Can Foreign Experience Inform U.S. Policy on Killings of and by Police

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Can Foreign Experience Inform U.S. Policy on Killings of and by Police?

*Franklin E. Zimring*

INTRODUCTION

Every modern state has police agencies to enforce laws and resolve disputes. This article surveys available statistics on police use of deadly force in an effort to put the data in the United States in comparative perspective. Specifically, this article provides a brief survey of police killings in five nations and then does a more sustained analysis of killings by and of police in Germany and the United Kingdom. To what extent is the United States unique in the character and rate of killing as a byproduct of urban policing? What can the experience of other nations tell us about whether the dangers confronting police require their use of lethal force and what alternative countermeasures exist to keep police safe? The material in this article will appear as a chapter in a forthcoming book on police use of lethal force in the United States.1

The empirical analysis in this article is organized under two headings. The first section of the article surveys rates of killings by police in several nations by presenting data from reports to the World Health Authority on deaths caused by “legal intervention.” The second part of the article collects a wider variety of data on both police use of deadly force and the vulnerability of police to life-threatening violence in two European nations—Germany and the United Kingdom. The systematic analysis of data on both attacks against police and police use of lethal force provides important perspective on why American police kill so often and on alternative paths to protection of police with less resort to killing. In the United States, the rate of killings by police is vastly higher than in other developed nations, and the vulnerability of police to fatal assaults is also substantially higher than in other developed nations. The third section of the article discusses the differences between the United States and other comparable nations and the lessons to be learned.

A. VARIATIONS IN RATES OF KILLING BY POLICE

The international codes for determining causes of death in statistical reports ask nations to separately report deaths caused by what are called

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1 FRANKLIN E. ZIMRING, WHEN POLICE KILL: THE CHARACTER AND CONTROL OF VIOLENCE IN UNIFORM (forthcoming).
“legal interventions,” a category that includes police use of deadly force. These reports are the basis for this section’s survey, but there are of course wide differences in social circumstances that observers should keep in mind when considering rates of lethal force by police. For example, Figure 1 illustrates the variations in rates of lethal violence in modern states for the nations where this article will report police killings. Figure 1 uses the homicide rates of several nations for 2011 as a shorthand method of measuring social differences that influence rates of violence. Differences in homicide rates, and the underlying social differences they represent, indicate a baseline variation from which to compare variation in rates of killings by, and of, police.

![Figure 1. Homicide Rate and U.S. Difference in UNODC Global Study on Homicide](image)

As shown above, U.S. homicide rates at 4.7 per 100,000 are three times the Canadian rate, just under five times the rate reported by Australia and

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4 See id.

5 Id.
England and Wales, and about six times greater than the German rates. This index of general violence is one method for projecting the differences from country to country in killings by police, since more violent environments should provoke more violent responses. How much of the actual difference in use of deadly force by police do the differences in environment violence explain?

Figure 2 reports official data on police killings per million citizens for 2011 for the nations profiled in Figure 1.

Figure 2. Killings by Police per Million and Ratio U.S. Rate to Local Rate

<table>
<thead>
<tr>
<th>Ratio of U.S. Rate to Local Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rate per Million</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>United States</td>
</tr>
<tr>
<td>Canada</td>
</tr>
<tr>
<td>Australia</td>
</tr>
<tr>
<td>England &amp; Wales*</td>
</tr>
<tr>
<td>Germany</td>
</tr>
</tbody>
</table>

8 Shootings only

The United States again has a higher rate of killings by police than the other nations, and it also has a much higher multiple of killings when compared to Australia, England and Wales, and Germany. The Canadian rate of killings by police, .64 per million, is close to the United States’ homicide ratio.7

But the “official” rate of killings by police in the United States is a large undercount as my forthcoming book will demonstrate.8 Therefore, Figure 3 shows U.S. killings by police for 2011 using the minimum estimate produced by a Research Triangle study, 920 deaths.9 The official reports for the three other nations have not been questioned and remain as stated in Figure 2.

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7 See Figure 1.
8 All three official statistical reports in the United States have missed at least half of all killings for different reasons. See Zimring, supra note 1, at ch. 2.
On this measure, the U.S. rate of killings by police per million is 4.6 times that of Canada, 22 times the rate in Australia, 40 times higher than Germany, and more than 140 times the rate of killings by police shootings in England and Wales.\(^\text{11}\) Since only eighty-six percent of the U.S. killings (based on the most comprehensive database available) were police shootings, the proper ratio for England and Wales versus the United States is 1 to 125.\(^\text{12}\) But all the relative magnitudes of the U.S. kill rate are much higher than the homicide differentials, and in Germany, England and Wales, and Australia, the U.S. rate of killings by police is ten times as great as the difference in homicide rates generally. This suggests there must be factors other than general rates of violence that produce super-concentrations in killings by police.

The World Health Organization (WHO) international statistics report three other continental European nations that have listed “legal intervention” totals for the same year as was used in Figure 1 and Figure 3 (2011).\(^\text{13}\)

\(^{10}\) WHO Mortality Database, supra note 6.


\(^{13}\) See WHO Mortality Database, supra note 6.
Italy, France, and Spain all report zero legal intervention deaths in their statistical submission.\textsuperscript{14}

There are also developing world nations, such as the Philippines and India, where police historically have been notorious for killing civilians.\textsuperscript{15} The problem we encounter with including these nations in a comparison of police violence is the unavailability of reliable statistical reports. There are, no doubt, many places outside the developed nations in 2016 where non-judicial violence by military and police personnel are even higher than in the United States.

But the vital statistics used in this introductory section are missing a very important measurement to illuminate the issue of killings by police. There is no data provided in international vital statistics on the risks that police officers run in these nations. And this type of information cannot be found anywhere in modern health statistics. The next section therefore will report on my investigation of the risks that police run of death from assault in two nations.

\section*{B. Two Detailed National Comparisons}

I was able to obtain detailed information on killings by and of the police for two European nations—Great Britain and Germany. The best detail on killings by the police and of the police comes from Great Britain.\textsuperscript{16} For England and Wales, the government provides annual data of killings by police by year in better detail for each year from 2004 to 2014 than any official statistics available from government sources anywhere else.\textsuperscript{17} I will cover it in detail not because the U.S. data permits easy comparison but rather because it can serve as a model for better reporting in the United States. The German statistics allow less complicated comparisons, but tell a clear and simple story. We will start with the German statistics.

\textsuperscript{14} \textit{Id.} I attempted to contact the health authorities in each of these nations to determine whether there was an active statistical reporting program from either local medical examiners or other local authorities or whether the zero entry was based only on no such deaths coming to the attention of the national death statistical program. I could not make a confident decision and thus do not report these national numbers as rates to be compared with U.S. data.

\textsuperscript{15} \textit{See} David T. Johnson & Franklin E. Zimring, \textit{The Next Frontier} 445 tbl.G.1 (Oxford Univ. Press 2009); \textit{see also id.} at 110, 144–45 n.5, 434–35.


\textsuperscript{17} \textit{Id.}
Figure 4 reports the annual rates of citizens killed by German police for the five years from 2008 to 2012 and the rates per ten million citizens of police killings based on the population in 2010.  

**Figure 4. Annual Number of Citizens Killed by German Police 2008—2012 and Rates per Ten Million Citizens of Police Killings, 2010**

The reported number of police killings is tiny and quite stable, varying between nine and six per year in a nation of 82 million. The average annual death rate is just under one per ten million. The best point of comparison for the United States would be The Guardian’s crowdsourced total killings number, perhaps minus the small number of “in custody” deaths, or over 1,000 killings. That yields a death rate of about forty times the German estimate.

Table 1 compares the reported killings by assault of German police in 2008–2012 with the parallel data from the United States.

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20 See U.N. Off. on Drugs & Crime, supra note 3.
21 See Zimring, supra note 1, at ch. 3 tbl.3.1 (providing a disaggregated account of 551 killings in the six months January–June 2015 to be included in full in an appendix to the book).
TABLE I. POLICE KILLED BY ATTACK, UNITED STATES AND GERMANY

<table>
<thead>
<tr>
<th>Year</th>
<th>Germany</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>0</td>
<td>41</td>
</tr>
<tr>
<td>2009</td>
<td>0</td>
<td>48</td>
</tr>
<tr>
<td>2010</td>
<td>1</td>
<td>56</td>
</tr>
<tr>
<td>2011</td>
<td>1</td>
<td>72</td>
</tr>
<tr>
<td>2012</td>
<td>0</td>
<td>48</td>
</tr>
<tr>
<td>Total</td>
<td>2</td>
<td>265</td>
</tr>
</tbody>
</table>

The U.S. population is 3.8 times the 82 million of Germany in 2010, but the volume of killings by police and killings of police in the United States are both more than 100 times the German levels. The population-corrected difference in rates of killings by police exceeds thirty-five to one, and the differences in population-corrected rate of killings of police are close to the same.

The first important conclusion from the U.S./German analysis is the vast difference in the deaths of both citizens and police officers. It is a well-established criminological fact that crime rates between Europe and the United States are not greatly different. Rates of life-threatening violence are higher in the United States by a factor of about four- or five-to-one. The difference in rates of killing by police and of police are almost an order of magnitude higher than that noted difference in homicide rate. So the first obvious finding from a comparison of the United States and Germany is the vast differences in killings by police which are much greater than differences in homicide and violent crime in the two nations.

The second obvious finding, as important as the first, is that there is as large a difference in killings of police between Germany and the United States as there is in the nations’ differences in killings by police. The absolute number of killings of police is much lower in both nations than the numbers of killings of civilians by police in each nation. But the risk of a police officer being killed by assault in the United States is about thirty-five

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23 Statistisches Bundesamt, supra note 19.
26 Compare Memorandum from Clemens Lorei, supra note 18, and Fed. Bureau of Investigation, supra note 22 (showing a comparison of German and U.S. raw data in Table I), with Memorandum from Clemens Lorei, supra note 18 (visualizing death rates per ten million citizens in Germany).
times the risk of a police death from assault in Germany. As these two extraordinary risk differences are so similar, it seems plausible that the same underlying circumstances make the United States thirty-five times as deadly for police and make the rate of killings by police thirty-five times higher in the United States.

The apparent linkage between high rates of killing of police and high rates of killing by police makes the available international data on “legal intervention” death rates of limited value because the WHO death data does not separately report the rate at which police are killed by attackers in each reporting country.

The third important lesson from the Germany/U.S. comparison is the fact that lethal assaults against police officers in Germany are very rare events. Table 1 tells us that the most populous nation in Western Europe experienced no killings of police officers in three of the five years after 2007. Even though assaults with firearms against German police are rare, both of the killings of police in the study period were deaths by firearms. In an average year, the Federal Republic of Germany experiences around seven hundred criminal homicides but no attacks that kill police officers. There are two different questions that should interest those in the United States concerned about police safety. First, how do the Germans achieve an environment for urban policing with near-zero rates of lethal assault against police? What features of German cities distinguish them from American cities and towns? Second, of equal importance, what are the characteristics that German and American cities have in common which do not generate a risk of police killings in Germany? How do the German authorities cope with the vulnerabilities that their police must encounter in a modern urban environment? A careful comparative study can become an important tool of planning and policy analysis for police safety in the United States.

ii. The United Kingdom as a Reporting and Police Model

The governance of policing in the United Kingdom is decentralized in much the same manner as in the United States, with most policing organized
and administered by units of local government, most of them municipal. But since 2004, the United Kingdom has had a national system for reporting deaths related to police practices that is highly detailed, and carefully organized and reported. That system and the attention it produced appears also to have been effective in reducing fatalities generated by police citizen encounters.

The data collected by the national authority generates separate annual totals for the traffic deaths of citizens being pursued or arrested by police, deaths of citizens during or following police contacts, deaths in or following police custody (other than suicides), suicides following custody, and a separate category for deaths caused by police shootings. Most of these categories are not reported in other nations and cannot therefore be compared across national boundaries. Even the single clear measure of lethal violence by police in this system—fatal shootings—is more specific than the German reports of citizens killed by police and cannot produce meaningful direct comparisons. For example, citizen deaths inflicted through police violence other than shootings are not separately reported in England and Wales. Therefore, there is no method currently available to precisely compare police violence in Germany and the United Kingdom. In the United States, however, the Washington Post’s current attempt to compile a detailed account of killings by the police for 2015 is restricted to accounts of fatal shootings by police. Therefore, a comparison between the United States and the United Kingdom is practical.

The first step in that comparison is estimating a rate of fatal shootings by police in England and Wales per capita. Table 2 provides the raw material for such a comparison by reporting the volume of lethal shootings by police for the eleven years between 2004–2005 and 2014–2015.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Killings</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004–2005</td>
<td>3</td>
</tr>
<tr>
<td>2005–2006</td>
<td>5</td>
</tr>
<tr>
<td>2006–2007</td>
<td>1</td>
</tr>
</tbody>
</table>


32 See infra tbl.4.

33 Id.


35 This data is only available for England and Wales rather than the whole of the United Kingdom.

36 The system uses fiscal years from July through June of the next year.

37 See INDEPENDENT POLICE COMPLAINTS COMM’N, supra note 16.
The annual totals of deaths by police shooting range from zero to five with a clear downward trend over time. Based on the population of England and Wales in 2010, for the years from 2009—2014, the average nationwide volume of fatal shootings by police is 1.2 per year, for a rate slightly lower than one shooting death per 40,000,000 people. The five years beginning in fiscal year 2009–2010 produce a slightly smaller volume of one per year as a national total.

The Independent Police Complaints Commission established in 2004 provides the most detailed and carefully categorized information on civilian deaths from police activity produced anywhere in the world.38

While there is no comparable category in the German data, the Washington Post survey of police shootings generates an estimate of 1,004 deaths caused by police shootings for 2015.39 Compared to a census year 2010 population of 313,000,000, 1,004 shooting deaths would generate a rate per million of 3.34. The rate for England and Wales from 2009–2010 to 2013–2014 is .021 per million and the rate difference between the two national population rates is 158 to 1.40

The national statistical analyses of the Independent Police Complaints Commission do not provide data on the prevalence of lethal attacks on police. However, a national law enforcement trust publishes a comprehensive account of police deaths in the line of duty throughout the United Kingdom.41 The major hazards for British police in the line of duty are traffic crashes and sudden cardiac and neurological attacks, but a total of three deaths from other intentional attacks happened in the United Kingdom in the five years from 2010 through 2014.42 Table 3 tells this story.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Killings</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007-2008</td>
<td>5</td>
</tr>
<tr>
<td>2008-2009</td>
<td>3</td>
</tr>
<tr>
<td>2009-2010</td>
<td>2</td>
</tr>
<tr>
<td>2010-2011</td>
<td>2</td>
</tr>
<tr>
<td>2011-2012</td>
<td>2</td>
</tr>
<tr>
<td>2012-2013</td>
<td>0</td>
</tr>
<tr>
<td>2013-2014</td>
<td>0</td>
</tr>
<tr>
<td>2014-2015</td>
<td>1</td>
</tr>
</tbody>
</table>

38 Id.
39 Wash. Post, supra note 34.
40 See tbl.3 infra.
42 Id.
The U.K. trends closely parallel the results observed from 2008 to 2012 in Germany. In the United Kingdom (estimated population 63 million) three of the most recent five years produced no deaths from on-duty assaults. The single year (2012) in which more than one officer died in the United Kingdom was an attack in Manchester which killed two officers. The other difference between the United Kingdom and Germany concerns the ratio of civilian deaths by police to police deaths. In Germany, many more civilians are killed by police than police are killed by attacks, which parallels the American pattern, although both death totals are tiny. Compare a five-year total of thirty-seven deaths of civilians by police versus two officer deaths. In the United Kingdom, the ratio of civilians killed by police to police killed is only two-to-one (six civilians shot to death in five years versus three officers). But the only reason the ratio is lower is because the rate of shootings of civilians in the United Kingdom is much lower than total killings in the German figures. There is no indication that the much smaller rate of killings by police had any impact on the fatality risk of police. The two years in which England and Wales experienced no killings of civilians by police (2012–2013 and 2013–2014) were also years when there were no fatal assaults against police in England, Wales, Scotland, and Northern Ireland. The police in the United Kingdom were safest in the two years when no civilians were shot and killed.

The three officer deaths in the United Kingdom follow one pattern found in the United States despite the stark contrast in gun availability and

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43 Id.
45 Id.
46 Id.
47 Compare Memorandum from Clemens Lorei, supra note 18, and Fed. Bureau of Investigation, supra note 22 (combined in tbl.1), with Statistisches Bundesamt, supra note 19 (compiled in fig.4).
48 Compare Independent Police Complaints Comm’n, supra note 16 (compiled in tbl.2), with Police Roll of Honour Trust, supra note 41 (compiled in tbl.3).
49 Police Roll of Honour Trust, supra note 41.
50 See id.
use in the two nations. The one death in Northern Ireland was caused by a bomb.51 The two killings in Manchester were the result of an attack with firearms.52 While the restrictions on firearm availability and use have diminished the number of shootings of police, it is striking that firearms, rather than the much more common and more available weapons in the United Kingdom (knives and other cutting instruments, blunt objects, hammers, and the like), are still the leading threat to a police officer’s life when assaults occur. There were no officer deaths in five years from knives or blunt objects.53 This is powerful evidence that police officers do not face lethal threats from knives, blunt objects, and personal force even when more lethal firearms are much less available to would-be assailants. And this is also the pattern found in the 2008–2012 study of Germany.

iii. The Push to Reduce Death Rates

The extensive effort to create and publicize national and department-by-department data in England and Wales was, one could imagine, intended to focus public attention on the issue and to motivate effort in police departments to reduce preventable deaths. Table 4 shows trends in reported deaths in England and Wales from three types of police/citizen interactions where police behavior might influence the likelihood of a citizen’s death.54

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Citizen Deaths from Road Traffic</th>
<th>Fatal Shootings</th>
<th>Deaths in or Following Police Custody</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004–2005</td>
<td>44</td>
<td>3</td>
<td>36</td>
<td>83</td>
</tr>
<tr>
<td>2005–2006</td>
<td>48</td>
<td>5</td>
<td>28</td>
<td>81</td>
</tr>
<tr>
<td>2006–2007</td>
<td>36</td>
<td>1</td>
<td>27</td>
<td>64</td>
</tr>
<tr>
<td>2007–2008</td>
<td>24</td>
<td>5</td>
<td>22</td>
<td>51</td>
</tr>
<tr>
<td>2008–2009</td>
<td>40</td>
<td>3</td>
<td>15</td>
<td>58</td>
</tr>
<tr>
<td>2009–2010</td>
<td>29</td>
<td>2</td>
<td>17</td>
<td>48</td>
</tr>
<tr>
<td>2010–2011</td>
<td>26</td>
<td>2</td>
<td>21</td>
<td>49</td>
</tr>
<tr>
<td>2011–2012</td>
<td>19</td>
<td>2</td>
<td>15</td>
<td>36</td>
</tr>
<tr>
<td>2012–2013</td>
<td>31</td>
<td>0</td>
<td>15</td>
<td>46</td>
</tr>
<tr>
<td>2013–2014</td>
<td>12</td>
<td>0</td>
<td>11</td>
<td>23</td>
</tr>
</tbody>
</table>

51 See id.
52 See id.
53 See id.
54 The data is again reported in fiscal year intervals.
55 INDEPENDENT POLICE COMPLAINTS COMM’N, supra note 16.
My table focuses on the three categories of death with clear definitions where police efforts might be expected to have impact. The original data set also includes the categories “other deaths” and “apparent suicides following custody,” which have been excluded.

The reported rates of all three categories of death decrease rather sharply over time. The aggregate total for all three categories decreased by seventy-two percent in a decade and, even if one excluded the very low totals in 2013–2014, the decrease would be greater than fifty percent in the two years prior to 2013–2014. And similar trends in all three categories over time suggest that shootings, like traffic deaths generated by police activity and deaths in and following custody, can be altered substantially by police administrative effort and focus.

A second dramatic contrast between the United Kingdom and United States is the relatively minor amount that shootings by police contributed to the overall amount of citizen deaths from police activity. In the first two years of the data set in England and Wales (2004–2006), police shootings were just under ten percent of the total for all three categories of police-related deaths. The percentage decline in fatal police shootings was just as great as for the other two categories, but it accounted for about one-seventh the total drop in deaths.

No set of British data could generate a more dramatic contrast with the circumstances of American police than the shootings data. If the abysmal absence of statistics in the United States on the outcome of policing on the public health could be overcome to produce even a single year’s breakdown into traffic deaths, shootings, and deaths in police custody, the death toll from shootings would likely be much more than twice the total number of deaths in custody and traffic victims combined. Within The Guardian sample of all covered-by-media police deaths in the United States, more than eighty percent were police shootings.

But why, if British police already had such a low rate of fatal shootings, could management effort reduce it still further? And what might that suggest about what economists would call the elasticity of demand for deadly force in American policing?

**Conclusion: Lessons from Foreign Experience in Light of U.S. Exceptionalism**

This detailed analysis of Germany and the United Kingdom provides an important guide to what separates American police from their European peers, and also to what elements of danger to police and to citizens are common on both sides of the Atlantic. The rate at which American police kill citizens is vastly greater than that in Germany and England. But the rate at
which American police are killed in attacks is also much higher in the United States than elsewhere. Citizens are less safe and so are police. One obvious difference between American and European cities is the rate at which citizens own and carry firearms. One plausible reason to predict lower death rates in European assaults on police is that attacks with knives and clubs and blunt objects kill less often, but the analysis of recent history in the United Kingdom and Germany in this article suggests that this is an understatement. Knives and blunt objects killed no police officers in the United Kingdom or in Germany in the five years we obtained data for each nation. Guns and bombs may be much less common in the United Kingdom and Germany, but they still monopolize the small number of lethal attacks suffered by police. Knives, blunt objects, and personal attacks do not threaten the lives of police officers on either side of the Atlantic. Yet they produce lethal responses from American police hundreds of times a year. Why is this?

Any empirical analysis of American police violence in international perspective must start by acknowledging American exceptionalism. Namely, American police kill not only more often than other developed world police but at a vastly higher rate than any nation the United States would want to measure itself against. The gross statistics are dramatic—if my study’s estimate of 1,000 deaths a year is correct, the United States rate is 40 times that of Germany and 100 times that of the United Kingdom. With differences that great, why isn’t an international comparison simultaneously obvious but also useless?

The carefully compiled statistics in the second part of this article demonstrate that there are three separate dimensions to what sets the United States apart. The first is that many more civilians are killed by police in the United States, and there is also a qualitative dimension to this vast difference. The lion’s share of the American dominance of civilian deaths is shootings by police on patrol or in other community settings. Deaths in custody, a large share of U.K. civilian deaths, are a tiny part of U.S. killings and a tiny part of what sets the United States apart from its peers.

The second statistical lesson from both Germany and the United Kingdom is that the United States is also exceptional in its rate of police deaths from violent attack in the same streets and community settings that are the

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60 See ZIMRING, supra note 1, at ch. 3 fig.3.6 (showing that forty-three percent of cases where police killed civilians involved no firearms possessed by the victim).

61 Id. at ch. 2 (comparing different data sets to arrive at an estimate of 1,000 annual killings by the police in the United States).

62 See id. at ch. 3 (comparing the Washington Post shootings with The Guardian’s to estimate percentage of shootings by location).

63 Compare ZIMRING, supra note 1, at ch. 3 tbl.3.1 (showing that 3.6% of victims killed by police in the United States died in custody), with INDEPENDENT POLICE COMPLAINTS COMM’N, supra note 16 (showing in tbl.4 that over 50% of victims killed by police in England and Wales died in custody or shortly after).
main arenas of killings by the police. Why is this? My book’s analysis of police safety will show that high vulnerability to death by civilian attack is overwhelmingly the product of gun availability and use in the United States. Guns are the weapon used in more than ninety percent of all the fatal attacks of police (and if automobiles are excluded as attack weapons because of ambiguity of the driver’s intent, the gun share rises above ninety-seven percent). A weapon reportedly used in four percent of all attacks on U.S. police accounts for more than nineteen out of twenty deaths of police in the United States. And both Germany and the United Kingdom operate as almost a controlled experiment of how a scarcity of civilian ownership and use of firearms influences the vulnerability of police to death from assault. In three of the five years we studied, the number of police officers killed in both Germany and the United Kingdom was zero, while the U.S. death toll averaged fifty a year during the same periods. And when police deaths do happen in both Germany and the United Kingdom, they are predominately caused by firearms.

So firearms in civilian hands are the elephant in the living room of any serious discussion of what sets the United States apart from the rest of the developed world in violence against police as well as why police kill citizens so often. Any analysis of policy that doesn’t pay careful attention to both police violence and vulnerability will be destructively superficial. But given the unlikely prospects for change in either U.S. gun policy or U.S. gun availability, does not that render meaningful reform in the United States a hopeless task?

Not by a long shot. The reality of U.S. gun population and policy is strong evidence that no American citizen now living will see a year when the United States joins either the United Kingdom or Germany as a nation when no police are killed by attackers. And this also means that none of us will see the day when American police shoot and kill only 15 or 50 citizens instead of 1,000 each year. A 60 million handgun inventory imposes important limits on how much improvement might come from all the other changes we can make in policing and legal policy. But there is plenty of room for reducing the death toll from police gunfire—even in a 60 million handgun nation.

There are three indications in facts of American police violence that its death toll can be significantly reduced. The first is my finding that while a majority of killings by the police involved the officer’s response to a gun in the hands of his adversary, the gun attack share of killings was fifty-seven

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64 See Zimring, supra note 1, at ch. 3 (discussing the settings in which police violence occurs in the United States).
65 Id. In fact, the data is so overwhelming that a multivariate analysis is not necessary to see this relationship.
67 See Zimring, supra note 1, at ch. 6 fig.5.1, tbl.5.2.
68 Compare Memorandum from Clemens Lorei, supra note 18, and U.S. DEP’T OF JUSTICE, supra note 22 (combined in tbl.1), with POLICE ROLL OF HONOUR TRUST, supra note 41 (compiled in tbl.3).
percent.\textsuperscript{69} Given the exorbitant arithmetic of police killings in the United States, that would leave more than 400 deaths each year when a police killing was \textit{not} provoked by the adversary’s brandishing of a firearm. That by itself is a vast reservoir of lives to be saved, and the data from other countries provides reassurance that failing to kill those who use non-gun weapons against police isn’t a risk to a policeman’s life.\textsuperscript{70}

There are two other very hopeful signs in international comparisons. It seems from the very limited data we have seen that changes in the tactical approaches to threatening situations encountered by police as well as protective gear have reduced the risk of an officer’s death from assault.\textsuperscript{71} These improvements in other nations happened without expansion in killings by police, which reassures observers that dramatic American progress in police safety is not closely linked to our singularly high rate of killing persons in conflict with police.

And the trends in England and Wales after a national authority began collecting and publicizing statistics on carefully crafted categories of civilian deaths is a particularly encouraging sign for American reformers. There is quite a bit of local control in the governance of policing in England and Wales but over a decade the rate of civilian deaths was reduced by more than half.\textsuperscript{72} This potential responsiveness of police to administrative change is an important benefit in a country where that might save forty lives a year. That much of a proportional change on the American side of the Atlantic would be a spectacular achievement.

\textsuperscript{69} See Zimring, supra note 1, at ch. 3 tbl.3.6.

\textsuperscript{70} As stated above, firearms killed the two officers felled in five years in Germany, and the U.K. data showed that a bomb and a gun were the cause of a police death during a five-year period.

\textsuperscript{71} Zimring & Arsiniega, supra note 66, at fig.1.

\textsuperscript{72} See Independent Police Complaints Comm’n, supra note 16 (compiled in tbl.4).