Scope of this analysis
In this memo we describe the temporal trends in one-sided violence during the period 1989–2014 and reflect upon the data quality. One-sided violence is the direct and deliberate killings of civilians by an organized actor that result in at least 25 deaths per year; this dataset is compiled and updated annually by the Uppsala Conflict Data Program (UCDP) in Sweden.\(^1\) The focus on direct and deliberate killings means that this dataset does not capture all civilian casualties in war. Many civilians are killed in military confrontations between armed actors (i.e. killed in cross-fire, or so-called collateral deaths), and they are thus not included here. Non-state actors here include rebel groups that are involved in an armed conflict with a government, but also militia groups that may support the government.

Time trend
The graph to the left in Figure 1 shows the total number of civilians killed per year in one-sided violence by non-state actors, 1989–2014. These are based on the best estimate as provided by UCDP. They also provide low and high estimates, since many estimates are highly uncertain. The average number of fatalities globally per year during this period is 6,598, and in 50 percent of the years the global fatality estimate is between 3,266 and 7,202. Temporally, we do not see any clear trend. The mid-90s were by far the worst in terms of the death toll. In 1996 there were a total of 35,273 fatalities, most of them the result of massacres carried out by groups in Democratic Republic of the Congo (DRC). The second most violent year was 1995, which includes large-scale atrocities in DRC but also Bosnia-Herzegovina with the massacre in Srebrenica as the most defining event. However, the most recent years have seen a slight upsurge in one-sided violence by non-state actors, going from fewer than 2,000 fatalities in 2011 to 11,400 in 2014. The graph to the right shows the number of actors that perpetrated one-sided violence each year. This reveals a somewhat different trend, with the highest number of actors active around 2002-2004. Hence, the number of actors is not a very good proxy for the number of fatalities.

Figure 1. Global trend in one-sided violence by non-state actors, 1989–2014

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Regional trends
In Figure 2 we show the annual number of fatalities per region – separating between Europe, Middle East, Asia, Africa, and America. First of all, it is worth noting that the level of violence varies significantly across these regions (NB: the Y-axis is different for each region). Second, these regionals display a stark variation in their temporal trends. Europe has generally seen very low levels of one-sided violence, with the exception of a few bloody years during the Balkan wars in 1992–1995. The Middle East has seen the most explicit upward trend in the number of fatalities, starting in 2005. Asia has seen the most even pattern of violence in this period. Africa is the region that has suffered the most from one-sided violence by non-state actors. 1996 was an extreme outlier with a total of 34,577 civilians killed. The time trend in America is characterized by 9/11, which caused a spike in 2001, but apart from that the levels of one-sided violence are consistently low. If anything, these regional trends suggest that one-sided violence by non-state actors is a phenomenon that is difficult to predict, since it is characterized by such irregularities.

![Figure 2. Regional trends in one-sided violence by non-state actors, 1989–2014](image)

Most violent actors
In the time period covered there are 184 unique actors that are recorded having killed 25 civilians or more in one-sided violence. The average number killed is 310 civilians per year. There are 22 groups that have killed more than 1,000 civilians in a single year, and some of those groups have done so in multiple years. The five most violent actor-years identified by the UCDP OSV dataset are listed in the table below. One relevant question to ask is whether these instances of extremely high levels of violence against civilians were preceded by an escalation of violence. ADFL was active the first time in 1996, when the death toll reached over 30,000. Hence, those extreme levels of atrocities may have been difficult to predict, even if they took place in a context of armed conflict and weak state borders. Likewise, violence in Bosnia-Herzegovina escalated quickly when the armed conflict erupted. IS (or Daesh) and Boko Haram have both escalated their violence more gradually over a longer time period. Boko Haram first entered the OSV dataset in 2010 with 92 deaths. The predecessor groups of IS have been observed every year in the OSV dataset since 2004 (under several different names) with relatively high levels of violence in Iraq, but with a sharp increase in fatalities since 2013 when the group expanded its presence in Syria and changed its name to IS (or sometimes ISIS).
Reflections on the data quality
The UCDP OSV data are coded with a variety of sources. The baseline requirement is that the coder is able to identify a discrete event, can specify the actors involved, and has sufficient data to make a numerical fatality estimate. Most of the data come from media reports, both international and local. These data are supplemented by annual human rights reports from Amnesty International (AI) and the US State Department (USSD). Additional reports from a wide variety of international and local monitoring agencies are also sourced when available (e.g., Human Rights Watch), as well as data from special investigations when sufficiently detailed to be used in events-level coding. Examples here include the work of the Human Rights Data Analysis Group (HRDAG), United Nations special investigations, and the work of local NGOs (for example, INSEC in Nepal).

The demands of generating annual, global data involve certain compromises with regards to data quality. End users should be cognizant of the data-generation process and the biases which it may generate. These issues derive not from the coding procedures at UCDP but from the source data being used for coding, and therefore will be present for any data collection project with the same data sourcing approach (for example, Armed Conflict and Event Data Location Project (ACLED), Social Conflict Analysis Database (SCAD), etc.) These problems arise for all data pertaining to political violence, but tend to be particularly acute with regard to OSV because of the incentives to conceal or misrepresent violence against civilians.

The first concern is a temporal bias in the data. There has been an increasing volume of information in more recent years due to higher levels of media reporting and access in the post-Cold War period. Thanks to innovations in communications technology, the increased volume in media reporting has also been accompanied by a greater geographic spread of coverage, in turn increasing the probability over time that events which take place in remote areas will make it onto the newswire. Furthermore, the standard of accountability with regard to human rights has improved over time. Annual human rights reports have increased in size and detail as norms have shifted towards greater stringency in identifying human rights violations. This improvement in accountability has also resulted in a mushrooming of NGOs producing data which seek to hold actors responsible for human rights violations. These changes in monitoring impact the data generation process and are subsequently reflected in not only the UCDP OSV dataset, but all datasets which are reliant on these foundational sources.

The second concern is cross-national biases in the data. The type of state impacts the reporting process. In states where the regime persecutes journalists who expose atrocities committed by state agents (or where the state will not or cannot protect journalists from retribution from

<table>
<thead>
<tr>
<th>Group</th>
<th>Location</th>
<th>Year</th>
<th>Fatalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  ADFL</td>
<td>DRC</td>
<td>1996</td>
<td>30,110</td>
</tr>
<tr>
<td>2  Serbian Republic of Bosnia and Herzegovina, Serbian irregulars</td>
<td>Bosnia-Herzegovina</td>
<td>1995</td>
<td>8,360</td>
</tr>
<tr>
<td>3  ADFL</td>
<td>DRC</td>
<td>1997</td>
<td>5,016</td>
</tr>
<tr>
<td>4  IS</td>
<td>Iraq, Syria</td>
<td>2014</td>
<td>4,186</td>
</tr>
<tr>
<td>5  Boko Haram</td>
<td>Cameroon, Chad, Nigeria</td>
<td>2014</td>
<td>3,783</td>
</tr>
</tbody>
</table>

2 Local sources are accessed primarily via BBC World Reporting which provides translated text of local print, radio, and television news reports.
violent non-state actors), we should expect fewer reports as journalists either experience direct censorship or engage in self-censorship. We can also expect fewer reports in states with fragile security conditions which make it unsafe to travel outside of urban areas, as well as in areas with difficult terrain that hinders travel or communication. Thus we should expect the volume of media reports of OSV to be correlated with state repression, state weakness, and rough terrain—some of our main theoretical predictors of OSV. Furthermore, Eck and Fariss (2016) show that annual Amnesty International and US State Department human rights reports suffer from cross-national bias of a different nature: states which are highly transparent provide more information about abuses committed by their agents. As a result they are reported as engaging in more human rights violations than less transparent regimes, for example Sweden and Guatemala are coded as having the same level of ill-treatment and torture in 1983.4

We therefore urge end-users of the UCDP OSV and other datasets on civilian victimization to familiarize themselves with the data generation process and the potential biases derived from the data that are sourced in coding.

This seminar was made possible by the generous support of the Sudikoff Family Foundation, which funds the Museum’s Sudikoff Annual Interdisciplinary Seminar on Genocide Prevention.

4 Eck, Kristine and Christopher Fariss. 2016. “Ill-treatment and Torture in Sweden.” Working Paper, Uppsala University. We refer here to the torture variable in the Cingranelli-Richards (CIRI) dataset, but the general point is applicable to all datasets reliant upon AI and USSD reports.