Learning How Not to Fire a Gun:
The Impact of Combatant Training on Civilian Killings

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Abstract: Military theorists and practitioners have long argued that training shapes how combatants treat civilians during war. While the literature on civilian killing in civil war has expanded rapidly, there is little systematic evidence regarding the impact of training on combatant behavior, and almost none for non-state armed groups, despite the fact that such groups intensively train their fighters. This article develops hypotheses connecting repertoires of training to civilian abuse. We test these hypotheses using survey data on ex-combatants from Colombia, which we match to sub-national data on civilian killings. We find strong evidence that political training significantly reduces civilian killings, particularly among guerrilla forces that are reliant on civilian support. These results are robust to a range of model specifications and controls, including alternate sources of combatant discipline, such as military training and punishment.

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Training is a crucial determinant of military behavior in wartime. It influences not only the effectiveness with which armed groups use force, but how, where, and against whom they employ violence. Lack of training is thought to increase the odds that civilians suffer collateral damage, and to lead to the deliberate targeting and killing of civilian populations. Moreover, military doctrine suggests that training should matter most in irregular wars in which military units operate among civilian populations. The US Army/Marine Corps Counterinsurgency Field Manual (FM 3-24) argues that “poorly trained leaders and units are more prone to committing human rights violations than well-trained, well-led units. Leaders and units unprepared for the pressure of active operations tend to use indiscriminate force, target civilians, and abuse prisoners.” Although theory and doctrine have focused primarily upon the impact of training on state armed forces, it is reasonable to conclude that training would have similar effects upon irregular and insurgent armed groups; indeed, it is striking that widely varying insurgent organizations around the world have placed great emphasis upon military training and political indoctrination.

Despite a burgeoning literature on the “industrial organization” of armed groups, which has focused on the implications of armed groups’ capacity to discipline and sanction foot soldiers, there has been only limited research on variation in combatant training across non-state armed groups (and across sub-units of individual armed groups), as well as the consequences that such training has on the conduct of war. This is particularly noteworthy given that training, along

10 The only existing work of which we are aware that explicitly connects armed group training to civilian victimization is Amelia Hoover Green, *Repertoires of Violence Against Noncombatants: The Role of Armed Group Institutions and Ideologies*, PhD dissertation at Yale University (2011). Arguing in a different direction, Dara Kay
with disciplinary measures, are fundamental mechanisms through which armed groups attempt to shape the behavior of individual combatants.\textsuperscript{11}

This article explores the relationship between repertoires of training and the propensity for armed groups to kill civilians. We argue that the political content of training matters. The function of political training is not simply to discipline combatants to sublimate their preferences, but instead to reshape those preferences in order to serve the aims of the group. In short, “becoming a soldier entails a process of embracing—learning—new preferences.”\textsuperscript{12} Given imperfect monitoring of soldiers' behavior, indoctrination and training become essential to transforming the preferences of fighters, reducing the need for constant discipline and sanctions.\textsuperscript{13} If this were true, when civilian abuse is seen to be counterproductive to the war effort, and such beliefs and narratives are consistently and regularly communicated to combatants, we should expect to see more restraint exercised towards civilian populations.

In order to empirically evaluate the impact of training on civilian victimization, we use data gleaned from a survey of 1,485 demobilized guerrilla and paramilitary fighters in Colombia. More specifically, we use survey respondents' answers about their training to calculate training intensity across geographic departments for two armed groups in Colombia. We then match these survey data to violent events data to estimate the effect that different levels of armed group training intensity have on civilian killings, after controlling for potential confounders.\textsuperscript{14} The Colombian conflict offers a powerful context within which to examine the impact of training, given the number of contending non-state armed groups and their varying ideological and operational characteristics.

Our findings suggest that the content of training matters greatly for the conduct of soldiers and carries implications for civilian killings. Political training strongly decreases the killing of civilians both for insurgent groups that rely heavily on civilians and for paramilitary groups that are less constrained by public opinion. Our statistical results are robust to the inclusion of a battery of control variables, including group disciplinary measures (another mechanism often considered to be crucial to mitigating civilian abuse) as well as the intensity of other forms of training.

Cohen contends that in order to build “bonds of loyalty and friendship” among forcibly recruited fighters, armed groups typically do not turn to training, but rather allow their combatants to engage in sexual violence and, more specifically, gang rape. See Dara Kay Cohen, Explaining Sexual Violence During Civil War, PhD dissertation at Stanford University (2011).


\textsuperscript{13} Amelia Hoover Green, Repertoires of Violence Against Noncombatants: The Role of Armed Group Institutions and Ideologies, PhD dissertation at Yale University (2011): 9.

\textsuperscript{14} We discuss the estimation strategy, survey details, and our research design in a subsequent section.
This study makes several contributions. First, by focusing on training, we identify and begin to theorize an important dimension of the internal organization and functioning of armed groups that has been largely overlooked in contemporary empirical research. Second, we empirically test the relationship between political training and other forms of group socialization and control on the incidence of civilian killings in one of the world's most protracted and still ongoing armed conflicts. Finally, we underline the potential contribution of individual-level survey data to our understanding of the dynamics of civil war. To the best of our knowledge, only one other study uses individual-level survey data of former combatants to systematically assess the correlates of wartime behavior, even though such data provide a powerful opportunity to explore the factors that motivate or mitigate outcomes such as the killing of civilians.

Our theory and findings also have policy implications. The United States government and other third party actors frequently offer both political and military training to counter-insurgent forces, and also have a long history of training insurgent organizations to contest opposing regimes: notable examples include the Nicaraguan Contras in the 1980s and the Syrian insurgent factions currently rebelling against the Assad regime. Our findings suggest that the content of such training may have significant implications for the burden of war placed on civilians.

The paper proceeds as follows. The next section theorizes training of combatants in armed conflict. It identifies the causal mechanisms through which political training might impact combatant behavior, and discusses the implications for civilian victimization. The third section describes our survey data and explains the research design. The fourth section presents the statistical results and presents an extensive battery of robustness checks. The final section discusses the implications of our findings and concludes.

**LEARNING HOW NOT TO FIRE A GUN**

Training is the bedrock of military organization. Recruits to formal and non-state armed forces spend significant time drilling, practicing, and absorbing information. This process has two basic manifest functions: the socialization of recruits into the norms and operating procedures of the organization, and the inculcation of specific skills that allow recruits to fight effectively. The goal of training is to turn ordinary individuals into soldiers: as Janowitz argues,

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“professional socialization—that is, education and training—is considered essential to fashion and refashion the military man.”

The process and content of training varies widely within and across military organizations. However, it is possible, and we argue critical, to distinguish between two broad dimensions of warfighting, each of which requires a distinct form of training: the production and application of coercive force, on the one hand, and the management of force, or decisions regarding where and how violence and coercion should be utilized, on the other. The former is developed through military and operational training, the latter through exposure to political training and doctrine. We expand on this distinction below, before drawing out testable hypotheses regarding the impact of political training on combatants’ behavior towards civilians in irregular war.

The production and effective application of force requires a range of mechanical, technical, and organizational skills. The content of this sort of training—which we shorthand as “military training”—is correspondingly broad and diverse: soldiers are taught to effectively use weapons, maintain their physical condition, work with equipment, execute a wide range of tactics and maneuvers, operate on varying forms of terrain, and to function smoothly within larger units. Military training is designed to accustom soldiers to conditions and challenges that they might expect to encounter in battle, so as to mitigate the potential for confusion in combat.

Military training is typically routinized and intense. Recruits are put through periods of extreme physical and mental stress, typically via taxing physical tasks, sleep deprivation, and psychological pressure (or according to many accounts, abuse) from trainers. These processes are thought to serve an equally important set of latent functions: to acclimate soldiers to follow orders and maintain discipline, and to build a sense of shared identity, trust, cohesion, and coordination within and among small group units. Importantly, training is not a one-off

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22 The U.S. Army/Marine Corps Counterinsurgency Field Manual (University of Chicago Press, 2007); Risa A. Brooks, “Introduction: The Impact of Culture, Society, Institutions, and International Forces on Military Effectiveness,” in *Creating Military Power: the Sources of Military Effectiveness*, ed. Risa A. Brooks and Elizabeth A. Stanley (Stanford University Press, 2007). Building cohesion is thought to be crucial, both to create small group loyalty and social ties sufficient to drive recruits to fight and even risk their lives for each other, and to prevent group disintegration through desertion or defection to the enemy. On this point, Siebold notes that cohesion is “generated by the interactions and experiences of the group members in the context of their daily military activities, combat and noncombat.” See Guy L. Siebold, “The Essence of Military Group Cohesion,” *Armed Forces & Society* 33, no. 2 (2007): 289.
treatment that prepares a soldier for combat, but is typically an ongoing process that begins prior to deployment and continues in the field.²³

A second dimension of training—which we focus on in this paper—concerns the purpose and management of force. In both formal state and insurgent forces, recruits undergo training and indoctrination processes that steep them in the political ideology of their organization, stressing the righteousness of the use of force when sanctioned by the leadership. These abstract principles, however, are crystallized in a specific military doctrine. Doctrine, in Avant’s definition “falls between the technical details of tactics and the broad outline of grand strategy. Whereas tactics deals with issues about how battles are fought, doctrine encompasses the broader set of issues about how one wages war.”²⁴ Doctrine is not designed to tightly script the actions of soldiers, but instead provides a body of knowledge, principles, and policies in order to inform the decision-making of soldiers in the field.²⁵

Political training and exposure to doctrine are designed to re-shape the preferences of individual combatants. As opposed to punishment and disciplinary measures, which condition combatants to sublimate their preferences to avoid an undesired effect, indoctrination is designed to alter preferences and introduce new ones. Kelman notes that through processes such as training, an agent can move from compliance with his group (based on obtaining rewards or avoiding punishment), to identification (based on the desire for social affirmation), to internalization of the rules of the group, when “an individual accepts influence because the content of the induced behavior—the ideas and actions of which it is composed—is intrinsically rewarding.”²⁶

a. Political training and the principal-agent problem

We begin with several “first principles” at the micro-level about what drives individual combatants to engage in abuse of civilians, despite the existence of group-level incentives to refrain from targeting innocent civilians that have not collaborated with rivals. We conceptualize the relationship between combatants and commanders as a principal-agent problem. Principal-agent models are useful to describe relationships in which preferences between principals and agents diverge and there are informational asymmetries between those parties.²⁷ Preferences between commanders and combatants might diverge for a number of reasons. Lower-level

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combatants often have different backgrounds than commanders—including lower levels of education, and lower socioeconomic status—and therefore are likely to have joined their armed group for different reasons than commanders.\textsuperscript{28} Additionally, the ultimate benefits that accrue to commanders and foot soldiers should their armed group triumph differ tremendously. As Johnston notes, “leaders stand a good chance to win the ultimate payoff: becoming the president of the country in which they fight. For mid- and low-level fighters, the payoff from a military victory is significantly lower, which decreases their incentive to fight efficiently for military victory and creates an incentive for them to pursue personal aggrandizement when possible.”\textsuperscript{29}

These incentives are coupled with informational asymmetries, which make it difficult for commanders to monitor the behavior of combatants. This occurs when it is difficult or impossible to establish verification mechanisms for the completion of particular tasks, providing combatants with incentives to cheat and engage in self-enrichment.\textsuperscript{30} In view of these dynamics, commanders rely on a portfolio of tools—including training regimes and punishment of combatants for infractions—to ensure that combatants do not engage in behavior that would be prejudicial to the groups’ interest.

The relationship between indoctrination and other forms of social control, notably discipline and punishment, has received attention in the literature on armed group behavior.\textsuperscript{31} Hoover Green argues that indoctrination and political education programs help solve the “commander's dilemma”: combatants must be ready to engage in violence, yet commanders must be able to control violence to reduce wanton and indiscriminate attacks against civilians that could hurt the group's chances of success. Well-institutionalized attempts to control violence through political indoctrination are often an efficient and effective way to restrain the production of violence.\textsuperscript{32}

In the civil war context, the principal-agent problem is compounded by the fact that combatants are surrounded by civilian populations with uncertain loyalties; this uncertainty presents risks for both sides and involves solving the “identification” problem, identifying and selectively eliminating civilians who collaborate with rival groups.\textsuperscript{33} Insurgents are also threatened by information leakage that can expose them to violence from stronger opponents.\textsuperscript{34} Even where the

\textsuperscript{31} We discuss the relationship between punishment and training in much greater length in the Robustness Checks subsection below.
\textsuperscript{33} Stathis N. Kalyvas, \textit{Logic of Violence in Civil War} (Cambridge University Press, 2006).
\textsuperscript{34} This is similar to the information leakage risks faced by other clandestine organizations, such as terrorist groups. See Jacob N. Shapiro, \textit{The Terrorist's Dilemma: Managing Violent Covert Organizations}, Princeton University Press, 2013.
majority of civilians support a given faction, information provided by a single outlier may be sufficient to expose combatants to risk and violent reprisal. Front-line combatants will bear the brunt of failure to resolve each dimension of the information problem and thus are more likely to default to using violence against civilians rather than opting for restraint that might benefit the group.

Note that we are not making the claim that combatants are sadistic savages who, but for the moderating influence of training and punishment, would decimate civilian populations. We are making the more modest claim that given the uncertainty and fluidity of civil war, some fraction of individual combatants will engage in civilian abuse—including civilian killings—when their commanders have not used political training to shift their preferences.

b. Varieties of political training and civilian abuse

Commanders of armed groups recognize the benefits of political training: groups around the globe extensively employ political training and indoctrination. Clapham, reviewing a range of insurgent groups, notes that “recruits, or indeed officers or their equivalents, may receive formalized training not simply on military technicalities, but on the organization, aims and ideology of the movement.”35 The clearest evidence comes from Marxist groups, in which ideological motivations play a central and overt role in both recruiting and mobilizing troops. For instance, the Eritrean People's Liberation Front (EPLF) “was marked...by an intense commitment to inculcating all of its members with an official 'history' which constituted the ideological charter of the movement, together with formalized structures for self-criticism and thorough training in the theory of liberation war derived from Mao Tse Tung.”36 Maoist forces in Nepal have explicitly and successfully used ideology and political education programs to both generate and retain recruits.37 Political indoctrination is also widely employed by religiously-motivated and ethnic irredentist movements. Salafist Jihadi and other violent Islamist movements, including Al Qaeda and the Taliban, employ indoctrination in order to cultivate recruits, prepare rank-and-file fighters, and develop new leaders within the movement.38 Gunaratna, in his analysis of Al Qaeda, notes that the movement placed greater emphasis on its particular brand of

36 Ibid.
37 “The Maoist leaders realized that continuous political indoctrination facilitated cohesion amongst the different individuals within the movement so that they all shared a common ideological background, thus deterring factionalization. A steady stream of ideological training also ensured that cadres would be amenable to the changing tactics and strategies of the leadership, because changes were motivated using texts and ideological discourse with which the cadres were familiar. Moreover, it also aided in retention, minimizing attrition rates by continuing to stress and educate the cadres about the importance of the ideology and the armed movement.” See Kristine Eck, “Recruiting Rebels: Indoctrination and Political Education in Nepal,” in The Maoist Insurgency in Nepal Revolution in the Twenty-First Century, ed. Mahendra Lawoti and Anup K. Pahari (Routledge, 2010).
political-religious indoctrination, considering it “far more important than battlefield or terrorist-combat training.” Political indoctrination is also known to be widespread in ethnic insurgent movements, including Sri Lanka's Liberation Tigers of Tamil Eelam (LTTE), and among the many ethnic minority insurgent groups along Burma’s frontiers.

In civil wars in which combatants and populations are intermingled, political beliefs (why groups fight) are closely linked to doctrine (how they fight), particularly with respect to the treatment of civilians. For instance, Marxist (and particularly Maoist) insurgent groups’ political narratives center upon the liberation of the peasantry. The doctrine of such groups flows from this core political narrative, and emphasizes the cultivation and exploitation of popular support to wage effective guerrilla war against opponents with superior material resources. For example, variation in elite preferences for Marxist-Leninist political ideology, which stressed the importance of refraining from indiscriminate violence against civilians, explains patterns of abuse in the Mozambican and Angolan civil wars. Evidence from the terrorism literature suggests that leftist and other non-religious ideological commitments explain why some terrorist groups choose to carry out non-lethal as opposed to deadly attacks.

Other groups, however, are motivated by virulently anti-civilian ideologies, which shape the conduct of their combatants. Such groups include the extreme cases of Rwandan Hutu génocidaire beliefs, but also include the Turkish and Greek nationalist ideologies that impelled those countries' state-building programs, where a nationalist ideology crystallized in doctrine sanctioned attacks on civilian ethnic minority populations, including looting, population clearance, and massacres. In Latin American civil wars, and most notably the case of Guatemala, right-wing governments and paramilitary groups were motivated by an anti-communist doctrine that emphasized the removal of enemies within the body politic; in these cases, intense anti-civilian activities was carried out, enabled by a doctrine that permitted the large-scale “mistaken” killing of innocent civilians suspected of being sympathizers or guerrillas as a more than acceptable political cost.

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45 In Guatemala it is commonly believed that paramilitary forces were decisive in helping the government “win” the war against insurgents. See, for instance, David Stoll, *Between Two Armies in the Ixil Towns of Guatemala*
It is important to note that political ideology and doctrine are not always coterminous: groups may employ doctrine that appears to be at odds with their political beliefs and agenda. For instance, in Peru the Maoist insurgent group Sendero Luminoso perpetrated gross atrocities against the population it was nominally dedicated to liberating. In most cases, doctrine will map onto political beliefs, but this should be rigorously examined and tested rather than assumed.

We derive two testable propositions regarding the impact of political training and indoctrination on the killing of civilians by armed groups.

**H1:** In groups that are reliant upon civilian support, greater exposure to political training and indoctrination should lead to decreased civilian killings.

**H2:** In groups that are not reliant upon civilian support, greater exposure to political training and indoctrination should lead to increased civilian killings.

**VIOLENCE AND THE TRAINING OF ARMED GROUPS IN COLOMBIA**

Theory and doctrine suggest that training should matter most in irregular wars, which now comprise the majority of armed conflicts around the globe. Colombia provides fertile ground for testing hypotheses related to training and civilian victimization in irregular wars, given the multiplicity of active armed groups, their divergent ideological objectives and relationships to civilian populations, and the unusually long duration of the conflict.

One of the longest-running insurgencies in the world, the Colombian conflict has featured a constellation of leftist insurgent groups, rightist armed “self-defense” and paramilitary organizations. The ongoing conflict has its roots in *La Violencia*, a civil war that lasted from 1948 until the installation in 1958 of a rotating presidency among the Conservative and Liberal parties, called the Frente Nacional, intended to stop the bloodshed. Two of the left-wing armed groups that exist today—the Fuerzas Armadas Revolucionarias de Colombia (FARC) and the Ejército de Liberación Nacional (ELN)—emerged as *La Violencia* was ending. Eric Hobsbawm called *La Violencia* “probably the greatest armed mobilization of peasants...in the recent history of the western hemisphere,” responsible for approximately 200,000 deaths.

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48 In this paper, we focus on the left-wing FARC and the right-wing paramilitaries, which we discuss below.

A Marxist group, the FARC was founded in 1964 in the department of Tolima after the government ordered the destruction of a peasant-based self-defense group formed during La Violencia.\textsuperscript{50} Its explicit goals include large-scale land redistribution to counter historic economic inequalities, as well as the Colombian government's overthrow. While FARC's strength has varied over time - due to changing levels of international support, the group's ability to extract rents from civilians and recruit combatants, as well as its efficacy in maximizing profits from the trade in narcotics - it remained a relatively small fighting force of a few thousand until the early 1980s, when it began a massive geographical expansion, buoyed by profits from transshipment and taxing of coca. By the early 2000s, FARC counted between 16,000 and 20,000 combatants, with approximately half of those forces later killed or captured during the administration of Álvaro Uribe, which lasted from 2002-2010. Two rounds of peace negotiations with various rebel groups failed: one in 1982 under the Belisario Betancur administration and another in 1998 under the Andrés Pastrana administration.\textsuperscript{51}

One of the defining features of the conflict has been the emergence and increasing lethality of anti-guerrilla paramilitary organizations.\textsuperscript{52} As the Belisario Betancur administration negotiated with the FARC in the early 1980s, extremist elements within the Colombian military began to support small self-defense organizations that had been protecting landed interests against the encroachments of the guerrilla. Their discontent was amplified when the Betancur administration gave its support to the FARC's goal of forming a legal political party, Unión Patriótica (UP).\textsuperscript{53} With the collusion of the army establishment, paramilitary organizations carried out mass killings of UP politicians, including candidates running for office and those who had already been elected. Buoyed by drug money and political protection by politicians, local and regional paramilitary organizations joined together in 1997 under the umbrella of the Autodefensas Unidas de Colombia (AUC), led by Carlos Castaño. Paramilitaries continued to operate as illegal

\textsuperscript{50} For a definitive history of the FARC, including the early formation of the \textit{autodefensas} during La Violencia, see Eduardo Pizarro Leóngómez, \textit{Las FARC (1949-2011): De Guerrilla Campesina a Máquina de Guerra} (Grupo Editorial Norma, 2011).

counterinsurgent forces until their collective demobilization under the Justice and Peace Law in the mid-2000s.\textsuperscript{54}

The structure of these two groups, their recruiting strategies, and the kinds of recruits they attract differ from one another,\textsuperscript{55} yet both the FARC and the AUC use military and political training to prepare and indoctrinate their combatants.

Training of new recruits to the FARC includes military training, such as weapons handling, cleaning, and assembly, physical exercise, operating in formation, and combat tactics, as well as ideological instruction, consisting of lectures on Marxism and Colombian history.\textsuperscript{56} In terms of military training, demobilized combatants report that training consisted of “two-month training sessions, which included learning how to handle AK-47 and M-16 rifles and adapting to living in harsh jungle environments.”\textsuperscript{57} In addition to such military training, however, “indoctrination was also high on the agenda.”\textsuperscript{58} Indoctrination activities included daily lessons on “FARC's political ideology and discipline, [and] absorbing the many rules that make up life in a FARC camp.” Training focused on doctrine, including regulations on the treatment of civilian populations. One former fighter interviewed by Human Rights Watch noted that “[t]hey taught us how to obtain the support of the civilian population and the right conduct, like not to go into the population and take their animals and behave badly and trick them with words. That's forbidden. There are rules for all of that.”\textsuperscript{59} As Alberto de Jesus Morales (alias “Pajaro”) describes, “[t]hey gave us training for something like 20 days, teaching the laws and the rules and what are the rules you have to follow when you're in there, the discipline you're supposed to have...”\textsuperscript{60}

\textsuperscript{54} The law was approved in July 2005. It covers demobilized members of all illegal armed groups who are excluded from amnesty, and provides maximum prison sentences of 5-8 years in exchange for confession of crimes. The paramilitaries' demobilization reconstituted these groups into criminal networks (\textit{bandas criminales} or BACRIM) that control the drug trade and continue to be a major driver of violence against civilians. See, for example, \textit{ Área de Dinámicas del Conflicto y Negociaciones de Paz, “Siguiendo el conflicto: hechos y análisis”} (Fundación Ideas para la Paz, January 2010).


\textsuperscript{58} The Ejército de Liberación Nacional (ELN) similarly distinguishes between military and political training, placing value on both components. See Comandante Milton Hernandez, \textit{Rojo y Negro: Una aproximación a la Historia del ELN} (1998).


\textsuperscript{60} Pachico and McDermott, \textit{ibid.}
We can also derive an understanding of the content of FARC’s political training from the actual jobs performed by political officers across various armed movements within the Colombian conflict. The survey instrument we use for our statistical analysis—introduced in the next section— included a question that asked respondents to identify their rank and describe the three main functions that they performed. Respondents who self-identified as political officers described a number of key functions, including meeting with and organizing the local public, mediating local disputes, ensuring the good comportment of their troops with the local population, and providing ideological instruction for combatants.

Training of paramilitary forces—both military and political—has proceeded quite differently from that of FARC recruits.  

Military training of paramilitaries in Colombia relied on close connections with segments of the armed forces in both the United States (especially in the 1960s), Colombia, and abroad. Open collusion between the Colombian military establishment and the paramilitaries helped train these illegal fighters, while narcotraffickers provided local, geographically-isolated paramilitary groups with funding, political support, and additional military know-how.

The dominant ideology of the paramilitaries is anti-Communist, anti-guerrilla, pro-capitalist, pro-Christian, and pro-military. The paramilitary “pledge of allegiance” declares their goals as follows: “To defend our children, our home, our belongings, our land...[Now] we are autodefensa groups, and we are fighting for the defense of honor and good of the Colombian citizens. We fight against the Communist Party, the FARC, and all the subversive groups of Colombia.” Political training of paramilitary recruits in the Magdalena Medio, a key area of operation for the groups, proceeded in three stages. The first stage involved shedding fear of the guerrilla by teaching “the troopers the basics of the army’s psychological operations and regulations,” the second phase consisted of “moral and religious” training that aimed to counter the “atheist conception” expressed by the insurgents, while the third phase focused on “the

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62 “... paramilitary organizations [in Colombia] have evolved considerably since the 1960s, when U.S. military advisors first recommended the organization of ‘indigenous irregulars’ as a fundamental component of the Colombian counterinsurgency strategy, then aimed at defeating leftist guerrilla movements. A U.S. Special Warfare Team from Fort Bragg first proposed the strategy in 1962, and later that year a series of U.S. Special Warfare Mobile Training Teams worked with the Colombian armed forces to implement the recommendation.” See Winifred Tate, “Paramilitaries in Colombia,” The Brown Journal of World Affairs VIII, no. 1 (2001): 164.
64 Robin Kirk, More Terrible Than Death: Violence, Drugs, and America's War in Colombia (Public Affairs, 2003).
65 Quoted in Steven Dudley, Walking Ghosts: Murder and Guerrilla Politics in Colombia (Routledge, 2004): 122-123.
history of the self-defence groups, the reasons for their struggle, and their relations with the authorities.”

Political training within paramilitaries rarely stressed the need for restraint in dealings with civilians, but rather emphasized the importance of eradicating all vestiges of support for the guerrilla. The strategy of the paramilitaries was “to terrify the population into denying the FARC even a glass of water, killing those with even suspected links.” Indeed, many sources document the much wider and more intense use of indiscriminate violence or collective targeting of civilians by paramilitary groups when compared to insurgent groups, with training intended to desensitize individuals to the commission of acts of severe violence.

Given the different political content of training within the FARC and the AUC, we expect that political training will have divergent effects on the conduct of each group towards civilians. Given the FARC’s communist ideology, its emphasis on liberating the peasantry from oppressive conditions, and the group’s strong doctrinal emphasis on cultivating popular support, we expect to find strong support for Hypothesis 1. That is, ceteris paribus, FARC units with more political training should kill fewer civilians. Given the AUC’s emphasis on removing the communist “cancer” from the civilian population, and its relative de-emphasis on safeguarding civilian lives or achieving widespread popular support, we expect to find support for Hypothesis 2. That is, ceteris paribus, AUC units that receive greater political training should kill more civilians.

**RESEARCH DESIGN**

We draw upon a survey of 1,485 former combatants to test our hypotheses. The data were collected in 2008 by Fundación Ideas para la Paz (FIP), a Colombian non-governmental organization. Between 2002 and 2008, more than 45,000 combatants from both leftist and right-wing groups in Colombia disarmed, demobilized, and reintegrated into civilian life. The leftist rebels demobilized through a slow, individual process of defections from the guerrilla ranks in the context of an escalation of government counterinsurgency initiatives following the election of President Álvaro Uribe in 2002. In contrast, the paramilitaries demobilized collectively, en masse, following a negotiated process with the government initiated in 2003.

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69 Children forcibly recruited to serve in the paramilitary ranks, for example, were required to commit horrific actions during training, including killing “captive[s] in front of the other recruits during their training.” Human Rights Watch, “You’ll Learn Not to Cry: Child Combatants in Colombia,” (2003). Accessed at http://hrw.org/reports/2003/columbia0903/

70 The incentives provided by the government for demobilization included access to social services, education and training, cash assistance, support to initiate productive projects, and reduced prison terms. Following the establishment of the High Commission for Reintegration—in Spanish, Alta Consejería para la Reintegración
The FIP survey was administered using a stratified random sample of demobilized combatants between February 5, 2008 and May 31, 2008 in various regions across Colombia. More specifically, interviewers conducted the survey on the Caribbean Coast, in Antioquia, Valle del Cauca, Nariño, and Bogotá. The sample was randomly drawn from the full list of ex-combatants who were processed through the Colombian government’s reintegration program. The difficulties of constructing a truly representative sample of ex-combatants is well known, especially in the context of an ongoing conflict: some combatants desert without participating in a demobilization process, some ex-combatants leave their armed groups but make their way into the ranks of criminal gangs, while still others may be unwilling to speak to enumerators for fear of retribution from their former groups. The first two problems are structural and our survey, like nearly all others, is unable to overcome these. In addition, the survey implementation was designed in order to mitigate respondents' fear of participation. Reintegration program staff who were acquainted with sampled respondents initiated contact to introduce the survey and the enumerator, thereby facilitating an atmosphere of trust. Additionally, the survey questions on which we rely do not require admissions of guilt for any behavior that could be seen to be objectionable (see below), thereby mitigating concerns about untruthful responses.

The survey asked respondents an array of questions related to their behavior prior to entering the armed group, the context and incentives that drove their recruitment, their experience while in the armed group, their decision to exit the armed group and, finally, their well-being and economic status following demobilization and the provision of demobilization-related benefits.

The survey also includes information on ex-combatants' modes of training and their locations across time. To test our hypotheses regarding the effect of training on civilian casualties, we build the key independent variable from a question that asked “What type of training did you receive?” which then provided possible responses, including military and political training.

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(ACR)—in 2006, guerrillas who demobilized individually and paramilitaries who gave up arms collectively began to receive identical benefits in exchange for demobilization.

71 With the exception of Córdoba and Sucre.
72 With the exception of Urabá.
74 A number of other surveys of former combatants have contended with similar issues. Several studies, notably Humphreys and Weinstein’s study of former fighters in Sierra Leone relied on village elites to identify former combatants, and constructed a sample frame from these village data. Humphreys and Weinstein note that there is no guarantee that this approach produced an accurate sample frame, but argue that it was the most effective available, given the context and constraints. See Macartan Humphreys and Jeremy Weinstein, “Who Fights? The Determinants of Participation in Civil War,” American Journal of Political Science 52, no. 2 (April 2008): 436–455. See also Michael J. Gilligan, Eric N. Mvukiyehe, and Cyrus Samii, “Reintegrating Rebels into Civilian Life: Quasi-Experimental Evidence from Burundi,” Journal of Conflict Resolution 57, no. 4 (2013).

75 In Spanish, the question reads, “¿Qué tipo de entrenamiento recibió?”
Respondents could answer “yes” to all, some, or none of these options. Political training is constructed by calculating the percent of respondents from each group active in a given department-year who answered “yes” to having received political training. That is, if 15 of 20 FARC ex-combatants active in the department of Antioquia in 1998 reported having received political training, then Political training: FARC takes a value of 0.75 in that department-year. Figure 1a depicts the distribution of Political Training across Colombian departments for the FARC, while Figure 1b depicts the same for the AUC.76

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Figures 1a-b About Here
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We might be concerned about how representative demobilized FARC fighters are of the larger universe of active insurgent combatants (while this is not a concern for paramilitary fighters, given that they demobilized collectively). Those who left the FARC might differ systematically from those who chose to carry on the fight, including having been trained in systematically different ways. As such, there is a chance that although the survey sample is representative of the entire population of demobilized fighters, insurgent combatants who demobilized individually may have received less political training and indoctrination than those who remained in the field, which rendered them less likely to remain in the armed group, particularly when under military pressure or duress.

To test for this source of bias, we look to a small sample of insurgent combatants within our sample who were captured by the Colombian armed forces (N=49) and were subsequently processed through the government reintegration program alongside other demobilized combatants. To rule out potential selection effects, we systematically compare across a range of dimensions captured insurgents and those who chose to demobilize, including their respective distributions of training and indoctrination, experiences of punishment, reasons for joining the armed group, and age at time of recruitment.

The results are presented in Table 1. Most importantly, we find no statistically significant difference between captured and individually demobilized combatants in terms of training and indoctrination, as well as other theoretically salient factors.77 We also test for other potential confounds that might bias our estimates of “baseline” FARC combatants, such as whether

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76 Quartiles for all maps are computed for departments that had proportions of less than 1. Departments with values of 1 were added to the fourth quartile.

77 Note that in this table, the total N represents individual combatants (rather than the department year, which is the unit of analysis in the OLS models we present below). The total N here is 582: because we are only interested in testing whether those who demobilized individually differ systematically from captured insurgents across meaningful variables (such as training), we exclude paramilitaries from the analysis, and compare the mean level of training (and other covariates) across captured insurgents (N=49) and insurgents who individually entered the ACR’s demobilization program (N=533).
captured combatants were spatially clustered. If our sample of captured combatants is spatially clustered, its characteristics might reflect the idiosyncrasies of a single unit or front. We conduct a Kolmogorov-Smirnov nonparametric test to determine whether the distribution of combatants’ primary area of operations differed across captured and individually demobilized combatants, but find no evidence of spatial clustering.\textsuperscript{78}

We match survey data on training and combatants' location and time in the armed group to department-level data on civilian killings, which span the temporal period 1988-2005.\textsuperscript{79} We use measures of civilian killings because we concur with Kalyvas that although “[h]omicide does not exhaust the range of violence...it is an unambiguous form that can be measured more reliably than other forms,” and that “homicide crosses a line: it ‘is an irreversible direct, immediate and unambiguous method of annihilation’...”\textsuperscript{80}

The data identify the number of civilians killed by two armed groups, the FARC and paramilitaries, in each year in each department. The data were collected by the Centro de Recursos para el Análisis de Conflictos (CERAC), a Bogotá-based think tank, using raw data published by two Colombian non-governmental organizations: the Centro de Investigación y Educación Popular (CINEP), and Comisión Intercongregacional de Justicia y Paz. Both organizations drew upon an extensive set of regional and national newspapers—twenty-five in total—to compile reports of wartime incidents across Colombia, and CINEP additionally drew upon reports from partner NGOs and a network of local Catholic priests, spanning nearly all municipalities. Reporting from local NGOs and priests, who are present even in remote areas of the country, allows for an unusually rich picture of conflict dynamics, and mitigates potential

\textsuperscript{78} The p-value of the Kolmogorov-Smirnov nonparametric test is 0.99.

\textsuperscript{79} Our dependent variable does not use self-reported survey responses regarding civilian abuse for two reasons. First, the survey did not ask a sufficiently broad range of questions about the kinds of armed actions against civilians during the course of combat. Second, and more importantly with respect to data reliability, individuals are likely to under-report their participation in behaviors that are, or are seen to be, immoral or criminal. Common strategies to shield respondents from culpability and to obtain accurate estimates of engagement in such behavior include the use of the Unmatched Count Technique (UCT) or list questions. On the methodological benefits of using these techniques, see Elizabeth Coutts and Ben Jann, “Sensitive Questions in Online Surveys: Experimental Results for the Randomized Response Technique (RRT) and the Unmatched Count Technique (UCT),” General Online Research Conference in Vienna (2009); and Adam N. Glynn, “What Can We Learn with Statistical Truth Serum? Design and Analysis of the List Experiment,” Harvard University (2010). For an empirical example, see Jason Lyall, Graeme Blair, Kosuke Imai, “Explaining Support for Combatants during Wartime: A Survey Experiment in Afghanistan,” American Political Science Review (forthcoming); and Aila M. Matanock and Miguel García, “Fighting for Hearts and Minds: Examining Popular Support for the Military and Paramilitaries in Colombia,” Working paper (June 2011).

\textsuperscript{80} Stathis Kalyvas, The Logic of Violence in Civil War (Cambridge: Cambridge University Press, 2006): 20
bias from under-reporting related to geographic isolation. Duplicate events—those reported by both the CINEP and *Justicia y Paz* data—were matched and screened, to avoid double-counting.

CERAC took several additional steps to ensure that the data provide a valid and reliable measure of conflict dynamics. First, violent events not related to wartime dynamics, such as criminal activity, were removed. Second, all large conflict events, defined as those involving double-digit casualties—a scale at which violence would be reported in national media—along with a random sample of small conflict events, were cross-checked using archived reports for *El Tiempo*, a major national newspaper. Third, the data were again cross-checked against data provided by international non-government organizations, including Amnesty International and Human Rights Watch, as well as against a database of violent events provided by the Colombian National Police. Additional events reported by these sources were included, while duplicates were screened out. The utilization of both international and government data sources provides an additional check against potential reporting biases.

The use of multiple data streams—media reports, reporting by local human rights NGOs and clergy, official statistics, and estimates from international organizations—helps to mitigate biases introduced by the particular sampling approaches or data-generation processes of each source of information on civilian casualties. Observational data on civilian mortality is not necessarily representative of the population of conflict events or killings,\(^1\) owing to biases in the degree to which events are reported by victims, communities, or observers; geographic variation in reporting capacity or access; or political biases.\(^2\) Simply averaging or combining multiple lists is not a solution to potential sources of bias. The direction and magnitude of bias in each source should be taken into account. In this vein, the CERAC data’s use of direct reporting from human rights NGOs and especially clergy help to mitigate against the potential under-reporting of events in hard-to-access locations, even by regional media sources closer to such regions. Validation using both National police and international NGO data, whose biases and reporting emphases cut in different directions, allowed for the triangulation and cross-checking of figures and reports.


\(^2\) Probability sampled survey data may present a more representative, unbiased picture, although in practice non-response at the household, battery or item level can lead to similar challenges. See Neil F. Johnson, Michael Spagat, Sean Gourley, Jukka-Pekka Onnela and Gesine Reinert, “Bias in Epidemiological Studies of Conflict Mortality” *Journal of Peace Research* 45(5), 2008.
Having described the dataset of violent events, in Figures 2a and 2b we visually display the distribution of armed group activity and civilian casualties, respectively, across departments in Colombia.

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Figures 2a-b About Here
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In estimating our models, we control for a variety of department-level variables that are likely to confound the unbiased estimation of the effect of training on civilian casualties. The department level controls, described in detail below, are grouped into three broad categories: geographic characteristics, economic attributes of the area, and, finally, a population variable to provide for scale control.

First, we use geographic variables to insure that civilian casualties are not being driven by the terrain of individual departments. These terrain-related variables include the department's area, average elevation, average rainfall, soil quality and erosion, and an index of water availability. Second, we use two economic variables that might drive armed group activity and civilian targeting. Our models include the average of the Unsatisfied Basic Needs poverty index (NBI) and the Gini coefficient for each department in Colombia. Third, we include departmental population as a scale control.

EMPIRICAL RESULTS

All of the results from models reported below use a negative binomial estimator with fixed effects at the department level, to account for unmeasured time-invariant characteristics. We use a negative binomial estimator because the dependent variable is a count of events, and is overdispersed: the variance of the count is much greater than its mean.\textsuperscript{83} Results are also robust to estimation using OLS. The unit of analysis is the department-year.

We begin with a set of baseline models, shown in Table 2, which estimate the effect of political training on civilian casualties, conditional on covariates. We estimate separate models for the FARC and AUC, using distinct dependent variables: for FARC models, the number of civilians killed by FARC combatants, and for the paramilitary models the number of civilians killed by paramilitaries.

First, we turn to hypothesis one: in groups that are reliant upon civilian support, greater exposure to political training and indoctrination should lead to decreased civilian killings. The results for Model 1 show strong preliminary support for this hypothesis. Higher intensities of political training among FARC combatants are correlated with substantively and statistically significant declines in civilian killings: FARC units that have complete saturation in political training are estimated to kill 75 percent fewer civilians than those with no political training at all. \(^{84}\) Figure 3 depicts the marginal effect of political training on civilian killings by the FARC.

We now turn to hypothesis two: in groups that are not reliant upon civilian support, greater exposure to political training and indoctrination should lead to increased civilian killings. The results from Model 2 show no initial support for this hypothesis: even in an armed group that is not reliant upon broad civilian support, political training has a statistically significant and negative effect upon civilian casualties. Greater levels of political training are correlated with fewer civilian casualties by the paramilitaries, although the effect is not as strong as presented above within the FARC. \(^{85}\) Paramilitary units that train all of their combatants kill 42 percent fewer civilians than those that train none of their combatants. Figure 4 displays the marginal effect of political training on civilian killings by the paramilitaries.

Robustness checks

With the preliminary results in mind, we now turn to a series of robustness checks, to confront potential threats to inference. The first concerns the conditions under which commanders train combatants, the second covers alternative mechanisms through which commanders generate compliance--both through punishment and military training--and addresses whether these mechanisms allow for independent decision-making at the unit level.

\(^{84}\) These results are significant at the 0% level.  
\(^{85}\) These results are significant at the 10% level.
a. Selection Into Training

A key concern in untangling the effect of training on civilian killings is that training, like many policy choices, is not administered randomly; it is therefore difficult to assess its independent effect. Instead, the “supply” of training within a given sub-unit reflects deliberate choices on the part of the armed group. The strongest threat to causal inference might be posed as follows: commanders who have a commitment to protecting civilians politically train their combatants, while those without that commitment do not devote energy to training. We cannot directly test this possibility, given that we do not have access to an index of commanders' individual preferences over civilian abuse independent of how they indoctrinate combatants and independent of how their combatants behave. However, as we argue above, a deep reservoir of case evidence drawn from former and captured combatants from FARC units shows that the group affords its commanders relatively limited discretion in the application of training, particularly with respect to its content but also with respect to its frequency. Commanders do not select into training based upon their individual convictions. But they do have some degree of operational authority on the margins, we suggest, to select out of training, based upon endogenous conflict dynamics. We argue that this selection mechanism is driven primarily by tactical considerations.

First, there are opportunity costs to engaging in political training. Time spent training combatants is time away from imparting military training and tactics that might keep alive both combatants and mid-level commanders during military operations. Political training also occupies combatants in ways that prevents them from developing relationships with civilians that might lead to fruitful resource extraction opportunities in the present or future. A key implication of this argument is that we would expect to see less training in highly competitive regions, where the tempo of combat with rival groups precludes intensive training.

Second, there are tactical repercussions to selecting out of political training related to the competitiveness of particular regions. If an area of operations is non-competitive - that is, complete territorial control has been achieved by an armed group - the baseline probability of civilian abuse will be lower for a few reasons. Extensive literature on patterns of violence in civil war shows that competition for territorial control conditions both the level and character of violence against civilians, and that there is little need for civilian killings where groups have complete control. When not engaged in ongoing combat operations, commanders will be better able to monitor combatants to determine whether their own fighters engaged in civilian abuse, thereby deterring abuses from occurring in the first place.

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86 We thank an anonymous reviewer for raising this point.
87 Kalyvas ibid. 2006.
Yet competitive environments also provide commanders incentives to train their combatants: if civilians prefer to collaborate with less abusive armed groups, and if training is capable of limiting abuses against civilians, commanders should find it most useful to politically train combatants in highly competitive locales and would therefore be willing to absorb the potential costs of doing so. Given that there are strong theoretical reasons to believe each of the aforementioned claims, and given the lack of prior empirical studies on this question, this is ultimately an empirical matter and as such we test these relationships statistically.

Models 1 and 2 in Table 3 take political training as dependent variables, for both the FARC and paramilitaries, respectively. All models in Table 3 use an OLS estimator with department fixed effects. Model 1 shows that clashes between the government and the guerrilla are not significantly correlated with levels of political training within the FARC, while clashes between the government and paramilitaries are negatively correlated with FARC political training, as are clashes between guerrilla and paramilitaries. Turning to Model 2, we see that where the guerrilla and government engage in more clashes paramilitaries provide lower levels of political training. Intensity of clashes between paramilitaries and the government, and between paramilitaries and the guerrilla, however, has no effect upon political training of paramilitaries. To summarize, there exists only spotty evidence that armed groups pursue lower levels of political training when competition with rival groups is more intense.

b. Agency and control

In our theoretical discussion, we note that the literature specifies heterogeneous effects of training on individual combatants' decision-making. The dominant argument simply suggests that training re-shapes the goals of individual soldiers. A second, highly plausible account implies more drastic effects. Training may instead simply lead to conditioned obedience, binding the decision-making of individual soldiers by rendering them compliant to orders from superiors; its principal effect would be to render combatants extensions of their commanders' will. If this were true, then individual combatants and small group units deliberately kill civilians only as much (or as little) as their superiors believe they should. Most infamously in this respect, Adolph Eichmann’s defense against charges of aiding the genocide of European Jews rested on his claim that he was “just following orders.” If the result of indoctrination is conditioned obedience to

88 We use OLS because the political training variables are continuous, not counts.
orders, then training should have no independent effect. Given the potential threat to our inferences, we address this relationship both theoretically and empirically.

Theoretically, extensive military jurisprudence on civilian killings counters the idea that soldiers become automatons, bound to their commander’s will. One reason is that there is no a priori reason to expect that norm of obedience should erode all other norms of behavior, including those operative in the soldier’s society: thus, “murder, rape, pillage or torture... [are] clearly criminal because [they violate] common-sense rules of decency, social conduct, and morality.” A stronger claim suggests that soldiers retain, to some extent, their own preferences even in the face of training: “military training may attempt to make obedience totally automatic, but it cannot, simply because of human nature.” We draw on this latter argument to suggest that training is not merely a proxy for the preferences of officers. As armed forces clearly recognize, it has independent effects.

Empirically, we turn to our survey data, which include information on the provision of disciplinary measures within the armed group, including information on the severity of discipline delivered by the group. It is implausible that training would lead to total social control, such that small infractions by combatants would never occur. However, if training does create conditioned obedience, we should expect that it would reduce the number of severe infractions requiring serious punishment. To test this proposition, we create a new variable, Severe Punishment, that records the percentage of combatants in each unit who report having been disciplined with corporal punishment. Empirically, this form of punishment is relatively rare, with more minor forms of discipline - including additional guard duties, hard labor that involves carrying firewood or digging trenches - being relatively more common.

We begin by noting the low empirical correlation between training and punishment. Among the FARC, Severe Punishment is correlated only weakly (and positively) with political (0.152) training. Among the paramilitaries, Severe Punishment is similarly correlated only weakly with political (0.068) training.

Models 3 and 4 in Table 3 take the provision of punishment of combatants as a dependent variable, to test whether soldiers continue to engage in behaviors that violate commanders' preferences and are subsequently punished for doing so.

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93 Severe Punishment is also weakly correlated with military training (0.148), which, as we discuss below, is another potential vehicle for inducing discipline and control.
94 It is likewise only minimally correlated with military training (0.072) within the paramilitaries.
After controlling for department-level confounders, Model 3 shows that there is no statistically significant relationship between political training and the provision of punishment within the FARC. Model 4 provides an analogous finding: there is no statistically significant relationship between political training and punishment. We can conclude from these results that training does not simply induce uniform compliance, given that combatants are still being punished for actions deemed by commanders to be transgressive; as such, it is unlikely that combatants are wholesale adopting their commanders' preferences. Training, therefore, is likely exerting an independent effect. However, the results raise a new concern: punishment or other discipline-enhancing factors could be used as a complement for political training. In other words, political training might be necessary but insufficient absent other reinforcement. We address this in the following sub-section.

c. Discipline and punishment

Empirically, it has been shown that armed groups inculcate adherence to group rules and control over foot soldiers using both punishment and training.\(^{95}\) Theoretically, punishment and training have been conceptualized as substitutes. Kelman suggests that effective indoctrination should lead to internalization of group norms, eliminating the need for commanders to police combatant behavior.\(^{96}\) Gates and Nordås likewise argue that the “level of direct observation of all activities of the agent (soldiers) by the principal (commanders) can therefore be relaxed in situations where recruits have been trained (or indoctrinated) to the point of full internalization.”\(^{97}\) In other words, in addition to re-shaping individual preferences, training improves group efficiency by reducing the need for surveillance and sanctions. Intense political training may be a less costly form of exerting social control over combatants than resorting to punitive disciplinary measures, actions that might backfire, leading disaffected combatants to defect or desert.\(^{98}\)

While it is true that both punishment and training alter the behavior of individual combatants, we argue that they do so through distinct mechanisms. While indoctrination and training are intended to alter the preferences of combatants,\(^{99}\) punishment alters preference ordering by


\(^{96}\) Kelman, *ibid*.


encouraging agents to sublimate their own desires, while training introduces new preferences, which are ranked above prior desires.

We demonstrate the robustness of our results to the inclusion of a variable that codes the percent of ex-combatants active in a given department-year who reported having received punishment. If the provision of political training and punishment is highly correlated, it is possible that due to multicollinearity political training would be rendered insignificant in our models once we control for the deployment of punishment. Empirical tests of this relationship demonstrate that political training for both the FARC and the paramilitaries remains statistically significant and negative even after controlling for punishment.

Punishment, however, is not the only source of discipline. Military training is also a key component of structuring activities and controlling combatants in military organizations. The literature on military training presents a mixed picture of its impact on soldiers’ behavior towards civilians. One perspective suggests that by conditioning soldiers to follow orders, and by inculcating greater discipline, military training should generally lead to both greater battlefield effectiveness and greater restraint in the use of force. The West Point cadet manual notes, for example, that “imposed discipline... will gradually be replaced with self-discipline.”

Similar to punishment, military training could be an omitted variable that is highly correlated with political training; thus, its omission from our empirical analysis might bias the results, and its inclusion (if highly collinear) might render the effects of political training insignificant. We test for this in a final battery of models.

In Spanish, the question reads, “¿Recibió castigos durante su permanencia en el grupo?” Although the micro-data that we utilize in this research contain data on individual exposure to punishment, variation in punishment that we observe in the survey data may reflect “demand” for punishment (such as propensity of combatants to violate group rules) rather than supply. For instance, given that the sample contains a large number of demobilized FARC combatants who voluntarily left the war, it is possible that this sub-group was particularly prone to receiving punishment. As noted above, our sample includes captured combatants, for whom this selection problem does not exist; these captured combatants can thus be treated as representative of FARC who did not voluntarily leave the armed group. We test whether individually demobilized FARC receive greater punishment, and find that a greater proportion of captured combatants (67.35 percent) receive punishment than individually demobilized (56 percent). However, that difference is not statistically significant at $p < 0.05$. While not definitive, this test suggests that demobilized FARC do not differ systematically from non-demobilized in terms of the supply of punishment.

Results from these models - which are not presented here due to space constraints - are available upon request from the authors.


Table 4 systematically examines these relationships, using a negative binomial estimator with department-level fixed effects. Models 1 and 2 take FARC civilian killings as a dependent variable; model 1 shows that military training is not significantly correlated with FARC killings, while Model 2 shows that political training remains significant and negatively correlated with civilian killings even after controlling for military training. Political indoctrination has an independent and robust effect on civilian abuse. We now turn to a pair of models that examine the effect of both training regimes on paramilitary civilian killings. Model 3 estimates the relationship between military training and civilian killings by the paramilitaries and suggests that military training is negative and statistically significantly correlated with civilian killings; however, this effect disappears once political training is introduced in Model 4. This indicates that military and political training are highly collinear among the paramilitaries, and that military training is potentially doing much of the work in reducing civilian casualties, unlike within the FARC. This provides additional support for our framework, which stipulates that training should have different effects depending upon whether a group is civilian-reliant or not.

Commanders of armed groups shape combatant behavior through military and political training and punishment. Our results show that punishment alone is insufficient to shape behavior towards civilians, and is not necessary to do so. The same holds for military training. Political training, on the hand, is both necessary and sufficient to reduce civilian killings.

**CONCLUSION**

This paper contributes to a growing literature that looks within non-state armed groups to explain variation in their behavior, and assesses the impacts that the organization, rules, and operations of armed groups have on their behavior towards civilian populations. Until now, there has been a great deal of conventional wisdom on the impact of training, informed by the experiences of practitioners and military officers, working both within the militaries of advanced industrial powers and in post-conflict and transitional contexts. Yet training has been surprisingly understudied by scholars of civil war, to the detriment of understanding how and whether it shapes armed groups' treatment of civilian populations.

This paper provides one of the first empirical analysis in the field of the impact of training on civilian killings. Our research suggests that repertoires of political training and indoctrination within armed groups helps explain variation in the use of deadly force against civilians. We present an argument that connects armed groups’ political doctrine with their reliance on civilian populations, and draws out a set of testable implications. We then use survey data and regression
techniques to isolate the effect that different types of training of insurgent and paramilitary fighters have on civilian abuse and civilian fatalities in the Colombian conflict, after controlling for confounders, including alternate sources of discipline and control. The empirical findings from this paper suggest that political training and indoctrination, processes that inform how, when, and why force should be utilize, appear to have great impact on the extent to which armed groups kill civilians. These results are robust to a variety of robustness checks related to selection into training, as well as the effect of punishment and military training. Future research should assess whether the relationship between training and civilian victimization has external validity beyond the Colombian case. Our argument suggests that political training should have a strong impact among armed groups that reliant on civilians for support, and also point to a similar, though much weaker, impact among non civilian-reliant groups.

Finally, it is important to note that while the dependent variables used in this study, incident counts of civilian killings disaggregated by the responsible armed group, provide robust, longitudinal measures of violence, they do not measure other forms of violence against civilians, such as non-lethal violence (including sexual violence), intimidation, harassment, and many other forms of psychological abuse used by armed groups to control territory. Our analysis might underestimate the overall impact of training on civilian victimization, by focusing only on its most drastic observable form. Political indoctrination, at least in the case of Colombia and particularly among the FARC, is configured not only to prevent civilian deaths, but also to reduce less drastic forms of civilian harm. Again, consonant with our analysis of the FARC’s ideology and doctrine, we expect that the underestimate is significantly more likely, and also significantly larger, for the FARC than for paramilitaries. However, the impact of training of sexual violence and other forms of abuse must be empirically established, and may differ substantially across conflicts and contexts.

The abuse of civilians in civil war is a pressing policy issue due to the human costs borne by non-belligerents caught up in conflict. Our argument and empirical results suggest several lessons. First and most simply, groups with no clear body of doctrine or process of political training are likely to present a greater threat to civilian safety than groups that politically train their fighters. Second, our results suggest that political training may be able to mitigate—but not eliminate—the potential for excess civilian casualties generated by armed groups' recruitment strategies: groups that recruit through material incentives, such as the paramilitaries in Colombia, are likely to present an increased threat to civilians, even when political training is in place, yet political training may be capable of restraining some of those abuses.104 Third, this study demonstrates the importance of harnessing the collection of micro-level data in conflict zones,

especially among demobilized combatants, to better understand the mechanisms driving wartime behavior, especially across groups within individual conflict zones and across subunits within armed groups. Studying repertoires of training, indoctrination, and codes of conduct internal to armed groups holds great promise for both advancing our understanding of conflict processes in civil war, and for helping policymakers develop innovative responses to protect civilians from armed non-state actors.
Figure 1a: FARC political training

Figure 1b: AUC political training
Figure 3: Political Training and Civilian Killings, FARC
Figure 4: Political Training and Civilian Killings, Paramilitaries
Table 1: Differences in Means Across Captured and Individually Demobilized Combatants

<table>
<thead>
<tr>
<th>Variable</th>
<th>Difference in Means</th>
<th>t-Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joined insurgents for ideological reasons</td>
<td>-0.035</td>
<td>(-0.53)</td>
</tr>
<tr>
<td>Joined insurgents for economic reasons</td>
<td>0.138</td>
<td>(1.900)</td>
</tr>
<tr>
<td>Felt besieged by military while in group</td>
<td>-0.275***</td>
<td>(-4.52)</td>
</tr>
<tr>
<td>Received punishment while in group</td>
<td>-0.181</td>
<td>(-1.91)</td>
</tr>
<tr>
<td>Received political training</td>
<td>-0.408</td>
<td>(-1.42)</td>
</tr>
<tr>
<td>Received military training</td>
<td>0.012</td>
<td>(0.439)</td>
</tr>
<tr>
<td>Age at recruitment</td>
<td>0.316</td>
<td>(1.850)</td>
</tr>
<tr>
<td>Year of birth</td>
<td>-5.827***</td>
<td>(-3.63)</td>
</tr>
<tr>
<td>Male</td>
<td>0.105</td>
<td>(1.290)</td>
</tr>
</tbody>
</table>

* p<0.1, ** p<0.05, *** p<0.01.
Table 2: Political Training and Civilian Killings in Colombia, 1988-2005

<table>
<thead>
<tr>
<th></th>
<th>Model 1 DV: FARC Killings</th>
<th>Model 2 DV: Paramilitaries Killings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Political Training: FARC</td>
<td>0.249*** (0.126)</td>
<td>0.585* (0.171)</td>
</tr>
<tr>
<td>Political Training: Paramilitaries</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rain</td>
<td>1.000 (0.000)</td>
<td>1.000 (0.000)</td>
</tr>
<tr>
<td>Water</td>
<td>1.000 (0.000)</td>
<td>1.000 (0.000)</td>
</tr>
<tr>
<td>Altitude</td>
<td>1.000 (0.000)</td>
<td>0.999*** (0.000)</td>
</tr>
<tr>
<td>Area</td>
<td>1.000 (0.000)</td>
<td>1.000* (0.000)</td>
</tr>
<tr>
<td>Soil Quality</td>
<td>1.741** (0.455)</td>
<td>0.517** (0.156)</td>
</tr>
<tr>
<td>Erosion</td>
<td>1.395 (0.343)</td>
<td>1.822** (0.470)</td>
</tr>
<tr>
<td>NBI</td>
<td>1.009 (0.011)</td>
<td>0.958*** (0.013)</td>
</tr>
<tr>
<td>Gini</td>
<td>0.652 (1.694)</td>
<td>305.5* (903.179)</td>
</tr>
<tr>
<td>Total Population</td>
<td>1.000*** (0.719)</td>
<td>1.000 (0.000)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.293 (3.036)</td>
<td>3.036 (8.819)</td>
</tr>
</tbody>
</table>

Observations 395 317

* p<0.1, ** p<0.05, *** p<0.01. Standard errors appear in parentheses.
Models include department fixed effects. All coefficients presented as Incident Rate Ratios (IRRs).
### Table 3: Punishment and Selection Into Training, 1988-2005

<table>
<thead>
<tr>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DV: Political Training FARC</td>
<td>DV: Political Training Paramilitaries</td>
<td>DV: Punishment FARC</td>
</tr>
<tr>
<td>Government-Guerra Clashes</td>
<td>0.000133</td>
<td>0.00182***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.000)</td>
<td>(0.001)</td>
<td></td>
</tr>
<tr>
<td>Government-Paramilitary Clashes</td>
<td>-0.00553*</td>
<td>-0.00430</td>
<td>-0.0053*</td>
</tr>
<tr>
<td></td>
<td>(0.003)</td>
<td>(0.006)</td>
<td>(0.007)</td>
</tr>
<tr>
<td>Guerra-Paramilitary Clashes</td>
<td>-0.00471***</td>
<td>-0.0000110</td>
<td>-0.00263</td>
</tr>
<tr>
<td></td>
<td>(0.002)</td>
<td>(0.003)</td>
<td>(0.003)</td>
</tr>
<tr>
<td>Political Training: FARC</td>
<td></td>
<td></td>
<td>-0.00263</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.003)</td>
</tr>
<tr>
<td>Political Training: Paramilitaries</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>0.815***</td>
<td>0.729***</td>
<td>0.0575*</td>
</tr>
<tr>
<td></td>
<td>(0.007)</td>
<td>(0.015)</td>
<td>(0.015)</td>
</tr>
<tr>
<td>Observations</td>
<td>544</td>
<td>433</td>
<td>544</td>
</tr>
</tbody>
</table>

* p < 0.1, ** p < 0.05, *** p < 0.01. Standard errors appear in parentheses.
All models use an Ordinary Least Squares estimator and include department fixed effects.
Table 4: Military Training and Civilian Casualties in Colombia, 1988-2005

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Military Training: FARC</td>
<td>1.673 (0.973)</td>
<td>2.497 (1.530)</td>
<td>0.215** (0.110)</td>
<td>0.427** (0.158)</td>
</tr>
<tr>
<td>Political Training: Paramilitaries</td>
<td></td>
<td></td>
<td></td>
<td>0.848 (0.319)</td>
</tr>
<tr>
<td>Rain</td>
<td>1.000 (0.000)</td>
<td>1.000 (0.000)</td>
<td>1.000 (0.000)</td>
<td>1.000 (0.000)</td>
</tr>
<tr>
<td>Water</td>
<td>1.000 (0.000)</td>
<td>1.000 (0.000)</td>
<td>1.000 (0.000)</td>
<td>1.000 (0.000)</td>
</tr>
<tr>
<td>Altitude</td>
<td>1.000 (0.000)</td>
<td>1.000 (0.000)</td>
<td>0.999*** (0.000)</td>
<td>0.999*** (0.000)</td>
</tr>
<tr>
<td>Area</td>
<td>1.000 (0.000)</td>
<td>1.000 (0.000)</td>
<td>1.000 (0.000)</td>
<td>1.000 (0.000)</td>
</tr>
<tr>
<td>Soil Quality</td>
<td>1.781** (0.435)</td>
<td>1.802** (0.473)</td>
<td>0.543** (0.148)</td>
<td>0.541** (0.147)</td>
</tr>
<tr>
<td>Erosion</td>
<td>1.418 (0.348)</td>
<td>1.414 (0.347)</td>
<td>0.970** (0.231)</td>
<td>0.970** (0.231)</td>
</tr>
<tr>
<td>NBI</td>
<td>1.012 (0.011)</td>
<td>1.011 (0.011)</td>
<td>0.970** (0.014)</td>
<td>0.970** (0.014)</td>
</tr>
<tr>
<td>Gini</td>
<td>1.319 (3.38)</td>
<td>0.801 (2.06)</td>
<td>82.64 (231.235)</td>
<td>88.70 (239.083)</td>
</tr>
<tr>
<td>Total Population</td>
<td>1.000*** (0.000)</td>
<td>1.000*** (0.000)</td>
<td>1.264 (0.271)</td>
<td>1.264 (0.271)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.0130* (0.093)</td>
<td>0.0993 (0.259)</td>
<td>0.0724 (0.277)</td>
<td>0.0724 (0.277)</td>
</tr>
</tbody>
</table>

Observations: 395 385 317 317

* p<0.1, ** p<0.05, *** p<0.01. Standard errors appear in parentheses.

Models include department fixed effects. All coefficients presented as Incidence Rate Ratios (IRR).