

Civilian Casualties in the Colombian Conflict:
Georeferencing Human Security

Paper prepared for the Twenty-Fifth Annual ESRI International User Conference

By

Jorge A. Restrepo, Michael Spagat, Patrick Reanier and Nicolás F. Suárez

Abstract

We present a quantitative, georeferenced analysis of human security during the Colombian conflict from 1988-2004. We consider (viewing thousands of data points) different types of attacks and clashes between armed groups. For each event type we present the number of casualties, the armed group(s) involved and demographic data where these events occur. We also present, using the ESRI tracking extension, the dynamics of civilian casualties for various combinations of event types. The data argue that policy should focus on three costly circumstances in the Colombian conflict: massacres by right-wing paramilitaries in rural areas, massacres by left-wing guerrillas in rural areas, and guerrilla bombings in both the biggest urban areas and rural areas. Thus, Colombia's central human security challenge, mostly rural (with urban terrorism at times important), can be usefully defined geographically.

1. Introduction

Most humanitarian interventions during civil conflicts focus on the indirect and direct victims of civil confrontation. Nevertheless, in few cases the information available is of the quality needed to properly understand the dimension, location and evolution of the human impact of a conflict. The strategies adopted by national and international institutions to address conflict situations can have enormous implications for human welfare. For example, aggressive pursuit of insurgents may maximize the chance of bring a conflict to a swift conclusion but might also leave civilians highly exposed. Civilian casualties are also central to the battle for legitimacy between different sides in any conflict, suggesting the possibility that short-run gains obtained from imperfect targeting of rebels groups could backfire if they produce significant setbacks in the battle for the “hearts and minds” of a civilian population. In the present paper we focus squarely on this question, studying violence against civilians in the Colombian conflict from a spatial representation point of view.

The Colombian conflict is a complex affair. Government forces face two major left-wing guerrilla groups (the Revolutionary Armed Forces of Colombia (FARC) and the National Liberation Army (ELN) and the illegal right-wing paramilitaries (the United Self-defence Forces of Colombia (AUC), which also combat the guerrillas. Guerrilla and paramilitary coffers have swollen in recent years from diverse income sources that include drugs, kidnapping and extortion, taking the conflict to new intensity levels. Tens of thousands of people have been killed, injured or kidnapped and hundreds of thousands have been displaced due to the conflict. There has been massive property damage and large-scale theft of property, notably land.

Commission on Human Security (2003) launched an ambitious new initiative aimed at reorienting security discussions toward the protection of individuals from security risks rather than states. The concept of Human Security has generated much discussion and

controversy.¹ Indeed, the Human Security concept has been endowed with many wildly varying definitions. Some are narrow, focusing on the human cost of armed conflict (Hubert, 2004), while others are expansive, including, e.g., environmental, health and economic threats (Axworthy, 2004). One goal of the present paper is to steer discussion away from definitional controversy and toward practical analysis. We use precise quantitative methods to study the killing and injuring of civilians in the Colombian conflict and we represent them spatially for the first time. By illuminating the critical threats against civilians in Colombia, including where, when and by whom they are harmed, we contribute to policy development for reducing these dangers. This spatial representation approach of course needs to be complemented and deepened with further spatial statistical analysis in order to become a central technique in Human Security studies

The human impact of the any conflict extends well beyond civilian killings and injuries. In this paper we do not address combatant casualties, forced internal displacement, kidnapping, property appropriation, rape, threats and other forms of violence.² Nor do we quantify violations to human rights or international humanitarian law. However, we do think they are important and hope to attend to them in future work.

Our Colombia work is based on our database described in Restrepo, Spagat and Vargas (2004a). This work also presents the basic contours of the data. Restrepo and Spagat (2004a) extend the data through the end of 2003 and show that there was a dramatic structural break for the better in the conflict toward the end of 2002 arguably associated, amongst other factors, with the new government of Alvaro Uribe and the security policies implemented by this government.

There has been some interesting recent literature on civil war and civilian deaths. Kalyvas (1999 & 2004) provides extensive discussion on the logic of violence against civilians in civil wars that we utilize below. Kalyvas' effectively dispels the widespread

notion that most violence against civilians is simply senseless and irrational. To the contrary, armed groups often target their violence well with the aim of deterring civilians from supporting the opposing side in war. This is the case, for example, of the strategy of Colombia's paramilitaries as explained by Carlos Castaño, the leader of paramilitaries during their most active period, 1997-2002:

"Since we could not combat [the guerrillas] where they were, we chose to neutralize the people who brought to their camps food, medicine, messages, liquor, prostitutes, and these types of things. And we realized that we could isolate them and that this strategy would give us very good results. Incredible." (quoted in Kirk, 2003, p. 152)

Azam and Hoeffler (2001) also view violence against civilians as a strategically calculated choice. They develop a model in which, under certain conditions, a government will terrorize civilians in areas where rebels enjoy civilian support with the objective of displacing these civilians to prepare the ground for an effective challenge to the rebels in these areas. The authors find some empirical support for their scenario in African data. However, our data clearly show that the Colombian government does not employ this tactic, although it is quite plausible that the illegal paramilitaries do. We do not pursue this hypothesis below but may do so in the future after incorporating forced displacement information into our dataset.

Ghobarah, Huth and Russett (2003 & 2004) employ WHO health data on a cross-section of civil-war-afflicted countries and statistical methods to argue that the indirect effects of war, working through disease and disability are very large and long-lasting and disproportionately affect women and children. We will, nevertheless, focus exclusively on the direct consequences of the Colombian conflict and not attempt to apply the observations of Ghobarah et al. (2003 & 2004) in this paper.

Humphreys and Weinstein (2004) study violence against civilians in civil war and find that the internal structure of armed groups explains much about their patterns of abuse. We do not delve inside the Colombia's armed groups, instead studying overall behavioural patterns.

A deeper understanding of this long-running conflict will clearly be welcome in Colombia. Scholars, policymakers and other analysts also should take a close look at the Colombian conflict for a variety of reasons. First, it spills over Colombia's borders particularly through the narcotics business and the flow of refugees and immigrants. Second, the outside world exerts strong influences on the Colombian violence and cannot in good conscience ignore these effects that work primarily through two channels: the culture of illegal drug consumption in the West that keeps Colombia's non-state armed groups well supplied with cash and the military and economic assistance programs of the US and, to a lesser extent Europe, that are important for Colombia.

A third, and underappreciated, reason to study Colombia is that it is a particularly revealing case study for conflict researchers. For a country embroiled in a serious conflict, Colombia is quite wealthy. The country, therefore, has managed to develop a rather good information base, including much statistical data, on the conflict. Thus, Colombia offers a unique, and possibly unparalleled, opportunity for conflict researchers to develop their field.

The plan of the paper is as follows: Section 3 is a brief description of our database. In section 4 we use the database to isolate the main ways in which civilians are killed and injured. Section 5 delves in detail into these main threats. We draw some conclusions in section 6.

2. The Data

Our dataset contains events from the Colombian conflict, 1988-2004. Our main sources are the events listed in the quarterly publications of the Colombian non governmental organisation CINEP on human rights and political violence in the country. CINEP reports have two foundations. First, CINEP has an extensive network of local sources. CINEP researchers also digest virtually all printed media reports on political violence and human rights in Colombia.

We begin with CINEP's event list and screen out events we judge to be not clearly related to the conflict, excluding family violence, pursuit of personal vendettas or property crime. We endeavour to include only actions of clear and direct military significance. We log all the qualifying events into our system.

Extensive quality checks are performed on the data. This mainly involves investigating in the press record all of the large events plus a big random sample of all of the events to ensure that CINEP has properly treated them and that we have recorded them correctly in our database. We also search independently through a variety of sources, including newspapers and reports of human rights organizations, for events that CINEP might have missed, occasionally adding events on this basis. Finally, we continuously improve the data as we analyze it, systematically searching for possible problems whenever we find curious or interesting new results.

We believe the quality of the data is quite high. Not only due to our quality control procedures but also because we are certain we have faithfully transferred the raw information into our database. Nevertheless, the Colombian conflict, like any conflict, is complex so it is impossible to record everything that happens in it. For example, threats are part of the conflict but they are amorphous and tricky to measure so we have simply left them out of the dataset. We also suspect that our data underestimates the prevalence of some types of events

such as mine explosions and oil pipeline attacks, since these are often not reported in the media and can be missed by CINEP's field network.

The resulting database is as follows. It is very large, including more than 21,000 single-day, self-contained events. It is geographically referenced down to the level of roughly 1,100 municipalities. It distinguishes between more than 500 types of events, ranging from clashes between armed groups to massacres, road blockages and even the explosion of bombs that spew propaganda pamphlets. It records killings and injuries of both civilians and combatants, classified by group membership, as well as takings of combatants by both non-state armed groups and the government. It contains information on the type of weapons used in violent events, including firearms, explosives and mines. Finally, there is a rather long and high-frequency time dimension covering sixteen years.

In this paper we focus on two dimensions of the dataset: time and type of event. We first divide events into two main categories: clashes and attacks. Clashes are fights between at least two armed groups. Attacks are one-sided, i.e., they are events carried out by a single armed group without effective resistance. Table 1 summarizes our attack typology. Some of the attack types can be further disaggregated but we judge that doing so would obscure rather than enhance the analysis.

Table 1 Typology of attacks

Name of attack	Description
Aerial bombardment	Action in which airplanes or helicopters attack with bombs from the air
Ambush	Surprise attack by people lying in wait in a concealed position
Artillery attack	Armed action using artillery
Assault	Action by an armed group destined to steal or loot
Attack against means of transport	Armed action that causes material damage to some kind of mean of transport
Attack against military or police targets	Armed actions against military or police targets
Attack against not military objectives	Armed actions against objectives not considered as military
Bombing	Armed action using an explosive device
Capture	Attack in which a specific position is controlled by force, even temporarily
Civilian attack	Armed action against the civilian population
Electoral interference	Attack against voting booths or against the electoral system
Graffiti painting	Action in wich some group communicate itself using signs painted in the walls
Harrasment	Attack against a fixed position or place (town, police or military station or base) without success in entering or taking control of the place
Incursion	A sudden or brief attack to a position, in which the group manages to enter and/or control the position briefly
Infrastructure attack	Armed action that causes damage or paralysis in infraestructure goods
Massacre	Action in which more than three persons are killed in a situation of indefension and with selectiveness by the group perpetrating the killings (either against the persons or against the position)
Massive kidnapping	Action in which a simultaneous kidnapping of more than 4 persons occur
Mined camp	Armed action using antipersonnel mines
Not specified attack	When there is information that a unilateral action has occurred but there is no sufficient information to determine the type of attack in detail. When there is a clash on the same date, the attack occurs before the clash
Propaganda attack	Propaganda explosion
Raid	Action by government forces in execution of a judicial order
Sabotage	Action in which the functioning of some instalation, device or process is interrupted
Speech	Speech with ideological content
Statal forces aerial persecution	Aerial persecution by the armed forces against some airship
Trap	Device maded for making damage. Usually consists in a concealed excavation that can sink as a persons goes through
Unexploded ammunition	Unexploded ammunition
Unilateral attack against guerrillas	Armed actions against guerrilla groups
Unilateral attack against paramilitaries	Armed actions against paramilitary groups

Many actions, such as incursions or infrastructure attacks, include the use of explosives. Our category of “bombing” does not cover all of these explosions for two reasons. First, we have separated out certain types of explosions such as mine explosions, specified in the table, that we consider sufficiently interesting to merit their own categories. Second, when bombings are a secondary feature of a larger event we do not classify the event as a bombing.

Note that attacks, by definition, have a single author which, in the overwhelming majority of cases is the government, the FARC, the ELN or the illegal paramilitaries. There are many claims of collusion between government forces and the illegal paramilitaries. For example, such allegations feature centrally in the annual reports of Human Rights Watch and Amnesty International.³ The Colombian government concedes that such links do exist but that they are contrary to government policy which is to vigorously persecute them. But presently we lack sufficient reliable information on these ties to allow us to integrate them into the present analysis. We will, therefore, treat all attacks as pure single-authored events.

4. Analysis

4.1. The Aggregate Level

Figure 1 gives the annual time series for total civilian killings and injuries. There is a sharp rise in killings and injuries beginning in 1998 and 1997 respectively followed by equally dramatic turnarounds starting in 2002 and 2003 respectively. This “upsurge period” as we called it in Restrepo et al. (2004) overlaps closely with the period from the end of 1998 until January of 2002 when the government of Andres Pastrana had granted a demilitarised zone, the “despeje”, to the FARC as a good-faith gesture during peace negotiations. The United States also increased its military assistance to Colombia substantially starting in 1999.

Figure 1 Total civilian killings and injuries

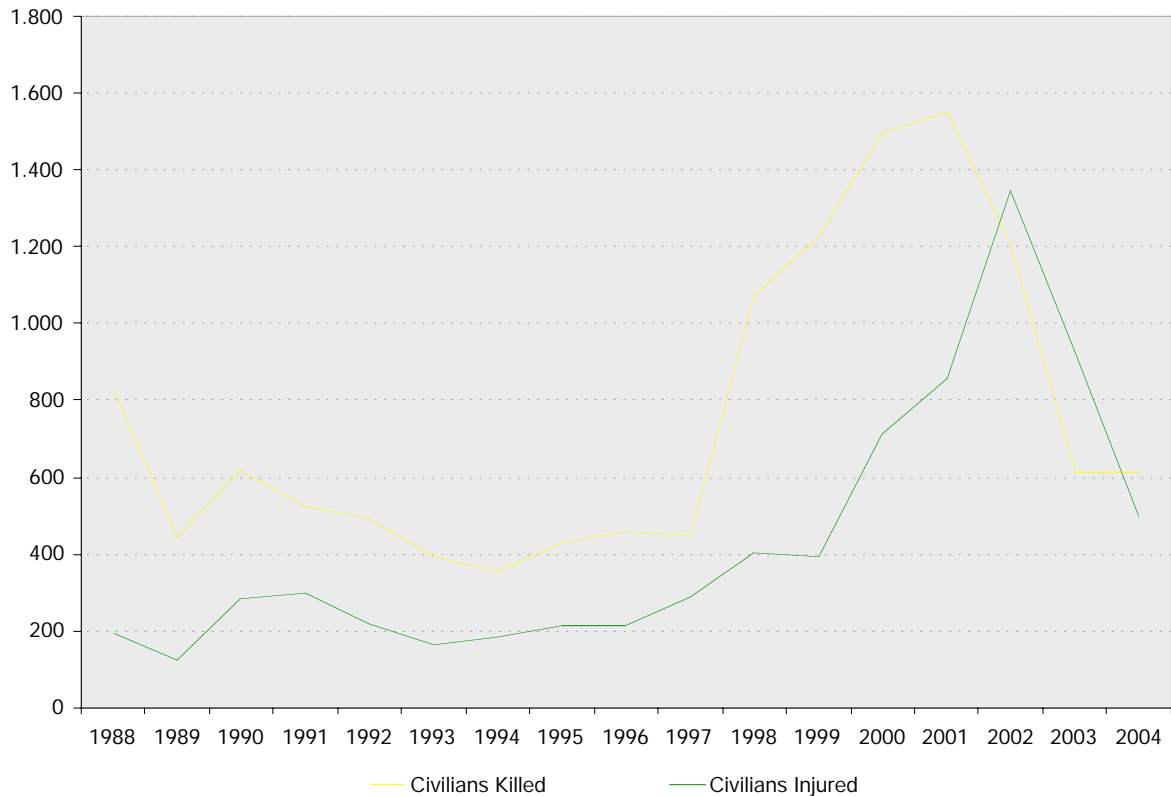
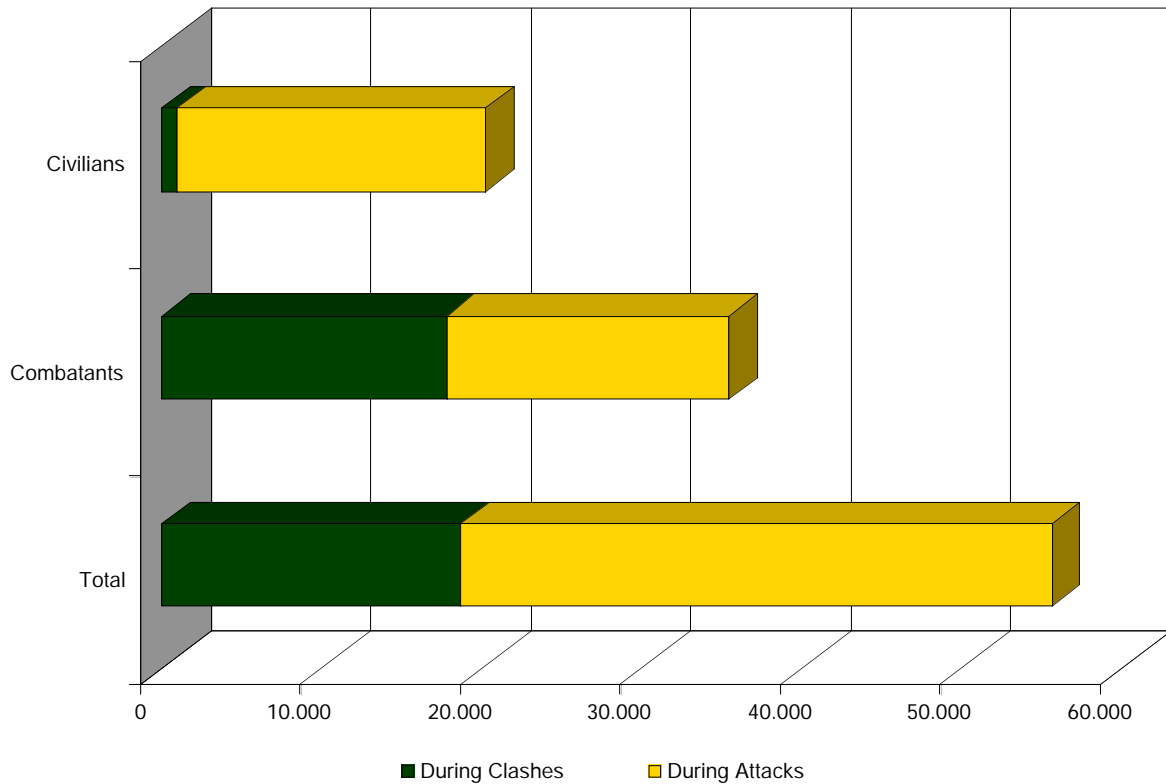


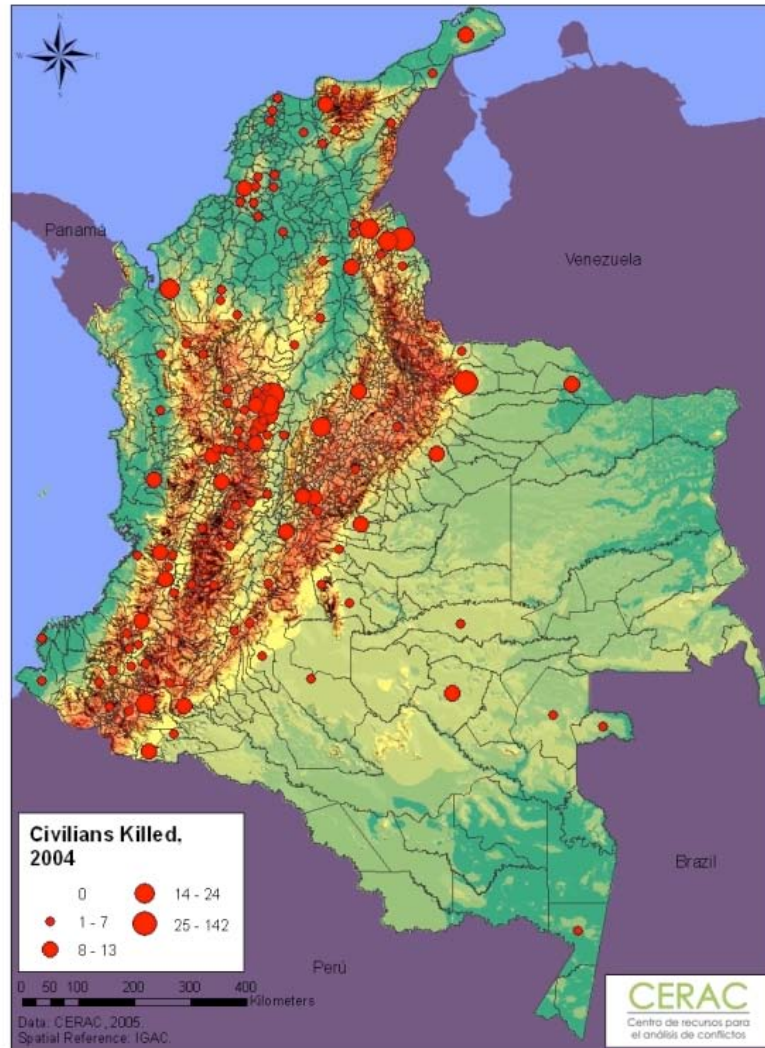
Figure 2 gives the number of casualties (killings plus injuries) in attacks and clashes respectively, organized by group, over the whole period 1988-2004. First, note that combatant casualties outnumber civilian casualties by almost two to one, contrary to the common claim that deaths in civil conflicts are overwhelmingly civilian.⁴ This is similar to the finding of Hultman (2004, p. 13) which used data of the Uppsala Conflict Data Program for 2002-03 and found that in those years that battle-related deaths exceeded intentional killing of civilians by a factor of almost ten. Second, the figure shows that while there are many civilian casualties due to clashes, more than 90% of all civilian casualties occur during attacks. Therefore, we focus primarily on attacks in this paper although we return to clashes in section 4.10.

Figure 2 Casualties 1988-2003



Map 1 shows a geographical depiction of the distribution of civilians deaths due to conflict activities during the year of 2004. During that year a clear cluster of civilian deaths can be seen in the eastern part of the Antioquia department, in the western side of the Sierra Nevada de Santa Marta and in the Catatumbo area near the Venezuelan Border. A better description can be seen across time using the ESRI tracking analyst in the presentation.

Map 1 Killed Civilians by Municipality in 2004



4.2. Attacking profiles for the illegal armed groups

Figure 3 gives the breakdown of all guerrilla attacks by type aggregating over the whole time period, 1988-2004. It shows that the guerrillas engaged in a broad spectrum of activity, encompassing economic sabotage and challenges to government authority as well as intimidation of civilians. Figure 4 reveals a paramilitary portfolio of attacks that is considerably less diversified than the guerrillas', consisting mainly of the massacring of civilians.

Figure 3 Portfolio of attacks by the guerrilla groups

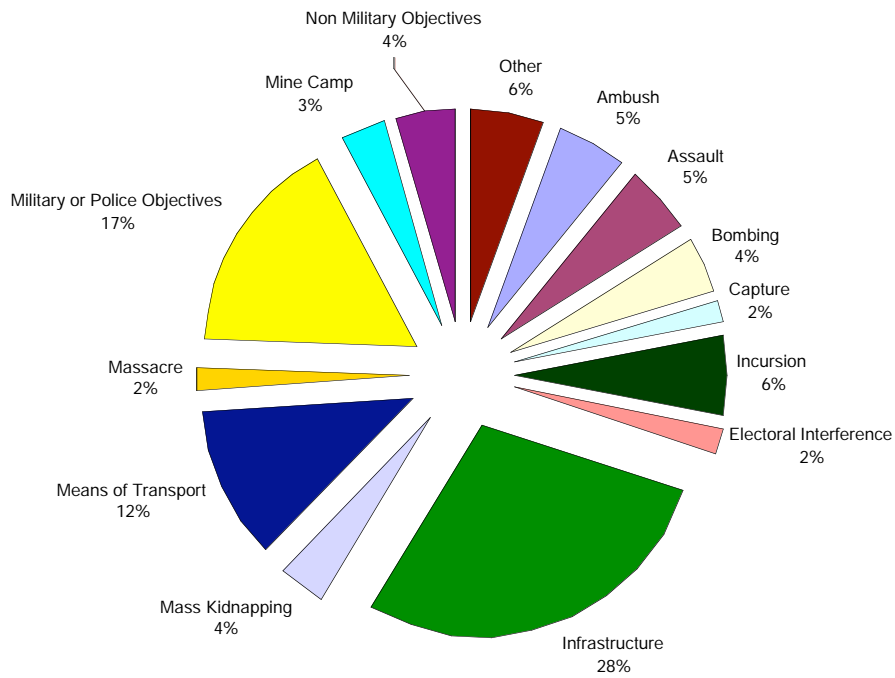
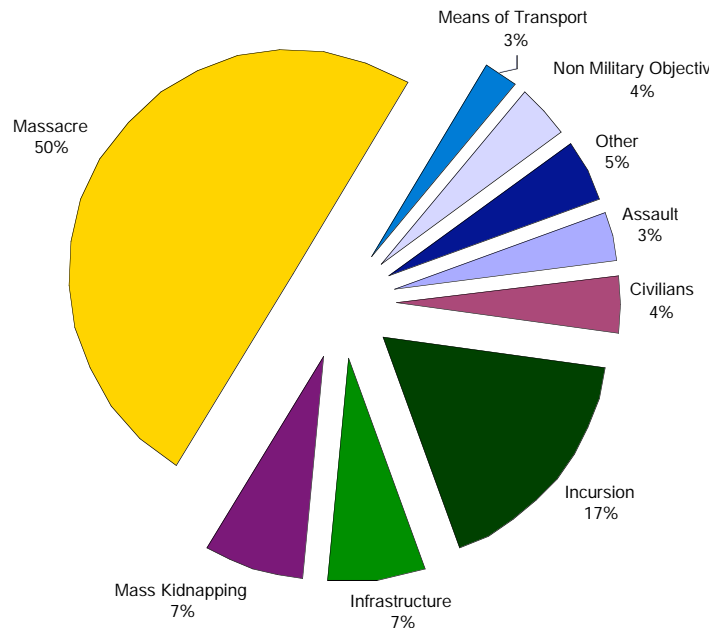


Figure 4 Portfolio of attacks by the paramilitaries

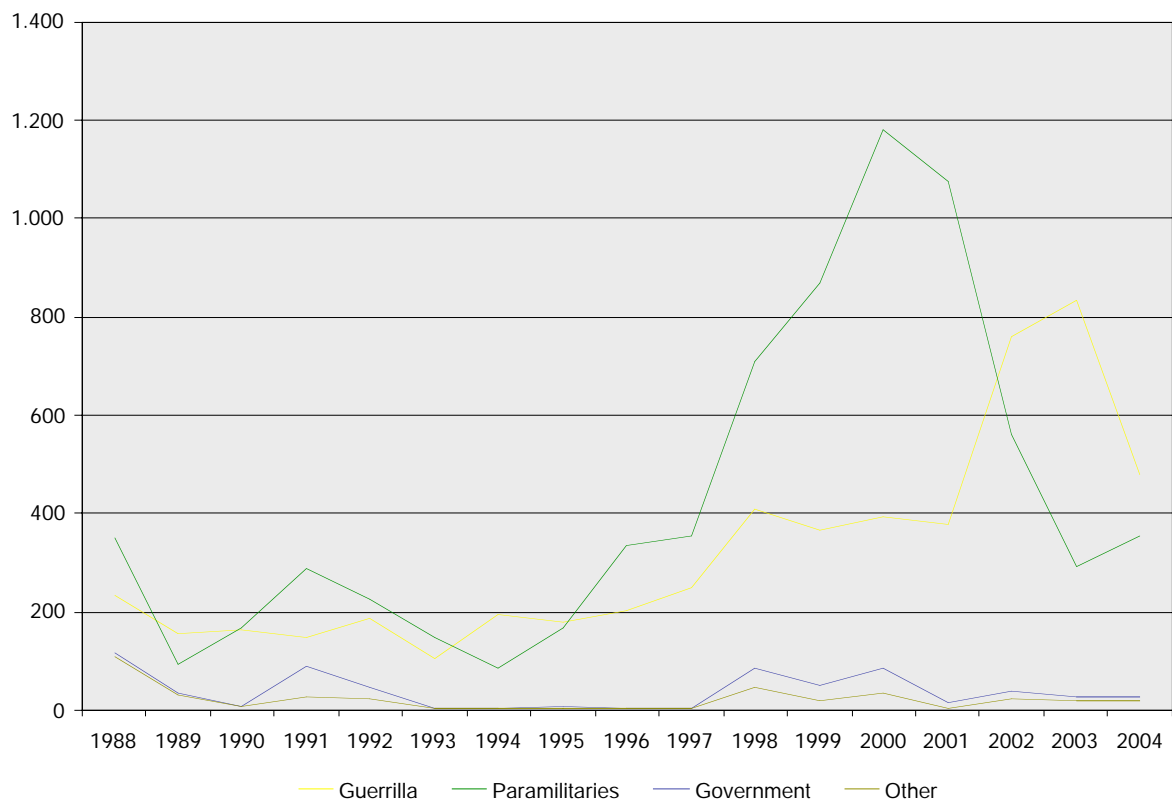


4.3. Civilian casualties by group

Figure 5 gives the number of civilian casualties in attacks organized by group in every year from 1988 to 2004, where the series labelled "other" refers to attacks with unknown authors.

The illegal paramilitaries are behind the majority of the attributed civilian casualties, closely followed by the guerrillas. The guerrillas have, however, surpassed the paramilitaries for the last two years. Government forces tend not to cause civilian casualties in unilateral operations and have even improved their record in recent years.

Figure 5 Civilian casualties due to attacks



4.4. Killings of civilians by type of attack and group

Massacres account for almost forty percent of guerrilla killings of civilians in attacks.

Bombings and incursions are also important, together accounting for slightly more civilian killings than massacres.

Figure 3 together demonstrate that the most prevalent guerrilla activities are generally not the ones in which they kill the most civilians. For example, the guerrillas killed few

civilians in infrastructure attacks. Moreover, two thirds of the civilians they did kill in infrastructure attacks were killed in a single event in 1998 in Machuca, Antioquia when the ELN blew up an oil pipeline, causing a fireball to sweep through a nearby village, killing 84 and injuring more than 60 people.

The illegal paramilitaries have killed more than twice as many civilians in attacks as have the guerrillas. More than three fourths of these killings are in massacres. Of the remaining paramilitary killings in attacks, well over half are in incursions.

Government forces have killed significantly fewer civilians in attacks than have non-state armed groups. More than one fourth of these were killed in 1988 in a convoluted incident that began with a massacre by the EPL⁵ at San Pedro de Urabá, Antioquia leading to a clash between the EPL and FARC in a populated area. The government intervened and caused heavy civilian casualties with an aerial bombardment.

Figure 6 shows the pattern over time in civilian killings by the guerrillas in massacres, incursions and bombings. The first seems to trend up with much variation. The second jumps up between 1998 and 2002 but appears to revert back to the long-run average in 2003. The last has moved up steadily since 1998 and had a huge spike in 2003, largely due to several big attacks by the FARC. These incidents include the bombing of the “El Nogal” social club in Bogotá, the explosion of a so-called gas canister bomb in a church where civilians had taken as refuge during guerrilla-paramilitary fighting in Bojayá, Choco and several bombs detonated in towns just outside the demilitarised zone where the government was conducting peace talks with the FARC.⁶

Figure 6 Killings of civilians during main guerrilla attacks

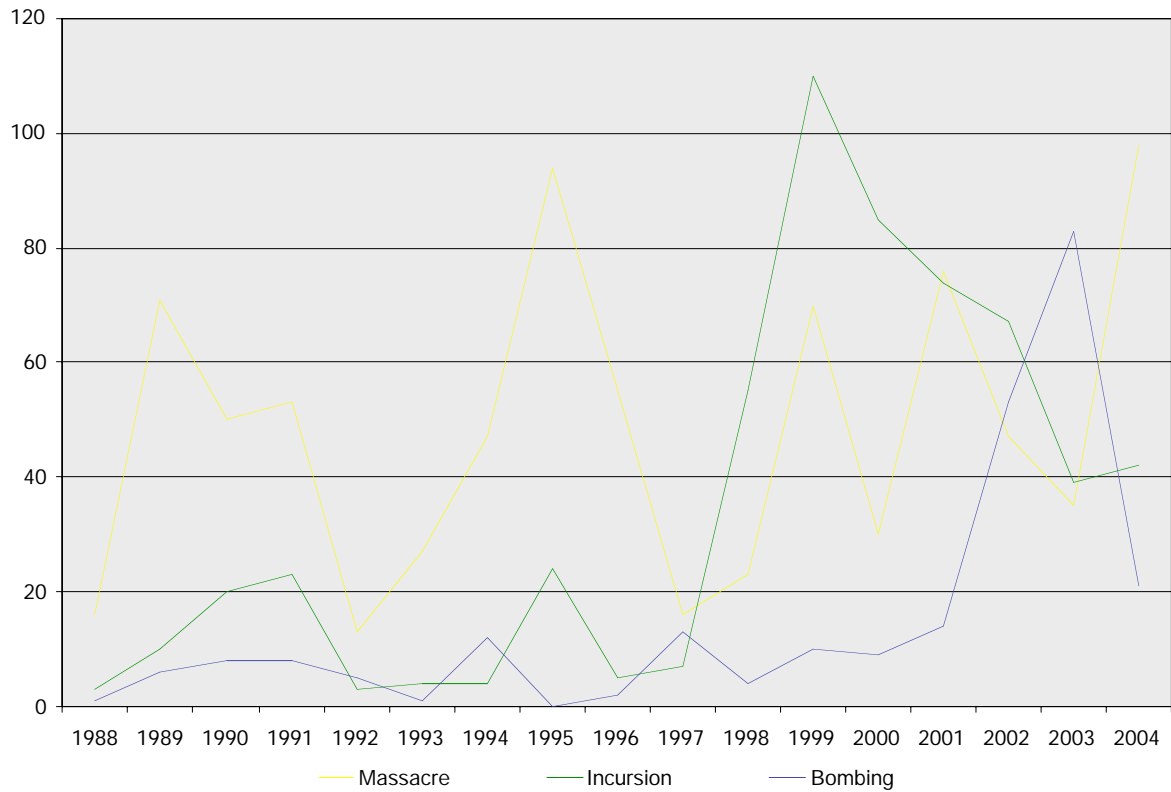
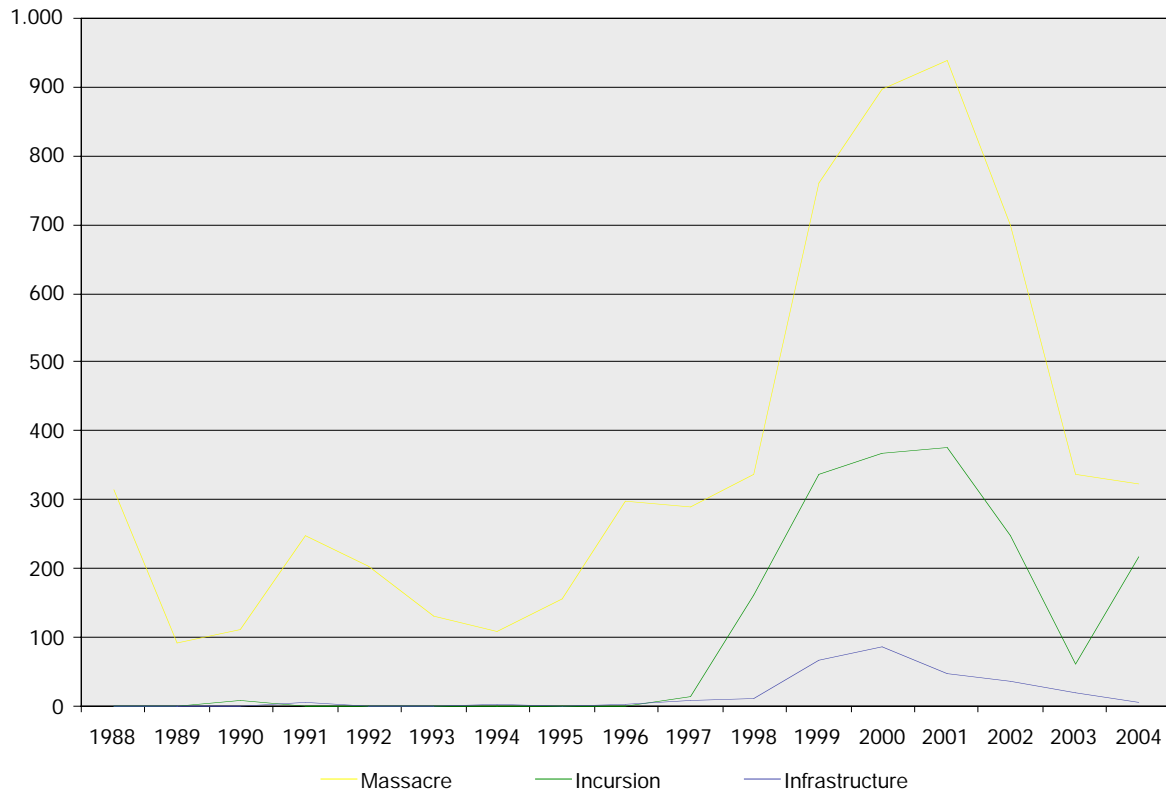


Figure 7 gives the dynamics of civilian killings in massacres, incursions and infrastructure attacks for the paramilitaries. There are essentially only massacre killings until 1997 and even these were dropping steadily between 1991 and 1994. In 1995 massacre killings began a sharp ascent, peaking in 2001 before declining dramatically. From 1997 onwards the other two series rise to peaks in 2000 or 2001 and then fall back rapidly with the reversal somewhat predating the paramilitaries' official ceasefire.⁷

Figure 7 Killings of civilians during main paramilitary attacks



4.5. Civilian Injuries by Type of Attack and Group

The guerrillas emerge as unrivalled in their propensity to injure civilians, accounting for more than 80% of all attributed civilian injuries in attacks. As with killings, only a small percentage of these injuries come during the most common types of guerrilla attacks. Almost half of the civilian injuries generated by the guerrillas in attacks come from bombings, which are rather random and inaccurate, injuring many more people than they kill. In fact, guerrilla bombings produce nine times as many civilian injuries as do guerrilla mine explosions. Even allowing for possible weakness in the mine coverage in our data it is clear that mines are the lesser of the two dangers for civilians, although mine explosions do rank higher on the injury list than on the killing one.

Remarkably, the paramilitaries have killed twice as many civilians in attacks as have the guerrillas, while the latter have injured more than seven times as many civilians as have the former. However, upon reflection this finding is fully consistent with paramilitaries' fundamental strategy of killing civilians suspected of helping the guerrillas. Note that few people are injured in massacres in which defenceless people are normally killed on purpose at close range and, therefore, perpetrators leave behind few people who are injured but not dead.

The guerrillas also conduct massacres of civilians. But, as noted above, they also work hard to disrupt the economy and government control. For the latter two purposes the random character of bombing is quite effective. Sowing fear, discouraging foreign and domestic investment, forcing expensive repairs and jamming infrastructure arteries can be pursued effectively and cheaply through rather indiscriminate bombings that injure many civilians.

The government inflicts the fewest civilian injuries of all groups. Aerial bombardments once again appear as the most hazardous government activity. There is a close parallel with the killing figures because most of the injuries in this category again come from a single event, this time in 1991 in El Bagre, Antioquia.

The trends over time in guerrilla-induced civilian injuries are of great interest. The impact of guerrilla bombings gyrates considerably, consistent with the random character of bombings and mine explosions. Still, these injuries have tended to increase rapidly. Those in mine explosions have grown steadily since 1999 while the incursion injuries peak in 1998 and then decline. The increasing number of civilian injuries from bombs and mines reveals a progressively more indiscriminate, terrorising FARC and is perhaps suggestive of desperation. We think the big spike in bombings, and hence injuries, in 2002 may be an attempt to force the Colombian Army to tie up big resources in defending cities, freeing the guerrillas in the countryside.

Much of the increase in bombing-related casualties comes from FARC gas canister bombs.⁸ Table 2 provides information on civilian casualties from gas canister bombs. The erratic relationship between the number of explosions and the casualty counts underscores the indiscriminate nature of these devices. It is difficult to determine whether the decrease in bombing, including gas-canister, casualties in 2003 is part of a trend or simply a random fluctuation.

Table 2 Civilian casualties during gas canister events

Year	Events	Killed	Injured
1998	5	10	0
1999	18	29	7
2000	39	31	7
2001	43	35	33
2002	41	25	29
2003	10	5	7
2004	17	0	2
Total	173	135	85

4.10. Clashes Table gives the number of clashes and the number of civilians killed in these clashes for each combination of groups clashing in each year.⁹ Government-guerrilla clashes are by far the most common and have risen dramatically since 1999. There were hardly any guerrilla-paramilitary clashes until the sharp rise that began in 1997 and was reversed in 2003. Government-paramilitary clashes have always been rare but have shown a tentative upward trend in recent years. It is interesting that the government became slightly more challenging to the paramilitaries precisely when the paramilitaries have decreased their violence and entered demobilization negotiations. But the larger fact overshadowing this recent curiosity is the long history of very little government-paramilitary clashing. Evidently, the government considers the guerrillas as the country's fundamental security threat whereas the paramilitaries are viewed as a response, however misguided, to that threat. However, the paramilitaries are such a colossal menace to human security in Colombia that we think the

government should rethink this strategy, especially if the demobilization discussions with the paramilitaries fail.

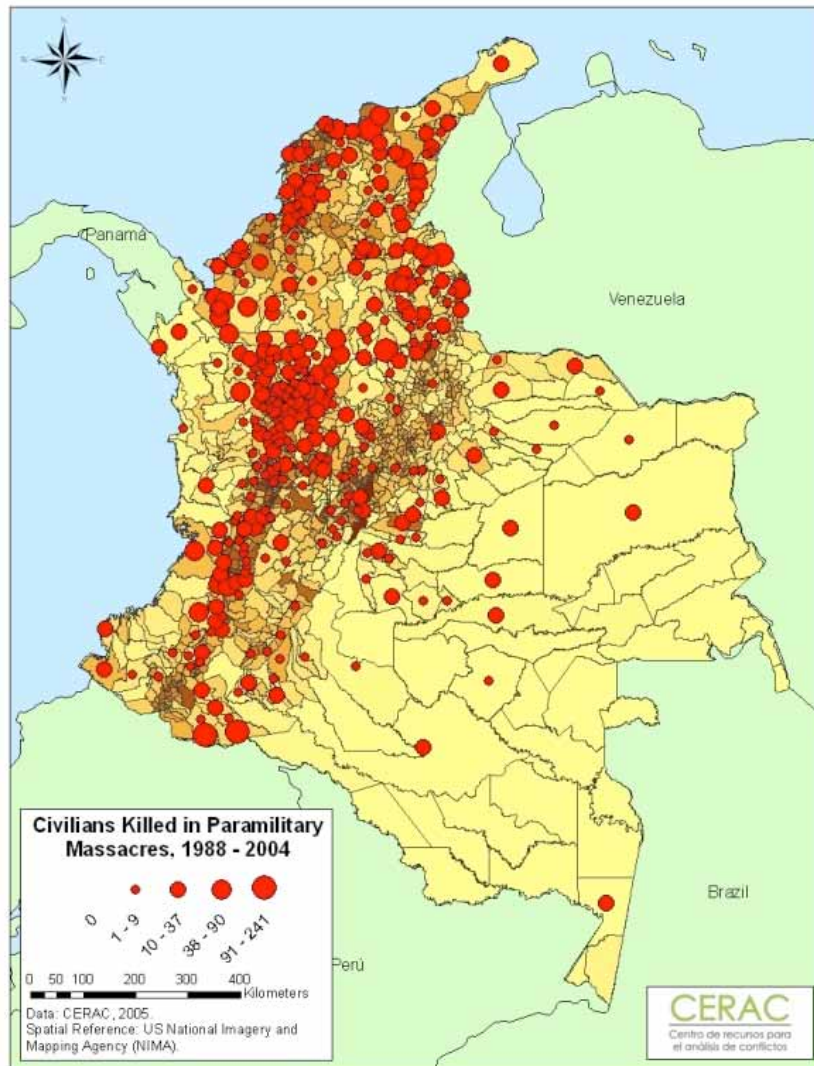
Table 3 Clashes by groups clashing and killed civilians during clashes

Year	Government-Guerrilla		Guerrilla-Paramilitaries		Government-Paramilitaries		Total	
	Clashes	Civilians Killed	Clashes	Civilians Killed	Clashes	Civilians Killed	Clashes	Civilians Killed
1988	204	16	0	0	0	0	204	16
1989	195	10	2	0	4	1	201	11
1990	392	33	1	0	2	1	395	34
1991	550	28	1	0	0	0	551	28
1992	595	41	1	2	2	0	598	43
1993	510	46	0	0	0	0	510	46
1994	479	30	3	30	0	0	482	60
1995	384	44	1	0	0	0	385	44
1996	469	11	4	2	2	0	475	13
1997	387	30	13	0	3	0	403	30
1998	331	44	31	37	6	0	368	81
1999	324	52	23	40	1	4	348	96
2000	505	114	66	31	2	0	573	145
2001	583	43	76	113	0	0	659	156
2002	768	72	122	198	3	0	893	270
2003	764	25	58	28	11	1	833	54
2004	745	22	53	15	22	0	820	37
Total	8185	661	455	496	58	7	8698	1164

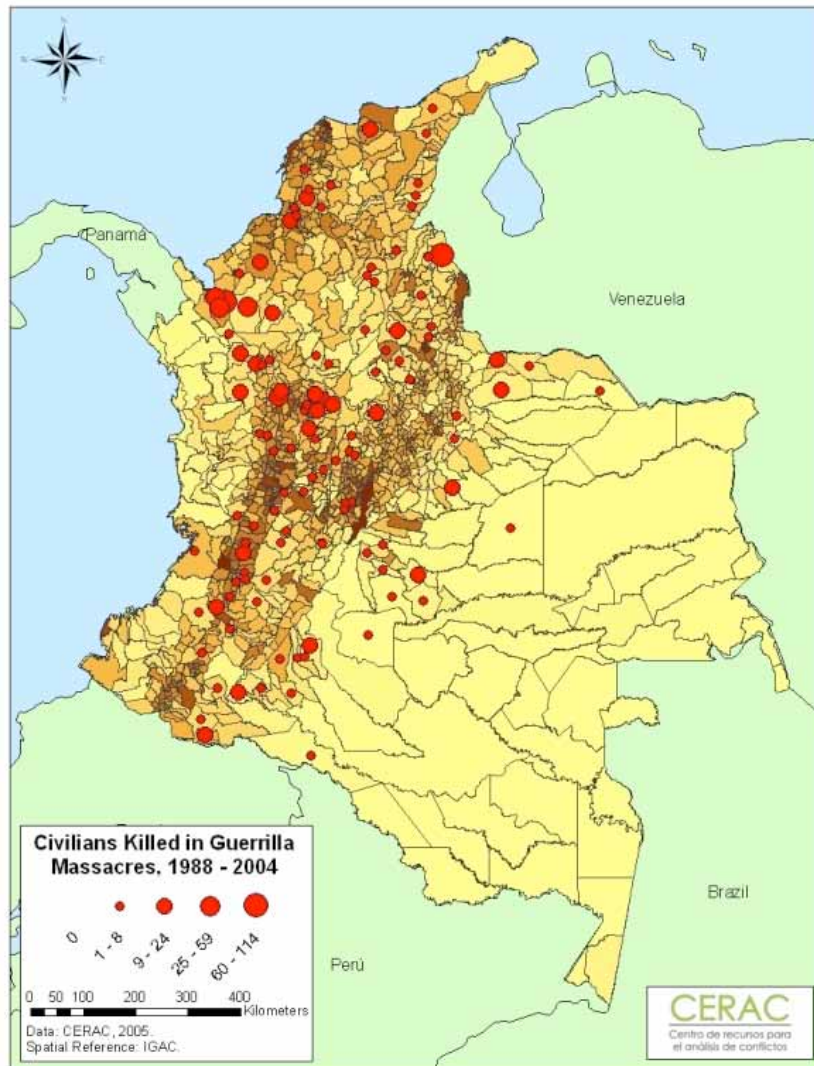
5. The Main Threats in Depth

More than 70% of paramilitary killings of civilians in massacres are in municipalities with population densities of 3 people per square kilometre or less. In other words, these events occur overwhelmingly in very lightly populated areas. Roughly speaking, a person's risk of getting massacred is decreasing in the population density in which he lives. A similar result applies to guerrillas massacres. Maps 2 and 3 present geographically this fact. The darkness in the background of each municipality represents the population density. The darkest municipalities correspond to population densities of more than 800 persons per square kilometre. Apart from the very interesting pattern of distribution, an inspection of Map 2 confirms our main point: most of the massacres by the paramilitaries occur in areas of low population density. In particular, high density, mountainous areas do not exhibit as many killings in massacres as in low level-low density areas.

Map 2 Civilians Killed by Population Density in Paramilitary Massacres by Municipality

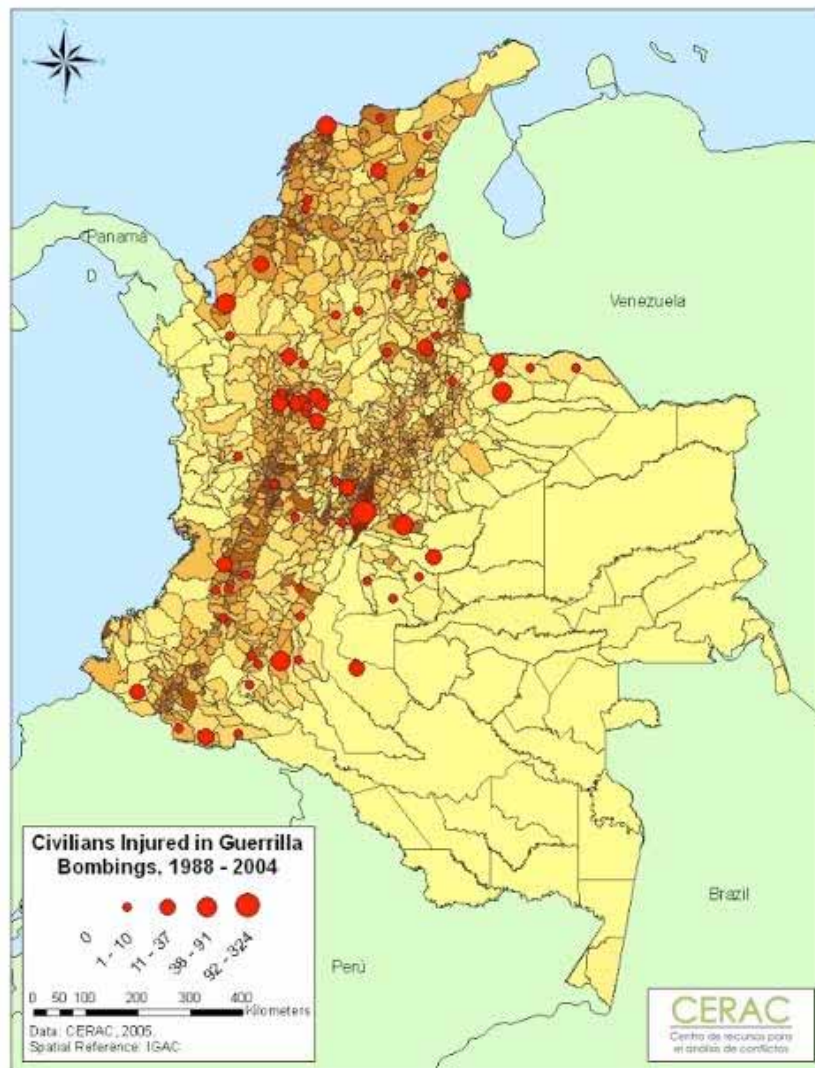


Map 3 Civilians Killed by Population Density in Guerrilla Massacres by Municipality



Map 4 is constructed as the previous two maps but it shows the distribution of civilians injured in guerrilla bombings. We see a large contrast with respect to the previous two maps. Here we find that bombings have a large number of injuries in the main cities, although some bombings with a large number of victims also happened at low density areas, like in some municipalities of the Arauca, Meta and Caquetá departments.

Map 4 Civilians Injured by Population Density in Guerrilla Bombings by Municipality



6. Improving Human Security in Colombia

The biggest conflict-related threats to human security in Colombia come from the country's illegal armed groups. More than 1/3 of all civilian casualties occurring in attacks with known authors fall into three very specific categories: killings in paramilitary massacres in rural areas; killings in guerrilla massacres in rural areas and; injuries in guerrilla bombings in rural areas.¹⁰ This figure is remarkable since it includes only two out of the many different types of attacks, only municipalities with very low population densities, only the guerrillas and the paramilitaries, and only killings in the case of massacres and injuries in the case of

bombings. Yet the main human security threats can be pinpointed as occupying only a very small space within the set of all of the possibilities. If we add injuries in guerrilla bombings in the five largest cities we can account for almost 40% of all known casualties in attacks with known authors. Most of these latter attacks are probably well classified as urban terrorism.¹¹

The urban terrorism issue can be addressed through local community support for police institutions. The key is that people must be aware of suspicious activity, know where to report it and the authorities must be responsive to these reports. Such an approach has been implemented with some success in the United Kingdom and Spain.

Rural security is Colombia's biggest human security issue, presenting a fundamental challenge for Colombia with its vast mountains and jungles. The army simply cannot be everywhere all the time, at least not without a massive increase in military expenditure.¹² Massacres have decreased dramatically in the last two years as many paramilitaries have tried to negotiate their way out of the conflict. Even so, rural security problems have remained serious during this period. If these negotiations fail and the paramilitaries return to the field, the rural security issue will probably turn critical again.

The way forward, in our view, is the development of local security institutions in rural areas. These must be controlled strictly at the national level to prevent them from becoming abusive.¹³ But personnel should be drawn from the local population of people who know and have an incentive to care about the place where they live.

The present government has made some progress in enhancing rural security without actually solving the problem. First, it has increased military expenditure and activity so that the armed forces cover more territory now than they have in the past. Second, the government has formed peasant soldier battalions (*Soldados de mi Pueblo*) from local conscripts. An advantage of this approach is that these soldiers care about local security, can

exploit their knowledge of the local terrain and situation and receive the support of the local communities. But they are really trained and equipped only to defend populated areas and, therefore, contribute only indirectly to rural security. Third, the government has extended police presence to every municipality, including many that have not had police presence for decades. (El Tiempo, 2003) However, these units only protect towns classified as municipalities and some villages and, therefore, do not reach many sizeable villages that face particularly high risks. Moreover, many of these units are not trained and equipped for rapid forays into the least secure rural areas and, in any case, jurisdictional issues would complicate any attempts to leave their home territory. Fourth, the government has expanded the rural police force (*carabineros*), who are armed at a level intermediate between regular police and proper military units. This is an expensive option since these are not conscripts and draw premium pay for working in particularly dangerous environments. Despite the compensation, they tend to serve for only two years before transferring to safer assignments and, therefore, the *carabineros* are less locally invested and informed than are the *soldados de mi pueblo*.

We believe that the government must tap local finance to underpin the development of local forces in rural areas. There are many big landowners and cattle farmers with considerable wealth in the Colombian countryside. These people often pay low taxes but have spent lavishly on personal bodyguards, security and, in many cases, even illegal paramilitaries. The government can plausibly tax these wealth pockets to support local self-defence. Willingness to pay, and hence political support for the tax, will be maximized by a visible connection between payment and local security. A second prong of this strategy must be a clear crackdown on illegal paramilitaries that do not disarm so that wealthy rural dwellers are convinced that illegal paramilitarism is not a viable option for them. In this way we hope that the Colombian government will be able to extend a good measure of security to the country's most vulnerable people.

Acknowledgments

We base our analysis on a database which we built with the significant contribution of Juan Fernando Vargas. This document is based on a previous paper prepared for the workshop “Techniques of Violence in Civil Wars” organised by the Centre for the Study of Civil Wars at PRIO, Oslo. We thank the conference participants, especially Mauricio Rubio, for their comments. We also wish to express our gratitude to Cristina Restrepo for superb research assistance. The Economics Department at Royal Holloway and the College itself provided funding for this research. Restrepo acknowledges financial support from Banco de la República. Responsibility for any errors remains our own.

End Notes

¹ See the special section on Human Security of *Security Dialogue* (2004) for a wide-ranging discussion of the concept of human security. Most of the articles support the Human Security concept in one or another variant but there are critical views as well.

² Forced displacement and kidnapping are well treated by themselves in Ibañez (2004) and Rubio (2004).

³ In its 2004 Annual Report, Amnesty International argues that there are "...reports pointing to the ongoing consolidation of paramilitary forces in heavily militarized areas and indicating strong collusion between paramilitaries and the security forces." (Amnesty International, 2004). Human Rights Watch has written extensively about "persistent ties" between illegal paramilitary and security forces, see, for example Human Rights Watch (2001) and Human Rights Watch (2002).

⁴ See, for example Povedo (2004), *International Herald Tribune*, August 13, 2004

⁵ The EPL (from Ejército Popular de Liberación) used to be the third largest guerrilla group until it demobilised in 1992 and became a political organisation.

⁶ In the El Nogal bombing the civilian casualty counts were 32 deaths and 162 injuries while at Bojayá they were 119 deaths and 90 injuries. These bomb attacks occurred one year after the Colombian government arrested three Irishmen travelling on false papers in the demilitarised zone which was de facto controlled by the FARC. The government accused the three of belonging to the IRA and, aside from some minor crimes, of transferring bomb-making skills to the FARC. However, it appears at the moment that the authorities will not be able to muster sufficient evidence to convict them.

⁷ We do not provide a figure analogous to figures 6 and 7 for the government because there are not enough government attacks to make it interesting.

⁸ These are made from small gas canisters normally used for cooking which are emptied out and usually filled with fertilizer explosives, whatever kind of metal shrapnel is available and sometimes even rotten bananas to infect the wounds of the victims. The smallish canister is then launched from a mortar-like tube made from a larger gas canister. These devices are notorious for their inaccuracy and instability.

⁹ In this table, a zero means that there is information, for example, of no civilian casualties during clashes for a given year. A space means that there is no certainty that either clashes or victims were present.

¹⁰ For this formulation rural area is defined as a municipality with population density less than 9 people per square kilometre.

¹¹ Enders and Sandler (2002) provide a standard definition of urban terrorism as unilateral indiscriminate attacks against civilian targets causing widespread fear in the population. Some urban guerrilla bombings in Colombia are tied to extortion rackets and the settling of scores and would not fit this definition but most would.

¹² In any case, big increases in military spending would probably produce poor value for the money. Military operations normally involve large human and material resources, require long support lines and, since they cannot be permanent everywhere, rely on complex logistics.

¹³ Romero (2004) presents the long history of frustrations and abuses arising from self-defence structures in the contemporary history of Colombia. But Marks (2004) argues persuasively for the necessity of local self-defence and provides great detail, based on considerable scholarship and field experience, on how to contain abuses.

References

- Amnesty International, (2004) Annual Report 2004, Colombia Section, accessed online at <http://web.amnesty.org/report2004/index-eng>.
- Axworthy, Lloyd, (2004) "A New Scientific Field and Policy Lens," *Security Dialogue*, 35:3.
- Azam, Jean Paul and Anke Hoeffler, (2002) "Violence Against Civilians in Civil Wars: Looting or Terror?" *Journal of Peace Research*, July 2002, vol. 39, no. 4, pp. 461-485(25).
- Bejarano, Ana María and Eduardo Pizarro, (2004a) "Colombia: The Partial Collapse of the State and the Emergence of Aspiring State-Makers", in Spears, Ian and Paul Kinston (eds.), *States-within-States: Incipient Political Entities in the Post-Cold War Era*, New York: Palgrave-St. Martin's Press.
- Bejarano, Ana María and Eduardo Pizarro, (2004b) "From 'Restricted' to 'Besieged': The Changing Nature of the Limits to Democracy in Colombia" in Mainwaring Scott and Frances Hagopian (eds.) *Advances and Setbacks in the Third Wave of Democratization in Latin America*. Cambridge: Cambridge University Press
- Berquist Charles, Ricardo Peñaranda and Gonzalo Sánchez, (1992) *Violence in Colombia*, Wilmington: SR Books.
- Comisión de Estudios sobre la Violencia, (1987) *Colombia: Violencia y Democracia*, Bogotá: Universidad Nacional de Colombia.
- Deas, Malcolm and María Victoria Llorente, (eds.) (1991) *Reconocer la Guerra para Construir la Paz*, Bogotá: Editorial Norma.
- El Tiempo, (2003), "Policía llega desde hoy a otros 62 municipios del país" Agosto 11 de 2003.
- Enders, Walter and Todd Sandler, (2002) "Terrorism: Theory and Applications" in Hartley, Keith and Todd Sandler, (eds.) *Handbook of Defense Economics*, Volume 1, Chapter 9, Amsterdam: Elsevier.
- Ghobarah, Hazem Adam, Paul Huth and Bruce Russett, (2003) "Civil Wars Kill and Maim People—Long After the Shooting Stops," *American Political Science Review* Vol. 97, No. 2.
- Ghobarah, Hazem Adam, Paul Huth and Bruce Russett, (2004) "The post-war public health effects of civil conflict," *Social Science & Medicine*, Volume 59, Issue 4, Pages 869-884.
- Guzmán, Germán, Orlando Fals Borda and Eduardo Umaña, (1980) *La Violencia en Colombia*, Bogotá: Carlos Valencia Editores.
- Hubert, Don (2004) "An Idea that Works in Practice," *Security Dialogue*, 35:3.

- Hultman, Lisa, (2004), "Civilians as Pawns in the Game of Civil War," paper presented at the conference, Techniques of Violence in Civil War, PRIO, Oslo, Norway, August 20-21, 2004.
- Human Rights Watch, (2001) *The "Sixth Division" Military-paramilitary Ties and U.S. Policy in Colombia*, New York. Also available at <http://www.hrw.org/reports/2001/colombia/>
- Human Rights Watch, (2002) *The Ties That Bind: Colombia and Military-Paramilitary Links*, February Vol. 12, No. 1 (B), accessed at <http://www.hrw.org/reports/2000/colombia/>
- Humphreys, Macartan and Jeremy M. Weinstein, (2004), "Handling and Manhandling Civilians in Civil War: Determinants of the Strategies of Warring Factions," paper presented at the conference, Techniques of Violence in Civil War, PRIO, Oslo, Norway, August 20-21, 2004.
- Ibáñez, Ana María, and Pablo Querubín, (2004) "Acceso a tierras y desplazamiento forzado en Colombia", Documento CEDE 2004-23.
- Kalyvas, Stathis N., (1999) "Wanton and Senseless?: The Logic of Massacres in Algeria," *Rationality and Society*, vol. 11, no. 3, pp. 243-286(44).
- Kalyvas, Stathis N., (2004) "The Paradox of Terrorism in Civil War," *The Journal of Ethics*, vol. 8, no. 1, pp. 97-138(42).
- Kirk, Robin, (2003), *More Terrible than Death: Massacres, Drugs and America's War in Colombia*, Public Affairs, Cambridge, MA.
- Mandler, Michael and Michael Spagat, (2003) "Foreign Aid Designed to Diminish Terrorist Atrocities can Increase them," CEPR Discussion Paper 4004.
- Paris, Roland, (2004) "An Inscrutable Concept," *Security Dialogue*, 35:3.
- Poveledo, Elisabetta, (2004) "Caring for Victims, War Zone by War Zone," *International Herald Tribune*, August 13, 2004
- Restrepo, Jorge and Michael Spagat, (2004a) "The Colombian Conflict: Uribe's First 17 Months," CEPR discussion paper DP4570.
- Restrepo Jorge and Michael Spagat, (2004b) "Government Armies, Paramilitary Organizations and Guerrilla Warfare," unpublished manuscript, Royal Holloway.
- Restrepo, Jorge, Michael Spagat and Juan F. Vargas (2004a) "The Dynamics of the Colombian Civil Conflict: A New Dataset," forthcoming in *Homo Oeconomicus*.
- Restrepo, Jorge, Michael Spagat and Juan F. Vargas, (2004b) "The Severity of the Colombian Conflict: Cross-Country Datasets versus New Micro Data*," University of London, CEPR discussion paper DP4571.
- Romero, Mauricio, (2003) *Paramilitares y Autodefensas*, Bogotá: IEPRI-Universidad Nacional.

Rubio, Mauricio, (2004) "Kidnapping and Armed Conflict in Colombia," paper presented at the conference, Techniques of Violence in Civil War, PRIO, Oslo, Norway, August 20-21, 2004.

Special Section: What is Human Security? (2004), *Security Dialogue*, 35:3

Author information

Jorge A. Restrepo is an Associate Professor of Economics at the Department of Economics of the Universidad Javeriana. He is currently finishing his doctoral studies at the Department of Economics, Royal Holloway College-University of London. He is also affiliated at CERAC, the Center for Conflict Analysis Resources in Bogotá, Colombia. His email is jarestrepo@javeriana.edu.co

Michael Spagat is a Professor of Economics at the Department of Economics, Royal Holloway College-University of London. He is also affiliated with CERAC, the CEPR and the Davidson Institute. His email is M.Spagat@rhul.ac.uk

Patrick Reanier is a geographic information systems analyst with the U.S. Army's Foreign Military Studies Office, Fort Leavenworth, Kansas. He is currently finishing his master's degree in Public Health and is a recent past Assistant Professor of Military Science at the University of Nevada, Las Vegas (UNLV). pwrein@center.osis.gov

Nicolás F. Suárez is a Research Economist at CERAC and is also affiliated at the Department of Economics, Universidad Nacional de Colombia. His email is nfsuareza@unal.edu.co