Lecture 2. The Civilian Targeting Index (CTI)

Recall that the DWI sidesteps the question of intention, focusing on what armed actors actually do rather than what they intend to do.

There are two advantages to this:

1. Intentions are often difficult to determine from the outside so it is convenient (for analysts) not to have to worry about intentions.
2. Intentions may be military, yet civilian fatalities can be a predictable outcome of actions undertaken in pursuit of these military objective. (For example, aerial bombing of military targets often causes a lot of civilian casualties.) The DWI does not let actors off the hook simply because they may have had good intentions.

Yet sometimes we do have pretty good evidence that armed actors really intend to target civilians. It is useful to bring this information into play whenever possible, which is what we a try to do with the Civilian Targeting Index (CTI).

We merge together three datasets, all maintained by the Uppsala Conflict Data Program:

1. UCDP Battle-Related Deaths Dataset – This records deaths in "battles" i.e., events in which two armed groups fight with each other. A quirk of the battle-death concept is that one of the armed groups has to be a state (i.e, a country) for deaths to qualify as battle deaths. If, for example, you have two tribes (neither of which represents a state) fighting with each other, then the deaths in these events get pushed into category 3 (below).
2. UCDP One-Sided Violence Dataset – These are deaths in events for which just one armed group does all the killing. Since the people killed are not able to defend themselves deaths in this category can be viewed as intentional killings of civilians.
3. UCDP Non-State Conflict Dataset – Basically the same as category 1 except that none of the groups involved in these incidents can be a state

The above descriptions are short and sweet. The reality of the coding is that it is complicated and there are many subtleties which I have to gloss over in this lecture. We will discuss these subtleties in the seminar. To prepare consult:

1. The "Materials and Methods" section of the CTI paper.
2. The "Crunching Corpse Counts…" paper assigned for the seminar

We organize everything by group. For each group in each year, 2002-2007 we have battle deaths, one-sided deaths (civilian targeting) and non-state deaths. There are also a few pieces of basic information such as where the group operates and whether or not it is a state group.

There are 226 groups, 43 state and 183 non-state.

The CTI for each group is defined as:

$$\frac{One-sided\ deaths}{One-sided\ deaths+battle\ deaths+nonstate\ deaths}x100$$

In other words, the CTI for a group is simply the percentage of total deaths associated with the group that are one-sided deaths (i.e., intentional civilian targeting). So, for example, if a group has a CTI of 100 then this group has only one-sided deaths on its account. If the CTI is 0 then the group has only battle and/or non-state deaths.   When the CTI is between 0 and 100 then there are both one-sided deaths and battle/non-state deaths.

Figure 1. Global comparison of fatalities associated with actors in armed conflict during 2002–2007.

Total number of direct fatalities associated with an actor (from battle-deaths and civilian targeting) is plotted against the proportion of total fatalities that was from the actor's civilian targeting, termed the Civilian Targeting Index (CTI). Lines show fitted linear regressions for state actors (in red) and non-state actors (in black) that carried out civilian targeting (actor's CTI>0).

Figure 1 displays the data in a convenient way. Actors in the upper-right corner are isolated as the worst performers. You can inspect the graph in minute detail if you view it online at PLoSOne (click on "View all figures" and then down load the original image as a TIFF file).

Here are some key take-home points:

First, the majority (61%) of all formally organized actors in armed conflict during 2002-2007 refrained from killing civilians in deliberate, direct targeting. This comes straight from looking at the data.

Second, actors were more likely to have carried out some degree of civilian targeting (CTI >0), as opposed to none (CTI = 0), if they participated in armed conflict for three or more years rather than for one year. This comes from logistic regression (Table 4 in the paper), which is basically like usual regression but adapted to the case for which the left-hand-side variable can take on just two possible values (in this case CTI > 0 or CTI = 0). Note that this result says nothing at all about the extent to which groups target civilians once they have done so at least once (i.e., "crossed the line" into civilian targeting).

Third, among actors that targeted civilians (there were 88 of them), those that engaged in greater scales of armed conflict concentrated less of their lethal behavior into civilian targeting and more into involvement with battle fatalities. Also, those engaged for more than three years tended to have lower CTI's.

Fourth, an actor's likelihood and degree of targeting civilians was unaffected by whether it was a state or a non-state group.

These last two points just follow from the regression lines shown in figure 1 and spelled out in Table 6 of the paper. They suggest that there is a tradeoff between targeting civilians and engaging in battle. An armed group may attempt to control territory by terrorizing, and hence controlling the civilian population. Alternatively, an armed group may try to control the territory by dominating competing armed groups attempting to operate in the area.

As part of her PhD dissertation here at RHUL Uih Ran Lee has now updated the main picture and analysis for the PLoSOne paper (next slide).

Total Fatalities Associated with Actor, 1989-2011

Actor's Civilian Targeting Index (%)

25 100 1,000 10,000 100,000 519,513

Legend:
- State Actor
- Non-state Actor
- Fitted Line for State Actors with CTI>0
- Fitted Line for Non-state Actors with CTI>0

State actor labels (selection): Brazil, Libya, Kenya, Togo, China, Zimbabwe, Tanzania, South Africa, Madagascar, Rwanda, Guatemala, Cameroon, Laos, Niger, Mali, Romania, Nigeria, Indonesia, Democratic Republic of Congo (DRC), Haiti, Cote d'Ivoire, Burundi, Trinidad and Tobago, Mauritania, Lesotho, Spain, Macedonia, Comoros, UK, Venezuela, Central African Republic, Guinea, Liberia, Myanmar, Sudan, Thailand, Croatia, Nepal, Serbia, Russia, Afghanistan, Papua New Guinea, Israel, Congo-Brazzaville, Chad, Iraq, Egypt, Senegal, USA, Sierra Leone, Somalia, Ethiopia, Iran, Yemen, Georgia, Sri Lanka, India, Lebanon, Angola, Turkey, Kuwait, Algeria, Pakist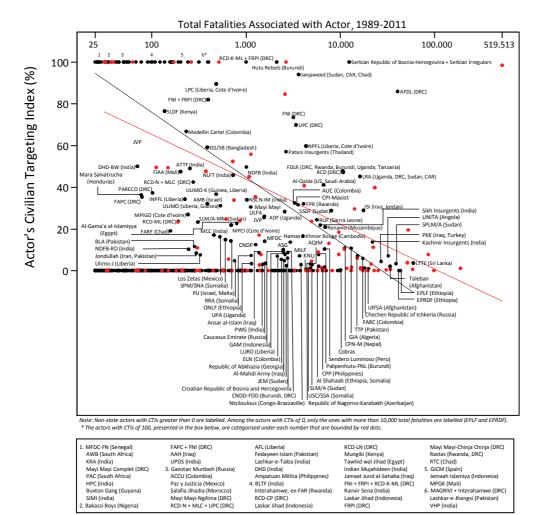an, Bangladesh, Paraguay, Mexico, Morocco, Ecuador, Uzbekistan, Djibouti, Guinea-Bissau, Moldova, Nicaragua, Cambodia, Panama, Colombia, Bosnia-Herzegovina, Philippines, Uganda, US Overall**, US + UK + Australia, Tajikistan, Peru, El Salvador, Azerbaijan, Mozambique, Serbia + Serbian Republic of Krajina*

Note: Only state actors are labelled.
* A state actor associated with a non-state actor
** Comprising US as a sole actor as well as a joint actor (i.e. US associated with UK and Australia)

Total Fatalities Associated with Actor, 1989-2011

Actor's Civilian Targeting Index (%)

25 100 1,000 10,000 100,000 519,513

1 2 3 4 5 6*

Non-state actor labels (selection): RCD-K-ML + FRPI (DRC), Serbian Republic of Bosnia-Herzegovina + Serbian Irregulars, Hutu Rebels (Burundi), Janjaweed (Sudan, CAR, Chad), LPC (Liberia, Cote d'Ivoire), AFDL (DRC), FNI + FRPI (DRC), SLDF (Kenya), FNI (DRC), UPC (DRC), Medellin Cartel (Colombia), JVP, JSS/SB (Bangladesh), NPFL (Liberia, Cote d'Ivoire), Patani Insurgents (Thailand), DHD-BW (India), ATTF (India), FIAA (Mali), NLFT (India), NDFB (India), FDLR (DRC, Rwanda, Burundi, Uganda, Tanzania), RCD (DRC), Mara Salvatrucha (Honduras), RCD-N + MLC (DRC), Al-Qaida (US, Saudi Arabia), LRA (Uganda, DRC, Sudan, CAR), PARECO (DRC), ULIMO-K (Guinea, Liberia), AUC (Colombia), Sikh Insurgents (India), FAPC (DRC), INPFL (Liberia), AMB (Israel), NSCN-IM (India), CPI-Maoist, FPR (Rwanda), UNITA (Angola), ULIMO (Liberia, Guinea), Mayi Mayi, ULFA, SSDF (Sudan), ISI (Iraq, Jordan), SPLM/A (Sudan), MPIGO (Cote d'Ivoire), SLM/A-MM (Sudan), JVP, ADF (Uganda), RUF (Sierra Leone), Renamo (Mozambique), PKK (Iraq, Turkey), Al-Gama'a al-Islamiyya (Egypt), RCD-ML (DRC), MCC (India), MPCI (Cote d'Ivoire), Hamas, Khmer Rouge (Cambodia), Kashmir Insurgents (India), FARF (Chad), MFDC, AQIM, BLA (Pakistan), CNDP, ASG, MILF, NDFB-RD (India), KNU, LTTE (Sri Lanka), Jondullah (Iran, Pakistan), Los Zetas (Mexico), Ulimo-J (Liberia), Taleban (Afghanistan), SPM/SNA (Somalia), EPLF (Ethiopia), PIJ (Israel, Malta), EPRDF (Ethiopia), RRA (Somalia), UIFSA (Afghanistan), ONLF (Ethiopia), Chechen Republic of Ichkeria (Russia), UPA (Uganda), FARC (Colombia), Ansar al-Islam (Iraq), TTP (Pakistan), PWG (India), GIA (Algeria), Caucasus Emirate (Russia), CPN-M (Nepal), GAM (Indonesia), Cobras, LURD (Liberia), Sendero Luminoso (Peru), ELN (Colombia), Palipenhutu-FNL (Burundi), Republic of Abkhazia (Georgia), CPP (Philippines), Al-Mahdi Army (Iraq), Al Shabaab (Ethiopia, Somalia), JEM (Sudan), SLM/A (Sudan), Croatian Republic of Bosnia and Hercegovina, USC/SSA (Somalia), CNDD-FDD (Burundi, DRC), Ntsiloulous (Congo-Brazzaville), Republic of Nagorno-Karabakh (Azerbaijan)

Note: Non-state actors with CTIs greater than 0 are labelled. Among the actors with CTIs of 0, only the ones with more than 10,000 total fatalities are labelled (EPLF and EPRDF).
* The actors with CTIs of 100, presented in the box below, are categorised under each number that are bounded by red dots.

1. MFDC-FN (Senegal)	FAPC + FNI (DRC)	AFL (Liberia)	RCD-LN (DRC)	Mayi Mayi-Chinja Chinja (DRC)
AWB (South Africa)	AAH (Iraq)	Fedayeen Islam (Pakistan)	Mungiki (Kenya)	Rastas (Rwanda, DRC)
KRA (India)	UPDS (India)	Lashkar-e-Taiba (India)	Tawhid wal Jihad (Egypt)	RTC (Chad)
Mayi Mayi Complet (DRC)	3. Gazotan Murdash (Russia)	DHD (India)	Indian Mujahideen (India)	5. GICM (Spain)
PAC (South Africa)	ACCU (Colombia)	Ampatuan Militia (Philippines)	Jamaah Jund al-Sahaba (Iraq)	Jemaah Islamiya (Indonesia)
HPC (India)	Paz y Justicia (Mexico)	4. BLTF (India)	FNI + FRPI + RCD-K-ML (DRC)	MPGK (Mali)
Buxton Gang (Guyana)	Salafia Jihadia (Morocco)	Interahamwe, ex-FAR (Rwanda)	Ranvir Sena (India)	6. MAGRIVI + Interahamwe (DRC)
SIMI (India)	Mayi Mayi-Ngilima (DRC)	RCD-CP (DRC)	Laskar Jihad (Indonesia)	Lashkar-e-Jhangvi (Pakistan)
2. Bakassi Boys (Nigeria)	RCD-N + MLC + UPC (DRC)	Laskar Jihad (Indonesia)	FRPI (DRC)	VHP (India)