

## CONTENTS

1	Introduction	1
2	The Rough Terrain of “Violence”	10
	<i>Definitions</i>	10
	Violence	10
	Collective and Interpersonal Violence	12
	<i>Conceptual Borderlines and Measurement Challenges</i>	12
	Gang Violence	13
	Police Killings, Police Brutality, and State Executions	14
	Suicide	16
	Sexual Violence	17
	Violence against Children	19
	Harmful Traditional Practices	21
	Elder Abuse	26
	Abuse of Minorities	27
	<i>Reflections</i>	29
3	Prevalence	31
	<i>Global Prevalence</i>	33
	<i>Variation across Regions and Income Levels</i>	41
	<i>Collective Violence</i>	45
	Organized Armed Conflicts	46
	Terrorism	50
	<i>Interpersonal Violence</i>	53

viii CONTENTS

Homicide	54
Assault	61
Assault outside the Home	63
Violence against Women: Intimate Partner Assault and Intimate Partner Sexual Violence	66
Violence against Women: Sexual Assault outside the Home	71
Violence against Children	73
Suicide	79
<i>Reflections</i>	80
4 Why Put a Price on Violence, and How?	84
<i>Distinguishing Tangible and Intangible Costs</i>	84
<i>Conceptual Problems: Intangible Costs</i>	86
Costing One Life	86
Costing Injury and Assault versus Deaths	90
<i>Conceptual Problems: Tangible Costs</i>	92
<i>Moral Costs</i>	96
<i>Why Try to Cost Violence?</i>	97
<i>Reflections</i>	99
5 Estimating the Costs of Violence	101
<i>Variation across Regions</i>	107
<i>Costs of Collective Violence</i>	113
Collective Violence and per Capita Income	113
Indirect Deaths	123
Injuries and Reduced Health	126
<i>Costs of Interpersonal Violence</i>	128
Intangible Costs of Homicide, Assault, and Suicide	129
Tangible Costs of Homicide and Assaults	131
More on the Costs of Different Types of Interpersonal Violence, and Suicide	133

<i>Missing Costs of Interpersonal Violence:</i>	
<i>Societal Economic Costs</i>	141
<i>Missing Costs of Interpersonal Violence:</i>	
<i>Fear and Stress</i>	143
<i>Reflections</i>	146
6 What Can Be Done to Reduce Interpersonal Violence?	150
<i>Ways and Means of Reducing Interpersonal Violence</i>	152
<i>Police</i>	154
More Police?	156
The Problem of Police Reform When Democratic Accountability Is Low or Nonexistent	157
Police Strategies and Methods	160
Is Technology a Solution?	164
<i>Weapons</i>	168
Firearms	169
Knives	174
Acid	174
<i>Alcohol</i>	176
<i>Drugs</i>	179
<i>Mental Health</i>	185
<i>Changing Norms</i>	186
Top-Down: Reducing Violence through Legal Change	188
Bottom-Up: Changing Norms through Programs Directed at Individuals and Communities	190
<i>Suicide</i>	196
<i>Reflections</i>	197
7 What Can Be Done about Collective Violence?	199
<i>Ways and Means of Reducing Collective Violence</i>	203
<i>Logics of Intervention</i>	205

X CONTENTS

<i>Mediation</i>	207
<i>Peacekeeping Operations</i>	208
<i>Economic and Other Sanctions</i>	212
<i>Restrictions on Arms Transfers</i>	215
<i>Aid</i>	218
<i>Reflections</i>	221
8 Conclusions	223

*Acknowledgments* 227

*Notes* 229

*Bibliography* 269

*Index* 317

# 1

## Introduction

IF YOU follow the news, you cannot help but get the impression that our world is an extremely violent place. Images of devastation from Gaza, Ukraine, or Syria look shockingly similar to Hollywood computer-generated images of postapocalyptic worlds. Terrorist bomb attacks and mass shootings have become routine. Multiple armed conflicts drag on, punctuated by sudden escalations that get them back in the news for a time. Afghanistan, Congo, Ethiopia, Iraq, Kashmir, Libya, Myanmar, Somalia, South Sudan, Sudan, Syria, Ukraine, Yemen—and more.

If you go by the headlines, you would conclude that most human violence against other humans in our world takes the form of civil and interstate war, and perhaps other lower-level armed conflicts. You might even conclude that terrorist attacks are a major source of deaths from violence. And if you were to look at the money, time, and effort that policymakers and aid agencies spend on different forms of violence, you would find your impressions from the news coverage largely confirmed.

Without any doubt whatsoever, these are all major problems worthy of the attention of citizens and policymakers alike.

But note how unusual it would be for a national leader, or an international poll, to list domestic violence, or homicide, or severe physical punishment of children as top international problems meriting more resources and global policy focus. This is so despite the fact that, as we show, these forms of violence are far, far more prevalent than collective violence in the form of armed conflict and terrorism.

This book assembles and analyzes available data on the global prevalence and costs of different forms of violence, focusing on the contrast between collective violence and forms of interpersonal violence. Interpersonal violence refers to violent assaults by individuals not acting as part of a political

group. Our main point is that in terms of the numbers of people injured or killed, interpersonal violence is *vastly* more prevalent, and far more widely distributed across countries, than is collective violence. We argue further that the differences in prevalence are so great that even using what we believe is a conservative approach to estimating the societal costs of interpersonal violence, these have been far greater than the costs of collective violence for at least the last 20 or so years.

In presenting versions of this work, we have found that some people react to these observations with a degree of surprise. Perhaps one reason is that if you go by media coverage, examples like Gaza and Ukraine are very much “top of mind.” A smaller number of people say something like “Of course, there aren’t that many civil and interstate wars, but there are homicides and domestic violence all over.” That is quite right. But it is then striking and important that these far more prevalent forms of violence are so much less seen, whether in the media or as a domestic or international policy problem.

For some time scholars in the field of public health have been arguing for putting interpersonal violence higher on domestic and international policy agendas.<sup>1</sup> On that score we are following in their footsteps. A main contribution that we hope to make in this book is a systematic attempt to bring together available data for a best-feasible accounting of the rates of the different forms of violence and their associated costs.

Independent of the cost-accounting exercise, estimating the prevalence of different forms of violence holds considerable interest. It is useful simply to have estimates of the scale factors involved. How many homicides occur per death in collective violence (which in this period overwhelmingly takes the form of civil war)? How many suicides? What is the relative frequency of homicides and intimate partner assaults? Assaults outside the home versus domestic violence? Even if you are in the “of course” camp just noted, we suspect you may find some of these numbers shockingly large. We certainly did.

Twenty years ago these questions could not have been answered at all, or, at least, the “error bands” around the estimates would have been so large that the project probably would not have been worthwhile. As you will see, the data problems remain massive. These are hard things to estimate, even for high-income countries with strong data-collection capacity.

We believe that two developments have made it worth a try. First, an explosion of research on civil war and collective violence after the end of the Cold War included systematic efforts to code fatalities in various forms of armed

conflict.<sup>2</sup> Second, in the last 20 years or so, more and more *victimization surveys* have been carried out in a growing number of countries. These ask randomly selected individuals about their experiences of violence in the past year, including forms of assault and child discipline. These survey-based measures have their problems. Most of all, they lack coverage and are probably marred by systematic underreporting bias, particularly for sexual and intimate partner violence (IPV) and for severe physical punishment of children. But we and others see enough evidence to believe that they contain substantial signal concerning country-level rates.

### **Structure of the Book and Chapter-by-Chapter Arguments**

To try to estimate the prevalence and costs of violence, we obviously need to be clear on just what “violence” refers to. So we begin our investigation with a discussion of the definition of violence in chapter 2, concluding that for our purposes a definition that keeps close to ordinary language understandings makes the most sense. We will take “violence” to refer to a *physical attack or act by one person on the body of another, with intent to harm or with a justified perception of overall harm to the victim*. Since what constitutes a justified perception of harm varies across cultures and, for many cases, is a matter of political and social contestation, our discussion necessarily covers some fiercely contested issues, ranging from child marriage to violence employed by law enforcement agents. We also consider whether self-harm and suicide should be included in our analysis and decide that although it arguably falls outside the definition based on common usage, we want to report suicide data for comparison.

In chapter 3, we use available data to construct estimates of amounts of the main forms of collective and interpersonal violence for the years 2000–2019. The state and availability of relevant data for this enterprise are generally poor. For example, for armed conflicts and terrorism we have estimates of fatalities, but not injuries, and even the direct fatality estimates are probably too low for some of the largest conflicts. Further, during armed conflicts many people die not as a direct result of force but from lack of access to clean water, food, and medical care—starvation and disease. The numbers of these “indirect deaths” are very difficult to estimate.

For interpersonal violence, matters are if anything worse. Official government statistics for all forms of assault are completely unreliable for so many countries that we do not use them. Instead, we base assault estimates on victimization and other household surveys, which exist for a limited though acceptably large set of countries. For types of assault with the worst survey

coverage, we use statistical methods to match similar countries without survey data in order to estimate regional and global prevalence rates. Homicide, by contrast to assault, is generally thought to be the one form of violent crime that is counted and reported with sufficient accuracy by enough countries that official statistics are usable. Here we are able to combine data from the World Health Organization (WHO) and the United Nations Office on Drugs and Crime (UNODC).

The bottom line of chapter 3 is that the global prevalence of homicide and assault—the most common forms of which are intimate partner violence and assaults against children—is much, much greater than that of deaths and, without a doubt, injuries in armed conflicts and terrorist attacks.

Chapter 4 explores philosophical and methodological issues concerning how to estimate the costs of violence. Is it offensive or immoral to attach a monetary cost to lives lost in armed conflict, to homicide, or to psychological and physical injuries from, say, sexual assault? We accept and want to emphasize that doing so is not an objective, “purely scientific” exercise, whatever that would mean. Our main point is that some sort of cost-benefit analysis is going to be explicit or implicit in public policy decisions on how to allocate resources and effort toward different goals, including goals related to reducing violence. There is a good case for making such an analysis as explicit as possible. We try to be explicit about discussing the different forms of costs of violence that one might think should be taken into account; which ones we are able to make informed guesses about; and how different assumptions might change results.

In chapter 5 we proceed to estimating the social and economic costs of collective and interpersonal violence, using the prevalence estimates developed in chapter 3. As in the literature on the costs of crime, we distinguish between tangible and intangible costs. The former refers to monetary costs and lost economic output due to violence. The latter refers to the value victims have for lost years of life, and welfare losses due to physical and psychological injury from violent assaults. We draw on an extensive literature that gauges intangible costs by estimating individuals’ “willingness to pay” to reduce mortality and injury risks, which yields estimates of the “value of a statistical life” (VSL) used in cost-benefit analyses of government regulations and policies.

For tangible costs, we find that by far and away the largest category is the reduction in incomes caused by large-scale collective violence, both during conflicts and for years afterward. For 2000–2019, large-scale collective violence is almost entirely in the form of major civil wars, highly concentrated in a small number of mainly low-income countries—Afghanistan, Iraq, South

Sudan, and Syria most of all. We estimate that total tangible costs of collective violence were on the order of \$3.4 trillion per year, give or take a trillion dollars.<sup>3</sup> This is 3.4 percent of average annual global Gross Domestic Product (GDP) for this period. Adding in intangible costs—which we stress are estimates of losses in well-being rather than reductions in tangible GDP—brings our estimates for (average annual) total costs of collective violence to about \$3.7 trillion per year.

Our main finding, however, is that the intangible costs of interpersonal violence are almost certainly much larger than the total tangible and intangible costs of collective violence. This is a nearly ineluctable consequence of the vastly greater prevalence of interpersonal violence, particularly in the form of homicide, intimate partner violence, and severe physical abuse of children. Large-scale collective violence is highly concentrated in a relatively small number of relatively small countries. By contrast, interpersonal violence is prevalent in all countries. There is variation, of course, but even in countries with the lowest amounts, levels far exceed average levels of collective violence.

For the period 2000–2019, we estimate that the average annual tangible and intangible costs of interpersonal violence were on the order of six to ten or even twenty times greater than those for collective violence. These ratios are based on what we will argue are generally conservative assumptions concerning interpersonal violence costs, as well as some relatively generous assumptions about the long-run economic losses from large-scale civil wars. To give a few examples: We are not able to estimate and include negative economic growth impacts of interpersonal violence on communities, which are plausibly large for many heavily violence-affected cities. We suspect substantial underreporting of intimate partner sexual and physical assault, and possibly even worse for severe physical abuse of children (which is reported by their caretakers). We have no systematic estimates for the prevalence or costs of sexual abuse of children, which is known to be very damaging in terms of lifetime well-being and also appears to be sadly prevalent. And we have not estimated the well-being costs of fear of violent victimization, which at the global level must be far, far greater than those for collective violence.

If the prevalence and societal costs of interpersonal violence are much greater than those for collective violence, what follows? Both forms of violence have terrible effects. We are certainly not saying that collective violence is unimportant or not worth trying to prevent and mitigate. But we do think there is a case for rethinking where are the highest marginal returns from

time, effort, and money spent at national and international levels on violence prevention and mitigation.

Chapters 6 and 7 review evidence on a broad range of approaches to reducing interpersonal and collective violence. One might imagine that if resources devoted to reducing collective violence (civil and interstate war in particular) were much more productive than resources devoted to reducing the major forms of interpersonal violence (chiefly, homicide and domestic abuse of women and children), then the most effective way to reduce the costs of violence would be to focus on collective violence. A common belief consistent with this hypothesis is that intimate partner violence and child discipline practices are “cultural” and thus hard or impossible to alter.

Our reading of the available evidence is that this is not true at all, and that it is probably the case that resources devoted to reducing the main forms of interpersonal violence are on average more productive than resources devoted to reducing collective violence. One major reason is that governments and societies are in most cases simply in a far better position to organize and implement collective action to address interpersonal violence than “the international community” is to address civil and interstate war.

Take the example of United Nations–authorized international peacekeeping operations (PKOs), which in the 1990s and 2000s were deployed to several dozen civil war–torn countries to try to facilitate “peace building” postconflict. In chapter 7, we review evidence suggesting that UN and other PKOs have been effective on average at reducing conflict recurrence and residual postconflict violence, at surprisingly low cost. Like others, we strongly support UN Security Council cooperation to mediate and provide for PKOs where peace agreements can be reached in ongoing civil conflicts. But at present there is little prospect of this happening because of greatly increased conflict between major powers on the council; because of increases in conflict and competition between regional powers supporting different sides in civil wars in their regions; and because of a warranted perception that while PKOs can serve as relatively effective Band-Aids, they are often not effective at facilitating the state-building needed for transitions to a self-sustaining peace. The obstacles to effective collective action at the international level are similarly large for other approaches—for example, arms embargoes, economic sanctions, economic aid—and the evidence for significant violence-reducing impacts is generally weaker.

By contrast, within a great many countries in all parts of the world, one finds myriad programs, policy initiatives, legal reforms, social movements, and

nongovernmental organizations that aim at reducing different forms of interpersonal violence. In chapter 6 we consider growing literatures that evaluate policies and programs aimed at reducing interpersonal violence, in a range of country contexts. There is so much that we cannot provide a comprehensive overview of all the actual and possible violence-reduction programs. We focus instead on the most common and also what appear to be some of the most promising approaches, common or not. We highlight that programs that target the availability of weapons and alcohol tend to have significant violence-reducing effects. Parenting programs and dating violence education for teenagers have been shown to be effective in reducing violence against children and intimate partners. Overall, evidence from program evaluations, natural experiments, and case examples of longer-term social change makes it clear that rates of homicide, intimate partner violence, or severe physical punishment of children can be reduced if these types of violence are made a target. They are not simply fixed by culture or other structural factors.

Our review in chapter 6 does repeatedly find that experimentation and evidence on interpersonal violence reduction mainly comes from a small number of high-income countries. Although it is growing, there is much less evidence from low- and middle-income countries. This is problematic because many of the solutions explored in high-income country settings, such as implementing new policing strategies, are premised on police and other government institutions being relatively capable and not themselves in league with violence producers. Our focus is therefore on locally generated reforms and programs as well as on the adaptation of interventions developed in other societies. We argue that at a minimum there is a powerful case for much more research and policy experimentation on programs and domestic nongovernmental groups that target interpersonal violence.

### **How to Read the Book**

This book has ended up being much longer than we initially anticipated. The project began life many years ago when Anke was asked if she might want to write a paper estimating the global costs of collective violence for an initiative intended to inform the process that led to the UN's 2015 statement of Sustainable Development Goals. She approached Jim about a possible collaboration, and out of the conversations that followed we decided it would be more interesting and new to try to estimate and compare the costs of interpersonal and collective violence at a global level. The extremely back-of-the-envelope estimates in the paper that resulted attracted some (small) media attention

and interest from publishers, who seem to have been struck by the headline estimates of much greater interpersonal violence costs.<sup>4</sup>

But attempting to estimate more systematically and carefully the global prevalence and costs of different forms of violence has proved to be quite an undertaking. We have already commented on the data-related obstacles, which created all manner of dilemmas that motivated readers will see reflected in chapters 2 through 5. Conceptual and philosophical puzzles have been no less challenging. What exactly should be counted as violence, and what *can* be counted given the ways that data are collected? How exactly do we draw lines between collective and interpersonal violence? To make a claim about the costs of a type of violence, we need to implicitly assume or explicitly envision counterfactual worlds in which there is less violence of that sort (or none at all?). What are the most meaningful or “right” counterfactuals? What should be held constant and what allowed to change (e.g., police or military efforts)? Years of life, or years of life without physical or psychological injury, obviously have value for people, but is there a meaningful way to quantify and compare these things across people and places? If collective violence lowers incomes for future generations in a country, how should those welfare costs be assessed? These are some but not all of the conceptual issues that lie in wait behind what may initially seem to be a straightforward question: What are the costs of different types of violence?

At least for our home disciplines of economics and political science, this kind of investigation is not common, making for a book that does not fit very easily with existing research traditions on, for example, the causes of armed conflict or its economic impact. The field of public health devotes attention to estimating “the global burden” of different diseases, and there is a growing body of research in economics and environmental sciences focused on estimating the costs of climate change. We draw on ideas and approaches from these research areas, as well as from the smaller but highly relevant literature on the costs of crime. Most of the conceptual and philosophical questions that we encounter appear in various guises in these literatures, often somewhat differently because our problem—to produce global estimates of the costs of violence—differs from what has been done elsewhere. We fully recognize that our “takes” on both the conceptual and data-wrangling questions can be debatable. But we hope there is value in working through them systematically and in one place. We will be happy if others want to argue with and explore the implications of different conceptualizations or improved raw data sources. We certainly do not claim that all of our choices and the estimates that result are

definitive. We do hope that this book will offer a blueprint of how it can be done and that others will build on our work if and when better data become available.

Anticipating and hoping that the book might be read by readers from a range of backgrounds and interests, we provide here suggestions for different ways to read it. There is a lot of empirical and data-related detail in the body of chapters 3 (prevalence) and 5 (costs). Chapter 5 also contains moderate detail on the statistical approaches we took to estimating counterfactual income growth paths for countries affected by large-scale collective violence. Many readers will not be especially interested in these sections, which admittedly can get tedious. For understanding the main findings and arguments there is little to be lost by skipping them.<sup>5</sup>

In particular, the reader can efficiently get a good grasp on the overall findings and arguments by reading the chapter introductions or first sections, and then skipping to the reflections at the end of each chapter. Readers with a more specialist interest in the nitty-gritty of how we went from raw data to cost and prevalence estimates can return to the body of chapters 3 and 5, or within these to the subsections on types of violence. Chapters 2 and 4 engage the conceptual and philosophical issues most directly. If and when you find yourself wondering “But what about [something that might be ‘violence’]?” or “Is [such and such] a cost or how could this be measured?”, try looking through those.

Off we go.

## INDEX

Page numbers in *italics* refer to figures and tables.

- abortion, 25–26, 29  
acid attacks, 174–75  
Afghanistan, 4, 47, 52, 114, 119, 127, 219, 224  
Africa, sub-Saharan, 36, 107; assault  
    outside the home in, 41, 65, 111; assault  
    underreported in, 62; child marriage in,  
    111; civil wars in, 110; female genital  
    mutilation in, 111; homicide in, 111–12;  
    intimate partner violence in, 43, 111;  
    parental violence in, 74; policing in, 155,  
    158; sexual assault in, 43, 112; sexual  
    violence against children in, 75; statistical  
    modeling in, 55; suicide in, 80; violence  
    against women in, 70–71  
alcohol use, 7, 16–17, 134, 151, 176–77, 186, 198  
Amnesty International, 15  
anticipatory costs, 243n3  
Arab Spring (2011), 47  
armed conflict, 1, 4; costs of, 102; direct  
    deaths from, 32, 33, 34, 35, 37, 38, 39, 41, 50,  
    53; economic losses from, 106; indirect  
    deaths from, 3, 113, 123–25; nonsystematic  
    errors for, 38; sexual violence linked to,  
    18–19, 135  
arms embargoes, 6, 205, 206, 215–18  
Arms Trade Treaty (ATT, 2014), 217  
Asia: acid attacks in, 175; child marriage  
    in, 79; dowry in, 56; female genital  
    mutilation in, 22, 77; homicide  
    convictions in, 60; sex-selective  
    abortions in, 26; suicide in, 80  
assassination, 45, 51  
assault rifles, 170  
assaults, 15, 61, 111, 176; deficient data for,  
    3–4, 5, 40; defined, 62; economic losses  
    from, 106; on elders, 27; by gangs, 13, 14;  
    outside the home, 2, 20, 32, 34, 35, 38, 39,  
    40–41, 63–65, 71–72, 90, 152; intangible  
    costs of, 85, 90–91, 102, 103, 129–31; on  
    men vs. women, 112; on minorities, 28;  
    negative effects of, 33; prevalence of, 4;  
    tangible costs of, 95, 102, 130, 132–33. *See*  
    also intimate partner violence (IPV);  
    sexual violence  
audio computer-assisted self-interview  
    (ACASI), 68–70  
Australia, 161, 171, 179  
avoidance behaviors, 95–96, 143, 146  
  
Babbage, Charles, 31  
Balkans, 72  
Ball, Patrick, 50  
Banerjee, Abhijit, 160  
Bangladesh, 175, 196  
battery, 62  
Becker, Anke, 22  
*Better Angels of Our Nature, The* (Pinker),  
    187  
Biological Weapons Convention (1975), 217  
Biom people, 47  
body-worn cameras (BWCs), 166  
Boko Haram, 55, 183  
Bosnia, 208  
Brady, James, 171  
Brady Act (1994), 171  
Brazil, 15, 162, 164, 166, 171–72, 177  
broken windows policing, 162–63, 167  
Burkina Faso, 70  
Burnside, Craig, 220  
  
Cambodia, 175  
Canada, 161, 184

- capture-recapture (CR) estimation, 50  
Caribbean, 41, 63, 71, 72, 80, 112  
cartels, 47; drug-trafficking (DTOs), 36, 180–81  
Case, Anne, 16–17  
Centers for Disease Control and Prevention (CDC), 75  
Central African Republic, 202, 208  
Chechnya, 246–47n5, 248n16  
Chemical Weapons Convention (1997), 217  
child marriage, 3, 32, 134, 224; age at, 24, 78–79, 188; in Asia, 79, 153, 188–89; costs of, 102, 106, 139–40, 152; economic development inversely correlated with, 82; moral arguments over, 11; nonsystematic errors for, 38; physical and sexual abuse linked to, 23; prevalence of, 34, 35; rape presumed in, 30, 138  
children, violence against, 27, 90, 113, 134, 135–38, 152, 189; criminalization of, 188; as cultural practice, 6, 19, 21–26, 153; global prevalence of, 34, 224; global vs. regional, 42; homicidal, 60–61; income level linked to, 44; intangible costs of, 5, 131, 136; intimate partner violence linked to, 195; long-term consequences of, 19, 21, 43, 122, 131, 137–38, 185; nonsystematic errors for, 38; parenting programs and, 191, 195; physical vs. psychological, 20; sexual, 75–76, 138, 148, 185; types of, 32, 251n46; underreporting of, 3, 21, 36–37, 74, 148. *See also* female genital mutilation/cutting (FGM/C); parental violence  
child soldiers, 19, 20–21  
China, 214, 222; arms exports by, 215–16; executions in, 15; sex-selective abortion and infanticide in, 26  
Christchurch, New Zealand, 51  
civil society, 64, 99, 151, 153  
civil wars, 2, 45, 98, 125; arms embargoes in, 216; economic losses from, 5, 110, 113, 200, 202–3; injuries in, 127; in low-income countries, 4–5; mediation attempted in, 207; mental health impact of, 185; prevention of, 204–5; terrorism likened to, 51, 52; since World War II, 47  
climate change, 8, 99, 121–22  
closed-circuit television (CCTV), 165  
cluster munitions, 217  
cocaine, 180–83, 185  
cognitive behavioral therapy (CBT), 186, 193  
Cohen, Dara, 19  
Cohen, Mark, 129, 130  
collective violence, 2, 32, 38, 142–43; costs of, 113–28, 146–47, 199–200; data on, 45; defined, 12, 45; economic growth and, 119–20; global prevalence of, 33, 34, 80, 81; global vs. regional, 42; incomes reduced by, 4–5, 113–14; indirect deaths from, 101, 113, 124–25; injuries from, 50, 126–28; intangible costs of, 85, 102, 110, 128, 143–46; in Middle East and North Africa, 41; reduction of, 203–5; tangible costs of, 4–5, 85, 92–97, 102, 110, 113, 121, 128, 143, 147; trends in, 47, 187, 199–200, 249n23, 264n1; types of, 1; volatility of, 41. *See also* armed conflict; terrorism  
Colombia, 125, 164, 177  
community-oriented policing, 163  
corruption, 60, 152–53, 154, 158, 159  
cortisol, 137  
cost-benefit analysis, 4, 88, 89, 96–97. *See also* value of a statistical life (VSL)  
counterfactuals: in cost estimation, 8, 93–95, 98, 115, 118–20, 125, 141–42, 244n16; for growth paths, 114–23  
COVID-19 pandemic, 178  
Crimean Peninsula, 213  
crime-career costs, 131, 132  
crimes against humanity, 217  
Crime Trends and the Operation of Criminal Justice Systems (CTS), 54, 55  
cultural imperialism, 21, 123  
Cyprus, 72  
Darfur, 208  
dating violence, 7, 193–94, 195, 198  
“deaths of despair,” 17  
Deaton, Angus, 16–17  
decriminalization of drugs, 181–84  
defense spending, 95, 96  
Democratic Republic of the Congo (DRC), 125, 208  
Demographic and Health Surveys (DHS), 66, 68–70, 73, 75–78  
Denmark, 167  
deterrence: costs of, 95–96, 146, 167; of drug trade, 180; in international relations, 205, 206, 214, 222; through policing, 95–96, 154, 157, 158, 161, 162; through surveillance, 165

- disabilities, 27  
disability-adjusted life years (DALYs), 92, 135  
disarmament, demobilization, and reintegration (DDR), 206  
discount factors, 91–92; for adults vs. children, 135; for assault costs, 65, 91, 105, 130–38, 253n76; for income, 85, 121–22, 149, 244n15, 248n18, 248n19; for tangible vs. intangible costs, 105–6, 131, 132; for violent vs. nonviolent crimes, 64–65  
discount rates, 121–22  
disorder policing, 162  
DNA profiling, 166–67  
Dobash, Rebecca, 59  
Dobash, Russell, 59  
Dolan, Paul, 145  
Doleac, Jennifer, 167  
Dollar, David, 220  
dowry-related killings, 29, 56, 247n6  
drive-by shootings, 13  
drugs, 134; decriminalization of, 181–84; defined, 179–80; legalization of, 181–85; overdoses from, 16–17, 182, 184; prescription, 180–84; trade in, 46, 180–82  
dueling, 187  
Duflo, Esther, 160  
Duluth Model, 193  
Duterte, Rodrigo, 15  
  
Eastern Europe, 41, 71, 107–8; suicide in, 79, 80, 112  
economic aid, 6, 119, 205, 218–21, 224  
Economic Community of West African States (ECOMOG), 210  
economic costs: of civil wars, 5, 110, 113, 200, 202–3; of collective violence, 94, 101, 103–4, 106, 147, 149, 200, 201; of homicide, 94, 105, 106, 129; of interpersonal violence, 5, 94, 101, 141–43; net present value of future losses linked to, 85, 102, 103, 104, 106, 107–8, 110–11, 121–22, 147, 149; regional variation in, 107–13  
economic sanctions, 6, 205, 205, 212–15  
Ecuador, 195  
Egypt, 218  
elder abuse, 26–27  
England, 167  
Ethiopia, 76, 164, 188, 190, 200  
ethnic cleansing, 18  
  
European Union (EU), 213, 215–16, 219; Agency for Fundamental Rights (FRA) of, 68, 72  
euthanasia, 16  
excess mortality, 50, 125  
executions, 15  
externalities, 89, 122, 123  
extrajudicial killings, 56  
  
facial recognition technology, 165–66  
family members, of crime victims, 133, 148  
Fang, Hai, 129, 131  
Fazal, Tanisha, 127  
fear of crime, 143–46, 148  
female genital mutilation/cutting (FGM/C), 32, 33, 35, 153, 189, 224; costs of, 102, 134, 138–39, 152; criminalization of, 23, 188, 190; as cultural practice, 21–22; global prevalence of, 34, 77; among migrants, 76, 235–36n2, 241–42n91; nonsystematic errors for, 38; types of, 77–78  
feminist theory, 191–92  
fentanyl, 182  
55th percentile growth rates, 117, 119  
Findley, Michael, 218, 219  
firearms, 128, 168–73, 196, 198  
Floyd, George, 158  
focused deterrence policing, 162  
food: during armed conflicts, 3, 45, 47, 113, 123, 124; cost of, 115; sex discrimination and, 24–25  
food aid, 220  
Fortna, Page, 211  
France, 216, 219  
French, Michael, 129, 131  
Fulani people, 47  
  
gang rape, 19, 135  
gangs: collective vs. interpersonal violence by, 13–14, 30, 45; in drug trade, 180; gun violence by, 128; as policing substitute, 158  
Gaza, 113, 200  
general equilibrium effects, 123  
genocide, 45, 205, 208, 217  
Georgia (country), 184  
Germany, 184, 189, 215–16, 240n70  
Ghana, 18, 194  
“ghost guns,” 171, 173  
Girls Not Brides (NGO), 23  
Girod, Desh, 220

- Global Burden of Disease (GBD), 15, 54–58, 60–61, 100, 125, 135, 168
- Global Sanctions Database (GSDB), 212–13, 215
- Global Terrorism Database (GTD), 46, 50, 52–53
- Gorbachev, Mikhail, 177
- Gowan, Richard, 219
- Guinea, 76
- Gulf Cartel, 47
- gun control, 170–72, 174, 198, 218
- gun violence, 128, 168–7, 196, 198
- Haiti, 194, 208
- Hamas, 200
- Hammarskjöld, Dag, 199
- handguns, 170
- hate crimes, 52, 97
- hepatitis, 184
- heroin, 183–85
- HIV (human immunodeficiency virus), 184
- homicide, 4, 5, 6, 32, 33, 35, 111, 113, 152, 176; in Britain, 59–60; of children, 60–61; conviction rates for, 60; defined, 54–55; economic losses from, 94, 105, 106, 129; global prevalence of, 34, 38, 54, 224; within households, 128; income level linked to, 43, 44, 109; intangible costs of, 85, 102, 129–31; legally justifiable, 15, 54, 59; of men vs. women, 112; nonintentional, 55; nonsystematic errors for, 38; perpetrators of, 58–59; tangible costs of, 95, 102, 130, 132–33; year-to-year variation in, 120
- honor killings, 56, 153, 189
- hot spots policing, 161–62
- housing prices, 142
- humanitarian intervention, 205
- imputation of data, 36, 37
- incidence vs. prevalence, 32–33
- India, 46, 175, 196, 218; collective violence in, 114; dowry banned in, 56; policing in, 156, 166; sex-selective abortion and infanticide in, 26, 61; women's rights in, 29
- indirect deaths: from armed conflict, 3, 113, 123–25; from collective violence, 101, 113, 124–25; from violence, 101; from violent crime, 113
- Indonesia, 77
- infanticide, 26, 56, 61, 148
- infant mortality, 146
- infibulation, 24, 77, 180
- injuries: alcohol use linked to, 178; from armed conflict, 4, 127, 149; of children, 136–37, 138; from collective violence, 45–46, 49, 50, 85, 126–28, 142–43, 147, 222, 149; costs and costing of, 86, 90–92, 95, 97, 100, 103, 107, 113, 123, 127–30, 133, 145, 149; data lacking for, 3, 41, 94; deaths vs., 103, 107, 127–28; from gang violence, 30; from guns vs. knives, 170, 173; from interpersonal violence, 2, 50, 57, 66, 85, 147–48, 222; of men vs. women, 18, 22, 133; physical vs. psychological, 4; from robberies and assaults outside the home, 64–65; from sexual violence, 134–35; from terrorism, 4, 51; in workplace, 130
- intangible costs, 96, 104; of assaults, 85, 90–91, 102, 103, 129–31; of collective violence, 110; conceptual problems with, 86–92, 98; defined, 4; of homicide, 85, 102, 129–31; prevalence of, 102; of sexual assault, 105, 107; of suicide, 90; tangible costs distinguished from, 84–86; of violence against children, 5, 131, 136
- International Crime Victims Survey (ICVS), 64, 68, 72
- International Criminal Court (ICC), 214
- interpersonal violence, 1–2, 32, 115, 122; alcohol use linked to, 175; against children, 19–21; costs of, 146–47; data on, 3; defined, 12; global vs. regional, 42; indirect deaths from, 101; intangible costs of, 5, 85, 100, 102, 105, 106, 110, 111, 128–41, 143, 146; nonsystematic errors for, 38; prevalence of, 33, 34, 38, 80, 81, 90, 113; reduction of, 6–7, 150–98; tangible costs of, 85, 93–95, 102, 106, 110, 111, 128–41, 147; trends in, 187, 197; uniform distribution of, 39–40. *See also* assault; children, violence against; homicide; women, violence against
- intimate partner violence (IPV), 3, 5, 6, 27, 32, 35, 41, 66–72, 82, 111, 152, 176; alcohol use linked to, 178, 179; child maltreatment linked to, 195; costs of, 102, 106, 134, 141–46; drug use linked to, 180, 181; global prevalence of, 34, 43, 224; homicide linked to, 59; male victims of, 18; mental

- health impact of, 185; against minorities, 28; nonsystematic errors for, 38; poor mental health linked to, 186; reduction of, 188–89, 193, 194, severe child punishment linked to, 43; social norms linked to, 192; underreporting of, 5, 62, 70, 83, 148
- Investing in Health* (World Bank), 100
- Iran, 15
- Iraq, 4, 49–50, 52, 114, 127, 219, 224
- Islamic State (ISIS), 46–47, 183
- Israel, 200
- Italy, 183
- item count technique, 69
- Jamaica, 160, 162
- Japan, 244n10
- Jawad, Mohammed, 124–25
- Jo, Hyeran, 214
- judicial and penal costs, 93–96, 103, 130, 131
- Kashmir, 46
- Katzenstein, Mary, 29
- Kelvin, William Thomson, baron, 101
- Kenya, 76, 157, 163–64, 165, 190, 216
- Kniesner, Thomas, 130
- knives, 168–69, 174
- Know Violence in Childhood* (2017), 241n81
- landmines, 217
- Latin America, 63, 71, 72, 76; child marriage in, 79; collective vs. interpersonal violence in, 30; gangs in, 13; homicides and assaults outside the home in, 41, 58, 65, 109, 112; policing in, 15, 155; suicide in, 80
- legalization of drugs, 181–85
- Lessing, Benjamin, 13
- LGBTQ+ people, 27, 28
- Liberia, 159, 164, 186, 210
- life expectancy, of crime victims, 92, 94–95, 132
- London School of Hygiene & Tropical Medicine (LSHTM), 48–49, 126
- Lord's Resistance Army, 46
- Lundgren, Magnus, 207, 208
- manslaughter, 55
- marijuana, 181, 184
- Mauritania, 76, 190
- McCollister, Kathryn, 129, 130, 131
- mediation, 205–6, 207–8, 210
- medical care: collective violence and, 3, 45, 113, 124; cost of, 84, 85, 89, 91–95, 100, 103; for women under patriarchy, 24–25
- mental health, 185–86, 196
- methadone, 184
- Mexico, 47, 58, 60, 180, 182, 184
- microfinance programs, 195
- Middle East and North Africa (MENA), 41, 47, 71, 72, 107; civil wars in, 110; dowry in, 56; suicide in, 79, 80
- migrants, 235–36n2, 241–42n91
- Miller, Gabrielle, 128
- Miller, Ted, 129
- minorities: abuse of, 27–28; religious, 28
- “missing females,” 26
- mixed models, 117
- moral costs, 96–97
- muggings, 63–65
- multilateral aid, 219
- multiple imputation, 36, 37
- Multiple Indicator Cluster Surveys (MICS), 73–74, 76–78
- murder, 55
- Myanmar, 46, 125, 200
- Nairobi, 51
- narrative transportation theory, 191
- National Crime Victimization Survey (NCVS), 64, 65
- National Firearms Agreement, (NFA, Australia), 171
- National Gang Center, 13
- natural disasters, 99
- neonaticide, 56, 148
- Nepal, 115, 116, 120, 121
- New Zealand, 51, 161
- Nigeria, 18, 47, 52, 55–56, 183
- 9/11 attacks, 52, 53, 119
- nonpartner sexual violence, 33, 35, 39, 133, 134; costs of, 106, 108, 111; global prevalence of, 34; global vs. regional, 42, 72, 111–12; income level linked to, 43; men's poor mental health linked to, 186
- nonstate conflict, 46–47, 51, 127
- nonsystematic errors, 36, 37–38
- norms: as to alcohol, 176; “bottom-up” changes to, 190–95, 197; civil society's influence on, 153, 203–4; as to intimate partner violence, 153, 187, 189, 192, 194;

- norms (*continued*)  
  legal changes to, 151, 152, 154, 186–90;  
  “top-down” changes to, 187–90; as to  
  violence, 23, 43, 68, 82, 154; women’s roles  
  shaped by, 133
- Nuclear Non-Proliferation Treaty (NPT),  
  217
- Nussbaum, Martha, 22
- Official Development Assistance (ODA),  
  218–19
- one-sided violence, 46
- opioids, 180–84
- order-maintenance policing, 163
- Organization for Security Co-operation in  
  Europe (OSCE), 68, 72
- organized crime, 52, 60
- overestimation, 49–50
- Pakistan, 46, 52, 164, 175
- Paraguay, 177
- parental violence, 3, 6, 25, 83; against boys vs.  
  girls, 113; alcohol use linked to, 176;  
  consequences of, 19; corporal  
  punishment in schools vs., 189; costs of,  
  102, 106; homicidal, 61; prevalence of, 20,  
  73, 74; sexual, 75–76; in sub-Saharan  
  Africa, 75, 111; types of, 73
- parenting programs, 192–93, 198
- paternity uncertainty, 22
- patriarchy, 24–25, 191–92
- patrilinearity, 24
- patrilocality, 24
- peacekeeping operations (PKOs), 6, 95,  
  202–11, 220, 222
- Peace Research Institute Oslo (PRIO), 46
- Peasgood, Tessa, 145
- Penn World Tables (PWT), 115
- Peru, 70, 177
- pesticides, 196
- Peterson, Cora, 134, 135
- Philippines, 15, 164, 219
- Pinker, Steven, 187
- pogroms, 45
- police, policing: broken windows approach  
  to, 162–63, 167; brutality and killings by,  
  14–15, 148, 157–60; community-oriented,  
  163; corruption and incapacity in, 152–53,  
  154, 158, 159; costs of, 94–96, 130, 131;  
  facial recognition and, 165–66; in hot  
  spots, 161–62; numbers of, 155–57, 197–98;  
  order-maintenance strategy in, 163;  
  public opinion of, 154, 157–58; “pulling  
  levers” strategy in, 162; stop and frisk, 163,  
  174; strategies and methods of, 160–64;  
  technology in, 164–68; zero-tolerance  
  strategy in, 163
- Portugal, 184
- postconflict aid, 220–21
- post-traumatic stress disorder (PTSD), 139,  
  185, 186
- power imbalances, 81
- power sharing, 205, 206
- precision policing, 162
- premeditation, 55
- prescription drugs, 180–84
- prevalence vs. incidence, 32–33
- prisons, 73, 172, 175; cost of, 131, 140
- Prohibition, 182
- prostitution, 19
- public health, 2, 224–25; collective violence  
  and, 45–46; cost-benefit analysis in, 8,  
  100; gun control linked to, 173; social  
  norms and, 153
- “pulling levers” policing, 162
- purchasing power parity (PPP), 115–16
- Putin, Vladimir, 214
- Al Qaeda, 53
- quality-adjusted life years (QALYs), 92, 136,  
  145
- randomized control trial (RCT), 137, 195,  
  196, 207
- rape, 24; costs of, 134; by gangs, 19, 135; in  
  India, 29; marital, 153, 188, 189, 240n70;  
  statutory, 17, 23, 75; presumptive, in child  
  marriage, 30, 138; varied cultural views  
  of, 68
- Reagan, Ronald, 171
- rectovaginal fistula, 135, 139
- regional peaceful controls, 117, 118–19
- regions, defined, 236n7
- religious minorities, 28
- robberies, 63, 64–65
- Russia, 46, 65, 127, 200, 213–14, 215–16, 218,  
  221
- Rwanda, 47, 70, 194, 208
- sampling, 37
- sanctions, 6, 205, 205, 212–15
- Saudi Arabia, 218

- Schelling, Thomas, 51, 86  
Sen, Amartya, 26  
Senegal, 219  
sexual harassment, 17  
sexually transmitted diseases (STDs), 134, 139  
sexual violence, 4, 17–18, 32, 35, 90, 111;  
  alcohol use linked to, 179; armed conflict  
  linked to, 18–19, 135; against children,  
  75–76, 138, 148, 185; costs of, 102,  
  134; global prevalence of, 34, 66;  
  nonsystematic errors for, 38; varied  
  cultural views of, 71. *See also* intimate  
  partner violence (IPV)  
Al-Shabaab, 51  
Sharkey, Patrick, 143, 167–68  
Sierra Leone, 159, 210  
Simmons, Beth, 214  
smacking, 136  
Somalia, 52, 76, 113, 118, 164, 208  
son preference, 24–26  
South Africa, 57, 65, 178, 184, 189, 245n21  
South Sudan, 4–5, 48, 118–19, 164, 216  
Soviet Union, 176, 177  
Soviet Union, former, 41, 43, 71, 79, 80, 107–8  
spanking, 19–21, 136–37  
Sri Lanka, 51, 196  
state-based conflict, 46  
State of the World's Children Report  
  (SOWC), 78–79  
statutory rape, 17, 23, 75  
Stedman, Stephen, 219  
Stockholm International Peace Research  
  Institute (SIPRI), 217  
stop and frisk policing, stop and search  
  policing, 163, 174  
structural violence, 11  
Sudan, 76, 114, 200  
suicide, 2, 3, 11, 12, 32, 35, 83, 176; alcohol use  
  linked to, 16–17; costs of, 102, 106, 109,  
  129–31, 140, 141; by drug and alcohol  
  abuse, 16–17; by firearms, 169, 171; in  
  former Soviet Union, 41; global  
  prevalence of, 33, 34, 38; global vs.  
  regional, 42; income level linked to, 44,  
  141, 196; nonsystematic errors for, 38;  
  prevention efforts aimed at, 196–97;  
  underreporting of, 37, 79, 83  
surveillance cameras, 165  
Svensson, Isak, 207, 208  
Sweden, 189  
Switzerland, 172, 184, 238n46  
Syria, 5, 46, 52, 113–15, 116, 120  
systematic bias, 36–37  
systemic violence, 181  
synthetic control, 245n17, 257n54  
Taliban, 47, 119  
tangible costs, 106; of collective violence,  
  4–5, 100, 102, 103, 110; conceptual  
  problems with, 89, 92–96, 100; defined,  
  4; direct vs. indirect, 85; of homicide, 94,  
  95; intangible costs distinguished from,  
  84–86; of interpersonal violence, 5,  
  93–95, 100, 102; of nonfatal assaults, 94,  
  95, 102, 105, 107  
Tanzania, 18, 70, 189  
terrorism, 3, 32, 34, 35, 38, 39, 45, 207;  
  attention given to, 50–51; costs of, 102,  
  106; definitional problems of, 51–53  
tramadol, 182–83  
transgender people, 28  
transitional justice, 98  
treaties and conventions, 205, 206, 217–18  
trolley problem, 246n26  
Trump, Donald, 225  
Uganda, 18, 46, 164, 175, 179, 189, 194  
Ukraine, 46, 72, 113, 127, 200, 213, 221  
underestimation: of assaults outside the  
  home, 41, 148; of extrajudicial killings, 56;  
  of homicide, 148; of intimate partner  
  assault, 40; of suicide, 37, 148; of welfare  
  losses from violence against women and  
  children, 148  
underreporting: of assault, 62; of  
  dowry-related killings, 56; of elder abuse,  
  27; of female genital mutilation, 77; of  
  homicide, 82, 148; of interpersonal  
  violence against minorities, 28; of  
  intimate partner violence, 5, 62, 70, 83,  
  148; in national criminal justice systems,  
  54, 57; news media reporting linked to,  
  48–49; of sexual violence, 83; of suicide,  
  37, 79, 83; of violence against children, 3,  
  21, 36–37, 74, 148; of violence against  
  women, 36–37, 67–68, 70–71  
undetermined causes of death, 57  
United Kingdom, 161, 165–66, 174, 175, 178,  
  184, 195  
United Nations: anti-drug strategy of, 183;  
  arm embargoes by, 215, 216; Children's

- United Nations (*continued*)  
Fund of (UNICEF), 19, 23, 76;  
Convention for the Elimination of All Forms of Discrimination Against Women (CEDAW), 22; Convention on the Rights of the Child, 20; Convention on the Rights of Persons with Disabilities, 27; Declaration on the Elimination of Violence against Women, 66; High Commissioner for Refugees (UNHCR), 163–64; Human Rights Council (UNHRC), 28; international peacekeeping operations (PKOs) of, 6, 202–3, 208–11, 222; Millennium Development Goals (MDGs) of, 224; Office on Drugs and Crime (UNODC), 4, 54–58, 62, 68; Sustainable Development Goals (SDGs, 2015) of, 7, 22, 224
- United States: as arms exporter, 215–16, 218; costs of violence in, 105, 129, 134, 136; drug use in, 183, 184; food aid from, 220; gangs in, 13; gun violence in, 128, 169–71; intimate partner violence in, 58–59, 170, 179, 193; policing in, 157–58, 161–63, 166, 167; Prohibition in, 182; sanctions imposed by, 213, 215; sexual violence in, 17–18, 134; surveillance cameras in, 165; unreported violent crime in, 14–15
- Uppsala Conflict Data Program (UCDP), 14, 46–50, 52–53
- Uruguay, 184
- United States Agency for International Development (USAID), 225
- value of a statistical injury (VSI), 103, 129, 130, 149
- value of a statistical life (VSL): advantages of, 100; country-specific, 104–5, 106, 107, 109–10, 111, 129, 145, 147; global average, 101–5, 129, 145–47; for intangible costs, 131, 132, 134, 140, 147; limitations of, 87–90, 92–93, 122–23, 141, 143, 145; net present value likened to, 122; value of a statistical injury and, 130, 149; wide use of, 4, 86–87, 129
- victimization surveys, 15, 41, 50, 72, 82–83; growing use of, 3, 64; imprecision of, 64; official statistics compared to, 54, 62–63, 68; sexual violence measured by, 17; types of, 63
- Vietnam, 70
- violence, defined, 3, 10–11, 30, 46
- Violence Against Children and Youth Surveys (VACS), 75–76
- Viscusi, W. Kip, 130
- vital registration data, 54, 55, 57, 79, 82
- vital statistics, 54, 57, 79, 82
- Vorobej, Mark, 10
- Wales, 167
- war crimes, 217
- war reparations, 98
- weapons, 7, 168–75; embargoes of, 6, 205, 206, 215–18; exports of, 215–16; firearms, 128, 168–73, 196, 198; knives, 168–69, 174; nuclear, 217
- Wilde, Oscar, 84
- willingness to pay, for risk avoidance, 4, 88–90, 97, 105, 121, 143, 145
- women, violence against, 6, 59, 112, 152, 224; costs of, 108–9, 112; as cultural practice, 153; global vs. regional, 42; income level linked to, 44; reduction of, 194–95; types of, 32, 67; underreporting of, 36–37, 67–68, 70–71. *See also* children: marriage of; female genital mutilation/cutting (FGM/C); intimate partner violence (IPV); sexual violence
- women's suffrage, 242n103
- World Bank, 100
- World Food Program (WFP), 195
- World Health Organization (WHO), 4, 79; data published by, 57; suicide defined by, 16, 17; violence defined by, 11–14
- World Report on Violence and Health*, 12
- World War II, 51
- wounded-to-killed ratios, 103, 107, 127–28
- years lost due to disability (YLDs), 92
- years of life lost (YLLs), 92
- Yemen, 52
- Yugoslavia, 208
- Zambia, 70
- Los Zetas, 47