

# The Role of Assault Weapons in Mass Shooting Incidents

State of the Science

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*The Role of Assault Weapons in Mass Shooting Incidents: State of the Science*

Testimony of Kyleanne Hunter<sup>1</sup>  
The RAND Corporation<sup>2</sup>

Before the Committee on Judiciary  
United States Senate

July 20, 2022

Chairman Durbin, Ranking Member Grassley, and members of the committee, thank you for your invitation to testify today. My name is Dr. Kyleanne Hunter. I am currently a senior political scientist at the RAND Corporation. I am a Marine Corps combat veteran, serving tours in Iraq and Afghanistan. My scholarship is focused on military effectiveness and personal violence prevention—including gun violence prevention.

Before I begin my testimony, I want to acknowledge the number of mass shootings in recent months. I know that many of the members of the committee have seen firsthand the impact of mass shootings on their home states and communities. I thank you all for your dedication to finding solutions to prevent future tragedies.

A constant theme in my career has been a dedication to objective research to inform policymakers whose decisions affect our society. As a Marine, I swore to protect and defend the Constitution; as a researcher, it is my hope that the work done on these difficult topics will be used to inform policies to live up to the ideals of being a more perfect union. With research we make objective policy. In its absence, emotion and passion often lead the debate.

We owe it to the victims, their families, and every American to ensure that gun violence prevention policy is based on facts. Existing research and inferences from the data provide critical insights into the role of assault weapons, also known as modern sporting rifles, in mass

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shooting, and policies that can keep our communities safer. It has been said in previous testimonies in front of this committee that there are “no sides” in gun violence prevention—that we are all on the “same team” wanting to reduce the incidents of gun violence in our communities.<sup>3</sup> I, too, believe that to be true. No one wants to see gun violence continue. But actionable solutions can come only when we are all willing to take a clear-eyed look at what the state of the science tell us about these deaths—and that includes looking at the role of assault weapons in mass shooting incidents.

My goal today is to present to you what is known about assault weapons—and their role in mass shooting events—so that you can make informed policy decisions that will keep our communities safer. I will begin by discussing the unique impact that these weapons, particularly when coupled with high-capacity magazines, have on injury and death rates. I will next discuss what is known about the effectiveness of bans on these weapons and some of the unique challenges faced by municipalities or states enacting their own regulations. I will end with a discussion of the impact that the restrictions on research have on the ability to meaningfully address this topic.

## Assault Weapons and Mass Shootings—What We Know

Thankfully, weapons typically referred to as *assault weapons* or *modern sporting rifles* are not used in the majority of firearm homicides. However, when they are used, they have an outsized impact on injury and death. These weapons are frequently used in conjunction with high-capacity magazines. The available evidence suggests that these weapons are used disproportionately in mass shootings relative to their use in gun crimes more generally.<sup>4</sup> Although there is no standard definition of what constitutes a mass shooting, one definition used by some sources is shootings that kill or injure four or more people, not including the shooter, which can take place either in a private residence or a public place.<sup>5</sup> While mass shootings are rare when compared with all firearm homicides, these have been on the rise. Between January 1 and July 5, 2022, there have been more than 300 mass shootings in 36 states, resulting in 343 people killed and an additional 1,391 injured. In 2021, there were 700 mass shootings, a jump from 611 in 2020 and 417 in 2019. Prior to 2019, there had not been a year with incident rates over 400.<sup>6</sup>

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<sup>3</sup> Amy Swearer, “No Quick Fixes: Debunking the Illusion of Easy Answers and Simple Solutions to Recent, Unprecedented Spikes in Gun Violence,” Heritage Foundation, testimony before the Senate Judiciary Committee December 13, 2021, <https://www.heritage.org/testimony/no-quick-fixes-debunking-the-illusion-easy-answers-and-simple-solutions-recent>.

<sup>4</sup> Christopher S. Koper, “Assessing the Potential to Reduce Deaths and Injuries from Mass Shootings Through Restrictions on Assault Weapons and Other High-Capacity Semiautomatic Firearms,” *Criminology and Public Policy*, Vol. 19, No. 1, 2020.

<sup>5</sup> Rosanna Smart and Terry Schell, “Mass Shootings in the United States,” Gun Policy in America, RAND Corporation, April 15, 2021, <https://www.rand.org/research/gun-policy/analysis/essays/mass-shootings.html>.

<sup>6</sup> Júlia Ledur, Kate Rabinowitz, and Artur Galocha, “There Have Been Over 300 Mass Shootings So Far in 2022,” *Washington Post*, June 2, 2022, <https://www.washingtonpost.com/nation/2022/06/02/mass-shootings-in-2022/>.

The majority of mass shootings (approximately 60 percent) occur in private homes and never make the headlines. Although shootings in public places are the minority of mass shootings, they represent the majority of deaths. Between 2009 and 2020, mass shootings in a public place represented 39 percent of all mass shootings and 51 percent of mass shooting deaths.<sup>7</sup> The FBI reports that public shooting events are on the rise. Between 2019 and 2020, there was a 33 percent increase in active shooter incidents—defined as one or more individuals actively engaged in killing or attempting to kill people in a public place. Between 2020 and 2021, there was a 52.5 percent increase in these incidents. The number of those killed and wounded also increased each year; between 2020 and 2021, there was a 63 percent increase in casualties resulting from these events.<sup>8</sup>

Considering these mass public shootings in their own right is important, as there is often a different motivation for public mass shootings than other types of homicide. Examinations of mass shootings show that, unlike other types of homicides (such as those that involve the commission of another crime), public mass shootings are motivated by a broader sense of hate or fear and a desire to kill many people in a short period of time.<sup>9</sup>

These public shootings are what grab the headlines and have ripple effects throughout communities. Mass public shootings tend to dominate news cycles and include a greater number of people killed or injured per event than shootings that occur in residences or in connection with another crime.<sup>10</sup> Estimates show that approximately one-third of public mass shooting events include the use of an assault weapon, and nearly 40 percent involve a high-capacity magazine.<sup>11</sup> When an assault weapon and/or a high-capacity magazine is used in a public mass shooting, nearly 14 times as many people are injured, and twice as many people are killed.<sup>12</sup> Not only are there more injuries when assault weapons are used but the types of injuries are far worse. The combined effect of the weapon's muzzle velocity and the ballistics of the round most commonly

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<sup>7</sup> Everytown for Gun Safety Support Fund, "Mass Shootings in America," updated July 13, 2022, <https://everytownresearch.org/maps/mass-shootings-in-america/>.

<sup>8</sup> Federal Bureau of Investigation, *Active Shooter Incidents in the United States in 2021, 2022*, <https://www.fbi.gov/file-repository/active-shooter-incidents-in-the-us-2021-052422.pdf/view>.

<sup>9</sup> Jason R. Silva, Joel A. Capellan, Margaret A. Schmuhl, and Colleen E. Mills, "Gender-Based Mass Shootings: An Examination of Attacks Motivated by Grievances Against Women," *Violence Against Women*, Vol. 27, Nos. 12–13, 2021; Jillian K. Peterson, James A. Densley, Kyle Knapp, Stasia Higgins, and Amanda Jensen, "Psychosis and Mass Shootings: A Systematic Examination Using Publicly Available Data," *Psychology, Public Policy, and Law*, Vol. 28, No. 2, 2022; Alexei Anisin, "A Configurational Analysis of 44 US Mass Shootings: 1975–2015," *International Journal of Comparative and Applied Criminal Justice*, Vol. 42, No. 1, 2018.

<sup>10</sup> Grant Duwe, "Patterns and Prevalence of Lethal Mass Violence," *Criminology and Public Policy*, Vol. 19, No. 1, 2020.

<sup>11</sup> Christopher S. Koper, "Assessing the Potential to Reduce Deaths and Injuries from Mass Shootings Through Restrictions on Assault Weapons and Other High-Capacity Semiautomatic Firearms," *Criminology and Public Policy*, Vol. 19, No. 1, 2020.

<sup>12</sup> RAND Corporation, "The Effects of Bans on the Sale of Assault Weapons and High-Capacity Magazines," Gun Policy in America, updated April 22, 2020, <https://www.rand.org/research/gun-policy/analysis/ban-assault-weapons.html>.

used in them create a “tumbling” effect that causes far more damage to the human body.<sup>13</sup> Indeed, the ability to shoot more rounds more quickly results in more people killed or injured in a mass shooting when high-capacity magazines are used, though that is fortunately rare.

These weapons also are too often used in shootings of law enforcement officers. Between 2009 and 2013, assault weapons or semiautomatic weapons with calibers most often found in assault weapons were used in an average of 15 percent of criminal killings of law enforcement officers.<sup>14</sup> Testimony to the House Judiciary Committee from the Violence Policy Center revealed that, in 2016 and 2017, one in five law enforcement officers who were slain in the line of duty were killed by an assault rifle. In incidents in which more than one officer was killed, 75 percent involved an assault rifle.<sup>15</sup> In 25 percent of these cases, the bullet penetrated the law enforcement officer’s body armor.<sup>16</sup>

## Characteristics of Assault Weapons Contribute to Their Outsized Impact on Injury and Death

The characteristics inherent in the design of these weapons contribute to their ability to both kill a large number of victims and defeat protective gear used by law enforcement. Understanding the history of this firearm and some of the characteristics inherent in its design may shed light on some of the reasons why. The firearms referred to as *assault rifles* or *modern sporting rifles* are variants of ArmaLite’s AR-15 design. ArmaLite first designed this platform as a military rifle in the 1950s. The design was sold to Colt in 1959, and in 1963 the Army selected Colt to use this design for the M-16 service rifle. It became the issued service rifle during the Vietnam War, and the M-16 and its updated M-4 are still used by service members today.<sup>17</sup> As a service rifle, the M-16 had many benefits over the previously used M-1 and M-14. The benefits include the following:

- Lighter weight: The M-16 weighed three pounds less than previous service rifles.
- Length: The M-16 was over half a foot shorter than previous service rifles.

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<sup>13</sup> P. K. Stefanopoulos, K. Filippakis, O. T. Soupiou, and V. C. Pazarakiotis, “Wound Ballistics of Firearm-Related Injuries—Part 1: Missile Characteristics and Mechanisms of Soft Tissue Wounding,” *International Journal of Oral and Maxillofacial Surgery*, Vol. 43, No. 12, 2014.

<sup>14</sup> Christopher S. Koper, William D. Johnson, Jordan L. Nichols, Ambrozone Ayers, and Natalie Mullins, “Criminal Use of Assault Weapons and High-Capacity Semiautomatic Firearms: An Updated Examination of Local and National Sources,” *Journal of Urban Health*, Vol. 95, No. 3, 2018.

<sup>15</sup> Kristen Rand, Violence Policy Center, testimony before the House Judiciary Committee, September 25, 2019, <https://docs.house.gov/meetings/JU/JU00/20190925/110001/HHRG-116-JU00-Wstate-RandK-20190925.pdf>.

<sup>16</sup> Violence Policy Center, “New Data Shows One in Five Law Enforcement Officers Slain in the Line of Duty in 2016 and 2017 Were Felled by an Assault Weapon,” September 25, 2019, <https://vpc.org/press/new-data-shows-one-in-five-law-enforcement-officers-slain-in-the-line-of-duty-in-2016-and-2017-were-felled-by-an-assault-weapon/>.

<sup>17</sup> Greg Myre, “A Brief History of the AR-15,” NPR, February 28, 2018, <https://www.npr.org/2018/02/28/588861820/a-brief-history-of-the-ar-15>.

- Size of the bullet: The bullet used in the M-16 is substantially smaller than that used in previous service rifles. This has three main advantages.
  - Troops are able to carry more rounds. For the same weight, four times as many M-16 rounds than M-1 rounds can be carried.
  - Troops can fire more rounds without stopping. The cooling system of the M-16 allowed for firing a full 30-round magazine without stopping, compared with eight to ten rounds in an M-1.
  - Each round causes more damage to the human body. Larger, heavier rounds maintain their momentum longer, often resulting in a “clean” entry and exit wound through the human body. Lighter rounds are disrupted when they hit flesh, and shatter bone, resulting in an erratic pattern that causes extensive damage.
- Muzzle velocity, or the speed of the bullet: The M-16 has a muzzle velocity of around 3,300 feet per second, as compared with a 9 mm that travels at a muzzle velocity of around 1,200 feet per second. The speed of these projectiles contributes to the amount of damage that rounds fired are able to inflict.<sup>18</sup>

Given the company’s success with selling the M-16 to the Army, Colt increased production and began marketing the firearm to law enforcement and civilians as the AR-15 in the mid-1960s. When Colt’s patent expired, other manufacturers sold similar firearms under different names, but all with similar characteristics. The attributes that made the M-16 a beneficial service rifle are also present in the AR-15 rifles. In 2020, the National Shooting Sports Foundation estimated that there were nearly 20 million AR-15-style rifles in circulation in the United States, dubbing it “the most popular rifle in America today.”<sup>19</sup>

The ability to shoot many rounds quickly, carry many rounds at once, and maneuver easily—all characteristics essential for an effective service rifle—also make it more deadly than other firearms when used in a mass shooting event.

## Policies on Assault Weapons Ban

### *Federal Assault Weapons Ban*

The last federal assault weapons ban was in effect between 1994 and 2004. The Violent Crime Control and Law Enforcement Act banned “the manufacture of military-style assault weapons, assault weapons with specific combat features, ‘copy-cat’ models, and certain high-capacity ammunition magazines of more than ten rounds.”<sup>20</sup> The combining of an assault weapons ban with a high-capacity magazine ban makes disentangling the effects of each

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<sup>18</sup> Michael Shurkin, “A Brief History of the Assault Rifle,” *The Atlantic*, June 30, 2016, <https://www.theatlantic.com/technology/archive/2016/06/a-brief-history-of-the-assault-rifle/489428/>.

<sup>19</sup> National Shooting Sports Foundation, “NSSF Releases Most Recent Firearm Production Figures,” November 16, 2020, <https://www.nssf.org/articles/nssf-releases-most-recent-firearm-production-figures/>.

<sup>20</sup> U.S. Department of Justice, “Violent Crime Control and Law Enforcement Act of 1994 Fact Sheet,” October 24, 1994, <https://www.ncjrs.gov/txtfiles/billfs.txt>; see also Pub. L. 103-322, Violent Crime Control and Law Enforcement Act of 1994, September 13, 1994.

difficult. During the ban, the number of crimes committed with guns that fell into the banned category decreased. However, there was an increase in crimes committed with guns that did not fall into the banned category.<sup>21</sup> Although the total crime rate stayed relatively consistent, the number of deaths and injuries in shooting events decreased during the ban, perhaps because substitute firearms are not typically able to shoot as many rounds as quickly as assault weapons. This was particularly true for incidents that met the criteria for being characterized as a mass shooting event. This ban might have not prevented incidents of crime, but incidents of injury or death during a shooting event did decrease.<sup>22</sup>

### *State and Local Assault Weapons Ban*

Although there is no current federal ban, seven states (California, Connecticut, Hawaii, Maryland, Massachusetts, New Jersey, and New York) and the District of Columbia have bans in place. The laws in each of the states vary—both in how they describe the weapons being banned (list of weapons or generic features) and in how they treat grandparented weapons. The states that ban assault weapons also have bans on high-capacity magazines. Several municipalities—including Highland Park, Illinois—have more-restrictive bans than the states in which they are located. While not banned in the state, Colorado, Florida, Illinois, Indiana, Louisiana, Michigan, Minnesota, Missouri, and West Virginia have restrictions on the use of these weapons for hunting—most often related to size of the cartridge or number of rounds permitted. And Delaware, Maryland, Massachusetts, New Hampshire, Ohio, Vermont, Washington, and Rhode Island ban hunting with assault weapons altogether.<sup>23</sup> Hunting has been cited as a reason why these weapons are popular. Yet state-imposed bans and restrictions on their use for hunting raise questions about the utility of this argument.

Studies on the impact of state assault weapons policies on the overall homicide rates are few. There is not extensive research saying that state-level assault weapons bans have a positive impact on reducing injury and death, nor do we have conclusive research saying that these bans have no impact on reducing injury and deaths. In the absence of rigorous scientific evidence, it is important to use logical deductions to carefully consider the potential impact of these bans. Indeed, it is essential to note that the lack of scientific evidence says much more about the quality of the available research—much of which has been stymied by federal law—than it does about the effectiveness of these laws. Additionally, many of the policies (much like the federal ban) are poorly worded and allow for firearms to be sold that have virtually identical characteristics to assault weapons. Effectively preventing desired outcomes would likely require far more extensive policy than has been attempted in the past. Evidence from the federal assault

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<sup>21</sup> Christopher S. Koper, *Updated Assessment of the Federal Assault Weapons Ban: Impacts on Gun Markets and Gun Violence, 1994–2003*, Jerry Lee Center of Criminology, University of Pennsylvania, July 2004.

<sup>22</sup> Charles DiMaggio, Jacob Avraham, Cherisse Berry, Marko Bukur, Justin Feldman, Michael Klein, Noor Shah, Manish Tandon, and Spiros Frangos, “Changes in US Mass Shooting Deaths Associated with the 1994–2004 Federal Assault Weapons Ban: Analysis of Open-Source Data,” *Journal of Trauma and Acute Care Surgery*, Vol. 86, No. 1, January 2019.

<sup>23</sup> Wing Tactical, “Is It Legal to Hunt with an AR-15,” November 27, 2020, <https://www.wingtactical.com/blog/is-it-legal-to-hunt-with-an-ar15/>.



weapons ban shows that, during a ban, sales of these sorts of firearms skyrocket, likely nullifying any positive effect.<sup>24</sup> There is little evidence that a ban on assault weapons reduces the number of incidences of crime. However, as noted above, when a weapon that falls into the category commonly known as assault weapon is used in a crime, the numbers of injuries and deaths are significantly higher. The fact that this weapon is designed to kill and injure many people in a short period may make it attractive to those ideologically motivated to kill as much as possible. It could be hypothesized, then, that if these weapons were not able to be used in these crimes, there might be a reduction in injury and death.

Despite the absence of extensive research specifically focused on assault weapons, research on gun policies more broadly offer important insights. A systemic review of studies that look at state firearm policies across five areas—(1) curbing gun trafficking, (2) strengthening background checks, (3) improving child safety, (4) banning military-style assault weapons, and (5) restricting firearms in public places and leniency in firearm carrying—shows that states with stronger gun laws have a lower level of homicide.<sup>25</sup> While these studies do not focus solely on assault weapons, it seems reasonable to hypothesize—worthy of further research—that restricting the ability to shoot many rounds very quickly might reduce the chances of injury and death.

### *Limitations to State and Local Assault Weapons Ban*

Research shows us that states with stronger laws tend to have fewer homicides, but there are limitations to state and local approaches. Laws of surrounding states have an impact on a given state, and states surrounded by states with weaker laws see a reduction in the benefit of their strong gun laws.<sup>26</sup> One reason for this may be the ease with which guns can travel across city or state lines. Findings from crime gun-trace reports show that guns frequently flow from areas with less restrictive laws or enforcement histories to areas with more restrictive laws or a stronger enforcement history. Chicago illustrates this limitation. While there are no federally licensed firearm dealers in Chicago, and the city has some of the strictest gun laws in the country, it has recovered nearly twice as many crime guns per capita than either Los Angeles or New York City. Guns flow into Chicago from nearby dealers in Cook County (in municipalities with more lax laws than Chicago) and across the state line. Indeed, nearly 60 percent of all crime guns recovered in Chicago originate from dealers outside the state of Illinois, mostly Indiana.<sup>27</sup> In Pennsylvania, between 2013 and 2016, nearly 30 percent of guns used in crimes originated from out-of-state dealers, and the majority of guns from Philadelphia—where the city council and

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<sup>24</sup> Koper, *Updated Assessment of the Federal Assault Weapons Ban*.

<sup>25</sup> Lois K. Lee, Eric W. Fleegler, Caitlin Farrell, Elorm Avakame, Saranya Srinivasan, David Hemenway, and Michael C. Monuteaux, “Firearm Laws and Firearm Homicides: A Systematic Review,” *JAMA Internal Medicine*, Vol. 177, No. 1, January 2017.

<sup>26</sup> Elinore J. Kaufman, Christopher N. Morrison, Charles C. Branas, and Douglas J. Wiebe, “State Firearm Laws and Interstate Firearm Deaths from Homicide and Suicide in the United States: A Cross-Sectional Analysis of Data by County,” *JAMA Internal Medicine*, Vol. 178, No. 5, May 2018.

<sup>27</sup> City of Chicago, Office of the Mayor, and Chicago Police Department, *Gun Trace Report 2017*, 2017.

mayor have repeatedly tried to strengthen gun laws—were traced to the suburbs around the city with a history of less restrictive policies.<sup>28</sup>

The ease with which individuals are able to transport guns across municipal and state lines may impact the effectiveness of bans that apply only to a specific location.

## Research Needs

As noted, there is limited research specifically on the impact of assault weapons bans. This can be attributed to both a historic reduction in federal investment and a lack of access to consistent and high-quality data. Meaningful investment and access to data are essential for producing rigorous-quality data. The effort to prevent research on the topic has resulted in a lack of understanding, and discussions on the topic more frequently devolve into partisan talking points than discussion of facts.

### *Access to Funding*

Access to meaningful federal funding is essential for advancement in public health research. The Dickey Amendment—in place since fiscal year 1997—effectively stopped federal funding for gun violence prevention research from its inception until 2019.<sup>29</sup> The budgets for research on gun violence in both the Centers for Disease Control and Prevention (CDC) and National Institutes of Health were effectively zeroed. The recent investment of over \$25 million per year in research is essential; however, the 20-year absence of research has a lasting impact.

The 20-year dearth of federal funding has put gun policy science behind other public health issues in ensuring evidence-based solutions. Looking at the top 30 causes of death in the United States from 2004 to 2014, David Stark and Nigam Shah found that federal investment in gun violence research was 1.6 percent of that of causes of death that yielded similar mortality rates. This resulted in less scholarship produced. During this period, scholarship on gun violence prevention was only 4.6 percent of what would be expected based on the magnitude of both injury and death.<sup>30</sup> Continuation of renewed funding of gun violence prevention research has the potential to develop a new generation of researchers committed to rigorous science that can save lives.

### *Access to Data*

In addition to funding, access to quality data is essential for rigorous research. One data set that has been beneficial to researchers, but is restricted, is firearms trace data. Since 2003, the Tiahrt Amendment has restricted the National Tracing Center of the Bureau of Alcohol, Tobacco, Firearms and Explosives from releasing information in its firearms trace database to

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<sup>28</sup> Brady, *Uncovering the Truth About Pennsylvania Crime Guns*, 2021.

<sup>29</sup> Pub. L. 104-208, Omnibus Consolidated Appropriations Act, 1997, September 30, 1996.

<sup>30</sup> David E. Stark and Nigam H. Shah, “Funding and Publication of Research on Gun Violence and Other Leading Causes of Death,” *JAMA*, Vol. 317, No. 1, 2017.

anyone other than law enforcement or prosecutors.<sup>31</sup> Prior to the passage of this legislative rider, academics frequently used these data, and their studies educated lawmakers and law enforcement on how guns got into the hands of criminals.

Enacting new gun laws requires a balance between public safety and individual rights. Access to firearm trace data is an essential tool to understand how guns get into the hands of criminals. This understanding is indispensable for the crafting of policy that balances the public interest with individual rights. An amicus curiae brief filed in the case of *Everytown for Gun Safety Support Fund v. Bureau of Alcohol, Tobacco, Firearms and Explosives* identifies 23 academic studies conducted before the 2003 Tiahrt Amendment that directly affected policy.<sup>32</sup>

Understanding how mass shooters obtain assault weapons is a necessary step to crafting policies that might prevent gun violence. Members of this committee have repeatedly called for laws that target and prosecute felons trying to buy illegal guns. Indeed, nearly one in three mass shootings are committed by an individual who is prohibited from purchasing a firearm.<sup>33</sup> Access to trace data is essential to doing rigorous research on what supply-side approaches will prevent criminals from accessing guns and thereby keep our community safer.

Additionally, there is no regularly collected data on gun ownership or usage since the CDC discontinued asking about gun ownership on its national Behavioral Risk Factor Surveillance System surveys more than a decade and a half ago. It is often said that policies proposed to keep communities safer will have an adverse impact on law-abiding gun owners. However, without meaningful data on gun ownership and use, statements about adverse impacts are mere speculation. More research is required to understand the impact of policies on all Americans—and that requires data.

### *Learnings from Other Areas*

Research support is essential to make good policy. The cases of motor vehicle fatalities and the spread of HIV/AIDS show how government investment in research led to evidence-based solutions and policies that save lives, and that continued investment in research is necessary to ensure that policies adapt appropriately to changes in demographics, technologies, and social factors. The Department of Transportation has historically requested, and has continued to in current budgets, funding for research and additional funding for safety grants that include data collection and monitoring efforts, and the department has tracked all motor vehicle deaths in the publicly available Fatality Analysis Reporting System (FARS). Independent, rigorous, and objective research done with this funding or using this publicly available data over the years has resulted in innovations in road safety, such as guardrails on highways and speed limits in areas of

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<sup>31</sup> Pub. L. 108-7, Consolidated Appropriations Resolution, 2003, February 20, 2003.

<sup>32</sup> *Everytown for Gun Safety Support Fund v. Bureau of Alcohol, Tobacco, Firearms and Explosives* Brief Amici Curiae of Brady Center to Prevent Gun Violence and Giffords Law Center to Prevent Gun Violence. December 23, 2020.

<sup>33</sup> Everytown for Gun Safety Support Fund, “Mass Shootings in America.”

high pedestrian or wildlife traffic, and policies, such as seatbelt and child safety seat laws, that have greatly reduced the number of traffic fatalities and injuries.<sup>34</sup>

After years with thousands of deaths related to HIV/AIDS, the Department of Health and Human Services began receiving federal funding to study the epidemic in 1983.<sup>35</sup> The CDC continues to request funding for research and surveillance of HIV/AIDS.<sup>36</sup> The results are medical interventions that have greatly increased the number of people able to manage living with HIV, a decrease in overall transmission rates, and an over 90 percent decrease in the number of people who have died from the disease since its peak in the mid-1990s.<sup>37</sup>

Given the level of gun-violence-related mortality and injury in the population, gun violence prevention research would seem to merit an increased level of attention and deliberate investment. Being able to objectively understand the scope of the problem—including the role of specific types of firearms in community violence—is a critical step to keeping our communities safe. It is also an essential part of effectively implementing current legislation. For example, the recently passed Bipartisan Safer Communities Act incentivizes states to implement crisis intervention orders, frequently referred to as “red-flag laws.” Each state may choose to implement programs differently. It is in the best interest of the American people to know that the investments of their tax dollars are going to effective programs. This can only be ensured with meaningful and objective surveillance research on the programs. Additionally, there are new technological advancements, such as biometric “smart gun” technology, that might prevent some of the tragedies our communities face, but we need meaningful research to understand and assess how different technologies might keep us safer.

Good policymaking—and good investments in private programs, such as smart gun technology or community violence interruption—requires an objective, dispassionate understanding of the problem and continued transparent surveillance of the outcomes of interventions. Gun violence prevention has lacked this investment for decades. To benefit from the same public health approach that has reduced injuries and deaths in other sectors, a deliberate investment must be continued, and researchers must be able to have access to meaningful data.

## Conclusion

Tragedies—like the recent ones in Buffalo, Uvalde, and Highland Park—destroy communities. We know that the presence of assault rifles results in increased numbers of injuries

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<sup>34</sup> Educational Fund to Stop Gun Violence, “Gun Violence Research,” updated July 2020, <https://efsgv.org/learn/learn-more-about-gun-violence/gun-violence-research/>.

<sup>35</sup> Institute of Medicine, *The AIDS Research Program of the National Institutes of Health*, National Academies Press, 1999.

<sup>36</sup> CDC, FY 2023 President’s Budget, 2022, <https://www.cdc.gov/budget/documents/fy2023/fy-2023-cdc-budget-detail.pdf>.

<sup>37</sup> CDC, “HIV in the United States and Dependent Areas,” August 9, 2021, <https://www.cdc.gov/hiv/statistics/overview/ata glance.html>; CDC, National Center for Health Statistics, WONDER database, undated, for age-standardized rates from the “Detailed Mortality File 1999 to 2018” and “Compressed Mortality File 1979 to 1998.”

and deaths in such instances and that these weapons are capable of defeating law enforcement body armor. We also know that strong state gun laws reduce homicide deaths, but people can transport guns across city and state lines, reducing the effectiveness of local laws. We all want safer communities. Investment in research can help inform policies to achieve that goal.