new territories annexed from Poland in 1939 than in those previously part of the Soviet Union.<sup>40</sup> The relationship between resettlement and access to a railroad was concave, with the propensity highest at intermediate distances where Soviets retained some access to external support, but not the overwhelming advantage they exercised in more directly accessible areas.<sup>41</sup> Finally, the data support qualitative accounts linking resettlement to the collectivization of agriculture in areas suitable for crop cultivation.<sup>42</sup>

The empirical determinants of resettlement align with the model's predictions. Such efforts were most likely where government selectivity was limited – making it difficult to attract potential supporters – and external support was modest. The question now turns to whether – in these difficult areas – resettlement was an effective tool of counterinsurgency.

#### 9.4 DID RESETTLEMENT WORK?

Consistent with Proposition 6, resettlement had a significant suppressive effect on the intensity of future rebel violence. The larger the scale of the resettlement, the stronger this effect was. I show this result in three ways. First, I create a matched sample of counterinsurgency operations in which resettlement was (treatment) or was not used (comparison), and report a simple difference-in-difference estimate.

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<sup>38</sup>All other things equal, there was a .27 probability (95% CI: .21, .34) that the NKVD would use resettlement in a district with just ten such councils and .20 probability (95% CI: .14, .28) that it would do the same in a district with 50 councils.

<sup>39</sup>The probability of resettlement was .19 (95% CI: .14, .26) in partisan-controlled districts, and .23 (95% CI: .20, .30) in areas outside their control.

<sup>40</sup>The probability of resettlement in an average newly-incorporated district was .25 (95% CI: .21, .30), but just .01 (95% CI: .00, .11) in central or eastern Ukraine.

<sup>41</sup>Where a district's administrative capital was directly accessible by railroad, the probability of resettlement was .22 (95% CI: .17, .27) on average. This figure rose to .29 (95% CI: .23, .36) at intermediate distances of 30 km, but fell back to .22 (95% CI: .08, .46) at 70 km.

<sup>42</sup>Agrarian districts with soil suitable for crop cultivation had a .25 probability of resettlement (95% CI: .21, .31), while ones unfit for agricultural development had a .19 probability (95% CI: .14, .25).

Second, I present model-based estimates of relative levels of rebel violence associated with use and non-use of resettlement, controlling for a range of potentially confounding variables. Third, I take a closer look at the resettlement operations themselves, to see whether the number of civilians displaced per operation mattered.

One of the challenges in identifying the “resettlement effect” – as the previous section makes clear – is that governments do not choose military strategies at random. Resettlement occurred in settings where the government had difficulty identifying and punishing opponents, and differences in subsequent rebel activity may be artifacts of this selection process.

To alleviate some of these potential biases, I used propensity score matching to create a sample of counterinsurgency operations in which resettlement was about equally likely to be used.<sup>43</sup> The matched dataset includes 160 treatment and 160 comparison units. Since the propensity score approach is one of many potential matching solutions, the Appendix reports robustness checks with a wide variety of alternative estimators.

Table 9.4.1 shows three sets of balance statistics before and after matching. The first is standardized bias, or the difference in means between treated and control units, divided by the standard deviation of the treated group. The second is a paired *t* test for difference of means. The third is a nonparametric Kolmogorov-Smirnov (KS) test for a significant difference across the entire distribution of a continuous variable. Table 9.4.1 suggests that matching led to a substantial improvement in balance in all three categories.

Did resettlement lead to an appreciable reduction in rebel violence? Table 9.4.2

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<sup>43</sup>Propensity scores are probabilities of treatment (resettlement) given a set of observed pre-treatment conditions. Predicted probabilities for each of the 5,208 operations in the full sample were fitted values from the generalized additive logit model shown in Figure 9.3.1, which yielded the strongest fit and predictive accuracy. For each operation where Soviets used resettlement, the algorithm selected a comparison case (no resettlement) with the closest propensity score, using a tolerance level (caliper) of  $< 0.0001$  standard deviations on the maximum propensity score distance.

reports difference-in-difference estimates of changes in rebel activity *between* localities exposed to the two types of counterinsurgency operations (resettlement and no resettlement) and *within* them (before and after the operation).<sup>44</sup> The average number of rebel attacks increased by 7 percent after a conventional counterinsurgency operation, but declined by 38.9 percent where resettlement was used. By switching from conventional coercive tactics to resettlement, Soviet forces achieved a 46 percent improvement in counterinsurgency effectiveness.

The strong suppressive effect of resettlement is confirmed by model-based estimates, which control for a range of potentially confounding pre-treatment covariates. The incidence rate ratios in Table 9.4.3 indicate that resettlement decreased the expected number of attacks by 47 percent on average (95% CI: -63.05, -23.84), a substantial and significant reduction over what we would expect if resettlement was not used.<sup>45</sup>

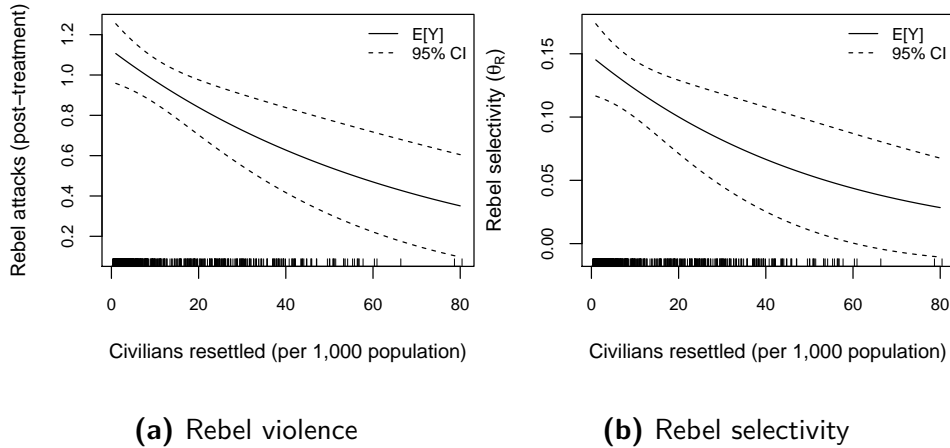
While resettlement was evidently more effective than coercive counterinsurgency, we may wonder if all resettlement was equally potent. The scale of these operations differed greatly over time and space, ranging from a minimum of 3 exiles from a single district in a single week, to a mean of 123 and a maximum of 555. As a proportion of the local population, a single resettlement operation could displace up to 8 percent of a district's inhabitants. Proposition 6 predicts that the rebels' ability to generate violence should decrease in the proportion of local civilians resettled by the government. This proposition would be empirically valid if higher levels of resettlement were indeed followed by a lower frequency of attacks.

Figure 9.4.1a shows the expected number of local rebel attacks in the twelve

<sup>44</sup>Formally, the estimator is  $\delta = (E[Y_{t=1}|D = 1] - E[Y_{t=0}|D = 1]) - (E[Y_{t=1}|D = 0] - E[Y_{t=0}|D = 0])$ , where  $Y_t$  denotes the number of rebel attacks at time period  $t = 0$  (before treatment) and  $t = 1$  (after treatment), and  $D$  denotes treatment assignment (1 if resettlement was used, 0 otherwise).

<sup>45</sup>Predictions in Table 9.4.3 are based on a negative binomial regression with heteroskedastic and autocorrelation consistent (HAC) robust standard errors. The dependent variable here is the number of rebel attacks observed in the 12 weeks following a counterinsurgency operation.

**Figure 9.4.1: SCALE OF RESETTLEMENT AND SUBSEQUENT REBEL ACTIVITY.** Values reported are the (a) expected number of rebel attacks and (b) expected rebel selectivity in the 12 weeks following resettlement.



weeks after resettlement, conditional on the number of people resettled (per 1,000 district inhabitants).<sup>46</sup> As the proportion of persons resettled increased, subsequent rebel attacks decreased. On average, 1.5 attacks occurred in the twelve weeks following a resettlement operation of a below-average scale (less than 9 people relocated per 1,000 inhabitants). The same statistic for more sizable resettlements (more than 9) was .75. In the weeks following any operation that resettled at least 1 percent of the local population, the model predicts less than one attack on average.<sup>47</sup>

If resettlement indeed facilitates a government monopoly on the use of force, one may expect it to also change the way that rebels fight. As territorial control shifts and rebels become increasingly unable to protect their supporters or deter others from cooperating with the government, the selectivity of their violence is likely to fall. This prediction – although not formally derived – is implicit in the

<sup>46</sup>Predictions based on a negative binomial model estimated on just the 957 treated cases. The dependent variable is the number of post-resettlement rebel attacks, regressed on the proportion of civilians resettled per operation.

<sup>47</sup>Additional results in the Appendix show that these results hold when the independent variable is the absolute number resettled, rather than the proportion.

logic of the theoretical model (endogenous selectivity extension in Chapter 3), and is consistent with the expectations of Kalyvas (2006). Figure 9.4.1b confirms this expectation. In the 12 weeks following an operation that resettled just one person per 1,000, government forces constituted 14 percent of those killed by rebels (95% CI: 11, 17). If resettlement increased to 80 per 1,000, rebel selectivity fell to 3 percent (95% CI: 0, 7).

**Table 9.4.1:** BALANCE STATISTICS FOR PROPENSITY SCORE MATCHING.

<i>Pre-matching.</i>					
<i>N = 5208 (T : 957, C : 4251)</i>					
Variable	Mean T	Mean C	Std. Bias	T Test	KS Test
Govt selectivity (pre-treatment)	0.282	0.473	-0.444	-12.16***	0.2***
Rebel selectivity (pre-treatment)	0.231	0.198	0.089	2.52*	0.05
Govt violence (pre-treatment)	3.286	6.347	-0.393	-9.91***	0.25***
Rebel violence (pre-treatment)	2.226	1.582	0.186	5.44***	0.1***
Distance to railroad (km)	6.936	6.566	0.033	0.92	0.06*
Distance to oblast capital (km)	59.518	61.411	-0.054	-1.48	0.03
New territory	0.999	0.979	0.630	8.3***	
Number of rural councils	24.649	25.769	-0.145	-4.02***	0.08***
Crop land	0.870	0.814	0.167	4.54***	
Partisan control in WWII	0.136	0.160	-0.070	-1.92	
Resettlement in neighboring districts	0.357	0.007	1.024	31.6***	0.63***
Year	1946.912	1947.227	-0.138	-3.88***	0.15***
Month	4.865	6.412	-0.515	-14.13***	0.25***

<i>Post-matching.</i>					
<i>N = 320 (T : 160, C : 160)</i>					
Variable	Mean T	Mean C	Std. Bias	T Test	KS Test
Govt selectivity (pre-treatment)	0.375	0.374	0.003	0.03	0.07
Rebel selectivity (pre-treatment)	0.258	0.209	0.125	1.19	0.08
Govt violence (pre-treatment)	5.300	4.919	0.037	0.39	0.16*
Rebel violence (pre-treatment)	1.719	1.606	0.054	0.49	0.11
Distance to railroad (km)	5.037	4.994	0.004	0.04	0.08
Distance to oblast capital (km)	51.969	57.413	-0.148	-1.39	0.12
New territory	0.994	1.000	-0.079	-1	
Number of rural councils	23.669	24.113	-0.059	-0.53	0.07
Crop land	0.800	0.794	0.016	0.14	
Partisan control in WWII	0.156	0.225	-0.189	-1.65	
Resettlement in neighboring districts	0.169	0.171	-0.005	-0.41	0.06
Year	1946.950	1946.850	0.044	0.4	0.09
Month	5.400	5.588	-0.059	-0.62	0.12

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

**Table 9.4.2:** DIFFERENCE-IN-DIFFERENCE RESULTS.  $E[Y_t]$  is the average number of rebel attacks observed in the 12 weeks before ( $t = 0$ ) and after ( $t = 1$ ) a counterinsurgency operation.

Quantity	No resettlement	Resettlement	Diff-in-Diff
$E[Y_{t=0}]$	1.61	1.72	0.11
$E[Y_{t=1}]$	1.72	1.05	-0.67
$E[Y_{t=1} - Y_{t=0}]$	0.11	-0.67	-0.78
Percent change	7.00%	-38.91%	-45.91%

**Table 9.4.3:** INCIDENCE RATE RATIOS FROM NEGATIVE BINOMIAL REGRESSION. An incidence rate ratio ( $\frac{E[Y|D=1]}{E[Y|D=0]}$ ) compares the expected number of rebel attacks following counterinsurgency operations with ( $D = 1$ ) and without ( $D = 0$ ) resettlement.

Quantity	Resettlement only	Including all variables
Incidence rate ratio	0.61 (0.42, 0.89)	0.53 (0.37, 0.76)
Percent change	-38.91% (-58.21%, -10.69%)	-46.95% (-63.05%, -23.84%)
N	320	320
AIC	1003.9	979.02



## 9.5 CROSS-NATIONAL PATTERNS OF RESETTLEMENT, 1816-2006

The evidence just presented shows strong support for my theoretical claims in the Soviet case, but some readers may question the broader generalizability of these findings. After all, the Soviet Union was hardly an average counterinsurgent: it was a great power with a lot of territory and vast resources, ruled with an iron fist by a paranoid tyrant. How well does the theoretical narrative travel to the dozens of other cases of resettlement in modern military history?

The current section offers a tentative look at the determinants and consequences of resettlement on a macro level. Table 9.5.1 enumerates the list of counterinsurgency campaigns (1816-2006) that featured the systematic use of resettlement.<sup>48</sup> The list includes 90 of the 307 cases in the Lyall and Wilson (2009) dataset. The five most prolific practitioners of resettlement have been the United States (13 conflicts), Russia/USSR (11), the UK (5), China (5) and Germany (4). Practitioners are about evenly divided between democracies and autocracies, with a median Polity II democracy score of -3 for incumbents who used resettlement and 1 for those who did not.<sup>49</sup>

Resettlement has not been confined to any particular region: 29 percent of counterinsurgency campaigns involving resettlement took place in Sub-Saharan Africa, 21 in Europe, 19 in Asia, 18 in the Western Hemisphere and 10 in the Greater Middle East. Resettlement is also not a historical vestige of 19th-century colonial and frontier warfare. The median resettlement campaign started in the year 1949, compared to 1942 for campaigns that did not involve resettlement.

What have been the strongest predictors of resettlement on a cross-national level? To answer this question, I ran a simple logit model, which regressed the use of resettlement during a counterinsurgency campaign on a series of covariates, including proxies for selectivity (number of languages spoken in the conflict

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<sup>48</sup>I assembled the list of historical resettlement cases from secondary historical sources and reference volumes, notably Beckett (1999, 2004).

<sup>49</sup>Polity II: -10 for full autocracy and 10 for full democracy (Marshall and Jaggers, 2002)

zone, and a dummy variable for anti-occupational uprisings), external support (a dummy for rebel access to a cross-border sanctuary), and several variables that represent potential alternative explanations (national power, regime type, size of a conflict zone). Figure 9.5.1 shows the predicted probabilities of resettlement at different hypothetical values of these covariates, with all other variables held constant at their median values.

Before turning to the role of selectivity and external resources, let us briefly consider several factors that *do not* predict resettlement. First, a combatant does not need a Siberia to resettle. As Figure 9.5.1a shows, the size of a conflict zone does not correlate with the use or non-use of resettlement. This practice has occurred in continental empires like Russia and in island nations like Malaya.

Second, a combatant does not need to be a great power in order to resettle. Figure 9.5.1b displays the probability of resettlement, conditional on the incumbent's composite index of national capability (CINC score) – an aggregate measure of national power based on a country's proportion of global population, military expenditures, personnel, industrial production and other relevant matrices (Singer, 1980). The data suggest that great powers are neither more nor less likely to resettle than smaller powers.

Third, while democracies have been slightly less likely to use resettlement on average, this relationship is not statistically significant. Figure 9.5.1c shows the probability of resettlement as a function of an incumbent's Polity2 democracy score, where -10 indicates perfect autocracy and +10 indicates perfect democracy (Marshall and Jaggers, 2002). According to the logit model, a regime change from -10 to +10 yields a 43.6 percent decline in probability of resettlement, but the confidence interval for this change covers zero (95% CI: -79.5, 22.7).

The more robust determinants of resettlement in Figure 9.5.1 all align nicely with the predictions of the theoretical model. First, resettlement has been significantly more likely during wars of occupation (Figure 9.5.1d) and in conflict zones where relatively few languages are spoken (Figure 9.5.1e). These are the types of environments where we would expect the government's selectivity to be relatively

low. In such conflicts, rebels likely belong to tight-knit, mono-ethnic communities, in which cooperation with outsiders is easy to detect and punish. The incumbents, meanwhile, are occupying troops who are relatively easy to distinguish from locals, and who may need to rely on interpreters and “fixers” to communicate with the population. The informational advantage in such cases clearly rests with the rebels.

Second, resettlement has been more likely where rebels have access to a cross-border sanctuary (Figure 9.5.1f). This result is consistent with the comparative static that equilibrium rates of resettlement are increasing in the rebels’ external support. If flows of supplies and reinforcements from outside the conflict zone are significant, governments feel an incentive to offset this external support by limiting the rebels’ local recruitment pool.

#### 9.5.1 DID RESETTLEMENT WORK?

Although the cross-national determinants of resettlement are in agreement with the theory (Corollary 5), the effects of resettlement are more uncertain on a macro level. To evaluate this relationship, I examined the relationship between resettlement and government victory in a conflict, which Lyall and Wilson (2009) define as either the military defeat of an insurgency, or a war ending without major concessions to the rebels.

On average, counterinsurgency campaigns that involved resettlement were more successful than those that did not. 59.3 percent of wars in the first category ended in a government victory, compared to 50.7 in the second. However, the difference in means was not statistically significant.

To identify this effect with slightly more rigor, I used matching to preprocess the data and reduce covariate imbalance – following the same methodology employed in all other empirical analyses. According to a Poisson regression model fit with the matched sample with lowest imbalance – propensity scores with caliper – resettlement made government victory 64.9 percent more likely, but this effect was statistically indistinguishable from zero (95% CI: -78.0, 512.1). Other match-

ing estimators told the same story: a positive, but highly uncertain relationship between resettlement and victory.

The cross-national counterinsurgency data collected by Lyall and Wilson (2009) are certainly not as detailed as the reports assembled by Stalin's secret police. Yet this preliminary analysis suggests that the logic of the theoretical model does travel beyond the Soviet Union. Resettlement occurred where counterinsurgents were likely to face difficulties distinguishing between rebels and civilians: where the incumbents were part of an occupying force in a foreign land, and where relatively few languages were spoken locally.

The macro analysis uncovers another important detail: while government victory was more common in campaigns that involved resettlement overall, this effect was nowhere near as profound as it was on the subnational level in Ukraine. This finding suggests that the security gains afforded by resettlement may be mostly local. It also underscores the value and promise of disaggregated data, particularly where the individual data points are part of an incumbent's information set – as they were in the archival data here.

The theoretical model makes clear that resettlement is in and of itself insufficient to produce a government victory. It is, at best, a strategy of last resort in cases where the government lacks coercive leverage. The Soviet case illustrates that there is significant local variation in the conditions that might compel a government to use it. A macro level approach overlooks this type of variation and, as a result, yields a more ambiguous finding than what we would find at a finer spatio-temporal resolution.

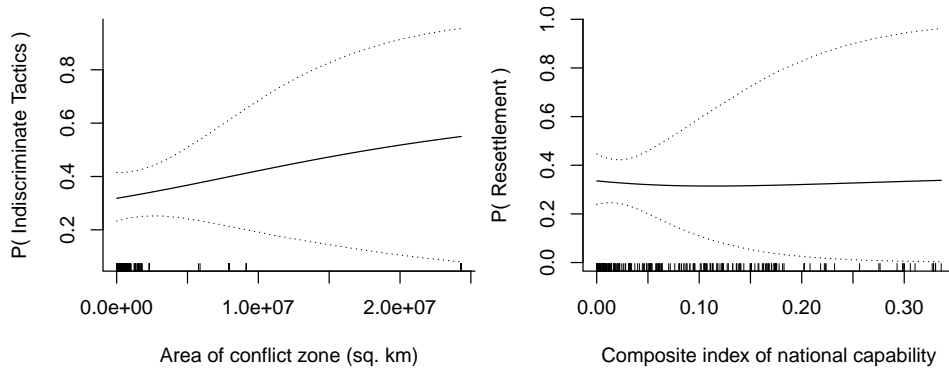
**Table 9.5.1: RESETTLEMENT IN COUNTERINSURGENCY, 1808-2006 (part 1 of 2).** Sample drawn from Lyall and Wilson (2009)'s counterinsurgency dataset

CONFLICT (chronological order)	DESCRIPTION
Russia v. Chechens (1816-1825)	resettlement to low-lying areas, protected villages
China v. Turkmen tribes (1825-1828)	scorched earth
Russia v. Circassians (1829-1840)	mass deportation, ethnic cleansing
Russia v. Ghazi Muhammad/Shamil (1830-1859)	resettlement to low-lying areas
USA v. Sauk and Fox Indians (1832-1832)	Indian reservations
USA v. Seminoles (1835-1842)	Indian reservations
China v. Taiping Heavenly Kingdom (1851-1871)	scorched earth
USA v. Yakima (1855-1858)	Indian reservations
USA v. Seminoles (1855-1858)	Indian reservations
China v. Yunnan-based Muslim Insurgents (1856-1873)	scorched earth
USA v. Navajo (1860-1865)	Indian reservations
USA v. Apaches (1860-1865)	Indian reservations
China v. Nien (1860-1868)	scorched earth
USA v. Sioux (1862-1864)	Indian reservations
China v. Muslim tribesmen of Sinkiang (1863-1877)	resettlement to arable land
Russia v. Poland (1863-1864)	punitive deportation
USA v. Sioux (1865-1868)	Indian reservations
Spain v. Cuban rebels (Mambises) (1868-1878)	concentration camps
France v. Algerians(Kabylie) (1871-1872)	punitive deportation to Pacific
Netherlands v. Achinese (1873-1904)	scorched earth
USA v. Red River Indians (1874-1875)	Indian reservations
USA v. Apaches (Geronimo) (1876-1886)	Indian reservations
USA v. Sioux (1876-1877)	Indian reservations
Russia v. Albik Hajji Aldanov (Dagestan) (1877-1878)	resettlement to protected villages
Argentina v. Ranqueles Indians (1879-1884)	expulsion
Spain v. Cuban rebels (1895-1898)	concentration camps
Brazil v. Jacundos (1896-1897)	scorched earth
USA v. Filipino rebels (1898-1902)	protected villages
UKG v. Boers (1899-1902)	concentration camps
Germany v. Herero and Nama (1903-1908)	relocation of civilians to desert
Germany v. Maji Maji (1905-1907)	scorched earth
Soviet Union v. Shaykh Uzun Haji (zikrists) (1918-1925)	resettlement of Cossacks to clear land for Chechens
Soviet Union v. Greens (1920-1921)	punitive deportation
Italy v. Sanusi (1920-1931)	detention camps for nomads
UKG v. Arab rebels (1936-1939)	village occupation
Japan v. Chinese rebels (1937-1945)	protected hamlets
Soviet Union v. Israilov/Sheripov (1940-1944)	mass deportation to Central Asia

**Table 9.5.1: (continued)**

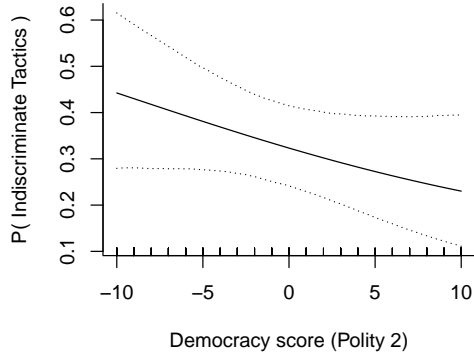
CONFLICT (chronological order)	DESCRIPTION
Germany v. Belorussian/Ukrainian (1941-1944)	forced labor migration
Germany v. Poles/Jews (1944-1944)	neighborhood evictions
UKG v. Shifra (1945-1952)	concentration camps
Greece v. DSE (1945-1949)	protected villages
Philippines v. Huk (1946-1951)	protected villages
Soviet Union v. Forest Brothers (1946-1956)	relocation to special settlements
Soviet Union v. Ukrainian rebels (1946-1953)	relocation to special settlements
Burma v. Kachin and Karen (KNU,KNLA) (1948-1994)	village relocation
UKG v. Communists (1950-1960)	new villages
UKG v. Mau Mau (1952-1956)	mass relocation
France v. Algerians (1954-1962)	concentration camps
South Vietnam v. Vietcong (1960-1965)	strategic hamlets
Portugal v. Angola (1961-1975)	protected villages
Oman v. DLF (1962-1975)	protected villages
Portugal v. GB Rebels (PAIGC) (1962-1974)	protected villages
Portugal v. Frelimo (1962-1975)	protected villages
Rwanda v. Rebels (1963-1966)	ethnic cleansing
Kenya v. NFDLF (1964-1969)	protected villages
South Vietnam v. Vietcong/NVA (1965-1975)	strategic hamlets
USA v. Vietcong/NVA (1965-1975)	strategic hamlets
South Africa v. SWAPO (1966-1989)	resettlement in Caprivi and Okavango
Zimbabwe v. ZANU, ZAPU (1966-1979)	protected villages
Cambodia v. FUNK (1970-1975)	deurbanization
Burundi v. Hutu rebels (1972-1972)	ethnic cleansing
Zimbabwe v. ZANU (1972-1979)	protected villages
Ethiopia v. Eritrea (1974-1991)	mass relocation
Indonesia v. Fretilin (1975-1999)	resettlement camps
Indonesia v. GAM (1976-2005)	scorched earth
Cambodia v. Khmer Rouge (1978-1992)	forcible refugee return
Iran v. KDPI (1979-1996)	scorched earth
Soviet Union v. Afghanistan (1980-1989)	scorched earth
Nicaragua v. Contras (1981-1988)	forced removal of Indians to relocation centers
Uganda v. NRA (1981-1987)	population removal
Turkey v. Kurds (1983-1999)	village depopulation
Sudan v. SPLM, SPLM-faction (1983-2004)	conscriptio into slavery
Israel v. Palestinian (1987-1993)	selective deportation to Lebanon
Mali v. Tuaregs (1989-1995)	resettlement camps
Yugoslavia v. Croatia (1991-1991)	ethnic cleansing
Burundi v. Palipehutu, CNDD (1991-2006)	ethnic cleansing
Sierra Leone v. RUF (1991-1999)	strategic hamlets
Tajikistan v. UTO (1992-1997)	ethnic cleansing
Azerbaijan v. Armenia (1992-1994)	ethnic cleansing
Bosnia v. Croats (1992-1995)	ethnic cleansing
Croatia v. Krajina (1992-1995)	ethnic cleansing
Georgia v. Abkhazia (1992-1994)	ethnic cleansing
Burundi v. FDD (1993-2005)	ethnic cleansing
Serbia v. KLA (1994-1999)	ethnic cleansing
Rwanda v. RPF (1994-1994)	ethnic cleansing
Rwanda v. ALiR (1994-2000)	ethnic cleansing
DRC v. AFDL (1994-1997)	forcible refugee return
DRC v. RCD (1994-1998)	forcible refugee return
Uganda v. LRA (1994-2006)	protected villages
Sudan v. SLM/A, JEM (2003-2006)	scorched earth

**Figure 9.5.1:** CROSS-NATIONAL DETERMINANTS OF RESETTLEMENT.



**(a)** Size of conflict zone

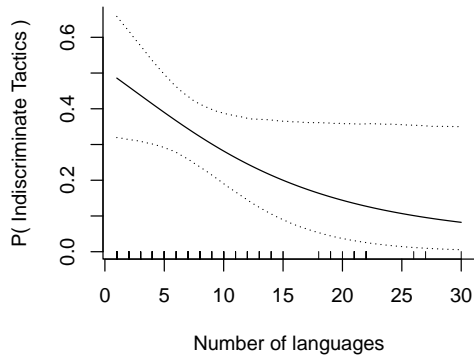
**(b)** National power



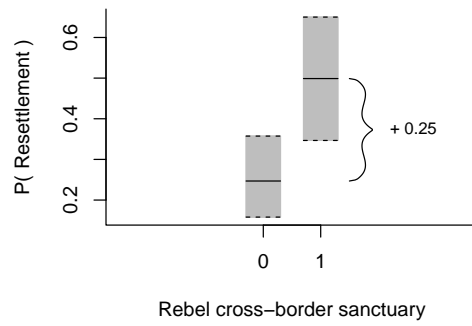
**(c)** Democracy score



**(d)** Anti-occupation uprising



**(e)** Number of languages



**(f)** Cross-border sanctuary

## 9.6 CONCLUSION

Resettlement suppresses rebel activity through a simple mechanism: the separation of insurgents from the general population. Its use, however, betrays a certain weakness. Counterinsurgency success hangs on the government's ability to either control a population, or earn its support. A reliance on the first of these is rarely needed if the government is able to protect its supporters from retaliation. Where this is not the case, the government will lack the information needed to distinguish rebels from civilians, making war more costly for those who remain neutral. A population that lives in relative security is unlikely to seek protection from rebels, or accept the risks of supporting an armed insurrection. A government that can avoid inflaming these incentives is unlikely to resort to such extreme countermeasures. A government that alienates its population through the systematic use of indiscriminate force may find little recourse.

These results have several implications for civil war research. First, they illustrate that resettlement and other brute force technologies of violence can be potent alternatives to coercion, particularly where identification problems limit one's ability to selectively punish. These substitution effects may help explain why indiscriminate violence occurs where leading theories of civil war say it should not – in areas of limited control, where the opponent enjoys a coercive advantage (Kalyvas, 2006). Second, while existing work holds that combatants displace where they have information on civilian loyalties (Balcells and Steele, 2012, Steele, 2011), I show that a lack of such information can be just as dangerous. Measures to reduce this uncertainty – opinion surveys, elections, referenda – should shift the government's strategy back to more selective forms of violence. Third, I show that if civilians cannot easily flee their communities – as in a totalitarian state – combatants may face strong pressures to displace them anyway. Where combatants lack the logistical means to resettle, they will use violence to provoke civilian flight.

The Soviet experience offers a clear illustration of these pathologies at work. Facing a nationalist insurgency in post-WWII Ukraine, the NKVD relied on resettlement when and where indiscriminate violence was difficult to avoid. Where



government forces lacked the information needed to selectively target UPA rebels, they generated violence on a massive scale, much of it misdirected at civilians. As a strong government with acute local disadvantages, the Soviets faced clear incentives to prevent a terrorized population from joining the insurgency. They acted on these incentives, and the gamble paid off. In areas where resettlement was most likely to be used, it proved considerably more effective at suppressing rebel attacks than conventional counterinsurgency. The larger the scale of the resettlement, the more attacks it prevented.

*Violence is both unavoidable and unjustifiable.*

Albert Camus

# 10

## Conclusion

This dissertation has advanced and tested a new theory of indiscriminate violence. I have argued that we should see indiscriminate force not as an error or byproduct of war, but as a rational response to informational disadvantage.

Combatants use violence to compete for the support of a security-seeking population. By killing or capturing her opponents, a combatant hopes to convince civilians that the costliest, most dangerous thing they could possibly do is support the other side. The goal of violence, on the most basic level, is to make the population fear you more than they fear the enemy.

As we have seen, this goal becomes elusive when there is uncertainty over who the enemy is or where he is. Due to this uncertainty, combatants increase violence to ensure that a sufficient number of enemies are punished. During the Great Terror, Stalin explained this reasoning directly: “because it is not easy to recognize the enemy, the goal is achieved even if only five percent of those killed are truly

enemies” (quoted in Gregory 2009, 196).

Thankfully, few political actors have had the capacity or stomach to follow Stalin’s example. Yet evidence from over 80 armed conflicts since 1979 suggests that combatants in very different contexts face similar problems. Information problems force a reliance on indiscriminate tactics. These tactics are inefficient at punishing the enemy, creating strong incentives to escalate. This escalation may result in many innocent deaths, but if the combatant doesn’t “outcoerce” her opponent, she will lose.

Behind Stalin’s grim arithmetic is an ounce of truth. As my theory claims and the data confirm, there exists a threshold, at which supporting the more indiscriminate side may allow civilians to maximize their own chances of survival. This threshold occurs where one side outproduces the other in selective violence. There are two ways to reach this tipping point: use good intelligence to selectively punish one’s opponents, or punish indiscriminately in the hope that enough guilty parties perish along with the innocent. Firepower is a substitute for intelligence.

This pathology is pervasive in war. Rather than asking why indiscriminate violence occurs, we may wonder why it doesn’t occur more often. The dissertation offered several potential explanations. In many cases, indiscriminate violence does not occur because it is avoidable. Information problems are variables, not constants. Where societies are ethnically or linguistically fractured, a combatant may exploit these divisions to recruit informants. Where the incumbent and civilians speak the same language, surveillance and outreach are simpler. Where terrain is open and rebels have little natural cover, a government will have an easier time locating targets.

In other cases, indiscriminate violence does not occur because it is unnecessary. As the theoretical model shows, a coercive advantage is not necessary if a combatant can offset deficiencies in local support with significant resources from outside – like reinforcements, reservists, loyalists and tax revenues collected elsewhere. Assuming that these resources keep flowing, a reliance on outside help can be a plausible alternative to terror.

Without the local information needed to punish bad behavior, or access to exter-

nal sources of support, the strategic outlook becomes quite bleak. When violence is no longer selective, it does not offer clear incentives for compliance. Its coercive effect dissipates, and attrition replaces deterrence as the main driver of victory and defeat. Where coercion ends, brute force begins.

Brute force is both a symptom and a solution to the information problem. By blocking roads, seizing guns or forcibly uprooting communities, a combatant shapes the range of choices available to other actors. To be effective, these measures do not require cooperation from the public. They do not require information on individual loyalties or preferences. They are designed to control the population, not to earn its support.

The combatant may sincerely hope that brute force will also have a deterrent effect. But a perpetrator's intent is less important than a target's choices. Irrespective of what they do, many civilians will be stuck in a besieged city, or left without means of self-defense, or physically removed from their homes. Even if the rebels are popular, these measures make it more difficult for them to recruit and fight. If coercion tells a flying bird to change course, brute force simply clips its wings.

As I show formally and in a series of empirical tests, indiscriminate violence usually fails as an instrument of coercion, but can be very effective as brute force. The conceptual distinction between coercion and brute force is not new, but it has been overlooked in recent years, and potentially holds the key to an ongoing debate in the literature.

The inflammatory view of indiscriminate violence holds such practices to be ineffective, in part because they do not generate strong incentives for cooperation. The suppressive view notes that indiscriminate violence sometimes does work, but through attrition rather than coercion.

This dissertation has sought to reconcile the two views. Indiscriminate violence can coerce, but only if used at a level of intensity that exceeds what most combatants are capable and willing to produce. For this reason, we rarely observe "successful" cases of indiscriminate coercion. What we observe instead are successful cases of indiscriminate brute force.

As long as indiscriminate violence remains an endemic feature of irregular war,

combatants will seek ways to manage its backlash. My analysis has shown that such damage control can be at least as brutal as the original sin it endeavors to address. If Stalin's "five percent rule" is coercion taken to its logical extreme, then the logical extreme of brute force recalls Tacitus' famous quote about Roman counterinsurgency: "They make a desert, and call it peace."

If we conceive of war as part of the state-making enterprise (Tilly, 1985), the logic of brute force may help us understand the origins of state repression. A citizen with few freedoms is a citizen with few opportunities to rebel. Such a citizen may feel a strong motivation to oppose her government, and many of her compatriots may agree. Yet if she cannot organize and maintain an armed struggle, she cannot rebel.

Combatants who come to power through brute force are likely to govern by brute force. A central implication of the theoretical model's equilibrium stability conditions is that – for a government monopoly to be stable – the policies used to achieve it must remain in place. The lifting of roadblocks, easing of gun regulations, and the repatriation of the resettled are all actions that risk upsetting this fragile equilibrium, should an opportunistic challenger arrive. This result explains why violence in Chechnya re-emerged in the 1940s despite prior disarmament, why violence re-emerged in the 1990s despite prior resettlement, and why the region's outlook remains uncertain today.

Some may question the need to rationalize practices of such wanton cruelty and destructiveness. Whether the goal is to change minds or limit choice, all of these tactics seem so cynical and callous as to defy explanation. It is tempting to dismiss humanity's darkest moments by citing the idiosyncrasies of political ideology, errors of judgment, or the personal whims of leaders. It is also tempting to dismiss the empirical basis for much of this dissertation as an historical aberration. By some estimates, the Soviet Union killed 62 million civilians in its 70-year history – more than Nazi Germany and the People's Republic of China combined (Pinker, 2011, Rummel, 1994, 4).<sup>1</sup> On many parameters, the Soviet Union was an outlier.

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<sup>1</sup>The 62 million figure includes deaths in labor camps (39.5), and those attributable to terror (8.3), collectivization (7.8), resettlement (4.3) and other causes (2) (Rummel, 1994, 83).

Yet as satisfying as it may be to treat the USSR as a “sick” country from a by-gone era, whose experience offers few applicable lessons for war and politics in the 21st century, it would also be a mistake. History has shown that the world’s most prolific practitioner of civilian victimization was hardly its only one. In this work, I found similar patterns and pathologies in hundreds of conflicts since the Napoleonic Era, and in several dozen since the end of the Cold War. The empirical regularity and persistence of indiscriminate violence oblige us to explain this phenomenon more fully.

The purpose of this work, needless to say, was not to provide advice to dictators on how they should repress their own people. They do not need my advice. The empirical record – archival and otherwise – suggests that political actors of many stripes already act in a manner consistent with the theory’s predictions. Furthermore, the possibility that indiscriminate violence is rational does not make it good policy. As we have seen, irregular war is one of many areas where rational behavior can produce horrifying outcomes. Setting aside the optimality of outcomes, I would urge policymakers to not even consider most of these options on moral grounds alone.

The point of rationalizing acts of unspeakable cruelty is not to justify them. It is to understand why they happen. It is to understand the incentives their perpetrators face, and to predict how others might act in similar circumstances. One perverse lesson of the Soviet experience is that – to consolidate power – more repression may be better than less. Insofar as other embattled leaders – from Omar al-Bashir to Bashar al-Assad – might draw the same conclusions, it is essential to understand why, when and where such dangerous ideas will be put to practice.

# 11

## Appendix I: Formal Proofs

### 11.1 PROOF OF LEMMA 1 (CHAPTER 3)

*Proof.* Let  $\kappa(i)$  denote the expected costs associated with membership in group  $i \in \{G, R, C\}$ , with  $\kappa(G) = \rho_R \theta_R$ ,  $\kappa(R) = \rho_G \theta_G$ , and  $\kappa(C) = \rho_R(1 - \theta_R) + \rho_G(1 - \theta_G)$ . The statement  $[\kappa(C) < \kappa(G)] \wedge [\kappa(C) < \kappa(R)]$  (“staying neutral is less costly than joining either combatant”) is never true for any  $\rho_G \in (0, \infty)$ ,  $\rho_R \in (0, \infty)$ ,  $\theta_G \in [0, 1]$ ,  $\theta_R \in [0, 1]$  and  $\theta_G + \theta_R = 1$ . The statement  $[\kappa(C) < \kappa(G)] \wedge [\kappa(C) > \kappa(R)]$  (“staying neutral is less costly than joining  $G$  but more costly than joining  $R$ ”) is true if and only if  $[\rho_G < \rho_R] \wedge \left[0 \leq \theta_G < \frac{\rho_R - \rho_G}{2\rho_R - \rho_G}\right]$ , and  $[\kappa(C) > \kappa(G)] \wedge [\kappa(C) < \kappa(R)]$  (“staying neutral is more costly than joining  $G$  but less costly than joining  $R$ ”) is true if and only if  $[\rho_G > \rho_R] \wedge \left[\frac{\rho_G}{2\rho_G - \rho_R} < \theta_G \leq 1\right]$ . The statement  $[\kappa(C) > \kappa(G)] \wedge [\kappa(C) > \kappa(R)]$  (“staying neutral is more costly than joining  $G$  or  $R$ ”) is true in all other cases: (1)  $[\rho_G > \rho_R] \wedge \left[0 \leq \theta_G < \frac{\rho_G}{2\rho_G - \rho_R}\right]$ , (2)

$$[\rho_G < \rho_R] \wedge \left[ \frac{\rho_R - \rho_G}{2\rho_R - \rho_G} < \theta_G \leq 1 \right]. \quad \square$$

## 11.2 PROOF OF PROPOSITION 1 (CHAPTER 3)

This proof depends on the following Lemma:

**Lemma 2.** *There exist three equilibrium solutions to (3.3-3.5) in which the outcome of the fighting does not depend on the initial balance of forces: government victory, rebel victory and mutual destruction.*

*Proof.* Define a *government victory equilibrium* of (3.3-3.5) as a fixed point satisfying  $\frac{\delta C}{\delta t} = 0$ ,  $\frac{\delta G}{\delta t} = 0$ ,  $\frac{\delta R}{\delta t} = 0$ ,  $C_{eq} \in [0, \infty)$ ,  $G_{eq} \in [0, \infty)$ ,  $R_{eq} \in [0, \infty)$  and  $\pi_G(\mathbf{s}) = 1$ ,  $\pi_R(\mathbf{s}) = 0$ . These conditions are satisfied at

$$C_{eq} = \frac{\rho_R \theta_R + u}{\mu_G} \quad (11.1)$$

$$G_{eq} = \frac{k}{\rho_R \theta_R + u} - \frac{\rho_G(1 - \theta_G) + \rho_R(1 - \theta_R) + u}{\mu_G} \quad (11.2)$$

$$R_{eq} = 0 \quad (11.3)$$

This equilibrium exists (i.e. yields non-negative equilibrium group sizes) for all  $\rho_G \in (0, \infty)$ ,  $\rho_R \in (0, \infty)$ ,  $\theta_G \in [0, 1]$ ,  $\theta_R \in [0, 1]$ ,  $k \in (0, \infty)$ ,  $u \in (0, \infty)$ , with  $\mu_G, \mu_R$  as defined in (3.1,3.2).

Define a *rebel victory equilibrium* of (3.3-3.5) as a fixed point satisfying  $\frac{\delta C}{\delta t} = 0$ ,  $\frac{\delta G}{\delta t} = 0$ ,  $\frac{\delta R}{\delta t} = 0$ ,  $C_{eq} \in [0, \infty)$ ,  $G_{eq} \in [0, \infty)$ ,  $R_{eq} \in [0, \infty)$  and  $\pi_G(\mathbf{s}) = 0$ ,  $\pi_R(\mathbf{s}) = 1$ . These conditions are satisfied at

$$C_{eq} = \frac{u + \rho_G \theta_G}{\mu_R} \quad (11.4)$$

$$G_{eq} = 0 \quad (11.5)$$

$$R_{eq} = \frac{k}{\rho_G \theta_G + u} - \frac{\rho_G(1 - \theta_G) + \rho_R(1 - \theta_R) + u}{\mu_R} \quad (11.6)$$



This equilibrium exists (i.e. yields non-negative equilibrium group sizes) for all  $\rho_G \in (0, \infty)$ ,  $\rho_R \in (0, \infty)$ ,  $\theta_G \in [0, 1]$ ,  $\theta_R \in [0, 1]$ ,  $k \in (0, \infty)$ ,  $u \in (0, \infty)$ , with  $\mu_G, \mu_R$  as defined in (3.1,3.2).

Define a *mutual destruction equilibrium* of (3.3-3.5) as a fixed point satisfying  $\frac{\delta C}{\delta t} = 0$ ,  $\frac{\delta G}{\delta t} = 0$ ,  $\frac{\delta R}{\delta t} = 0$ ,  $C_{eq} \in [0, \infty)$ ,  $G_{eq} \in [0, \infty)$ ,  $R_{eq} \in [0, \infty)$  and  $\pi_G(\mathbf{s}) = 0$ ,  $\pi_R(\mathbf{s}) = 0$ . These conditions are satisfied at

$$C_{eq} = \frac{k}{\rho_G(1 - \theta_G) + \rho_R(1 - \theta_R) + u} \quad (11.7)$$

$$G_{eq} = 0 \quad (11.8)$$

$$R_{eq} = 0 \quad (11.9)$$

This equilibrium exists (i.e. yields non-negative equilibrium group sizes) for all  $\rho_G \in (0, \infty)$ ,  $\rho_R \in (0, \infty)$ ,  $\theta_G \in [0, 1]$ ,  $\theta_R \in [0, 1]$ ,  $k \in (0, \infty)$ ,  $u \in (0, \infty)$ , with  $\mu_G, \mu_R$  as defined in (3.1,3.2).  $\square$

I now turn to the main proof of Proposition 1.

*Proof.* The stability of this equilibrium can be shown through linearization. Assume  $\rho_G \in (0, \infty)$ ,  $\rho_R \in (0, \infty)$ ,  $\theta_G \in [0, 1]$ ,  $\theta_R \in [0, 1]$ , with  $\mu_i$  as defined in (3.1,3.2). To ensure non-negative population values in equilibrium, we impose a lower bound on immigration parameter

$$k > \frac{(\rho_R \theta_R + u)(\rho_G(1 - \theta_G) + \rho_R(1 - \theta_R) + u)}{\mu_G}.$$

Let  $\mathbf{J}$  be the Jacobian of the system in (3.3-3.5), evaluated at fixed point (11.1-11.3).

$$\mathbf{J} = \begin{pmatrix} -\frac{k\mu_G}{\rho_R\theta_R+u} & -\rho_R\theta_R - u & -\frac{\mu_R(\rho_R\theta_R+u)}{\mu_G} \\ 0 & 0 & \frac{\mu_R(\rho_R\theta_R+u)}{\mu_G} - \rho_G\theta_G - u \\ \frac{k\mu_G - (\rho_R\theta_R+u)(\rho_G(1-\theta_G) + \rho_R(1-\theta_R) + u)}{\rho_R\theta_R+u} & 0 & 0 \end{pmatrix} \quad (11.10)$$

The determinant and trace of  $\mathbf{J}$  are

$$\det(\mathbf{J}) = \frac{(-\rho_R\theta_R - u) \left( \frac{\mu_R(\rho_R\theta_R+u)}{\mu_G} - \rho_G\theta_G - u \right) (k\mu_G - (\rho_R\theta_R+u)(\rho_G(1-\theta_G) + \rho_R(1-\theta_R) + u))}{\rho_R\theta_R+u} \quad (11.11)$$

$$\text{tr}(\mathbf{J}) = -\frac{k\mu_G}{\rho_R\theta_R+u} \quad (11.12)$$

The equilibrium point (11.1-11.3) is stable if all the eigenvalues of  $\mathbf{J}$  have negative real parts, or  $\det(\mathbf{J}) > 0$ ,  $\text{tr}(\mathbf{J}) < 0$ . These conditions hold if and only if  $\frac{\rho_G \theta_G}{\rho_R \theta_R} > 1$ .  $\square$

### 11.3 PROOF OF PROPOSITION 2 (CHAPTER 3)

*Proof.* We assume that  $\bar{\rho}_i$  is private information, but the distribution of  $\bar{\rho} \sim U(0, 1)$  is not. Let  $u_i(\rho_i, \rho_{-i})$  be the net payoffs from fighting to combatant  $i$ ,

$$u_i(\rho_i, \rho_{-i}) = \begin{cases} \bar{\rho}_i - \rho_i - \rho_{-i}\theta_{-i} & \text{if } \rho_i > \rho_i^* \\ \frac{1}{2}(\bar{\rho}_i - \rho_i - \rho_{-i}\theta_{-i}) & \text{if } \rho_i = \rho_i^* \\ 0 & \text{if } \rho_i < \rho_i^* \end{cases} \quad (11.13)$$

where  $\rho_i^* = \rho_{-i} \frac{\theta_G}{\theta_R}$ . Combatant  $i$ 's expected utility is then

$$E[u_i(\cdot)] = (\bar{\rho}_i - \rho_i - \rho_{-i}\theta_{-i}) F(\rho_{-i}^*) + \left(\frac{1}{2}(\bar{\rho}_i - \rho_i - \rho_{-i}\theta_{-i})\right) f(\rho_{-i}^*) + (0)(1 - F(\rho_{-i}^*)) \quad (11.14)$$

We will assume that  $b_i(\bar{\rho}_i)$  is strictly increasing, and ties occur with probability zero. From the CDF of  $U(0, 1)$ , we obtain  $F(\rho_{-i}^*) = \rho_{-i}^* = \rho_i \frac{\theta_i}{\theta_{-i}}$ , and the objective function simplifies to

$$\max_{\rho_i} (\bar{\rho}_i - \rho_i - \rho_{-i}\theta_{-i}) \left( \rho_i \frac{\theta_i}{\theta_{-i}} \right) \quad (11.15)$$

In a victory equilibrium the expression  $\rho_{-i}\theta_{-i}$  has an upper bound of  $\rho_{-i}^*\theta_{-i}$ , or  $\rho_i\theta_i$ , which simplifies the function to

$$\max_{\rho_i} (\bar{\rho}_i - \rho_i(1 + \theta_{-i})) \left( \rho_i \frac{\theta_i}{\theta_{-i}} \right) \quad (11.16)$$

from which we can obtain the first order conditions

$$\frac{\delta E[u_i]}{\delta \rho_i} = \frac{\theta_i}{\theta_{-i}} (\bar{\rho}_i - 2\rho_i(1 + \theta_i)) \quad (11.17)$$

The FOC can be easily solved to find a symmetric BNE

$$\rho_i = \left( \frac{1}{1 + \theta_i} \right) \frac{\bar{\rho}_i}{2} \quad (11.18)$$

□

#### 11.4 PROOF OF PROPOSITION 3 (CHAPTER 3)

Proposition 3 depends on the following Lemma:

**Lemma 3.** *There exist three equilibrium solutions to (3.11-3.13) in which the outcome of the fighting does not depend on the initial balance of forces: government victory, rebel victory and mutual destruction.*

*Proof.* Define a *government victory equilibrium* of (3.11-3.13) as a fixed point satisfying  $\frac{\delta C}{\delta t} = 0$ ,  $\frac{\delta G}{\delta t} = 0$ ,  $\frac{\delta R}{\delta t} = 0$ ,  $C_{eq} \in [0, \infty)$ ,  $G_{eq} \in [0, \infty)$ ,  $R_{eq} \in [0, \infty)$  and  $\pi_G(\mathbf{s}) = 1$ ,  $\pi_R(\mathbf{s}) = 0$ . These conditions are satisfied at

$$C_{eq} = \frac{\rho_R \theta_R + u - a_G}{\mu_G} \quad (11.19)$$

$$G_{eq} = \frac{k}{\rho_R \theta_R + u - a_G} - \frac{\rho_G(1 - \theta_G) + \rho_R(1 - \theta_R) + u}{\mu_G} \quad (11.20)$$

$$R_{eq} = 0 \quad (11.21)$$

This equilibrium exists (i.e. yields non-negative equilibrium group sizes) for all  $\rho_G \in (0, \infty)$ ,  $\rho_R \in (0, \infty)$ ,  $\theta_G \in [0, 1]$ ,  $\theta_R \in [0, 1]$ ,  $a_G \in [0, \infty)$ ,  $a_R \in [0, \infty)$ ,  $k \in (0, \infty)$ ,  $u \in (0, \infty)$ , with  $\mu_G, \mu_R$  as defined in (3.1,3.2).

Define a *rebel victory equilibrium* of (3.11-3.13) as a fixed point satisfying  $\frac{\delta C}{\delta t} = 0$ ,  $\frac{\delta G}{\delta t} = 0$ ,  $\frac{\delta R}{\delta t} = 0$ ,  $C_{eq} \in [0, \infty)$ ,  $G_{eq} \in [0, \infty)$ ,  $R_{eq} \in [0, \infty)$  and  $\pi_G(\mathbf{s}) =$

$0, \pi_R(\mathbf{s}) = 1$ . These conditions are satisfied at

$$C_{eq} = \frac{u + \rho_G \theta_G - a_R}{\mu_R} \quad (11.22)$$

$$G_{eq} = 0 \quad (11.23)$$

$$R_{eq} = \frac{k}{\rho_G \theta_G + u - a_R} - \frac{\rho_G(1 - \theta_G) + \rho_R(1 - \theta_R) + u}{\mu_R} \quad (11.24)$$

This equilibrium exists (i.e. yields non-negative equilibrium group sizes) for all  $\rho_G \in (0, \infty), \rho_R \in (0, \infty), \theta_G \in [0, 1], \theta_R \in [0, 1], a_G \in [0, \infty), a_R \in [0, \infty), k \in (0, \infty), u \in (0, \infty)$ , with  $\mu_G, \mu_R$  as defined in (3.1,3.2).

Define a *mutual destruction equilibrium* of (3.11-3.13) as a fixed point satisfying  $\frac{\delta C}{\delta t} = 0, \frac{\delta G}{\delta t} = 0, \frac{\delta R}{\delta t} = 0, C_{eq} \in [0, \infty), G_{eq} \in [0, \infty), R_{eq} \in [0, \infty)$  and  $\pi_G(\mathbf{s}) = 0, \pi_R(\mathbf{s}) = 0$ . These conditions are satisfied at

$$C_{eq} = \frac{k}{\rho_G(1 - \theta_G) + \rho_R(1 - \theta_R) + u} \quad (11.25)$$

$$G_{eq} = 0 \quad (11.26)$$

$$R_{eq} = 0 \quad (11.27)$$

This equilibrium exists (i.e. yields non-negative equilibrium group sizes) for all  $\rho_G \in (0, \infty), \rho_R \in (0, \infty), \theta_G \in [0, 1], \theta_R \in [0, 1], a_G \in [0, \infty), a_R \in [0, \infty), k \in (0, \infty), u \in (0, \infty)$ , with  $\mu_G, \mu_R$  as defined in (3.1,3.2).  $\square$

As Lemma 3 suggests, the addition of external support does not fundamentally change the range of possible outcomes in irregular war. The equilibrium solutions take forms nearly identical to the more restricted version of the model. The broader question, however, is how a relative preponderance of external support shapes the incentives combatants face. I now turn to the main proof of Proposition 3.

*Proof.* Assume  $\rho_G \in (0, \infty), \rho_R \in (0, \infty), \theta_G \in [0, 1], \theta_R \in [0, 1], a_G \in [0, \infty), a_R \in [0, \infty)$ . To ensure nonnegative population values in equilibrium, we

impose a lower bound on the immigration parameter  $k > \frac{(\rho_R \theta_R + u - \alpha_G)(\rho_G(1 - \theta_G) + \rho_R(1 - \theta_R) + u)}{\mu_G}$ , with  $\mu_G = 1 - \frac{\rho_R \theta_R}{\rho_R + \rho_G}$ . By linearization, the government victory equilibrium is stable if all the eigenvalues of the Jacobian matrix of the system in (3.11-3.13), evaluated at fixed point (11.28-11.30), have negative real parts, or  $\det(\mathbf{J}) > 0$ ,  $\text{tr}(\mathbf{J}) < 0$ . These conditions hold if either (a)  $\frac{\rho_G \theta_G}{\rho_R \theta_R} > 1$  and  $\alpha_R < \bar{\alpha}_R$ , where  $\bar{\alpha}_R = \frac{\alpha_G(\rho_R + \rho_G(1 - \theta_G)) + (\rho_G + \rho_R + u)(\theta_G \rho_G - \theta_R \rho_R)}{\rho_G + \rho_R(1 - \theta_R)}$ , or (b)  $\frac{\rho_G \theta_G}{\rho_R \theta_R} < 1$ ,  $\alpha_R < \bar{\alpha}_R$ , and  $\alpha_G > \underline{\alpha}_G$ , where  $\underline{\alpha}_G = \frac{(\rho_G + \rho_R + u)(\theta_R \rho_R - \theta_G \rho_G)}{(1 - \theta_G)\rho_G + \rho_R}$ .  $\square$

## 11.5 PROOF OF PROPOSITION 4 (CHAPTER 6)

Proposition 4 depends on the following Lemma:

**Lemma 4.** *There exist three equilibrium solutions to (6.1-6.3) in which the outcome of the fighting does not depend on the initial balance of forces: government victory, rebel victory and mutual destruction.*

*Proof.* Define a *government victory equilibrium* of (6.1-6.3) as a fixed point satisfying  $\frac{\delta C}{\delta t} = 0$ ,  $\frac{\delta G}{\delta t} = 0$ ,  $\frac{\delta R}{\delta t} = 0$ ,  $C_{eq} \in [0, \infty)$ ,  $G_{eq} \in [0, \infty)$ ,  $R_{eq} \in [0, \infty)$  and  $\pi_G(\mathbf{s}) = 1$ ,  $\pi_R(\mathbf{s}) = 0$ . These conditions are satisfied at

$$C_{eq} = \frac{\rho_R \theta_R + u - \alpha_G}{\mu_G} \quad (11.28)$$

$$G_{eq} = \frac{k}{\rho_R \theta_R + u - \alpha_G} - \frac{\rho_G(1 - \theta_G) + \rho_R(1 - \theta_R) + u}{\mu_G} \quad (11.29)$$

$$R_{eq} = 0 \quad (11.30)$$

This equilibrium exists (i.e. yields non-negative equilibrium group sizes) for all  $\rho_G \in (0, \infty)$ ,  $\rho_R \in (0, \infty)$ ,  $\theta_G \in [0, 1]$ ,  $\theta_R \in [0, 1]$ ,  $\alpha_G \in [0, \infty)$ ,  $\alpha_R \in [0, \infty)$ ,  $b \in [0, 1]$ ,  $k \in (0, \infty)$ ,  $u \in (0, \infty)$ , with  $\mu_G, \mu_R$  as defined in (3.1,3.2).

Define a *rebel victory equilibrium* of (6.1-6.3) as a fixed point satisfying  $\frac{\delta C}{\delta t} = 0$ ,  $\frac{\delta G}{\delta t} = 0$ ,  $\frac{\delta R}{\delta t} = 0$ ,  $C_{eq} \in [0, \infty)$ ,  $G_{eq} \in [0, \infty)$ ,  $R_{eq} \in [0, \infty)$  and  $\pi_G(\mathbf{s}) =$

0,  $\pi_R(\mathbf{s}) = 1$ . These conditions are satisfied at

$$C_{eq} = \frac{u + \rho_G \theta_G - (1 - b) a_R}{\mu_R} \quad (11.31)$$

$$G_{eq} = 0 \quad (11.32)$$

$$R_{eq} = \frac{k}{\rho_G \theta_G + u - (1 - b) a_R} - \frac{\rho_G(1 - \theta_G) + \rho_R(1 - \theta_R) + u}{\mu_R} \quad (11.33)$$

This equilibrium exists (i.e. yields non-negative equilibrium group sizes) for all  $\rho_G \in (0, \infty)$ ,  $\rho_R \in (0, \infty)$ ,  $\theta_G \in [0, 1]$ ,  $\theta_R \in [0, 1]$ ,  $a_G \in [0, \infty)$ ,  $a_R \in [0, \infty)$ ,  $b \in [0, 1]$ ,  $k \in (0, \infty)$ ,  $u \in (0, \infty)$ , with  $\mu_G, \mu_R$  as defined in (3.1,3.2).

Define a *mutual destruction equilibrium* of (6.1-6.3) as a fixed point satisfying  $\frac{\delta C}{\delta t} = 0$ ,  $\frac{\delta G}{\delta t} = 0$ ,  $\frac{\delta R}{\delta t} = 0$ ,  $C_{eq} \in [0, \infty)$ ,  $G_{eq} \in [0, \infty)$ ,  $R_{eq} \in [0, \infty)$  and  $\pi_G(\mathbf{s}) = 0$ ,  $\pi_R(\mathbf{s}) = 0$ . These conditions are satisfied at

$$C_{eq} = \frac{k}{\rho_G(1 - \theta_G) + \rho_R(1 - \theta_R) + u} \quad (11.34)$$

$$G_{eq} = 0 \quad (11.35)$$

$$R_{eq} = 0 \quad (11.36)$$

This equilibrium exists (i.e. yields non-negative equilibrium group sizes) for all  $\rho_G \in (0, \infty)$ ,  $\rho_R \in (0, \infty)$ ,  $\theta_G \in [0, 1]$ ,  $\theta_R \in [0, 1]$ ,  $a_G \in [0, \infty)$ ,  $a_R \in [0, \infty)$ ,  $b \in [0, 1]$ ,  $k \in (0, \infty)$ ,  $u \in (0, \infty)$ , with  $\mu_G, \mu_R$  as defined in (3.1,3.2).  $\square$

As Lemma 4 suggests, the addition of external support does not fundamentally change the range of possible outcomes in irregular war. The equilibrium solutions take forms nearly identical to the more restricted version of the model considered in Chapter 3. With the solutions in hand, I can now turn to the proof of Proposition 4.

*Proof.* Assume  $\rho_G \in (0, \infty)$ ,  $\rho_R \in (0, \infty)$ ,  $\theta_G \in [0, 1]$ ,  $\theta_R \in [0, 1]$ ,  $a_G \in [0, \infty)$ ,  $a_R \in [0, \infty)$ ,  $b \in [0, 1]$ . To ensure nonnegative population values in equilibrium, we impose a lower bound on the immigration parameter  $k > \frac{(\rho_R \theta_R + u - a_G)(\rho_G(1 - \theta_G) + \rho_R(1 - \theta_R) + u)}{\mu_G}$ ,

with  $\mu_G = 1 - \frac{\rho_R \theta_R}{\rho_R + \rho_G}$ . By linearization, the government victory equilibrium is stable if all the eigenvalues of the Jacobian matrix of the system in (6.1-6.3), evaluated at fixed point (11.28-11.30), have negative real parts, or  $\det(\mathbf{J}) > 0$ ,  $\text{tr}(\mathbf{J}) < 0$ . These conditions hold if either (a)  $\frac{\rho_G \theta_G}{\rho_R \theta_R} > 1$  and  $a_R < \bar{a}_R$ , where  $\bar{a}_R = \frac{a_G(\rho_R + \rho_G(1 - \theta_G)) + (\rho_G + \rho_R + u)(\theta_G \rho_G - \theta_R \rho_R)}{(1 - b)(\rho_G + \rho_R(1 - \theta_R))}$ , or (b)  $\frac{\rho_G \theta_G}{\rho_R \theta_R} < 1$ ,  $a_R < \bar{a}_R$ , and  $a_G > \underline{a}_G$ , where  $\underline{a}_G = \frac{(\rho_G + \rho_R + u)(\theta_R \rho_R - \theta_G \rho_G)}{(1 - \theta_G)\rho_G + \rho_R}$ .

If we solve  $a_R = \bar{a}_R$  for  $b$ , we can express the stability conditions as follows: (a)  $\frac{\rho_G \theta_G}{\rho_R \theta_R} > 1$  and  $b > \underline{b}$ , or (b)  $\frac{\rho_G \theta_G}{\rho_R \theta_R} < 1$ ,  $b > \underline{b}$ , and  $a_G > \underline{a}_G$ , where  $\underline{b} = \left( 1 - \frac{a_G(\rho_R + \rho_G(1 - \theta_G)) + (\rho_G + \rho_R + u)(\theta_G \rho_G - \theta_R \rho_R)}{a_R(\rho_G + \rho_R(1 - \theta_R))} \right)$

To see how the threshold value of  $\underline{b} = 1 - \frac{a_G(\rho_G \theta_G + u)(\rho_G + \rho_R) - a_R(\rho_R \theta_R + u)(\rho_G + \rho_R)}{(\rho_G + \rho_R + u)(\rho_R \theta_R - \rho_G \theta_G)}$  varies with the other model parameters (Corollary 3), we differentiate and obtain

$$\begin{aligned} \frac{\delta b}{\delta \theta_G} &= - \frac{-\rho_G(a_G + (\rho_G + \rho_R + u))}{a_R((1 - \theta_R)\rho_R + \rho_G)} \\ \frac{\delta b}{\delta \theta_R} &= \frac{\rho_R(\rho_G + \rho_R + u)}{a_R((1 - \theta_R)\rho_R + \rho_G)} \\ &\quad - \frac{\rho_R(a_G((1 - \theta_G)\rho_G + \rho_R) + (\rho_G + \rho_R + u)(\theta_G \rho_G - \theta_R \rho_R))}{a_R((1 - \theta_R)\rho_R + \rho_G)^2} \\ \frac{\delta b}{\delta a_G} &= - \frac{(1 - \theta_G)\rho_G + \rho_R}{a_R((1 - \theta_R)\rho_R + \rho_G)} \\ \frac{\delta b}{\delta a_R} &= \frac{a_G((1 - \theta_G)\rho_G + \rho_R) + (\rho_G + \rho_R + u)(\theta_G \rho_G - \theta_R \rho_R)}{a_R^2((1 - \theta_R)\rho_R + \rho_G)} \end{aligned}$$

with  $\frac{\delta b}{\delta \theta_G} < 0$ ,  $\frac{\delta b}{\delta \theta_R} > 0$  for all  $\rho_i \in (0, \infty)$ ,  $\theta_i \in [0, 1]$ ,  $k \in (0, \infty)$ ,  $u \in (0, \infty)$ ,  $d \in (0, 1)$ ,  $a_i \in (0, \infty)$ ,  $a_G < \rho_R + \rho_G$ ;  $\frac{\delta b}{\delta a_G} < 0$  for all  $\rho_i \in (0, \infty)$ ,  $\theta_i \in [0, 1]$ ,  $k \in (0, \infty)$ ,  $u \in (0, \infty)$ ,  $d \in (0, 1)$ ,  $a_i \in (0, \infty)$ ; and  $\frac{\delta b}{\delta a_R} > 0$  for all  $\rho_i \in (0, \infty)$ ,  $\theta_i \in [0, 1]$ ,  $k \in (0, \infty)$ ,  $u \in (0, \infty)$ ,  $d \in (0, 1)$ ,  $a_i \in (0, \infty)$ ,  $a_G > \frac{(\rho_R + \rho_G)(\theta_G \rho_G - \theta_R \rho_R)}{\theta_G \rho_G - (\rho_R + \rho_G)}$ . □

## 11.6 PROOF OF PROPOSITION 5 (CHAPTER 6)

Proposition 5 depends on the following Lemma.

**Lemma 5.** *There exist three equilibrium solutions to (6.10-6.12) in which the outcome*

of the fighting does not depend on the initial balance of forces: government victory, rebel victory and mutual destruction.

*Proof.* Define a *government victory equilibrium* of (6.10-6.12) as a fixed point satisfying  $\frac{\delta C}{\delta t} = 0$ ,  $\frac{\delta G}{\delta t} = 0$ ,  $\frac{\delta R}{\delta t} = 0$ ,  $C_{eq} \in [0, \infty)$ ,  $G_{eq} \in [0, \infty)$ ,  $R_{eq} \in [0, \infty)$  and  $\pi_G(\mathbf{s}) = 1$ ,  $\pi_R(\mathbf{s}) = 0$ . These conditions are satisfied at

$$C_{eq} = \frac{(1-h)\rho_R\theta_R + u}{\mu_G^*} \quad (11.37)$$

$$G_{eq} = \frac{k}{(1-h)\rho_R\theta_R + u} - \frac{\rho_G(1-\theta_G) + (1-h)\rho_R(1-\theta_R) + u}{\mu_G^*} \quad (11.38)$$

$$R_{eq} = 0 \quad (11.39)$$

This equilibrium exists (i.e. yields non-negative equilibrium group sizes) for all  $\rho_G \in (0, \rho_G^{max})$ ,  $\rho_R \in (0, \rho_R^{max})$ ,  $\theta_G \in [0, 1]$ ,  $\theta_R \in [0, 1]$ ,  $k \in (0, \infty)$ ,  $u \in (0, \infty)$ ,  $h \in (0, 1)$ , with  $\mu_G^*$ ,  $\mu_R^*$  as defined in (6.8,6.9).

Define a *rebel victory equilibrium* of (6.10-6.12) as a fixed point satisfying  $\frac{\delta C}{\delta t} = 0$ ,  $\frac{\delta G}{\delta t} = 0$ ,  $\frac{\delta R}{\delta t} = 0$ ,  $C_{eq} \in [0, \infty)$ ,  $G_{eq} \in [0, \infty)$ ,  $R_{eq} \in [0, \infty)$  and  $\pi_G(\mathbf{s}) = 0$ ,  $\pi_R(\mathbf{s}) = 1$ . These conditions are satisfied at

$$C_{eq} = \frac{\rho_G\theta_G + u}{\mu_R^*} \quad (11.40)$$

$$G_{eq} = 0 \quad (11.41)$$

$$R_{eq} = \frac{k}{\rho_G\theta_G + u} - \frac{\rho_G(1-\theta_G) + (1-h)\rho_R(1-\theta_R) + u}{\mu_R^*} \quad (11.42)$$

This equilibrium exists (i.e. yields non-negative equilibrium group sizes) for all  $\rho_G \in (0, \rho_G^{max})$ ,  $\rho_R \in (0, \rho_R^{max})$ ,  $\theta_G \in [0, 1]$ ,  $\theta_R \in [0, 1]$ ,  $k \in (0, \infty)$ ,  $u \in (0, \infty)$ ,  $h \in (0, 1)$ , with  $\mu_G^*$ ,  $\mu_R^*$  as defined in (6.8,6.9).

Define a *mutual destruction equilibrium* of (6.10-6.12) as a fixed point satisfying  $\frac{\delta C}{\delta t} = 0$ ,  $\frac{\delta G}{\delta t} = 0$ ,  $\frac{\delta R}{\delta t} = 0$ ,  $C_{eq} \in [0, \infty)$ ,  $G_{eq} \in [0, \infty)$ ,  $R_{eq} \in [0, \infty)$  and



$\pi_G(\mathbf{s}) = 0, \pi_R(\mathbf{s}) = 0$ . These conditions are satisfied at

$$C_{eq} = \frac{k}{\rho_G(1 - \theta_G) + (1 - h)\rho_R(1 - \theta_R) + u} \quad (11.43)$$

$$G_{eq} = 0 \quad (11.44)$$

$$R_{eq} = 0 \quad (11.45)$$

This equilibrium exists (i.e. yields non-negative equilibrium group sizes) for all  $\rho_G \in (0, \rho_G^{max}), \rho_R \in (0, \rho_R^{max}), \theta_G \in [0, 1], \theta_R \in [0, 1], k \in (0, \infty), u \in (0, \infty), h \in (0, 1)$ , with  $\mu_G^*, \mu_R^*$  as defined in (6.8,6.9).  $\square$

I now turn to the main claim of Proposition 5 (“if the government confiscates a sufficiently large share of privately-held arms, a selective violence advantage is a sufficient, but not necessary condition for victory”).

*Proof.* The stability of the government monopoly equilibrium in (11.37-11.39) can be shown through linearization. Assume  $\rho_G \in (0, \rho_G^{max}), \rho_R \in (0, \rho_R^{max}), \theta_G \in [0, 1], \theta_R \in [0, 1]$ , with  $\mu_i^*$  as defined in (6.8,6.9). To ensure non-negative population values in equilibrium, I impose a lower bound on immigration parameter  $k > \frac{(1-h)(\rho_R\theta_R+u)(\rho_G(1-\theta_G)+(1-h)\rho_R(1-\theta_R)+u)}{\mu_G^*}$ .

Let  $\mathbf{J}$  be the Jacobian of the system in (6.10-6.12), evaluated at fixed point (11.37-11.39).

$$\mathbf{J} = \begin{pmatrix} -\frac{k\mu_G^*}{(1-h)\rho_R\theta_R+u} & -(1-h)\rho_R\theta_R - u & -\frac{\mu_R^*((1-h)\rho_R\theta_R+u)}{\mu_G^*} \\ 0 & 0 & \frac{\mu_R^*((1-h)\rho_R\theta_R+u)}{\mu_G^*} - \rho_G\theta_G - u \\ \frac{k\mu_G^* - ((1-h)\rho_R\theta_R+u)(\rho_G(1-\theta_G)+(1-h)\rho_R(1-\theta_R)+u)}{(1-h)\rho_R\theta_R+u} & 0 & 0 \end{pmatrix} \quad (11.46)$$

The determinant and trace of  $\mathbf{J}$  are

$$\det(\mathbf{J}) = \frac{-(1-h)\rho_R\theta_R - u \left( \frac{\mu_R^*((1-h)\rho_R\theta_R+u)}{\mu_G^*} - \rho_G\theta_G - u \right) (k\mu_G^* - ((1-h)\rho_R\theta_R+u)(\rho_G(1-\theta_G)+(1-h)\rho_R(1-\theta_R)+u))}{(1-h)\rho_R\theta_R+u} \quad (11.47)$$

$$\text{tr}(\mathbf{J}) = -\frac{k\mu_G^*}{(1-h)\rho_R\theta_R+u} \quad (11.48)$$

The equilibrium point (11.37-11.39) is stable if all the eigenvalues of  $\mathbf{J}$  have neg-

ative real parts, or  $\det(\mathbf{J}) > 0$ ,  $\text{tr}(\mathbf{J}) < 0$ . These conditions hold iff  $h > 1 - \frac{\rho_G \theta_G}{\rho_R \theta_R}$ .  $\square$

Proving Corollary 4 is straightforward from this stability condition. If  $\underline{h} = 1 - \frac{\rho_G \theta_G}{\rho_R \theta_R}$ , then  $\frac{dh}{d\theta_G} < 0$ ,  $\frac{dh}{d\theta_R} > 0$  for all  $\rho_G \in (0, \rho_G^{max})$ ,  $\rho_R \in (0, \rho_R^{max})$ ,  $\theta_G \in [0, 1]$ ,  $\theta_R \in [0, 1]$ .

## 11.7 PROOF OF PROPOSITION 6 (CHAPTER 6)

*Proof.* Given the fixed point in (11.1-11.3) and the Jacobian matrix in

$$\mathbf{J} = \begin{pmatrix} -\frac{k\mu_G}{\rho_R \theta_R + u} & -\rho_R \theta_R - u & -\frac{\mu_R(\rho_R \theta_R + u)}{\mu_G} \\ 0 & 0 & \frac{\mu_R(\rho_R \theta_R + u)}{\mu_G} - \rho_G \theta_G - u \\ \frac{k\mu_G - (\rho_R \theta_R + u)(\rho_G(1-\theta_G) + \rho_R(1-\theta_R) + u)}{\rho_R \theta_R + u} & 0 & 0 \end{pmatrix}, \quad (11.49)$$

we substitute  $(1-d) \left(1 - \frac{\rho_{-i} \theta_{-i}}{\rho_i + \rho_{-i}}\right) + a_i$  for  $\mu_i$ , with  $d = r + f(\sum_i \rho_i)$ . To ensure nonnegative population values, we impose a lower bound on the immigration parameter  $\underline{k} = \frac{(\rho_G(1-\theta_G) + \rho_R(1-\theta_R) + u)(\rho_R \theta_R + u)}{\mu_G}$ . A government victory equilibrium is stable ( $\det(\mathbf{J}) > 0$ ,  $\text{tr}(\mathbf{J}) < 0$ ) for all  $\rho_i \in (0, \infty)$ ,  $\theta_i \in [0, 1]$ ,  $k \in (\underline{k}, \infty)$ ,  $u \in (0, \infty)$ ,  $d \in (0, 1)$ ,  $a_i \in (0, \infty)$ ,  $a_G > a_R$  if either of the following statements is true: (a)  $\left[\frac{\rho_G \theta_G}{\rho_R \theta_R} > 1, a_R < \bar{a}_R\right]$ , or (b)  $\left[\frac{\rho_G \theta_G}{\rho_R \theta_R} < 1, a_R < \bar{a}_R\right] \wedge [r > \underline{r}]$ , where  $\bar{a}_R = \frac{a_G(\rho_G + \rho_R)(\theta_G \rho_G + u) - (\rho_G + \rho_R + u)(1-r-f(\rho_G + \rho_R))(\theta_R \rho_R - \theta_G \rho_G)}{(\rho_G + \rho_R)(\theta_R \rho_R + u)}$  is an upper bound on  $a_R$  and  $\underline{r} = 1 - \frac{a_G(\rho_G \theta_G + u)(\rho_G + \rho_R) - a_R(\rho_R \theta_R + u)(\rho_G + \rho_R)}{(\rho_G + \rho_R + u)(\rho_R \theta_R - \rho_G \theta_G)} - f(\rho_G + \rho_R)$  is a lower bound on  $r$ .

To see how the threshold value of  $\underline{r} = 1 - \frac{a_G(\rho_G \theta_G + u)(\rho_G + \rho_R) - a_R(\rho_R \theta_R + u)(\rho_G + \rho_R)}{(\rho_G + \rho_R + u)(\rho_R \theta_R - \rho_G \theta_G)} - f(\rho_G + \rho_R)$  varies with the other model parameters (Corollary 5), we differentiate

and obtain

$$\frac{\delta r}{\delta \theta_G} = -\frac{\rho_G(a_G - a_R)(\rho_G + \rho_R)(\theta_R \rho_R + u)}{(\rho_G + \rho_R + u)(\theta_G \rho_G - \theta_R \rho_R)^2} \quad (11.50)$$

$$\frac{\delta r}{\delta \theta_R} = \frac{\rho_R(a_G - a_R)(\rho_G + \rho_R)(\theta_G \rho_G + u)}{(\rho_G + \rho_R + u)(\theta_G \rho_G - \theta_R \rho_R)^2} \quad (11.51)$$

$$\frac{\delta r}{\delta a_G} = \frac{(\rho_G + \rho_R)(\theta_G \rho_G + u)}{(\rho_G + \rho_R + u)(\theta_G \rho_G - \theta_R \rho_R)} \quad (11.52)$$

$$\frac{\delta r}{\delta a_R} = \frac{(\rho_G + \rho_R)(\theta_R \rho_R + u)}{(\rho_G + \rho_R + u)(\theta_R \rho_R - \theta_G \rho_G)} \quad (11.53)$$

$$\frac{\delta r}{\delta \rho_G} = -f - \frac{\rho_R(a_G - a_R)(\theta_G \theta_R(\rho_G + \rho_R)^2 + u^2(\theta_G + \theta_R))}{(\rho_G + \rho_R + u)^2(\theta_G \rho_G - \theta_R \rho_R)^2} \quad (11.54)$$

$$+ \frac{u(\rho_R^2(a_R(\theta_G \theta_R + \theta_G + \theta_R^2) - a_G \theta_G(\theta_R + 1)) - 2\theta_G \rho_G \rho_R(a_G \theta_R + a_G - a_R) + \theta_G \rho_G^2(a_G(\theta_G - 1) + a_R))}{(\rho_G + \rho_R + u)^2(\theta_G \rho_G - \theta_R \rho_R)^2}$$

$$\frac{\delta r}{\delta \rho_R} = -f + \frac{(a_G - a_R)(\theta_G \theta_R \rho_G(\rho_G + \rho_R)^2 + \rho_G u^2(\theta_G + \theta_R))}{(\rho_G + \rho_R + u)^2(\theta_G \rho_G - \theta_R \rho_R)^2} \quad (11.55)$$

$$+ \frac{u(\rho_G^2((\theta_G + 1)\theta_R(a_G - a_R) + a_G \theta_G^2) + 2\theta_R \rho_G \rho_R(a_G - a_R(\theta_G + 1)) + \theta_R \rho_R^2(a_G - a_R(1 - \theta_R)))}{(\rho_G + \rho_R + u)^2(\theta_G \rho_G - \theta_R \rho_R)^2}$$

$$\frac{\delta r}{\delta f} = -\rho_G - \rho_R \quad (11.56)$$

with  $\frac{\delta d}{\delta \theta_G} < 0$ ,  $\frac{\delta d}{\delta \theta_R} > 0$ ,  $\frac{\delta d}{\delta a_G} < 0$ ,  $\frac{\delta d}{\delta a_R} > 0$ ,  $\frac{\delta d}{\delta \rho_G} < 0$ ,  $\frac{\delta d}{\delta \rho_R} > 0$ ,  $\frac{\delta r}{\delta f} < 0$  for all  $\rho_i \in (0, \infty)$ ,  $\theta_i \in [0, 1]$ ,  $k \in (0, \infty)$ ,  $u \in (0, \infty)$ ,  $d \in (0, 1)$ ,  $a_i \in (0, \infty)$ ,  $a_G > a_R$ ,  $\theta_R > \theta_G$ .

We can also show that resettlement is more cost-efficient than punishing (i.e. more civilians displaced per unit of effort) when government selectivity is low and rebel selectivity is high. Recall that  $d = r + f(\sum_i \rho_i)$ . Assume  $f(\cdot)$  is linear. Suppose that in equilibrium  $R$  plays best response  $\rho_R = \rho_G \frac{\theta_G}{\theta_R}$ , such that  $\frac{\delta d}{\delta r} = 1$  and  $\frac{\delta d}{\delta \rho_G} = f\left(1 + \frac{\theta_G}{\theta_R}\right)$ . Then  $\frac{\delta d}{\delta r} > \frac{\delta d}{\delta \rho_G}$  if  $f < \frac{\theta_R}{\theta_G + \theta_R}$ . The greater  $\theta_R$  is relative to  $\theta_G$ , the more likely this inequality is to be true.  $\square$

# 12

## Appendix II: Data and Empirical Models

### 12.1 TECHNICAL SUPPLEMENT TO CHAPTER 4

#### 12.1.1 ACLED ACTOR DICTIONARY

##### AFGHANISTAN (2004-2010)

- **Government:** afghan government (2001-2004), afghan government (2004-2009), afghan government (2009-), afghan local militia, afghan local militia , afghan public protection force, afghanistan armed forces, armed forces of afghanistan, armed forces of afghanistan , armed forces of britain , armed forces of france, armed forces of the united states, armed forces of the united states , armed forces of afghanistan, cia: central intelligence agency (usa), isaf: international security assistance force, international security assistance force (isaf), international security assistance forces, international security assistance forces, military forces of afghanistan, military forces of afghanistan (2001-),

military forces of australia, military forces of belgium, military forces of britain, military forces of bulgaria, military forces of canada, military forces of croatia, military forces of czechoslovakia, military forces of denmark, military forces of estonia, military forces of finland, military forces of france, military forces of france , military forces of germany, military forces of hungary, military forces of iran, military forces of italy, military forces of latvia, military forces of norway, military forces of poland, military forces of romania, military forces of spain, military forces of sweden, military forces of the netherlands, military forces of the united states, military forces of the united states , national department of security of afghanistan, police forces of afghanistan, police forces of afghanistan , police forces of afghanistan (2001-), private security, private security , security firm (united states), unama: united nations assistance mission in afghanistan (2002-), us protection and investigation

- **Rebel:** al-qaeda, al-qaeda , chechen militia, foreign fighters, haqqani network, hezb-e-islami, hizb-e-islami, islamic movement of uzbekistan, rioters (afghanistan), saad abu fourkan , taliban (afghanistan), taliban (pakistan), unidentified armed group (afghanistan), unknown armed group (afghanistan)
- **Civilian:** afghan tribe, afghan tribe , civilians (afghanistan), civilians (britain), civilians (canada), civilians (china), civilians (china) , civilians (foreign), civilians (france), civilians (germany), civilians (international), civilians (iran), civilians (nepal), civilians (pakistan), civilians (turkey), civilians (turkey) , civilians (ukraine), civilians (united states), civilians (united states) , foreign journalists, protesters (afghanistan)

#### ALGERIA (1997-2010)

- **Government:** military forces of algeria (1994-1999), military forces of algeria (1999-), military forces of mali, patriot militia of algerian government, police forces of algeria (1999-), police forces of morocco (1999-)
- **Rebel:** aqlim: al-qaeda in islamic maghreb, fis: islamic salvation front, gia: armed islamic group (algeria), gia: armed islamic group of algeria, gspc: salafist group for preaching and combat, lidd: islamic league for daawa and djihaad algeria, polisarrio front (morocco), unidentified armed group (algeria)
- **Civilian:** civilians (algeria), civilians (morocco), civilians (senegal), civilians (algeria), protesters (algeria), protesters (western sahara)

## ANGOLA (1997-2009)

- **Government:** faa: military forces of angola (1975-), faa: military forces of angola (1979-), faa: mutiny of military forces of angola (1975-), mpla: popular movement for the liberation of angola (1961-), mpla: popular movement for the liberation of angola (faction), military forces of angola (1975-), police forces of angola (1975-), police forces of angola (1975-1979), police forces of angola (1979-)
- **Rebel:** fdc: cabinda democratic front, flec-fac: front for the liberation of the enclave of cabinda-armed forces of cabinda (1968-), flec-renouvada: front for the liberation of the enclave of cabinda-renouvada faction, flec: front for the liberation of the enclave of cabinda, former unita: national union for the total independence of angola, military forces of south africa (1975-1990), unita: national union for the total independence of angola, unidentified armed group (angola)
- **Civilian:** civilians (angola), civilians (international), civilians (portugal), civilians (south africa), protesters (angola)

## BENIN (1998-2009)

- **Government:** military forces of benin (1996-2006), police forces of benin (1996-2006), presidential guards of benin (2006- )
- **Rebel:** unidentified armed group (benin)
- **Civilian:** civilians (benin), civilians (foreign)

## BOSNIA AND HERZEGOVINA (1992-1999)

- **Government:** bosnian army, croatia, muslim forces, muslim forces and civilians
- **Rebel:** autonomous province of western bosnia, bosnian serb army, bosnian serb army, croatian irregulars, croatian republic of bosnia and herzegovina, jna, serbian air force, serbian airforce, serbian forces and civilians, serbian irregulars, bosnia and herzegovina, serbian irregulars, serbian republic of bosnia and herzegovina, serbian irregulars, serbian republic of krajina
- **Civilian:** bosnian muslims, civilians, civilians, croat and muslim civilians, croatian civilians, muslim and croat civilians, muslim civilians, muslims, serbian civilians

## BOTSWANA (2003-2010)

- **Government:** military forces of botswana (1998-2008), police forces of botswana (1998-2008), police forces of botswana (2008-)
- **Rebel:** street trader militia (botswana), unidentified armed group (botswana), vigilante mob (botswana)
- **Civilian:** civilians (botswana)

## BURKINA FASO (1997-2008)

- **Government:** cdp: congress for democracy and progress (burkina faso), military forces of burkina faso (1987-), police forces of burkina faso (1987-)
- **Rebel:** aneb: national association of burkinabe students (burkina faso), burkinabe farmer militia (burkina faso), burkinabe merchants (burkina faso), fula ethnic militia (burkina faso), gourmantche ethnic group (burkina faso), lobi ethnic militia (burkina faso), unef: national union of faso students (burkina faso), unidentified armed group (burkina faso)
- **Civilian:** civilians (burkina faso), protesters (burkina faso)

## BURUNDI (1997-2010)

- **Government:** adfl: alliance of democratic forces for liberation (1996-1997), banyamulenge ethnic militia, former military of burundi (1994-2005), military forces of burundi (1996-2003), military forces of burundi (1996-2005), military forces of burundi (2005-), military forces of democratic republic of congo (1997-2003) mutinous baynamulenge group, military forces of rwanda (1994-), military forces of uganda (1986-), mutiny for military forces of burundi (1996-2005), rcd: rally for congolese democracy (goma), young peace guard
- **Rebel:** alir: people in action for the liberation of rwanda, cndd-fdd: national council for the defense of democracy, cndd-fdd: national council for the defense of democracy- ndayikengurukiye faction, cndd-fdd: national council for the defense of democracy- nkurinziza faction, fni: front des nationalistes and intagrionnistes, fnl: national forces for the liberation of the hutu people, fnl: national forces for the liberation of the hutu people- nkurunziza faction, fnl: national forces for the liberation of the hutu people- rwasa faction, fnl: national forces for the liberation of the hutu people- sindayigaya faction, frodebu: fronto for democracy in burundi, hutu rebels, hutu rebels,

interahamwe, mayi-mayi militia, military forces of democratic republic of congo (2003-), mutiny of palipehutu-fnl: national forces for the liberation of the hutu people, palipehutu-fnl: national forces for the liberation of the hutu people, rioters (burundi), upd: union for peace and development- zigamibanga faction, unidentified armed group (burundi)

- **Civilian:** civilians (burundi), civilians (drc), civilians (rwanda)

## CAMBODIA (1997-2010)

- **Government:** cpp: cambodian people's party, cpp: cambodian people's party militia, funcinpec royalist militia, funcinpec: national united front for an independent, neutral, peaceful, and cooperative cambodia, kraf: khmer royal armed forces, military forces of cambodia (1993-1997), military forces of cambodia (1997-1998), military forces of cambodia (1998-), mutiny of military forces of cambodia (1993-1997), police forces of cambodia (1993-1997), police forces of cambodia (1998-), srp: sam rainsy party (cambodia)
- **Rebel:** armed tree loggers (cambodia), cambodian freedom fighters, democratic front of khmer students and intellectuals , khmer rouge militia, khmer serei militia, nua: national united army, opposition parties, unidentified armed group (cambodia), unidentified armed group (vietnam)
- **Civilian:** civilians (cambodia), civilians (foreign) , civilians (vietnam), civilians (vietnam)

## CAMEROON (1997-2010)

- **Government:** gendarmerie of cameroon (1982-), military forces of cameroon (1982-), military forces of nigeria (1993-1998), military forces of nigeria (1993-1999), military forces of nigeria (1999-2007), police forces of cameroon (1982-)
- **Rebel:** africa marine commando, bff: bakassi freedom fighters, bagam ethnic militia (cameroon), bameyan ethnic militia (cameroon), banfaw ethnic militia (cameroon), banyangui ethnic militia (cameroon), bororos ethnic militia (nigeria), foulbe ethnic militia (cameroon), gbaya ethnic militia (cameroon), jukun ethnic militia (cameroon), kotoko ethnic militia (cameroon), liberators of the southern cameroons (cameroon), limbe ethnic militia (cameroon), mend: movement for the emancipation of niger delta (nigeria), mbessa ethnic militia (cameroon), musgum ethnic militia (cameroon), muskum ethnic militia (cameroon), nddsc



militia: niger delta defence and security council (nigeria), oku ethnic militia (cameroon), rioters (cameroon), the liberators of southern cameroon, unidentified armed group (bakassi), unidentified armed group (cameroon), unidentified armed group (central african republic), unidentified armed group (chad), unidentified armed group (nigeria)

- **Civilian:** civilians (cameroon), civilians (foreign), civilians (nigeria)

## CENTRAL AFRICAN REPUBLIC (1997-2010)

- **Government:** christians (car), eufor chad/car: european union force chad/car, faca: military forces of central african republic (1993-2003), faca: military forces of central african republic (1993-2003) gbaya faction, faca: military forces of central african republic (1993-2003) yakoma faction, faca: military forces of central african republic (1999-2003), faca: military forces of central african republic (2003-), faca: military forces of central african republic (2003-) bozize faction, fomuc: multinational force of the central african economic and monetary community, minurca: united nations mission in the central african republic (1998-2000), minurcat: united nations mission in the central african republic and chad (2007-), military forces of central african republic (1993-2003), military forces of central african republic: presidential guard (2003-), military forces of france (1958-), mutiny of military forces of central african republic (1993-2003), police forces of central african republic (1993-2003), police forces of central african republic (2003-), private security force (car), usp: unite de securite presidentielle (1993-2003)
- **Rebel:** aprd: popular army for the restoration of the republic and democracy, arpd: army for the restoration of the republic and democracy, arpd: popular army for the restoration of democracy militia (car), cpjp: convention of patriots for justice and peace, fdpc: central african people's democratic front, fdpc: democratic forces for the central african people, fdpc: democratic front for the people of the central african republic, firca: forces for the unification of the central african republic, goula ethnic militia (car), lra: lord's resistance army, lra: lord's resistance army (uganda), mlcj: movement of centrafrican liberators for justice (car) militia, mlpc: mouvement pour la liberation du peuple central african, masabio ethnic militia, militia of merchants, militia of merchants (car), muslim group (car), nzakara ethnic militia, prl: redeemed patriots former liberators, patriots militia, peul ethnic militia, ufdr: union of democratic forces for unity, ufr: union of republican forces, unidentified ethnic militia (sudan), unidentified armed group (car), unidentified armed group

(central african republic), unidentified armed group (chad), unidentified armed group (drc), unidentified armed group (sudan), unidentified ethnic militia (car), unidentified ethnic militia (central african republic), unidentified ethnic militia (sudan), unidentified armed group (chad), youlou ethnic militia (car), zaraguinas

- **Civilian:** civilians (aid workers), civilians (car), civilians (chad), civilians (drc), civilians (foreign), civilians (nigeria)

## CHAD (1997-2010)

- **Government:** chadian national army - ant - deby, chadian national army-ant-deby, eufor chad/car, gnnt: nomad and national guard of chad, minurcat: un security forces, military forces of central african republic-faca (2003-), military forces of chad (1990-), military forces of chad (1991-), military forces of france (1990-), mutiny of military forces of chad (1990-), police forces of chad (1990-), police forces of chad (1991-)
- **Rebel:** aprd: the popular army for the restoration of the republic and democracy, arab ethnic militia, bornou ethnic militia, cnt: chadian national concord, cpdc: coordination of political parties for the defence of the constitution, darsalim ethnic militia (chad), farf: armed forces for a federal republic, farf: armed forces for a federal republic in chad, fdpc: democratic front for the central african people, fdr: democratic front for renewal, fnta: front for chad renewal, fprn: popular front for national rebirth, fprn: popular front for national renaissance militia (sudan), fprn: popular front for national renewal, froinat: front for national liberation militia (chad), fuc: united front for change, fucd: unity front for democratic change, falcons for the liberation of africa, gspc: salafist group for preaching and combat, gorane ethnic militia (chad), jem: justice and equality movement, jem: justice and equality movement militia (darfur, sudan), justice and equality movement - jem, khouzam ethnic militia, kibede ethnic militia (chad), kibets ethnic militia, mdjt: movement for democracy and justice in chad, mprp: movement for peace, reconciliation, progress militia (chad), national alliance of chad, rafdcnt: rally of democratic forces-national chadian concord, rafdc: rally of democratic forces, rdl: rally for democracy and freedom, rfc: rally of forces for change, rafdc: the rally of democratic forces rassemblement des forces democratiques, rafdc: the rally of democratic forces rassemblement des forces democratiques, uffd: union of forces for democracy and development, scud: foundation for change national unity and democracy, scud: platform for change, unity and

democracy, sla: sudanese liberation army, tama ethnic militia (chad), tamas ethnic militia, toubou ethnic militia, ufdc: united front for democratic change, ufdd: force for democracy and development, ufdd: union of forces for democracy and development, ufr: union of forces for resistance, ufr: union of forces for resistance militia (chad), ufr: union of resistance forces, unidentified armed group (chad), unidentified armed group (sudan), unidentified armed group - chad, unidentified ethnic militia (chad), united front for democratic change (ufdc), walet rachid ethnic militia, zaghawa ethnic militia, zaghawa ethnic militia (chad)

- **Civilian:** civilians (aid workers), civilians (chad), civilians (chad), civilians (foreign), civilians (refugees), civilians (sudan), civilians (united kingdom)

#### REPUBLIC OF CONGO (2004-2009)

- **Government:** commandement des unites specialisees, military forces of roc (1997-), military forces of roc-gendarmerie (1997-), parti congolais du travail
- **Rebel:** ninjas/nsiloulou, unidentified armed group (roc), unidentified armed group (rep. congo)
- **Civilian:** civilians (roc)

#### DJIBOUTI (1997-2010)

- **Government:** military forces of djibouti (1977-), military forces of djibouti (1993-), police forces of djibouti (1977-), police forces of djibouti (1999-)
- **Rebel:** frud: front of the restoration of unity and democracy, military forces of eritrea (1993 - ), military forces of eritrea (1993-), mutiny of military forces of djibouti (1999-), mutiny of police forces of djibouti (1977-), rioters (djibouti), unidentified armed group (djibouti)
- **Civilian:** civilians (djibouti), civilians (eritrea), civilians (somalia)

#### DEMOCRATIC REPUBLIC OF THE CONGO (1998-2010)

- **Government:** adf: allied democratic forces, alir: people in action for the liberation of rwanda, cndd-fdd: national council for the defense of democracy, dsp: division speciale presidentelle, fac: military forces of democratic republic of congo (1997-2003), fac: military forces of the democratic republic of congo (1997-2001), fardc: military forces of democratic republic of

congo (2001-), fardc: military forces of democratic republic of congo(2001-),  
 faz: military forces of zaire (1965-1997), fdlr: democratic forces for the  
 liberation of rwanda, fdlr: democratic forces for the liberation of rwanda-rasta  
 faction, flc: congolese liberation front, fni: front des nationalistes and  
 intagratiionnistes, fni:front des nationalistes and intagratiionnistes, fnl: national  
 forces for the liberation of the hutu people, frolina: national liberation  
 front burundi, former military for drc (1997-2003), former military of drc  
 (1965-1997), former military of zaire (1965-1997), interahamwe, interahamwe/hutu  
 militias, local defense group (drc), monuc: united nations organisation mission  
 in democratic republic of congo (1999-2010), mayi mayi militia (mbuayi), mayi  
 mayi militia (kifuafua), mayi-mayi milita, mayi-mayi milita (cmdt la fontaine),  
 mayi-mayi militia, mayi-mayi militia (adfl faction), mayi-mayi militia (cmdt  
 jackson), mayi-mayi militia (pareco), mayi-mayi militia (yakutumba), mayi-mayi  
 militia, military forces of angola (1975-), military forces of chad (1990-),  
 military forces of democratic republic of congo (1975-2002), military forces  
 of democratic republic of congo (1997-2003), military forces of democratic  
 republic of congo (2003-), military forces of namibia (1990-2005), military  
 forces of zaire (1965-1997), military forces of zimbabwe (1980-), mudundu 40,  
 mutiny for military forces of democratic republic of congo (2003-), mutiny for  
 military forces of democratic republic of congo (2003-) bamba faction, mutiny for  
 military forces of democratic republic of congo (2003-) nkunda faction, mutiny  
 of lord's resistance army, mutiny of military forces of democratic republic  
 of congo (1997-2003), mutiny of military forces of democratic republic of  
 congo (1997-2003) banyamulenge faction, mutiny of military forces of democratic  
 republic of congo (1997-2003) baynamulenge faction, mutiny of military forces  
 of democratic republic of congo (2003-) nkunda faction, nalu: national army for  
 the liberation of uganda, palipehutu-fnl: national forces for the liberation of  
 the hutu people, pprd: people's party for reconstruction and democracy, pusic:  
 party for the unity and safekeeping of congo's integrity, police forces of  
 democratic republic of congo (1997-2003), police forces of democratic republic  
 of congo (2001-), rud: gathering for unity and democracy

- Rebel:** adfl: alliance of democratic forces for liberation (congo-zaire) (1996-1997),  
 apcls: alliance of patriots for a free and sovereign congo, adumi militia,  
 alliance for democratic change, bdk: bunda dia kongo, babembe militia, banyamulenge  
 ethnic militia (drc), bomboma ethnic militia, bomboma ethnic militia, cmpd/cndp:  
 national congress for the defense of the people, crd: congolese rally for  
 democracy, fpjc: front populaire pour la justice au congo, frf: federal

republican forces, frpi: front for patriotic resistance of ituri, haut-uele resident militia, hema ethnic militia (drc), hutu militia (rwanda), hutu rebels, hutu rebels, kalambo militia, lra: lord's resistance army, lendu ethnic militia (drc), lendu ethnic militia (uganda), lobala (enyele) militia, mlc: congolese liberation movement, mlc: movement for the liberation of congo, mrc: revolutionary movement of congo, military forces of burundi (1996-2005), military forces of rwanda (1994-), military forces of uganda (1986-), minembwe dissidents, munyenge militia, ngiti militia, patriots-resistance of dongo, rcd-k: rally for congolese democracy-movement of liberation, rcd: rally for congolese democracy, rcd: rally for congolese democracy (anc), rcd: rally for congolese democracy (goma), rcd: rally for congolese democracy (kisangani), rcd: rally for congolese democracy (masunzu), rcd: rally for congolese democracy (national), rioters (drc), unita: national union for the total independence of angola, unrfff: uganda national rescue front ii, upc: union of congolese patriots, updf: military forces of uganda (1986-), unidentified armed group (burundi), unidentified armed group (drc), unidentified armed group (rwanda), unidentified armed group (uganda), wageregere ethnic militia, wangilima ethnic militia

- **Civilian:** civilians (angola), civilians (burundi), civilians (drc), civilians (foreign), civilians (france), civilians (lebanon), civilians (russian), civilians (rwanda), civilians (thailand), civilians (uganda), hutu refugees

#### EGYPT (1997-2010)

- **Government:** border guard (egypt), ghad political party - pro-government faction, military forces of egypt (1937-), military forces of usa, ndp: national democratic party (egypt), police forces of egypt, police forces of egypt (2005-)
- **Rebel:** abdel halim clan militia, ahrar party (egypt) hemeida faction, ahrar party (egypt) sadat faction, al-gama'a al-islamiya, bedouin militia (egypt), christian militia (egypt), christian militia (sudan), ghad political party, hunayshat clan militia, muslim militia (egypt), palestinian militants (palestine), rioters (egypt), smugglers (egypt), the society of muslim brothers, unidentified armed actor (egypt)
- **Civilian:** christian group (egypt), civilians (chad), civilians (egypt), civilians (international), civilians (jordan), civilians (migrant), civilians (usa), protesters (egypt)

#### EQUATORIAL GUINEA (1998-2009)

- **Government:** military forces of equatorial guinea (1979-), police forces of equatorial guinea (1979-), presidential guard of equatorial guinea (1979-)
- **Rebel:** mend: movement for the emancipation of the niger delta, unidentified armed group (cameroon), unidentified armed group (equatorial guinea), unidentified armed group (nigeria)
- **Civilian:** civilians (equatorial guinea)

#### ERITREA (1997-2009)

- **Government:** military forces of eritrea (1993 - ), military forces of eritrea (1993-), military forces of eritrea 1993 - present, police forces of eritrea (1993 - ), police forces of eritrea (1993-), police forces of eritrea (1993-), unidentified armed group (eritrea), un peacekeeping forces unmee
- **Rebel:** eritrean kumama democratic liberation movement, front pour la restauration de l' unite et de la demouatie (frud), military forces of ethiopia (1991-), military forces of ethiopia (2001-), military forces of ethiopia 2001-present, military forces of sudan (1989-), red sea afar democratic organisation, unidentified armed group (eritrea), unidentified armed group (ethiopia)
- **Civilian:** civilians (eritrea), civilians (ethiopia), civilians (sudan)

#### ETHIOPIA (1997-2010)

- **Government:** benshangul people's liberation movement, christian militia (ethiopia), col qeybdid - fighters for the leader col abdi hasan awale, edu: front of the ethiopian democratic union forces, eprdf: ethiopian people's revolutionary democratic front, eprdf: ethiopian people's revolutionary democratic front militia, ethiopian police, military forces of ethiopia (1991-), military forces of kenya (2002-2007), mutiny of military forces of ethiopia (1991-), orthodox christian militia (ethiopia), police forces of ethiopia (1991-), police forces of ethiopia (2001-)
- **Rebel:** arduf: afar revolutionary democratic unity front, afar ethnic militia, al-ittihad al-islam (islamic unity), aliwan ethnic militia, amaro ethnic militia (ethiopia), amhara ethnic militia, anuak ethnic militia (sudan), anyua ethnic militia (anyake/anuak), benishangale ethnic militia (ethiopia), borana ethnic militia (ethiopia), dabaqoodhiga ethnic militia, dawee ethnic militia, derash ethnic militia, dinka ethnic militia, eppf: ethiopian people's patriotic front,

ethiopian unity and justice movement, gabra ethnic militia (ethiopia), garre ethnic militia (ethiopia), gebra ethnic militia, geleb ethnic militia (ethiopia), gerri ethnic militia, guji ethnic militia (ethiopia), gumuz ethnic militia (ethiopia), gura ethnic militia, gurji ethnic militia, hadyia ethnic militia, isa ethnic militia, kereyou ethnic militia, konso ethnic militia (ethiopia), medrek: ethiopian federal democratic unity forum militia, military forces of eritrea (1993-), murle ethnic group, muslim militia (ethiopia), muslim militia (somalia), nuer ethnic militia (ethiopia), olf: oromo liberation front, onlf: ogaden national liberation front, ogaden ethnic militia, oromo ethnic militia, police forces of eritrea (1993-), rioters (ethiopia), slf: sidama liberation front, sidama ethnic militia, sidama ethnic militia (ethiopia), sokumar ethnic militia, somali ethnic militia (ethiopia), somali gura ethnic militia, tpdm: tigray people's democratic movement, tplf: tigray people's liberation front, turkana ethnic militia (kenya), unidentified armed group (eritrea), unidentified armed group (ethiopia), unidentified armed group (kenya), unidentified armed group (sudan), unidentified ethnic militia (ethiopia), unidentified ethnic militia ii (ethiopia), wslf: western somai liberation front, zeyle ethnic militia

- **Civilian:** civilians (chinese), civilians (eritrea), civilians (ethiopia), civilians (foreign), civilians (france), civilians (israeli), civilians (kenya), civilians (somalia), civilians (sudan), protesters (ethiopia)

#### GABON (1997-2009)

- **Government:** military forces of gabon (1967-2009), pdg: gabonese democratic party (1968-), police forces of gabon (1967-2009)
- **Rebel:** lebamba ethnic militia, unidentified armed group (gabon)
- **Civilian:** civilians (gabon)

#### GAMBIA (1997-2009)

- **Government:** aprc: alliance for patriotic re-orientation and construction (gambia), military forces of gambia (1994-), military forces of senegal (2000-), mutiny of military forces of gambia (1994-), police forces of gambia (1994-)
- **Rebel:** foroolu ethnic militia (gambia), jongolu ethnic militia (gambia), rioters (gambia), udp: united democratic party (gambia), unidentified armed group (gambia), unidentified armed group (senegal)

- **Civilian:** civilians (gambia), civilians (ghana), civilians (senegal)

#### GHANA (1997-2010)

- **Government:** landguard soldiers, military forces of ghana (2009-), mutiny of military forces of ghana (2001-2009), ndc: national democratic congress (ghana), npp: new patriotic party (ghana), police forces of ghana (1993-2001), police forces of ghana (2001-2009), police forces of ghana (2009- )
- **Rebel:** abudus ethnic militia (ghana), afadi ethnic militia, akrashi ethnic militia, al-qaeda (ghana), alavanyo ethnic militia (ghana), andanis ethnic militia (ghana), anlo ethnic militia (ghana), armed youth group from odumasi (ghana), asafo ethnic militia, bimboba ethnic militia (ghana), binyami ethnic militia, biyambo ethnic militia, fulani ethnic militia (ghana), gpha: private security, ga ethnic youth militia, japaak ethnic militia (ghana), konkomba ethnic militia (ghana), krachi ethnic militia (ghana), kusasis ethnic militia (ghana), mamprusis ethnic militia (ghana), nima boys militia (ghana), orthodox moslem ethnic militia, pierngua ethnic militia, pulis ethnic militia (ghana), sunni moslem ethnic militia, tijanniya moslem ethnic militia, unidentified armed group, unidentified armed group (ghana), unidentified ethnic militia (ghana)
- **Civilian:** civilians (ghana), civilians (nigeria)

#### GUINEA-BISSAU (1998-2010)

- **Government:** mfdc: movement of democratic forces in the casamance, mfdc: movement of democratic forces in the casamance (front sud), mfdc: movement of democratic forces of casamance, military forces of guinea-bissau (1984-1998), military forces of guinea-bissau (1998-2000), military forces of guinea-bissau (2000-2003), military forces of guinea-bissau (2003-2003), military forces of guinea-bissau (2005-2009), military forces of guinea-bissau (2009-), mutiny of military forces of guinea-bissau (1998-2000), mutiny of military forces of guinea-bissau (2009-)
- **Rebel:** aguentas militia (guinea-bissau), balanta ethnic militia group (guinea-bissau), madinka ethnic militia group (guinea-bissau), unidentified armed group (guinea-bissau)
- **Civilian:** civilians (foreign), civilians (guinea-bissau), civilians (senegal)

#### GUINEA (1998-2010)



- **Government:** cndd: national council for democracy and development, lurd: liberian united for reconciliation and democracy, military forces of guinea (1984-2008), military forces of guinea (2008-), mutiny of military forces of guinea (1984-2008), mutiny of military forces of guinea (2008-), police forces of guinea (1984-2008), police forces of guinea (2008-), presidential guard (1984-2008), presidential guard (2008-), ufdg: union of democratic forces of guinea
- **Rebel:** christian militia (guinea), guerze ethnic militia (guinea), kamajor militia (sierra leone), malinke ethnic militia (guinea), muslim militia (guinea), rfdg: rally of democratic forces of guinea, rally of democratic forces of guinea, rioters (guinea), tomas christian ethnic militia (guinea), tomas muslim ethnic group (guinea), ulimo: united liberation movement for democracy (1991-1994), unidentified armed group (guinea), unidentified armed group (liberia), unidentified armed group (sierra leone)
- **Civilian:** civilians (foreign), civilians (guinea), civilians (liberia), civilians (refugees), civilians (sierra leone), protesters (guinea)

## HAITI (1997-2010)

- **Government:** aristide loyalists militia, border custom enforcement in haiti (1996-2001), former military forces of haiti (army), fwon lespwa (hope front), minustah: united nations stabilization mission in haiti, mutiny of police forces of haiti (1996-2001), police forces of haiti (1996-2001), police forces of haiti (2000-2004), police forces of haiti (2004-2006), police forces of haiti (2006-), private security forces (haiti)
- **Rebel:** acsm: motherless convergence army, base resistance, cannibal army militia, christian militia (haiti), cite soleil militia (haiti), democratic consultation group (espace) militia, democratic convergence (opposition alliance) militia, escanp/korega: effort and solidarity to build a national and popular alternative/grand'anse resistance committee militia, flrn: national liberation and reconstruction front, faction of lavalas militia (dread mackenzie), front for aristide's departure (cannibal army), gonaïves resistance front, guy philippe, lafanmi se lavi militia, opposition party militia (haiti), political opposition militia (haiti), ramicos: group of principled militants of st. marc, revolutionary artibonite resistance front, rioters (dominican republic), rioters (haiti), rioters (lavalas), unidentified armed group (haiti), unidentified armed group (colombia), unidentified armed group (dominican republic), unidentified armed

group (haiti), unidentified armed group (haiti) , unidentified armed group ii (haiti), unidentified political militia (haiti)

- **Civilian:** civilians (canadian), civilians (dominican republic), civilians (foreign), civilians (france), civilians (haiti), civilians (haiti) , civilians (jamaica), civilians (united states), protesters (haiti)

#### CÔTE D'IVOIRE (1997-2010)

- **Government:** armed forces of france (2002-2006), fesci: student federation of cote d'ivoire, fnci: new forces of ivory coast, fpi: ivory coast popular front, gpp: group for peace and progress, gpp: patriotic group for peace, minuci: united nations mission in cote d'ivoire armed forces, mercenaries (foreign), mercenaries (liberia), military forces of guinea (1984-2008), military forces of ivory coast (1993-1999), military forces of ivory coast (1999-2000), military forces of ivory coast (2000-), mutiny of fesci: federation of students and pupils of cote d'ivoire, mutiny of fnci: new forces of ivory coast, mutiny of fnci: new forces of ivory coast (ibrahim coulibaly), mutiny of fnci: new forces of ivory coast (zakaria kone), mutiny of military forces of ivory coast (1993-1999), mutiny of military forces of ivory coast (1999-2000), mutiny of military forces of ivory coast (2000-), police forces of ivory coast (1993-1999), police forces of ivory coast (1999-2000), police forces of ivory coast (2000-)
- **Rebel:** abbey ethnic militia (ivory coast), baoule ethnic militia (burkina faso), baoule ethnic militia (ivory coast), bete ethnic militia (ivory coast), congres panafricain des jeunes patriotes (young patriots), dioula ethnic group (ivory coast), dioula ethnic militia, dioula ethnic militia (ivory coast), dozo ethnic militia (ivory coast), ebrie ethnic militia, guere ethnic militia (ivory coast), kroumen ethnic militia, lobi ethnic militia (ivory coast), miloci: ivory coast movement to liberate the west, mjp: movement for justice and peace, mpci: patriotic movement of the ivory coast, mpigo: ivory coast popular movement of the great west, mossi ethnic militia (burkina faso), pdci: democratic party of ivory coast militia, rdr: rally of republicans militia, rioters (ivory coast), senoufo ethnic militia, unidentified armed group (burkina faso), unidentified armed group (ivory coast), unidentified ethnic militia (burkina faso), unidentified ethnic militia (ghana), unidentified ethnic militia (ivory coast), we ethnic militia (ivory coast), yacouba ethnic militia
- **Civilian:** civilians (burkina faso), civilians (foreign), civilians (france), civilians (ghana), civilians (guinea), civilians (ivory coast), civilians (mali), civilians (niger), civilians (usa), protesters (ivory coast)

## KENYA (1997-2010)

- **Government:** kanu: kenya african national union, labour party of kenya militia (kenya), military forces of ethiopia (1991-), military forces of ethiopia (1995-2001), military forces of ethiopia (2001-), military forces of kenya (1978-2002), military forces of kenya (2002-), narc: national rainbow coalition (kenya), ndp: national development party, ndp: national development party (kenya), ndpk: national democratic party of kenya, national labour party militia (kenya), odm: orange democratic movement (kenya), party of national unity (kenya), party of national unity militia (kenya), police forces of kenya (1978-2002), police forces of kenya (1992-1997), police forces of kenya (2002-), presidential guard of kenya (2002-), private security (kenya), private security guards (kenya), sdp: social democratic party (kenya), safina political party (kenya)
- **Rebel:** abduwak ethnic militia (kenya), ajuran ethnic militia (kenya), al-qaeda islamic militants, al-shabab islamic militia (somalia), amarkoke ethnic militia (kenya), army of palestine militia (lebanon), auliyah ethnic militia (kenya), awlyahan ethnic militia (kenya), bagisu ethnic militia (kenya), bahr al ghazal militia, banana political militia (kenya), borana ethnic group (kenya), borana ethnic militia (ethiopia), borana ethnic militia (kenya), buirege ethnic militia (kenya), bukusu ethnic militia (kenya), christian militia (kenya), chwele ethnic militia (kenya), dassanach ethnic militia (ethiopia), degodia ethnic militia (kenya), didinga ethnic militia (sudan), dinka ethnic militia, dinka ethnic militia (sudan), dodoth ethnic militia (uganda), dongiro ethnic militia (sudan), embakasi party militia (kenya), ford-kenya political militia, ford-kenya: forum for the restoration of democracy (kenya), forum for the restoration of democracy (ford) militia (kenya), fulani ethnic militia (kenya), gabra ethnic group (kenya), gabra ethnic militia (kenya), garre ethnic militia (ethiopia), garre ethnic militia (kenya), giriama tribesmen militia (kenya), gucha district militia (kenya), gucha herdsman militia (kenya), gucha youth militia (kenya), igembe ethnic militia, imenti ethnic militia (kenya), isiolo ethnic militia (kenya), islamist militia (somalia), jie ethnic militia (uganda), kaddu: kenya african democratic development union militia, kachepkosir ethnic militia (kenya), kakamega farmer militia (kenya), kakdhimu ethnic militia (kenya), kalenjin ethnic militia (kenya), karamajong ethnic militia (uganda), karamojong ethnic militia (uganda), katemke ethnic militia (kenya), kauma-koyugi ethnic militia (kenya), kiambu farmer militia (kenya), kikuyu ethnic group (kenya), kikuyu ethnic militia (kenya), kipsigi ethnic militia (kenya), kirinyaga community militia (kenya),

kisii ethnic militia (kenya), kuria ethnic militia (kenya), luhya ethnic militia (kenya), luo ethnic militia (kenya), maasai ethnic militia (kenya), mambilla ethnic militia (kenya), marakwet ethnic militia (kenya), merille ethnic militia (ethiopia), merrile ethnic militia, migori district militia (kenya), molo community militia (kenya), mombasa republican council militia (kenya), moorland forces militia (kenya), muloti ethnic militia (kenya), mumias outgrowers company militia (kenya), mungiki sect (kenya), mungiki sect militia (kenya), murele ethnic militia (kenya), muslim militia (kenya), mutiny of mungiki sect (kenya), ndorobo ethnic militia (kenya), njemp ethnic militia (kenya), nubian ethnic militia (kenya), nyabasi ethnic militia (kenya), olf: oromo liberation front, olf: oromo liberation front (ethiopia), ololunga ethnic militia (kenya), orma ethnic militia (kenya), pirates, pokomo ethnic militia (kenya), pokot ethnic militia (kenya), pokot ethnic militia (uganda), rioters (kenya, rioters (kenya), sldf: sabaot land defence force (kenya), spla-garang: sudanese people's liberation army-garang faction, spla-kerubino: sudanese people's liberation army-kerubino faction, spla/m: sudanese people's liberation army/movement, spla: sudanese people's liberation army (sudan), sabaot ethnic militia (kenya), sabeny ethnic militia (kenya), samburu ethnic militia (kenya), sebei ethnic militia (uganda), shifta ethnic militia, soi ethnic militia (kenya), somali ethnic militia (kenya), somali ethnic militia (somalia), sonjo ethnic militia (tanzania), student militia (kenya), tabaqa militia (ethiopia), taliban militia (kenya), tebesonik ethnic militia (kenya), tharaka ethnic militia (kenya), the government of universal palestine in exile, the army of palestine militia, tigania ethnic militia, tigania ethnic militia (kenya), tigray people's revolutionary liberation front (ethiopia), toposa ethnic group (sudan), toposa ethnic militia (kenya), toposa ethnic militia (sudan), trans mara east militia (kenya), trans mara herdsman militia (kenya), trans mara west militia (kenya), turkana ethnic group (kenya), turkana ethnic militia (kenya), turkana ethnic militia (sudan), unidentified armed group (ethiopia), unidentified armed group (kenya), unidentified armed group (rwanda), unidentified armed group (somalia), unidentified armed group (sudan), unidentified armed group (uganda), unidentified armed group (yemen), unidentified ethnic group (ethiopia), unidentified ethnic group (kenya), unidentified ethnic militia (ethiopia), unidentified ethnic militia (kenya), unidentified ethnic militia (somalia), unidentified ethnic militia (uganda), unidentified islamic militia (kenya), vigilante militia (kenya), walenchoka-kurya ethnic militia (kenya), wanchori-kurya ethnic militia, wardei ethnic militia (kenya)

- **Civilian:** civilians (ethiopia), civilians (foreign), civilians (germany), civilians (ireland), civilians (italy), civilians (kenya, civilians (kenya), civilians (pakistan), civilians (russia), civilians (rwanda), civilians (saudi arabia), civilians (somalia), civilians (sudan), civilians (uk), civilians (usa), civilians (uganda), kongowea villagers (kenya), protesters (kenya)

#### KOSOVO (1998-2000)

- **Government:** serb forces (unknown whether police, army or paramilitaries), serbian air force, serbian forces, serbian police, serbian airforce, serbian forces, serbian paramilitaries, serbian police, vj, vj
- **Rebel:** albanian civilians/uck, albanian forces, uck, uck , uck (allegedly)
- **Civilian:** albanian civilians, civilians, roma civilians, serb civilians, serbian civilians

#### LAOS (1998-2010)

- **Government:** lpdr: lao people's democractic republic , military forces of laos (1998-2001), military forces of laos (2001-2006), military forces of laos (2007-)
- **Rebel:** free democratic people's government of laos militia, hmong ethnic militia (laos), lao resistance movement, unidentified armed group (laos)
- **Civilian:** civilians (foreign), civilians (hmong-laos), civilians (laos)

#### LESOTHO (1997-2009)

- **Government:** bcp: basutoland congress party (lesotho), bnp: basotho national party (lesotho), lcd: lesotho congress for democracy party (lesotho), military forces of botswana (1998-2008), military forces of lesotho (1994-1998), military forces of lesotho (1998-), military forces of south africa (1994-1999), mutinying military forces of lesotho (1998-), mutinying police forces of lesotho (1994-1998), police forces of lesotho (1994-1998), police forces of lesotho (1998-)
- **Rebel:** alliance of rebel groups (lesotho), fawu: factory workers' union (lesotho), incarcerated persons (lesotho), unidentified armed group (lesotho), unidentified armed group (mozambique)
- **Civilian:** civilians (lesotho), civilians (south africa)

## LIBERIA (1997-2010)

- **Government:** anti-terrorist unit of liberia (1997-2003), armed men ex-liberian forces (liberia), gio and mano tribesmen (pro-taylor militia), government of liberia (1999-2003), military forces of liberia (1989-2003), military forces of liberia (1997-2003), military forces of liberia (2003-), military forces of liberia (2003-2005), npfl: national patriotic front liberia, police forces of liberia (1997-2003), police forces of liberia (2003-), police forces of liberia (2003-2005), police forces of liberia (2005-), police forces of liberia (2006-), ruf: revolutionary united front of sierra leone, special security services liberia (1997-2003), up: unity party (liberia)
- **Rebel:** jfll: joint forces for the liberation of liberia, kamajor militia (sierra leone), kpelle armed group (liberia), lurd: liberians for reconciliation and democracy, lurd: liberians for reconciliation and democracy (junta supporting janneh and not conneh), lorma tribesmen, model: movement for democracy in liberia, mandingo armed group (liberia), mandingo tribesmen, military forces of guinea (1984-2008), military forces of sierra leone (1998-2007), rioters (liberia), ulimo j, ulimo k, unidentified armed group (liberia)
- **Civilian:** civilians (foreign), civilians (guinea), civilians (liberia), civilians (sierra leone), civilians (south africa), protesters

## LIBYA (1997-2010)

- **Government:** government of libya (1969-), military forces of libya (1969-), police forces of libya (1969-)
- **Rebel:** al-tabu tribe (libya), incarcerated persons (libya), rioters (libya), toubou tribe (libya), unidentified armed group (libya), unidentified armed group (sudan), unidentified armed group (united kingdom), zawia tribe (libya)
- **Civilian:** civilians (chad), civilians (egypt), civilians (libya), civilians (united states)

## MACEDONIA (2000-2001)

- **Government:** macedonia, macedonia
- **Rebel:** albanian irregulars, kosovo, uck (ushtria |lirimtare kombetare: national liberation army)

- Civilian:

#### MADAGASCAR (1997-2010)

- **Government:** military forces of madagascar (1996-2002), military forces of madagascar (2002-2009), military forces of madagascar (2009-), mutinous of military forces of madagascar (2002-2009) general andrianafidisoa faction, mutiny of military forces of madagascar (2009-), police forces of madagascar (1996-2002), police forces of madagascar (2002-2009), police forces of madagascar (2009-), tgv: tanora malagasy vonona / determined malagasy youth, tim: tiako i madagasikara / i love madagascar, tim: tiako i madagasikara / i love madagascar militia
- **Rebel:** african-descended ethnic militia (madagascar), antandroy ethnic militia (madagascar), merina ethnic militia (madagascar), unidentified armed group (madagascar), unidentified ethnic militia (madagascar)
- **Civilian:** civilians (madagascar)

#### MALAWI (2000-2009)

- **Government:** dpp: democratic progressive party militia, myp: malawi young pioneers, nda: national democratic alliance militia, police forces of malawi (1994-2004), udf: united democratic front militia, young democrats
- **Rebel:** aford: alliance for democracy militia, unidentified armed group (malawi)
- **Civilian:** civilians (malawi)

#### MALI (1997-2010)

- **Government:** adema liberation army (mali), military forces of algeria (1999-), military forces of mali (1992-2002), military forces of mali (2002-), military forces of united states, police forces of mali (1992-2002), police forces of mali (2002-)
- **Rebel:** adc: democratic alliance of 23rd may for change, aqim: al-qaeda in the islamic maghreb, atnmc: tuareg alliance of north mali for change, arab militia (mali), berdossou ethnic militia (mali), diandioubera ethnic militia (mali), dogon ethnic militia (mali), drug traffickers (mali), fulani ethnic militia (mali), gspc: salafist group for call and combat, gspc: salafist group for preaching and combat, ganda izo ethnic militia (mali), guavinane ethnic militia

(mali), idnan ethnic militia (mali), ifogha ethnic militia (mali), kayobogo ethnic militia (mali), kirane ethnic militia (mali), kounta ethnic militia (mali), mpla: popular movement for the liberation of azawad, missira samoura ethnic militia (mali), sao ethnic militia (mali), sero diamanou ethnic militia (mali), shiite muslim militia (mali), sirranikoro ethnic militia (mali), soninke ethnic militia (mali), student militia (mali), sunni muslim militia (mali), tuareg ethnic militia, tuareg ethnic militia (mali), tuareg rebels (mali), unidentified armed militia (mali)

- **Civilian:** civilians (foreign), civilians (mali), protestors (mali)

### MAURITANIA (1997-2010)

- **Government:** military forces of mauritania (1984-2005), military forces of mauritania (2007-2008), military forces of mauritania (2008-2009), military forces of mauritania (2009-), mutiny of military forces of mauritania (1984-2005), police forces of mauritania (1984-2005), police forces of mauritania (2005-2007), police forces of mauritania (2008-2009)
- **Rebel:** aqim: al-qaeda in the islamic maghreb, djigueni ethnic militia (mauritania), gspc: salafist group for call and combat, knights of change, missira samoura ethnic militia (mali), unidentified armed group (mauritania), unity, justice and equality front in mauritania
- **Civilian:** civilians (foreign), civilians (germany), civilians (mauritania), protesters (mauritania)

### MOROCCO (1997-2010)

- **Government:** bloc democratique party supporters (morocco), entente nationale party supporters (morocco), front of democratic forces (morocco), military forces algeria (1994-1999), police forces of morocco (1999-), socialism and progress party (morocco)
- **Rebel:** al adl wa al ihsane (morocco), al adl wa al ihsan supporters (morocco), al quida (morocco), assalafia al jihadia (morocco), gia: armed islamic group (algeria), polisario front (morocco), salafia jihadia (morocco), senegalese immigrant armed group (morocco), unidentified armed group (algeria), unidentified armed group (morocco)
- **Civilian:** civilians (morocco), civilians (western sahara), protesters (western sahara)



## MOZAMBIQUE (1997-2010)

- **Government:** frelimo: frente de libertacao de mocambique, mdm: mozambique democratic movement, military forces of mozambique - presidential guard (2005-), pic: policia de investigacao criminal, police forces of mozambique (1992-), presidential guard (dhlakama), prison guards (mozambique)
- **Rebel:** renamo: resistencia nacional de mocambique, unidentified armed group (malawi), unidentified armed group (mozambique)
- **Civilian:** civilians (britain), civilians (mozambique), civilians (refugees)

## MYANMAR (1996-2009)

- **Government:** police forces of myanmar, spdc: state peace and development council
- **Rebel:** absdf: all burma students democratic front , alf: arakan liberation front, buddhist militia, cna: chin national army, dkba: democratic karen buddhist army, god's army, knpp: karenni national progressive party, karen national liberation army, kayin national union, mndaa: myanmar national democratic alliance army, muslim militia, nscn-im: nationalist socialist council of nagaland isaac chishi swu and t muivah, nscn-k: national socialist council of nagaland-khaplang (india), nscn: national socialist council of nagaland (india), rohingya solidarity organisation, ssa: shan state army, ssna: shan state national army, ulfa: united liberation front from assam (india), unlf: united national liberation front (india), unidentified armed group (myanmar)
- **Civilian:** civilians (international), civilians (myanmar)

## NAMIBIA (1999-2009)

- **Government:** faa: military forces of angola (1975-), faa: military forces of angola (1979-), mpla: popular movement for the liberation of angola (1961-), military forces of namibia (1990-2005), military forces of namibia (1998-2002), military forces of namibia (2005-), police forces of namibia (1990-2005), police forces of namibia (2005-)
- **Rebel:** cla: caprivi liberation army, unita: national union for the total independence of angola, unita: uniao nacional para a independencia total de angola, unidentified armed group (angola), unidentified armed group (namibia)

- **Civilian:** civilians (angola), civilians (france), civilians (international), civilians (namibia)

#### NEPAL (1996-2008)

- **Government:** military forces of nepal, police forces of nepal, royal nepalese army
- **Rebel:** cpn-m: communist party of nepal-maoist, madeshi people's rights forum , madhesi tigers, plf: people's liberation front, terai army, unidentified armed group (nepal)
- **Civilian:** civilians (nepal)

#### NIGERIA (1997-2010)

- **Government:** anca: customs clearing agents, anpp: all nigeria people's party militia (nigeria), anpp: nigeria people's party, apga: all progressives grand alliance party militia (nigeria), cnc: congress for national consensus party militia, dpp: democratic people's party (nigeria) militia, ferma: federal emergency road maintenance agency, frma: federal road maintenance agency, lastma: lagos state traffic management authority, lastma: lagos state traffic management authority (nigeria), lsetf: lagos state environmental task force, mma: customs cargo command murtala muhammad airport, mercenaries (niger), military forces in nigeria (1999-2007), military forces of nigeria (1993-1999), military forces of nigeria (1999-2007), military forces of nigeria (2007-), military forces of nigeria-joint task force (1999-2007), military forces of nigeria-joint task force (2007-), mutiny of military forces of nigeria (1993-1999), ndlea: national drug law enforcement agency, npdc: nigeria petroleum development company (nigeria), nps: nigerian prisons service guards, nurtu: nigeria road transport workers militia (nigeria), nurtw: national union of road transport workers, northern people's congress militia, operation sweep militia (nigeria), pdp: mutiny of people's democractic party militia (nigeria), pdp: people's democratic party (nigeria) incumbent, pdp: people's democratic party militia (nigeria), pdp: people's democratic party militia (nigeria) faction 1, pdp: people's democratic party militia (nigeria) faction 2, pdp: people's democratic party militia (nigeria) faction 3, police forces of nigeria (1993-1999), police forces of nigeria (1999-2001), police forces of nigeria (1999-2003), police forces of nigeria (1999-2007), police forces of nigeria (2007-), private security (nigeria), sss: state security service of nigeria (1999-2007), unidentified political militia (nigeria)

- **Rebel:** ac: action congress militia (nigeria), ad: alliance for democracy militia (nigeria), ad: mutiny of alliance for democracy militia (nigeria), ap: action party militia, achaba riders militia (nigeria), action congress militia, adetokunbo fakeye militia (nigeria), ado community militia (nigeria), affa ethnic militia (nigeria), afiesere ethnic militia (nigeria), agbaja ethnic militia (nigeria), agege ethnic militia (nigeria), aguleri ethnic militia (nigeria), akan ethnic militia (nigeria), akassa ethnic militia (nigeria), akungba community militia (nigeria), al-sunna wal jamma militia (nigeria), alakuko community militia (nigeria), alliance for democracy militia (nigeria), amadi ama - okrika, amai ethnic militia (nigeria), amokwu affa community militia (nigeria), anahutas ethnic militia (nigeria), araromi community militia (nigeria), area boys gang militia (nigeria), area boys militia (nigeria), awori ethnic militia (nigeria), aworis ethnic militia (nigeria), ayele community militia (nigeria), bakassi boys militia (nigeria), barako community militia (nigeria), bassa ethnic militia (nigeria), beletiana community militia (nigeria), berom ethnic militia (nigeria), biafra communal militia (nigeria), bille ethnic militia (nigeria), bini ethnic militia (nigeria), biro ethnic militia (nigeria), biseni community militia (nigeria), black axe student militia (nigeria), black beret student militia (nigeria), boko haram ethnic militia (nigeria), boko haram militia (nigeria), chala ethnic militia (nigeria), changai community militia (nigeria), christian militia (nigeria), concerned ilaje citizens militia (nigeria), dadiya ethnic militia (nigeria), deebam cult militia (nigeria), deken ethnic militia (nigeria), deyor ethnic militia (nigeria), doemak ethnic militia (nigeria), doko ethnic militia (nigeria), egtl: escravos-gas-to-liquid workers militia, ebira ethnic militia (nigeria), effurun community militia (nigeria), egbas ethnic militia (nigeria), egbesu boys' militia (nigeria), ehinogbe ethnic group (nigeria), ekakpamre community militia (nigeria), ekeremor community militia (nigeria) group 1, ekeremor community militia (nigeria) group 2, ekpedo ethnic militia (nigeria), eleme ethnic militia (nigeria), emegi ethnic militia (nigeria), enin ogbe boys militia (nigeria), esenasawo ethnic militia (nigeria), etti ethnic militia (nigeria), evwreni ethnic militia (nigeria), eye confraternity student militia (nigeria), ezillo ethnic militia (nigeria), ezilo ethnic militia (nigeria), ezionum ethnic militia (nigeria), ezza ethnic militia (nigeria), fansuwa ethnic militia (nigeria), fokpo ethnic militia (nigeria), former militants (nigeria), fulani ethnic group (nigeria)", fulani ethnic militia (foreign), fulani ethnic militia (nigeria), gberesaakoo boys militia (nigeria), gbondifu community militia (nigeria), german boys militia (buguma) (nigeria), hausa ethnic militia (nigeria), ibabu ethnic militia (nigeria), ibanuha ethnic militia

(nigeria), ibo ethnic militia (nigeria), iduwini national movement for peace and development, ife ethnic militia (nigeria), ifiayong usuk ethnic militia (nigeria), igbo ethnic militia (nigeria), iggah community militia (nigeria), iheagwa ethnic group (nigeria), ijaw ethnic militia (nigeria), iju ethnic militia (nigeria), ikpokpo community militia (nigeria), ilajaes ethnic militia (nigeria), ilaje ethnic militia (nigeria), ile-ife community militia (nigeria), ilogo community militia (nigeria), imorere ethnic militia (nigeria), inyimagu ethnic militia (nigeria), ipaav ethnic militia (nigeria), isalako ethnic militia (nigeria), iselegu ethnic militia (nigeria), islamic militia (nigeria), isoko ethnic militia (nigeria), isongujero ethnic militia (nigeria), ita ogbolu ethnic militia (nigeria), itsekiri ethnic militia (nigeria), jac: joint action committee militia, jeddo ethnic militia (nigeria), jie ethnic militia (nigeria), jie ethnic militia (nigeria) group 1, jie ethnic militia (nigeria) group 2, jukun ethnic militia (nigeria), jukun-chamba community militia (nigeria), koran: keke owners and riders association of nigeria militia (nigeria), kafanchan community militia (nigeria), kala-kato' islamic militants (nigeria), kalabari ethnic militia (nigeria), kalakato religious militia (nigeria), kalo-kato islamic militia (nigeria), kaltungo ethnic militia (nigeria), kanberi ethnic militia (nigeria), kaningkon ethnic militia (nigeria), ke ethnic militia (nigeria), kogi state cattle headers militia (nigeria), kolama ethnic militia (nigeria), kpatsuwa community militia (nigeria), kuchita ethnic militia (nigeria), kundum ethnic militia (nigeria), kurama ethnic militia (nigeria), kuteb ethnic militia (nigeria), kutep community militia (nigeria), kutep ethnic militia (nigeria), kutia ethnic militia (nigeria), kwala ethnic militia (nigeria), kwara state community militia, lafia ethnic militia (nigeria), lagos community militia, lemfa community militia (nigeria), liama community militia (nigeria), massob: movement for the actualization of a sovereign state of biafra, mend: movement for the emancipation of the niger delta, mondp: movement for the niger delta people, mosop: movement for the survival of ogoni people, mosop: mutiny of movement for the survival of ogoni people, maitasine community militia (nigeria), mambilla ethnic militia (nigeria), manfile confraternities militia (nigeria), market traders community militia, martyrs' brigade (nigeria), mbiakong ethnic militia (nigeria), miango ethnic militia (nigeria), modakeke community militia (nigeria), modakeke ethnic militia (nigeria), modeke community militia (nigeria), nadeco: national democratic coalition militia, nans: national association of nigerian students (nigeria), nddf: niger delta freedom fighters, nddsc: niger delta defense and security council, ndpvf: niger delta people's volunteer force, ndv: niger delta vigilante, ndv: niger delta vigilantes, nassarawa

gwom community militia (nigeria), ndafu community militia (nigeria), nigerian liberation organization militia, nwebiara community militia (nigeria), nweviara community militia (nigeria), nyeswe ethnic militia (nigeria), odc: oduaa people's congress militia (nigeria), opc: mutiny of oduaa people's congress, opc: oduaa people's congress, obehira community militia (nigeria), oboro community militia (nigeria), odimodi ethnic militia (nigeria), odukpani ethnic militia, ogbogo community militia (nigeria), ogboji ethnic militia (nigeria), ogbunabali - ikwewe ethnic militia (nigeria), ogoni ethnic militia (nigeria), ogori ethnic militia (nigeria), ogulagha community militia (nigeria), okada motorcycle militia (nigeria), oke afa community militia (nigeria), oke-ogbo community militia (nigeria), okene community militia (nigeria), okitipupa ethnic militia (nigeria), oko igboko community militia (nigeria), okodia community militia (nigeria), okpanan community militia (nigeria), okpe ethnic militia (nigeria), okrika community militia ii (nigeria), okrika ethnic militia (nigeria), okworogwong ethnic militia (nigeria), olakojo community militia (nigeria), oleh ethnic militia (nigeria), olomoro ethnic militia (nigeria), olowo ethnic group (nigeria), onicha ethnic militia (nigeria), oniko ethnic militia (nigeria), onitsha community militia (nigeria), onogboko ethnic militia (nigeria), operation fire for fire militia (nigeria), oruku community militia (nigeria), oruku ethnic militia (nigeria), otugwang ethnic militia (nigeria), otuo ethnic militia (nigeria), owo community militia (nigeria), owu ethnic militia (nigeria), oyinmo community militia (nigeria), panyam community militia (nigeria), political opposition militia (nigeria), rambo group militia (nigeria), rioters (nigeria), riyom ethnic militia (nigeria), saki community militia (nigeria), saro-wiwa community militia (nigeria), shi'ite islamic militia (nigeria), shiite islamic militia (nigeria), shuwa arab militia (nigeria), student militia (nigeria), sunni islamic militia (nigeria), taliban islamic militia (nigeria), tarok ethnic militia (nigeria), tiv defense corps militia (nigeria), tiv ethnic militia (nigeria), tre kuteb ethnic militia (nigeria), tumbashi community militia (nigeria), uad: united action for democracy militia, urgent militants (nigeria), udawa ethnic militia (nigeria), udeni gida farmers militia (nigeria), udeni-gida community militia (nigeria), udu ethnic militia (nigeria), ukan ethnic militia (nigeria), ukele ethnic militia (nigeria), umuapu ethnic militia (nigeria), umuchukwu vigilante militia, umuleri ethnic militia (nigeria), umuode community militia (nigeria), umuode ethnic militia (nigeria), umuoka community militia (nigeria), umuoka ethnic militia (nigeria), unidentified armed group (benin), unidentified armed group (chad), unidentified armed group (niger), unidentified armed group (nigeria), unidentified armed group (pirates), unidentified ethnic

militia (cameroon), unidentified ethnic militia (chad), unidentified ethnic militia (niger), unidentified ethnic militia (nigeria), urhobo ethnic militia (nigeria), uvwie ethnic militia (nigeria), viking 22 student militia (nigeria), warte community militia (nigeria), wukari communal militia (nigeria), yanbola street gang (nigeria), yangwoza street gang (nigeria), yoruba ethnic militia (nigeria), yugur ethnic militia (nigeria)

- **Civilian:** christians (nigeria), civilians (nigeria), civilians (foreign), civilians (france), civilians (germany), civilians (lebanon), civilians (niger), civilians (nigeria), civilians (nigeria), civilians (south africa), civilians (syria), civilians (united kingdom), civilians (united states), ijaw ethnic group (nigeria), muslims (nigeria)", protesters (nigeria), sng: save nigeria group (nigeria)

### NIGER (1997-2010)

- **Government:** military forces of niger (1996-1999), military forces of niger (1999-2010), military forces of niger (2010-), military forces of nigeria (1999-2007), mutiny of military forces of niger (1999-2010), mutiny of military soliders of niger (1996-1999), mutiny of military soliders of niger (1998-1999), mutiny of military soliders of niger (1999-2010), police forces of niger (1996-1999), police forces of niger (1999-2010)
- **Rebel:** adin: association for the propagation of islam in niger, aqim: al-qaeda in the islamic maghreb, adoua ethnic militia (niger), al-sunna wal jamma militia (nigeria), diawondo ethnic militia (niger), djerma ethnic militia (niger), dosso ethnic militia (niger), fars: revolutionary armed forces of the sahara, fdr: democratic front for renewal (niger), flaa: the air and azawagh liberation front, frdd: front for the restoration and defence of democracy (niger), fassi ethnic militia (niger), fulani ethnic militia (niger), gspc: salafist group for call and combat, haussa ethnic militia (niger), islamic fundamentalist militia, mnj: nigerien movement for justice, militia of nigerien farmers (niger), militia of nomadic herdsmen (niger), revolutionary armed forces of the sahara (niger), rioters (niger), toubou ethnic militia (niger), tuareg ethnic militia (niger), unidentified armed group (niger), union of armed resistance forces (niger), waze ethnic militia (niger)
- **Civilian:** civilians (foreign), civilians (niger)

### RWANDA (1997-2010)

- **Government:** military forces of burundi (1996-2005), military forces of rwanda (1994-)

- **Rebel:** alir: people in action for the liberation of rwanda, fdlr: democratic forces for the liberation of rwanda, former military for rwanda (1973-1994), former military of rwanda (1973-1994), hutu rebels, interahamwe, unidentified armed group (burundi), unidentified armed group (rwanda)
- **Civilian:** civilians (burundi), civilians (drc), civilians (italy), civilians (liberia), civilians (rwanda)

#### SENEGAL (1997-2010)

- **Government:** military forces of senegal (1981-2000), military forces of senegal (2000-), police forces of senegal (1981-2000), police forces of senegal (2000-), senegalese democratic party militia, socialist party (senegal)
- **Rebel:** fulani ethnic militia (senegal), kidira ethnic militia (senegal), mfdc: movement of democratic forces in the casamance, mfdc: movement of democratic forces in the casamance (front nord), mfdc: movement of democratic forces in the casamance (front sud), mouride brotherhood militia, opposition parties (senegal), refugee militia (mauritania), unidentified armed group (guinea-bissau), unidentified armed group (senegal), wolof ethnic militia (senegal)
- **Civilian:** civilians (foreign), civilians (senegal)

#### SIERRA LEONE (1997-2010)

- **Government:** apc: all people's congress, cdf: civil defence forces militia (sierra leone), ecomog: economic community of west african states monitoring group (sierra leone), lurd: liberians for reconciliation and democracy, military forces of guinea (1984-2008), military forces of sierra leone (1996-1997), military forces of sierra leone (1997-1998), military forces of sierra leone (1998-2007), pmdc: people's movement for democractic change, police forces of sierra leone (1998-2007), police forces of sierra leone (2007-), slpp supporters (sierra leone), slpp: sierra leone people's party, special forces of britian, unamsil (sierra leone)
- **Rebel:** afrc: armed forces revolutionary council, fullah ethnic militia (sierra leone), kamajor militia (sierra leone), madingo ethnic militia (sierra leone), military forces of liberia (1997-2003), movement of concerned kono youth (sierra leone), mutiny of revolutionary united front (ruf), ruf: revolutionary united front of sierra leone, rufp: revolutionary united front party, rioters (sierra leone), susa ethnic militia (sierra leone), unidentified armed group (guinea), unidentified armed group (sierra leone), west side boys militia (sierra leone)

- **Civilian:** civilians (foreign), civilians (guinea), civilians (international), civilians (sierra leone), protesters (liberia), protesters (sierra leone)

## SOMALIA (1997-2010)

- **Government:** amisom burundian forces: african union mission for somalia burundian forces (2007-), amisom ugandan forces: african union mission for somalia ugandan forces (2007-), amisom: african union mission for somalia (2007-), amisom: african union mission in somalia (2007-), arpct: alliance for the restoration of peace and counter-terrorism, arpct: alliance for the restoration of peace and counter-terrorism (somalia), aswj sufi: ahlu sunna wajama sufi followers (somalia), aswj: ahlu sunna wajama (somalia), adaadley police, afgoi local forces, baidoa security militia, baraawe security forces, bari police, berbera police, bula burte authorities, burao police, coast guard, current regional administration militia, custodial corps, dc baidoa personnel, deputy district commissioner, district commissioner (shibis), forces loyal to beledweyne police commander, former lower shabelle administration forces, former middle shabelle administration forces, former middle shabelle islamic administration, former regional administration militia, gnu forces: government of national unity forces (somalia), galkayo police, garowe prison guards, garowe rapid reaction force, guriel police, hargeisa police, hiran administration forces, jva : juba valley alliance, jva: juba valley alliance (somalia), jowhar administration forces, jowhar administration militia, kiamboni forces, kismayo security forces, local authority forces, merca local forces, merka town security forces, middle shabelle administration forces, military forces of ethiopia (1991- ), military forces of ethiopia (1991-), military forces of kenya (2002-), military forces of puntland, military forces of somaliland, military forces of the united states, military forces of the united states (1993-), militia loyal to abdirahman faroole, militia loyal to gov. of lower shabelle, militia loyal to hiran governor yusuf ahmed hagar, militia loyal to minister barre aden shire, militia loyal to minister of religious affairs, militia loyal to mohamed qanyare afrah, militia loyal to muse sudi yalahow, militia loyal to nat. sec. minister, minister mohamed qanyare afrah anti-terrorism coalition, minister mohamed qanyare afrah- led anti-terrorism coalition, mogadishu shariah court, mudug police force, mutiny of tfg forces: mutiny of transitional federal government forces (somalia), mutiny of tfg: mutiny of transitional federal government forces (somalia), naval forces of the united states, police forces of kenya (2002-), police forces of puntland, police forces of somalia, police forces of somalia (1960-), police



forces of somaliland, presidential guards, prison guards, private security guards, private security guards (somalia), puntland militia (somalia), puntland militia, rra: rahanweyn resistance army, rra: rahanweyn resistance army (somalia), rapid reaction force, sna: somali national alliance, snf: somali national front, srcc: somalia reconciliation and restoration council, ssa : somali salvation alliance, ssnm: omar jess sna faction, security forces of puntland, security forces of ingo, shibis district security guards, tfg darawisha forces: transitional federal government darawisha forces (somalia), tfg lower shabelle faction: transitional federal government lower shabelle faction (somalia), tfg lower shabelle: transitional federal government lower shabelle (somalia), tfg presidential guards: transitional federal government presidential guards (somalia), tfg presidential guards: transitional federal government presidential guards (somalia), tfg forces: transitional federal government (somalia), tfg forces: transitional federal government forces (2004-), tfg forces: transitional federal government forces (somalia), tfg police: transitional federal government police (somalia), tfg supporters: transitional federal government supporters (somalia), tfg-darood forces: transitional federal government-darood militia (somalia), tfg-puntland forces: transitional federal government-puntland forces (somalia), tfg: transitional federal government (somalia), tng: transitional national government (somalia), usc-sna atto faction: united somali congress-somali national alliance atto faction, united nations, waberi police, wardhigley police

- **Rebel:** aog raskamboni brigade: armed opposition group raskamboni brigade (somalia), aog: armed opposition group (somalia), ars-asmara: alliance for re-liberation of somalia-asmara, ars-djibouti: alliance for re-liberation of somalia-djibouti, ars-djibouti: alliance for re-liberation of somalia-djibouti, aasi sub-clan militia, abasguul, absame, darood militias, abdalla arone sub-clan militia, abdalla-agonyar sub-clan militia, abdi awale qeybdid loyal militia, abdi awale qeybdid-puntland militia, abdulkadir beebe militia, abdullah sub-clan militia, abdullah-galmaah sub-clan militia, abgal clan militia, abgal clan militia, abgal sub-clan militia, abgal-abdalla aroni militia, abgal-agonyar clan group, abgal-agonyar clan militia, abgal-hawiye clan militia, abgal-hawiye sub clan militia, abgal-mohamed muse sub-clan militia, abgal-warsangeli clan group, abgal-warsangeli clan militia, absame militia, abtisame sub-clan militia, abubakar clan militia, abukar omar adani militia, adan kheir militia, adan saransoor (habsade's deputy), afmadow militia, agon sub -lan militia, agonyar-abgal clan militia, agoonyar clan militia, ahmed adan clan militia, ahmed-adan militia,

ajuuran clan militia, ajuuran-hawiye militia, al shabaab (somalia), al-itihad, al-ittihad al-islam (islamic unity), al-shabaab sub-group (somalia), al-shabab islamic militia (somalia), ali-jibra'il sub-clan militia, alofi sub-clan militia, aqoonyare sub-clan militia, aqoonya sub-clan militia, arab salah militia, arab clan militia, arab militia (somalia), armed khat dealers, armed former ingo guards, armed shop owners, auliyahan clan militia, auliyahan clan miltiia, aw barkan sub-clan militia, aw masuse sub-clan militia, awkutub sheqaal hawiye clan militia, awramale clan militia, awramaleh sub clan militia, ayr militia, ayr sub-clan militia, baadi'ade sub-clan militia, bahararsame sub-clan miltiia, bantu clan militia, barre hirale forces, bartire clan militia, bashir raage militia, beidyahan (majerteen sub-clan ) militia, belet hawa militia, beletwein authorities, beletwein militias, bimal clan miltiia, biyamal clan militia, biyo-adde clan militia, bogol-hore clan miltiia, boqol hore sub-clan miltiia, burale sub-clan militia, ccic: consultative council of islamic courts, cosic: council of somali islamic courts, cali sub-clan militia, col. mohamed ado ali militia, dsa: digil salvation army, dabarre digil clan militia, dalshishle sub clan militia, darood militia, dašud clan militia, dhulbahante clan militia, dhulbahante clan miltiia, dhulbahante sub-clan miltiia, dhulbahante-darood sub-clan militia, digil salvation army (1999-2007), digil clan militia, digil sub-clan militia, dir clan militia, dir clan miltiia, dir sub-clan militia, dubeys sub-clan militia, duduble militia (somalia), eidegalla sub-clan militia, elay clan militia, eli sub-clan militia, elidhere clan militia, eyr clan militia, farah-garad clan militias, former cosic: former council of somali islamic courts, gaaljecel clan militia, gaaljecel sub-clan militia, gaaljecel-hadame clan militia, gaaljecel-hawiye clan miltia, gadsan clan militia, galjeel clan militia, galjeel-hawiye sub-clan miltiia, galkayo merchants, galmah sub-clan militia, garre clan militia, garwale sub-clan miltia, geledle rahaweyn clan militia, geledle clan militia, geledle sub-clan miltiia, habar afan clan miltia, habar gedir clan militia, habar gedir sub-clan militia, habar gedir-eyr clan militia, habar gedir-hawiye clan militia, habar jeclo clan militia, habar jeclo-isaq sub-clan miltia, habar yunis sub-clan miltia, habarnugal sub-clan militia, habaryoonis clan militia, habsade militia, hadame clan militia, hadamo militia, harakat al-shabaab mujahideen, harin militia, harin sub-clan militia, harin-luway militia, harti clan militia, harti sub-clan militia, harti-abgal clan militia, harun sub-clan militia, hawadle ethnic militia (somalia), hawadle clan milita, hawadle clan militia, hawadle sub-clan militia, hawadle sub-clan miltiia, hawadle-hawiye clan militia, hawiye clan militia, hayaaq sub-clan militia, her-aw-hassan clan militia, hiisbul islamiya, hiraan regional islamic

authority, hiran militia, hiran regional militia, hisbul islamiya, hisbul islamiya forces, hororsame sub-clan militia, hororsame-marehan militia, hubeer clan militia, icu forces: islamic court union forces, icu supporters: islamic court union supporters, icu-asmara forces: islamic courts union-asmara forces (somalia), icu-djibouti: islamic courts union-djibouti (somalia), icu: islamic courts union (somalia), idagale habar-yunis sub-clan militia, idagale clan militia, idogale habar-yunis sub-clan militia, isa mohamud sub-clan militia, islamic courts (somalia), islamic courts militia (somalia), isse mohamed sub-clan militia, isse rati clan militia, isse-mohamud sub-clan militia, jabhadislamia, jabhatul islaamiya militia, janbeel clan militia, jareer sub-clan militia, jareer-bantu clan militia, jejele militia, jejele sub-clan militia, jido clan militia, jiido-safar clan militia, jilible clan militia, jilible sub clan militia, laantabur militia, leelkase darood militia, leelkase-darood clan militia, leysaan militia, leysaan sub-clan militia, leysaan-mirifle clan militia, local modowa island militia, loobogay sheqaal hawiye clan militia, luway clan militia, luway sub-clan militia, mym: mujahideen youth movement (somalia), maalinweyn clan militia, macaalim weyne clan militia, macalinweyne clan militia, madhiban sub-clan militia, magabul-ogaden militia, mahamous sub-clan militia, majerteen clan militia, majerteen sub-clan militia, majerteen sub-clan militia, majerteen-darood clan militia, makane sub-clan militia, maqaabile-garri sub-clan militia, maqabul clan militia, marehan clan militia, marehan sub-clan militia, marehan-darood clan militia, medina district dc (ahmed daa'i), militia loyal to abdi qyebdid, militia loyal to barre adan shire 'hiraale', militia loyal to col. abdi igaal, militia loyal to col. abdi qeybdid awale, militia loyal to indha'ade, militia loyal to kismayo dc, militia loyal to kismayo deputy dc, militia loyal to mohamed dhere, militia loyal to mr. adde nunoow., militia loyal to mr. haybe roble nur, militia loyal to shatigudud and sheikh adan madobe, militia loyal to deposed dc of bulo-burte, mirifle sub-clan militia, mobleen sub-clan farmers, mohamed ibrahim habsade militia, mohamed-muse sub-clan militia, muhajirin fighters, muransade clan militia, muransade sub-clan militia, murursade sub-clan militia, murursade-hawiye clan militia, musa abkar militia, muse ismail habar yoonis isaaq clan militia, naleeye ahmed clan militia, nomad militia, nuur-ahmed sub-clan militia, onlf: oromo liberation front, onlf: ogaden national liberation front, onlf: ogaden national liberation front (ethiopia), onlf: ogaden national liberation front (somalia), ogaden clan militia, ogaden sub-clan militia, ogaden-darood clan militia, omar mohamud majerteen darood clan, omar mohamud majerteen darood clan militia, omar mohamud majerteen sub clan armed man, pirates, rahanweyn clan militia, rahanweyn sub-clan militia, rahanweyn-elay

clan militia, rahanweyn-mirifle sub-clan militia, rahaweyn-hubeer clan militia, raskiamboni brigade, raskiamboni brigades militia, reef kalaf militia, reer-adan sub-clan militia, reer-ali aulihan clan militia, reer-bi'idiyahan sub-clan militia, reer-bi'idiyahan-majerteen sub-clan militia, reer-budyaan sub-clan militia, reer-dalal militia, reer-dini sub clan militia, reer-hareed (jibrir abokor) militia, reer-hareed-jibril abokor-ishaq clan militia, reer-hassan-darood clan militia, reer-hersi clan militia, reer-hilowle sub-clan militia, reer-mohamud nur-gadhursi clan militia, reer-mohomuud nuur (gadabuursi) militia, reer-nur clan militia, reer-siyaad-marehan-darood militia, reer-siyad sub-clan militia, reer-ughadh militia, reer-usman marehan clan militia, reer-warfa sub-clan militia, rioters (somalia), spm: somali patriotic movement, ssic: somali supreme islamic courts council, sa'ad clan militia, sa'ad clan militia loyal to abdi awale qeybdid, sa'ad sub-clan militia, sa'ad-habar-gedir-hawiye clan militia, saahil farmers, saleban clan militia, saransoor militia, security forces of sheik ahmed jarr, seleeban clan militia, sheekhal-hawiye militia, sheik ahmed jarr guards, sheqaal clan militia, sheqaal sub-clan militia, sheqaal-hawiye clan militia, sheqal clan militia, shiidle (bantu) sub-clan militia, sogow sub-clan militia, somali islamic opposition group, somali pirates, suleiman clan militia, suleiman militia, suleiman sub-clan group, suleiman sub-clan militia, suleiman-habargedir clan militia, suleiman-habargedir militia, suleiman-habargedir-hawiye militia, talba clan militia, talha sub-clan group, timaweyn sect follower, tuni clan militia, tuni-digil clan militia, tuni-digil militia, udub supporters: united peoples' democratic party supporters (somalia), ujeedeen sub-clan militia, unidentified armed group (somalia), unidentified armed group (somaliland), unidentified ethnic militia (somalia), unidentified checkpoint militia (somalia), wabudan clan militia, waesle-abgal clan militia, wagardhac sub-clan militia, wagherdha clan militia, warsangeli clan militia, warsangeli sub-clan militia, warsengeli clan militia, weasle clan militia, wegerdha clan militia, wejis clan militia, yantaar clan militia, yiintaar clan militia

- **Civilian:** anoole residents, barordiil residents, civilians (egypt), civilians (ethiopia), civilians (farmers), civilians (france), civilians (germany), civilians (greece), civilians (international), civilians (kenya), civilians (ngo), civilians (pakistan), civilians (philippines), civilians (somalia), civilians (taiwan), civilians (uae), herders, herders (somalia), nomads (somalia), pastoralists, saahil nomads, pastoralists

## SOUTH AFRICA (1997-2010)

- **Government:** anc: african national congress (south africa), anc: african

national congress militia (south africa), anc: african national congress party (south africa), government of south africa (1999-2008), ifp: inkatha freedom party (south africa), ifp: inkatha freedom party militia (south africa), member of parliament, bheki mkhize (south africa), military forces of south africa (1999-2008), pac: pan african council (south africa), police forces of south africa (1994-1999), police forces of south africa (1999-2008), police forces of south africa (2008-2009), police forces of south africa (2009-), private security forces (south africa), private security forces of south africa (south africa), rogue police forces of south africa (1999-2008), rouge police forces of south africa (1999-2008), sacp: south african communist party (south africa), udm: united democratic movement (south africa), udm: united democratic movement party (south africa), udm: united democratic movement party militia (south africa)

- **Rebel:** abmsm: abahlali base mjongdolo shackdwellers movement, afra: association for rural advancement (south africa), apo: azanian people's organization (south africa), arm: afrikaans resistance movement (south africa), afrikaner farm worker militia (south africa), afrikaner rioters (south africa), albert luthuni park resident militia (south africa), bat: boere attack troop (south africa), bnw: boer national warriors militia (south africa), bta: benoni taxi association militia (south africa), black farm worker militia (south africa), boeremag (boer forces) militia (south africa), boeremag militia (south africa), boermag (boer forces) militia (south africa), cwiu: chemical workers industrial union militia (south africa), dkp: daveyton/kempton park militia (south africa), fawu: food and allied workers union (south africa), jesurun brotherhood (south africa), knocker gang (south africa), kwazulu-natal province community militia (south africa), kwazulu-natal province community militia 2 (south africa), labor union faction (south africa), labor union faction 2 (south africa), laughing boys' street gang (south africa), looters/mob (south africa), mago: muslims against global oppression (south africa), mjc: muslim judicial council (south africa), mabaso ethnic militia (south africa), magangangozi community militia (south africa), mhlwazini community militia (south africa), militant afrikaner militia (south africa), militant black farmers (south africa), msinga community militia (south africa), mvelase ethnic militia (south africa), pag: palestine action group (south africa), pagad: people against gangsterism and drugs (south africa), psc: palestine solidarity committee (south africa), playboys' street gang (south africa), prison gang(s) (south africa), prisoners (south africa), pro-palestinian activist organization (south africa), qibla islamic organization (south africa), shangaans ethnic militia (south africa), student militia (south

africa), umsa: unemployed masses of south africa organization (south africa), usmo: unemployed silent majority organization (south africa), unidentified armed group (lesotho), unidentified armed group (nigeria), unidentified armed group (prisoners), unidentified armed group (somalia), unidentified armed group (south africa), xhosas ethnic militia (south africa), zulu national community militia (south africa), zulu national community militia 1 (south africa)

- **Civilian:** civilians (austria), civilians (canada), civilians (france), civilians (germany), civilians (international), civilians (israel), civilians (malawi), civilians (mozambique), civilians (netherlands), civilians (nigeria), civilians (northern ireland), civilians (pakistan), civilians (somalia), civilians (south africa), civilians (swaziland), civilians (united kingdom), civilians (united states), civilians (zimbabwe), civilians (zulu nationalists), muslims (south africa), pro-mpumalanga protesters (south africa)

## SUDAN (1997-2010)

- **Government:** adf: allied democratic forces, baggara-murahaleen arab militia (sudan), janjaweed, lra: lord's resistance army, military forces of sudan (1989-), murahaleen arab militia (sudan), muslim militia (sudan), nla: national liberation army of iran, pdf: popular defense forces, police forces of southern sudan, police forces of sudan (1989-), spss: southern sudan police service, ssdf-byel: south sudan defense forces-byel, ssdf-faction: south sudan defense forces faction, ssdf-marchar: south sudan defense forces-marchar, ssdf-united: south sudan defense forces-united, ssdf: south sudan defense forces, ssua-gadet: southern sudan united army-gadet faction, ssua: southern sudan united army, wnbf: west Nile bank front
- **Rebel:** abala ethnic militia, african union forces (2002-), agaar ethnic militia, al-ru'ayah ethnic militia, al-falata ethnic militia, al-gamir ethnic militia, al-takfir wal hijran militia (sudan), arab ethnic militia (sudan), arrow boys, arrow boys militia (sudan), bc: beja congress, bali ethnic militia, bari ethnic militia, beja ethnic militia, beni amir ethnic militia, bongo ethnic militia, bul ethnic militia, byel militia (sudan), dpfa: democratic popular front army, dar na'ila ethnic militia, darnaila (dar na'ila) ethnic militia, dinka agok ethnic militia, dinka ethnic militia, dinka-agar ethnic militia, dinka-joth ethnic militia, dinka-luach ethnic militia, dinka-nyang ethnic militia, dinka-pakam ethnic militia, dodoth ethnic militia (uganda), equatoria defence force, front for the liberation of darfur, fur ethnic militia (sudan), goss: military forces of southern sudan, gadget militia, galweng militia (sudan), gholfan

(al-ghulfan) ethnic militia, gimir ethnic militia, gimir ethnic militia faction, gimir ethnic militia faction i, gok ethnic militia, habaniyah militia, hawazmah ethnic militia, hotiya-baggara ethnic militia, jem-ufn: justice and equality movement-unity faction nur, jem: justice and equality movement, jie ethnic militia, jihad militia (eritrea), jikany ethnic militia, joint integrated units (spla and saf), jul-bel (jur-beli) ethnic militia, jur ethnic militia, leek ethnic militia, lou-nuer ethnic militia, maalia ethnic militia, maaliya ethnic militia (sudan), maraheel ethnic militia (sudan), matiep militia, messalit ethnic militia, military forces of uganda (1986-), military forces of eritrea (1993-), military forces of ethiopia (1991-), military forces of southern sudan, military forces of uganda (1986-), misseriya ethnic militia, moru ethnic militia, mundari ethnic militia, murle ethnic militia, murle ethnic militia (sudan), nda: national democratic alliance, nmr: national movement for reform and development, nrf: national redemption front, nsb: new sudan brigade, newiba-aballa ethnic militia, norab ethnic militia, nuba ethnic militia (sudan), nuer ethnic militia, nuer ethnic militia, people's struggle movement, rioters (sudan), rizaygat ethnic militia, saf: sudan alliance forces, sla-minnawi: sudan liberation army-minnawi faction, slaf: sudan liberation army front, slm/a-fw: sudan liberation movement/army-free will, slm/a-minnawi: sudan liberation movement/army-minnawi faction, slm/a-nur: sudan liberation movement/army-nur faction, slm/a-shafi: sudan liberation movement/army-ahmed abdel shafi faction, slm/a-unity: sudan liberation movement/army-unity faction, slm/a: sudan liberation movement/army, slm/sla: sudan liberation movement/army, spdf: sudan people's democratic front, spla-bahr al ghazal: sudanese people's liberation army/movement-bahr al ghazal, spla-gadet: sudanese people's liberation army-gadet, spla/m-united: sudanese people's liberation army/movement-united, spla/m: sudanese people's liberation army/movement, spla: sudanese people's liberation army, splm/a: sudanese people's liberation movement/army, ssia: southern sudan independence army, salamat ethnic militia, shilluk (shuluk,chollo) ethnic militia, shilluk ethnic militia, tepeth ethnic militia, terjem ethnic militia, tierjem ethnic militia, toposa ethnic militia (sudan), turkana ethnic militia (sudan), tutsi ethnic militia (drc), ula: ummah liberation army, unamid: african union-united nations hybrid operation in darfur, unamid: united nations mission in darfur, updf: military forces of uganda (1986-), unidentified armed group, unidentified armed group (car), unidentified armed group (chad), unidentified armed group (kenya), unidentified armed group (sudan), unidentified armed group (uganda), unidentified armed group ii (sudan), unidentified armed militia (sudan), unidentified ethnic militia (sudan), western equatoria community defence force (sudan),

zaghawa ethnic militia, zande ethnic militia

- **Civilian:** awan ethnic group, awlad omran ethnic group, civilians (aid workers), civilians (drc), civilians (foreign), civilians (kenya), civilians (sudan), civilians (uganda), dinka ethnic group, dinka ethnic group (sudan), fur ethnic group, karamajong ethnic group, luach ethnic group, misseriya ethnic group, mundari ethnic group, murle ethnic group, nuer ethnic group, nuer ethnic group (sudan), nuwayba ethnic group, rizaiqat ethnic group, shilluk ethnic group, zaghawa ethnic group

#### SWAZILAND (1997-2010)

- **Government:** government of swaziland (1986-), police forces of south africa (1999-2008), police forces of swaziland (1986-)
- **Rebel:** pudemo: peoples' united democratic movement (swaziland), rioters (swaziland), swayoco: swaziland youth congress (swaziland), syc: swaziland youth congress (swaziland), syc: swaziland youth congress party (swaziland), the tigers militant organization (swaziland), unidentified armed group (swaziland)
- **Civilian:** civilians (south africa), civilians (swaziland), protesters (swaziland), sftu: swaziland federation of trade unions (swaziland), snat: swaziland national association of teachers (swaziland)

#### TANZANIA (1997-2010)

- **Government:** ccm: chama cha mapinduzi militia, field force unit, military forces of tanzania (1964-), military forces of tanzania (1995-2005), military forces of tanzania (2005-), police forces of kenya (2002-), police forces of tanzania (1995 - 2005), police forces of tanzania (1995-2005), police forces of tanzania (2005-), tanzania prisons service wardens
- **Rebel:** bwejuu local militia (tanzania), cuf: civic united front militia, janjweed' militia (tanzania), kipsigis ethnic militia (kenya), kiru ethnic militia (tanzania), maasai ethnic militia (tanzania), nyabasi ethnic militia - nyakunguru (tanzania), nyabasi ethnic militia - nyamwaga (tanzania), sungusungu (tanzania), ukongoroni local militia (tanzania), unidentified armed group (burundi), unidentified armed group (kenya), unidentified armed group (somalia), unidentified armed group (tanzania), wahunyaga ethnic militia (tanzania), wairegi ethnic militia (tanzania), wamaasai ethnic militia (tanzania), wanchari ethnic militia (tanzania), warenchoka ethnic militia (tanzania), wasonjo ethnic militia (tanzania), wasweta ethnic militia (tanzania)



- **Civilian:** civilians (burundi), civilians (drc), civilians (tanzania), civilians (united states of america), ugandan herdsmen

#### TOGO (1997-2009)

- **Government:** military forces of togo (1967-2005), military forces of togo (2005-), police forces of togo (1967-2005), private security, rpt: rally for togolese people
- **Rebel:** rioters (togo), ufc: union of forces for change (togo), unidentified armed group (ghana), unidentified armed group (togo), unidentified armed group: togo
- **Civilian:** civilians (togo), protesters (togo)

#### TUNISIA (1997-2010)

- **Government:** police forces of tunisia (1987-)
- **Rebel:** ialhp: islamic army for the liberation of the holy places (tunisia), unidentified armed group (tunisia)
- **Civilian:** civilians (france), civilians (libya), civilians (tunisia), ugtt: generale tunisienne du travail (trade union) (tunisia)

#### UGANDA (1997-2010)

- **Government:** fapc: people's armed forces of congo, ldu: local defence unit (uganda), ldu: local defense unit, local defence unit (uganda), military forces of uganda (1986-), military forces of uganda (1986-), mutiny of military forces of uganda (1986-), mutiny of police forces of uganda (1986-), ppu: presidential protection unit of uganda (1986-), police forces of uganda (1986-), rcd-k-ml: rcd-kisangani-liberation movement, security personnel (uganda), upc: union of congolese patriots, updf: military forces of uganda (1986-), ugandan government (1986-), unidentified political militia (uganda)
- **Rebel:** adf: allied democratic forces, acholi ethnic militia (uganda), alur ethnic militia (drc), alur ethnic militia (uganda), amuka boys/rhino militia (uganda), arak ethnic militia (uganda), arrow boys militia (uganda), atekodyek owidi ethnic militia (uganda), ayok clan militia (dinka ethnic group) (sudan), bafumbira ethnic militia (uganda), bagisu ethnic militia (uganda), bagungu ethnic militia (uganda), bagwere ethnic militia (uganda), bakiga ethnic militia

(uganda), bakonzo ethnic militia (uganda), balaalo ethnic militia (uganda), banyarwanda ethnic militia (uganda), banyole ethnic militia (uganda), banyoro ethnic militia (uganda), basongora ethnic militia (uganda), batooro ethnic militia (uganda), bokora ethnic group (uganda), bokora ethnic militia (uganda), bor clan militia (dinka ethnic group) (sudan), bor ethnic militia, bunyoro ethnic militia (uganda), camp: citizen's army for multiparty politics, dinka ethnic militia, dodoth ethnic militia, dodoth ethnic militia (uganda), fac: military forces of the democratic republic of congo (1997-2001), fardc: military forces of democratic republic of congo (2001-), fardc: military forces of democratic republic of congo (2001-) nkunda faction, fdc: forum for democratic change militia, hutu ethnic militia (rwanda), hutu rebels, ikuruk ethnic militia (uganda), interahamwe, interahamwe/hutu militias, jie ethnic militia (uganda), jopadhola (adhola) ethnic militia (uganda), kaluungu village militia (herders) (uganda), karamajong ethnic militia (uganda), karamojong ethnic militia (uganda), lra: lord's resistance army, lendu ethnic militia (drc), lutuko ethnic militia (uganda), lutuko ethnic militia (uganda), matheniko ethnic group (uganda), matheniko ethnic militia (uganda), mujuuza village militia (farmers) (uganda), nalu: national army for the liberation of uganda, nfa: national freedom army, pra: people's redemption army, pian ethnic militia (uganda), pokot ethnic militia (kenya), pokot ethnic militia (uganda), rioters (uganda), sabinys ethnic militia (uganda), sudanese ethnic militia (sudan), tepeth ethnic militia (uganda), turkana ethnic militia (kenya), uddf: uganda federal democratic forces, undf: uganda national democratic force, unrpii: uganda national rescue front ii, usf:uganda salvation front, uganda freedom movement, unidentified armed group (uganda), unidentified armed group (drc), unidentified armed group (rwanda), unidentified armed group (sudan), unidentified armed group (uganda), unidentified ethnic militia (kenya), unidentified ethnic militia (sudan), unidentified ethnic militia (uganda), wnb: west Nile Bank Front

- **Civilian:** civilians (asian), civilians (drc), civilians (foreign), civilians (kenya), civilians (refugees), civilians (rwanda), civilians (sudan), civilians (uk), civilians (uganda), jie ethnic group (uganda), karamojong ethnic group (uganda), pokot ethnic group (kenya), pokot ethnic group (uganda), turkana ethnic group (kenya)

## ZAMBIA (1997-2009)

- **Government:** mdd: movement for multi-party democracy, mmd: movement for multi-party democracy, mutiny of military forces of zambia (national redemption

council), police forces of zambia (1991-2002), police forces of zambia (2002-2008), police forces of zambia (2008-), unita: national union for the total independence of angola, unita: uniao nacional para a independencia total de angola, zndf: military forces of zambia (1991-2002)

- **Rebel:** faa: military forces of angola (1979-), fdd: forum for democracy and development militia, mpla: popular movement for the liberation of angola (1961-), unidentified armed group (angola), unidentified armed group (drc), unidentified armed group (zambia)
- **Civilian:** civilians (angola), civilians (drc), civilians (south africa), civilians (tanzania), civilians (zambia), students (zambia)

### ZIMBABWE (1997-2010)

- **Government:** cio/cid: central intelligence organization (zimbabwe), joint operations command (2008-), police forces of zimbabwe (1980-), police forces of zimbabwe (1980-), unidentified political militia (zimbabwe), unidentified youth militia (zimbabwe), zanu-pf: zimbabwe african national union-patriotic front militia, zec: zimbabwe election commission, zna: military forces of zimbabwe (1980-), zna: military forces of zimbabwe - presidential guard (1980-), zna: mutiny of military forces of zimbabwe (1980-), znys: zimbabwe national youth service militia, zrp militia
- **Rebel:** aawu: aggrieved affiliates workers' union, mdc anti-senate militia (zimbabwe), mdc pro-senate militia (zimbabwe), mdc: movement for democratic change militia, mdc: movement for democratic change militia - tsvangirai faction, mdc: movement for democratic change pro-senate militia (zimbabwe), rioters (zimbabwe), unidentified armed group (drc), unidentified armed group (zimbabwe), znlwva: national liberation war veterans association militia (zimbabwe), znlwva: zimbabwe national liberation war veterans association militia
- **Civilian:** civilians (drc), civilians (germany), civilians (mdc - movement for democratic change), civilians (mozambique), civilians (nca - national constituent assembly), civilians (nca - national constituent assembly), civilians (nigeria), civilians (south africa), civilians (uk), civilians (woza - women of zimbabwe arise), civilians (white farmers), civilians (zanu-pf - zimbabwe african national union-patriotic front), civilians (zanu-pf: zimbabwe african national union-patriotic front), civilians (zctu - zimbabwe congress of trade unions), civilians (zimbabwe), farm workers (zimbabwe), protesters (nigeria),

protesters (woza - women of zimbabwe arise), resettled farmers / farm invaders (zimbabwe), white farm owners (zimbabwe)

## 12.1.2 GDELT ACTOR DICTIONARY

### AFGHANISTAN (1979-1989)

- **Government:** afganistan, afghan, afghanistan, agriculture secretary, air force, air unit, aircraft carrier, ambassador, armed force, armed forces, armed troops, army, army chief, army chief of staff, army deserter, army officer, army patrol, army unit, authorities, babrak karmal, battalion, battleship, border guard, border security, byelorussia, c in c of, cabinet, cabinet minister, captain, carrier, chairman of the council of ministers, chief minister, chief of staff, civil servant, colonel, combat aircraft, combat helicopter, combat planes, combat troops, commanding officer, commando, commerce minist, companies, company, constitutional council, consul, consulate, council of ministers, customs official, defence force, defence minist, defense force, defense minist, delegate, deputies, deputy, deputy prime minister, diplomat, director general, drug enforcement, eduard shevardnadze, education minist, embassy, external affairs department, external affairs minist, fighter bomber, fighter jet, fighter plane, foreign affairs ministry, foreign correspondent, foreign minist, foreign national, foreign office, foreign secretary, garrison, general assembly, generals, government, government delegation, government forces, government in exile, government official, government soldier, government spokesman, government troops, governor, governor general, ground forces, ground troop, hafizullah amin, head of state, health minist, high commission, high official, high ranking officer, infantry, intelligence, intelligence agent, intelligence officer, intelligence service, inter parliamentary union, interim government, interior minist, international civil aviation organization, international committee of the red cross, international community, investigative agency, jet fighter, judge, judicial system, kabul, kandahar, kazakhstan, kiev, law enforcement authorities, law minist, legislator, legislature, leonid brezhnev, lieutenant, mazar i sharif, member of parliament, mikhail gorbachev, military, military adviser, military advisor, military authorities, military base, military delegation, military force, military government, military intelligence, military intelligence apparatus, military officer, military official, military patrol, military personnel, military regime, military spokesman, military transport plane, minist, minist for agriculture, minist for interior, minist of commerce, minist of communication,

minist of defence, minist of defense, minist of education, minist of finance, minist of foreign affairs, minist of higher education, minist of information, minist of interior, minist of internal affairs, minist of justice, minist of law, minist of mines, minist of planning, minist of public health, minist of public works, minist of security, minist of state, minist of the interior, minist of transport, ministry, mohammad hassan sharq, mohammad najibullah, molotov, moscow, national assembly, national bank, national council, national security adviser, naval, navy, nikolay ryzhkov, nur mohammad taraki, operative, paramilitary, paramilitary force, paratroops, parliament, parliamentarian, party leader, party member, party president, planning commission, police, police force, police officer, police officials, police post, policeman, policemen, politburo, politburo member, political parties, political prisoner, politician, premier, president, presidential palace, presidium, prime minister, prosecutor, prosecutor general, provincial officials, provisional government, public prosecutor, public works minist, qandahar, regime, regiment, reservist, ruling party, russia, russian, second lieutenant, secret police, secretariat, secretary of state, security force, security officer, security official, security personnel, servicemen, soviet occupied afghanistan, speaker of parliament, speaker of the house, special commission, special court, special envoy, special forces, spokesman, spokesmen, staff member, state news agency, state official, state run television, state secretary, tadjikistan, tajikistan, tashkent, todor zhivkov, trooper, turkmenia, turkmenistan, ukraine, uzbekistan, warship

- **Rebel:** abductor, abdul qadir, afghanistan liberation organization, anti government force, anti government insurgent, armed band, armed bandit, armed gang, armed group, armed men, armed opposition group, armed rebel, assailant, bandit, burhanuddin rabbani, combatant, communist rebel, dissident, exiled leader, extremist, fighter, freedom fighter, gang, gangster, guerilla, guerilla leader, guerrilla, guerrilla force, guerrilla leader, gulbuddin hekmatyar, gunman, gunmen, insurgency, insurgent, insurgent force, insurgent group, insurgent leader, islamic extremist group, islamic front, islamic rebel, islamic rebel group, islamic rebel leader, islamic rebels, kidnapper, liberation front, liberation movement, militant, military wing, militia, moslem militant, mujahideen, mullah, muslim rebel, mutineer, opposition forces, opposition leader, perpetrator, protester, rebel, rebel army, rebel base, rebel commander, rebel force, rebel group, rebel insurgent, rebel leader, rebel soldier, rebel source, rebellion, resistance commander, resistance group, resistance leader, resistance movement, revolt, revolutionary association of the women of afghanistan, revolutionary

movement, rioter, student demonstrator, terrorist, terrorist group, terrorist leader, the opposition, uprising, urban guerillas

- **Civilian:** citizen, civilian, farmer, immigrant, population, pupil, refugee, residents, school, settler, shop owner, student, traveler, traveller, village, villager, voter, worker, worshiper, worshipper

### AFGHANISTAN (1992-1996)

- **Government:** a cabinet meeting, abdul ali, abdul rahim ghafoorzai, administration, administrative official, admiral, agriculture minist, air force, air force chief, air unit, aircraft carrier, anti riot police, armed force, armed forces, armed police, armed troops, army, army chief, army chief of staff, army intelligence, army officer, army patrol, army reserve, army staff, army unit, attack helicopters, authorities, babrak karmal, battalion, border guard, border patrol, border security, brigadier general, bureaucracy, bureaucrat, burhanuddin rabbani, c in c of, cabinet, cabinet minister, captain, caretaker government, carrier, central bank governor, chairman of the council of ministers, chamber, chamber of deputies, chief justice, chief minister, chief of intelligence, chief of staff, chief of state, chief of the army, city mayor, civil servant, civil service, coast guard, colonel, combat aircraft, combat helicopter, combat planes, combat troops, commandant, commanding officer, commando, companies, company, constab, constituent assembly, constitutional council, constitutional court, construction minist, consul, consul general, consulate, council of ministers, council of state, court judge, court justice, court official, cruiser, customs official, death squad, defence force, defence minist, defense force, defense minist, defense secretary, delegate, department of foreign affairs, deputy prime minister, destroyer, dictator, diplomat, director general, district court, drug enforcement, economic minist, eduard shevardnadze, education minist, election commission, electoral commission, energy minist, external affairs minist, federal court, federal judge, federal police, fighter bomber, fighter jet, fighter plane, finance minist, first lieutenant, foreign affairs minist, foreign affairs ministry, foreign minist, foreign relations minist, foreign secretary, frigate, garrison, gendarmerie, general of the army, generals, governing party, government, government commission, government delegation, government forces, government official, government representative, government soldier, government spokesman, government troops, government troops and police, governor, governor general, ground forces, ground troop, head of government, head of state, health minist, high court, high official, high ranking officer,

home minist, immigration minist, infantry, information and culture minist, intelligence, intelligence agent, intelligence chief, intelligence information, intelligence officer, intelligence operation, intelligence service, interim government, interim president, interior minist, jet fighter, judge, judicial system, judiciary, junior officer, junta, junta forces, junta troops, justice minister, justice system, kabul, labor minist, land force, landing ship, law enforcement agencies, law enforcement authorities, law enforcement officer, law minist, lawmaker, legislative assembly, legislative chamber, legislative council, legislator, legislature, lieutenant, lieutenant colonel, lieutenant general, major general, mayor, member of parliament, military, military adviser, military authorities, military base, military commission, military delegation, military force, military government, military group, military intelligence, military judge, military junta, military led, military officer, military official, military patrol, military personnel, military police, military regime, military representative, military reserve, military rule, military spokesman, military spokesmen, military transport plane, military tribunal, minist, minist for foreign, minist of agriculture, minist of communication, minist of defence, minist of defense, minist of economic affairs, minist of education, minist of finance, minist of foreign, minist of foreign affairs, minist of health, minist of industry, minist of information, minist of interior, minist of internal affairs, minist of international trade, minist of justice, minist of law, minist of mines, minist of national defence, minist of planning, minist of public health, minist of public works, minist of state, minist of the interior, minist of transport, minister without portfolio, ministers of state, ministry, mohammad najibullah, narcotics officer, national assembly, national council, national court, national guard, national police, national police chief, national security adviser, national security service, naval, naval base, naval officer, naval unit, navy, operative, paratroops, parliament, parliamentarian, party leader, party member, party president, peacekeeping troop, police, police captain, police chief, police commissioner, police constable, police district, police force, police officer, police officials, police personnel, police post, policeman, policemen, policewoman, political parties, politician, premier, president, presidential aide, presidential candidate, presidential palace, prime minister, prosecutor, prosecutor general, provincial officials, provisional government, public prosecutor, public works minist, regime, regiment, regional governor, reservist, riot police, ruler, ruling coalition, ruling junta, ruling party, second lieutenant, secret police, secretariat, security force, security officer, security official, security patrol, security personnel, servicemen, speaker of

parliament, special forces, special operations, state official, state secretary, the west african country, tourism minist, transport minist, trooper, tyrant, undercover agent, warship

- **Rebel:** abductor, anti government force, anti government insurgent, anti government organization, armed band, armed bandit, armed gang, armed group, armed insurgency, armed insurgent, armed insurgent group, armed men, armed opposition group, armed rebel, armed rebel group, armed separatist, arsala rahmani, assailant, bandit, combatant, communist rebel, criminal, exiled opposition, extremist, fanatic, fighter, freedom fighter, fundamentalist muslim, gang, gangster, guerrilla, guerrilla leader, gulbuddin hekmatyar, gunman, gunmen, insurgency, insurgent, insurgent force, insurgent group, insurgent leader, international terrorist, islamic extremist group, islamic front, islamic militant, islamic rebel, islamic rebel group, islamic rebels, jalal talabani, kidnapper, kurdistan, liberation army, liberation front, liberation movement, main opposition, militant, military wing, militia, moslem militant, mujahideen, mullah mohammad rabbani, muslim militant, muslim radical, muslim rebel, mutineer, opposition alliance, opposition coalition, opposition faction, opposition force, opposition forces, opposition leader, opposition supporter, osama bin laden, paramilitary police, paramilitary unit, political wing, private armies, private army, radical leftist group, raider, rebel, rebel army, rebel base, rebel commander, rebel commando, rebel delegation, rebel force, rebel group, rebel insurgent, rebel leader, rebel soldier, rebel source, rebel student, rebellion, resistance group, resistance leader, resistance movement, revolt, revolutionary front, revolutionary movement, rioter, separatist, separatist guerrilla, separatist leader, separatist militant, separatist movement, separatist rebel, spokesman for the opposition, student army, suicide bomber, terrorist, terrorist group, terrorist leader, terrorist organization, the opposition, underground army, underground rebel, unidentified forces, unidentified gunmen, uprising
- **Civilian:** asylum seeker, citizen, civilian, college, community, constituent, displaced people, displaced person, farm worker, farmer, immigrant, migrant, peasant, pilgrim, population, private citizen, pupil, refugee, residents, residents of the capital, school, schoolhouse, settler, student, village, villager, worshipper

#### AFGHANISTAN (2001-2013)

- **Government:** a cabinet meeting, a us, abdul karim khalili, abdul qadir fitrat, abdul rahim karimi, abdul rahim wardak, abdullah wardak, administration,



administrative official, admiral, agriculture minist, air force, air force chief, air unit, aircraft carrier, ali ahmad jalali, amena afzali, american troops, anti riot police, anti terror court, anti terrorism court, armed force, armed forces, armed police, armed troops, army, army chief, army chief of staff, army intelligence, army national guard, army officer, army patrol, army rangers, army reserve, army staff, army unit, army vice chief of staff, asadullah khalid, ashraf ghani, asif rahimi, attack helicopter, attack helicopters, authorities, babrak karmal, barack obama, battalion, battle group, battle tank, battleship, border guard, border patrol, border patrol agent, border security, brigadier general, bureaucracy, bureaucrat, bush administration, c in c of, cabinet, cabinet minister, cabinet of ministers, captain, caretaker administration, caretaker government, carrier, central bank governor, central jail of, chairman of the council of ministers, chamber, chamber of deputies, chief justice, chief minister, chief of defence staff, chief of intelligence, chief of staff, chief of staff of the army, chief of state, chief of the air force, chief of the army, city mayor, civil servant, civil service, coast guard, colonel, combat aircraft, combat helicopter, combat jet, combat planes, combat ship, combat troops, commandant, commanding general, commanding officer, commando, companies, company, constab, constituent assembly, constitutional council, constitutional court, construction minist, consul, consul general, consulate, council of ministers, council of state, counter narcotics officer, court judge, court justice, court official, criminal police, cruiser, customs official, david petraeus, death squad, defence force, defence minist, defense contractor, defense department, defense force, defense minist, defense secretary, defense services, delegate, department of defense, department of foreign affairs, deputy prime minister, destroyer, dictator, diplomat, director general, district commissioner, district court, drug enforcement, economic minist, eduard shevardnadze, education minist, election commission, electoral commission, energy minist, external affairs minist, federal court, federal judge, federal police, fighter bomber, fighter jet, fighter plane, finance minist, first lieutenant, flag officer, foreign affairs minist, foreign affairs ministry, foreign minist, foreign minister abdullah, foreign relations minist, foreign secretary, frigate, garrison, gendarmerie, general of the army, generals, george bush, george w. bush, governing party, government, government commission, government delegation, government forces, government official, government representative, government soldier, government spokesman, government troops, government troops and police, governor, governor general, ground forces, ground troop, gul agha shirzai, habibullah qaderi, hamid karzai, head of government, head of state, health

minist, hedayat amin arsala, high court, high official, high ranking officer, home minist, immigration minist, infantry, intelligence, intelligence agent, intelligence apparatus, intelligence chief, intelligence community, intelligence information, intelligence officer, intelligence operation, intelligence service, interim government, interim leader, interim president, interior minist, ismail khan, jail guard, jet fighter, joint chiefs of staff, joint strike fighter, judge, judicial system, judiciary, junior officer, junta, junta forces, junta troops, justice minister, justice system, kabul, labor minist, land force, landing ship, law enforcement agencies, law enforcement agency, law enforcement authorities, law enforcement authority, law enforcement officer, law enforcing agencies, law minist, law officer, lawmaker, legislative assembly, legislative chamber, legislative council, legislator, legislature, lieutenant, lieutenant colonel, lieutenant general, major general, marine corp, marines, mayor, member of parliament, military, military adviser, military advisor, military authorities, military authority, military base, military commission, military delegation, military dictator, military force, military government, military group, military intelligence, military intelligence agency, military judge, military junta, military justice, military led, military officer, military official, military patrol, military personnel, military police, military regime, military representative, military reserve, military rule, military spokesman, military spokesmen, military transport plane, military tribunal, minist, minist for defence, minist for foreign, minist for home affairs, minist for internal affairs, minist for international cooperation, minist for justice, minist for security, minist for state, minist of agriculture, minist of communication, minist of counter narcotics, minist of defence, minist of defense, minist of economic affairs, minist of education, minist of finance, minist of foreign, minist of foreign affairs, minist of government, minist of health, minist of home affairs, minist of industry, minist of information, minist of interior, minist of internal affairs, minist of international trade, minist of justice, minist of law, minist of mines, minist of national defence, minist of national security, minist of planning, minist of public health, minist of public works, minist of security, minist of state, minist of the interior, minist of transport, minister without portfolio, ministers of state, ministry, mohammad amin farhang, mohammad hanif atmar, mohammad masoom stanakzai, mohammad mirwais sadeq, mohammad najibullah, narcotics officer, national assembly, national council, national court, national guard, national police, national police chief, national security adviser, national security chief, national security council, national security office, national security service, naval, naval base, naval officer, naval unit, navy,

nematollah shahrani, neutral caretaker government, nur mohammad qarqin, omar zakhilwal, operative, paratroops, parliament, parliamentarian, party leader, party member, party president, peacekeeping troop, police, police captain, police chief, police commissioner, police constable, police district, police force, police officer, police officials, police personnel, police post, policeman, policemen, policewoman, polish, political parties, politician, premier, president, presidential aide, presidential candidate, presidential palace, prime minister, prime minster, prosecutor, prosecutor general, provincial officials, provisional government, public prosecutor, public works minist, rahmatullah nabil, ramazan bashardost, regime, regiment, regional governor, reservist, riot police, ruler, ruling coalition, ruling junta, ruling parties, ruling party, sayed hussain anwari, sayed makhdoom raheen, sayed makhdum rahin, sayed mohammad amin fatemi, sayed mustafa kazemi, second lieutenant, secret police, secretariat, secretary of defense, security force, security officer, security official, security patrol, security personnel, senior intelligence officer, servicem, serviceman, servicemen, servicewoman, servicewomen, sohaila sediq, soldiers and their families, soldiery, speaker of parliament, special forces, special operations, spy agency, standing army, state minist, state official, state secretary, state security council, taj mohammad wardak, the west african country, tourism minist, transport minist, trooper, tyrant, u. s., u.s., undercover agent, united states, united states of america, us military outpost, warship, yahya maroofi, zahir tanin

- **Rebel:** abductor, abdul sabur farid kuhestani, abu al walid, abu ayyub al masri, al hawsawi, al qaeda, al qaida, alleged militants, anti government armed group, anti government force, anti government insurgent, anti government organization, armed band, armed bandit, armed dissident, armed gang, armed group, armed insurgency, armed insurgent, armed insurgent group, armed men, armed opposition group, armed rebel, armed rebel group, armed separatist, arsala rahmani, assailant, bandit, combatant, communist rebel, criminal, drug lord, drug runners, drug syndicate, el qaida, enemy combatant, enemy insurgent, exiled opposition, extremist, fanatic, fighter, foreign terrorist organization, freedom fighter, fundamentalist muslim, gang, gangster, guerilla army, guerilla force, guerrilla, guerrilla leader, gulbuddin hekmatyar, gunman, gunmen, harkat ul ansar, harkat ul mujahideen, hit man, hitman, ibn al khattab, illegal movement, insurgence, insurgency, insurgency leader, insurgency movement, insurgent, insurgent force, insurgent group, insurgent leader, insurgent leadership, insurgent movement, insurrectionist, international terrorist, islamic extremist group, islamic front, islamic militant, islamic rebel, islamic rebel group, islamic

rebels, islamist cleric, jalal talabani, khalid sheikh mohammed, kidnapper, kurdistan, liberation army, liberation front, liberation movement, low level insurgency, main opposition, militant, militant movement, military wing, militia, mohammed atef, moslem militant, mujahideen, muslim militant, muslim radical, muslim rebel, muslim rebel group, mutineer, narco terrorist, narco trafficker, opposition alliance, opposition coalition, opposition force, opposition forces, opposition leader, opposition supporter, osama bin laden, paramilitary organization, paramilitary police, paramilitary unit, political wing, private armies, private army, private security force, radical leftist group, raider, rebel, rebel armies, rebel army, rebel base, rebel commander, rebel commando, rebel force, rebel group, rebel insurgent, rebel leader, rebel soldier, rebel source, rebel student, rebellion, resistance commander, resistance group, resistance leader, resistance movement, revolt, revolutionary front, revolutionary movement, riduan isamuddin, rioter, said al masri, separatist, separatist guerrilla, separatist leader, separatist militant, separatist movement, separatist rebel, spokesman for the opposition, suicide bomber, taliban, terrorist, terrorist group, terrorist group leader, terrorist insurgent, terrorist insurgent group, terrorist leader, terrorist organization, the opposition, trafficker, tribal rebel, underground army, underground rebel, unidentified forces, unidentified gunmen, uprising, usama bin laden, violent group

- **Civilian:** asylum seeker, citizen, civilian, college, community, constituent, displaced families, displaced people, displaced person, displaced residents, farm labourer, farm worker, farmer, immigrant, migrant, peasant, pilgrim, population, private citizen, pupil, refugee, residents, residents of the capital, school, schoolhouse, settler, student, village, villager, worshipper

#### DJIBOUTI (1991-1994)

- **Government:** a cabinet meeting, administration, admiral, agriculture minist, air force, air force chief, air unit, aircraft carrier, anti riot police, armed force, armed forces, armed police, armed troops, army, army chief, army chief of staff, army intelligence, army officer, army patrol, army reserve, army staff, army unit, attack helicopters, authorities, battalion, border guard, border patrol, border security, brigadier general, bureaucracy, bureaucrat, c in c of, cabinet, cabinet minister, captain, caretaker government, carrier, central bank governor, chairman of the council of ministers, chamber, chamber of deputies, chief justice, chief minister, chief of intelligence, chief of staff, chief of state, chief of the army, city mayor, civil servant, civil

service, coast guard, colonel, combat aircraft, combat helicopter, combat planes, combat troops, commandant, commanding officer, commando, companies, company, constab, constituent assembly, constitutional council, constitutional court, construction minist, consul, consul general, consulate, council of ministers, council of state, court judge, court justice, court official, cruiser, customs official, death squad, defence force, defence minist, defense force, defense minist, defense secretary, delegate, department of foreign affairs, deputy prime minister, destroyer, dictator, diplomat, director general, district court, djibouti, drug enforcement, economic minist, education minist, election commission, electoral commission, energy minist, external affairs minist, federal court, federal judge, federal police, fighter bomber, fighter jet, fighter plane, finance minist, first lieutenant, foreign affairs minist, foreign affairs ministry, foreign minist, foreign relations minist, foreign secretary, frigate, garrison, gendarmerie, generals, governing party, government, government commission, government delegation, government forces, government official, government representative, government soldier, government spokesman, government troops, government troops and police, governor, governor general, ground forces, ground troop, hassan gouled aptidon, head of government, head of state, health minist, high court, high official, high ranking officer, home minist, immigration minist, infantry, intelligence, intelligence agent, intelligence chief, intelligence information, intelligence officer, intelligence operation, intelligence service, interim government, interim president, interior minist, jet fighter, jibouti, jibuti, judge, judicial system, judiciary, junior officer, junta, junta forces, justice minister, justice system, labor minist, land force, landing ship, law enforcement agencies, law enforcement authorities, law enforcement officer, law minist, lawmaker, legislative assembly, legislative chamber, legislative council, legislator, legislature, lieutenant, lieutenant colonel, major general, mayor, member of parliament, military, military adviser, military authorities, military base, military commission, military delegation, military force, military government, military group, military intelligence, military judge, military junta, military officer, military official, military patrol, military personnel, military police, military regime, military representative, military reserve, military rule, military spokesman, military spokesmen, military transport plane, military tribunal, minist, minist for foreign, minist for internal affairs, minist of agriculture, minist of communication, minist of defence, minist of defense, minist of economic affairs, minist of education, minist of finance, minist of foreign, minist of foreign affairs, minist of health, minist of industry, minist of information, minist of interior, minist

of internal affairs, minist of international trade, minist of justice, minist of law, minist of mines, minist of national defence, minist of planning, minist of public health, minist of public works, minist of state, minist of the interior, minist of transport, minister without portfolio, ministers of state, ministry, narcotics officer, national assembly, national council, national court, national guard, national police, national police chief, national security adviser, naval, naval base, naval officer, naval unit, navy, operative, paratroops, parliament, parliamentarian, party leader, party member, party president, peacekeeping troop, police, police captain, police chief, police commissioner, police constable, police district, police force, police officer, police officials, police personnel, police post, policeman, policemen, policewoman, political parties, politician, premier, president, presidential aide, presidential candidate, presidential palace, prime minister, prosecutor, prosecutor general, provincial officials, provisional government, public prosecutor, public works minist, regime, regiment, regional governor, reservist, riot police, ruler, ruling coalition, ruling junta, ruling party, second lieutenant, secret police, secretariat, security force, security officer, security official, security patrol, security personnel, servicemen, speaker of parliament, special forces, special operations, state official, state secretary, tourism minist, transport minist, trooper, tyrant, warship

- **Rebel:** abductor, afar, anti government force, anti government insurgent, anti government organization, armed band, armed bandit, armed gang, armed group, armed insurgency, armed insurgent, armed insurgent group, armed men, armed opposition group, armed rebel, armed rebel group, armed separatist, assailant, bandit, combatant, communist rebel, criminal, exiled opposition, extremist, fanatic, fighter, freedom fighter, fundamentalist muslim, gang, gangster, guerrilla, guerrilla leader, gunman, gunmen, insurgency, insurgent, insurgent force, insurgent group, insurgent leader, international terrorist, islamic extremist group, islamic front, islamic militant, islamic rebels, jalal talabani, kidnapper, kurdistan, liberation army, liberation front, liberation movement, militant, military wing, militia, moslem militant, mujahideen, muslim militant, muslim radical, muslim rebel, mutineer, opposition activist, opposition force, opposition forces, opposition leader, opposition supporter, paramilitary police, political wing, private armies, private army, radical leftist group, raider, rebel, rebel army, rebel base, rebel commander, rebel commando, rebel force, rebel group, rebel insurgent, rebel leader, rebel soldier, rebel source, rebellion, resistance group, resistance leader, resistance movement, revolt,

revolutionary front, revolutionary movement, rioter, separatist, separatist guerrilla, separatist movement, separatist rebel, terrorist, terrorist group, terrorist leader, terrorist organization, the opposition, underground army, underground rebel, unidentified gunmen, uprising

- **Civilian:** asylum seeker, citizen, civilian, college, community, constituent, displaced people, displaced person, farm worker, farmer, immigrant, migrant, peasant, pilgrim, population, private citizen, pupil, refugee, residents, residents of the capital, school, schoolhouse, settler, student, village, villager, worshipper

### GEORGIA (1991-1993)

- **Government:** a cabinet meeting, administration, admiral, agriculture minist, air force, air force chief, air unit, aircraft carrier, anti riot police, armed force, armed forces, armed police, armed troops, army, army chief, army chief of staff, army intelligence, army officer, army patrol, army reserve, army staff, army unit, attack helicopters, authorities, battalion, border guard, border patrol, border security, brigadier general, bureaucracy, bureaucrat, c in c of, cabinet, cabinet minister, cabinet of ministers, captain, caretaker government, carrier, central bank governor, central election commission, chairman of the council of ministers, chamber, chamber of deputies, chief justice, chief minister, chief of intelligence, chief of staff, chief of state, chief of the army, city mayor, civil servant, civil service, coast guard, colonel, combat aircraft, combat helicopter, combat planes, combat troops, commandant, commanding officer, commando, companies, company, constab, constituent assembly, constitutional council, constitutional court, construction minist, consul, consul general, consulate, council of ministers, council of state, court judge, court justice, court official, cruiser, customs official, death squad, defence force, defence minist, defense force, defense minist, defense secretary, delegate, department of foreign affairs, deputy prime minister, destroyer, dictator, diplomat, director general, district court, drug enforcement, economic minist, eduard shevardnadze, education minist, election commission, electoral commission, energy minist, external affairs minist, federal court, federal judge, federal police, fighter bomber, fighter jet, fighter plane, finance minist, first lieutenant, foreign affairs minist, foreign affairs ministry, foreign minist, foreign relations minist, foreign secretary, frigate, garrison, gendarmerie, generals, governing party, government, government commission, government delegation, government forces, government official, government representative,

government soldier, government spokesman, government troops, government troops and police, governor, governor general, ground forces, ground troop, head of government, head of state, health minist, high court, high official, high ranking officer, home minist, immigration minist, infantry, intelligence, intelligence agent, intelligence chief, intelligence information, intelligence officer, intelligence operation, intelligence service, interim government, interim president, interior minist, jet fighter, judge, judicial system, judiciary, junior officer, junta, junta forces, justice minister, justice system, labor minist, land force, landing ship, law enforcement agencies, law enforcement authorities, law enforcement officer, law minist, lawmaker, legislative assembly, legislative chamber, legislative council, legislator, legislature, lieutenant, lieutenant colonel, major general, mayor, member of parliament, military, military adviser, military authorities, military base, military commission, military delegation, military force, military government, military group, military intelligence, military judge, military junta, military officer, military official, military patrol, military personnel, military police, military regime, military representative, military reserve, military rule, military spokesman, military spokesmen, military transport plane, military tribunal, minist, minist for foreign, minist of agriculture, minist of communication, minist of defence, minist of defense, minist of economic affairs, minist of education, minist of finance, minist of foreign, minist of foreign affairs, minist of health, minist of industry, minist of information, minist of interior, minist of internal affairs, minist of international trade, minist of justice, minist of law, minist of mines, minist of national defence, minist of planning, minist of public health, minist of public works, minist of state, minist of the interior, minist of transport, minister without portfolio, ministers of state, ministry, narcotics officer, national assembly, national council, national court, national guard, national police, national police chief, national security adviser, national security service, naval, naval base, naval officer, naval unit, navy, operative, otar patsatsia, paratroops, parliament, parliamentarian, party leader, party member, party president, peacekeeping troop, police, police captain, police chief, police commissioner, police constable, police district, police force, police officer, police officials, police personnel, police post, policeman, policemen, policewoman, political parties, politician, premier, president, presidential aide, presidential candidate, presidential palace, prime minister, prosecutor, prosecutor general, provincial officials, provisional government, public prosecutor, public works minist, regime, regiment, regional governor, republic of georgia, reservist, riot police, ruler, ruling coalition, ruling



junta, ruling party, second lieutenant, secret police, secretariat, security force, security officer, security official, security patrol, security personnel, servicemen, speaker of parliament, special forces, special operations, state official, state secretary, tengiz kitovani, tourism minist, transport minist, trooper, tyrant, warship, zviad gamsakhurdia

- **Rebel:** abductor, abkhazians, anti government force, anti government insurgent, anti government organization, armed band, armed bandit, armed gang, armed group, armed insurgency, armed insurgent, armed insurgent group, armed men, armed opposition group, armed rebel, armed rebel group, armed separatist, assailant, bandit, combatant, communist rebel, criminal, exiled opposition, extremist, fanatic, fighter, freedom fighter, fundamentalist muslim, gang, gangster, guerrilla, guerrilla leader, gunman, gunmen, insurgency, insurgent, insurgent force, insurgent group, insurgent leader, international terrorist, islamic extremist group, islamic front, islamic militant, islamic rebels, jaba ioseliani, jalal talabani, kidnapper, kurdistan, liberation army, liberation front, liberation movement, main opposition, militant, military wing, militia, moslem militant, mujahideen, muslim militant, muslim radical, muslim rebel, mutineer, opposition coalition, opposition demonstrators, opposition force, opposition forces, opposition leader, opposition parties, opposition party, opposition supporter, ossetians, paramilitary police, paramilitary unit, political wing, private armies, private army, radical leftist group, raider, rebel, rebel army, rebel base, rebel commander, rebel commando, rebel force, rebel group, rebel insurgent, rebel leader, rebel soldier, rebel source, rebellion, resistance group, resistance leader, resistance movement, revolt, revolutionary front, revolutionary movement, rioter, separatist, separatist guerrilla, separatist leader, separatist militant, separatist movement, separatist rebel, spokesman for the opposition, tengiz sigua, terrorist, terrorist group, terrorist leader, terrorist organization, the opposition, underground army, underground rebel, unidentified gunmen, uprising
- **Civilian:** asylum seeker, citizen, civilian, college, community, constituent, displaced people, displaced person, farm worker, farmer, immigrant, migrant, peasant, pilgrim, population, private citizen, pupil, refugee, residents, residents of the capital, school, schoolhouse, settler, student, village, villager, worshipper

#### CROATIA (1991-1995)

- **Government:** a cabinet meeting, administration, administrative official,

admiral, agriculture minist, air force, air force chief, air unit, aircraft carrier, anti riot police, armed force, armed forces, armed police, armed troops, army, army chief, army chief of staff, army intelligence, army officer, army patrol, army reserve, army staff, army unit, attack helicopter, attack helicopters, authorities, babrak karmal, battalion, border guard, border patrol, border security, bozo kovacevic, brigadier general, bureaucracy, bureaucrat, c in c of, cabinet, cabinet minister, cabinet of ministers, captain, caretaker government, carrier, central bank governor, chairman of the council of ministers, chamber, chamber of deputies, chief justice, chief minister, chief of intelligence, chief of staff, chief of state, chief of the army, city mayor, civil servant, civil service, coast guard, colonel, combat aircraft, combat helicopter, combat planes, combat troops, commandant, commanding officer, commando, companies, company, constab, constituent assembly, constitutional council, constitutional court, construction minist, consul, consul general, consulate, council of ministers, council of state, court judge, court justice, court official, croatia, cruiser, customs official, death squad, defence force, defence minist, defense force, defense minist, defense secretary, delegate, department of foreign affairs, deputy prime minister, destroyer, dictator, diplomat, director general, district court, drug enforcement, economic minist, eduard shevardnadze, education minist, election commission, electoral commission, energy minist, external affairs minist, federal court, federal judge, federal police, fighter bomber, fighter jet, fighter plane, finance minist, first lieutenant, foreign affairs minist, foreign affairs ministry, foreign minist, foreign relations minist, foreign secretary, franjo greguric, franjo tudjman, frigate, garrison, gendarmerie, general of the army, generals, goran granic, governing party, government, government commission, government delegation, government forces, government official, government representative, government soldier, government spokesman, government troops, government troops and police, governor, governor general, ground forces, ground troop, head of government, head of state, health minist, high court, high official, high ranking officer, home minist, hrvoje sarinic, immigration minist, infantry, intelligence, intelligence agent, intelligence chief, intelligence information, intelligence officer, intelligence operation, intelligence service, interim government, interim president, interior minist, jet fighter, josip manolic, judge, judicial system, judiciary, junior officer, junta, junta forces, junta troops, justice minister, justice system, kabul, labor minist, land force, landing ship, law enforcement agencies, law enforcement authorities, law enforcement officer, law minist, lawmaker, legislative assembly, legislative chamber, legislative council, legislator,

legislature, lieutenant, lieutenant colonel, lieutenant general, major general, mayor, member of parliament, military, military adviser, military authorities, military base, military commission, military delegation, military force, military government, military group, military intelligence, military judge, military junta, military led, military officer, military official, military patrol, military personnel, military police, military regime, military representative, military reserve, military rule, military spokesman, military spokesmen, military transport plane, military tribunal, minist, minist for defence, minist for foreign, minist for internal affairs, minist for international cooperation, minist of agriculture, minist of communication, minist of defence, minist of defense, minist of economic affairs, minist of education, minist of finance, minist of foreign, minist of foreign affairs, minist of health, minist of industry, minist of information, minist of interior, minist of internal affairs, minist of international trade, minist of justice, minist of law, minist of mines, minist of national defence, minist of national security, minist of planning, minist of public health, minist of public works, minist of security, minist of state, minist of the interior, minist of transport, minister without portfolio, ministers of state, ministry, mohammad najibullah, narcotics officer, national assembly, national council, national court, national guard, national police, national police chief, national security adviser, national security service, naval, naval base, naval officer, naval unit, navy, nikica valentic, operative, paratroops, parliament, parliamentarian, party leader, party member, party president, peacekeeping troop, police, police captain, police chief, police commissioner, police constable, police district, police force, police officer, police officials, police personnel, police post, policeman, policemen, policewoman, political parties, politician, premier, president, presidential aide, presidential candidate, presidential palace, prime minister, prosecutor, prosecutor general, provincial officials, provisional government, public prosecutor, public works minist, regime, regiment, regional governor, republic of croatia, reserve officer, reservist, riot police, ruler, ruling coalition, ruling junta, ruling party, second lieutenant, secret police, secretariat, security force, security officer, security official, security patrol, security personnel, servicemen, speaker of parliament, special forces, special operations, state official, state secretary, stipe mesic, stjepan mesic, the west african country, tourism minist, transport minist, trooper, tyrant, undercover agent, warship, zagreb, zlatko matesa

- **Rebel:** abductor, anti government force, anti government insurgent, anti government

organization, armed band, armed bandit, armed gang, armed group, armed insurgency, armed insurgent, armed insurgent group, armed men, armed opposition group, armed rebel, armed rebel group, armed separatist, assailant, bandit, combatant, communist rebel, criminal, enemy combatant, ethnic rebel, exiled opposition, extremist, fanatic, fighter, freedom fighter, fundamentalist muslim, gang, gangster, guerrilla, guerrilla leader, gulbuddin hekmatyar, gunman, gunmen, insurgency, insurgent, insurgent force, insurgent group, insurgent leader, international terrorist, islamic extremist group, islamic front, islamic militant, islamic rebel, islamic rebel group, islamic rebels, jalal talabani, kidnapper, kurdistan, liberation army, liberation front, liberation movement, main opposition, militant, military wing, militia, moslem militant, mujahideen, muslim militant, muslim radical, muslim rebel, mutineer, opposition alliance, opposition coalition, opposition force, opposition forces, opposition leader, opposition supporter, paramilitary organisation, paramilitary police, paramilitary unit, political wing, private armies, private army, radical leftist group, raider, rebel, rebel army, rebel base, rebel commander, rebel commando, rebel force, rebel group, rebel insurgent, rebel leader, rebel soldier, rebel source, rebellion, resistance group, resistance leader, resistance movement, revolt, revolutionary front, revolutionary movement, rioter, separatist, separatist guerrilla, separatist leader, separatist militant, separatist movement, separatist rebel, serbs, spokesman for the opposition, suicide bomber, terrorist, terrorist group, terrorist leader, terrorist organization, the opposition, underground army, underground rebel, unidentified forces, unidentified gunmen, uprising

- **Civilian:** asylum seeker, citizen, civilian, college, community, constituent, displaced families, displaced people, displaced person, farm worker, farmer, immigrant, migrant, peasant, pilgrim, population, private citizen, pupil, refugee, residents, residents of the capital, school, schoolhouse, settler, student, villager, villager, worshipper

### IRAQ (1980-1988)

- **Government:** a cabinet meeting, administration, admiral, air force, air force, armed force, armed forces, armed forces, armed troops, army, army, army chief, army chief of staff, army officer, army officer, army patrol, army patrol, army unit, authorities, authorities, baghdad, battalion, border guard, border guard, border patrol, brigadier general, bureaucrat, c in c of, cabinet, cabinet, cabinet minister, cabinet minister, captain, captain, carrier, carrier, chamber, chief of staff, chief of staff, civil servant, civil servant,

colonel, colonel, combat aircraft, combat helicopter, combat planes, combat troops, commanding officer, commando, commando, companies, company, company, constituent assembly, consul, consulate, council of ministers, cruiser, death squad, defence force, defence force, defence minist, defense force, defense minist, defense minist, defense secretary, delegate, delegate, deputy prime minister, despot, destroyer, dictator, diplomat, diplomat, director general, district court, drug enforcement, drug enforcement, education minist, fighter bomber, fighter bomber, fighter jet, fighter jet, fighter plane, fighter plane, finance minist, foreign affairs minist, foreign minist, foreign minist, foreign secretary, foreign secretary, garrison, gendarmerie, generals, governing party, government, government, government delegation, government forces, government forces, government official, government official, government soldier, government soldier, government spokesman, government spokesman, government troops, government troops, governor, governor general, ground forces, ground forces, ground troop, health minist, high official, high ranking officer, hit squad, hussein, infantry, infantry, intelligence, intelligence, intelligence agent, intelligence agent, intelligence chief, intelligence officer, intelligence officer, intelligence service, intelligence service, interior minist, iraq, jet fighter, jet fighter, judge, judicial system, judiciary, junior officer, junta, justice minister, land force, landing ship, legislator, legislator, legislature, lieutenant, lieutenant colonel, major general, mayor, military, military, military adviser, military adviser, military authorities, military authorities, military base, military base, military force, military force, military government, military intelligence, military judge, military machine, military officer, military officer, military official, military official, military patrol, military personnel, military police, military regime, military spokesman, military spokesman, military spokesmen, military transport plane, minist, minist, minist for foreign, minist for production, minist of agriculture, minist of defence, minist of defense, minist of education, minist of equipment, minist of information, minist of oil, minist of petroleum, minist of public health, minist of public works, minist of state, minist of the interior, ministry, ministry, national assembly, national council, national council, national guard, national police chief, national security adviser, naval, naval, naval base, naval unit, navy, navy, paratroops, parliament, parliament, parliamentary, party leader, party leader, party member, party member, party president, peacekeeping troop, police, police, police chief, police force, police officer, police officials, policeman, policeman, policemen, policemen, political parties, politician, politician, premier, premier, president, president, presidential palace, prime minister, prime minister,

prosecutor, prosecutor general, provincial officials, provisional government, public works minist, regime, regime, regiment, reservist, reservist, ruler, ruling coalition, ruling party, saddam hussein, second lieutenant, secret police, secretariat, secretariat, security force, security force, security officer, security officer, security official, security official, security patrol, security personnel, security personnel, servicemen, special forces, special forces, trade minist, trooper, tyrant, warship, warship

- **Rebel:** abductor, abductor, abductor, anti government armed group, armed band, armed band, armed band, armed group, armed group, armed group, armed men, armed men, armed men, assailant, assailant, assailant, bandit, bandit, bandit, combatant, combatant, combatant, exiled opposition, extremist, fanatic, fighter, freedom fighter, gang, gangster, guerrilla, guerrilla leader, gunman, gunmen, insurgent, insurgent leader, islamic front, islamic militant, jalal talabani, kurdistan, liberation army, massoud barzani, militant, militia, moslem militant, mujahideen, opposition leader, paramilitary police, rebel, rebel force, resistance movement, revolt, revolutionary movement, separatist, separatist guerrilla, separatist rebel, terrorist, the opposition, uprising
- **Civilian:** citizen, civilian, farmer, pilgrim, refugee, residents, school, settler, student, village, villager, worshipper

#### IRAQ(2003-2011)

- **Government:** a cabinet meeting, a us, abd al aziz al hakim, abd al basit turki, abd al karim al anzi, abdul aziz al hakim, adil abd al mahdi, administration, administrative official, admiral, adnan al janabi, agriculture minist, air force, air force chief, air unit, aircraft carrier, akram al hakim, ali al adib, ali al dabbagh, ali allawi, ali baban, american troops, anti riot police, anti terrorism court, armed force, armed forces, armed patrols, armed police, armed riot police, armed troops, army, army chief, army chief of staff, army intelligence, army national guard, army officer, army patrol, army reserve, army staff, army unit, army vice chief of staff, asad kamal al hashimi, attack helicopter, attack helicopters, authorities, ayad allawi, babrak karmal, barham salih, battalion, battle tank, battleship, border guard, border patrol, border patrol agent, border patrol unit, border security, brigadier general, bureaucracy, bureaucrat, bush administration, c in c of, cabinet, cabinet minister, cabinet of ministers, capt., captain, caretaker government, carrier, central bank governor, chairman of the council of ministers, chamber, chamber of deputies, chief justice, chief minister, chief of defence staff,

chief of intelligence, chief of staff, chief of state, chief of the air force, chief of the army, city mayor, civil defense department, civil servant, civil service, coast guard, colonel, combat aircraft, combat helicopter, combat jet, combat planes, combat ship, combat troops, commandant, commanding general, commanding officer, commando, companies, company, constab, constituent assembly, constitutional council, constitutional court, construction minist, consul, consul general, consulate, council of ministers, council of state, court judge, court justice, court official, criminal police, cruiser, customs official, dara nur al din, death squad, defence force, defence minist, defense contractor, defense force, defense minist, defense secretary, defense services, delegate, department of defense, department of foreign affairs, deputy prime minister, despot, destroyer, dictator, diplomat, director general, district commissioner, district court, donald rumsfeld, drug enforcement, economic minist, eduard shevardnadze, education minist, election commission, electoral commission, energy minist, external affairs minist, fawzi al hariri, federal court, federal judge, federal police, fighter bomber, fighter jet, fighter plane, finance minist, first lieutenant, flag officer, foreign affairs minist, foreign affairs ministry, foreign minist, foreign minister abdullah, foreign relations minist, foreign secretary, frigate, garrison, gen., gendarmerie, gendarmery, general of the army, generals, george bush, george w. bush, ghazi al yawer, governing party, government, government commission, government delegation, government forces, government official, government representative, government soldier, government spokesman, government troops, government troops and police, governor, governor general, ground forces, ground troop, hadi al amiri, hajim al hasani, hamid al bayati, hashim al shibli, head of government, head of state, health minist, high court, high official, high ranking officer, home affairs minist, home minist, hoshyar zebari, husayn al shahristani, husayn ibrahim salih al shahristani, ibrahim al jaafari, ibrahim al jafari, ibrahim bahr al ulum, immigration minist, infantry, intelligence, intelligence agent, intelligence apparatus, intelligence chief, intelligence community, intelligence information, intelligence officer, intelligence operation, intelligence service, interim government, interim president, interior minist, iyad allawi, jail guard, jasim muhammad jafar, jawad al bulani, jay garner, jet fighter, john abizaid, joint chiefs, joint chiefs of staff, joint strike fighter, judge, judicial system, judiciary, junior officer, junta, junta forces, junta troops, justice minister, justice system, kabul, labor minist, land force, landing ship, law enforcement agencies, law enforcement authorities, law enforcement officer, law minist, law officer, lawmaker, legislative assembly, legislative chamber, legislative council, legislator,

legislature, lieutenant, lieutenant colonel, lieutenant general, lieutenant junior grade, mahmud muhammad jawad al radi, major general, massoud barzani, mayor, member of parliament, military, military adviser, military advisor, military authorities, military authority, military backed government, military base, military commission, military delegation, military dictator, military force, military government, military group, military intelligence, military intelligence apparatus, military judge, military junta, military justice, military led, military officer, military official, military patrol, military personnel, military police, military regime, military representative, military reserve, military rule, military spokesman, military spokesmen, military transport plane, military tribunal, minist, minist for defence, minist for foreign, minist for internal affairs, minist for international cooperation, minist for security, minist for the interior, minist of agriculture, minist of communication, minist of defence, minist of defense, minist of economic affairs, minist of education, minist of finance, minist of foreign, minist of foreign affairs, minist of government, minist of health, minist of home affairs, minist of industry, minist of information, minist of interior, minist of internal affairs, minist of international trade, minist of justice, minist of law, minist of mines, minist of national defence, minist of national security, minist of planning, minist of public health, minist of public works, minist of security, minist of state, minist of the interior, minist of transport, minister without portfolio, ministers of state, ministry, mohammad najibullah, mohsen abdul hamid, mufid muhammad jawad al jazayri, muhammad bahr al ulum, muhsin abd al hamid, narcotics officer, national assembly, national council, national court, national guard, national police, national police chief, national security adviser, national security chief, national security council, national security office, national security service, naval, naval base, naval destroyer, naval officer, naval ship, naval unit, navy, nuri al maliki, nuri badran, officer in command, operative, paratroops, parliament, parliamentarian, party leader, party member, party president, peacekeeping troop, police, police captain, police chief, police commissioner, police constable, police district, police force, police officer, police officials, police personnel, police post, policeman, policemen, policewoman, policewomen, political parties, politician, premier, president, presidential aide, presidential candidate, presidential palace, prime minister, prime minster, prosecutor, prosecutor general, provincial officials, provisional government, public prosecutor, public works minist, regime, regiment, regional governor, reserve officer, reservist, riot police, ruler, ruling coalition, ruling junta, ruling parties, ruling party, sadun al dulaymi, safa al din al



safi, salam al maliki, salih al mutlaq, second lieutenant, secret police, secretariat, security force, security officer, security official, security patrol, security personnel, senior intelligence officer, servicem, serviceman, servicemen, servicewoman, servicewomen, shirwan al waili, sinan al shabibi, soldiers and their families, speaker of parliament, special forces, special operations, spy agency, standing army, state minist, state official, state secretary, state security council, tariq al hashimi, the us, the west african country, tommy franks, tourism minist, transport minist, trooper, troops in iraq, tyrant, u. s., u.s., u.s. troops, undercover agent, united sates, united states, united states of america, us government, us military outpost, us official, us state department, wail abd al latif, warship

- **Rebel:** abductor, abu al walid, abu ayyub al masri, abu musab, abu talha, al qaeda, al qaeda in iraq, al qaida, ali hassan al majid, alleged militants, ansar al islam, anti government armed group, anti government force, anti government insurgent, anti government organization, armed band, armed bandit, armed dissident, armed gang, armed group, armed insurgency, armed insurgent, armed insurgent group, armed men, armed opposition group, armed rebel, armed rebel group, armed separatist, arsala rahmani, assailant, aziz salih al numan, bandit, barzan ibrahim hasan al tikriti, combatant, communist rebel, criminal, dissident soldier, drug lord, drug syndicate, enemy combatant, ethnic rebel, exiled opposition, extremist, fanatic, fighter, foreign terrorist organization, freedom fighter, front for the liberation, fundamentalist muslim, gang, gangster, guerilla force, guerrilla, guerrilla leader, gulbuddin hekmatyar, gunman, gunmen, hikmat mizban ibrahim al azzawi, hit man, illegal movement, illegal party, insurgence, insurgency, insurgency leader, insurgency movement, insurgent, insurgent force, insurgent group, insurgent leader, insurgent leadership, insurgent movement, insurgent organization, insurrectionist, international terrorist, islamic extremist group, islamic front, islamic militant, islamic rebel, islamic rebel group, islamic rebels, islamist cleric, jalal talabani, kafeel ahmed, kidnapper, kurdistan, kurdistan workers party, liberation army, liberation front, liberation movement, mahmud dhiyab al ahmad, main opposition, militant, militant movement, militant wing, military wing, militia, mohammed atef, moslem militant, muhammad al husayn, muhammad hamza al zubaydi, muhammad mahdi al salih, mujahideen, muslim militant, muslim radical, muslim rebel, mutineer, narco terrorist, opposition activist, opposition alliance, opposition coalition, opposition demonstrators, opposition force, opposition forces, opposition leader, opposition supporter, osama bin laden, paramilitary organization, paramilitary

police, paramilitary unit, political wing, private armies, private army, private security force, radical leftist group, raider, rebel, rebel armies, rebel army, rebel base, rebel commander, rebel commando, rebel force, rebel group, rebel insurgent, rebel leader, rebel separatist, rebel soldier, rebel source, rebel student, rebellion, resistance commander, resistance group, resistance leader, resistance movement, revolt, revolutionary front, revolutionary movement, rioter, saddam hussein, samir abd al aziz al najim, separatist, separatist guerrilla, separatist leader, separatist militant, separatist movement, separatist rebel, spokesman for the opposition, suicide bomber, terrorist, terrorist group, terrorist group leader, terrorist insurgent, terrorist insurgent group, terrorist leader, terrorist organization, the opposition, underground army, underground rebel, unidentified forces, unidentified gunmen, uprising, violent group, zarqa, zawahiri

- **Civilian:** asylum seeker, citizen, civilian, college, community, constituent, displaced families, displaced family, displaced people, displaced person, displaced residents, farm labourer, farm worker, farmer, immigrant, migrant, migrant worker, peasant, pilgrim, population, private citizen, pupil, refugee, residents, residents of the capital, school, schoolhouse, settler, student, village, villager, worshipper

#### ISRAEL (1987-1993)

- **Government:** a cabinet meeting, administration, admiral, agriculture minist, air force, air unit, aircraft carrier, anti riot police, apache, ariel sharon, armed force, armed forces, armed police, armed troops, army, army chief, army chief of staff, army intelligence, army officer, army patrol, army reserve, army staff, army unit, attack helicopters, authorities, avraham burg, battalion, battle tank, binyamin netanyahu, border guard, border patrol, border security, brigadier general, bureaucrat, c in c of, cabinet, cabinet minister, captain, caretaker government, carrier, central bank governor, chamber, chamber of deputies, chief justice, chief minister, chief of intelligence, chief of staff, chief of state, chief of the army, city mayor, civil authority, civil servant, civil service, coast guard, colonel, combat aircraft, combat helicopter, combat planes, combat troops, commanding officer, commando, companies, company, constituent assembly, constitutional court, consul, consul general, consulate, council of ministers, council of state, court judge, court justice, court official, cruiser, customs official, death squad, defence force, defence minist, defense force, defense minist, defense secretary, delegate, department of foreign affairs,

deputy prime minister, destroyer, dictator, diplomat, director general, district commissioner, district court, drug enforcement, economic minist, education minist, ehud barak, ehud olmert, election commission, electoral commission, energy minist, external affairs minist, ezer weizman, federal court, federal judge, federal police, fighter bomber, fighter jet, fighter plane, finance minist, first lieutenant, foreign affairs minist, foreign affairs ministry, foreign minist, foreign secretary, frigate, garrison, gendarmerie, generals, governing party, government, government commission, government delegation, government forces, government official, government representative, government soldier, government spokesman, government troops, government troops and police, governor, governor general, ground forces, ground troop, head of government, head of state, health minist, high official, high ranking officer, immigration minist, infantry, intelligence, intelligence agent, intelligence chief, intelligence information, intelligence officer, intelligence operation, intelligence service, interim government, interior minist, jet fighter, judge, judicial system, judiciary, junior officer, junta, junta forces, justice minister, justice system, labor minist, land force, landing ship, law enforcement agencies, law enforcement authorities, law enforcement officer, lawmaker, legislative assembly, legislative council, legislator, legislature, lieutenant, lieutenant colonel, lieutenant general, major general, mayor, member of parliament, military, military adviser, military authorities, military base, military commission, military delegation, military force, military government, military group, military intelligence, military judge, military junta, military officer, military official, military patrol, military personnel, military police, military regime, military representative, military reserve, military rule, military spokesman, military spokesmen, military transport plane, military tribunal, minist, minist for foreign, minist of agriculture, minist of communication, minist of defence, minist of defense, minist of education, minist of finance, minist of foreign, minist of foreign affairs, minist of health, minist of industry, minist of information, minist of interior, minist of internal affairs, minist of justice, minist of national defence, minist of public health, minist of public utilities, minist of public works, minist of state, minist of the interior, minist of transport, minister without portfolio, ministers of state, ministry, moshe katsav, narcotics officer, national assembly, national council, national guard, national police, national police chief, national security adviser, naval, naval base, naval officer, naval unit, navy, operative, paratroops, parliament, parliamentarian, party leader, party member, party president, peacekeeping troop, police, police captain, police chief, police commissioner, police district,

police force, police officer, police officials, police personnel, police post, policeman, policemen, policewoman, political parties, politician, premier, president, presidential aide, presidential candidate, presidential palace, prime minister, prosecutor, prosecutor general, provincial officials, provisional government, public prosecutor, public works minist, regime, regiment, reservist, riot police, ruler, ruling coalition, ruling party, second lieutenant, secret police, secretariat, security force, security officer, security official, security patrol, security personnel, servicemen, shimon peres, speaker of parliament, special forces, special operations, state official, state supreme court, torpedo boat, tourism minist, transport minist, trooper, tyrant, undercover agent, upper house, warship, yitzhak rabin, yitzhak shamir

- **Rebel:** abductor, ahmed qureia, al qaida, anti government force, anti government organization, armed band, armed bandit, armed gang, armed group, armed men, armed opposition group, armed rebel, assailant, bandit, combatant, communist rebel, criminal, exiled opposition, extremist, fanatic, fighter, freedom fighter, fundamentalist muslim, gang, gangster, government in exile, guerrilla, guerrilla leader, gunman, gunmen, hamas, insurgency, insurgent, insurgent force, insurgent group, insurgent leader, islamic extremist group, islamic front, islamic militant, islamic rebels, jalal talabani, kidnapper, kurdistan, liberation army, liberation front, liberation movement, militant, military wing, militia, moslem militant, mujahideen, muslim militant, muslim radical, mutineer, opposition forces, opposition leader, palestine liberation organization, palestinian liberation organization, paramilitary police, political wing, private army, radical leftist group, raider, rebel, rebel army, rebel base, rebel commander, rebel commando, rebel force, rebel group, rebel leader, rebel soldier, rebel source, rebellion, resistance group, resistance movement, revolt, revolutionary movement, rioter, separatist, separatist guerrilla, separatist rebel, terrorist, terrorist group, terrorist leader, terrorist organization, the opposition, underground army, underground force, unidentified gunmen, uprising, yasir arafat
- **Civilian:** asylum seeker, citizen, civilian, college, community, constituent, displaced people, displaced person, farm worker, farmer, immigrant, migrant, muslim pilgrim, peasant, population, private citizen, pupil, refugee, residents, residents of the capital, returnee, school, schoolhouse, settler, student, village, villager, worshipper

### KOSOVO (1991-1999)

- **Government:** a cabinet meeting, administration, administrative official,

admiral, agriculture minist, air force, air force chief, air unit, aircraft carrier, anti riot police, armed force, armed forces, armed police, armed troops, army, army chief, army chief of staff, army intelligence, army officer, army patrol, army reserve, army staff, army unit, attack helicopter, attack helicopters, authorities, babrak karmal, battalion, border guard, border patrol, border security, brigadier general, bureaucracy, bureaucrat, c in c of, cabinet, cabinet minister, cabinet of ministers, captain, caretaker government, carrier, central bank governor, chairman of the council of ministers, chamber, chamber of deputies, chief justice, chief minister, chief of intelligence, chief of staff, chief of state, chief of the army, city mayor, civil servant, civil service, coast guard, colonel, combat aircraft, combat helicopter, combat planes, combat troops, commandant, commanding officer, commando, companies, company, constab, constituent assembly, constitutional council, constitutional court, construction minist, consul, consul general, consulate, council of ministers, council of state, court judge, court justice, court official, cruiser, customs official, death squad, defence force, defence minist, defense force, defense minist, defense secretary, delegate, department of foreign affairs, deputy prime minister, destroyer, dictator, diplomat, director general, district court, drug enforcement, economic minist, eduard shevardnadze, education minist, election commission, electoral commission, energy minist, external affairs minist, federal court, federal judge, federal police, fighter bomber, fighter jet, fighter plane, finance minist, first lieutenant, foreign affairs minist, foreign affairs ministry, foreign minist, foreign relations minist, foreign secretary, frigate, garrison, gendarmerie, general of the army, generals, governing party, government, government commission, government delegation, government forces, government official, government representative, government soldier, government spokesman, government troops, government troops and police, governor, governor general, ground forces, ground troop, head of government, head of state, health minist, high court, high official, high ranking officer, home minist, immigration minist, infantry, intelligence, intelligence agent, intelligence chief, intelligence information, intelligence officer, intelligence operation, intelligence service, interim government, interim president, interior minist, jet fighter, judge, judicial system, judiciary, junior officer, junta, junta forces, junta troops, justice minister, justice system, kabul, labor minist, land force, landing ship, law enforcement agencies, law enforcement authorities, law enforcement officer, law minist, lawmaker, legislative assembly, legislative chamber, legislative council, legislator, legislature, lieutenant, lieutenant colonel, lieutenant general, major general, mayor, member of parliament,

military, military adviser, military authorities, military base, military commission, military delegation, military force, military government, military group, military intelligence, military judge, military junta, military led, military officer, military official, military patrol, military personnel, military police, military regime, military representative, military reserve, military rule, military spokesman, military spokesmen, military transport plane, military tribunal, minist, minist for defence, minist for foreign, minist for information, minist for internal affairs, minist for international cooperation, minist of agriculture, minist of communication, minist of defence, minist of defense, minist of economic affairs, minist of education, minist of finance, minist of foreign, minist of foreign affairs, minist of health, minist of industry, minist of information, minist of interior, minist of internal affairs, minist of international trade, minist of justice, minist of law, minist of mines, minist of national defence, minist of national security, minist of planning, minist of public health, minist of public works, minist of security, minist of state, minist of the interior, minist of transport, minister without portfolio, ministers of state, ministry, mohammad najibullah, narcotics officer, national assembly, national council, national court, national guard, national police, national police chief, national security adviser, national security service, naval, naval base, naval officer, naval unit, navy, operative, paratroops, parliament, parliamentarian, party leader, party member, party president, peacekeeping troop, police, police captain, police chief, police commissioner, police constable, police district, police force, police officer, police officials, police personnel, police post, policeman, policemen, policewoman, political parties, politician, premier, president, presidential aide, presidential candidate, presidential palace, prime minister, prosecutor, prosecutor general, provincial officials, provisional government, public prosecutor, public works minist, regime, regiment, regional governor, reservist, riot police, ruler, ruling coalition, ruling junta, ruling party, second lieutenant, secret police, secretariat, security force, security officer, security official, security patrol, security personnel, servicemen, speaker of parliament, special forces, special operations, state official, state secretary, the west african country, tourism minist, transport minist, trooper, tyrant, undercover agent, warship

- **Rebel:** abductor, anti government force, anti government insurgent, anti government organization, armed band, armed bandit, armed gang, armed group, armed insurgency, armed insurgent, armed insurgent group, armed men, armed opposition group, armed rebel, armed rebel group, armed separatist, assailant, bandit, combatant,

communist rebel, criminal, exiled opposition, extremist, fanatic, fighter, freedom fighter, fundamentalist muslim, gang, gangster, guerrilla, guerrilla leader, gulbuddin hekmatyar, gunman, gunmen, insurgency, insurgent, insurgent force, insurgent group, insurgent leader, international terrorist, islamic extremist group, islamic front, islamic militant, islamic rebel, islamic rebel group, islamic rebels, jalal talabani, kidnapper, kurdistan, liberation army, liberation front, liberation movement, main opposition, militant, military wing, militia, moslem militant, mujahideen, muslim militant, muslim radical, muslim rebel, mutineer, opposition alliance, opposition coalition, opposition force, opposition forces, opposition leader, opposition supporter, paramilitary police, paramilitary unit, political wing, private armies, private army, radical leftist group, raider, rebel, rebel army, rebel base, rebel commander, rebel commando, rebel force, rebel group, rebel insurgent, rebel leader, rebel soldier, rebel source, rebellion, resistance group, resistance leader, resistance movement, revolt, revolutionary front, revolutionary movement, rioter, separatist, separatist guerrilla, separatist leader, separatist militant, separatist movement, separatist rebel, spokesman for the opposition, suicide bomber, terrorist, terrorist group, terrorist leader, terrorist organization, the opposition, underground army, underground rebel, unidentified forces, unidentified gunmen, uprising

- **Civilian:** asylum seeker, citizen, civilian, college, community, constituent, displaced families, displaced people, displaced person, egyptian, farm worker, farmer, immigrant, migrant, peasant, pilgrim, population, private citizen, pupil, refugee, residents, residents of the capital, roma, romani, school, schoolhouse, settler, student, village, villager, worshipper

#### LIBYA (2010-2011)

- **Government:** a cabinet meeting, abdul ati al obeidi, administration, administrative official, admiral, agriculture minist, air force, air force chief, air unit, aircraft carrier, al baghdadi ali al mahmudi, anti riot police, anti terrorism court, armed force, armed forces, armed patrols, armed police, armed riot police, armed troops, army, army chief, army chief of staff, army intelligence, army national guard, army officer, army patrol, army reserve, army staff, army unit, army vice chief of staff, attack helicopter, attack helicopters, authorities, battalion, battle tank, battleship, black african, border guard, border patrol, border patrol agent, border security, brigadier general, bureaucracy, bureaucrat, bush administration, c in c of, cabinet, cabinet minister, cabinet of ministers, captain, caretaker government, carrier, central bank governor, chairman of

the council of ministers, chamber, chamber of deputies, chief justice, chief minister, chief of defence staff, chief of intelligence, chief of staff, chief of state, chief of the air force, chief of the army, city mayor, civil servant, civil service, coast guard, colonel, combat aircraft, combat helicopter, combat jet, combat planes, combat ship, combat troops, commandant, commanding general, commanding officer, commando, companies, company, constab, constituent assembly, constitutional council, constitutional court, construction minist, consul, consul general, consulate, council of ministers, council of state, court judge, court justice, court official, criminal police, cruiser, customs official, death squad, defence force, defence minist, defense contractor, defense force, defense minist, defense secretary, defense services, delegate, department of defense, department of foreign affairs, deputy prime minister, despot, destroyer, dictator, diplomat, director general, district commissioner, district court, drug enforcement, economic minist, eduard shevardnadze, education minist, election commission, electoral commission, energy minist, external affairs minist, federal court, federal judge, federal police, fighter bomber, fighter jet, fighter plane, finance minist, first lieutenant, flag officer, foreign affairs minist, foreign affairs ministry, foreign minist, foreign minister abdullah, foreign relations minist, foreign secretary, frigate, gaddafi international charity and development foundation, garrison, gendarmerie, general of the army, generals, governing party, government, government commission, government delegation, government forces, government official, government organization, government representative, government soldier, government spokesman, government troops, government troops and police, governor, governor general, great jamahiriyah, ground forces, ground troop, head of government, head of state, health minist, high court, high official, high ranking officer, hired gun, home affairs minist, home minist, immigration minist, infantry, intelligence, intelligence agent, intelligence apparatus, intelligence chief, intelligence community, intelligence information, intelligence officer, intelligence operation, intelligence service, interim government, interim leader, interim president, interior minist, jail guard, jamahiriyah, jet fighter, joint chiefs of staff, joint strike fighter, judge, judicial system, judiciary, junior officer, junta, junta forces, junta troops, justice minister, justice system, labor minist, land force, landing ship, law enforcement agencies, law enforcement authorities, law enforcement officer, law minist, law officer, lawmaker, legislative assembly, legislative chamber, legislative council, legislator, legislature, lieutenant, lieutenant colonel, lieutenant general, major general, mayor, member of parliament, military, military adviser, military advisor, military authorities, military authority,



military backed government, military base, military commission, military delegation, military dictator, military force, military government, military group, military intelligence, military intelligence apparatus, military judge, military junta, military justice, military led, military officer, military official, military patrol, military personnel, military police, military regime, military representative, military reserve, military rule, military spokesman, military spokesmen, military transport plane, military tribunal, minist, minist for defence, minist for foreign, minist for internal affairs, minist for international cooperation, minist for security, minist of agriculture, minist of communication, minist of defence, minist of defense, minist of economic affairs, minist of education, minist of finance, minist of foreign, minist of foreign affairs, minist of government, minist of health, minist of home affairs, minist of industry, minist of information, minist of interior, minist of internal affairs, minist of international trade, minist of justice, minist of law, minist of mines, minist of national defence, minist of national security, minist of planning, minist of public health, minist of public works, minist of security, minist of state, minist of the interior, minist of transport, minister without portfolio, ministers of state, ministry, muammar abu minyar al qadhafi, muammar al qaddafi, muammar gaddafi, muammar gadhafi, muammar qadhafi, narcotics officer, national assembly, national council, national court, national guard, national police, national police chief, national security adviser, national security chief, national security council, national security office, national security service, naval, naval base, naval officer, naval ship, naval unit, navy, officer in command, operative, paratroops, parliament, parliamentarian, party leader, party member, party president, peacekeeping troop, police, police captain, police chief, police commissioner, police constable, police district, police force, police officer, police officials, police personnel, police post, policeman, policemen, policewoman, policewomen, political parties, politician, premier, president, presidential aide, presidential candidate, presidential palace, prime minister, prime minster, prosecutor, prosecutor general, provincial officials, provisional government, public prosecutor, public works minist, qadhafi, regime, regiment, regional governor, reserve officer, reservist, riot police, ruler, ruling coalition, ruling junta, ruling parties, ruling party, second lieutenant, secret police, secretariat, security force, security officer, security official, security patrol, security personnel, senior intelligence officer, servicem, serviceman, servicemen, servicewoman, servicewomen, soldiers and their families, speaker of parliament, special battalion, special forces, special operations, spy agency, standing army, state minist, state official, state secretary, state

security council, the west african country, tourism minist, transport minist, trooper, tyrant, undercover agent, warship

- **Rebel:** abd al rahman shalgam, abdallah mohamed, abductor, abu al walid, abu ayyub al masri, al qaeda, al qaeda in iraq, al qaida, ali abdallah, ali abdullah, ali suleiman aujali, alleged militants, anti government activist, anti government armed group, anti government force, anti government insurgent, anti government organization, anti government youth, armed band, armed bandit, armed dissident, armed forces revolutionary council, armed gang, armed group, armed insurgency, armed insurgent, armed insurgent group, armed men, armed opposition group, armed rebel, armed rebel group, armed separatist, arsala rahmani, assailant, bandit, coalition of opposition parties, combatant, communist rebel, criminal, democracy activist, dissident soldier, drug lord, drug syndicate, enemy combatant, ethnic rebel, exiled opposition, extremist, fanatic, fighter, foreign terrorist organization, freedom fighter, front for the liberation, fundamentalist muslim, gang, gangster, guerilla force, guerrilla, guerrilla leader, gulbuddin hekmatyar, gunman, gunmen, hit man, illegal movement, illegal party, insurgence, insurgency, insurgency leader, insurgency movement, insurgent, insurgent force, insurgent group, insurgent leader, insurgent leadership, insurgent movement, insurrectionist, international terrorist, islamic extremist group, islamic front, islamic militant, islamic rebel, islamic rebel group, islamic rebels, islamist cleric, jalal talabani, kidnapper, kurdistan, kurdistan workers party, liberation army, liberation front, liberation movement, main opposition, mass opposition, militant, militant movement, militant wing, military defector, military deserter, military wing, militia, mohammed atef, moslem militant, mujahideen, muslim militant, muslim radical, muslim rebel, mutineer, narco terrorist, opposition activist, opposition alliance, opposition coalition, opposition demonstrators, opposition force, opposition forces, opposition leader, opposition supporter, osama bin laden, parallel government, paramilitary organization, paramilitary police, paramilitary unit, political wing, private armies, private army, private security force, pro democracy group, pro democracy leader, pro democracy movement, radical leftist group, raider, rebel, rebel armies, rebel army, rebel base, rebel commander, rebel commando, rebel delegation, rebel force, rebel group, rebel insurgent, rebel leader, rebel soldier, rebel source, rebel student, rebellion, resistance army, resistance commander, resistance group, resistance leader, resistance movement, revolt, revolutionary front, revolutionary movement, rioter, separatist, separatist guerrilla, separatist leader, separatist militant, separatist movement, separatist rebel, shukri

ghanem, spokesman for the opposition, suicide bomber, terrorist, terrorist group, terrorist group leader, terrorist insurgent, terrorist insurgent group, terrorist leader, terrorist organization, the opposition, tribal rebel, underground army, underground opposition, underground rebel, unidentified forces, unidentified gunmen, uprising, violent group

- **Civilian:** asylum seeker, citizen, civilian, college, community, constituent, displaced families, displaced family, displaced people, displaced person, displaced residents, farm labourer, farm worker, farmer, immigrant, migrant, peasant, pilgrim, population, private citizen, pupil, refugee, residents, residents of the capital, school, schoolhouse, settler, student, village, villager, worshipper

### SRI LANKA (1983-1987)

- **Government:** a cabinet meeting, administration, admiral, agriculture minist, air force, air unit, aircraft carrier, anti riot police, armed force, armed forces, armed police, armed troops, army, army chief, army chief of staff, army intelligence, army officer, army patrol, army staff, army unit, attack helicopters, authorities, battalion, border guard, border patrol, border security, brigadier general, bureaucrat, c in c of, cabinet, cabinet minister, captain, caretaker government, carrier, central bank governor, chamber, chamber of deputies, chief justice, chief minister, chief of staff, chief of state, chief of the army, city mayor, civil servant, civil service, coast guard, colombo, colonel, combat aircraft, combat helicopter, combat planes, combat troops, commanding officer, commando, companies, company, constituent assembly, constitutional court, consul, consul general, consulate, council of ministers, council of state, court judge, court justice, court official, cruiser, customs official, death squad, defence force, defence minist, defense force, defense minist, defense secretary, delegate, deputy prime minister, destroyer, dictator, diplomat, director general, district court, drug enforcement, economic minist, education minist, election commission, electoral commission, energy minist, external affairs minist, federal court, federal judge, federal police, fighter bomber, fighter jet, fighter plane, finance minist, first lieutenant, foreign affairs minist, foreign affairs ministry, foreign minist, foreign secretary, frigate, garrison, gendarmerie, generals, governing party, government, government commission, government delegation, government forces, government official, government representative, government soldier, government spokesman, government troops, government troops and police, governor, governor general, ground forces,

ground troop, head of government, head of state, health minist, high official, high ranking officer, immigration minist, infantry, intelligence, intelligence agent, intelligence chief, intelligence information, intelligence officer, intelligence operation, intelligence service, interim government, interior minist, jet fighter, judge, judicial system, judiciary, junior officer, junta, junta forces, justice minister, justice system, labor minist, land force, landing ship, law enforcement agencies, law enforcement authorities, law enforcement officer, lawmaker, legislative assembly, legislative chamber, legislative council, legislator, legislature, lieutenant, lieutenant colonel, lower house of parliament, major general, mayor, member of parliament, military, military adviser, military authorities, military base, military commission, military delegation, military force, military government, military group, military intelligence, military judge, military junta, military officer, military official, military patrol, military personnel, military police, military regime, military representative, military rule, military spokesman, military spokesmen, military transport plane, military tribunal, minist, minist for foreign, minist for home, minist of agriculture, minist of communication, minist of defence, minist of defense, minist of education, minist of finance, minist of foreign, minist of foreign affairs, minist of health, minist of industry, minist of information, minist of interior, minist of internal affairs, minist of justice, minist of national defence, minist of national security, minist of public health, minist of public works, minist of state, minist of the interior, minist of trade, minist of transport, ministers of state, ministry, narcotics officer, national assembly, national council, national guard, national police, national police chief, national security adviser, naval, naval base, naval officer, naval unit, navy, operative, paratroops, parliament, parliament house, parliamentarian, party leader, party member, party president, peacekeeping troop, police, police captain, police chief, police commissioner, police constable, police district, police force, police officer, police officials, police personnel, police post, policeman, policemen, policewoman, political parties, politician, post and telecommunications minist, premier, president, presidential aide, presidential candidate, presidential palace, prime minister, prosecutor, prosecutor general, provincial officials, provisional government, public prosecutor, public works minist, ranasinghe premadasa, regime, regiment, reservist, riot police, ruler, ruling coalition, ruling party, second lieutenant, secret police, secretariat, security force, security officer, security official, security patrol, security personnel, servicemen, sirimavo bandaranaike, speaker of parliament, special forces, special operations, sri lanka, state official, tourism minist, transport

minist, trooper, tyrant, warship

- **Rebel:** abductor, anti government force, anti government organization, armed band, armed bandit, armed gang, armed group, armed men, armed opposition group, armed rebel, armed separatist, assailant, bandit, combatant, communist rebel, criminal, eelam, ethnic insurgency, exiled opposition, extremist, fanatic, fighter, freedom fighter, fundamentalist muslim, gang, gangster, guerrilla, guerrilla leader, gunman, gunmen, insurgency, insurgent, insurgent force, insurgent group, insurgent leader, international terrorist, islamic extremist group, islamic front, islamic militant, islamic rebels, jalal talabani, kidnapper, kurdistan, liberation army, liberation front, liberation movement, liberation tigers of tamil eelam, militant, military wing, militia, moslem militant, mujahideen, muslim militant, muslim radical, mutineer, opposition forces, opposition leader, paramilitary police, political wing, private army, radical leftist group, raider, rebel, rebel army, rebel base, rebel commander, rebel commando, rebel force, rebel group, rebel leader, rebel soldier, rebel source, rebellion, resistance group, resistance movement, revolt, revolutionary front, revolutionary movement, rioter, separatist, separatist guerrilla, separatist movement, separatist rebel, tamil eelam, tamil tigers, terrorist, terrorist group, terrorist leader, terrorist organization, the opposition, unidentified gunmen, uprising
- **Civilian:** asylum seeker, citizen, civilian, college, community, constituent, displaced people, displaced person, ethnic tamil, farm worker, farmer, immigrant, migrant, peasant, pilgrim, population, private citizen, pupil, refugee, residents, residents of the capital, school, schoolhouse, settler, sinhalese, student, village, villager, worshipper

#### MOLDOVA (1990-1992)

- **Government:** a cabinet meeting, administration, admiral, agriculture minist, air force, air force chief, air unit, aircraft carrier, anti riot police, armed force, armed forces, armed police, armed troops, army, army chief, army chief of staff, army intelligence, army officer, army patrol, army reserve, army staff, army unit, attack helicopters, authorities, battalion, border guard, border patrol, border security, brigadier general, bureaucracy, bureaucrat, c in c of, cabinet, cabinet minister, captain, caretaker government, carrier, central bank governor, chairman of the council of ministers, chamber, chamber of deputies, chief justice, chief minister, chief of intelligence, chief of staff, chief of state, chief of the army, chisinau, city mayor, civil servant, civil service, coast guard, colonel, combat aircraft, combat helicopter, combat

planes, combat troops, commandant, commanding officer, commando, companies, company, constab, constituent assembly, constitutional council, constitutional court, construction minist, consul, consul general, consulate, council of ministers, council of state, court judge, court justice, court official, cruiser, customs official, death squad, defence force, defence minist, defense force, defense minist, defense secretary, delegate, department of foreign affairs, deputy prime minister, destroyer, dictator, diplomat, director general, district court, drug enforcement, economic minist, education minist, election commission, electoral commission, energy minist, external affairs minist, federal court, federal judge, federal police, fighter bomber, fighter jet, fighter plane, finance minist, first lieutenant, foreign affairs minist, foreign affairs ministry, foreign minist, foreign relations minist, foreign secretary, frigate, garrison, gendarmerie, generals, governing party, government, government commission, government delegation, government forces, government official, government representative, government soldier, government spokesman, government troops, government troops and police, governor, governor general, ground forces, ground troop, head of government, head of state, health minist, high court, high official, high ranking officer, home minist, immigration minist, infantry, intelligence, intelligence agent, intelligence chief, intelligence information, intelligence officer, intelligence operation, intelligence service, interim government, interim president, interior minist, jet fighter, judge, judicial system, judiciary, junior officer, junta, junta forces, justice minister, justice system, kishinev, labor minist, land force, landing ship, law enforcement agencies, law enforcement authorities, law enforcement officer, law minist, lawmaker, legislative assembly, legislative chamber, legislative council, legislator, legislature, lieutenant, lieutenant colonel, major general, mayor, member of parliament, military, military adviser, military authorities, military base, military commission, military delegation, military force, military government, military group, military intelligence, military judge, military junta, military officer, military official, military patrol, military personnel, military police, military regime, military representative, military reserve, military rule, military spokesman, military spokesmen, military transport plane, military tribunal, minist, minist for foreign, minist of agriculture, minist of communication, minist of defence, minist of defense, minist of economic affairs, minist of education, minist of finance, minist of foreign, minist of foreign affairs, minist of health, minist of industry, minist of information, minist of interior, minist of internal affairs, minist of international trade, minist of justice, minist of law, minist of mines, minist of national defence, minist of planning, minist of public health,

minist of public works, minist of state, minist of the interior, minist of transport, minister without portfolio, ministers of state, ministry, mircea snegur, moldavia, moldova, narcotics officer, national assembly, national council, national court, national guard, national police, national police chief, national security adviser, naval, naval base, naval officer, naval unit, navy, operative, paratroops, parliament, parliamentarian, party leader, party member, party president, peacekeeping troop, police, police captain, police chief, police commissioner, police constable, police district, police force, police officer, police officials, police personnel, police post, policeman, policemen, policewoman, political parties, politician, premier, president, presidential aide, presidential candidate, presidential palace, prime minister, prosecutor, prosecutor general, provincial officials, provisional government, public prosecutor, public works minist, regime, regiment, regional governor, reservist, riot police, ruler, ruling coalition, ruling junta, ruling party, second lieutenant, secret police, secretariat, security force, security officer, security official, security patrol, security personnel, servicemen, soldiers and their families, speaker of parliament, special forces, special operations, state leader, state official, state secretary, tourism minist, transport minist, trooper, tyrant, warship

- **Rebel:** abductor, anti government force, anti government insurgent, anti government organization, armed band, armed bandit, armed gang, armed group, armed insurgency, armed insurgent, armed insurgent group, armed men, armed opposition group, armed rebel, armed rebel group, armed separatist, assailant, bandit, combatant, communist rebel, criminal, exiled opposition, extremist, fanatic, fighter, freedom fighter, fundamentalist muslim, gang, gangster, guerrilla, guerrilla leader, gunman, gunmen, insurgency, insurgent, insurgent force, insurgent group, insurgent leader, international terrorist, islamic extremist group, islamic front, islamic militant, islamic rebels, jalal talabani, kidnapper, kurdistan, liberation army, liberation front, liberation movement, militant, military wing, militia, moslem militant, mujahideen, muslim militant, muslim radical, muslim rebel, mutineer, opposition force, opposition forces, opposition leader, opposition supporter, paramilitary police, political wing, private armies, private army, radical leftist group, raider, rebel, rebel army, rebel base, rebel commander, rebel commando, rebel force, rebel group, rebel insurgent, rebel leader, rebel soldier, rebel source, rebellion, resistance group, resistance leader, resistance movement, revolt, revolutionary front, revolutionary movement, rioter, separatist, separatist guerrilla, separatist leader, separatist militant,

separatist movement, separatist rebel, terrorist, terrorist group, terrorist leader, terrorist organization, the opposition, underground army, underground rebel, unidentified gunmen, uprising

- **Civilian:** asylum seeker, citizen, civilian, college, community, constituent, displaced people, displaced person, farm worker, farmer, immigrant, migrant, peasant, pilgrim, population, private citizen, pupil, refugee, residents, residents of the capital, school, schoolhouse, settler, student, village, villager, worshipper

## MALI (1989-1995)

- **Government:** a cabinet meeting, abdoulaye sekou sow, administration, admiral, agriculture minist, air force, air unit, aircraft carrier, alpha oumar konare, amadou toumani toure, anti riot police, armed force, armed forces, armed police, armed troops, army, army chief, army chief of staff, army intelligence, army officer, army patrol, army staff, army unit, attack helicopters, authorities, bamako, battalion, border guard, border patrol, border security, brigadier general, bureaucrat, c in c of, cabinet, cabinet minister, captain, caretaker government, carrier, central bank governor, chamber, chamber of deputies, chief justice, chief minister, chief of staff, chief of state, city mayor, civil servant, civil service, coast guard, colonel, combat aircraft, combat helicopter, combat planes, combat troops, commanding officer, commando, companies, company, constituent assembly, constitutional court, consul, consul general, consulate, council of ministers, council of state, court judge, court justice, court official, customs official, death squad, defence force, defence minist, defense force, defense minist, defense secretary, delegate, deputy prime minister, destroyer, dictator, diplomat, director general, district court, drug enforcement, economic minist, education minist, election commission, electoral commission, energy minist, external affairs minist, federal court, federal judge, federal police, fighter bomber, fighter jet, fighter plane, finance minist, foreign affairs minist, foreign affairs ministry, foreign minist, foreign secretary, garrison, gendarmerie, generals, governing party, government, government commission, government delegation, government forces, government official, government representative, government soldier, government spokesman, government troops, government troops and police, governor, governor general, ground forces, ground troop, head of government, head of state, health minist, high official, high ranking officer, ibrahim boubacar keita, immigration minist, infantry, intelligence, intelligence agent, intelligence chief, intelligence information, intelligence



officer, intelligence operation, intelligence service, interim government, interior minist, jet fighter, judge, judicial system, judiciary, junior officer, junta, junta forces, justice minister, justice system, labor minist, land force, landing ship, law enforcement agencies, law enforcement authorities, law enforcement officer, lawmaker, legislator, legislature, lieutenant, lieutenant colonel, major general, mali, mayor, member of parliament, military, military adviser, military authorities, military base, military commission, military delegation, military dictator, military force, military government, military group, military intelligence, military judge, military junta, military officer, military official, military patrol, military personnel, military police, military regime, military representative, military rule, military spokesman, military spokesmen, military transport plane, military tribunal, minist, minist of agriculture, minist of communication, minist of defence, minist of defense, minist of education, minist of finance, minist of foreign affairs, minist of information, minist of interior, minist of internal affairs, minist of justice, minist of national defence, minist of public health, minist of public works, minist of state, minist of the interior, minist of transport, ministry, moussa traore, narcotics officer, national assembly, national council, national court, national guard, national police, national police chief, national security adviser, naval, naval base, naval officer, naval unit, navy, paratroops, parliament, parliamentarian, party leader, party member, party president, peacekeeping troop, police, police captain, police chief, police commissioner, police force, police officer, police officials, police personnel, police post, policeman, policemen, policewoman, political parties, politician, premier, president, presidential aide, presidential candidate, presidential palace, prime minister, prosecutor, prosecutor general, provincial officials, provisional government, public works minist, regime, regiment, reservist, riot police, ruler, ruling coalition, ruling party, second lieutenant, secret police, secretariat, security force, security officer, security official, security patrol, security personnel, servicemen, speaker of parliament, special forces, special operations, state official, the west african country, trooper, tyrant, warship

- **Rebel:** abductor, anti government force, anti government organization, armed band, armed bandit, armed gang, armed group, armed men, armed opposition group, armed rebel, assailant, bandit, combatant, communist rebel, criminal, exiled opposition, extremist, fanatic, fighter, freedom fighter, front for the liberation, gang, gangster, guerrilla, guerrilla leader, gunman, gunmen, insurgency, insurgent, insurgent force, insurgent group, insurgent leader,

islamic extremist group, islamic front, islamic militant, islamic rebels, jalal talabani, kidnapper, kurdistan, liberation army, liberation front, liberation movement, militant, military wing, militia, moslem militant, mujahideen, mutineer, opposition forces, opposition leader, paramilitary police, political wing, private army, radical leftist group, raider, rebel, rebel army, rebel base, rebel commander, rebel commando, rebel force, rebel group, rebel leader, rebel soldier, rebel source, rebellion, resistance movement, revolt, revolutionary movement, rioter, separatist, separatist guerrilla, separatist rebel, terrorist, terrorist group, terrorist leader, terrorist organization, the opposition, tuareg, unidentified gunmen, uprising

- **Civilian:** asylum seeker, citizen, civilian, college, community, constituent, displaced people, displaced person, farm worker, farmer, immigrant, peasant, population, private citizen, pupil, refugee, residents, residents of the capital, school, schoolhouse, settler, student, villager, villager, worshipper

#### NICARAGUA (1981-1988)

- **Government:** a cabinet meeting, administration, admiral, agriculture minist, air force, air unit, aircraft carrier, anti riot police, armed force, armed forces, armed police, armed troops, army, army chief, army chief of staff, army intelligence, army officer, army patrol, army reserve, army staff, army unit, attack helicopters, authorities, battalion, border guard, border patrol, border security, brigadier general, bureaucrat, c in c of, cabinet, cabinet minister, captain, caretaker government, carrier, central bank governor, chamber, chamber of deputies, chief justice, chief minister, chief of staff, chief of state, chief of the army, city mayor, civil servant, civil service, coast guard, colonel, combat aircraft, combat helicopter, combat planes, combat troops, commanding officer, commando, companies, company, constab, constituent assembly, constitutional court, construction minist, consul, consul general, consulate, council of ministers, council of state, court judge, court justice, court official, cruiser, customs official, daniel ortega, death squad, defence force, defence minist, defense force, defense minist, defense secretary, delegate, deputy prime minister, destroyer, dictator, diplomat, director general, district court, drug enforcement, economic minist, education minist, election commission, electoral commission, energy minist, external affairs minist, federal court, federal judge, federal police, fighter bomber, fighter jet, fighter plane, finance minist, first lieutenant, foreign affairs minist, foreign affairs ministry, foreign minist, foreign relations minist, foreign secretary, frigate,

garrison, gendarmerie, generals, governing party, government, government commission, government delegation, government forces, government official, government representative, government soldier, government spokesman, government troops, government troops and police, governor, governor general, ground forces, ground troop, head of government, head of state, health minist, high court, high official, high ranking officer, immigration minist, infantry, intelligence, intelligence activity, intelligence agent, intelligence chief, intelligence information, intelligence officer, intelligence operation, intelligence service, interim government, interior minist, jet fighter, judge, judicial system, judiciary, junior officer, junta, junta forces, justice minister, justice system, labor minist, land force, landing ship, law enforcement agencies, law enforcement authorities, law enforcement officer, lawmaker, legislative assembly, legislative council, legislator, legislature, lieutenant, lieutenant colonel, major general, managua, mayor, member of parliament, military, military adviser, military authorities, military base, military commission, military delegation, military force, military government, military group, military intelligence, military judge, military junta, military officer, military official, military patrol, military personnel, military police, military regime, military representative, military reserve, military rule, military spokesman, military spokesmen, military transport plane, military tribunal, minist, minist for foreign, minist of agriculture, minist of communication, minist of defence, minist of defense, minist of economic affairs, minist of education, minist of finance, minist of foreign, minist of foreign affairs, minist of health, minist of industry, minist of information, minist of interior, minist of internal affairs, minist of justice, minist of mines, minist of national defence, minist of public health, minist of public works, minist of state, minist of the interior, minist of transport, ministers of state, ministry, narcotics officer, national assembly, national council, national guard, national police, national police chief, national security adviser, naval, naval base, naval officer, naval unit, navy, operative, paratroops, parliament, parliamentarian, party leader, party member, party president, peacekeeping troop, police, police captain, police chief, police commissioner, police constable, police district, police force, police officer, police officials, police personnel, police post, policeman, policemen, policewoman, political parties, politician, premier, president, presidential aide, presidential candidate, presidential palace, prime minister, prosecutor, prosecutor general, provincial officials, provisional government, public prosecutor, public works minist, regime, regiment, reservist, riot police, ruler, ruling coalition, ruling junta, ruling party, second lieutenant, secret police, secretariat,

security force, security officer, security official, security patrol, security personnel, servicemen, speaker of parliament, special forces, special operations, state official, tourism minist, transport minist, trooper, tyrant, warship

- **Rebel:** abductor, anti government force, anti government organization, armed band, armed bandit, armed gang, armed group, armed insurgent group, armed men, armed opposition group, armed rebel, armed separatist, assailant, bandit, combatant, communist rebel, criminal, enrique bolanos, exiled opposition, extremist, fanatic, fighter, freedom fighter, fundamentalist muslim, gang, gangster, guerrilla, guerrilla leader, gunman, gunmen, insurgency, insurgent, insurgent force, insurgent group, insurgent leader, international terrorist, islamic extremist group, islamic front, islamic militant, islamic rebels, jalal talabani, jorge salazar, kidnapper, kurdistan, liberation army, liberation front, liberation movement, militant, military wing, militia, moslem militant, mujahideen, muslim militant, muslim radical, mutineer, opposition force, opposition forces, opposition leader, opposition supporter, paramilitary police, political wing, private army, radical leftist group, raider, rebel, rebel army, rebel base, rebel commander, rebel commando, rebel force, rebel group, rebel insurgent, rebel leader, rebel soldier, rebel source, rebellion, resistance army, resistance group, resistance movement, revolt, revolutionary front, revolutionary movement, rioter, separatist, separatist guerrilla, separatist movement, separatist rebel, terrorist, terrorist group, terrorist leader, terrorist organization, the opposition, unidentified gunmen, uprising
- **Civilian:** asylum seeker, citizen, civilian, college, community, constituent, displaced people, displaced person, farm worker, farmer, immigrant, migrant, peasant, pilgrim, population, private citizen, pupil, refugee, residents, residents of the capital, school, schoolhouse, settler, student, village, villager, worshipper

## NEPAL (1996-2006)

- **Government:** a cabinet meeting, administration, administrative official, admiral, agriculture minist, aide de camp, air force, air force chief, air unit, aircraft carrier, anti riot police, armed force, armed forces, armed police, armed troops, army, army chief, army chief of staff, army intelligence, army officer, army patrol, army reserve, army staff, army unit, attack helicopter, attack helicopters, authorities, babrak karmal, battalion, bharat mohan adhikari, birendra bir bikram shah deva, border guard, border patrol, border security, brigadier general, bureaucracy, bureaucrat, c in c of, cabinet, cabinet minister,

cabinet of ministers, captain, caretaker government, carrier, central bank governor, chairman of the council of ministers, chamber, chamber of deputies, chief justice, chief minister, chief of intelligence, chief of staff, chief of state, chief of the army, city mayor, civil servant, civil service, coast guard, colonel, combat aircraft, combat helicopter, combat planes, combat troops, commandant, commanding officer, commando, companies, company, constab, constituent assembly, constitutional council, constitutional court, construction minist, consul, consul general, consulate, council of ministers, council of state, court judge, court justice, court official, cruiser, customs official, dan bahadur shahi, death squad, defence force, defence minist, defense force, defense minist, defense secretary, defense services, delegate, department of foreign affairs, deputy prime minister, destroyer, dictator, dilendra prasad badu, diplomat, director general, district court, drug enforcement, economic minist, eduard shevardnadze, education minist, election commission, electoral commission, energy minist, external affairs minist, federal court, federal judge, federal police, fighter bomber, fighter jet, fighter plane, finance minist, first lieutenant, foreign affairs minist, foreign affairs ministry, foreign minist, foreign relations minist, foreign secretary, frigate, garrison, gendarmerie, general of the army, generals, giriya prasad koirala, gopal man shrestha, governing party, government, government commission, government delegation, government forces, government official, government representative, government soldier, government spokesman, government troops, government troops and police, governor, governor general, ground forces, ground troop, head of government, head of state, health minist, high court, high official, high ranking officer, hom nath dahal, home minist, immigration minist, infantry, intelligence, intelligence agent, intelligence chief, intelligence information, intelligence officer, intelligence operation, intelligence service, interim government, interim president, interior minist, jail guard, jet fighter, judge, judicial system, judiciary, junior officer, junta, junta forces, junta troops, justice minister, justice system, kabul, kamal thapa, kirti nidhi bista, krishna prasad bhattarai, labor minist, land force, landing ship, law enforcement agencies, law enforcement authorities, law enforcement officer, law minist, lawmaker, legislative assembly, legislative chamber, legislative council, legislator, legislature, lieutenant, lieutenant colonel, lieutenant general, lokendra bahadur chand, major general, marich man singh shrestha, mayor, member of parliament, military, military adviser, military authorities, military base, military commission, military delegation, military force, military government, military group, military intelligence, military judge, military junta, military led, military officer,

military official, military patrol, military personnel, military police, military regime, military representative, military reserve, military rule, military spokesman, military spokesmen, military transport plane, military tribunal, minist, minist for defence, minist for foreign, minist for internal affairs, minist for international cooperation, minist of agriculture, minist of communication, minist of defence, minist of defense, minist of economic affairs, minist of education, minist of finance, minist of foreign, minist of foreign affairs, minist of health, minist of industry, minist of information, minist of interior, minist of internal affairs, minist of international trade, minist of justice, minist of law, minist of mines, minist of national defence, minist of national security, minist of planning, minist of public health, minist of public works, minist of security, minist of state, minist of the interior, minist of transport, minister without portfolio, ministers of state, ministry, mohammad najibullah, narayan singh pun, narcotics officer, narendra bikram shah, national assembly, national council, national court, national guard, national police, national police chief, national security adviser, national security service, naval, naval base, naval officer, naval unit, navy, nepal gurkha soldiers, operative, paratroops, parliament, parliamentarian, party leader, party member, party president, peacekeeping troop, police, police captain, police chief, police commissioner, police constable, police district, police force, police officer, police officials, police personnel, police post, policeman, policemen, policewoman, political parties, politician, prakash koirala, premier, president, presidential aide, presidential candidate, presidential palace, prime minister, prosecutor, prosecutor general, provincial officials, provisional government, public prosecutor, public works minist, regime, regiment, regional governor, reservist, riot police, royal administration, royal advisory, royal government, royal palace, ruler, ruling coalition, ruling junta, ruling parties, ruling party, second lieutenant, secret police, secretariat, security force, security officer, security official, security patrol, security personnel, servicemen, sher bahadur deuba, speaker of parliament, special forces, special operations, state minist, state official, state secretary, surya bahadur thapa, the pm, the west african country, tourism minist, transport minist, trooper, tulsi giri, tyrant, undercover agent, warship

- **Rebel:** abductor, alleged militants, amik sherchan, anti government force, anti government insurgent, anti government organization, armed band, armed bandit, armed gang, armed group, armed insurgency, armed insurgent, armed insurgent group, armed men, armed opposition group, armed rebel, armed rebel group,

armed separatist, assailant, bandit, combatant, communist rebel, criminal, exiled opposition, extremist, fanatic, fighter, freedom fighter, fundamentalist muslim, gang, gangster, guerrilla, guerrilla leader, guerrilla leadership, gulbuddin hekmatyar, gunman, gunmen, insurgency, insurgent, insurgent force, insurgent group, insurgent leader, international terrorist, islamic extremist group, islamic front, islamic militant, islamic rebel, islamic rebel group, islamic rebels, jalal talabani, kidnapper, kurdistan, leftist party, liberation army, liberation front, liberation movement, main opposition, militant, military wing, militia, moslem militant, mujahideen, muslim militant, muslim radical, muslim rebel, mutineer, narendra bikram nemwang, opposition alliance, opposition coalition, opposition force, opposition forces, opposition leader, opposition supporter, parallel government, paramilitary police, paramilitary unit, political wing, private armies, private army, purna bahadur khadka, radha krishna mainali, radical leftist group, raider, ram sharan mahat, ramesh lekhak, rebel, rebel armies, rebel army, rebel base, rebel commander, rebel commando, rebel force, rebel group, rebel insurgent, rebel leader, rebel soldier, rebel source, rebel student, rebellion, resistance group, resistance leader, resistance movement, revolt, revolutionary front, revolutionary movement, rioter, separatist, separatist guerrilla, separatist leader, separatist militant, separatist movement, separatist rebel, shreesh shumsher rana, spokesman for the opposition, suicide bomber, terrorist, terrorist group, terrorist leader, terrorist organization, the opposition, underground army, underground rebel, unidentified forces, unidentified gunmen, uprising, urmila aryal

- **Civilian:** asylum seeker, citizen, civilian, college, community, constituent, displaced families, displaced people, displaced person, farm worker, farmer, illegal migrant, immigrant, migrant, peasant, pilgrim, population, private citizen, pupil, refugee, residents, residents of the capital, school, schoolhouse, settler, student, villager, villager, worshipper

## PERU (1980-1999)

- **Government:** a cabinet meeting, administration, administrative official, admiral, agriculture minist, air force, air unit, aircraft carrier, alan garcia, alberto diaz, alberto fujimori, alberto pandolfi, anti drug agent, anti riot police, anti terrorism court, armed force, armed forces, armed police, armed troops, army, army chief, army chief of staff, army intelligence, army officer, army patrol, army staff, army unit, attack helicopters, authorities, battalion, border guard, border patrol, border security, brigadier general, bureaucracy,

bureaucrat, c in c of, cabinet, cabinet minister, captain, caretaker government, carlos ferrero costa, carlos torres y torres lara, carrier, central bank governor, chamber, chamber of deputies, chief justice, chief minister, chief of staff, chief of state, city mayor, civil courts, civil officer, civil servant, civil service, coast guard, colonel, combat aircraft, combat helicopter, combat planes, combat troops, commanding officer, commando, companies, company, constituent assembly, constitutional court, consul, consul general, consulate, council of ministers, council of state, court judge, court justice, court official, customs official, death squad, defence force, defence minist, defense force, defense minist, defense secretary, delegate, deputy prime minister, destroyer, dictator, diplomat, diplomatic building, director general, district court, drug enforcement, economic minist, education minist, election commission, electoral commission, energy minist, external affairs minist, federal court, federal judge, federal police, fighter bomber, fighter jet, fighter plane, finance minist, foreign affairs minist, foreign affairs ministry, foreign minist, foreign relations minist, foreign secretary, garrison, gendarmerie, generals, governing party, government, government commission, government delegation, government forces, government official, government representative, government soldier, government spokesman, government troops, government troops and police, governor, governor general, ground forces, ground troop, guillermo larco cox, head of government, head of state, health minist, health official, high official, high ranking officer, home minist, immigration minist, infantry, inspector general, intelligence, intelligence agent, intelligence chief, intelligence information, intelligence officer, intelligence operation, intelligence service, interim government, interior minist, javier perez de cuellar, javier valle riestra, jet fighter, jorge del castillo, judge, judicial system, judiciary, junior officer, junta, junta forces, justice minister, justice system, labor minist, labour minist, land force, landing ship, law enforcement agencies, law enforcement authorities, law enforcement officer, lawmaker, legislator, legislature, lieutenant, lieutenant colonel, lima, major general, mayor, member of parliament, military, military adviser, military authorities, military base, military commission, military delegation, military force, military government, military group, military intelligence, military judge, military junta, military justice, military officer, military official, military patrol, military personnel, military police, military regime, military representative, military rule, military spokesman, military spokesmen, military transport plane, military tribunal, minist, minist for infrastructure, minist of agriculture, minist of communication, minist of defence, minist of defense, minist of economy and finance, minist of



education, minist of finance, minist of foreign affairs, minist of government, minist of information, minist of interior, minist of internal affairs, minist of justice, minist of national defence, minist of public health, minist of public works, minist of state, minist of the interior, minist of transport, ministry, narcotics officer, national assembly, national council, national guard, national police, national police chief, national security adviser, naval, naval base, naval officer, naval unit, navy, oscar de la puente raygada, osvaldo de rivero, paratroops, parliament, parliamentarian, party leader, party member, party president, peacekeeping troop, police, police captain, police chief, police commissioner, police district, police force, police officer, police officials, police personnel, police post, policeman, policemen, policewoman, political parties, politician, premier, president, presidential aide, presidential candidate, presidential palace, prime minister, prosecutor, prosecutor general, provincial officials, provisional government, public works minist, regime, regiment, reservist, riot police, ruler, ruling alliance, ruling coalition, ruling party, second lieutenant, secret police, secretariat, security force, security officer, security official, security patrol, security personnel, servicemen, speaker of parliament, special forces, special operations, spy plane, state governor, state official, transportation worker, trooper, tyrant, warship

- **Rebel:** abductor, anti government force, anti government organization, armed band, armed bandit, armed gang, armed group, armed men, armed opposition group, armed rebel, armed rebel group, assailant, bandit, combatant, communist rebel, criminal, drug dealer, drug gang, drug lord, drug syndicate, drug trafficker, exiled opposition, extremist, fanatic, fighter, freedom fighter, gang, gangster, guerrilla, guerrilla leader, gunman, gunmen, illegal party, insurgency, insurgency movement, insurgent, insurgent force, insurgent group, insurgent leader, insurgent movement, islamic extremist group, islamic front, islamic militant, islamic rebels, jalal talabani, kidnapper, kurdistan, liberation army, liberation front, liberation movement, militant, military wing, militia, moslem militant, mujahideen, mutineer, narco terrorist, opposition forces, opposition leader, paramilitary police, political wing, private army, radical leftist group, raider, rebel, rebel army, rebel base, rebel commander, rebel commando, rebel force, rebel group, rebel leader, rebel soldier, rebel source, rebellion, resistance movement, revolt, revolutionary movement, rioter, separatist, separatist guerrilla, separatist rebel, terrorist, terrorist group, terrorist leader, terrorist organization, the opposition, unidentified gunmen, uprising
- **Civilian:** andean community, asylum seeker, citizen, civilian, college, community,

constituent, displaced people, displaced person, farm worker, farmer, immigrant, peasant, population, private citizen, pupil, refugee, residents, residents of the capital, school, schoolhouse, settler, student, village, villager, worshipper

## SIERRA LEONE (1991-1999)

- **Government:** a cabinet meeting, administration, admiral, agriculture minist, ahmad tejan kabbah, air force, air force chief, air unit, aircraft carrier, alpha timbo, anti riot police, armed force, armed forces, armed police, armed troops, army, army chief, army chief of staff, army intelligence, army officer, army patrol, army reserve, army staff, army unit, attack helicopters, authorities, banja tejan sie, battalion, border guard, border patrol, border security, brigadier general, bureaucracy, bureaucrat, c in c of, cabinet, cabinet minister, captain, caretaker government, carrier, central bank governor, chairman of the council of ministers, chamber, chamber of deputies, chief justice, chief minister, chief of intelligence, chief of staff, chief of state, chief of the army, city mayor, civil servant, civil service, coast guard, colonel, combat aircraft, combat helicopter, combat planes, combat troops, commandant, commanding officer, commando, companies, company, constab, constituent assembly, constitutional council, constitutional court, construction minist, consul, consul general, consulate, council of ministers, council of state, court judge, court justice, court official, cruiser, customs official, death squad, defence force, defence minist, defense force, defense minist, defense secretary, delegate, department of foreign affairs, deputy prime minister, destroyer, dictator, diplomat, director general, district court, drug enforcement, economic minist, eduard shevardnadze, education minist, election commission, electoral commission, energy minist, external affairs minist, federal court, federal judge, federal police, fighter bomber, fighter jet, fighter plane, finance minist, first lieutenant, foreign affairs minist, foreign affairs ministry, foreign minist, foreign relations minist, foreign secretary, frigate, garrison, gendarmerie, generals, governing party, government, government commission, government delegation, government forces, government official, government representative, government soldier, government spokesman, government troops, government troops and police, governor, governor general, ground forces, ground troop, head of government, head of state, health minist, high court, high official, high ranking officer, home minist, immigration minist, infantry, intelligence, intelligence agent, intelligence chief, intelligence information, intelligence officer, intelligence operation, intelligence service, interim government, interim president,

interior minist, jet fighter, johnny paul koroma, joseph saidu momoh, judge, judicial system, judiciary, julius maada bio, junior officer, junta, junta chief, junta forces, junta soldier, junta troops, justice minister, justice system, kadi sesay, kamajor, labor minist, land force, landing ship, law enforcement agencies, law enforcement authorities, law enforcement officer, law minist, lawmaker, legislative assembly, legislative chamber, legislative council, legislator, legislature, lieutenant, lieutenant colonel, major general, mayor, member of parliament, military, military adviser, military authorities, military base, military commission, military delegation, military force, military government, military group, military intelligence, military judge, military junta, military led, military officer, military official, military patrol, military personnel, military police, military regime, military representative, military reserve, military rule, military spokesman, military spokesmen, military transport plane, military tribunal, minist, minist for foreign, minist of agriculture, minist of communication, minist of defence, minist of defense, minist of economic affairs, minist of education, minist of finance, minist of foreign, minist of foreign affairs, minist of health, minist of industry, minist of information, minist of interior, minist of internal affairs, minist of international trade, minist of justice, minist of law, minist of mines, minist of national defence, minist of planning, minist of public health, minist of public works, minist of state, minist of the interior, minist of transport, minister without portfolio, ministers of state, ministry, narcotics officer, national assembly, national council, national court, national guard, national police, national police chief, national security adviser, national security service, naval, naval base, naval officer, naval unit, navy, operative, paratroops, parliament, parliamentarian, party leader, party member, party president, peacekeeping troop, police, police captain, police chief, police commissioner, police constable, police district, police force, police officer, police officials, police personnel, police post, policeman, policemen, policewoman, policewomen, political parties, politician, premier, president, presidential aide, presidential candidate, presidential palace, prime minister, prosecutor, prosecutor general, provincial officials, provisional government, public prosecutor, public works minist, regime, regiment, regional governor, reservist, riot police, ruler, ruling coalition, ruling junta, ruling party, second lieutenant, secret police, secretariat, security force, security officer, security official, security patrol, security personnel, septimus kaikai, servicemen, sierra leon, sierra leone, sierra leone, solomon berewa, speaker of parliament, special forces, special operations, state official, state secretary, the west african country, tourism minist, transport minist,

trooper, tyrant, undercover agent, warship

- **Rebel:** abductor, anti government force, anti government insurgent, anti government organization, armed band, armed bandit, armed forces revolutionary council, armed gang, armed group, armed insurgency, armed insurgent, armed insurgent group, armed men, armed opposition group, armed rebel, armed rebel group, armed separatist, assailant, bandit, combatant, communist rebel, criminal, exiled opposition, extremist, fanatic, fighter, freedom fighter, fundamentalist muslim, gang, gangster, guerrilla, guerrilla leader, gunman, gunmen, insurgency, insurgent, insurgent force, insurgent group, insurgent leader, international terrorist, islamic extremist group, islamic front, islamic militant, islamic rebels, jalal talabani, kidnapper, kurdistan, liberation army, liberation front, liberation movement, main opposition, militant, military wing, militia, moslem militant, mujahideen, muslim militant, muslim radical, muslim rebel, mutineer, opposition coalition, opposition force, opposition forces, opposition leader, opposition supporter, paramilitary police, paramilitary unit, political wing, private armies, private army, radical leftist group, raider, rebel, rebel army, rebel base, rebel commander, rebel commando, rebel force, rebel group, rebel insurgent, rebel leader, rebel soldier, rebel source, rebellion, resistance group, resistance leader, resistance movement, revolt, revolutionary front, revolutionary movement, revolutionary united front, rioter, separatist, separatist guerrilla, separatist leader, separatist militant, separatist movement, separatist rebel, spokesman for the opposition, terrorist, terrorist group, terrorist leader, terrorist organization, the opposition, underground army, underground rebel, unidentified gunmen, uprising
- **Civilian:** asylum seeker, citizen, civilian, college, community, constituent, displaced people, displaced person, farm worker, farmer, immigrant, mende, migrant, peasant, pilgrim, population, private citizen, pupil, refugee, residents, residents of the capital, school, schoolhouse, settler, student, village, villager, worshipper

#### EL SALVADOR (1979-1992)

- **Government:** a cabinet meeting, administration, agriculture minist, air force, air force chief, airman, alfredo cristiani, anti riot police, armando calderon sol, armed force, armed forces, army, army chief, army chief of staff, army intelligence, army officer, army patrol, army staff, army unit, attack helicopters, auditor general, authorities, autocrat, battalion, border guard, border patrol, cabinet, cabinet minister, captain, caretaker government, carlos humberto romero,

carrier, central bank, central bank governor, chamber, chamber of deputies, chancellery, chancellor, chief justice, chief of staff, chief of state, chief of the army, civil servant, civil service, colonel, combat helicopter, combat planes, commandant, commanding general, commando, commerce department, companies, company, constab, constituent assembly, consul, consul general, consulate, council of ministers, council of state, court judge, court justice, court official, death squad, defence force, defence minist, defense force, defense minist, defense secretary, delegate, dictator, diplomat, district court, drug enforcement, education minist, el salvador, election commission, electoral commission, federal court, federal judge, federal police, fighter bomber, fighter jet, fighter plane, finance minist, foreign minist, foreign secretary, garrison, generals, government, government commission, government delegation, government forces, government official, government representative, government soldier, government spokesman, government troops, governor, ground forces, ground troop, guerilla, guerilla leader, guerrilla army, guerrilla force, guerrilla leadership, guillermo ungo, head of government, health minist, high court, high official, high ranking officer, infantry, intelligence, intelligence agent, intelligence chief, intelligence information, intelligence officer, intelligence service, interim president, interior minist, jet fighter, jose antonio morales ehrlich, jose napoleon duarte, judge, judicial system, judiciary, junior officer, junta, junta forces, junta troops, justice minister, justice system, labor minist, law enforcement agencies, lawmaker, legislative assembly, legislator, legislature, lieutenant, lieutenant colonel, magistrate, mayor, military, military adviser, military authorities, military backed government, military base, military commission, military force, military government, military intelligence, military judge, military junta, military officer, military official, military patrol, military personnel, military police, military regime, military spokesman, military spokesmen, military tribunal, minist, minist of defence, minist of defense, minist of economic affairs, minist of education, minist of foreign, minist of public health, minist of public works, minist of state, minist of the interior, minist of the presidency, ministry, national assembly, national council, national guard, national police, national police chief, national security adviser, national security council, naval, naval base, navy, parliament, parliamentarian, party leader, party member, party president, police, police captain, police chief, police force, police officer, police officials, police personnel, policeman, policemen, political parties, political party, politician, premier, president, presidential aide, presidential candidate, presidential palace, prime minister, prosecutor, provincial officials, provisional

government, public works minist, regime, regiment, reservist, right wing coalition, riot police, ruler, ruling coalition, ruling junta, ruling party, second lieutenant, secret police, secretariat, security force, security officer, security official, security patrol, security personnel, servicemen, special forces, state hospital, treasury minist, trooper, tyrant, warship

- **Rebel:** abductor, abductor, ana maria, anti government force, armed band, armed band, armed group, armed group, armed insurgency, armed insurgent, armed men, armed men, armed rebel, assailant, assailant, bandit, bandit, brigand, coalition of opposition parties, combatant, combatant, communist rebel, coup leader, coup plotter, criminal, exiled opposition, exiles, extremist, fanatic, farabundo marti national liberation front, fighter, gang, guerrilla, guerrilla leader, gunman, gunmen, hit squad, insurgency, insurgent, insurgent force, insurgent group, insurgent leader, islamic front, kidnapper, liberation front, liberation movement, main opposition, militant, militia, moslem militant, mujahideen, opposition alliance, opposition coalition, opposition forces, opposition leader, paramilitary force, paramilitary organization, political wing, protest leader, raider, rebel, rebel armies, rebel army, rebel base, rebel commander, rebel commando, rebel force, rebel group, rebel leader, rebel soldier, rebel source, rebellion, resistance movement, revolt, revolutionary front, revolutionary movement, rioter, terrorist, terrorist group, terrorist organization, the opposition, underground rebel, unidentified gunmen, uprising
- **Civilian:** aragon, asylum seeker, citizen, civilian, college, community, constituent, displaced people, displaced person, farm worker, farmer, peasant, population, private citizen, rancher, refugee, residents, school, schoolhouse, settlement, settler, slum dweller, student, the christian community, village, villager, worshipper

### SOMALIA (1981-1991)

- **Government:** a cabinet meeting, administration, admiral, agriculture minist, air force, air unit, aircraft carrier, anti riot police, armed force, armed forces, armed police, armed troops, army, army chief, army chief of staff, army intelligence, army officer, army patrol, army reserve, army staff, army unit, attack helicopters, authorities, battalion, border guard, border patrol, border security, brigadier general, bureaucrat, c in c of, cabinet, cabinet minister, captain, caretaker government, carrier, central bank governor, chamber, chamber of deputies, chief justice, chief minister, chief of staff, chief of state, chief of the army, city mayor, civil servant, civil service, coast guard,

colonel, combat aircraft, combat helicopter, combat planes, combat troops, commanding officer, commando, companies, company, constab, constituent assembly, constitutional court, construction minist, consul, consul general, consulate, council of ministers, council of state, court judge, court justice, court official, cruiser, customs official, death squad, defence force, defence minist, defense force, defense minist, defense secretary, delegate, deputy prime minister, destroyer, dictator, diplomat, director general, district court, drug enforcement, economic minist, education minist, election commission, electoral commission, energy minist, external affairs minist, federal court, federal judge, federal police, fighter bomber, fighter jet, fighter plane, finance minist, first lieutenant, foreign affairs minist, foreign affairs ministry, foreign minist, foreign relations minist, foreign secretary, frigate, garrison, gendarmerie, generals, governing party, government, government commission, government delegation, government forces, government official, government representative, government soldier, government spokesman, government troops, government troops and police, governor, governor general, ground forces, ground troop, head of government, head of state, health minist, high court, high official, high ranking officer, immigration minist, infantry, intelligence, intelligence agent, intelligence chief, intelligence information, intelligence officer, intelligence operation, intelligence service, interim government, interim president, interior minist, jet fighter, judge, judicial system, judiciary, junior officer, junta, junta forces, justice minister, justice system, labor minist, land force, landing ship, law enforcement agencies, law enforcement authorities, law enforcement officer, lawmaker, legislative assembly, legislative council, legislator, legislature, lieutenant, lieutenant colonel, major general, mayor, member of parliament, military, military adviser, military authorities, military base, military commission, military delegation, military force, military government, military group, military intelligence, military judge, military junta, military officer, military official, military patrol, military personnel, military police, military regime, military representative, military reserve, military rule, military spokesman, military spokesmen, military transport plane, military tribunal, minist, minist for foreign, minist of agriculture, minist of communication, minist of defence, minist of defense, minist of economic affairs, minist of education, minist of finance, minist of foreign, minist of foreign affairs, minist of health, minist of industry, minist of information, minist of interior, minist of internal affairs, minist of justice, minist of labour, minist of livestock, minist of mines, minist of national defence, minist of public health, minist of public works, minist of state, minist of the interior, minist of transport, ministers of

state, ministry, mogadiscio, mogadishu, narcotics officer, national assembly, national council, national guard, national police, national police chief, national security adviser, national security service, naval, naval base, naval officer, naval unit, navy, operative, paratroops, parliament, parliamentarian, party leader, party member, party president, peacekeeping troop, police, police captain, police chief, police commissioner, police constable, police district, police force, police officer, police officials, police personnel, police post, policeman, policemen, policewoman, political parties, politician, premier, president, presidential aide, presidential candidate, presidential palace, prime minister, prosecutor, prosecutor general, provincial officials, provisional government, public prosecutor, public works minist, regime, regiment, regional governor, reservist, riot police, ruler, ruling coalition, ruling junta, ruling party, second lieutenant, secret police, secretariat, security force, security officer, security official, security patrol, security personnel, servicemen, somalia, speaker of parliament, special forces, special operations, state official, tourism minist, transport minist, trooper, tyrant, umar arteh ghalib, warship

- **Rebel:** abductor, ali mahdi muhammad, anti government force, anti government insurgent, anti government organization, armed band, armed bandit, armed gang, armed group, armed men, armed opposition group, armed rebel, armed rebel group, armed separatist, assailant, bandit, combatant, communist rebel, criminal, exiled opposition, extremist, fanatic, fighter, freedom fighter, fundamentalist muslim, gang, gangster, guerrilla, guerrilla leader, gunman, gunmen, insurgency, insurgent, insurgent force, insurgent group, insurgent leader, international terrorist, islamic extremist group, islamic front, islamic militant, islamic rebels, jalal talabani, kidnapper, kurdistan, liberation army, liberation front, liberation movement, militant, military wing, militia, moslem militant, mujahideen, muslim militant, muslim radical, mutineer, opposition forces, opposition leader, opposition supporter, paramilitary police, political wing, private army, radical leftist group, raider, rebel, rebel army, rebel base, rebel commander, rebel commando, rebel force, rebel group, rebel insurgent, rebel leader, rebel soldier, rebel source, rebellion, resistance group, resistance movement, revolt, revolutionary front, revolutionary movement, rioter, separatist, separatist guerrilla, separatist movement, separatist rebel, terrorist, terrorist group, terrorist leader, terrorist organization, the opposition, unidentified gunmen, uprising
- **Civilian:** asylum seeker, citizen, civilian, college, community, constituent,



displaced people, displaced person, farm worker, farmer, immigrant, migrant, peasant, pilgrim, population, private citizen, pupil, refugee, residents, residents of the capital, school, schoolhouse, settler, student, village, villager, worshipper

### SYRIA (1979-1982)

- **Government:** abdul halim khaddam, administration, air force, alawi, armed forces, army, army officer, army patrol, authorities, border guard, cabinet, cabinet minister, captain, carrier, chief of staff, city mayor, civil servant, colonel, commando, company, constituent assembly, damascus, death squad, defence force, defense minist, delegate, diplomat, drug enforcement, envoy, fighter bomber, fighter jet, fighter plane, finance minist, foreign minist, foreign secretary, government, government forces, government official, government soldier, government spokesman, government troops, ground forces, infantry, intelligence, intelligence agent, intelligence officer, intelligence service, jet fighter, junior officer, junta, legislator, lieutenant colonel, mayor, military, military adviser, military authorities, military base, military force, military officer, military official, military police, military spokesman, minist, minist of works, ministry, national council, national guard, naval, navy, parliament, party leader, party member, peacekeeping troop, police, police chief, police commissioner, policeman, policemen, politician, premier, president, prime minister, regime, reservist, ruling coalition, secretariat, security force, security officer, security official, security personnel, special forces, syria, warship
- **Rebel:** abductor, abductor, armed band, armed band, armed group, armed group, armed men, armed men, assailant, assailant, bandit, bandit, combatant, combatant, criminal, demonstrator, extremist, fighter, gang, guerrilla, guerrilla leader, gunman, gunmen, hit man, insurgent, insurgent leader, islamic, islamic front, killers, militant, militia, moslem cleric, moslem militant, mujahideen, opposition leader, paramilitary, private armies, private army, raider, rebel, rebel force, resistance movement, revolt, revolutionary movement, separatist, terrorist, the opposition, unidentified gunmen, uprising
- **Civilian:** citizen, civilian, college, community, farmer, hospital, peasant, refugee, residents, school, schoolhouse, settler, student, university, village, villager, worshipper

### SYRIA (2011-2013)

- **Government:** a cabinet meeting, administration, administrative official, admiral, agriculture minist, air force, air force chief, air unit, aircraft carrier, anti riot police, anti terrorism court, armed force, armed forces, armed patrols, armed police, armed professional, armed troops, army, army chief, army chief of staff, army intelligence, army officer, army patrol, army reserve, army staff, army unit, attack helicopter, attack helicopters, authorities, babrak karmal, bashar al assad, bashar al jafari, battalion, battle tank, battleship, border guard, border patrol, border patrol agent, border security, brigadier general, bureaucracy, bureaucrat, c in c of, cabinet, cabinet minister, cabinet of ministers, captain, caretaker government, carrier, central bank governor, chairman of the council of ministers, chamber, chamber of deputies, chief justice, chief minister, chief of defence staff, chief of intelligence, chief of staff, chief of state, chief of the air force, chief of the army, city mayor, civil servant, civil service, coast guard, colonel, combat aircraft, combat helicopter, combat jet, combat planes, combat ship, combat troops, commandant, commander in chief of the army, commanding general, commanding officer, commando, companies, company, constab, constituent assembly, constitutional council, constitutional court, construction minist, consul, consul general, consulate, council of ministers, council of state, court judge, court justice, court official, criminal police, cruiser, customs official, death squad, defence force, defence minist, defense contractor, defense force, defense minist, defense secretary, defense services, delegate, department of foreign affairs, deputy prime minister, despot, destroyer, dictator, diplomat, director general, district commissioner, district court, drug enforcement, economic minist, eduard shevardnadze, education minist, election commission, electoral commission, energy minist, external affairs minist, farouk al shara, federal court, federal judge, federal police, fighter bomber, fighter jet, fighter plane, finance minist, first lieutenant, foreign affairs minist, foreign affairs ministry, foreign minist, foreign minister abdullah, foreign relations minist, foreign secretary, frigate, garrison, gendarmerie, general of the army, generals, governing party, government, government commission, government delegation, government forces, government official, government representative, government soldier, government spokesman, government troops, government troops and police, governor, governor general, ground forces, ground troop, head of government, head of state, health minist, high court, high official, high ranking officer, home minist, immigration minist, infantry, intelligence, intelligence agent, intelligence apparatus, intelligence chief, intelligence information, intelligence officer, intelligence operation, intelligence service, interim

government, interim president, interior minist, jail guard, jet fighter, judge, judicial system, judiciary, junior officer, junta, junta forces, junta troops, justice minister, justice system, kabul, labor minist, land force, landing ship, law enforcement agencies, law enforcement authorities, law enforcement officer, law minist, law officer, lawmaker, legislative assembly, legislative chamber, legislative council, legislator, legislature, lieutenant, lieutenant colonel, lieutenant general, major general, mayor, member of parliament, military, military adviser, military advisor, military authorities, military base, military commission, military delegation, military dictator, military force, military government, military group, military intelligence, military judge, military junta, military justice, military led, military officer, military official, military patrol, military personnel, military police, military regime, military representative, military reserve, military rule, military spokesman, military spokesmen, military transport plane, military tribunal, minist, minist for defence, minist for foreign, minist for internal affairs, minist for international cooperation, minist of agriculture, minist of communication, minist of defence, minist of defense, minist of economic affairs, minist of education, minist of finance, minist of foreign, minist of foreign affairs, minist of government, minist of health, minist of home affairs, minist of industry, minist of information, minist of interior, minist of internal affairs, minist of international trade, minist of justice, minist of law, minist of mines, minist of national defence, minist of national security, minist of planning, minist of public health, minist of public works, minist of security, minist of state, minist of the interior, minist of transport, minister without portfolio, ministers of state, ministry, mohammad najibullah, narcotics officer, national assembly, national council, national court, national guard, national police, national police chief, national security adviser, national security chief, national security council, national security office, national security service, naval, naval base, naval officer, naval ship, naval unit, navy, officer in command, operative, paratroops, parliament, parliamentarian, party leader, party member, party president, peacekeeping troop, police, police captain, police chief, police commissioner, police constable, police district, police force, police officer, police officials, police personnel, police post, policeman, policemen, policewoman, policewomen, political parties, politician, premier, president, presidential aide, presidential candidate, presidential palace, prime minister, prime minster, prosecutor, prosecutor general, provincial officials, provisional government, public prosecutor, public works minist, regime, regiment, regional governor, reservist, riot police, ruler, ruling coalition, ruling junta, ruling

parties, ruling party, second lieutenant, secret police, secretariat, security force, security officer, security official, security patrol, security personnel, senior intelligence officer, serviceman, servicemen, soldiers and their families, speaker of parliament, special forces, special operations, spy agency, state minist, state official, state secretary, state security council, the west african country, tourism minist, transport minist, trooper, tyrant, undercover agent, warship

- **Rebel:** abductor, abdul halim khaddam, al qaeda, al qaeda in iraq, al qaida, ali habib, alleged militants, anti government armed group, anti government force, anti government insurgent, anti government organization, armed band, armed bandit, armed citizens, armed dissident, armed gang, armed group, armed insurgency, armed insurgent, armed insurgent group, armed men, armed opposition group, armed rebel, armed rebel group, armed separatist, arsala rahmani, assailant, bandit, combatant, communist rebel, criminal, dissident soldier, drug lord, drug syndicate, enemy combatant, ethnic rebel, exiled opposition, extremist, fanatic, fighter, foreign terrorist organization, freedom fighter, front for the liberation, fundamentalist muslim, gang, gangster, guerilla force, guerrilla, guerrilla leader, gulbuddin hekmatyar, gunman, gunmen, hit man, illegal movement, insurgence, insurgency, insurgency leader, insurgency movement, insurgent, insurgent force, insurgent group, insurgent leader, insurgent movement, insurrectionist, international terrorist, islamic extremist group, islamic front, islamic militant, islamic rebel, islamic rebel group, islamic rebels, islamist cleric, jalal talabani, kidnapper, kurdistan, kurdistan workers party, liberation army, liberation front, liberation movement, main opposition, militant, militant movement, militant wing, military defector, military deserter, military wing, militia, moslem militant, mujahideen, muslim militant, muslim radical, muslim rebel, mutineer, narco terrorist, opposition activist, opposition alliance, opposition coalition, opposition demonstrators, opposition force, opposition forces, opposition leader, opposition supporter, osama bin laden, paramilitary organization, paramilitary police, paramilitary unit, political wing, private armies, private army, private security force, radical leftist group, raider, rebel, rebel armies, rebel army, rebel base, rebel commander, rebel commando, rebel force, rebel group, rebel insurgent, rebel leader, rebel soldier, rebel source, rebel student, rebellion, resistance commander, resistance group, resistance leader, resistance movement, revolt, revolutionary front, revolutionary movement, rioter, separatist, separatist guerrilla, separatist leader, separatist militant, separatist movement, separatist rebel, spokesman

for the opposition, suicide bomber, terrorist, terrorist group, terrorist insurgent, terrorist leader, terrorist organization, the opposition, underground army, underground rebel, unidentified forces, unidentified gunmen, uprising, violent group

- **Civilian:** asylum seeker, citizen, civilian, college, community, constituent, coptic orthodox, displaced families, displaced people, displaced person, displaced residents, farm labourer, farm worker, farmer, immigrant, migrant, peasant, pilgrim, population, private citizen, pupil, refugee, residents, residents of the capital, school, schoolhouse, settler, student, village, villager, worshipper

### TAJIKISTAN (1992-1997)

- **Government:** a cabinet meeting, administration, administrative official, admiral, agriculture minist, air force, air force chief, air unit, aircraft carrier, akbarsho iskandarov, alamkhon ahmadov, anti riot police, armed force, armed forces, armed police, armed troops, army, army chief, army chief of staff, army intelligence, army officer, army patrol, army reserve, army staff, army unit, attack helicopters, authorities, babrak karmal, battalion, border guard, border patrol, border security, brigadier general, bureaucracy, bureaucrat, c in c of, cabinet, cabinet minister, cabinet of ministers, captain, caretaker government, carrier, central bank governor, chairman of the council of ministers, chamber, chamber of deputies, chief justice, chief minister, chief of intelligence, chief of staff, chief of state, chief of the army, city mayor, civil servant, civil service, coast guard, colonel, combat aircraft, combat helicopter, combat planes, combat troops, commandant, commanding officer, commando, companies, company, constab, constituent assembly, constitutional council, constitutional court, construction minist, consul, consul general, consulate, council of ministers, council of state, court judge, court justice, court official, cruiser, customs official, death squad, defence force, defence minist, defense force, defense minist, defense secretary, delegate, department of foreign affairs, deputy prime minister, destroyer, dictator, diplomat, director general, district court, drug enforcement, dushanbe, economic minist, eduard shevardnadze, education minist, election commission, electoral commission, emomali rakhmonov, energy minist, external affairs minist, federal court, federal judge, federal police, fighter bomber, fighter jet, fighter plane, finance minist, first lieutenant, foreign affairs minist, foreign affairs ministry, foreign minist, foreign relations minist, foreign secretary, frigate, garrison, gendarmerie, general

of the army, generals, governing party, government, government commission, government delegation, government forces, government official, government representative, government soldier, government spokesman, government troops, government troops and police, governor, governor general, ground forces, ground troop, guard command, head of government, head of state, health minist, high court, high official, high ranking officer, home minist, immigration minist, infantry, intelligence, intelligence agent, intelligence chief, intelligence information, intelligence officer, intelligence operation, intelligence service, interim government, interim president, interior minist, jamshed karimov, jet fighter, judge, judicial system, judiciary, junior officer, junta, junta forces, junta troops, justice minister, justice system, kabul, labor minist, land force, landing ship, law enforcement agencies, law enforcement authorities, law enforcement officer, law minist, lawmaker, legislative assembly, legislative chamber, legislative council, legislator, legislature, lieutenant, lieutenant colonel, lieutenant general, major general, mayor, member of parliament, military, military adviser, military authorities, military base, military commission, military delegation, military force, military government, military group, military intelligence, military judge, military junta, military led, military officer, military official, military patrol, military personnel, military police, military regime, military representative, military reserve, military rule, military spokesman, military spokesmen, military transport plane, military tribunal, minist, minist for foreign, minist for internal affairs, minist of agriculture, minist of communication, minist of defence, minist of defense, minist of economic affairs, minist of education, minist of finance, minist of foreign, minist of foreign affairs, minist of health, minist of industry, minist of information, minist of interior, minist of internal affairs, minist of international trade, minist of justice, minist of law, minist of mines, minist of national defence, minist of planning, minist of public health, minist of public works, minist of security, minist of state, minist of the interior, minist of transport, minister without portfolio, ministers of state, ministry, mohammad najibullah, narcotics officer, national assembly, national council, national court, national guard, national police, national police chief, national security adviser, national security chief, national security service, naval, naval base, naval officer, naval unit, navy, operative, paratroops, parliament, parliamentarian, party leader, party member, party president, peacekeeping troop, police, police captain, police chief, police commissioner, police constable, police district, police force, police officer, police officials, police personnel, police post, policeman, policemen, policewoman, political parties, politician, premier, president,

presidential aide, presidential candidate, presidential palace, prime minister, prosecutor, prosecutor general, provincial officials, provisional government, public prosecutor, public works minist, rakhmon nabiyeu, regime, regiment, regional governor, reservist, riot police, ruler, ruling coalition, ruling junta, ruling party, saidamir zuhurov, second lieutenant, secret police, secretariat, security force, security officer, security official, security patrol, security personnel, servicemen, speaker of parliament, special battalion, special forces, special operations, state official, state secretary, talbak nazarov, the west african country, tourism minist, transport minist, trooper, tyrant, undercover agent, warship

- **Rebel:** abductor, anti government force, anti government insurgent, anti government organization, armed band, armed bandit, armed gang, armed group, armed insurgency, armed insurgent, armed insurgent group, armed men, armed opposition group, armed rebel, armed rebel group, armed separatist, assailant, bandit, combatant, communist rebel, criminal, exiled opposition, extremist, fanatic, fighter, freedom fighter, fundamentalist muslim, gang, gangster, guerrilla, guerrilla leader, gulbuddin hekmatyar, gunman, gunmen, insurgency, insurgent, insurgent force, insurgent group, insurgent leader, international terrorist, islamic cleric, islamic extremist group, islamic front, islamic militant, islamic rebel, islamic rebel group, islamic rebels, jalal talabani, kidnapper, kurdistan, liberation army, liberation front, liberation movement, main opposition, marauder, militant, military wing, militia, moslem militant, mujahideen, muslim militant, muslim radical, muslim rebel, mutineer, opposition alliance, opposition coalition, opposition force, opposition forces, opposition leader, opposition supporter, paramilitary police, paramilitary unit, political wing, private armies, private army, radical leftist group, raider, rebel, rebel army, rebel base, rebel commander, rebel commando, rebel force, rebel group, rebel insurgent, rebel leader, rebel soldier, rebel source, rebellion, resistance group, resistance leader, resistance movement, revolt, revolutionary front, revolutionary movement, rioter, separatist, separatist guerrilla, separatist leader, separatist militant, separatist movement, separatist rebel, spokesman for the opposition, suicide bomber, terrorist, terrorist group, terrorist leader, terrorist organization, the opposition, underground army, underground rebel, unidentified forces, unidentified gunmen, uprising
- **Civilian:** asylum seeker, citizen, civilian, college, community, constituent, displaced people, displaced person, farm worker, farmer, immigrant, migrant, peasant, pilgrim, population, private citizen, pupil, refugee, residents,

residents of the capital, school, schoolhouse, settler, student, village, villager, worshipper

## TURKEY (1983-1999)

- **Government:** a cabinet meeting, abdukkadir aksu, abdukkah gul, abdukkatif sener, administration, admiral, agriculture minist, ahmet necdet sezer, air force, air unit, aircraft carrier, ali coskun, ankara, armed force, armed forces, armed police, armed troops, army, army chief, army chief of staff, army officer, army patrol, army unit, attack helicopter, attack helicopters, authorities, battalion, border guard, border patrol, border security, brigadier general, bulent ecevit, bureaucrat, c in c of, cabinet, cabinet minister, captain, caretaker government, carrier, central bank governor, chamber, chamber of deputies, chief justice, chief minister, chief of staff, civil servant, civil service, coast guard, coast guard patrols, colonel, combat aircraft, combat helicopter, combat planes, combat ship, combat troops, commanding officer, commando, companies, company, constituent assembly, constitutional court, construction minist, consul, consul general, consulate, council of ministers, council of state, court judge, court of appeals, court official, death squad, defence force, defence minist, defence secretary, defense force, defense minist, defense secretary, delegate, deputy prime minister, destroyer, dictator, diplomat, director general, district court, drug enforcement, economic minist, education minist, electoral commission, energy minist, environment minist, ertugrul yalcinbayir, external affairs minist, federal court, fighter bomber, fighter jet, fighter plane, finance minist, first lieutenant, foreign affairs minist, foreign affairs ministry, foreign minist, foreign minister abdukkah, foreign secretary, frigate, garrison, gendarmerie, gendarmarie, generals, governing party, government, government commission, government delegation, government forces, government official, government representative, government soldier, government spokesman, government troops, government troops and police, governor, governor general, ground forces, ground troop, head of government, head of state, health minist, high official, high ranking officer, husamettin cindoruk, immigration minist, industry minist, infantry, intelligence, intelligence agent, intelligence chief, intelligence information, intelligence officer, intelligence operation, intelligence service, interim government, interior minist, jet fighter, judge, judicial branch, judicial system, judiciary, junior officer, junta, junta forces, justice minister, justice system, land force, landing ship, law enforcement agencies, law enforcement officer, lawmaker, legislative council, legislator, legislature, lieutenant, lieutenant colonel, major general, mayor, member of parliament,



military, military adviser, military authorities, military base, military delegation, military force, military government, military group, military intelligence, military judge, military junta, military led, military officer, military official, military patrol, military personnel, military police, military regime, military representative, military rule, military spokesman, military spokesmen, military transport plane, military tribunal, minist, minist delegation, minist for food, minist for international cooperation, minist of agriculture, minist of communication, minist of defence, minist of defense, minist of education, minist of energy, minist of environment, minist of finance, minist of foreign affairs, minist of health, minist of industry, minist of information, minist of interior, minist of internal affairs, minist of international trade, minist of justice, minist of national defence, minist of national education, minist of public health, minist of public works, minist of state, minist of the interior, minist of transport, ministers of state, ministry, narcotics officer, national assembly, national council, national guard, national police, national police chief, national security adviser, naval, naval base, naval officer, naval ship, naval unit, navy, necmettin erbakan, paratroops, parliament, parliamentarian, party leader, party member, party president, peacekeeping troop, police, police chief, police commissioner, police constable, police force, police officer, police officials, police post, policeman, policemen, policewoman, political parties, politician, premier, president, presidential aide, presidential candidate, presidential palace, prime minister, prime minster, prosecutor, prosecutor general, provincial officials, provisional government, public works minist, recep tayyip erdogan, regime, regiment, regional governor, religious affairs minist, reservist, riot police, ruler, ruling coalition, ruling parties, ruling party, second lieutenant, secret police, secretariat, security force, security officer, security official, security patrol, security personnel, servicemen, speaker of parliament, special forces, special operations, state minist, state official, suleyman demirel, tansu ciller, tourism minist, transport minist, transportation minist, trooper, turgut ozal, tyrant, warship, yildirim akbulut

- **Rebel:** abductor, alleged militants, anti government force, anti government organization, armed band, armed gang, armed group, armed men, armed opposition group, armed rebel, armed separatist, assailant, bandit, combatant, communist rebel, criminal, exiled opposition, extremist, fanatic, fighter, freedom fighter, fundamentalist muslim, gang, gangster, guerrilla, guerrilla army, guerrilla leader, gunman, gunmen, illegal movement, illegal parties, insurgence, insurgency, insurgent, insurgent force, insurgent group, insurgent leader, international

terrorist, islamic extremist group, islamic front, islamic militant, islamic rebels, jalal talabani, kidnapper, kurdistan, kurdistan workers party, liberation army, liberation forces, liberation front, liberation movement, militant, military wing, militia, moslem militant, mujahideen, muslim militant, muslim radical, opposition forces, opposition leader, opposition supporter, outlawed party, paramilitary police, paramilitary unit, political detainee, political wing, private army, radical leftist group, raider, rebel, rebel army, rebel base, rebel commander, rebel force, rebel group, rebel leader, rebel soldier, rebel source, rebellion, resistance movement, revolt, revolutionary movement, rioter, separatist, separatist guerrilla, separatist leader, separatist militant, separatist movement, separatist rebel, suicide bomber, terrorist, terrorist group, terrorist leader, terrorist organization, the opposition, unidentified gunmen, uprising

- **Civilian:** asylum seeker, citizen, civilian, college, community, displaced families, displaced people, displaced person, displaced residents, farm worker, farmer, immigrant, migrant, peasant, population, pupil, refugee, residents, residents of the capital, school, schoolhouse, settler, student, students and teacher, village, villager, worshipper

#### YEMEN (1986-1987)

- **Government:** a cabinet meeting, administration, admiral, agriculture minist, air force, air force chief, air unit, aircraft carrier, ali abdullah saleh, anti riot police, armed force, armed forces, armed police, armed troops, army, army chief, army chief of staff, army intelligence, army officer, army patrol, army reserve, army staff, army unit, attack helicopters, authorities, battalion, border guard, border patrol, border security, brigadier general, bureaucrat, c in c of, cabinet, cabinet minister, captain, caretaker government, carrier, central bank governor, chairman of the council of ministers, chamber, chamber of deputies, chief justice, chief minister, chief of staff, chief of state, chief of the army, city mayor, civil servant, civil service, coast guard, colonel, combat aircraft, combat helicopter, combat planes, combat troops, commanding officer, commando, companies, company, constab, constituent assembly, constitutional court, construction minist, consul, consul general, consulate, council of ministers, council of state, court judge, court justice, court official, cruiser, customs official, death squad, defence force, defence minist, defense force, defense minist, defense secretary, delegate, deputy prime minister, destroyer, dictator, diplomat, director general, district court, drug enforcement, economic minist, education minist, election commission, electoral commission, energy

minist, external affairs minist, federal court, federal judge, federal national council, federal police, fighter bomber, fighter jet, fighter plane, finance minist, first lieutenant, foreign affairs minist, foreign affairs ministry, foreign minist, foreign relations minist, foreign secretary, frigate, garrison, gendarmerie, generals, governing party, government, government commission, government delegation, government forces, government official, government representative, government soldier, government spokesman, government troops, government troops and police, governor, governor general, ground forces, ground troop, haidar abu bakr al attas, head of government, head of state, health minist, high court, high official, high ranking officer, immigration minist, infantry, intelligence, intelligence agent, intelligence chief, intelligence information, intelligence officer, intelligence operation, intelligence service, interim government, interim president, interior minist, jet fighter, judge, judicial system, judiciary, junior officer, junta, junta forces, justice minister, justice system, labor minist, land force, landing ship, law enforcement agencies, law enforcement authorities, law enforcement officer, lawmaker, legislative assembly, legislative council, legislator, legislature, lieutenant, lieutenant colonel, major general, mayor, member of parliament, military, military adviser, military authorities, military base, military commission, military delegation, military force, military government, military group, military intelligence, military judge, military junta, military officer, military official, military patrol, military personnel, military police, military regime, military representative, military reserve, military rule, military spokesman, military spokesmen, military transport plane, military tribunal, minist, minist for foreign, minist of agriculture, minist of communication, minist of defence, minist of defense, minist of economic affairs, minist of education, minist of finance, minist of foreign, minist of foreign affairs, minist of health, minist of industry, minist of information, minist of interior, minist of internal affairs, minist of justice, minist of mines, minist of national defence, minist of public health, minist of public works, minist of state, minist of the interior, minist of transport, ministers of state, ministry, narcotics officer, national assembly, national council, national guard, national police, national police chief, national security adviser, naval, naval base, naval officer, naval unit, navy, operative, paratroops, parliament, parliamentarian, party leader, party member, party president, peacekeeping troop, police, police captain, police chief, police commissioner, police constable, police district, police force, police officer, police officials, police personnel, police post, policeman, policemen, policewoman, political parties, politician, premier, president,

presidential aide, presidential candidate, presidential palace, prime minister, prosecutor, prosecutor general, provincial officials, provisional government, public prosecutor, public works minist, regime, regiment, regional governor, reservist, riot police, ruler, ruling coalition, ruling junta, ruling party, sana, sanaa, second lieutenant, secret police, secretariat, security force, security officer, security official, security patrol, security personnel, servicemen, speaker of parliament, special forces, special operations, state official, state secretary, tourism minist, transport minist, trooper, tyrant, warship, yemen

- **Rebel:** abductor, anti government force, anti government insurgent, anti government organization, armed band, armed bandit, armed gang, armed group, armed men, armed opposition group, armed rebel, armed rebel group, armed separatist, assailant, bandit, combatant, communist rebel, criminal, exiled opposition, extremist, fanatic, fighter, freedom fighter, fundamentalist muslim, gang, gangster, guerrilla, guerrilla leader, gunman, gunmen, insurgency, insurgent, insurgent force, insurgent group, insurgent leader, international terrorist, islamic extremist group, islamic front, islamic militant, islamic rebels, jalal talabani, kidnapper, kurdistan, liberation army, liberation front, liberation movement, militant, military wing, militia, moslem militant, mujahideen, muslim militant, muslim radical, mutineer, opposition forces, opposition leader, opposition supporter, paramilitary police, political wing, private army, radical leftist group, raider, rebel, rebel army, rebel base, rebel commander, rebel commando, rebel force, rebel group, rebel insurgent, rebel leader, rebel soldier, rebel source, rebellion, resistance group, resistance movement, revolt, revolutionary front, revolutionary movement, rioter, separatist, separatist guerrilla, separatist movement, separatist rebel, terrorist, terrorist group, terrorist leader, terrorist organization, the opposition, unidentified gunmen, uprising
- **Civilian:** asylum seeker, citizen, civilian, college, community, constituent, displaced people, displaced person, farm worker, farmer, immigrant, migrant, peasant, pilgrim, population, private citizen, pupil, refugee, residents, residents of the capital, school, schoolhouse, settler, student, village, villager, worshipper

#### SOUTH AFRICA (1983-1994)

- **Government:** a cabinet meeting, administration, admiral, afrikaner resistance movement, afrikaner weerstandsbeweging, agriculture minist, air force, air force chief, air unit, aircraft carrier, anti riot police, armed force, armed forces, armed patrols, armed police, armed troops, army, army chief, army chief of

staff, army intelligence, army officer, army patrol, army reserve, army staff, army unit, attack helicopters, authorities, battalion, border guard, border patrol, border security, brigadier general, bureaucracy, bureaucrat, c in c of, cabinet, cabinet minister, captain, caretaker government, carrier, central bank governor, chairman of the council of ministers, chamber, chamber of deputies, chief justice, chief minister, chief of intelligence, chief of staff, chief of state, chief of the air force, chief of the army, city mayor, civil servant, civil service, coast guard, colonel, combat aircraft, combat helicopter, combat planes, combat troops, commandant, commanding officer, commando, companies, company, constab, constituent assembly, constitutional council, constitutional court, construction minist, consul, consul general, consulate, cooperation minist, council of ministers, council of state, court judge, court justice, court official, cruiser, customs official, death squad, defence force, defence minist, defense force, defense minist, defense secretary, delegate, department of agriculture, department of civil aviation, department of education, department of foreign affairs, deputy prime minister, destroyer, dictator, diplomat, director general, district court, drug enforcement, economic minist, education minist, election commission, electoral commission, energy minist, external affairs minist, federal court, federal judge, federal police, fighter bomber, fighter jet, fighter plane, finance minist, first lieutenant, foreign affairs minist, foreign affairs ministry, foreign minist, foreign relations minist, foreign secretary, frederick willem de klerk, frigate, garrison, gendarmerie, generals, governing party, government, government commission, government delegation, government forces, government official, government representative, government soldier, government spokesman, government troops, government troops and police, governor, governor general, ground forces, ground troop, head of government, head of state, health minist, high court, high official, high ranking officer, home affairs minist, home minist, house of assembly, immigration minist, infantry, intelligence, intelligence agent, intelligence chief, intelligence information, intelligence officer, intelligence operation, intelligence service, interim government, interim president, interior minist, jet fighter, judge, judicial system, judiciary, junior officer, junta, junta forces, justice minister, justice system, labor minist, land force, landing ship, law enforcement agencies, law enforcement authorities, law enforcement officer, law minist, law officer, lawmaker, lawman, legislative assembly, legislative body, legislative chamber, legislative council, legislator, legislature, lieutenant, lieutenant colonel, major general, mayor, member of parliament, military, military adviser, military authorities, military base, military commission, military delegation, military

force, military government, military group, military intelligence, military judge, military junta, military officer, military official, military patrol, military personnel, military police, military regime, military representative, military reserve, military rule, military spokesman, military spokesmen, military transport plane, military tribunal, minist, minist for defence, minist for foreign, minist of agriculture, minist of communication, minist of defence, minist of defense, minist of economic affairs, minist of education, minist of external relations, minist of finance, minist of foreign, minist of foreign affairs, minist of health, minist of home affairs, minist of industry, minist of information, minist of interior, minist of internal affairs, minist of international trade, minist of justice, minist of law, minist of local government, minist of mines, minist of national defence, minist of planning, minist of public health, minist of public works, minist of state, minist of the interior, minist of transport, minister without portfolio, ministers of state, ministry, narcotics officer, national assembly, national council, national court, national guard, national police, national police chief, national security adviser, naval, naval base, naval officer, naval unit, navy, operative, paratroops, parliament, parliamentarian, party leader, party member, party president, peacekeeping troop, police, police captain, police chief, police commissioner, police constable, police district, police force, police officer, police officials, police personnel, police post, policeman, policemen, policewoman, political parties, politician, premier, president, presidential aide, presidential candidate, presidential palace, prime minister, prisons department, prosecutor, prosecutor general, provincial officials, provisional government, public prosecutor, public works minist, regime, regiment, regional governor, reservist, riot police, ruler, ruling coalition, ruling general, ruling junta, ruling party, second lieutenant, secret police, secretariat, security force, security officer, security official, security patrol, security personnel, serviceman, servicemen, speaker of parliament, special forces, special operations, state official, state secretary, state security council, tourism minist, transport minist, trooper, tyrant, warship

- **Rebel:** abductor, anti government force, anti government insurgent, anti government organization, armed band, armed bandit, armed gang, armed group, armed insurgency, armed insurgent, armed insurgent group, armed men, armed opposition group, armed rebel, armed rebel group, armed separatist, assailant, bandit, combatant, communist rebel, criminal, dissident soldier, exiled opposition, extremist, fanatic, fighter, freedom fighter, fundamentalist muslim, gang, gangster, guerrilla, guerrilla leader, gunman, gunmen, insurgency, insurgent, insurgent

force, insurgent group, insurgent leader, international terrorist, islamic extremist group, islamic front, islamic militant, islamic rebels, jacob zuma, jalal talabani, kidnapper, kurdistan, liberation army, liberation front, liberation movement, militant, militant wing, military wing, militia, moslem militant, mujahideen, muslim militant, muslim radical, muslim rebel, mutineer, nelson mandela, opposition force, opposition forces, opposition leader, opposition supporter, paramilitary police, political wing, private armies, private army, private security force, radical leftist group, raider, rebel, rebel army, rebel base, rebel commander, rebel commando, rebel force, rebel group, rebel insurgent, rebel leader, rebel soldier, rebel source, rebellion, resistance group, resistance leader, resistance movement, revolt, revolutionary front, revolutionary movement, rioter, separatist, separatist guerrilla, separatist movement, separatist rebel, spokesman for the opposition, terrorist, terrorist group, terrorist leader, terrorist organization, thabo mbeki, the opposition, tito mboweni, underground army, underground rebel, unidentified forces, unidentified gunmen, uprising, violent group

- **Civilian:** afrikaners, asylum seeker, citizen, civilian, college, community, constituent, displaced people, displaced person, farm worker, farmer, immigrant, migrant, peasant, pilgrim, population, private citizen, pupil, refugee, residents, residents of the capital, school, schoolhouse, settler, student, village, villager, worshipper

## 12.2 TECHNICAL SUPPLEMENT TO CHAPTER 7

### 12.2.1 NORTH CAUCASUS VIOLENT EVENTS DATA

I use a new dataset of violent incidents in the Russian North Caucasus. The panel dataset is based on weekly observations across 7,584 municipalities in 200 districts (rayons) of the seven autonomous republics of the North Caucasus, and two adjacent regions (oblasts).<sup>1</sup> The sample of villages and towns is universal, encompassing all populated places within these regions, as listed in the National Geospatial-Intelligence Agency's GEOnet Names Server (GNS). For each week

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<sup>1</sup>In alphabetical order, the republics are Adygea, Chechnya, Dagestan, Ingushetia, Kabardino-Balkaria, Karachaevo-Cherkessiya, and North Ossetia. The two oblasts are Krasnodar Kray and Stavropol Kray. The aggregated dataset includes 200 rayons  $\times$  628 weeks = 125,600 rayon-week observations.

between July 2000 and December 2011, I measured the incidence and number of violent events in each village through automated text mining of the independent Memorial Group's "Hronika nasiliya [Chronicle of Violence]" event summaries (Memorial, 2013). The date range excludes the conventional phase of the war (mid-1999 to mid-2000), and includes only the period following Russia's reoccupation of Grozny and the transition of the conflict into an irregular, guerrilla war. The conventional, urban phase of the conflict is not included in my study.

I used fuzzy string matching to geocode these violent events to the municipalities in sample, so as to account for alternate spellings in Russian and a host of local languages. The dataset includes micro-level information on the dates, geographic coordinates, participants, and casualties of episodes of political violence and other forms of unrest distributed across these geographical units.

#### 12.2.2 AUTOMATED EVENT CODING

A few words are in order about the data collection strategy and selection criteria used in support of my analysis. Since the original Memorial data are in raw text format, I used automated text analysis to mine the Memorial timeline for the dates, locations, actors involved, casualty tolls, and types of incidents. The data extraction strategy I employed differs from traditional automated approaches in several ways. First, dictionary-based event coding algorithms typically use parsing techniques or pattern recognition to code incidents in a "who-does-what-to-whom" format, of which category typologies like VRA and TABARI are prime examples (Gerner et al., 2002, King and Lowe, 2003, Schrod, 2001, Schrod and Gerner, 1994, Shellman, 2008). I opted for a somewhat simpler approach based on Boolean association rules and indexing algorithms (Han and Kamber 2001, 230-236; Kim et al. 2001). While not appropriate for all applications, this approach is far more efficient for data-mining highly structured event summaries of the sort that comprise the Memorial timeline – where all entries are of approximately the same length (1-2 sentences) and content (date, location, what happened, who was involved). Second, while various studies have shown that reliance on a single news source in



events data analysis can mask important inferences and differences in media reporting, most previous uses of events data have relied on only one news source (Davenport and Ball, 2002, Davenport and Stam, 2006, Reeves et al., 2006). The advantage of Memorial's event summaries is that they compile daily reports from international news wires, Russian state and local newspapers, news websites, radio and television broadcasts, and independent reporters, permitting a diverse approach to corpus building which reduces the risk of reporting bias.<sup>2</sup>

From these raw data, I used the Text Mining (`tm`) package in the R statistical language to assemble a corpus of 63,673 text documents, perform natural language processing (removing word order and Russian stop words) and create a document-term matrix (Feinerer, 2008, Feinerer et al., 2008). I used two custom dictionaries to code events and automatically georeference them against the U.S. National Geospatial Intelligence Agency's database of 7,584 municipalities (i.e. cities, towns, villages, and populated places) in the seven North Caucasus Republics (Dagestan, Chechnya, Ingushetia, North Ossetia, Kabardino-Balkaria, Karachaevo-Cherkesiya, Adygea) and two adjacent majority Russian regions (Stavropol and Krasnodar).

Of the 63,673 records in Memorial's timeline, 34,595 were reports of a historical nature, press statements, and other entries not addressing specific incidents of violence or their geographical locations. Of the remaining 29,078, a large subset referenced multiple events, or multiple locations – a situation that generates some risk of false positives and double counts, which I addressed in subsequent reliability tests (more on this below). In all, I identified 43,336 violent events in 7,584 municipalities between January 2000 and April 2012, representing as close to a universal sample of state and nonstate violence in Russia as open sources currently permit – compared with just 925 Russian events for the entire post-Soviet period in the Global Terrorism Database (LaFree and Dugan, 2007), 14,177 events in the North

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<sup>2</sup>A natural concern with this, like all disaggregated events datasets, is that media are more likely to report incidents located in accessible areas (Raleigh and Hegre, 2009, 234). This problem is addressed somewhat by Memorial's reliance on reports from human rights observers and local independent sources – who benefit from greater access to isolated areas than mass media organization with relatively few local ties.

Caucasus data collected by O’Loughlin and Witmer (2011) and O’Loughlin et al. (2011), and 28,102 events analyzed by Zhukov (2012a). I was able to geocode 68% of these events at the municipality level and the remainder at the rayon (district) or oblast (province) level. Because the Memorial event summaries are updated both in real time and retroactively, I narrowed the period of observation to the months for which the journalistic record is relatively complete: July 2000 - December 2011.

To classify the events into categories of theoretical interest (i.e. rebel vs. government, selective vs. indiscriminate), I adopted an “actor-tactic-target” coding scheme, with custom dictionaries for all three categories.

### 12.2.3 ACTORS

I distinguish between two meta-categories of conflict actors: insurgent (rebel) and government (incumbent). For the first of these groups, I created a dictionary of the most well-known non-state militant organizations – in Russian parlance, *nezakonnye vooruzhennye formirovaniya* (NVF), or unlawful armed groups – active in the North Caucasus between 2000 and 2012, as well as their key leadership figures and chains of command.

#### INSURGENTS

- **Armed Forces of the Chechen Republic of Ichkeria (ChRI) (1991-).** Zelimhan Yandarbiev, Aslan Mashadov, Il’jas Ahmadov, Vaha Arsanov, Turpal-Ali Atgeriev, Arbi Baraev, Movsar Baraev, Ruslan Gelaev, Achimez Gochijaev, Ahmed Zakaev, Abdul-Malik Mezhidov, Hozh-Ahmed Nuhaev, Salman Raduev, Lecha Dudaev, Rasul Makasharipov, Rappani Halilov, Il’gar Mallochiev, Umar Shejhulaev, Umalat Magometov, Ruslan Hajhoroev, Ruslan Alihadzhiev, Hunkar-Pasha Israpilov, Aslambek Abdulhadzhiev, Apti Batalov, Dalhan Hozhaev, Hizir Hachukaev, Magomed Hambiev, Aslanbek Ismailov, Adam Dekkushev, Salaudin Timirbulatov, Said-Magomed Chupalaev, Baudi Bakuev, Arbi Jovmirzaev

- **ChRI Sharia Guard** (1992-). Abdul-Malik Mezhidov, Ruslan Gelaev.
- **Islamic International Peacekeeping Brigade (IMMB)** (1998-2006). Shamil Basaev, Hattab, Abu Hafs al'Urdani.
- **Arab Mujahideen** (1995-). Hattab, Abu al'-Valid, Abu Hafs al'Urdani, Muhanad, Abdulla Kurd, Abu-Kutejb, Abu Umar, Abu Omar as-Seyf, Abu Dzejt, Yasir Amarat, Mohamad Mohamad Shabaan.
- **Caucasus Front** (2005-). Abdul-Halim Sadulaev, Doku Umarov.
  - **Dzhamaat Shariat** (Dagestan). Rasul Makasharipov, Murad Lahijalov, Rappani Halilov, Il'gar Mollachiev, Umar Shejhulaev, Umalat Magomedov, Ibragim Gadzhidadaev, Magomedali Vagabov, Israpil Velidzhanov, Ibragimhalil Daudov, Rustam Asil'derov.
    - \* **Derbent Dzhamaat**. Israpil Velidzhanov, Mehtibek Bashirov, Gasan Abdullaev.
    - \* **Dzhundullah** (Hasavyurt). Ashab Bidaev, Arslan Jegizbaev, Adam Ahmedov, Hasan Danijalov, Ruslan Makavov, Jusup Magomedov, Aslan Mamedov, Artur Shapiulaev, Danijal Zargalov.
    - \* **Kizil'yurt Dzhamaat**. Shamil' Magomednabiev, Jusup Magomedov, Magomed Dalgatov, Alibek Omarov, Temirbek Temirbekov, Gadzhimurad Dolgatov, Arsen Kuramagomedov.
    - \* **Seyfullah** (Buynaksk). Abdulgafur Zakar'jaev, Nabi Migheddinov.
    - \* **Gubden Dzhamaat** (Karabudahkent). Magomedali Vagabov, Ibragimhalil Daudov, Tajmas Tajmasov.
    - \* **Shamil'kala Dzhamaat** (Mahachkala). Shamil' Gasanov, Omar Ramazanov, Gadzhimurad Kamalutdinov, Marat Kurbanov, Alibek Abunazarov, Magomed Shejhov, Sabitbaj Amanov, Abdulla Magomedaliev, Zulpukarov Jel'dos, Gusejn Mamaev.
    - \* **Gimry Dzhamaat**. Ibragim Gadzhidadaev.

- \* **Levash Dzhamaat.** Rabbani, Zaypulla Gazimagomedov.
- \* **Kadar Dzhamaat.** Ismail Ichakaev, Dzhamaltin Dzhavatov, Jahja Aslanov, Badrudin Salimov, Dzhamal Abuev.
- \* **Shuaybkala Dzhamaat.** Sheykh Abdusalam.
- \* **Kadar Dzhamaat.** Mahach Idrisov, Rustam Gasanov.
- **Dzhamaat Yarmuk** (Kabardino-Balkaria). Muslim Ataev, Rustam Bekanov, Artur Mukozhev, Adamej Dzhappuev, Anzor Astemirov, Asker Dzhappuev, Alim Zankishiev, Timur Tatchaev, Ruslan Batyrbekov.
  - \* **Baksan Dzhamaat.** Kazbek Tashuev.
- **Dzhamaat Galgayche** (Ingushetia). Il'jas Gorchhanov, Ahmed Yevloev, Ali Taziev, Ilez Gardanov, Isa Hashagul'gov, Dzhamalejl Mutaliev, Adam Cyzdoev
- **Muslim Society No. 3** (Karachaevo-Cherkessia). Adam Semyonov, Magomed Bidzhiev, Ramazan Borlakov, Achemez Gochiyaev, Ruslan Hubiev, Bagautdin Kebedov..
- **Nogay Battalion** (Stavropol' Kray). Amir Azhmambetov, Amir Ali Aminov, Rasul Tambulatov, Ulubi Elgushiev.
- **Kataib al-Houl** (North Ossetia). Alan Digorsky.
- **Adygey Sektor** (Adygea).
- **Krasnodar Sektor** (Krasnodar Kray).
- **Caucasus Emirate** (2007-). Doku Umarov, Supyan Abdullayev, Ahmed Yevloyev, Anzor Astemirov, Muhannad, Said Buryatskiy, Hussein Gakayev, Aslambek Vadalov, Tarkhan Gaziyev, Usman Mintsigov.
  - **Vilayat Dagestan.** Umalat Magomedov.
  - **Vilayat Nohchiycho** (Chechnya). Aslambek Vadalov, Tarkhan Gaziyev, Alsan Izrailov, Islam Uspahadjiev, Zaurbek Avdorhanov, Rahman Shabanov, Mahran Saidov, Muslim Gakaev.

- **Vilayat Galgayche** (Ingushetia). Ahmed Yevloyev.
- **Vilayat of Kabarda, Balkar and Karachay**. Anzor Astemirov, Ratmir Shameev.
- **Vilayat Cherkessia** (Adygea, Krasnodar Krai, parts of Karachaevo-Cherkessia).
- **Vilayat Nogay** (Stavropol' Krai).

#### GOVERNMENT

I compiled a similar actor dictionary for government forces:

- **Joint Task Force for Counterterrorist Operations** (1999-). Viktor Kazancev, Gennadij Troshev, Aleksandr Baranov, Valeriy Baranov, Vladimir Moltenskiy, Sergey Makarov, Mihail Pan'kov, Vjacheslav Dadonov, Evgeniy Lazebin, Evgeniy Barjaev, Yakov Nedobitko, Nikolay Sivak, Sergej Melikov.
- **Ministry of Defense**.
  - **Ground Forces** (SV).
  - **Airborne Forces** (VDV).
  - **Special Purpose** (Spetznaz).
    - \* **Main Intelligence Directorate** (GRU).
    - \* **Airborne Forces** (45th Separate Reconnaissance Regiment).
- **Ministry of Interior** (MVD)
  - **Interior Troops** (VV).
  - **Special Rapid Response Units** (SOBR).
  - **Special Purpose Police Forces** (OMON).
  - **Main Directorate of Road Traffic Safety** (GIBDD/GAI).
  - **Directorate for Organized Crime** (UBOP).

- **Regional and Municipal Departments of Internal Affairs** (GUVD/ROVD).
- **Intelligence and Security Forces**
  - **Federal Security Service** (FSB).
    - \* **Group “Alpha”**.
    - \* **Group “Vypel”**.
  - **Federal Border Service** (FPS).
  - **Federal Drug Control Service** (FSKN).
- **Republic of Chechnya (pro-Moscow)** (2003-). Ahmat Kadyrov, Alu Alhanov, Ramzan Kadyrov, Umar Avturhanov, Doku Zavgaev, Ruslan Labazanov, Sulim Yamadaev, Dzhabrail Yamadaev, Ruslan Jamadaev, Said-Magomed Kakiev, Bislan Gantamirov.
  - **Battalion “Vostok” (East)**. Sulim Yamadaev, Dzhabrail Yamadaev.
  - **Battalion “Zapad” (West)**. Said-Magomed Kakiev.
  - **Presidential Guard** (Kadyrovtsy). Ramzan Kadyrov.
    - \* **Battalion “Yug” (South)**. Anzor Magomadov.
    - \* **Battalion “Sever” (North)**. Alimbek Delimhanov.

#### 12.2.4 TACTICS

I distinguish between two meta-categories of targets: insurgent tactics (including guerrilla tactics and terrorism) and government counterinsurgency tactics. Within the second of these groups, I sought to distinguish between selective and indiscriminate violence.

- **Insurgent tactics.** Bombing (vehicle-borne, roadside, suicide), light arms fire, rocket-propelled grenade attack, terrorist attack, ambush, hit-and-run, drive-by shooting, ethnic cleansing, hostage-taking, abduction, kidnapping.

- **Government tactics: selective.** Arrest, light arms fire, weapons cache seizure, interdiction, abduction.
- **Government tactics: indiscriminate.** Air strike, artillery shelling, armored assault, cordon-and-search (*zachistka*), weapons of mass destruction, counter-terrorism operation (KTO).<sup>3</sup>

#### 12.2.5 TARGETS

I distinguish between three meta-categories of targets for attack: civilian, rebel and government.

- **Civilian.** Women, children, elderly, hospitals and clinics, primary and secondary schools, universities, wedding parties, funeral processions, sporting events, farms, tourists, shops, restaurants, gas stations, markets, construction sites, factories, power stations, truck stops, hotels, private homes, banks, law offices, journalists.
- **Rebel.** Rebel units (associated with any of the groups above listed), leadership figures, base camps, rebel checkpoints.
- **Government.** Police checkpoints and roadblocks, military forces, law enforcement and military personnel, municipal and republican administration officials, legislators, judges, prosecutors.

I divided cases of government violence into ones where authorities employed only selective tactics like arrests, assassinations, kidnappings, and ones where they employed indiscriminate methods like artillery shelling, aerial bombardment and cordon-and-search operations.

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<sup>3</sup>KTO is defined in Russian law as “a combination of special-purpose, operational, combat and other measures involving military hardware, weapons and special means to prevent a terrorist act, neutralize terrorists, provide security to physical persons, organizations and institutions, as well as minimizing the consequences of a terrorist act,” Federal Law of Russian Federation from 6 March 2006, No. 35-F3, “On countermeasures to terrorism.”

**Selective:** Event must involve at least one of the following *actors*: Joint Task Force, Ministry of Defense (ground forces, airborne, spetsnaz), Ministry of the Interior (VV, SOBR, OMON, GIBDD, UBOP, republican and municipal ministries), FSB, FPS, FSKN, pro-Russian Chechen security forces; **and** at least one of the following *actions*: arrest, light arms fire, weapons cache seizure, interdiction, abduction.

*Example:* At 5:00 in the village of Achhoy-Martan, service-members from the district ROVD and the Chechen Republic's OMON jointly carried out a special operation to capture suspected militants. As a result, two suspects were killed, one was wounded and captured. There were no casualties among the civilian population or security forces. [Event ID: 13372; Date: 20050320] (translated from Russian)

**Indiscriminate:** Event must involve at least one of the following *actors*: Joint Task Force, Ministry of Defense (ground forces, airborne, spetsnaz), Ministry of the Interior (VV, SOBR, OMON, GIBDD, UBOP, republican and municipal ministries), FSB, FPS, FSKN, pro-Russian Chechen security forces; **and** at least one of the following *actions*: air strike, artillery shelling, armored assault, cordon-and-search, weapons of mass destruction, KTO, ethnic cleansing, other bombing.

*Example:* On 5 February after 9:00 an artillery strike was carried out on the village Alkhan-Kala, Groznenskiy district. With varying degrees of intensity, munitions continued to explode over the population center for no less than two hours. As a result of the artillery strike, six people were wounded. In the eastern section of the village, immediately adjacent to the city of Grozny, over ten homes were damaged. [Event ID: 1075; Date: 20010205] (translated from Russian)



#### 12.2.6 RELIABILITY OF AUTOMATED EVENT CODING

The reliability of content analysis as a data collection method can be separated into three components: (1) consistency, (2) replicability, and (3) accuracy (Weber, 1990, 17). While previous events datasets for the North Caucasus have relied on hand-coding of newspaper articles and incident reports (Lyll, 2009, 2010), there are several advantages to the automated approach employed here. Foremost among these advantages are consistency and replicability. Hand-coded event data collection is extremely labor-intensive, involving months of tedious and painstaking work by large teams of undergraduate research assistants (King and Lowe, 2003, 618). Even with experienced coders following well-defined tasks and classification rules, inter-coder reliability can be notoriously low (Mikhaylov and Benoit, 2008). Humans have limited working memories and tend to rely on heuristics, resulting in informal, subjective and ad hoc decisions, not to mention broader risks associated with fatigue, inattention and prior knowledge of hypotheses (Grimmer and King, 2009, 4-5).

Automated coding is no panacea; it also requires a deep working knowledge of the subject matter in the construction of coding rules, and a considerable – though nowhere near as onerous – time investment in data collection, pre-processing and programming. Once these coding rules are established, however, the consistency of machine coding becomes 100% since the program is executing a fixed algorithm (Schrodt and Gerner, 1994). The replicability of the codings across two or more machines – given the same set of rules, actor/action dictionary and corpus of texts – is similarly high. Further, automated coding is not subject to errors induced by the context of an event, political or cultural biases, fatigue or boredom.

Automated coding methods have been shown to produce results at least as accurate as hand coding but with complete consistency, replicability and more randomness in the errors (King and Lowe, 2003, Schrodt and Gerner, 1994). Whereas bias in the errors can create bias in the results, randomness in errors will tend to attenuate the results, not improve them. The Boolean matching approach uses in this paper capitalizes on the highly structured form of the coded texts – short, two-three

sentence incident reports, which have a limited vocabulary and narrow substantive focus. Methods like TABARI and VRA Reader assume little to no structure in the text, thereby opening themselves to additional sources of error. If the assumptions about the nature of the texts are correct, the Boolean matching approach is likely not only to match the coding accuracy of TABARI and VRA Reader but actually exceed it.

The most common types of inaccurate codings in automated events extraction (i.e.: incorrect dates, geocodings or event types) usually occur due to unusually-structured sentences, unrecognized terms not included in the dictionary, or references to historical events (Schrodt, 2001). The first of these was addressed in part by selecting the highly-structured Memorial event summaries as the text corpus (see examples above). The second problem, usually induced through the use of off-the-shelf coding dictionaries, was addressed in the dictionary design phase. Rather than use a pre-existing list of terms that may or may not be in the text, I adopted an *ex-post* dictionary construction technique, in which the system generated a list of most-frequent terms (and permutations thereof) included in the Memorial summaries, and the dictionary lists of relevant political actors, actions, targets and place names were constructed based on this list.<sup>4</sup> This approach enables the fine-tuning of coding rules to the substantive domain of the texts, informed by prior knowledge of what sorts of events can be coded accurately.

While the approach taken here was designed to avoid many of the systematic sources of bias and error common to human coding and certain categories of automated coding, I performed a series of checks to assess the accuracy of the automated event codings and matchings to geographic place names and dates. Apart from examining the face validity of the data through a visual inspection of their spatio-temporal distribution,<sup>5</sup> I sought to determine whether some individual events

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<sup>4</sup>Due the complexities of Russian grammar, I did not use stemming as part of natural language processing. This enabled me to distinguish between various grammatical permutations of location and actor names in the construction of the dictionary.

<sup>5</sup>Most analysts of the region – Russian and Western, qualitative and quantitative – have described an increasingly diffuse pattern of violence. A conflict which, until the consolidation of power in Chechnya by the Kadyrov family in 2004-2005, was largely limited to Chechnya, has in recent years spread to neighboring regions, particularly Dagestan, Ingushetia and Kabardino-

may be mis-coded due to references to historical events, odd phrasings or other problems that could be more easily detected and avoided by a human coder with subject matter expertise. While, due to the many sources error described above, I should be wary of treating any human codings as a “gold standard,” a basic comparison of the two types of measures can serve as a useful “sanity check.” With this reasoning, I performed the following procedure multiple times: a set of 50 event summaries were randomly selected from the corpus, and hand-coded according to their location, date, and event type. The human event coding rules used were the same as the machine rules outlined above. The human codings were then compared against the automated codings, and the level of agreement was calculated as the proportion of event summaries where the two sets of codings were identical. If the level of agreement fell below .9 (more than five disagreements out of 50), the set of events was then manually inspected to determine the source of disagreement.

If the source of disagreement was determined to be systematic, I modified the coding procedure to flag such potential problems for manual inspection with a dummy variable called “INSPECT.” For instance, in the case of miscodings of paramilitary units’ home bases as locations of events – as in “Novgorodskiy OMON” – I set INSPECT=1 if a location name was followed or preceded by a term representing a political actor in an event summary.<sup>6</sup> To address historical references directly, I set INSPECT=1 if more than one date, month or year was mentioned in a summary, or if more than one location was mentioned in a summary. This procedure also helped me distinguish between cases where event summaries included references to multiple simultaneous events (e.g. “air strikes were carried out on March 13 in

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Balkaria (Kramer, 2004, 2005, Kuchins et al., 2011, Malashenko and Trenin, 2002, O’Loughlin and Witmer, 2011, Sagramoso, 2007, Souleimanov, 2007, Vendina et al., 2007). My data largely support these narratives. In 2000-2002, fighting was mostly confined to the Chechen Republic, with occasional rebel incursions into neighboring republics and majority-Russian areas, like Stavropol Kray. Following a spike in violence in 2004-2005 (after the assassination of Akhmat Kadyrov), violent attacks became less frequent, but covered a broader swath of territory. Attacks in Ingushetia and Dagestan became more common, while Chechnya became more calm.

<sup>6</sup>This procedure was performed through string operations on the original text, rather than the “bag of words” representation of the text following the removal of stop words and the discarding of word order.

villages A, B and C”), as opposed to event summaries that made references to a single current event and one or more historical events (e.g. “an air strike was carried out on May 15 in village A. This operation marks the first series of air strikes in the area since March 13.”) The goal here was to minimize the risk of double-counts and false positives, while avoiding false negatives that would result from mistaking multiple events for historical references.

I then performed a manual inspection of all cases where INSPECT=1 (originally, 24% of the events), and corrected the codings by hand where deemed necessary. I then selected another 50 event summaries at random, and repeated the entire procedure (a total of 7 times) until the level of agreement exceeded .9 for three consecutive sets of 50. Only after I became convinced that the accuracy of individual event codings approached those of a human subject matter expert (>.9), did I aggregate the events to the level of district-week as described in detail below.

#### 12.2.7 VARIABLE DESCRIPTIONS FOR AGGREGATED DATA

##### GEOGRAPHIC LOCATIONS AND DATES

**Case ID (rayon-week) (RWID)** Unique identifier for rayon-week observation. Use for sorting data, creation of time lags.

**Time ID (week) (WID)** Unique identifier for each week.

**Year (YEAR)** Year of observation.

**Month (MONTH)** Month of observation.

**Date (YRMO)** Year-month of observation, in format YYYYMM.

**Unit ID (RID)** Unique identifier for rayon.

**Rayon ID (RAYON\_ID)** Unique identifier for rayon (alternate).

**Rayon Name (RAYON\_NAME)** Name of rayon.

**Region ID (OBLAST\_ID)** Unique identifier for region (republic, *kray* or *oblast*).

**Region Name (OBLAST\_NAM)** Name of region (republic, *kray* or *oblast*).

**Region Name 2 (OBLAST\_NM2)** Simplified name of region (republic, *kray* or *oblast*).

**Latitude (LAT)** Use UTM 38N or UTM 39N for projected coordinate system, WGS84 for geographic coordinate system.

**Longitude (LONG)** Use UTM 38N or UTM 39N for projected coordinate system, WGS84 for geographic coordinate system.

#### 12.2.8 CONFLICT DYNAMICS

##### INSURGENT VIOLENCE

**Insurgent violence (count) (INS\_ALL)** total number of episodes of insurgent violence of any type, observed in rayon  $i$  during week  $t$

**Insurgent violence (binary) (INS\_ALL . b)**

$$\begin{cases} 1 & \text{if at least one episode of insurgent violence} \\ & \text{was observed in rayon } i \text{ during week } t \\ 0 & \text{otherwise} \end{cases}$$

**Insurgent violence (count, time lagged) (L\_INS\_ALL)** number of total episodes of insurgent violence, observed in rayon  $i$  during week  $t - 1$ .

**Insurgent violence (binary, time lagged) (L\_INS\_ALL . b)**

$$\begin{cases} 1 & \text{if at least one episode of} \\ & \text{insurgent violence was observed} \\ & \text{in rayon } i \text{ during week } t - 1 \\ 0 & \text{otherwise} \end{cases}$$

##### GOVERNMENT VIOLENCE

**Selective counterinsurgency tactics (count) (GOV\_SEL)** number of government-initiated counterinsurgency operations involving selective tactics, observed in rayon  $i$  during week  $t$ .

**Selective counterinsurgency tactics (binary) (GOV\_SEL . b)**

$$\left\{ \begin{array}{l} 1 \quad \text{if at least one selective COIN} \\ \quad \text{operation was observed} \\ \quad \text{in rayon } i \text{ during week } t \\ 0 \quad \text{otherwise} \end{array} \right.$$

**Indiscriminate counterinsurgency tactics (count) (GOV\_IND)** number of government-initiated counterinsurgency operations involving indiscriminate tactics, observed in rayon  $i$  during week  $t$ .

**Indiscriminate counterinsurgency tactics (binary) (GOV\_IND . b)**

$$\left\{ \begin{array}{l} 1 \quad \text{if at least one indiscriminate} \\ \quad \text{COIN operation was observed} \\ \quad \text{in rayon } i \text{ during week } t \\ 0 \quad \text{otherwise} \end{array} \right.$$

#### 12.2.9 CONTROL VARIABLES

**Global suicide terrorism (GTD\_SUICIDE)** Number of suicide terrorist attacks that occurred during week  $t$  outside Russia.

**Muslim holiday (HOLIDAY)**

$$\left\{ \begin{array}{l} 1 \quad \text{if week } t \text{ falls on a Muslim holiday} \\ 0 \quad \text{otherwise} \end{array} \right.$$

Holidays included: Al-Hijra (Islamic New Year), Laylat al-Qadr, Mawlid an Nabi, Isra and Mi'raj, Ramadan (all month), Laylat al-Qadr, End of Ramadan (Eid ul-Fitr), Arafat (Haj) Day, Eid al Adha.

**Chechen Republic of Ichkeria (ChRI) holiday (HOLIDAY\_CHRI)**

$$\left\{ \begin{array}{l} 1 \quad \text{if week } t \text{ falls on a ChRI holiday} \\ 0 \quad \text{otherwise} \end{array} \right.$$

Official ChRI holidays include Tolaman denosh (Victory Day), Day of Chechen National Rebirth (Deportation), ChRI Constitution Day, Glazotan de (Shahid

Memorial Day), War's End Day, Caucasian Rebirth Day, Jihad Day, Independence Day, and Russian Withdrawal Day.

**Population density (POP)** Average population per square kilometer of villages in rayon.

**Elevation (ELEVATION)** Average elevation of villages in rayon, in meters. Sea level = 0.

**Slope (SLOPE)** Average slope of terrain in villages in rayon, in degrees. Zero represents flat terrain; 90 represents a vertical slope.

**Forest (FOREST)** Percent forest cover in rayon.

**Percent Russian speaking (LANGUAGE)** Percent of fluent Russian speakers in rayon.

**Deported in 1944 (DEPORTED)** Percent of villages in rayon deported to Central Asia in 1944.

**Distance to nearest military base (DIST\_MIL)**  $1/N \sum_j \min_k d_{jk}$ , the average road distance (in kilometers) between all villages  $j$  in rayon and their closest military facility  $k$ .

**Distance to nearest international border crossing (CHKINT\_NEAR)**  
 $1/N \sum_j \min_m d_{jm}$ , the average road distance (in kilometers) between all villages  $j$  in rayon and the closest border crossing  $m$ .

**Distance to oil pipeline (DIST\_PIPES)**  $1/N \sum_j \min_l d_{jl}$ , the average road distance (in kilometers) from all villages  $j$  in rayon and the closest oil pipeline  $l$ .

**Distance to nearest refugee camp (REFUGEE\_MIN)**  $1/N \sum_j \min_r d_{jr}$ , the average road distance (in kilometers) from all villages  $j$  in rayon and the closest refugee camp  $r$ .

**Table 12.2.1: Summary statistics.** Unit of analysis: district-week.

Variable	Range	Median	Mean	Std.Dev.
Gov't Violence (all)	[0, 44]	0	0.18	1.047
Gov't Violence (selective)	[0, 35]	0	0.089	0.581
Gov't Violence (indiscriminate)	[0, 28]	0	0.092	0.615
Gov't Violence (all, binary)	[0, 1]	0	0.07	0.254
Gov't Violence (selective, binary)	[0, 1]	0	0.045	0.208
Gov't Violence (indiscriminate, binary)	[0, 1]	0	0.044	0.205
Population density	[1.101, 10442]	130.1	719.7	1618.7
Forest	[0, 0.95]	0.058	0.152	0.22
Elevation	[-16.5, 1989.1]	218.6	461.1	534.5
Slope	[0, 16.538]	1.4	3.1	3.9
Global suicide terrorism	[0, 16]	2	2.6	2.8
Distance to border crossing	[15.2, 417.2]	182.7	185.7	89.5
Deported in 1944	[0, 1]	0	0.2	0.4
Percent Russian speaking	[30, 95]	86.8	79.0	16.3
Distance to oil pipeline	[0.3, 123.5]	18.3	29.5	28.1
Distance to nearest refugee camp	[2.6, 232.1]	56.4	68.1	49.8
Distance to military base	[0.1, 152.9]	51.3	54.2	31.1
Muslim holiday	[0, 1]	0	0.197	0.398
ChRI holiday	[0, 1]	0	0.159	0.366

12.2.10 SUMMARY STATISTICS



## 12.3 TECHNICAL SUPPLEMENT TO CHAPTER 8

### 12.3.1 ROBUSTNESS CHECKS

To exploit the micro-level variation in the data, I followed existing studies on civil war and aggregated atomic-level events into artificial spatial cells (Buhaug and Rod, 2006, Hegre et al., 2009, Schutte and Weidmann, 2011). Although standard practice in conflict research has been to divide a study region into a regular grid cells of a fixed size (e.g. 50km × 50km), I performed the analysis using an ensemble of spatial resolutions, from a minimum of 5km × 5km to a maximum of 100km × 100km. This approach helps to ensure that my results are not driven by the selection of an arbitrary geographic scale. More importantly, a variable spatial resolution enables inferences about the local and regional impact of disarmament – as well as local vs. regional incentives to use disarmament in the first place. An additional rationale is that administrative boundaries in the Caucasus were frequently changing during this period, sometimes in a manner endogenous to the fighting – such as the deportation of Terek Cossacks and subsequent transfer of their lands to Chechens (Zhupikova, 2006). The use of synthetic spatial units helps to minimize the inference challenges associated with these developments.

I took a similar approach with regard to temporal resolution. For each counterinsurgency case in a locality (as defined by cell size), I recorded the number of rebel attacks observed within a given temporal treatment window before and after the government's operation. The size of this treatment window varied from a minimum of one week to a maximum of six months. This approach permits the evaluation of the immediate and longer-term consequences of disarmament, as well as the immediate and longer-term incentives for its use.

Although most applied research seeks to achieve balance across pre-treatment covariates with a single matching solution, I followed King et al. (2011) in employing a more extensive search across multiple matching designs, in an effort to simultaneously maximize covariate balance between treatment and comparison groups and the size of the matched sample. Specifically, I began with a set of four com-

mon matching methods – propensity scores (PS),<sup>7</sup> Mahalanobis distance (MD),<sup>8</sup> and genetic matching with and without a nested propensity score model (GMPS, GM)<sup>9</sup> – and applied each to the data at various levels of spatial and temporal aggregation. This approach has a dual purpose. First, it enables me to select a matched sample that minimizes selection bias while maximizing statistical leverage. Second, if results are generally consistent across all or most iterations, I can be reasonably confident that the disarmament effect is not an artifact of the underlying assumptions of any one matching technique.

As with the level of aggregation and choice of matching methods, I applied an iterative approach for the selection of an optimal propensity score model. While the preceding enumeration of covariates is theory-driven, a “kitchen sink” regression of disarmament on all of them is not a very efficient way to model selection into treatment: some of the variables may be stronger predictors than others, some may overlap, and others may influence the probability of disarmament in non-linear, or non-additive ways. Since the purpose of a propensity score model is, above all, to predict treatment selection with a high degree of accuracy given a set of observed covariates, misspecification can be highly consequential in subsequent stages of the analysis. To avoid such problems, I ran a logistic regression model of disarmament on over 92,000 combinations of the covariates in Figure 8.3.1. To allow for more complex relationships, I included smoothed functions of variables among the potential candidates.<sup>10</sup> The optimal model was selected as one with the best in-sample predictive accuracy and goodness of fit, and the lowest degree of multi-

<sup>7</sup>PS minimizes the univariate distance between the propensity scores  $D_{PS}(X_i, X_j) = |P(T_i = 1|X_i) - P(T_j = 1|X_j)|$  of two observations  $X_i$  and  $X_j$ , where  $P(T_i = 1|X_i)$  is the conditional probability that observation  $i$  assigned to treatment, given observed pre-treatment covariates  $X_i$ .

<sup>8</sup>MD minimizes the multivariate distance between two observations  $X_i$  and  $X_j$  using  $D_M(X_i, X_j) = \sqrt{(X_i - X_j)' \mathbf{S}^{-1} (X_i - X_j)}$  where  $\mathbf{S}$  is the sample variance-covariance matrix.

<sup>9</sup>GM uses a genetic search algorithm to search over a space of distance metrics, minimizing  $D_G(X_i, X_j) = \sqrt{(X_i - X_j)' (\mathbf{S}^{-\frac{1}{2}})' \mathbf{W} \mathbf{S}^{\frac{1}{2}} (X_i - X_j)}$ , where  $\mathbf{W}$  is a  $k \times k$  positive definite weight matrix and  $\mathbf{S}^{\frac{1}{2}}$  is the Cholesky decomposition of the sample variance-covariance matrix. GMPS includes a vector of propensity scores  $P(T = 1|X)$  among the covariates on which balance is sought (Sekhon and Diamond, 2012).

<sup>10</sup>For instance, the geographic coordinates of a locality could enter the model additively (i.e.  $LAT_i + LONG_i$ ) or as a spatial spline (i.e.  $f(LAT_i, LONG_i)$ ).

collinearity.<sup>11</sup> Optimal choices varied by level of aggregation, but the average predictive accuracy in models selected for matching was  $AUC = 0.968$ . This number has the following interpretation: given a randomly selected pair of treated and non-treated observations, the model will assign a higher propensity score to the treated unit with a probability of 0.968.

The full ensemble of matching solutions is shown in Figure 12.3.1, with the number of matched pairs on the horizontal axis and level of imbalance on the vertical axis.<sup>12</sup> A total of 1,650 matching solutions is presented, using each of four methods (PS, MD, GM and GMPS, the first two with and without calipers), at eleven spatial scales and 25 temporal scales. Following King et al. (2011), I selected an optimal matching solution from the cluster on the lower-left corner of the plot, such that no other solution appears to its left or bottom. This solution was Genetic matching with a nested propensity score model,<sup>13</sup> with data aggregated as a  $5\text{km} \times 5\text{km}$  grid and a treatment window of  $\Delta t = 15$  weeks. The total number of matched pairs was 238.

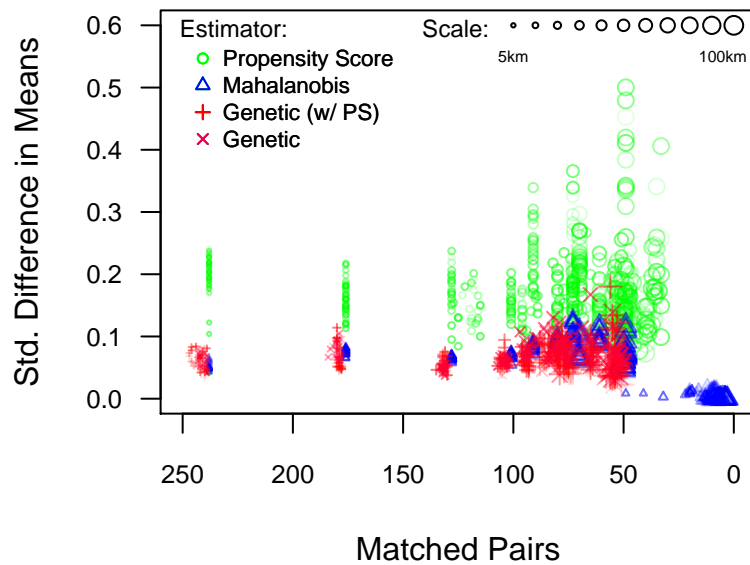
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<sup>11</sup>I measured predictive accuracy as the area under the receiver-operator characteristic curve (AUC), goodness of fit using the Akaike Information Criterion (AIC), and multicollinearity using a combination of maximum pairwise variable correlation and the Variance Inflation Factor (VIF).

<sup>12</sup>The imbalance metric used was average standardized difference in means, or  $\text{Imbalance}_m = \frac{1}{K} \sum_k \frac{\bar{x}_k^{T(m)} - \bar{x}_k^{C(m)}}{\sigma(x_k^{T(m)})}$ , where  $m$  indexes the matching solution and  $k$  indexes pre-treatment covariates.

<sup>13</sup>The propensity score model used was  $\{\text{Disarmament} = \text{logit}^{-1}[\beta_0 + \beta_1 \text{Russian} + \beta_2 \text{Percent Urban} + \beta_3 \log(\text{Population}) + \beta_4 \text{Females per 1,000 Males} + \beta_5 \text{Border} + \beta_6 \text{Prior rebel activity} + \beta_7 \text{Prior Disarmament} + \beta_8 \text{Year} + f(\text{Month}) + f(\text{Long, Lat}) + \varepsilon]\}$ , where  $f()$  is a thin-plate spline.

**Figure 12.3.1:** ENSEMBLE OF MATCHING SOLUTIONS. Solutions closest to bottom-left corner are optimal. Size of points proportional to scale of geographic aggregation. Transparency proportional to temporal scale (more opaque = larger).



## 12.4 TECHNICAL SUPPLEMENT TO CHAPTER 9

### 12.4.1 SOVIET COUNTERINSURGENCY DATA

The following section provides summary statistics for the dataset used in the empirical section of the main text. The data are based on declassified incident reports from central, regional and local organs of the NKVD and Communist Party of Ukraine, and collections of OUN-B/UPA documents captured by the Soviets or independently released (see Table 12.4.1). The raw data include information on the locations, dates, casualties and tactics used in 17,171 violent events recorded between 1943 and 1955, including 6,190 rebel attacks and 10,981 government operations. 997 of the government events involved NKVD-led (after 1946, MVD and MGB) deportations of individuals and families from their home villages to “special settlements” in Siberia, Northern Russia or other Ukrainian provinces. The remaining government events were more conventional counterinsurgency operations like raids, sweeps, ambushes and pursuits.

The overwhelming majority of government events involved the NKVD and other internal security organs, although various stages of the conflict also saw combat by Soviet partisans, Red Army infantry and counter-intelligence units (i.e. SMERSH, or “Death to Spies”), and local “extermination battalions” comprised of local residents and UPA defectors.

I report summary statistics for three version of this dataset:

1. PANEL DATASET, which aggregates the events to the level of a district (*rayon*)-week.<sup>14</sup> Rayons are second-tier administrative units, roughly equivalent to a U.S. county, and are politically relevant as the geographic units of organization of the NKVD’s District Departments of Internal Affairs (ROVD). Each district contains as few as 2 and as many as 82 villages, with an average of 22.

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<sup>14</sup>94.93% of events were geocoded to the village level, 97.96% to the district level and 98.65% to the oblast level. The census of 759 districts was ascertained from official Soviet military maps and annual geographic reference volumes from 1941-1955 (Presidium of Supreme Soviet of USSR, Information-Statistical Division, 1941, 1946, 1954).

2. COUNTERINSURGENCY DATASET (pre-matching), which includes a sample of 5,208 observations in which the Soviets used force at least once in a given district-week.
3. COUNTERINSURGENCY DATASET (post-matching), which includes a sample of 160 pair of treated (resettlement used) and comparison (resettlement not used during counterinsurgency operation) cases, selected from the COUNTERINSURGENCY DATASET (pre-matching) dataset using propensity score matching.

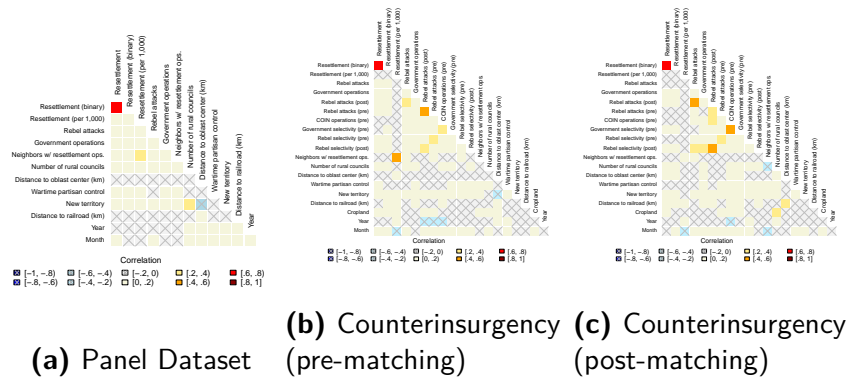
**Table 12.4.1:** MAIN ARCHIVAL DATA SOURCES

ARCHIVE	ABBREVIATION	FOND	OPIS'
Russian State Military Archive	RGVA	38650	1
State Archives of the Russian Federation	GARF	9478c	1
Central State Archive of Public Organizations of Ukraine	TsDAGO	1	3
Central State Archive of Public Organizations of Ukraine	TsDAGO	1	17
Central State Archive of Public Organizations of Ukraine	TsDAGO	1	23
Central State Archive of Public Organizations of Ukraine	TsDAGO	1	24
Central State Archive of Public Organizations of Ukraine	TsDAGO	62	1
Central State Archive of Public Organizations of Ukraine	TsDAGO	62	3
Central State Archive of Public Organizations of Ukraine	TsDAGO	62	22
Central State Archive of Public Organizations of Ukraine	TsDAGO	62	23
Central State Archive of Public Organizations of Ukraine	TsDAGO	62	29

**Table 12.4.2:** SUMMARY STATISTICS: PANEL DATASET.  
 Unit of analysis: district-week.  $N = 514,602$  (759 districts, 678 weeks).

	Min	Max	Mean	Median	Std.Dev
Resettlement	0	555	0.229	0	8.617
Resettlement (binary)	0	1	0.002	0	0.043
Resettlement (per 1,000)	0	80.417	0.017	0	0.696
Rebel attacks	0	26	0.012	0	0.159
Government operations	0	35	0.021	0	0.347
Neighbors w/ resettlement ops.	0	1	0.002	0	0.029
Number of rural councils	2	82	22.024	21	8.469
Distance to oblast center (km)	0	612	122.672	100	95.748
Wartime partisan control	0	1	0.159	0	0.366
New territory	0	1	0.315	0	0.464
Distance to railroad (km)	0	95	11.756	5	15.088
Year	1943	1955	1949.004	1949	3.739
Month	1	12	6.529	7	3.446

**Figure 12.4.1:** CORRELATION MATRICES.



**Table 12.4.3:** SUMMARY STATISTICS: COUNTERINSURGENCY DATASET (PRE-MATCHING).

Unit of analysis: government resettlement/counterinsurgency operation.  $N = 5,208$ .

If more than one operation occurred in a district-week, they were collapsed into a single observation.

	Min	Max	Mean	Median	Std.Dev
Resettlement	0	536	2.128	0	28.772
Resettlement (binary)	0	1	0.013	0	0.114
Resettlement (per 1,000)	0	80.417	1.710	0	6.702
Rebel attacks	0	6	0.129	0	0.480
Government operations	0	35	0.313	0	1.450
Rebel attacks (post)	0	28	1.558	0	2.559
Rebel attacks (pre)	0	30	1.700	1	2.728
COIN operations (pre)	0	130	5.785	2	11.130
Government selectivity (pre)	0	1	0.438	0	0.471
Rebel selectivity (pre)	0	1	0.204	0	0.352
Rebel selectivity (post)	0	1	0.180	0	0.331
Neighbors w/ resettlement ops.	0	1	0.071	0	0.206
Number of rural councils	7	82	25.563	25	8.070
Distance to oblast center (km)	0	331	61.063	57	37.489
Wartime partisan control	0	1	0.155	0	0.362
New territory	0	1	0.982	1	0.132
Distance to railroad (km)	0	70	6.634	1	11.243
Cropland	0	1	0.825	1	0.380
Year	1943	1955	1947.170	1947	2.228
Month	1	12	6.127	6	3.306



**Table 12.4.4:** SUMMARY STATISTICS: COUNTERINSURGENCY DATASET (POST-MATCHING).

Unit of analysis: government resettlement/counterinsurgency operation.  $N = 320$ .

	Min	Max	Mean	Median	Std.Dev
Resettlement	0	224	1	0	13.253
Resettlement (binary)	0	1	0.009	0	0.097
Resettlement (per 1,000)	0	80.417	3.930	0.134	9.350
Rebel attacks	0	4	0.131	0	0.443
Government operations	0	7	0.263	0	0.899
Rebel attacks (post)	0	13	1.384	0	2.180
Rebel attacks (pre)	0	14	1.663	1	2.170
COIN operations (pre)	0	61	5.109	1	9.542
Government selectivity (pre)	0	1	0.375	0	0.458
Rebel selectivity (pre)	0	1	0.233	0	0.375
Rebel selectivity (post)	0	1	0.171	0	0.327
Neighbors w/ resettlement ops.	0	1	0.170	0	0.340
Number of rural councils	7	49	23.891	24	7.615
Distance to oblast center (km)	0	167	54.691	50	34.549
Wartime partisan control	0	1	0.191	0	0.393
New territory	0	1	0.997	1	0.056
Distance to railroad (km)	0	70	5.016	0	9.313
Cropland	0	1	0.797	1	0.403
Year	1944	1953	1946.900	1946	2.109
Month	1	12	5.494	5	3.102

#### 12.4.2 REGRESSION TABLES

The following section reports regression output used for

- Figures 9.3.1 and 9.3.2 (main text) and the propensity score matching model (Appendix Table 12.4.5)
- the negative binomial regression models used to calculate incidence rate ratios in Table 3 (main text) (Appendix Table 12.4.7)
- expected values in Figure 9.4.1 (main text) (Appendix Table 12.4.7)
- expected values in Figure 9.4.1 (main text), replicated with absolute, rather than proportional levels of resettlement (Appendix Table 12.4.8)

**Table 12.4.5: DETERMINANTS OF RESETTLEMENT.** Model 1 was used as the propensity score model in the main text, and generated the predicted probabilities shown in Figure 9.3.1b and 9.3.1c (main text). Model 2 generated the predicted probabilities shown in Figure 9.3.1a (main text).

	PROPENSITY SCORE MODEL	
	<b>Model 1</b> GAM Logit	Model 2 GAM Logit
<b>STRATEGY (pre-treatment)</b>		
Government selectivity ( $\theta_G$ )	-0.70213*** (0.1321)	.
Rebel selectivity ( $\theta_R$ )	0.44195** (0.1481)	.
Government punishment ( $\rho_G$ )	-0.04821*** (0.0084)	.
Rebel punishment ( $\rho_R$ )	0.09398*** (0.0167)	.
Selective violence ratio ( $\frac{\theta_G \rho_G}{\theta_R \rho_R}$ )	.	-0.66308*** (0.0707)
Resettlement in neighboring districts	11.04089*** (0.5086)	10.94174*** (0.4968)
<b>SELECTIVITY, EXTERNAL RESOURCES</b>		
Number of rural councils	-0.00965 (0.0071)	-0.01249* (0.007)
Distance to oblast capital	0.00341* (0.0015)	0.0027* (0.0015)
Partisan control in WWII	-0.34496* (0.1666)	-0.32155* (0.1639)
New territory	3.16742** (1.0913)	2.98136** (1.0817)
Distance to railroad	0.02376** (0.0096)	0.02361** (0.0095)
Distance to railroad <sup>2</sup>	-0.00034 (2e-04)	-0.00036* (2e-04)
<b>ECONOMIC</b>		
Crop land	0.39818** (0.156)	0.45399** (0.1534)
<b>TIME</b>		
Year	-0.07701** (0.0261)	-0.05637* (0.0246)
Month	EDF : 8.798 $\chi^2$ : 96.81***	EDF : 8.786 $\chi^2$ : 85.99***
(Intercept)	144.15142** (50.8817)	104.13492* (47.8448)
N	5208	5208
AIC	2719.268	2773.729
AUC	0.903	0.899

\*  $p \leq 0.05$ , \*\*  $p \leq 0.01$ , \*\*\*  $p \leq 0.001$

**Table 12.4.6:** EFFECT OF RESETTLEMENT ON REBEL VIOLENCE. Models 5 and 6 were used to calculate incidence rate ratios in Table 9.4.3 (main text). Models 3 and 4 fit the same specification using the pre-matching dataset of counterinsurgency operations, and are presented here for comparison.

	PRE-MATCHING		POST-MATCHING	
	Model 3 NegBin	Model 4 NegBin	<b>Model 5</b> NegBin	<b>Model 6</b> NegBin
RESETTLEMENT	-0.18146** (0.059)	-0.48677*** (0.0559)	-0.49281** (0.1937)	-0.63392*** (0.1845)
STRATEGY (PRE-TREATMENT)				
Government punishment ( $\rho_G$ )	.	-0.00031 (0.0018)	.	0.01846* (0.0102)
Rebel punishment ( $\rho_R$ )	.	0.12649*** (0.0067)	.	0.2205*** (0.0429)
Government selectivity ( $\theta_G$ )	.	0.20289*** (0.0465)	.	-0.14306 (0.223)
Rebel selectivity ( $\theta_R$ )	.	-0.11329* (0.058)	.	-0.59074* (0.2809)
SELECTIVITY, EXTERNAL RESOURCES				
Number of rural councils	.	-0.00542* (0.0026)	.	-0.00093 (0.0125)
Distance to oblast capital	.	-0.00286*** (6e-04)	.	-0.00263 (0.0028)
Partisan control in WWII	.	0.00411 (0.0564)	.	0.0367 (0.238)
New territory	.	2.518*** (0.4366)	.	15.96514 (3305.4988)
Distance to railroad	.	-0.0084* (0.0038)	.	0.01482 (0.021)
Distance to railroad <sup>2</sup>	.	0.00021** (1e-04)	.	-0.00016 (5e-04)
ECONOMIC				
Crop land	.	-0.23939*** (0.0535)	.	-0.41354* (0.2271)
TIME				
Year	.	-0.25198*** (0.0112)	.	-0.22159*** (0.0491)
Month	.	-0.01409* (0.0063)	.	-0.01514 (0.0306)
(Intercept)	0.47461*** (0.0248)	488.74452*** (21.7361)	0.5416*** (0.1327)	416.08682 (3306.8835)
N	5208	5208	320	320
AIC	17423.244	16178.323	1003.9	979.019

\*  $p \leq 0.05$ , \*\*  $p \leq 0.01$ , \*\*\*  $p \leq 0.001$

**Table 12.4.7: SCALE OF RESETTLEMENT AND REBEL VIOLENCE.** Model 8 was used to calculate expected values for Figure 9.4.1a (main text). Model 10 was used to calculate expected values for Figure 9.4.1b (main text). Models 7 and 9 are presented for comparison.

	DV: Rebel violence ( $\rho_R$ ) (post-treatment)		DV: Rebel selectivity ( $\theta_R$ ) (post-treatment)	
	Model 7 NegBin	<b>Model 8</b> NegBin	Model 9 NegBin	<b>Model 10</b> NegBin
CIVILIANS RESETTLED (PER 1,000)	-0.03218*** (0.0055)	-0.01453** (0.0051)	-0.02928** (0.01)	-0.02237* (0.01)
<b>STRATEGY</b>				
Rebel selectivity ( $\theta_R$ )	.	-0.09051 (0.1571)	.	0.59882** (0.2466)
Government selectivity ( $\theta_G$ )	.	0.50574*** (0.1463)	.	0.56415** (0.2401)
Rebel punishment ( $\rho_R$ )	.	0.1582*** (0.015)	.	0.05507* (0.0236)
Government punishment ( $\rho_G$ )	.	0.01903** (0.0075)	.	-0.00321 (0.0128)
<b>SELECTIVITY, EXTERNAL RESOURCES</b>				
Distance to oblast capital	.	-0.00353* (0.0017)	.	0.00036 (0.0028)
Number of rural councils	.	-0.00104 (0.0074)	.	0.00036 (0.0125)
Partisan control in WWII	.	0.03537 (0.168)	.	-0.1176 (0.2909)
Distance to railroad	.	-0.01383 (0.0109)	.	0.02303 (0.0262)
Distance to railroad <sup>2</sup>	.	0.00025 (2e-04)	.	-9e-04 (8e-04)
<b>ECONOMIC</b>				
Crop land	.	-0.00419 (0.1715)	.	-0.46936* (0.2657)
(Intercept)	0.52251*** (0.0765)	-0.13433 (0.2584)	-1.63398*** (0.1144)	-1.80333*** (0.4235)
N	957	957	957	957
AIC	2824.499	2690.874	749.925	742.993

\*  $p \leq 0.05$ , \*\*  $p \leq 0.01$ , \*\*\*  $p \leq 0.001$

**Table 12.4.8:** SCALE OF RESETTLEMENT AND REBEL VIOLENCE/SELECTIVITY (ABSOLUTE NUMBERS). Models 11-14 replicate the analyses in Table 12.4.7, with absolute numbers of people resettled rather than proportions.

	DV: Rebel violence ( $\rho_R$ ) (post-treatment)		DV: Rebel selectivity ( $\theta_R$ ) (post-treatment)	
	Model 11 NegBin	Model 12 NegBin	Model 13 NegBin	Model 14 NegBin
CIVILIANS RESETTLED (ABSOLUTE)	-0.00213*** (4e-04)	-0.00083* (4e-04)	-0.0018** (7e-04)	-0.00124* (7e-04)
STRATEGY				
Rebel selectivity ( $\theta_R$ )	.	-0.07692 (0.1576)	.	0.45524* (0.2499)
Government selectivity ( $\theta_G$ )	.	0.5164*** (0.1467)	.	0.52274* (0.2404)
Rebel punishment ( $\rho_R$ )	.	0.16208*** (0.015)	.	0.05597** (0.0234)
Government punishment ( $\rho_G$ )	.	0.01924** (0.0076)	.	0.0061 (0.012)
SELECTIVITY, EXTERNAL RESOURCES				
Distance to oblast capital	.	-0.00334* (0.0017)	.	0.00024 (0.0028)
Number of rural councils	.	0.00088 (0.0075)	.	-0.01121 (0.013)
Partisan control in WWII	.	0.04122 (0.1685)	.	-0.22912 (0.3023)
Distance to railroad	.	-0.0167 (0.0109)	.	0.01632 (0.0249)
Distance to railroad <sup>2</sup>	.	3e-04 (2e-04)	.	-0.00074 (8e-04)
ECONOMIC				
Crop land	.	-0.01304 (0.1718)	.	-0.48467* (0.2631)
(Intercept)	0.51137*** (0.0794)	-0.2153 (0.2556)	-1.65569*** (0.1167)	-1.4784*** (0.4124)
N	957	957	957	957
AIC	2835.322	2694.766	757.407	749.504

\*  $p \leq 0.05$ , \*\*  $p \leq 0.01$ , \*\*\*  $p \leq 0.001$

### 12.4.3 SENSITIVITY ANALYSIS

As with any empirical analysis, the findings presented in the main text need to be treated with some caution. The following section reports the results of robustness checks that address three potential substantive and methodological concerns. First is the size of the treatment window (currently 12 weeks before and after resettlement). Second is the type of matching estimator used (currently propensity scores with caliper). Third is the robustness of these results to other (non-matching) estimators of average treatment effects.

#### ALTERNATIVE TREATMENT WINDOWS

My choice of a 12 week treatment window is motivated by two considerations: (1) the time needed to authorize, plan and implement a resettlement operation, and (2) the need to capture both immediate retaliatory attacks and any longer-term impact on rebel strategy, mobilization and fighting capacity. As such, this choice is well supported by the archival record.

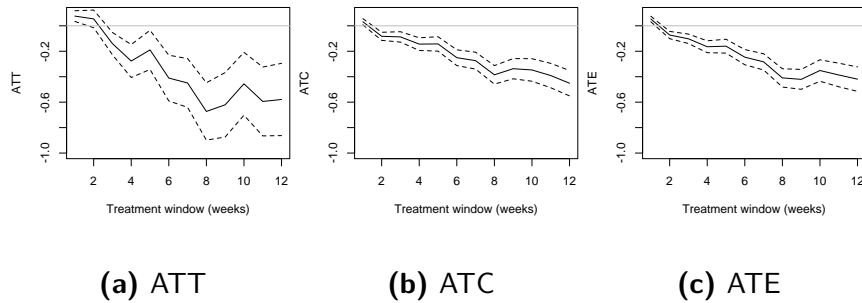
Most resettlements required authorization from the Main Directorate of the NKVD/MVD Internal Forces in Moscow, which received situation reports from the field every two weeks. The resource-intensity and logistical complexity of such operations necessitated between a one and six-week lag between authorization and implementation. Large-scale resettlements typically required temporary duty orders for all essential personnel for a period of up to one month, including the deployment, execution and escort phases of each mission. More routine resettlements of individual households could be implemented on shorter notice at the level of a squad or platoon. Given the range of operational requirements, we can assume that the NKVD carried out resettlements in response to events as recent as one week old and as distant as two-three months old.<sup>15</sup>

As regards the size of the window following treatment, the theoretical model predicts that resettlement is generally accompanied by an increase in rebel violence, which should subside over time as the rebel population dwindles in size.

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<sup>15</sup>GARE, F. 9479, Op. 1, D. 62, L. 72-73.

**Figure 12.4.2:** TREATMENT EFFECT ESTIMATES WITH ALTERNATIVE TREATMENT WINDOWS.



A shorter time window may yield the impression that the resettlement effect is inflammatory rather than suppressive. The twelve-week window avoids this problem, while not being so long as to substantially increase the risk of post-treatment bias from subsequent intervening events.

To ensure that my results are not overly dependent on treatment window size, however, I conducted a series of robustness checks. Figure 12.4.2 shows that the direction and statistical significance of the “resettlement effect” is not an artifact of the 12 week window used in the preceding analysis. Three types of estimators are provided for every treatment window from one week to twelve. The first is the average treatment effect on the treated (ATT) – the same quantity reported earlier.<sup>16</sup> The second is the average treatment effect on the untreated (ATC), or the average impact of resettlements in cases where resettlement was unlikely to be used.<sup>17</sup> These were generally cases where such methods were not needed due to more robust territorial control or more abundant external resources. The third estimator is the overall average treatment effect (ATE).<sup>18</sup>

For every treatment window larger than six weeks, the ATT estimate was negative and highly significant – reiterating the results already reported in the previous section. This pattern was also evident for the other two estimators, for all windows

<sup>16</sup>Formally,  $ATT = E[Y_{t=1}|D = 1] - E[Y_{t=0}|D = 1]$

<sup>17</sup>Formally,  $ATC = E[Y_{t=1}|D = 0] - E[Y_{t=0}|D = 0]$

<sup>18</sup>Formally,  $ATE = E[Y_{t=1}|D = 1] - E[Y_{t=0}|D = 0]$



save one week. Results suggest that the short-term suppressive effect of resettlement may be dampened by a spike in rebel attacks immediately following resettlement. However, the overall negative pattern asserts itself after the sixth week. The ATC results suggest that resettlement is a reliable tool of pacification even when introduced into a situation where it not traditionally used. Since resettlement is most likely to be used in “hard cases” where coercive measures fall short due to deficiencies in information, this finding is not altogether surprising.

#### ALTERNATIVE MATCHING METHODS

As is widely recognized, but rarely addressed in practice, reliance on a single matching method can often yield problematic inferences. For instance, King et al. (2011) show that the use of propensity scores with calipers (as the preceding study has done) can in some instances approximate random matching and lead to worse imbalance. I initially selected the propensity score method for two reasons. First, the two-step procedure most directly reflected a unified theoretical narrative about why governments choose to use resettlement, and whether resettlement works as governments intend. Second, the method’s relative simplicity enabled an ease of interpretation beyond what was offered by most alternatives.

The current section offers a summary of ATT estimates using an ensemble of matching techniques, including propensity scores, Mahalanobis distance, and genetic matching. Variables used for matching include the same set of observable pre-treatment covariates used in the main text. I present several matching solutions with each metric. Propensity score and Mahalanobis techniques were implemented with and without calipers. Following Sekhon (2011), I implemented the genetic matching algorithm with and without a nested propensity score model.<sup>19</sup> I also present Mahalanobis and genetic results with exact matching on *new territory*, *crop land*, *wartime partisan control*, and *year*. These permutations yield ten unique matching solutions.

Table ?? reports ATTs estimated using these alternative matching methods. All

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<sup>19</sup>The population size for the genetic search algorithm was 100, with 10 generations each.

**Table 12.4.9:** ATT ESTIMATED WITH ALTERNATIVE MATCHING METHODS. Standardized difference in means (SDM) prior to matching: 0.280.

Method	ATT	Lower	Upper	Pairs	SDM	Improvement
Propensity score	-0.579	-0.863	-0.295	957	0.103	63.217 %
Propensity score (caliper)	-0.625	-1.120	-0.130	160	0.063	77.486 %
Mahalanobis	-0.280	-0.436	-0.125	957	0.067	75.997 %
Mahalanobis (exact)	-0.235	-0.383	-0.088	956	0.093	66.848 %
Mahalanobis (caliper)	-0.343	-0.647	-0.039	145	0.013	95.229 %
Mahalanobis (caliper, exact)	-0.343	-0.647	-0.039	145	0.013	95.229 %
Genetic	-0.378	-0.567	-0.189	965	0.086	69.222 %
Genetic (exact)	-0.340	-0.485	-0.195	980	0.104	63.017 %
Genetic (propensity scores)	-0.353	-0.543	-0.163	967	0.077	72.615 %
Genetic (p. scores, exact)	-0.335	-0.495	-0.174	974	0.103	63.316 %

estimates are in line with previous results. The average treatment effect of resettlement on the treated is consistently negative and statistically significant. Mahalanobis distance (with caliper and exact matching) yields the greatest improvement in balance, at 95 percent, at the cost of a relatively small sample size of 143 pairs. Simple propensity scores and genetic matching produced the most modest balance improvements, at 63 percent, albeit with a much larger number of matched pairs. The solution presented in the paper (propensity scores with caliper) offers a well-balanced middle ground between these extremes, with strong improvement in balance (77 percent) and a sample size of 160 pairs. In sum, although the size of the effect may vary across matching estimators, the overall nature of the result does not: resettlement suppresses rebel violence.

#### ALTERNATIVE TREATMENT EFFECT ESTIMATORS

A central assumption behind the matching estimator presented in the main text is that treatment assignment (i.e. use vs. non-use of resettlement) is independent of potential outcomes (i.e. future rebel activity), conditional on observed pre-treatment covariates (i.e. selectivity, external resources). Yet if the conditional independence assumption is violated, and selection into treatment is on the basis of unobserved variables, the matching estimator will be biased. To address such

concerns, the current section provides a series of additional treatment effect estimates under different sets of assumptions, which rely on neither conditional independence, nor exclusion restrictions.

I provide a total of six additional estimates of the average treatment effect (ATE), the average treatment effect on the treated (ATT), and the average treatment effect on the untreated (ATC): (1) ordinary least squares, (2) Heckman’s two-step estimator, (3) Hirano and Imbens’ inverse probability weighted estimator, (4) Millimet and Tchernis’ minimum-biased estimator, (5) the control function approach, and (6) Klein and Vella’ estimator. I summarize the basic intuition behind these estimators below. A more thorough discussion is provided in Heckman and Navarro-Lozano (2004), Heckman (1976, 1979), Heckman et al. (1999), Hirano and Imbens (2001), Millimet and Tchernis (2012).

1. **Ordinary least squares (OLS).** Presented here for comparison only, the “naive” OLS estimator is obtained through the expression

$$Y = D\beta + \gamma X + \varepsilon \quad (12.1)$$

where  $Y$  is the outcome vector,  $D$  is the treatment assignment vector,  $X$  is the matrix of pre-treatment covariates,  $\beta$  is the treatment effect,  $\gamma$  a vector of coefficients for  $X$ , and  $\varepsilon$  is an i.i.d. error term. If we let

$$M_1 = I - D(D'D)^{-1}D' \quad (12.2)$$

$$M_2 = I - X(X'X)^{-1}X' \quad (12.3)$$

where  $M_1$  and  $M_2$  are symmetric and idempotent, then the treatment effect  $\beta$  and coefficients  $\gamma$  can be estimated as

$$ATE = \hat{\beta} = (D'M_2D)^{-1}(D'M_2Y) \quad (12.4)$$

$$\hat{\gamma} = (X'M_1X)^{-1}(X'M_1Y) \quad (12.5)$$

2. **Heckman 2-step.** Heckman’s selection model (Heckman, 1976, 1979) first

estimates the probability of treatment using a probit model,

$$P(D = 1|X) = \Phi(X\gamma) \quad (12.6)$$

where  $\Phi$  is the Cumulative Distribution Function of the standard normal distribution. In the second stage, this approach uses OLS to estimate the following equation

$$Y = X\beta_o + XD(\beta_1 - \beta_o) + \beta_{\lambda_o}(1 - D) \left( \frac{\varphi(X\gamma)}{1 - \Phi(X\gamma)} \right) + \beta_{\lambda_1}D \left( \frac{-\varphi(X\gamma)}{\Phi(X\gamma)} \right) + u \quad (12.7)$$

The ATE estimate is then  $ATE = \bar{X}(\hat{\beta}_1 - \hat{\beta}_o)$

3. **Inverse probability weighting.** The normalized inverse probability weighted estimate (Hirano and Imbens, 2001) is given by

$$ATE = \frac{\sum_i \frac{Y_i D_i}{P(D_i=1|X_i)}}{\sum_i \frac{D_i}{P(D_i=1|X_i)}} - \frac{\sum_i \frac{Y_i(1-D_i)}{P(D_i=0|X_i)}}{\sum_i \frac{(1-D_i)}{P(D_i=0|X_i)}} \quad (12.8)$$

where the propensity score for each observation  $i$ ,  $P(D_i = 1|X_i)$  is obtained through probit.

4. **Minimum-biased estimator.** The estimator developed by Millimet and Tchernis (2012) takes a similar form to the IPW, with a restricted sample:

$$ATE = \frac{\sum_{i \in \Omega} \frac{Y_i D_i}{P(D_i=1|X_i)}}{\sum_{i \in \Omega} \frac{D_i}{P(D_i=1|X_i)}} - \frac{\sum_{i \in \Omega} \frac{Y_i(1-D_i)}{P(D_i=0|X_i)}}{\sum_{i \in \Omega} \frac{(1-D_i)}{P(D_i=0|X_i)}} \quad (12.9)$$

where the  $\Omega$  denotes a neighborhood of observations with a propensity score  $P(D_i = 1|X_i)$  within a specific interval.

5. **Control function.** The control function approach (Heckman and Navarro-Lozano, 2004, Heckman et al., 1999) is a generalization of Heckman's selec-

tion model, which seeks to eliminate correlation between treatment assignment and the error term  $\varepsilon$ , by approximating  $E[\varepsilon|X, D = d]$  with a polynomial in  $P(D = 1|X)$ :

$$Y = (\alpha_0 + \pi_{00})(1 - D) + (\alpha_1 + \pi_{10})(D) + X\beta_0 + XD(\beta_1 - \beta_0) \quad (12.10)$$

$$+ \sum_s \pi_{0s}(1 - D)P(D = 1|X)^s + \sum_s \pi_{1s}DP(D = 1|X)^s + u$$

where  $S$  is the order of the polynomial term. The ATE estimate is then

$$ATE = (\hat{\alpha}_1 - \hat{\alpha}_0) + \bar{X}(\hat{\beta}_1 - \hat{\beta}_0) \quad (12.11)$$

6. **Klein and Vella.** As implemented by McCarthy et al. (2013), the Klein and Vella (2009) estimator models the probability of treatment as

$$P(D = 1) = \Phi\left(\frac{X\gamma}{e^{X\delta}}\right) \quad (12.12)$$

and estimates the parameters of the treatment selection model through maximum likelihood

$$\ln L = \sum_i \left( \ln \Phi\left(\frac{X\gamma}{e^{X\delta}}\right) \right)^{D_i} \left( \ln \left( 1 - \Phi\left(\frac{X\gamma}{e^{X\delta}}\right) \right) \right)^{1-D_i} \quad (12.13)$$

where the intercept term in  $\delta$  is normalized to zero for identification. The ML-based predicted probabilities of treatment  $\hat{P}(D = 1)$  are then used as an instrument in (12.7).

The ATE, ATT and ATC estimates for estimators 1, 3, 4, 5 and 6 are reported in Table 12.4.10. The Heckman 2-step results are reported in Table 12.4.11. These additional results confirm the previous findings: resettlement has a strong, negative effect on future rebel activity (Proposition 6). The Heckman first-stage results fur-

ther confirm that resettlement is most likely to occur where the government has a coercive disadvantage (Corollary 5).

**Table 12.4.10:** ALTERNATIVE TREATMENT EFFECT ESTIMATORS. Point estimates reported. 95% confidence intervals shown in parentheses.

Estimator	ATE	ATT	ATU
Ordinary least squares	-0.455 (-0.587, -0.316)	-0.455 (-0.587, -0.316)	-0.455 (-0.587, -0.316)
Inverse-probability weight	-0.253 (-0.389, -0.111)	-0.548 (-0.729, -0.366)	-0.186 (-0.335, -0.366)
Minimum-biased	-1.742 (-2.066, 0.729)	-1.733 (-2.838, -0.727)	-1.612 (-2.317, -0.610)
Control function	-20.742 (-60.047, -3.669)	-22.340 (-40.040, -8.962)	-20.382 (-67.676, -0.967)
Klein-Vella	-2.029 (-2.821, -0.928)	-2.029 (-2.821, -0.928)	-2.029 (-2.821, -0.928)

**Table 12.4.11:** HECKMAN TREATMENT EFFECT ESTIMATOR.

	SECOND STAGE Y Rebel activity	FIRST STAGE $P(D = 1 X)$ Resettlement
RESETTLEMENT	-0.554*** (0.120)	
STRATEGY (pre-treatment)		
Government selectivity ( $\theta_G$ )	0.176** (0.0740)	-0.413*** (0.0644)
Rebel selectivity ( $\theta_R$ )	-0.751*** (0.0943)	0.224*** (0.0754)
Government punishment ( $\rho_G$ )	0.0143*** (0.00305)	-0.0148*** (0.00359)
Rebel punishment ( $\rho_R$ )	0.430*** (0.0123)	0.0486*** (0.00898)
Resettlement in neighboring districts		5.581*** (0.193)
SELECTIVITY, EXTERNAL RESOURCES		
Distance to railroad	-0.0188*** (0.00618)	0.0105** (0.00483)
Distance to railroad <sup>2</sup>	0.000487*** (0.000140)	-0.000113 (0.000107)
Distance to oblast capital	-0.00428*** (0.000894)	0.00161** (0.000763)
Number of rural councils	-0.00253 (0.00401)	-0.00368 (0.00349)
New territory	0.474* (0.254)	1.327*** (0.410)
Partisan control in WWII	-0.120 (0.0884)	-0.177** (0.0803)
ECONOMIC		
Crop land	-0.00582 (0.0843)	0.236*** (0.0752)
Constant	0.849*** (0.305)	-2.833*** (0.434)
Observations		5,208
$SE(\lambda)$		0.0843
$\lambda$		0.0955
$\sigma$		2.251
$\rho$		0.0424

\*  $p \leq 0.05$ , \*\*  $p \leq 0.01$ , \*\*\*  $p \leq 0.001$

## References

- Merriam-webster's dictionary. December 2012. URL <http://www.merriam-webster.com/dictionary/sovereignty>.
- Max Abrahms. Why Terrorism Does Not Work. *International Security*, 31(2), 2006.
- Prakash Adhikari. Conflict-induced displacement, understanding the causes of flight. *American Journal of Political Science* [forthcoming], pages no–no, 2012.
- Akhmednabi Akhmednabiev. V Dagestane idut massovye zaderzhaniya zhiteley seleniya Gimry [Mass detentions of Gimry's residents underway in Dagestan]. *Kavkazskiy Uzel*, December 18 2007.
- Paul D Allison and Richard P Waterman. Fixed-effects negative binomial regression models. *Sociological methodology*, 32(1):247–265, 2002.
- Steven Elhás Alvarado and Douglas S. Massey. In Search of Peace: Structural Adjustment, Violence, and International Migration. *Annals of the American Academy of Political and Social Sciences*, 630(1):137–161, 2010.
- Amnesty International. Russian federation: Brief summary of concerns about human rights violations in the chechen republic. EUR 46/020/1996, 1996.
- Peter Andreas. *Blue helmets and black markets: The business of survival in the siege of Sarajevo*. Cornell University Press, 2011.
- Juan Pablo Aparicio, Hernán G. Solari, and Never Bonino. Competition and coexistence in host-parasite systems: the myxomatosis case. *Population ecology*, 46(1):71–85, 2004.
- Pavel Aptekar'. Chechnyu pytals' razoruzhit' i ran'she [They tried to disarm Chechnya before]. *Argumenty i Fakty*, 3(744), January 1995a.



- Pavel Aptekar'. Vtoroye pokorenie Kavkaza: Bol'sheviki i chechenskie povstantsy [Second conquest of the Caucasus: Bolsheviks and Chechen insurgents]. *Rodina*, (6), 1995b.
- Ivan Arreguín-Toft. How the Weak Win Wars: A Theory of Asymmetric Conflict. *International Security*, 26(1), 2001.
- Ivan Arreguín-Toft. The [F]utility of Barbarism: assessing the impact of the systematic harm of non-combatants in war, 2003. Paper presented at the annual convention of the American Political Science Association, Philadelphia, PA.
- Ivan Arreguín-Toft. *How the Weak Win Wars: A Theory of Asymmetric Conflict*. Cambridge University Press, New York, 2005.
- Michael P. Atkinson and Moshe Kress. On popular response to violence during insurgencies. *Operations Research Letters*, 2012.
- Jean-Paul Azam and Anke Hoeffler. Violence Against Civilians in Civil Wars: Looting or Terror? *Journal of Peace Research*, 39(4):461–485, 2002.
- John F. Baddeley. *The Russian conquest of the Caucasus*. Longmans, Green and co., London, 1908/2005.
- Laia Balcells. Rivalry and revenge: Violence against civilians in conventional civil wars<sup>1</sup>. *International Studies Quarterly*, 54(2):291–313, 2010.
- Laia Balcells. Continuation of politics by two means: direct and indirect violence in civil war. *Journal of Conflict Resolution*, 55(3):397–422, 2011.
- Laia Balcells and Abbey Steele. Warfare, Political Identities, and Displacement in Spain and Colombia. Estudio/Working Paper 2012/274 December 2012, December 2012.
- Anne Barnard. Syria attacks rebel-held area in new push to retake city. *The New York Times*, June 2013.
- Omar Bartov. *Eastern Front, 1941-45: German Troops and the Barbarisation of Warfare*. Palgrave Macmillan Limited, 1985.
- Robert H. Bates. *Prosperity and Violence: The Political Economy of Development*. W. W. Norton & Co., New York, 2001.

- BBC. CAR disarmament drive fails to capture militia leader. *BBC News*, February 2014. <http://www.bbc.com/news/world-africa-26210193>.
- Ian Frederick William Beckett. *Encyclopedia of guerrilla warfare*. ABC-CLIO, 1999.
- Ian F.W. Beckett. *Modern Insurgencies and Counter-Insurgencies: Guerrillas and their Opponents since 1750*. Taylor & Francis, London, 2004.
- Mark R. Beissinger. Structure and example in modular political phenomena: The diffusion of Bulldozer/Rose/Orange/Tulip Revolutions. *Perspectives on Politics*, 5(2):259–276, 2007.
- Eric G. Berman. Forcible disarmament in South Sudan will not improve security. *Sudan Tribune*, 2008.
- Luís M. A. Bettencourt, Ariel Cintrón-Arias, David I. Kaiser, and Carlos Castillo-Chávez. The power of a good idea: quantitative modeling of the spread of ideas from epidemiological models. *Physica A: Statistical Mechanics and its Applications*, 2005.
- B. Beutel, Alex, Aditya Prakash, Roni Rosenfeld, and Christos Faloutsos. Interacting viruses in networks: can both survive? In *Proceedings of the 18th ACM SIGKDD international conference on Knowledge discovery and data mining*, pages 426–434. ACM, 2012.
- James Bevan. Crisis in karamoja: Armed violence and the failure of disarmament in uganda's most deprived region. Occasional Paper 21, Small Arms Survey, June 2008.
- Stephen Biddle and Stephen Long. Democracy and military effectiveness a deeper look. *Journal of Conflict Resolution*, 48(4):525–546, 2004.
- Geoffrey Blainey. *The Causes of War*. The Free Press, New York, 1973.
- Lucien Bodard. *La Guerre d'Indochine: I, l'Enlèvement*. Editions Gallimard, Paris, 1963.
- Charles Boix. Civil wars and guerrilla warfare in the contemporary world: toward a joint theory of motivations and opportunities. In Stathis Kalyvas, Ian Shapiro, and Tarek Masoud, editors, *Order, Conflict and Violence*, pages 197–218. Cambridge University Press, 2008.

- Kenneth Boulding. *Conflict and Defense*. Harper, 1962.
- Alex Braithwaite. Resisting infection: How state capacity conditions conflict contagion. *Journal of Peace Research*, 47(3), 2010.
- Halvard Buhaug and Jan Ketil Rod. Local Determinants of African Civil Wars, 1970-2001. *Political Geography*, 25(3), 2006.
- Jeffrey Burds. AGENTURA: Soviet Informants' Networks & the Ukrainian Rebel Underground in Galicia, 1944-1948. *East European Politics and Societies*, 11(1): 89-130, 1997.
- Jeffrey Burds. Gender and policing in Soviet West Ukraine, 1944-1948. *Cahiers du monde russe*, 42(2-4):279-320, 2001.
- Daniel Byman and Matthew Waxman. Kosovo and the great air power debate. *International Security*, 24(4):5-38, 2000.
- A Colin Cameron and Pravin K Trivedi. *Regression analysis of count data*. Cambridge University Press, New York, 1998.
- Caleb Carr. *The Lessons of Terror*. Random House, New York, 2002.
- Timothy Allen Carter and Daniel Jay Veale. Weather, terrain and warfare: Coalition fatalities in afghanistan. *Conflict Management and Peace Science*, 30(3):220-39, 2013.
- Carlos Castillo-Chavez and Baojin Song. Models for the transmission dynamics of fanatic behaviors. In H. Thomas Banks and Carlos Castillo-Chavez, editors, *Bioterrorism—Mathematical modeling applications in homeland security*, pages 155-172. SIAM, Philadelphia, 2003.
- Jonathan P. Caulkins, Dieter Grass, Gustav Feichtinger, and Gernot Tragler. Optimizing counter-terror operations: Should one fight fire with “fire” or “water”? *Computers & Operations Research*, 35(6):1874-1885, 2008.
- Gregory J Celestan. Wounded bear: The ongoing russian military operation in chechnya. *Fort Leavenworth, KS: FMSO*, 4, 1996.
- Central Statistical Directorate of USSR. *Vsesoyuznaya perepis' naseleniya 1926 goda*. Central Statistical Directorate of USSR, Moscow, 1928-1929.

- Aleksandr Cherkasov. Neofitsial'naya tyuremnaya system v chechenskoy respublike. <http://www.mhg.ru/publications/1C2F913>, 2003. Accessed: 12/18/2012.
- Aleksandr Cherkasov. Kniga chisel. kniga utrat. kniga strashnogo soda. [book of numbers. book of losses. book of judgment.]. *Polit.ru*, (February 19), 2004.
- CIESIN and Columbia University. Gridded population of the world, version 3 (GPWv3) data collection. Center for International Earth Science Information Network (CIESIN), Centro Internacional de Agricultura Tropical (CIAT), 2005.
- Carl von Clausewitz. *On War*. Princeton University Press, Princeton, NJ, 1832/1984.
- Paul Collier and Anke Hoeffler. Greed and Grievance in Civil War. *Oxford Economic Papers New Series*, 56(563-595), 2004.
- Luke Condra and Jacob Shapiro. Who takes the blame? the strategic effects of collateral damage. *American Journal of Political Science*, 56(1):167–187, 2012.
- Mathias Czaika and Krisztina Kis-Katos. Civil Conflict and Displacement: Village-Level Determinants of Forced Migration in Aceh. *Journal of Peace Research*, 46(3):399–418, 2009.
- D.J. Daley and David G. Kendall. Stochastic rumours. *IMA Journal of Applied Mathematics*, 1(1):42–55, 1965.
- Alexander Dallin. *German rule in Russia, 1941-1945: a study of occupation policies*. Macmillan, 1957.
- Keith A. Darden. Resisting Occupation: Lessons from a Natural Experiment in Carpathian Ukraine. 2011.
- Christian Davenport. Multi-dimensional threat perception and state repression: An inquiry into why states apply negative sanctions. *American Journal of Political Science*, 39(3):683–713, 1995.
- Christian Davenport. The promise of democratic pacification: an empirical assessment. *International Studies Quarterly*, 48(3):529–60, 2004.
- Christian Davenport. State Repression and Political Order. *Annual Review of Political Science*, 10, 2007a.

- Christian Davenport. *State Repression and the Domestic Democratic Peace*. Cambridge University Press, New York, 2007b.
- Christian Davenport and Patrick Ball. Views to a Kill: Exploring the Implications of Source Selection in the Case of Guatemalan State Terror, 1977-1995. *Journal of Conflict Resolution*, 46:427-450, 2002.
- Christian Davenport and Allen Stam. Rashomon goes to Rwanda: Alternative Accounts of Political Violence and Their Implications for Policy and Analysis. 2006.
- Christian A. Davenport, Will H. Moore, and Steven C. Poe. Sometimes You Just Have to Leave: Domestic Threats and Forced Migration, 1964-1989. *International Interaction*, 29:27-55, 2003.
- John de St. Jorre. *The Brothers' War: Biafra and Nigeria*. Houghton Mifflin, Boston, 1972.
- Defense Mapping Agency. Development of the digital chart of the world. U.S. Government Printing Office, 1992.
- Vladimir Degoyev. Tri Silueta Kavkazskoi Voiny [Three Silhouettes of the Caucasus War]. *Zvezda*, (9 January), 2000.
- Seymour J. Deitchman. A Lanchester model of guerrilla warfare. *Operations Research*, 10:818-827, 1962.
- Louis Delarue. *Avec les Paras du 1er R.E.P. et du 2e R.P./Ma*. Nouvelles Editions Latines, Paris, 1961.
- Dni.ru. Kadyrov khochet razoruzhit' chechentsev [kadyrov wants to disarm the chechens]. <http://www.dni.ru/society/2012/6/5/234813.html>, June 5 2012. Dni.ru.
- Alexander Downes and Kathryn McNabb Cochran. Targeting Civilians to Win? Assessing the Military Effectiveness of Civilian Victimization in Interstate War. In Adria Lawrence and Erica Chenoweth, editors, *Rethinking Violence: States and Non-State Actors in Conflict*. MIT Press, Cambridge, MA, 2010.
- Alexander B. Downes. Draining the Sea by Filling the Graves: Investigating the Effectiveness of Indiscriminate Violence as a Counterinsurgency Strategy. *Civil Wars*, 9(4):420-44, 2007a.

- Alexander B. Downes. Restraint or propellant? democracy and civilian fatalities in interstate wars. *Journal of Conflict Resolution*, 51(6):872–904, 2007b.
- Alexander B. Downes. *Targeting Civilians in War*. Cornell University Press, New York, 2008.
- Alan Dowty and Gil Loescher. Refugee Flows as Grounds for International Action. *International Security*, 21(1):43–71, 1996.
- Michael W. Doyle and Nicholas Sambanis. *Making War and Building Peace: United Nations Peace Operations*. Princeton University Press, Princeton, NJ, 2006.
- Trevor Nevitt Dupuy. *Numbers, Predictions and War: Using History to Evaluate Combat Factors and Predict the Outcome of Battles*. Bobbs-Merrill, 1979.
- A. Dyukov, D. Valieva, O. Dranitsina, and M. Mints, editors. *Povsednevnost' terora: Deyatel'nost' natsionalisticheskikh formirovaniy v zapadnykh regionakh SSSR [Routine terror: The activities of nationalist formations in the western regions of the USSR]*.
- Kristine Eck. In data we trust? a comparison of UCDP GED and ACLED conflict events datasets. *Cooperation and Conflict*, 47(1):124–141, 2012.
- Daniel Ellsberg. Revolutionary judo. Technical report, RAND, January 1970.
- G.R. Elton. Taxation for War and Peace in Early-Tudor England. In J.M. Winter, editor, *War and Economic Development: Essays in Memory of David Joslin*, pages 33–48. Cambridge University Press, 1975.
- Encyclopaedia Britannica. Caucasian peoples. <http://www.britannica.com/EBchecked/topic/100262/Caucasian-peoples>, 2013.
- Joshua M. Epstein. *The calculus of conventional war: dynamic analysis without Lanchester theory*. Brookings Institution, Washington, 1985.
- Joshua M. Epstein, Jon Parker, Derek Cummings, and Ross A. Hammond. Coupled Contagion Dynamics of Fear and Disease: Mathematical and Computational Explorations. *PLoS One*, 3(12), 2008.
- Aleksei P. Ermolov. *Zapiski Alekseya Petrovicha Ermolova. 1798-1826 gg [Notes of Aleksey Petrovich Yermolov. 1798-1826]*. Vysshaya shkola, Moscow, 1864/1991.

- Aleksei P. Ermolov. *Zapiski Alekseya Petrovicha Ermolova. S prilozheniyami. Ch. 2. 1816-1827* [Notes of Aleksey Petrovich Ermolov. With attachments. Volume 2. 1816-1827]. izd. N.P. Ermolova, Moscow, 1868.
- Joan Esteban, Massimo Morelli, and Dominic Rohner. Strategic mass killings. HiCN Working Papers 78, Households in Conflict Network, May 2010.
- Matthew Evangelista. *The Chechen wars: will Russia go the way of the Soviet Union?* Brookings Institution Press, 2002.
- Bernard Fall. The theory and practice of insurgency and counterinsurgency. *Naval War College Review*, 27(8):21–38, 1965.
- James Fearon and David Laitin. Explaining interethnic cooperation. *The American Political Science Review*, 90(4):715–35, 1996.
- James Fearon and David Laitin. Ethnicity, Insurgency, and Civil War. *American Political Science Review*, 97(1), 2003.
- James D. Fearon. Rationalist explanations for war. *International Organization*, 49(3):379–414, 1995.
- James D. Fearon. Fighting rather than bargaining. 2007.
- Helen Fein. More murder in the middle: life-integrity violations and democracy in the world, 1987. *Human Rights Quarterly*, 17(1):170–191, 1995.
- Ingo Feinerer. An introduction to text mining in R. *R News*, 8(2), October 2008.
- Ingo Feinerer, K. Hornik, and D. Meyer. Text mining infrastructure in R. *Journal of Statistical Software*, 25(5), March 2008.
- Pavel Felgenhauer. The russian army in chechnya. *Central Asian Survey*, 21(2): 157–166, 2002.
- Dexter Filkins. The fall of the warrior king. *The New York Times*, October 23 2005.
- Dexter Filkins. General principles: How good was David Petraeus? *The New Yorker*, pages 76–81, December 17 2012.
- Darren Filson and Suzanne Werner. A bargaining model of war and peace: Anticipating the onset, duration, and outcome of war. *American Journal of Political Science*, 46(4):819–837, 2002.

- Michael G. Findley and Joseph K. Young. Fighting fire with fire? how (not) to neutralize an insurgency. *Civil Wars*, 9(4):378–401, 2007.
- Virginia Page Fortna. Does peacekeeping keep peace? international intervention and the duration of peace after civil war. *International Studies Quarterly*, 48(2): 269–292, 2004.
- Jonathan Fox. The rise of religious nationalism and conflict: Ethnic conflict and revolutionary wars, 1945–2001. *Journal of Peace Research*, 41(6):715–731, 2004.
- Ronald A. Francisco. Coercion and protest: an empirical test in two democratic states. *American Journal of Political Science*, 40(4):1179–1204, 1996.
- Ronald A. Francisco. After the Massacre: Mobilization in the Wake of Harsh Repression. *Mobilization: An International Journal*, 9(2):107–126, 2004.
- Jeffrey A. Friedman. Breakthrough problems and the american indian wars. September 2012.
- Carl J. Friedrich. *The pathology of politics: violence, betrayal, corruption, secrecy, and propaganda*. Harper & Row New York,, [1st ed.] edition, 1972.
- Thomas Gagen. Did Tsarnaev manhunt unnecessarily endanger the public's safety? twelve seconds of gunfire. *The Boston Globe*, November 22 2013.
- Dzhabrail D. Gakaev. *Ocherki politicheskoy istorii Chechni (XX vek) [Notes on the political history of Chechnya (20th century)]*. Izdat. Chechenskiy kul'turniy tsentr, Moscow, 1997.
- Vladimir Galitsky. Razoruzhenie Severnogo Kavkaza: P"ryamoy put' k mire [Disarmament of the North Caucasus: Straight path to peace]. *Obozrevatel' - Observer*, 237(10):37–51, 2009.
- David Galula. *Counterinsurgency Warfare*. Praeger, New York, 1964.
- Moshe Gammer. *The Lone Wolf and the Bear: Three Centuries of Chechen Defiance of Russian Rule*. University of Pittsburg Press, Pittsburg, PA, 2006.
- Erik Gartzke. War is in the error term. *International Organization*, 53:567–87, Summer 1999.
- Scott Gates. Recruitment and allegiance: The microfoundations of rebellion. *Journal of Conflict Resolution*, 46(1):111–130, 2002.



- Deborah J. Gerner, Philip A. Schrodt, Omur Yilmaz, and Rajaa Abu-Jabr. The Creation of CAMEO (Conflict And Mediation Event Observations): An Event Data Framework For A Post Cold War World. Presented at the 2002 Annual Meeting of the American Political Science Association, 29 August – 1 September, 2002.
- John V Gillespie, Dina A Zinnes, GS Tahim, Philip A Schrodt, and R Michael Rubison. An optimal control model of arms races. *The American Political Science Review*, pages 226–244, 1977.
- Global Mapping International. World language mapping system, version 3.2. <http://www.gmi.org/wlms/>, 2006.
- Max Gluckman. The peace in the feud. *Past and Present*, 1955.
- A. Gogun. *Mezhdu Gitlerom i Stalinom: Ukrainskie Povstantsy [Between Hitler and Stalin: Ukrainian Insurgents]*. OLMA Media Grupp, Moscow, 2012.
- Yakov Gordin. *Kavkaz: Zemlya i krov'. Rossiya v Kavkazskoi voine XIX veka [Caucasus: Land and blood. Russia in the Caucasus was of the 19th century]*. Zvezda, St. Petersburg, 2000.
- Lester W. Grau and Mr. Timothy L. Thomas. Russian lessons learned from the battles for Grozny. *Marine Corps Gazette*, (April), 2000.
- Kelly M. Greenhill and Paul Staniland. Ten Ways to Lose at Counterinsurgency. *Civil Wars*, 9(4):402–419, 2007.
- Paul R Gregory. *Terror by Quota: State Security from Lenin to Stalin*. Yale University Press, 2009.
- Paul R. Gregory, Philipp J.H. Schroder, and Konstantin Sonin. Rational dictators and the killing of innocents: Data from stalin's archives. *Journal of Comparative Economics*, 39(1):34–42, March 2011.
- Justin Grimmer and Gary King. Quantitative Discovery from Qualitative Information: A General-Purpose Document Clustering Methodology. 2009.
- Nikolay Grodnenskiy. *Neokonchennaya voyna: Istoriya vooruzhennogo konflikta v Chechne [Unfinished war: History of armed conflict in Chechnya]*. Harvest, Moscow, 2004.

- Nikolay Grodnenskiy. *Vtoraya Chechenskaya: Istoriya Vooruzhennogo Konflikta* [Second Chechen War: History of an Armed Conflict]. Russkaya Panorama, Moscow, 2010.
- H. Grossman. A General Equilibrium Model of Insurrections. *American Economic Review*, (81), 1991.
- Herschell I. Grossman. Kleptocracy and revolutions. *Oxford Economic Papers*, 51 (2):267–283, 1999.
- Henry Guerlac. Vauban: The impact of science on war. In Peter Paret, Gordon A. Craig, and Felix Gilbert, editors, *Makers of modern strategy from Machiavelli to the Nuclear Age*. Princeton University Press, Princeton, NJ, 1986.
- Che Guevara. *On Guerrilla Warfare*. Praeger, New York, 1961.
- James Habyarimana, Macartan Humphreys, Daniel N Posner, and Jeremy M Weinstein. Why does ethnic diversity undermine public goods provision? *American Political Science Review*, 101(4):709–725, 2007.
- Karl Hack. The Malayan Emergency as Counter-Insurgency Paradigm. *Journal of Strategic Studies*, 32(3):383–414, 2009.
- Thomas X. Hammes. Countering evolved insurgent networks. *Military Review*, pages 18–26, July-August 2006.
- Jiawei Han and Micheline Kamber. *Data Mining: Concepts and Techniques*. Morgan Kaufmann Publishers, 2001.
- Barbara Harff. No lessons learned from the Holocaust: assessing risks of genocide and political mass murder since 1955. *American Political Science Review*, 97(1): 57–74, 2003.
- Michael Hastings. The runaway general. *Rolling Stone*, June 22 2010.
- Oona Hathaway. Do human rights treaties make a difference? *Yale Law Journal*, 111(8):1935–2042, 2002.
- Field Manual No. 3-24. *Counterinsurgency, Field Manual No. 3-24*. Headquarters, Department of the Army, Washington, DC, 15 December 2006.

- P.P. Hearn, T.M. Hare, P. Schruben, D. Sherrill, C. LaMar, and P. Tsushima. Global GIS [computer file]. U.S. Geological Survey & American Geological Institute, 2005.
- Julia A. Heath, T. David Mason, William T. Smith, and Joseph P. Weingarten. The calculus of fear: Revolution, repression, and the rational peasant. *Social Science Quarterly*, 81(2):622–633, 2000.
- Michael Hechter. *Principles of group solidarity*, volume 11. University of California Press, 1988.
- James Heckman and Salvador Navarro-Lozano. Using matching, instrumental variables, and control functions to estimate economic choice models. *Review of Economics and Statistics*, 86(1):30–57, 2004.
- James J Heckman. The common structure of statistical models of truncation, sample selection and limited dependent variables and a simple estimator for such models. *Annals of Economic and Social Measurement*, 5(4):475–492, 1976.
- James J Heckman. Sample selection bias as a specification error. *Econometrica*, pages 153–161, 1979.
- James J Heckman, Robert J LaLonde, and Jeffrey A Smith. The economics and econometrics of active labor market programs. *Handbook of labor economics*, 3: 1865–2097, 1999.
- Philippe Héduy. *Au Lieutenant des Taglaits*. Editions de la Table Ronde, Paris, 1960.
- Havard Hegre, Tanja Ellingsen, Scott Gates, and Nils Petter Gleditsch. Toward a democratic civil peace? democracy, political change, and civil war, 1816-1992. *American Political Science Review*, 95(01):33–48, 2001.
- Havard Hegre, Gudren Ostby, and Clionadh Raleigh. Poverty and Civil War Events. *Journal of Conflict Resolution*, 53(4):598–623, 2009.
- Høavard Hegre, Lisa Hultman, and Høavard Mogleiv Nygård. Evaluating the conflict-reducing effect of UN peace-keeping operations. Paper presented to the National Conference on Peace and Conflict Research, Uppsala, September 2010.
- Otto Heilbrunn. *Partisan Warfare*. Praeger, New York, 1967.

- Douglas A. Hibbs. *Mass Political Violence*. John Wiley, 1973.
- Keisuke Hirano and Guido W Imbens. Estimation of causal effects using propensity score weighting: An application to data on right heart catheterization. *Health Services and Outcomes Research Methodology*, 2(3-4):259–278, 2001.
- Daniel E. Ho, Kosuke Imai, Gary King, and Elizabeth A. Stuart. Matching as non-parametric preprocessing for reducing model dependence in parametric causal inference. *Political Analysis*, 15(3):199–236, 2007.
- Thomas Hobbes. *Leviathan, revised edition*. Broadview Press, 1651/2010.
- Edgar Holt. *Protest in arms: the Irish troubles, 1916-1923*. Coward-McCann, New York, 1961.
- Michael Horowitz and Dan Reiter. When does aerial bombing work? quantitative empirical tests, 1917-1999. *Journal of Conflict Resolution*, 45(2):147–173, 2001.
- Valerie Hudson and Andrea den Boer. *Bare branches: The security implications of Asia's surplus male population*. MIT Press, Cambridge, MA, 2004.
- Human Rights Watch. End abuses by disarmament forces in jonglei. <http://www.unhcr.org/refworld/docid/50375e704.html>, August 23 2012. Human Rights Watch, South Sudan.
- James R. Hurtgen. Hobbes's theory of sovereignty in *Leviathan*. *Reason Papers*, 5 (Winter):55–67, 1979.
- Stefano M Iacus, Gary King, and Giuseppe Porro. Causal inference without balance checking: Coarsened exact matching. *Political analysis*, 20(1):1–24, 2012.
- International Crisis Group. Congo: A comprehensive strategy to disarm the fdlr. Technical report, International Crisis Group, July 2009. Africa Report No. 151.
- Michael D. Intriligator and Dagobert L. Brito. A predator-prey model of guerrilla warfare. *Synthese*, 76(2):235–244, 1988.
- Zaryab Iqbal. The Geo-Politics of Forced Migration in Africa, 1992-2001. *Conflict Management and Peace Science*, 24:105–119, 2007.
- Izvestia. V Severnoy Osetii nachalis' traurnye panihidy po pogibshim v Beslane [memorial services begin in North Ossetia for those killed in Beslan]. *Izvestia*, September 1 2007.

- Daniel Jacobson and Edward H. Kaplan. Suicide bombings and targeted killings in (counter-) terror games. *Journal of Conflict Resolution*, 51(5):772–792, 2007.
- Dominic D.P. Johnson and Joshua S. Madin. Population models and counterinsurgency strategies. In Raphael D. Sagarin and Terrence Taylor, editors, *Natural Security: A Darwinian Approach to a Dangerous World*, chapter 11, pages 159–185. University of California Press, 2008.
- Patrick Johnston and Anoop Sarbahi. The impact of us drone strikes on terrorism in pakistan and afghanistan. *New America Foundation*, 2014.
- Brendan F. Jundanian. Resettlement Programs: Counterinsurgency in Mozambique. *Comparative Politics*, 6(4):519–540, 1974.
- Karina Kadzhieva. Mnogie doma v gimrakh razrusheny i povrezhdeny, ih obitateli ostalis' bez krova, soobshchayut mestnye zhiteli [many homes destroyed and damaged in gimry, their inhabitants left homeless, according to local residents]. *Kavkazskiy uzel*, April 27 2013.
- S. N. Kalyvas. Promises and Pitfalls of an Emerging Research Program: The Microdynamics of Civil War. In S. N. Kalyvas, I. Shapiro, and T. Masoud, editors, *Order, Conflict, Violence*, pages 397–421. Cambridge University Press, Cambridge, 2008.
- Stathis Kalyvas. *The Logic of Violence in Civil War*. Cambridge, 2006.
- Stathis N. Kalyvas. Wanton and Senseless? The Logic of Violence in Civil Wars. *Rationality and Society*, 11(3), 1999.
- Stathis N. Kalyvas. The Logic of Terrorism in Civil War. *Journal of Ethics*, 8(1), 2004.
- Stathis N. Kalyvas. *Rethinking the Nature of War*, chapter Warfare in civil wars, pages 88–108. Frank Cass, London, 2005.
- Stathis N Kalyvas and Laia Balcells. International system and technologies of rebellion: How the end of the Cold War shaped internal conflict. *American Political Science Review*, 104(03):415–429, 2010.
- Stathis N. Kalyvas and Matthew Adam Kocher. How 'Free' Is Free-Riding in Civil War? Violence, Insurgency, and the Collective Action Problem. *World Politics*, 59(2):177–216, 2007.

- Edward H. Kaplan, Alex Mintz, Shaul Mishal, and Claudio Samban. What happened to suicide bombings in Israel? Insights from a terror stock model. *Studies in Conflict & Terrorism*, 28(3):225–235, 2005.
- Nathaniel O Keohane and Richard J Zeckhauser. The ecology of terror defense. *Journal of Risk and Uncertainty*, 26(2-3):201–29, March-May 2003.
- W. O. Kermack and A. G. McKendrick. A Contribution to the Mathematical Theory of Epidemics. *Proceedings of the Royal Society of London. Series A*, 115, 1927.
- David Kilcullen. *The Accidental Guerrilla: Fighting Small Wars in the Midst of a Big One*. Oxford University Press, 2009.
- W. Kim, A.R. Aronson, and W.J. Wilbur. Automatic MeSH term assignment and quality assessment. *Proceedings of the AMIA Symposium*, (319-23), 2001.
- Gary King and Will Lowe. An Automated Information Extraction Tool for International Conflict Data with Performance as Good as Human Coders: A Rare Events Evaluation Design. *International Organization*, 57:617–642, 2003.
- Gary King, Richard Nielsen, Carter Coberley, James E. Pope, and Aaron Wells. Comparative effectiveness of matching methods for causal inference. 2011.
- John C. King. Repression, domestic threat, and interactions in Argentina and Chile. *Journal of Political and Military Sociology*, 26:191–211, 1998.
- Frank Kitson. *Low Intensity Operations: Subversion, Insurgency and Peacekeeping*. Faber & Faber, Limited, 1971.
- Roger Klein and Francis Vella. A semiparametric model for binary response and continuous outcomes under index heteroscedasticity. *Journal of Applied Econometrics*, 24(5):735–762, 2009.
- Matthew Kocher, Tom Pepinsky, and Stathis Kalyvas. Aerial Bombing and Counterinsurgency in the Vietnam War. *American Journal of Political Science*, 55(2), 2011.
- Robert W Komer. *The Malayan emergency in retrospect: organization of a successful counterinsurgency effort*. Santa Monica, CA, 1972.
- A.I. Kozlov. *Na istoricheskom povorote [At a historical turning point]*. Izd-vo Rostovskogo gosudarstvennogo universiteta, Rostov-on-Don, 1977.

- Matthew Krain. State-sponsored mass murder: a study of the onset and severity of genocides and politicides. *Journal of Conflict Resolution*, 41(3):331–60, 1997.
- Mark Kramer. The Perils of Counterinsurgency: Russia's War in Chechnya. *International Security*, 29(3), 2004.
- Mark Kramer. Guerrilla Warfare, Counterinsurgency and Terrorism in the North Caucasus: The Military Dimension of the Russian-Chechen Conflict. *Europe-Asia Studies*, 57(2), 2005.
- Michael Kremer. Integrating Behavioral Choice into Epidemiological Models of AIDS. *The Quarterly Journal of Economics*, 111(2), 1996.
- Andrew F. Krepinevich, Jr. *The Army and Vietnam*. Johns Hopkins University Press, Baltimore, MD, 1988.
- Moshe Kress. Modeling armed conflicts. *Science*, 336(6083):865–869, 2012.
- Moshe Kress and Roberto Szechtman. Why Defeating Insurgencies Is Hard: The Effect of Intelligence in Counterinsurgency Operations – A Best-Case Scenario. *Operations Research*, 57(3):578–585, 2009.
- G. F. Krivosheev, editor. *Rossiya i SSSR v voinah XX veka. Poteri vooruzhennyh sil. Statisticheskoe issledovanie. [Russia and the USSR in 20th century wars. Losses of the armed forces. Statistical study.]*. Olma Press, Moscow, 2001.
- Andrew Kuchins, Matthew Malarkey, and Sergey Markedonov. *The North Caucasus: Russia's Volatile Frontier*. Center for Strategic and International Studies, Washington, D.C., 2011.
- Serhiy Kudelia. Choosing violence in irregular wars: The case of anti-Soviet insurgency in western Ukraine. *East European Politics & Societies*, 27(1):149–181, 2013.
- Aliaksandr Kudrytski and Jake Rudnitsky. Nationalists keep Ukraine on edge as stability is elusive. *Bloomberg*, March 27 2014. <http://www.bloomberg.com/news/print/2014-03-26/radicals-keep-ukraine-on-edge-as-loyalties-start-to-fray.html>.
- Sergey A. Kulikov. The tactics of insurgent groups in the republic of chechnya. *Military Review*, (November-December), 2003.

- Vadim Kulichenko. 1925 god: dlya banditov na Kavkaze zemli ne bolo [1925: there was no land for bandits in the Caucasus]. *Svoimi glazami*, September 2011.
- Egon Kunz. The Refugee in Flight: Kinetic Models and Forms of Displacement. *International Migration Review*, 7:125–146, 1973.
- Andrew H. Kydd. *Trust and Mistrust in International Relations*. Princeton University Press, Princeton, NJ, 2005.
- Andrew H. Kydd and Barbara Walter. Sabotaging the peace: The politics of extremist violence. *International Organization*, 56:263–296, 2002.
- Gary LaFree and Laura Dugan. Introducing the Global Terrorism Database. *Terrorism and Political Violence*, 19:181–204, 2007.
- David A. Lake and Donald Rothchild. Containing fear: The origins and management of ethnic conflict. *International Security*, 21:41–75, 1996.
- Frederick W. Lanchester. *Aircraft in Warfare: The Dawn of the Fourth Arm*. Constable, London, 1916.
- William L. Langer. *Political and social upheaval, 1832-1852*. Number v. 14 in Rise of modern Europe. Harper & Row, 1969.
- Catherine C. Langlois and Jean-Pierre P. Langlois. Does attrition behavior help explain the duration of interstate wars? a game theoretic and empirical analysis. *International Studies Quarterly*, 53(4):1051–1073, 2009.
- Walter Laqueur. *Guerrilla Warfare: A Historical and Critical Study*. Transaction Publishers, New Brunswick, NJ, 1976.
- Yulia Latynina. Terakt v Bostone. Neskol'ko zamechaniy [Terrorist attack in Boston. A few comments]. *Ezhednevnyi Zhurnal*, April 22 2013.
- Yuri Latysh. *Ukraina v gody poslevoennogo vosstanovleniya (1944-1953)* [Ukraine in the years of postwar reconstruction (1944-1953)]. Logos, Kiev, 2011.
- Thomas Edward Lawrence. The evolution of a revolt. *Army Quarterly and Defence Journal*, October, 1920.
- Kalev Leetaru and Philip A. Schrodt. GDELT: Global Data on Events, Location and Tone, 1979-2012, 2013. International Studies Association Annual Meeting.



- Nathan Leites and Charles Wolff, Jr. *Rebellion and Authority*. RAND, Santa Monica, CA, 1970.
- Vladimir Ilyich Lenin. *Polnoe sobranie sochineniy, T. 43 [Comprehensive collected works, vol. 43]*. Izdatel'stvo politicheskoy literatury, Moscow, 5th edition, 1970.
- Mark Levene. *Genocide in the Age of the Nation State*, volume 2. IB Tauris, London, 2005.
- Bahar Leventoglu and Ahmer Tarar. Does private information lead to delay or war in crisis bargaining?\*. *International Studies Quarterly*, 52(3):533–553, 2008.
- Mark I. Lichbach. Contending theories of contentious politics and the structure-action problem of social order. *Annual Review of Political Science*, 1:401–24, 1998.
- Mark I. Lichbach and Ted Robert Gurr. The conflict process – a formal model. *Journal of Conflict Resolution*, 25(1):3–29, 1981.
- Mark Irving Lichbach. Deterrence or Escalation? : The Puzzle of Aggregate Studies of Repression and Dissent. *Journal of Conflict Resolution*, 31, 1987.
- Anatol Lieven. *Chechnya: tombstone of Russian power*. Yale University Press, 1999.
- Sarah Lischer. *Dangerous Sanctuaries: Refugee Camps, Civil War, and the Dilemmas of Humanitarian Aid*. Cornell University Press, Ithaca, NY, 2005.
- Anne Look. CAR capital tense after militia disarmament operation. *Voice of America*, February 16 2014. <http://www.voanews.com/content/car-capital-tense-after-militia-disarmament-operation/1852335.html>.
- TR Loveland, BC Reed, JF Brown, DO Ohlen, Z Zhu, LWMJ Yang, and JW Merchant. Development of a global land cover characteristics database and igbp discover from 1 km avhrr data. *International Journal of Remote Sensing*, 21(6-7): 1303–1330, 2000.
- Vahe Lskavyan. A rational choice explanation for stalin's "great terror". *Economics & Politics*, 19(2):259–287, 2007.
- Stephen C. Lubkemann. Migratory Coping in Wartime Mozambique: An Anthropology of Violence and Displacement in 'Fragmented Wars'. *Journal of Peace Research*, 42(4):493–508, 2005.

- Edward Luttwak. Dead end: Counterinsurgency warfare as military malpractice. *Harper's*, February 2007.
- Jason Lyall. Does Indiscriminate Violence Incite Insurgent Attacks? Evidence from Chechnya. *Journal of Conflict Resolution*, 53(2), 2009.
- Jason Lyall. Are Coethnics More Effective Counterinsurgents? Evidence from the Second Chechen War. *American Political Science Review*, 104(1), 2010.
- Jason Lyall and Isaiah Wilson. Rage Against the Machines: Explaining Outcomes in Counterinsurgency Wars. *International Organization*, 63(2), 2009.
- John A. Lynn. Patterns of insurgency and counterinsurgency. *Military Review*, pages 22–27, July-August 2005.
- Andrew Mack. Why big nations lose small wars: The politics of asymmetric conflict. *World Politics*, 27:175–200, 1975.
- Niall J MacKay. When lanchester met richardson, the outcome was stalemate: a parable for mathematical models of insurgency. *Journal of the Operational Research Society*, pages 1–11, 2013.
- Aleksey Malashenko and Dmitriy Trenin. *Vremya Yuga: Rossiya v Chechnye, Chechnya v Rossii [Time of the South: Russia in Chechnya, Chechnya in Russia]*. Gendalf, Moscow, 2002.
- Michael Mann. *The dark side of democracy: explaining ethnic cleansing*. Cambridge University Press, 2005.
- Tse-Tung Mao. *Basic Tactics*. Praeger, New York, 1966. Trans. by Stuart R. Schram.
- Monty G Marshall and Keith Jagers. Polity iv project: Political regime characteristics and transitions, 1800-2002. 2002.
- T. David Mason. Insurgency, counterinsurgency, and the rational peasant. *Public Choice*, 86(1/2):63–83, 1996.
- T. David Mason. Ending the war in Iraq: The third option. *Civil Wars*, 14(2): 205–227, 2012.
- T. David Mason and Dale A. Krane. The Political Economy of Death Squads: Toward a Theory of the Impact of State-Sanctioned Terror. *International Studies Quarterly*, 33(2), 1989.

- Michaela Mattes and Burcu Savun. Fostering peace after civil war: Commitment problems and agreement design. *International Studies Quarterly*, 53(3):737–759, 2009.
- Robert M. May and Martin A. Nowak. Coinfection and the Evolution of Parasite Virulence. *Proceedings: Biological Sciences*, 261(1361):209–215, 1995.
- Ian McCarthy, Daniel Millimet, and Rusty Tchernis. The bmtc command: Methods for the estimation of treatment effects when exclusion restrictions are unavailable. 2013.
- Erik Melander and Magnus Oberg. Time to Go? Duration Dependence in Forced Migration. *International Interactions*, 32(2):129–152, 2006.
- Memorial. Hronika nasilija [Chronicle of Violence]. Memorial Group, Moscow, 2013.
- Gil Merom. *How democracies lose small wars : state, society, and the failures of France in Algeria, Israel in Lebanon, and the United States in Vietnam*. Cambridge University Press, New York, 2003.
- Gil Merom. The social origins of the french capitulation in algeria. *Armed Forces and Society*, 30(4):601–628, 2004.
- Michael Laver Mikhaylov, Slava and Kenneth Benoit. Coder Reliability and Misclassification in Comparative Manifesto Project Codings. Paper presented at the Midwest Political Science Association, Chicago, 2008.
- Daniel L Millimet and Rusty Tchernis. Estimation of treatment effects without an exclusion restriction: With an application to the analysis of the school breakfast program. *Journal of Applied Econometrics*, 2012.
- Vyacheslav Mironov. *Ya byl na etoy voyne [I was at that war]*. artofwar.ru, 1997.
- Mishkevich. Pokorenie kavkaza. persidskie in kavkazskie voyny [conquest of the caucasus. persian and caucasian wars]. In A.K. Baynov, A.G Elchaninov, A.M. Zayonchkovskiy, N.P. Minkhevich, V.P. Nikol'skiy, N.A. Orlov, A.A. Svechin, and N.N. Yanushkevich, editors, *Istoriya russkoy armii, 1812-1864 [History of the Russian Army, 1812-1864]*, pages 442–611. Poligon, St. Petersburg, 2003.
- Will H. Moore and Stephen M. Shellman. Fear of Persecution: Forced Migration, 1952-1995. *Journal of Conflict Resolution*, 48(5):723–745, 2004.

- Will H. Moore and Stephen M. Shellman. Refugee or Internally Displaced Person? To Where Should One Flee? *Comparative Political Studies*, 39(5):599–622, 2006.
- Andrew R. Morrison and Rachel A. May. Escape from Terror: Violence and Migration in Post-Revolutionary Guatemala. *Latin American Research Review*, 29: 111–133, 1994.
- Karl Mueller. The essence of coercive air power: A primer for military strategists. *Air and Space Power Journal*, September 2001.
- Amanda Murdie and Tavishi Bhasin. Aiding and abetting? human rights INGOs and domestic anti-government protest. *Journal of Conflict Resolution*, 55(2): 163–191, 2011.
- John A. Nagl. Learning to eat soup with a knife: Counterinsurgency lessons from malaya and vietnam. 2002.
- Plotnikov. N.D. Smertonostsy [carriers of death]. *VIZ*, 3:52–61, 1991.
- NOAA. Data announcement 88-MGG-02, digital relief of the surface of the earth. *National Geophysical Data Center, Boulder, CO*, 1988.
- Martin A. Nowak and Robert M. May. Superinfection and the Evolution of Parasite Virulence. *Proceedings: Biological Sciences*, 255(1342):81–89, 1994.
- Juan C. Nuño, Miguel A. Herrero, and Mario Primicerio. A triangle model of criminality. *Physica A: Statistical Mechanics and its Applications*, 387(12):2926–2936, 2008.
- O. Olikier. *Russia's Chechen Wars 1994-2000: Lessons from Urban Combat*. RAND Corporation, 2001. ISBN 9780833032485.
- Pamela Oliver. Formal models of collective action. *Annual Review of Sociology*, 19: 271–300, 1993.
- John O'Loughlin and Frank Witmer. The Localized Geographies of Violence in the North Caucasus of Russia, 1999-2007. *Annals, Association of American Geographers*, 101(1), 2011.

- John O'Loughlin, Edward Holland, and Frank Witmer. The Changing Geography of Violence in the North Caucasus of Russia, 1999-2011: Regional Trends and Local Dynamics in Dagestan, Ingushetia and Kabardino-Balkaria. *Eurasian Geography and Economics*, 52(5), 2011.
- M. Ol'shevskiy. *Kavkaz s 1841 po 1866 god [The Caucasus from 1841 to 1866]*. Zvezda, St. Petersburg, 2003.
- Mancur Olson. *The Logic of Collective Action*. Harvard University Press, Cambridge, MA, 1965.
- Grigoriy K. Ordzhonikidze. *Stat'i i rechi [Articles and speeches]*. Gospolitizdat, Moscow, 1956.
- O.P. Orlov and V.P. Cherkassov. *Chechnya: Tsep' oshibok i prestupleniy [Chechnya: a chain of errors and crimes]*. Memorial, Moscow, 1996.
- Robert A. Pape. *Bombing to Win: Air Power and Coercion in War*. Cornell University Press, Ithaca, 1996.
- People's Commissariat of Internal Affairs (NKVD). *Spisok guberniy i uyezdov RSFSR (s chislom volostey). Po dannym NKVD na 1 august 1921 g. [List of govern orates and districts in the RSFSR (with enumeration of volosts). According to NKVD data as of 1 August 1921]*. Gosudarstvennoe izdatel'stvo, Moscow, 1921.
- Ralph Peters. Progress and peril: New counterinsurgency manual cheats on the history exam. *Armed Forces Journal*, (144), 2007.
- Roger D. Petersen. *Understanding Ethnic Violence: Fear, Hatred, and Resentment in Twentieth-Century Eastern Europe*. Cambridge University Press, Cambridge, 2002.
- William Petersen. A General Typology of Migration. *American Sociological Review*, 23(3):256-266, 1958.
- Douglas Pike. *Viet Cong: The Organization and Techniques of the National Liberation Front of South Vietnam*. MIT Press, Cambridge, 1966.
- Steven Pinker. *The Better Angels of Our Nature: Why Violence Has Declined*. Penguin Group US, New York, 2011.
- N.L. Pobol' and P.M. Polyan, editors. *Stalinskie Deportatsii, 1928-1953 [Stalin's Deportations, 1929-1953]*. Materik, Moscow, 2005.

- Steven Poe and C. Neal Tate. Repression of human rights to personal integrity in the 1980s – a global analysis. *American Political Science Review*, 88(4):853–72, 1994.
- Anna Politkovskaya. *Vtoraya Chechenskaya [Second Chechen]*. Zakharov, Moscow, 2002.
- Anna Politkovskaya. *A small corner of hell: Dispatches from Chechnya*. University of Chicago Press, 2007.
- P.M. Polyan. *Ne po svoey volye... Istoriya i geografiya prinuditel'nykh migratsiy v SSSR [Nto of their own will... The history and geography of forced migrations in the USSR]*. Memorial, Moscow, 2001.
- Samuel Popkin. *The Rational Peasant*. University of California Press, Berkeley, 1979.
- Barry Posen. Military Responses to Refugee Disasters. *International Security*, 21(1):72–111, 1996.
- Robert Powell. Bargaining in the shadow of power. *Games and Economic Behavior*, 15(2):255–289, 1996.
- Robert Powell. *In the Shadow of Power: States and Strategies in International Politics*. Princeton University Press, Princeton, NJ, 1999.
- Robert Powell. The inefficient use of power: Costly conflict with complete information. *American Political Science Review*, 98(2):231–241, 2004a.
- Robert Powell. The inefficient use of power: Costly conflict with complete information. *American Political Science Review*, 98(2):231–241, 2004b.
- Robert Powell. Bargaining and learning while fighting. *American Journal of Political Science*, 48(2):344–361, 2004c.
- Robert Powell. War as a commitment problem. *International Organization*, 60(1):169–203, 2006.
- Robert Powell. Persistent fighting and shifting power. *American Journal of Political Science*, 56(3):620–637, 2012.

- B. Aditya Prakash, Alex Beutel, Roni Rosenfeld, and Christos Faloutsos. Winner takes all: competing viruses or ideas on fair-play networks. In *Proceedings of the 21st international conference on World Wide Web*, pages 1037–1046. ACM, 2012.
- Presidium of Supreme Soviet of USSR, Information-Statistical Division, editor. *SSSR: Administrativno-territorial'noye delenie soyuznykh respublik [USSR: Administrative division of Union Republics]*. Izd. 'Izvestiya Sovetov Deputatov Trudyashchikhsya SSSR', Moscow, 1941.
- Presidium of Supreme Soviet of USSR, Information-Statistical Division, editor. *SSSR: Administrativno-territorial'noye delenie soyuznykh respublik [USSR: Administrative division of Union Republics]*. Izd. 'Izvestiya Sovetov Deputatov Trudyashchikhsya SSSR', Moscow, 1941/1946/1954.
- Presidium of Supreme Soviet of USSR, Information-Statistical Division, editor. *SSSR: Administrativno-territorial'noye delenie soyuznykh respublik [USSR: Administrative division of Union Republics]*. Izd. 'Izvestiya Sovetov Deputatov Trudyashchikhsya SSSR', Moscow, 1946.
- Presidium of Supreme Soviet of USSR, Information-Statistical Division, editor. *SSSR: Administrativno-territorial'noye delenie soyuznykh respublik [USSR: Administrative division of Union Republics]*. Izd. 'Izvestiya Sovetov Deputatov Trudyashchikhsya SSSR', Moscow, 1954.
- J. Michael Quinn, T. David Mason, and Mehmet Gurses. Sustaining the peace: Determinants of civil war recurrence. *International Interactions*, 33(3):167–193, 2007.
- Clionadh Raleigh and Havard Hegre. Population size, concentration, and civil war. A geographically disaggregated analysis. *Political Geography*, 28, 2009.
- Clionadh Raleigh, Andrew Linke, Havard Hegre, and Joakim Karlsen. Introducing ACLED: An Armed Conflict Location and Event Dataset. *Journal of Peace Research*, 47(5):651–660, 2010.
- John Rawls. *A Theory of Justice*. A Theory of Justice. Belknap Press Harvard University Press, Cambridge, MA, 1999.
- Andrew M. Reeves, Stephen M. Shellman, and Brandon M. Stewart. Media Generated Data: The Effects of Source Bias on Event Data Analysis. In *Presented at the International Studies Association annual convention*, 2006.

- Patrick M. Regan and Errol A. Henderson. Democracy, threats and political repression in developing countries: Are democracies internally less violent? *Third World Quarterly*, 23(1):119–36, 2002.
- Patrick M. Regan, Richard W. Frank, and Aysegul Aydin. Diplomatic Interventions and Civil War: A New Dataset. *Journal of Peace Research*, 46(1):135–146, 2009.
- Dan Reiter. Exploring the bargaining model of war. *Perspectives on Politics*, 1:27–43, 2003.
- RIA Novosti. Gruzija oproverгла informatsiyu o boevikah v Pankisskom ushchelio [Georgia denies information about militants in the Pankisi Gorge]. *RIA Novosti*, February 9 2008.
- Lewis F Richardson. Mathematical psychology of war. *Nature*, 135:830–831, 1935.
- Lewis Fry Richardson. *Mathematical psychology of war*. W. Hunt, 1919.
- Rosbalt. Prezident tadzhikistana nameren dobit'sya razoruzheniya boevikov na pamire [tajikistan's president determined to disarm insurgents in the pamir]. <http://www.rosbalt.ru/exussr/2012/07/27/1016113.html>, July 7 2012. Rosbalt.
- Gunther E. Rothenberg. Maurice of Nassau, Gustavus Adolphus, Raimondo Montecuccoli, and the 'Military Revolution' of the Seventeenth Century. In Peter Paret, Gordon A. Craig, and Felix Gilbert, editors, *Makers of modern strategy from Machiavelli to the Nuclear Age*. Princeton University Press, Princeton, NJ, 1986.
- RT. Over 5,000 Kalashnikovs, other guns stolen from Ukrainian military bases – report. *RT*, March 14 2014. <http://rt.com/news/arms-stolen-ukraine-threat-006/>.
- Jacqueline H. Rubin and Will H. Moore. Risk Factors for Forced Migrant Flight. *Conflict Management and Peace Science*, 24:85–104, 2007.
- Rudolph J. Rummel. *Death by Government*. Transaction Publishers, New Brunswick, N.J., 1994.
- Rudolph J. Rummel. Democracy, power, genocide, and mass murder. *Journal of Conflict Resolution*, 39(1):3–26, 1995.



- Dotmilla Sagramoso. Violence and conflict in the Russian North Caucasus. *International Affairs*, 83(4):681–705, 2007.
- Idean Salehyan. The Externalities of Civil Strife: Refugees as a Source of International Conflict. *American Journal of Political Science*, 52(4):787–801, 2008.
- Idean Salehyan and Kristian Skrede Gleditsch. Refugees and the Spread of Civil War. *International Organization*, 60(2):335–366, 2006.
- Gregory Saxton and Michelle Benson. Means, Motives and Opportunities in Ethno-Nationalist Mobilization. *International Interactions*, 34(1):53–83, 2008.
- Marvin B. Schaffer. Lanchester models of guerrilla engagements. *Operations Research*, 16(3):457–488, 1968.
- Thomas C. Schelling. *Arms and Influence*. Yale University Press, New Haven, 1966.
- Thomas C. Schelling. *The Strategy of Conflict*. Harvard University Press, Cambridge, MA, 1980.
- Susanne Schmeidl. Exploring the Causes of Forced Migration: A Pooled Time-Series Analysis, 1971-1990. *Social Science Quarterly*, 78(2):284–308, 1997.
- Philip A. Schrodtt. Automated Coding of International Event Data Using Sparse Parsing Techniques. In *Presented at the International Studies Association*, Chicago, 2001.
- Philip A. Schrodtt and Deborah J. Gerner. Validity assessment of a machine-coded event data set for the Middle East, 1982-1992. *American Journal of Political Science*, 38:825–854, 1994.
- Paul T. Schultz. Rural-Urban Migration in Colombia. *The Review of Economics and Statistics*, 53(2):157–163, 1971.
- Sebastian Schutte and Nils B. Weidmann. Diffusion patterns of violence in civil wars. *Political Geography*, 30(3):143 – 152, 2011.
- Jasjeet S. Sekhon. Multivariate and Propensity Score Matching Software with Automated Balance Optimization: The Matching Package for R. *Journal of Statistical Software*, 42(7):1–52, 2011.

- Jasjeet S. Sekhon and Alexis Diamond. Genetic Matching for Estimating Causal Effects: A General Multivariate Matching Method for Achieving Balance in Observational Studies. *Review of Economics and Statistics*, Forthcoming, 2012.
- Jacques Sémelin. *Purifier et détruire. Usages politiques des massacres et génocides*. Seuil, Paris, 2009.
- Boris V. Sennikov. *Tambovskoye vosstanie 1918-1921 gg. i raskrestyanivaniye Rossii 1929-1933 gg. [Tambov uprising of 1918-1921 and the elimination of peasantry in Russia 1929-1933]*. Posev, Moscow, 2004.
- Neil Sheehan. *A Bright Shining Lie: John Paul Vann and the USA in Vietnam*. Random House, New York, 1988.
- Stephen M. Shellman. Coding Disaggregated Intrastate Conflict: Machine Processing the Behavior of Substate Actors over Time and Space. *Political Analysis*, 16(4), 2008.
- Joel David Singer. *The Correlates of War*, volume 2. Free Press, New York, 1980.
- Branislav L. Slantchev. The power to hurt: Costly conflict with completely informed states. *American Political Science Review*, 97(1):123–135, 2003a.
- Branislav L. Slantchev. The principle of convergence in wartime negotiations. *American Political Science Review*, 97(4):621–632, 2003b.
- Alastair Smith and Allan C. Stam. Bargaining and the nature of war. *Journal of Conflict Resolution*, 48(6):783–813, 2004.
- Rupert Smith. *The Utility of Force: The Art of War in the Modern World*. Knopf Doubleday Publishing Group, 2007.
- P. Sokhan' and P. Potichnyj, editors. *Litopys UPA, New Series*, volume 4-7. State Committee for Archives of Ukraine, Central State Archive of Public Associations of Ukraine, Kyiv/Toronto, 2002/2003.
- Soldat Udachi. Militant tactics. *Soldat Udachi*, September 3 2003a.
- Soldat Udachi. Militant tactics (continuation of article from 3 September 2003). *Soldat Udachi*, December 3 2003b.
- Emil Souleimanov. *Endless war: the Russian-Chechen conflict in perspective*. Peter Lang, Frankfurt am Main, 2007.

- Emil Souleimanov. Mopping up Gimry: 'zachistkas' reach Dagestan. *The Central Asia-Caucasus Analyst*, April 24 2013.
- Alexander Statiev. *The Soviet Counterinsurgency in the Western Borderlands*. Cambridge, 2010.
- Stephen John Stedman. Spoiler problems in peace processes. *International Security*, 22(2):5–53, 1997.
- Abbey Steele. Massive Civilian Displacement in Civil War: Assessing Variation in Colombia. Technical report, Households in Conflict Network, The Institute of Development Studies, University of Sussex, April 2007.
- Abbey Steele. Seeking Safety: Avoiding Displacement and Choosing Destinations in Civil Wars. *Journal of Peace Research*, 46(3):419–430, 2009.
- Abbey Steele. Electing Displacement: Political Cleansing in Apartadó, Colombia. *Journal of Conflict Resolution*, 55(3):423–445, 2011.
- David Stoll. *Between Two Armies in the Ixil Towns of Guatemala*. Columbia University Press, New York, 1993.
- Elizabeth A. Stuart and Donald B. Rubin. Matching methods for causal inference: Designing observational studies. In Jason Osborne, editor, *Best Practices in Quantitative Methods*, pages 155–176. Sage, 2008.
- Fred Tanner. Consensual versus coercive disarmament. In Estanislao Angel Zawiels, Stephen John Stedman, and Donald C.F. Daniel, editors, *Managing Arms in Peace Processes: The Issues*, pages 169–204. United Nations Institute for Disarmament Research Disarmament and Conflict Resolution Project, New York and Geneva, 1996.
- Timothy L. Thomas. Air operations in low intensity conflict: The case of Chechnya. *Airpower Journal*, (Winter), 1997.
- Robert S. Thompson. *Defeating Communist Insurgency*. Praeger, New York, 1966.
- Charles Tilly. *From Mobilization to Revolution*. Addison-Wesley, 1978.
- Charles Tilly. War making and state making as organized crime. In P. Evans and T. Skocpol D. Rueschemeyer, editors, *Bringing the State Back In*, pages 169–191. Cambridge, 1985.

- Charles Tilly. From Mobilization to Revolution. Technical report, Center for Research on Social Organization, 1997. CRSO Working Paper 156.
- Monica Duffy Toft. *Geography of Ethnic Violence: Identity, Interests and Indivisibility of Territory*. Princeton, 2003.
- Monica Duffy Toft. Ending Civil Wars: A Case for Rebel Victory? *International Security*, 34(4):7–36, 2010.
- Monica Duffy Toft and Yuri M. Zhukov. Denial and Punishment in the North Caucasus: Evaluating the Effectiveness of Coercive Counterinsurgency. *Journal of Peace Research* [forthcoming], 49(6), 2012.
- Roger Trinquier. *La Guerre moderne*. La Table ronde, Paris, 1961.
- Gennadiy Troshev. *Moya voyna: Chechenskiy dnevnik okopnogo generala* [My war: the Chechen diary of a trench general]. Vagrius, Moscow, 2001a.
- Gennadiy Troshev. Dorogami Chechni. Zapiski komanduyushchego. Chast' 1 [By Chechnya's Roads. Commander's notes. Part 1]. *Voin Rossii*, (10), 2001b.
- Leon Trotsky. *A History of the Russian Revolution*. Gollancz, London, 1965.
- A.A. Tsitsuev. *Atlas Etnopoliticheskoy Istorii Kavkaza* [Atlas of the Ethnopolitical History of the Caucasus]. Yevropa, Moscow, 2007.
- Gordon Tullock. The paradox of revolution. *Public Choice*, 11(1):89–99, 1971.
- UNIAN. Avakov naval 'Pravyi Sektor' banditami i gotov print' vyzov [Avakov calls 'Pravyi Sektor' bandits and is ready to accept the challenge]. *UNIAN.ua*, March 25 2014. <http://www.unian.net/politics/900441-avakov-nazval-pravyiy-sektor-banditami-i-gotov-prinyat-vyizov.html>.
- Unified Interdepartmental Statistical Information System of the Russian Federation. Chislennost' postoyannogo naseleniya na 1 yanvarya (chelovek). <http://www.fedstat.ru/indicator/data.do?id=31557>, 2014. Accessed: 2014-03-22.
- United Nations. Convention relating to the Status of Refugees, July 1951. URL <http://www.unhcr.org/3b66c2aa10.pdf>.

- Henrik Urdal. People vs Malthus: Population Pressure, Environmental Degradation, and Armed Conflict Revisited. *Journal of Peace Research*, 42(4):417–434, 2005.
- U.S. Geological Survey. Global 30-Arc-Second Elevation Data Set, 1996. Dni.ru.
- Benjamin Valentino. Final solutions: the causes of mass killing and genocide. *Security Studies*, 9(3):1–59, 2000.
- Benjamin Valentino, Paul Huth, and Dylan Balch-Lindsay. ‘Draining the Sea’: Mass Killing and Guerrilla Warfare. *International Organization*, 58(2), 2004.
- Benjamin Valentino, Paul Huth, and Sarah Croco. Covenants without the sword: International law and the protection of civilians in times of war. *World Politics*, 58(3):339–77, 2006.
- Benjamin A Valentino. *Final solutions: Mass killing and genocide in the 20th century*. Cornell University Press, 2004.
- Martin Van Creveld. *Supplying war: logistics from Wallenstein to Patton*. Cambridge University Press, 2004.
- Dong Van Khuyen. *The RVNAF*. U.S. Army Center of Military History, 1980.
- Olga I. Vendina, Vitaliy S. Belozarov, and Andrew Gustafson. The Wars in Chechnya and Their Effects on Neighboring Regions. *Eurasian Geography and Economics*, 48(2), 2007.
- Mikhail Vignanskiy. Partizanskaya voyna mozhet voyti v Gruziiu cherez Pankisskoe ushcheliie [Partisan war might enter Georgia through the Pankisi Gorge]. *Segodnya*, June 8 2000.
- N. Vladimirtsev and A. Kokurin. *NKVD-MVD SSSR v bor’be s banditizmom i vooruzhennym natsionalisticheskim podpol’yem na Zapadnoy Ukraine, v Zapadnoy Belorussii i Pribaltike 1939-1956 [NKVD-MVD in the struggle against banditry and armed nationalist guerillas in Western Ukraine, Western Belarus and the Baltics]*. MVD, Moscow, 2008.
- Voice of Russia. Ukrainians lay down three thousand weapons to police – interior minister. *Voice of Russia*, March 23 2014. [http://voiceofrussia.com/news/2014\\_03\\_23/Ukrainians-lay-down-three-thousand-weapons-to-police-Interior-Minister-8517/](http://voiceofrussia.com/news/2014_03_23/Ukrainians-lay-down-three-thousand-weapons-to-police-Interior-Minister-8517/).

- Vitaliy Voronovich and Vadim Samatyya. Problema bezhentssev i peremeshchenykh lits iz SSSR v period vtoroy mirovoy voyny i poslevoennye gody (1939-1951gg.). *Belarusian Journal of International Law and International Relations*, (3):67-74, 2004.
- R. Harrison Wagner. Bargaining and war. *American Journal of Political Science*, 44(3):469-484, 2000.
- Barbara F. Walter. The critical barrier to civil war settlement. *International Organization*, 51(3):335-364, 1997.
- Barbara F. Walter. *Committing to peace: The successful settlement of civil wars*. Princeton University Press, Princeton, 2002.
- Michael D. Ward, Andreas Beger, Josh Cutler, Matt Dickenson, Cassy Dorff, and Ben Radford. Comparing GDELT and ICEWS event data. 2013.
- Denis Warner. *The Last Confucian*. Penguin Books, Philadelphia, 1964.
- Matthew C Waxman. Siegecraft and surrender: The law and strategy of cities as targets. *Virginia Journal of International Law*, 39:353, 1998.
- Robert Philip Weber. *Basic Content Analysis*. Sage Publications, Newbury Park, CA, 2nd edition, 1990.
- N.B. Weidmann. Geography as Motivation and Opportunity: Group Concentration and Ethnic Conflict. *Journal of Conflict Resolution*, 53(4):526-543, 2009.
- Nils B Weidmann, Jan Ketil Rød, and Lars-Erik Cederman. Representing ethnic groups in space: A new dataset. *Journal of Peace Research*, 47(4):491-499, 2010.
- Myron Weiner. Security, Stability, and International Migration. *International Security*, 17(3):91-126, 1992.
- Jeremy Weinstein. *Inside Rebellion: The Politics of Insurgent Violence*. Cambridge University Press, Cambridge, 2007.
- K. Weyland. The diffusion of revolution: '1848' in europe and latin america. *International Organization*, 63:391-423, 2009.
- Kurt Weyland. The diffusion of regime contention in European democratization, 1830-1940. *Comparative Political Studies*, 43(8/9):1148-1176, 2010.

- Donald Wittman. How a war ends: A rational model approach. *Journal of Conflict Resolution*, 23(4):743–763, 1979.
- Boris Yeltsin. O me rah po presecheniyu deyatel'nosti nezakonnykh vooruzhennykh formirovaniy na territory Chechenskoj Respubliki i v zone osetino-igushskogo konflikta [on measures to halt the activities on unlawful armed bands in the Chechen Republic and in the zone of the Ossetian-Igush conflict]. Decree of President of Russia, no. 2166, 1994.
- Avaz Yuldashev. V khoroge prodolzhaetsya protsess razoruzheniya i poimka razyskivayemykh lits [the disarmament and manhunt process in khorog continues]. [news.tj/ru/printpdf/127624](http://news.tj/ru/printpdf/127624), September 2012. News.tj.
- Sabine C. Zanger. A global analysis of the effect of political regime changes on life integrity violations, 1977-1993. *Journal of Peace Research*, 37(2):213–33, 2000.
- V.N. Zemskov. *Spetsposelentsy v SSSR. 1930-1960 gg.* [Special settlers in the USSR. 1930-1960]. Nauka, Moscow, 2005.
- Yuri M Zhukov. Roads and the diffusion of insurgent violence: The logistics of conflict in Russia's North Caucasus. *Political Geography*, 31(3):144–156, 2012a.
- Yuri M. Zhukov. An epidemic model of violence and public support in civil war. *Conflict Management and Peace Science*, 29(5), 2012b.
- Yuri M. Zhukov. Counterinsurgency in a non-democratic state: the Russian example. In Paul Rich and Isabelle Duyvesteyn, editors, *The Routledge Companion to Insurgency and Counter Insurgency*. Routledge, 2012c.
- Yuri M Zhukov. Population resettlement in war theory and evidence from soviet archives. *Journal of Conflict Resolution*, Forthcoming, 2014.
- Elena F. Zhupikova. K voprosu o razoruzhenii Chechni v 1920-1925 godakh [on the question of chechnya's disarmament in 1920-1925]. In *Trudy Moskovskogo gosudarstvennogo pedagogicheskogo institute im. VI. Lenina* [Works from the V.I. Lenin Moscow State Pedagogical Institute], pages 93–99. MGPI, 1998.
- Elena F. Zhupikova. Povstanchesкое dvizhenie na Severnom Kavkaze v 1920-1925 godakh [Insurgent movement in the North Caucasus in 1920-1925]. In *Akademiya istoricheskikh nauk. Sbornik trudov, T. 1* [Academy of Historical Sciences. Collected works, vol. 1], pages 114–319. Academy of Historical Sciences, 2006.

Eduard A. Ziegenhagen. *The Regulation of Political Conflict*. Praeger, New York, 1986.

Dina A Zinnes and John V Gillespie. *Mathematical models in international relations*. Praeger Publishers, 1976.