

Mass Killing

Charles R. Butcher

National Centre for Peace and Conflict Studies, University of Otago, Dunedin, New Zealand

Charles H. Anderton

Department of Economics and Accounting, College of the Holy Cross, Worcester, MA, USA

and

Jurgen Brauer

Hull College of Business, Georgia Regents University, Augusta, GA, USA, and Faculty of Economics, Chulalongkorn University, Bangkok, Thailand

Introduction

Since 1900, the number of civilians purposefully murdered for political reasons is more than double the number of military personnel killed in all international and civil wars combined. Estimates range from about 80 million to more than 200 million civilians killed in state-perpetrated mass killings alone (Anderton, 2016). Moreover, the number of civilians killed in six weeks during the 1994 Rwandan genocide is about equal to those killed in all domestic and international terror events combined since 1970 (approximately 315,000; data from the Global Terrorism Database, University of Maryland). Mass killings include some of the most horrific events of the cold war and post-cold war periods, including the “killing fields” of Cambodia in the 1970s, Guatemala in the 1980s, Rwanda in the 1990s, Sudan/Darfur in the 2000s, and the post-Arab Spring-related massacres in the 2010s. At the time of writing, state and nonstate groups in Iraq and Syria were engaged in campaigns of widespread violence against civilians in pursuit of their war aims, and the Central African Republic is in the process of reconstruction after a brutal civil war that involved the deliberate killing and displacement of Muslim and Christian citizens. The mass killing of civilians is a widespread, pervasive, routine, and severe phenomenon.

We survey what mass killing entails, what research tells us about why episodes of mass killing start, whether and how mass killing might be predicted, and emerging research on how mass killing might be prevented. Relative to the study of civil wars, international wars, and terrorism, far fewer studies deal with the causes, consequences, prediction, and prevention of mass killing. Nonetheless, scientific knowledge of mass killing is accumulating. In particular, a few projects aim to forecast when and where mass

killings will occur, and they have been able to predict these events with a degree of accuracy that compares favorably to predictions of civil wars or major protest events (Goldsmith, *et al.*, 2013; Ulfelder, 2013; Harff, 2012). For example, using probit models on publicly available data on political institutions, economic conditions, and conflict history for the years 1988 to 2003, Goldsmith, *et al.* (2013) correctly classified about 91% of genocide onset years and about 79% of non-onset years. That mass killing can be predicted may surprise – surely the deliberate and systematic killing of civilians is not the action of “normal,” rational human beings amenable to prediction? And yet the evidence bears out this predictability.

In the following sections, we first define mass killing and related concepts. We then describe trends in mass killing since the end of the Second World War. A third section outlines potential drivers of mass killing, focusing on political upheaval, political institutions, economic conditions, and identity-related factors. The final section briefly points to prevention.

MASS KILLINGS

The concepts considered here, and in the mass atrocity literature generally, focus on atrocities carried out by state and nonstate groups to achieve political ends as distinct from civilian killings carried out by a nonpolitically-motivated individual, or a small group of murderers, such as in shopping mall, cinema, or school shootings and killings. We first distinguish mass killing from genocide. *Genocide* means “acts committed with intent to destroy, in whole or in part, a national, ethnical, racial or religious group, as such” (Art. 2, U.N. Genocide Convention, 1948). Such destruction usually involves large-scale (mass) killing of people of the targeted group but does not require such killing

because a group can be destroyed in other ways such as by forced assimilation into the dominant group, forced relocation, stealing children from the out-group, and/or prohibitions on reproduction (e.g., forced sterilization). In contrast, the term *mass killing* is sometimes reserved for the large-scale intentional murder of noncombatant civilians in which there is no clear designation of group membership or where there is no intention to eliminate a group as such (Staub, 1989, p. 8; Waller, 2007, p. 14). Other atrocity crimes often associated with genocide and mass killing are *war crimes*, *crimes against humanity*, and *ethnic cleansing*.¹ Following Anderton and Brauer (2016a), we treat genocide, mass killing, and the other atrocity crimes noted here under the umbrella term of *mass atrocity*.² Moreover, in the data that follow, we focus on the two (usually) most deadly forms of mass atrocity, i.e., genocide and mass killing, and we consider cases in which at least 1,000 civilians were intentionally killed in a period of sustained violence. We refer to such cases as “mass killing” for the remainder of this chapter.

TRENDS IN INTENTIONAL VIOLENCE AGAINST CIVILIANS

Figure 1, based on annual data compiled from a variety of sources, plots the number of states in which mass killings occurred from 1955 to 2014. As shown, the number of states experiencing mass atrocity declined from counts above 40 in the 1970s, 1980s, and 1990s to a low of 5 in the most recent year, 2014. Based on data from the Worldwide Atrocities Dataset, Figure 2 focuses on the *monthly* number of civilian deaths in atrocity events for January 1995 to March 2015. The number of civilians killed in such events was high in 2013-2015, owing largely to the wars in Syria, Iraq, and Nigeria. The severity of recent events is similar to those that affected the Democratic Republic of Congo (DRC; in 1996-1997), Chechnya (1995 and 1999), and Darfur (2003), although

less intense than killings associated with the defeat of the Liberation Tigers of Tamil Eelam (LTTE) by the government of Sri Lanka in 2009. Figure 3 shows the number of civilian deaths in atrocity events and the total number of atrocity incidents disaggregated by state and nonstate actors. Nonstate actors are responsible for more incidents than states and the number of incidents has climbed substantially since January 2013. In contrast, incidents of state-perpetrated atrocities have remained fairly stable except for a jump in 2011 following the ‘Arab Spring’ in the Middle East and North Africa (MENA). However, nonstate actors appear to be less deadly on a per incident basis than are governments. Only two clusters of nonstate civilian targeting have escalated to levels beyond 2,500 civilian deaths per month, but this has occurred on seven occasions for governments. One of these severe nonstate atrocities occurred when the Alliance of Democratic Forces for the Liberation of Congo (ADFL) targeted Tutsi in the eastern DRC in 1996-1997. Yet this atrocity has been substantially, if not mostly, attributed to the army of the government of Rwanda that invaded the DRC with the ADFL (Prunier, 2005). That being said, the numbers should not be interpreted as suggesting that nonstate actors are more benign in their intentions than governments. Nonstate actors probably do not have the same capacity as governments to carry out organized violence against civilians. The unusually high levels of nonstate-perpetrated atrocities from the beginning of 2013, however, are of concern as they represent a 20-year high in the number of incidents and a substantial increase in the number of civilians killed per incident. Excluding the 1996-1997 event in the eastern DRC, nonstate actors killed roughly 25 civilians per incident from 1995 to December 2012. After January 2013 this rose to an average of 40, a 60% increase. The sustained, intense rate at which civilians have been

killed by nonstate actors from early 2013 is also unusual compared to the killings in Darfur and Chechnya. It is possible, however, that advances in news reporting and data collection, combined with the ability of governments to suppress information more readily than nonstate groups, mean that nonstate incidents are more accurately reported, or perhaps over-reported, while it may take some years for the scale of government atrocities in places like Syria, Iraq, and Nigeria to become public knowledge.

[FIGURES 1, 2 AND 3 ABOUT HERE]

In sum, in line with observations made by Pinker (2011) and the Human Security Report (2013), there appears to have been a long-term decline in the frequency of mass killings from a high in the 1970s and 1980s, but atrocity rates have remained fairly stable from the early 1990s until the present. From 1995-2015, nonstate groups were more frequent perpetrators of violence against civilians, but governments were more deadly. The recent uptick of violence against civilians in the MENA region, as elsewhere in Africa, by nonstate actors is cause for significant concern and rivals some of the worst atrocities of the post-cold war period.

WHAT CAUSES MASS KILLING EPISODES?

A unified theory of mass killing and its causes is lacking. Scholarly disagreement arises from a number of sources. First, there is no uniformly accepted definition of mass killing, mass atrocity, or genocide, and this variance flows into diverging compilations of cases and databases. Often, whether a scholar is studying genocide or mass killing or “one-sided violence” influences the factors that appear to be important causes of violence (Eck & Hultman, 2007; Wayman & Tago, 2009). Second, while mass killings are not

random events, they are relatively rare events. Even with liberal definitions of mass killing, such as “only” 1,000 killed over a period of sustained violence, there have been less than three onsets globally per year such that a prediction of “no new mass killing episode” for any country in any given year would be right nearly 99% of the time. This limits the precision of statistical estimates (Brandt, Freeman, & Schrod, 2014) and also probably limits the detectable types of statistical relationships to simple linear forms or pre-specified interactions between variables (Goldsmith, *et al.*, 2013; Ulfelder, 2013). Third, even as the analysis of observational data has progressed in recent years, there are a number of hurdles to inferring causal relationships. The most serious are the possibility that correlations reflect endogenous relationships (reverse causality) and that alternative, but as yet untested, explanations may render existing findings spurious, incomplete, or false. These issues are important when it comes to designing prevention policies, which aim to modify certain conditions that change the incentive structure for potential or actual perpetrators (or provide third-party intervention opportunities or escape routes for potential victims). Prevention efforts may be ineffective, or even counter-productive, without confidence in the causal nature of observed relationships. Fourth, data on potential causal factors (even for those as fundamental as GDP per capita, let alone inflation or unemployment) is often missing for long periods of time, or of questionable reliability for many countries. Taken together, these factors make establishing causal relationships difficult and contested.

Nonetheless, scholars have made headway into uncovering causes of mass killing. Two broad schools of thought exist. The first, and older school, is that mass killing reflects the activities of extreme, even irrational individuals with deviant or sadistic

tendencies, which would not appear to permit much by way of options for intervention. Since the 1970s, however, this view has been replaced with a second, namely that mass killing reflects the strategic calculations of purposeful state or nonstate leaders seeking advantage in violent and threatening environments. Of course, this “rational choice” view does not condone mass killing. It just says that given a perpetrator’s mass killing intent, s/he goes about the killing in a purposeful way subject to feasibility constraints such as resource availability and costs (Brauer & Anderton, 2014). In this perspective, mass killing is conceptualized as a choice made from among a menu of options available to state and nonstate groups. Other options on this menu include submission, concessions, or direct war-fighting such as conventional and guerrilla warfare (Kalyvas & Balcells, 2010). The mass killing option is an especially costly and risky strategy, though, because it may attract international disapproval in the form of sanctions or invasion (e.g., Cambodia and Uganda, both in 1978-1979). Mass killing can also undermine domestic support for the perpetrating party (especially problematic for insurgent groups who depend on the population for information and supplies). Violence against noncombatant civilians rarely works in attracting concessions, at least for insurgent groups and terror organizations (Fortna, 2015), and it thus has been considered as an “inferior input” (Anderton, 2014). Civilian targeting may become an attractive option, however, where other options such as submission, concessions, or conventional war-fighting, are not feasible or are unlikely to work.

Despite recent research that finds strong evidence in favor of a rationalist interpretation of violence against civilians, there remains an important role for extreme or exclusionary ideologies: Just why preferences for group eradication or intimidation

emerge in the first place has not been well-examined (Valentino, 2014) but articles on mass killing from the perspectives of behavioral economics and the economics of identity are beginning to appear in which cognitive biases and identity-related “preferences” for mass killing are integrated with the conditions required to carry out the killings (see, e.g., chapters 6, 12-14, 17, 21-22, and 26 in Anderton & Brauer, 2016b). Thus, strategic and preference-based approaches to mass killing are not mutually exclusive and may constitute an emerging third school of thought. An actor may have “irrational” intent and yet be very strategic in realizing those preferences.

What factors make it more or less likely that a country will experience an episode of mass killing? A number of atrocity onset studies now exist, and a handful of projects aim to predict when and where the next mass killing episode will occur. Forecasting mass killing has shown some promise, typically with better predictive accuracy than forecasts of civil wars or major protest movements (Chenoweth & Ulfelder, 2015; Ward, Greenhill, & Bakke, 2010). Studies of genocide onset tend to be quantitative and examine how country-level structural factors affect this risk, although there are a small number of within-country studies that use micro-level data and also important case study works. We focus here on the cross-national quantitative work and forecasting models. The most powerful risk factors for violence against civilians can be bundled into four areas: political upheaval, political institutions, economic interdependencies, and identity-based factors.

Political Upheaval

The near-consensus among scholars is that mass killing and war are closely linked. Mass killing events rarely emerge out of stable or harmonious political situations

but from environments of pre-existing violent instability. Of the 37 genocide events between 1955 and 1998 from Harff (2003), 36 occurred in the context of political upheaval, defined as violent internal conflict or regime collapse (revolutionary wars, ethnic wars, and adverse and nondemocratic regime changes). A number of studies have found quantitative evidence for this close link (Downes, 2006; Easterly, Gatti, & Kurlat, 2006; Kalyvas, 2006; Krain, 1997; Rost, 2013; Uzonyi, 2014). Mass killing is most closely linked to civil wars, but international wars also appear to increase the risk (Krain, 1997; Valentino, Huth, & Balch-Lindsay, 2004; Uzonyi, 2014). All three of the leading quantitative forecasting models for mass atrocity (Goldsmith, *et al.*, 2013; Harff, 2012; Ulfelder, 2013) integrate an estimate of the probability of violent political instability into their forecasts, and some past models have produced forecasts for states already experiencing violent conflict or political instability (Harff, 2003).

Scholars argue that violent conflict creates a political opening for mass killing by reducing its costs domestically and internationally. Groups that challenge power, or are claimed to challenge power, can be dehumanized with relative ease, and military mobilization for war may also make violence against civilians less costly. Mass killing is more likely in some types of conflict environments than in others. Violence against civilians is one way for armed groups to de-incentivize civilian defection to a rival group (Kalyvas, 2006). In this regard, Valentino, Huth, and Balch-Lindsay (2004), for instance, demonstrate a close link between guerrilla warfare and state-sponsored mass killing onset. Guerrilla warfare creates incentives for governments to target the civilian support base of rebel groups as the latter are dependent on civilians for food, information, shelter, and recruits. Similarly, violent conflicts create increased perceptions of existential threat,

and mass killing is seen as a policy of last resort that weak governments, which are unable to defeat an insurgency conventionally – either because they lack sufficient military power or because they lack the information to use more selective forms of violence – use to increase their chances of survival (Anderton & Carter, 2015; Kalyvas, 2006; Uzonyi, 2014). Weak governments also are less able to use incentives to compensate strong rebels, which appears to make it more likely that civilian targeting is selected as a strategy.

Rebel groups also target civilians in civil wars. Studies show that non-combatants are more likely to be targeted by rebel groups (which may or may not rise to the level of mass killing) where there are multiple rebel groups competing, especially when a new rebel group enters a war (Wood & Kathman, 2015) and when rebel groups suffer battlefield losses (Hultman, 2007; Wood, 2014a). These findings may also apply to government-sponsored mass killing (Cunningham, 2011). Until recently, it was thought that strong rebels are less likely to target civilians (Wood, 2010) but Vargas (2016) shows in an empirically tested three-player game-theoretic setup that strong combatant forces can resort to more rather than less killing of non-combatant civilians. Rebel groups that depend on natural resource financing or foreign support (and are therefore less dependent on civilian support) are somewhat more likely to target civilians in war (Weinstein, 2006; Wood & Kathman, 2015). Civil wars that end in military victories also appear to be at higher risk of mass killings (Uzonyi, 2015).

In sum, armed conflict substantially increases the risk of mass killing. Research shows that guerrilla wars and conflicts with multiple shifting factions are especially dangerous. An important upshot of the close connection between violent conflict and

mass killing is that factors that significantly increase the risk of violent political instability short of mass killing also increase the probability of mass killing.

Political Institutions

Not all episodes of violent instability experience mass killing. What factors distinguish cases where mass killing occurs and where it does not? Some studies have found that political institutions condition a country's susceptibility to mass killing. Autocracies, for example, are the regime type most likely to respond to unrest with mass killing in Harff's (2003) seminal forecasting model, especially when they espouse exclusionary ideologies and represent an ethnic minority. This link between autocracy (totalitarianism) and mass killing was first uncovered by Rummel (1995) who famously argued that "Power kills; absolute Power kills absolutely." He found that 82% of the 170 million deaths due to what he called democide were committed by fascist, communist, militarist, or Islamist regimes (see also Hoeffler, 2016). Quantitative studies have found support for an inverse relation between mass killing and democracy (Easterly, Gatti, & Kurlat 2006; Montalvo & Reynal-Querol 2008; Valentino, Huth, & Balch-Lindsay 2004). Aydin and Gates (2008) suggest that mass killing risk is conditioned less by the difference between democracy and authoritarianism and more by how much state executives are constrained in their decisionmaking by institutions and social groups, including legislatures. Heavily constrained regimes commit fewer mass killings because they risk alienating the support of powerful social groups, whereas relatively unconstrained rulers do not face these costs. Colaresi and Carey (2008) also find that unconstrained executives are more likely to commit mass killings, but only when they control large armed forces. More recent research suggests that anocracies – regimes that

are neither fully authoritarian nor fully democratic – are the regime type most at risk of mass killings (Anderton and Carter, 2015).

Economic Interdependencies

Economic conditions appear to play a surprisingly small role in explaining the onset of mass killings, at least when it comes to country-risk. Aside from income's close relationship to political upheaval, there is sparse evidence that income level strongly predicts which countries will experience mass killings. None of the leading forecasting projects include a measure of income as a *direct* predictor, and, although numerous studies have included income as a potential predictor of mass killing onset by both state and nonstate groups (e.g., Esteban, Morelli, & Rohner, in press; Wood & Kathman, 2015; Uzonyi, 2015), only Besançon (2005) and Anderton and Carter (2015) find a statistically robust inverse relation between onset and income. As Hoeffler (2016) notes, teasing out causality is difficult due to the close relation between regime type and income. Using micro-level data on income, there is evidence that civilians in poorer regions are more likely to be targeted by state and nonstate groups (Fjelde & Hultman, 2013), and living in a region with natural resource wealth may increase this risk (Esteban, Morelli, & Rohner, forthcoming).

Some early work suggested that trade openness, usually measured as international trade as a percentage of GDP, reduces mass killing risk by making such violence costly through lost trade, vulnerability to economic sanctions, and future investment risk (Harff, 2003; see also Esteban, Morelli, & Rohner, forthcoming). In addition to Hazlett (2011), trade openness is retained in the forecasting models of Harff (2012) and Ulfelder (2013), but not in Goldsmith, *et al.* (2013). But, again, there are numerous studies that have

included trade openness (or similar proxy) and they find little statistical support for a trade effect (Anderton & Carter, 2015; Colaresi & Carey, 2008; Krain, 1997; Uzonyi, 2015).

There is some evidence that natural resource dependence (e.g., oil, diamonds) increases mass killing risk (Querido, 2009). Windfalls from natural resource sales may reduce state-society interdependencies and make targeting civilians less costly for both state and nonstate groups. There is some evidence that natural resource financing makes nonstate groups more violent toward civilians (;Ottmann, 2015Weinstein, 2006; Wood & Kathman, 2015) but not in Wood (2010) and Wood (2014b). Emerging work suggests that state dependence on petroleum exports makes governments more brutal toward civilians (Esteban, Morelli, & Rohner, in press).

Ethnicity and Identity

Communal identity and mass killing appear to be closely linked. How can one understand the Rwandan genocide without understanding the post-colonial divide between Tutsi and Hutu? It is not always clear, however, whether mass killings are due to hatred of another group because of their perceived characteristics or beliefs or because ethnicity and identity are used as easy markers to distinguish and eliminate political opponents. In Rwanda, politically moderate Hutu were murdered in large numbers by the regime, and the genocide occurred in the context of an armed insurgency led by the largely (although not exclusively) Tutsi Rwandan Patriotic Front. Even where ethnicity does not initially appear to play a role, such as during the Khmer Rouge reign in Cambodia, some groups such as Vietnamese and Chams were disproportionately targeted (Kiernan, 2009). While studies suggest that diversity per se is not dangerous (Anderton &

Carter, 2015; Harff, 2003), mass killing risk is increased when communal groups are politicized through state discrimination and preferential treatment of favored groups (Anderton & Carter, 2015; Harff, 2003; Rost, 2013). Goldsmith, *et al.* (2013) retain a measure of whether ethnicity was politically relevant in their forecasting models and an indicator of whether the state actively discriminated against minority groups (as do Rost, 2013 and Ulfelder, 2013). Harff's later work (2012) noted that countries with low religious diversity constituted high-risk scenarios wherein religious majorities place religious minorities at high risk of persecution (such as the Baha'i in Iran, for example). Other quantitative studies have also found that residents living in the location of a perceived ethnic enemy from the perspective of either state or nonstate groups are more likely to be targeted in wars (Fjelde & Hultman, 2014).³ Combined, the findings from forecasting projects and analytical (correlation or causal) studies strongly suggest that the politicization of identity, and especially communal identity, is a strong warning sign for atrocity risk. These findings, however, do not necessarily indicate that there is a causal relationship. Elites might politicize identity markers *because* they have already opted into a mass killing campaign. In this case, it is the choice of mass killing that drives the politicization of identity, not the other way around (see Montalvo & Reynal-Querol, 2008). Given the seemingly intuitive links among ethnicity, identity, and mass killing, the intersection of identity and violence against civilians is likely to be a productive area of future research, and it may well be possible to link research in psychopathy, empathy, identity formation, behavioral economics, and rational choice models into a unified, coherent, and empirically testable framework – a third school of thought, as we suggested.

PREVENTING VIOLENCE AGAINST CIVILIANS

Research into the causes of mass killings point to potentially effective strategies for preventing violence against civilians and can speak directly to existing prevention efforts. Atrocity prevention is now an explicit goal of numerous non-governmental and inter-governmental organizations and states including the United Nations, the United States, Amnesty International, Genocide Watch, and Satellite Sentinel. The close link between war and mass killing means that preventing the outbreak of new wars will likely reduce incentives for violence against civilians. Toward this end, lowering infant mortality rates (a strong predictor of state failure), containing the regional spread of conflicts, and close monitoring of factional and semi-democratic regimes would help prevent the circumstances where mass killing becomes an attractive option for would be perpetrators (Goldstone, *et al.*, 2010). While a world largely without war may be a reasonable long-term prediction (Hegre, *et al.*, 2013), in the meantime policymakers can reduce the severity of violence against civilians, or prevent them before they occur. Evidence suggests that peacekeeping works, in the sense of reducing civilian deaths in war and lowering the severity of genocide (Hultman, Kathman, & Shannon, 2013; Krain, 2005), and there is some evidence to suggest that “naming and shaming” of actual and potential perpetrators can save civilian lives (DeMeritt, 2012; Krain, 2012). There are additional policy levers at the disposal of state and nonstate actors that may be useful in incentivizing nonviolence against civilians. These might include the promotion of economic integration, targeted development projects, economic sanctions, and attempts at inter-group reconciliation and preventive peacekeeping that might steer behavior in non-killing directions (e.g., Slovic, *et al.*, 2016). More research is needed into the contribution

of such interventions, however, given the high potential for third-party interventions to backfire and inadvertently increase the severity of state or nonstate killing (Anderton & Brauer, 2016a). In addition, the effectiveness of these strategies would be substantially improved by reliable and accurate registers of states at risk of mass atrocity 2 to 5 years into the future, and increased confidence in the causal interpretation of the correlates of mass killing. Such forewarning has the potential to better target and sequence the most potent outside efforts to prevent these crimes. The development of multiple atrocity forecasting projects discussed here (and discussed in more detail in Butcher and Goldsmith, 2016) is a promising development with the potential to save many lives. With further improvements in atrocity forecasting, carefully designed studies that increase our confidence in causal interpretations of statistical associations, better understanding of the effects of policy interventions, including unintended consequences, and, ultimately, shepherding the political will to respond to atrocities when they are predicted to occur, a world where we may never again need to say “never again” may become a reality.

References

- Anderton, C. (2014). Killing civilians as an inferior input in a rational choice model of genocide and mass killing. *Peace Economics, Peace Science and Public Policy*, 20, 327-346.
- Anderton, C. (2016). Datasets and trends of genocides, mass killings, and other civilian atrocities. In C. Anderton & J. Brauer (Eds.), *Economic aspects of genocides, other mass atrocities, and their prevention* (page numbers forthcoming). New York: Oxford University Press.
- Anderton, C., & Brauer, J. (2016a). On the economics of genocides, other mass atrocities, and their prevention. In C. Anderton & J. Brauer (Eds.), *Economic aspects of genocides, other mass atrocities, and their prevention* (page numbers forthcoming). New York: Oxford University Press.
- Anderton, C., & Brauer, J. (Eds.). 2016b. *Economic aspects of genocides, other mass atrocities, and their prevention*. New York: Oxford University Press.
- Anderton, C., & Carter, J.R. (2015). A new look at weak state conditions and genocide risk. *Peace Economics, Peace Science and Public Policy*, 21, 1-36.
- Aydin, A., & Gates, S. (2008). Rulers as mass murderers. In S. Saiderman & M.-J. Zahar (Eds.), *Intra-state conflict, governments and security: Dilemmas of deterrence and assurance* (pp. 72-95). New York: Routledge.
- Besançon, M.L. (2005). Relative resources: Inequality in ethnic wars, revolutions, and genocides. *Journal of Peace Research*, 42, 393-415.

Brandt, P.T., Freeman, J.R., & Schrodt, P.A. (2014). Evaluating forecasts of political conflict dynamics. *International Journal of Forecasting*, 30, 944-962.

Brauer, J., & Anderton, C. (2014). Economics and genocide: Choices and consequences. *Seton Hall Journal of Diplomacy and International Relations*, 15(2), 65-78.

Butcher, C.R, & Goldsmith, B.E. (2016). Economic risk factors and predictive modeling of genocide and mass killing. In C. Anderton & J. Brauer (Eds.), *Economic aspects of genocides, other mass atrocities, and their prevention* (page numbers forthcoming). New York: Oxford University Press.

Chenoweth, E., & Ulfelder, J. (2015). Can structural conditions explain the onset of nonviolent uprisings? *Journal of Conflict Resolution*, *Online First*.

Colaresi, M., & Carey, S. (2008). To kill or to protect. Security forces, domestic institutions, and genocide. *Journal of Conflict Resolution*, 52, 39-67.

Cunningham, D.E. (2011). *Barriers to peace in civil war*. Cambridge, UK: Cambridge University Press.

Curthoys, A., & Docker, J. (2008). Defining genocide. In C. Stone (Ed.), *The historiography of genocide* (pp. 9-41). New York: Palgrave Macmillan.

DeMeritt, J.H. (2012). International organizations and government killing: Does naming and shaming save lives? *International Interactions*, 38, 597-621.

Downes, A.B. (2006). Desperate times, desperate measures: The causes of civilian victimization in war. *International Security*, 30(4), 152-195.

Easterly, W., Gatti, R., & Kurlat, S. (2006). Development, democracy, and mass killings. *Journal of Economic Growth*, *11*, 129-156.

Eck, K., & Hultman, L. (2007). One-sided violence against civilians in war: Insights from new fatality data. *Journal of Peace Research*, *44*, 233-246.

Esteban, J.M., Morelli, M., & Rohner, D. (Forthcoming). Strategic mass killings. *Journal of Political Economy*.

Fjelde, H., & Hultman, L. (2014). Weakening the enemy: A disaggregated study of violence against civilians in Africa. *Journal of Conflict Resolution*, *58*, 1230-1257.

Fortna, V.P. (2015). Do terrorists win? Rebels' use of terrorism and civil war outcomes. *International Organization*, *69*, 519-556.

Goldsmith, B.E., Butcher, C.R., Semenovich, D., & Sowmya, A. (2013). Forecasting the onset of genocide and politicide: Annual out-of-sample forecasts on a global dataset, 1988–2003. *Journal of Peace Research*, *50*, 437-452.

Goldstone, J.A., Bates, R.H., Epstein, D.L., Gurr, T.R., Lustik, M.B., Marshall, M.G., Ulfelder, J., & Woodward, M. (2010). A global model for forecasting political instability. *American Journal of Political Science*, *54*, 190-208.

Harff, B. (2003). No lessons learned from the Holocaust? Assessing risks of genocide and political mass murder since 1955. *American Political Science Review*, *97*, 57-73.

Harff, B. (2012). Assessing risks of genocide and politicide: A global watch list for 2012. In J.J. Hewitt, J. Wilkenfeld, & T.R. Gurr, (Eds.), *Peace and conflict 2012* (p. 21).

College Park, MD: Center for International Development and Conflict Management, University of Maryland.

Hazlett, C. (2011). New lessons learned? Improving genocide and politicide forecasting. Working Paper. Washington, D.C.: United States Holocaust Memorial Museum.

Hegre, H., Karlsen, J., Nygård, H.M., Strand, H., & Urdal, H. (2013). Predicting armed conflict, 2010–2050. *International Studies Quarterly*, 57, 250-270.

Hoeffler, A. (2016). Development and the risk of mass atrocities: An assessment of the empirical literature. In C. Anderton & J. Brauer (Eds.), *Economic aspects of genocides, other mass atrocities, and their prevention* (page numbers forthcoming). New York: Oxford University Press.

Hultman, L. (2007). Battle losses and rebel violence: Raising the costs for fighting. *Terrorism and Political Violence*, 19, 205-222.

Hultman, L., Kathman, J., & Shannon, M. (2013). United Nations peacekeeping and civilian protection in civil war. *American Journal of Political Science*, 57, 875-891.

Human Security Report Project. (2013). *Human security report 2013: The decline in global violence: Evidence, explanation, and contestation*. Vancouver, Canada: Human Security Press.

Kalyvas, S.N. (2006). *The logic of violence in civil war*. Cambridge, UK: Cambridge University Press.

Kalyvas, S.N., & Balcells, L. (2010). International system and technologies of rebellion: How the end of the cold war shaped internal conflict. *American Political Science Review*, *104*, 415-429.

Kiernan, B. (2009). The Cambodian genocide 1975-1979. In S. Totten & W.S. Parsons (Eds.), *Century of genocide: Critical essays and eyewitness accounts* (pp. 340-375). 3rd ed. New York: Routledge.

Krain, M. (1997). State-sponsored mass murder: The onset and severity of genocides and politicides. *Journal of Conflict Resolution*, *41*, 331-360.

Krain, M. (2005). International intervention and the severity of genocides and politicides. *International Studies Quarterly*, *49*, 363-388.

Krain, M. (2012). J'accuse! Does naming and shaming perpetrators reduce the severity of genocides or politicides? *International Studies Quarterly*, *56*, 574-589.

Meierhenrich, J. (Ed.). (2014). *Genocide: A reader*. New York: Oxford University Press.

Montalvo, J.G., & Reynal-Querol, M. (2008). Discrete polarisation with an application to the determinants of genocides. *The Economic Journal*, *118*, 1835-1865.

Ottmann, M. (2015). Rebel constituencies and rebel violence against civilians in civil conflicts. *Conflict Management and Peace Science*, *Online First*.

Pégorier, C. (2013). *Ethnic cleansing: A legal qualification*. New York: Routledge.

Pinker, S. (2011). *The better angels of our nature: The decline of violence in history and its causes*. London: Penguin.

Prunier, G. (2008). *Africa's world war: Congo, the Rwandan genocide, and the making of a continental catastrophe*. New York: Oxford University Press.

Querido, C.M. (2009). State-sponsored mass killing in African wars: Greed or grievance? *International Advances in Economic Research*, 15, 351-361.

Rost, N. (2013). Will it happen again? On the possibility of forecasting the risk of genocide. *Journal of Genocide Research*, 15, 41-67.

Staub, E. (1989). *The roots of evil: The origins of genocide and other group violence*. New York: Cambridge University Press.

Rummel, R.J. (1995). Democracy, power, genocide, and mass murder. *Journal of Conflict Resolution*, 39, 3-26.

Slovic, P., Västfjäll, D., Gregory, R., & Olson, K.G. (2016). Valuing lives you might save: Understanding psychic numbing in the face of genocide. In C. Anderton & J. Brauer (Eds.), *Economic aspects of genocides, other mass atrocities, and their prevention* (page numbers forthcoming). New York: Oxford University Press.

Ulfelder, J. (2013). A multimodel ensemble for forecasting onsets of state-sponsored mass killing. Paper presented at the American Political Science Association Annual Meeting.

Uzonyi, G. (2014). Domestic unrest, genocide and politicide. *Political Studies*, *Online First*.

Uzonyi, G. (2015). Civil war victory and the onset of genocide and politicide. *International Interactions*, 41, 365-391.

Valentino, B. (2014). Why we kill: The political science of political violence against civilians. *Annual Review of Political Science*, 17, 89-103.

Valentino, B., Huth, P., & Balch-Lindsay, D. (2004). Mass killing and guerrilla warfare. *International Organization*, 58, 375-407.

Vargas, J.F. (2016). Strategic atrocities: Civilians under crossfire – theory and evidence from Colombia. In C. Anderton & J. Brauer (Eds.), *Economic aspects of genocides, other mass atrocities, and their prevention* (page numbers forthcoming). New York: Oxford University Press.

Waller, J. (2007). *Becoming evil*. 2nd ed. New York: Oxford University Press.

Waller, J. (2016). “A crime without a name”: Defining genocide and mass atrocity. In C. Anderton & J. Brauer (Eds.), *Economic aspects of genocides, other mass atrocities, and their prevention* (page numbers forthcoming). New York: Oxford University Press.

Ward, M.D., Greenhill, B.D., & Bakke, K.M. (2010). The perils of policy by *p*-value: Predicting civil conflicts. *Journal of Peace Research*, 47, 363-375.

Wayman, F.W., & Tago, A. (2009). Explaining the onset of mass killing, 1949-87. *Journal of Peace Research*, 47, 3-13.

Weinstein, J.M. (2006). *Inside rebellion: The politics of insurgent violence*. Cambridge, UK: Cambridge University Press.

Wood, R.M. (2010). Rebel capability and strategic violence against civilians. *Journal of Peace Research*, 47, 601-614.

Wood, R.M. (2014a). From loss to looting? Battlefield costs and rebel incentives for violence. *International Organization*, 68, 979-999.

Wood, R.M. (2014b). Opportunities to kill or incentives for restraint? Rebel capabilities, the origins of support, and civilian victimization in civil war. *Conflict Management and Peace Science*, 31, 461-480.

Wood, R.M., & Kathman, J.D. (2015). Competing for the crown: Inter-rebel competition and civilian targeting in civil war. *Political Research Quarterly*, 68, 167-179.

Figure 1: Number of states in which mass atrocities (genocides and mass killings) occurred by year, 1956-2014



Sources: Derived from Appendices A1 and A2 in Anderton (2016) and data sources therein.

Figure 2: Civilians killed in atrocity events, January 1995-March 2015

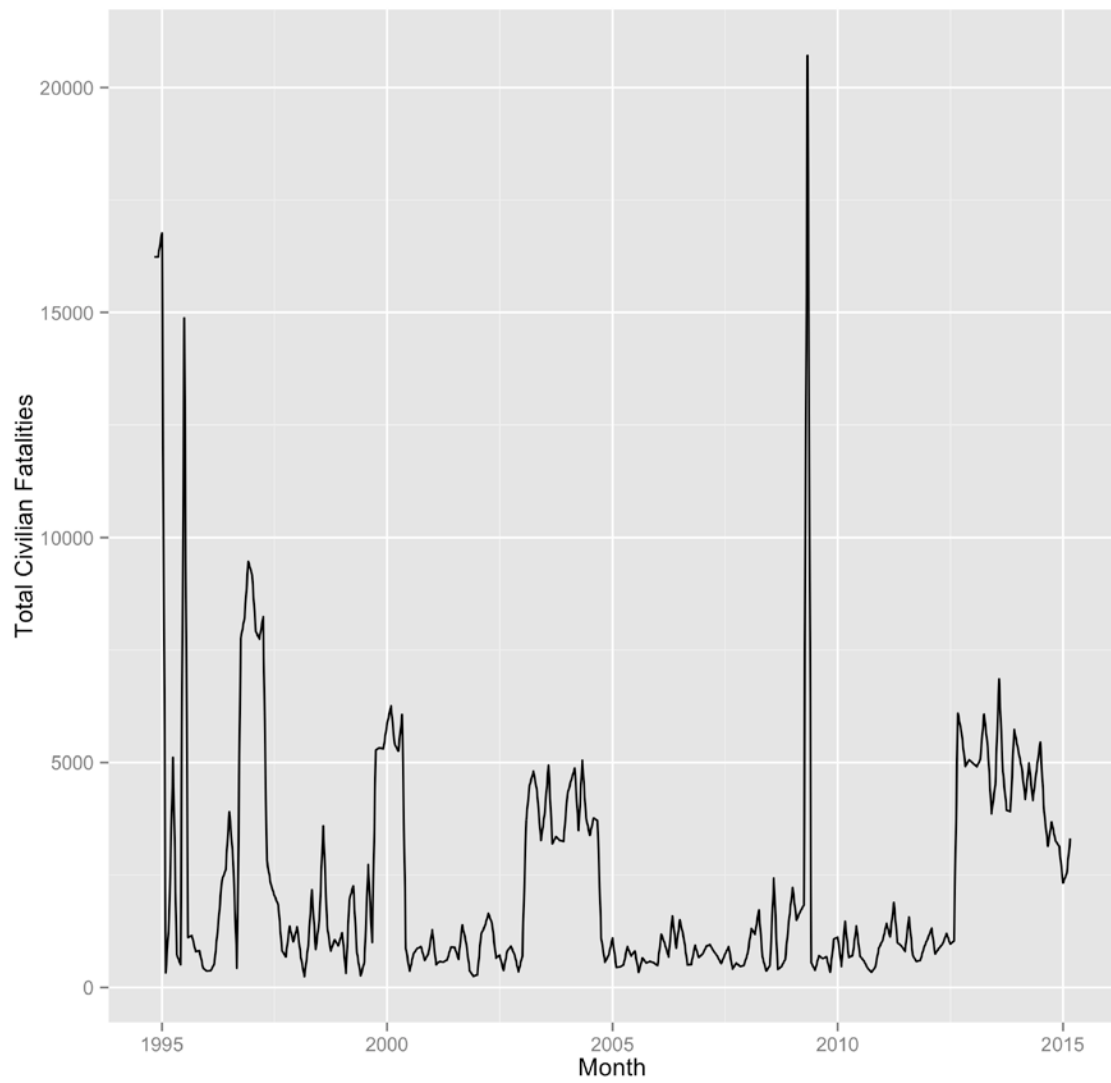
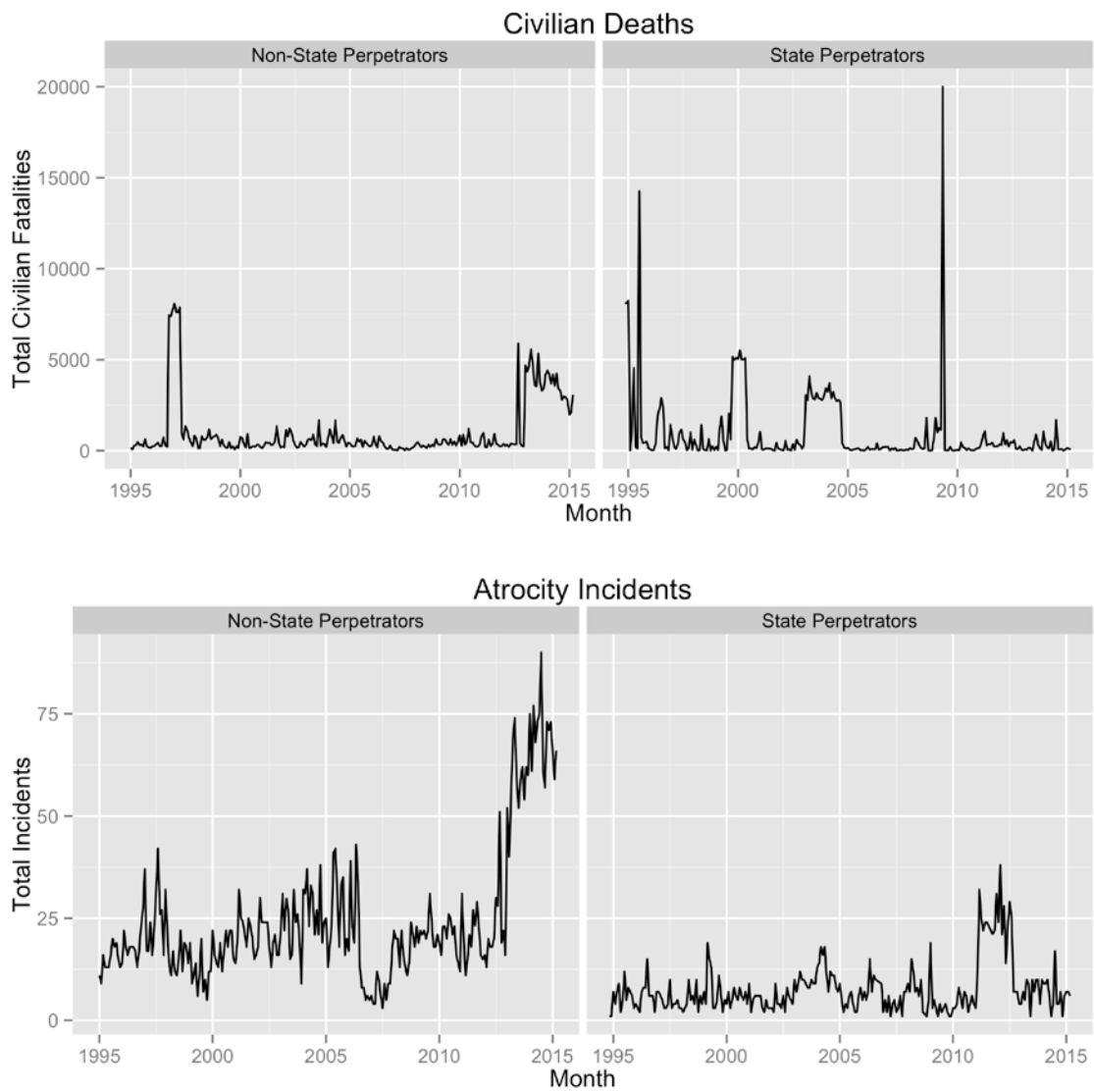


Figure 3: Civilian deaths and atrocity incidents, January 1995 - March 2015



¹ “*Crimes against humanity* are systematic attacks against civilians involving inhumane means such as extermination, forcible population transfer, torture, rape, and disappearances. *War crimes* are grave breaches of the Geneva Conventions including willful killing, willfully causing great suffering or serious injury, extensive destruction and appropriation of property, and torture. *Ethnic cleansing* is the removal of a particular group of people from a state or region using such means as forced migration and/or mass killing” (Pégorier, 2013). Ethnic cleansing is not, however, defined as an atrocity crime under the Rome Statute of the International Criminal Court” (Anderton and Brauer, 2016a).

² A large literature exists on the strengths and weaknesses of various definitions of genocide and other forms of mass atrocity. See, e.g., Curthoys and Docker (2008), Meierhenrich (2014, pp. 56-104), and Waller (2016).

³ Three studies of genocide incidence (not onset) find that ethnic polarization, or the extent to which ethnic demography is characterized by two, equally-sized groups has a coincident effect on genocide (Montalvo & Reynal-Querol, 2008; Easterly, Gatti, & Kurlat, 2006; Esteban, Morelli, & Rohner, forthcoming). This may indicate that genocides last longer in polarized countries, not that they are necessarily more likely to start there. Anderton & Carter (2015) find no significant relationship between ethnic fractionalization or polarization and genocide onset.