

# A Year in Review

## 2020 GUN DEATHS IN THE U.S.

The Johns Hopkins Center for Gun Violence Solutions

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JOHNS HOPKINS  
BLOOMBERG SCHOOL  
of PUBLIC HEALTH

Center for  
Gun Violence Solutions

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# About this Report

## About the Johns Hopkins Center for Gun Violence Solutions

Two leading organizations dedicated to gun violence prevention—the Johns Hopkins Center for Gun Violence Prevention and Policy and the Educational Fund to Stop Gun Violence—have merged to form a new center at the Johns Hopkins Bloomberg School of Public Health, the Johns Hopkins Center for Gun Violence Solutions.

The Johns Hopkins Center for Gun Violence Solutions combines the expertise of highly respected gun violence researchers with the skills of deeply experienced gun violence prevention advocates. We use a public health approach to conduct rigorous scientific research to identify a range of innovative solutions to gun violence. Because gun violence disproportionately impacts communities of color, we ground our work in equity and seek insights from those most impacted on appropriate solutions. Using the best available science, our Center works toward expanding evidence-based advocacy and policy-making efforts. This combination of expertise creates a unique opportunity to turn public health research into action that reduces deaths and injuries from gun violence.

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## How to Cite This Report

Johns Hopkins Center for Gun Violence Solutions. (2022). A Year in Review: 2020 Gun Deaths in the U.S. Available: <https://publichealth.jhu.edu/gun-violence-solutions>.

## Data Source

This report outlines gun death data from 2020, the most recent year of data available. The purpose of the report is to share data in an accessible and user-friendly format. All data were accessed using the Centers for Disease Control's Underlying Cause of Death database, part of the Wide-ranging Online Data for Epidemiologic Research (WONDER) database. The Underlying Cause of Death database contains data based on death certificates for United States residents. If while reading through this report, you have questions about any of the data or would like to learn more about specific aspects of the data that are not included in this report, please reach out to the team at the Center for Gun Violence Solutions at [CGVS@jh.edu](mailto:CGVS@jh.edu).



# Introduction

Gun violence is an ongoing public health crisis in the United States that impacts the health and well-being of all of us. In 2020, gun deaths reached the highest number ever recorded. According to data released by Centers for Disease Control and Prevention (CDC), more than 45,000 people died by gun violence in the U.S. As we struggled against the COVID-19 pandemic, a concurrent public health crisis intensified. Gun homicides rose dramatically across the country, increasing by 35% in just one year. Nearly 5,000 more lives were lost to gun homicide in 2020 than in 2019. Gun suicides remained at historically high levels. **Guns were the leading cause of death among children and teens in 2020, accounting for more deaths than COVID-19, car crashes, or cancers.**<sup>1</sup>

Coincident with the rise in gun-related deaths, 2020 was also a year of record gun sales. Millions of people, including many first-time purchasers, bought guns. Tens of thousands of these new guns turned up at crime scenes across the country—almost twice as many as in 2019.<sup>2</sup> While it remains to be seen whether this surge in gun purchases contributed to the rise in gun violence over the long term, a strong body of research has identified drivers of gun violence—namely, easy access to guns and weaknesses in our country's laws that create a patchwork of gun regulations.

There are equitable, evidence-based solutions to prevent gun violence. These solutions are supported by most people, including gun owners. In spite of their wide support, many policymakers have been unwilling to follow the evidence and enact policies that will save lives.

The aim of this report is to illustrate the enormous toll gun violence has on our country. Ultimately, we strive to use these data to advocate for and implement life-saving policies and programs that will end the gun violence epidemic. This report builds off of “[A Public Health Crisis Decades in the Making: A Review of 2019 CDC Gun Mortality Data](#)” released by the Educational Fund to Stop Gun Violence in February 2021. Each year it is our mission to provide policymakers and the public the most accurate and up-to-date data on gun fatalities.

This year's report uses the CDC's 2020 firearm fatality data, which only became available in late December 2021—an unacceptable delay that hampers potential responses to gun violence. We cannot solve a problem we cannot quantify. Without timely data, we lack the information we need to make the best possible decisions. Data collection and reporting related to gun violence must be more timely.

We recognize that each data point discussed in this report is a person whose life was lost to gun violence. This loss has an immeasurable impact on the families, friends, and communities; and data can only partly illuminate the true burden of gun violence. In addition to analyzing the data we must listen to and uplift the voices of those directly impacted by gun violence, their loved ones, and their communities.

Yet even on its own, the 2020 CDC data paint an alarming picture of the epidemic of gun violence. It illustrates how people from all walks of life are impacted. These deaths, and the associated pain and suffering, can be prevented. By leveraging the data outlined in this report, we can improve gun violence prevention strategies and create a more peaceful future, free from gun violence.

1 Provisional death counts for Coronavirus disease 2019 (COVID-19). (2022). *National Center for Health Statistics*. Available: [https://www.cdc.gov/nchs/nvss/vsrr/covid\\_weekly/index.htm#SexAndAge](https://www.cdc.gov/nchs/nvss/vsrr/covid_weekly/index.htm#SexAndAge)

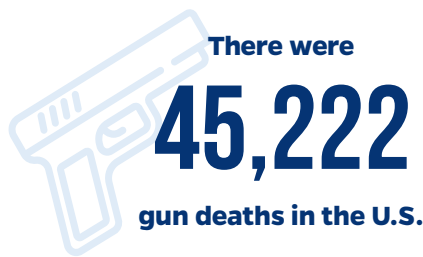
2 Barton C. (2021). New data suggests a connection between pandemic gun sales and increased violence. *The Trace*. Available: <https://www.thetrace.org/2021/12/atf-time-to-crime-gun-data-shooting-pandemic/>



# An Overview of U.S. Gun Deaths in 2020

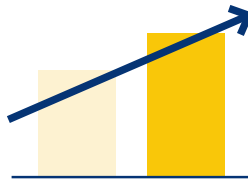
Gun violence was a leading cause of death in 2020. On average, 124 individuals died from gun violence every day in 2020, an additional 15 more gun deaths per day than in 2019. The overall gun death rate increased by 15% from 2019 reaching the highest level ever recorded. This increase was driven by a dramatic rise in gun homicides—nearly 5,000 more gun homicides than in 2019—and persistently high numbers of gun suicides.

## Five Fast Facts for Firearm Fatalities in 2020



The highest number of gun deaths ever in the U.S.

### Gun deaths increased from 2019 to 2020



Firearm homicides  
**increased by 35%**



For the second time in three years, more than 24,000 people died by gun suicide

### Gun violence has a disproportionate impact



Black males ages 15–34 were over

**20x** more likely to be a victim of gun homicide than their white counterparts

### States with stronger gun laws have lower rates of gun violence



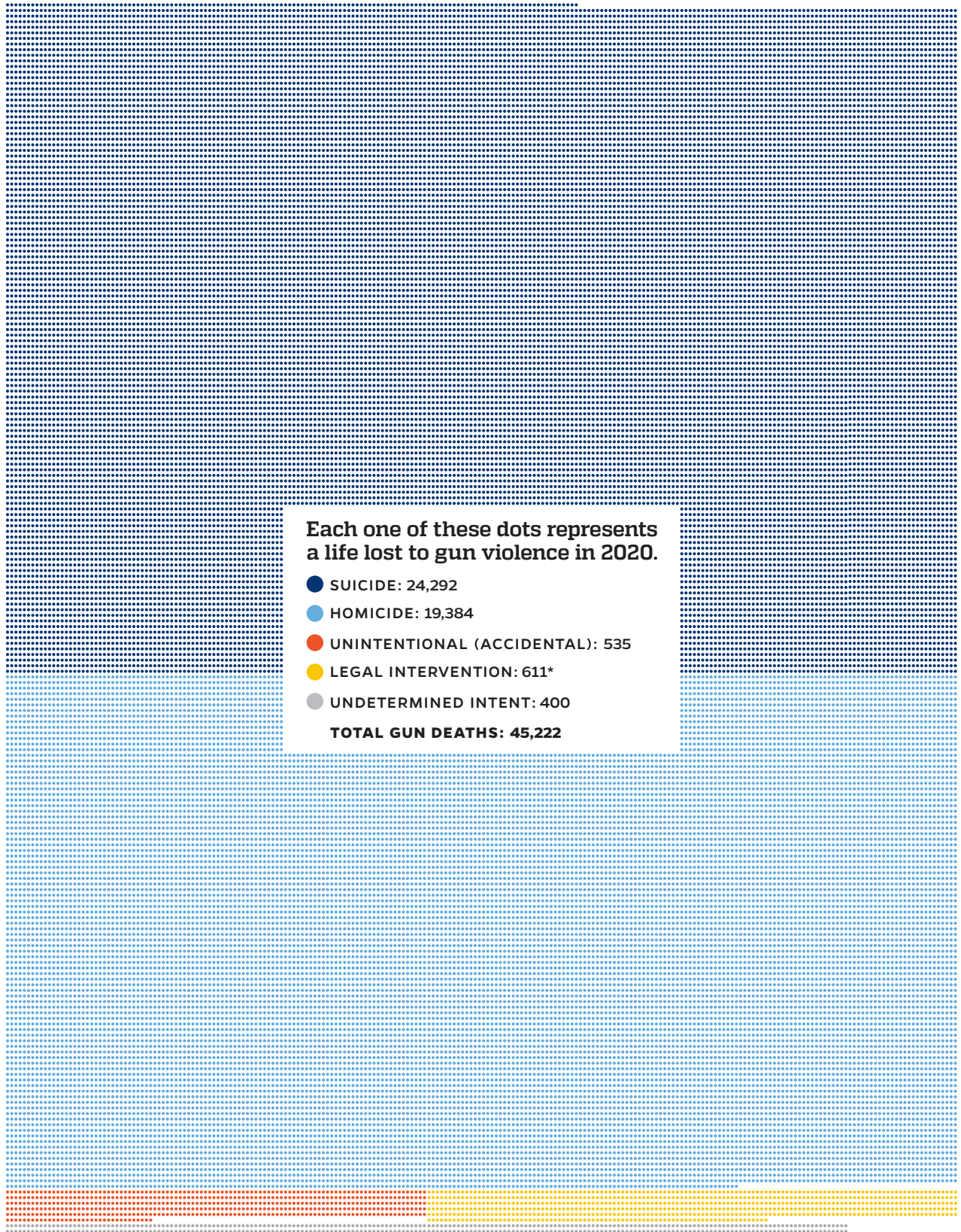
Someone living in Mississippi was  
**8.5x** more likely to die by gun violence than someone living in Hawaii



### Gun violence was the leading cause of death among children, teens, and young adults under the age of 25



Young people under 30 were nearly 10 times more likely to die by firearm than from COVID-19 in 2020



**Note:** \* The CDC data classification “legal intervention” under-counts police-involved gun fatalities. To address this gap, media sources like the Washington Post’s Fatal Force database have tracked police-involved shootings in recent years, reporting that 1,021 people were shot and killed by police in 2020.





# Gun Deaths Over Time

## 2019–2020: A One-Year Spike in Gun Violence

In 2020, gun deaths in the U.S. reached the highest level ever recorded—driven by a dramatic rise in gun homicides. In 2020, more than 45,000 people died from gun violence. The increase coincided with a number of unique factors, including COVID-19, record increases in gun sales, widespread social unrest in the aftermath of George Floyd’s murder, and deep political divisions further exacerbated by attempts to overturn an election.

### QUICK TAKEAWAYS:

- Firearm homicides increased by nearly 5,000 deaths, or 35%, from 2019 to 2020. The firearm homicide spike was experienced in communities across the country—both rural and urban.
- The overall gun death rate among children and teens under age 19 increased by 30%—this increase was driven by a dramatic (40%) increase in the gun homicide rate and 11% increase in the gun suicide rate.
- There was a 47% increase in the firearm homicide rate among Black women from 2019 to 2020.
- The rate of gun suicides was the second highest in three decades, and 2020 was only the second time ever there were over 24,000 gun suicides.



## Domestic Violence, Firearms, and COVID-19

Domestic violence has been deemed the “pandemic within a pandemic.”<sup>3</sup> During COVID-19 lockdowns, victims and survivors of domestic violence faced unique vulnerabilities as they were quarantined with their abusers, including being unable to access the safety planning, victim advocacy, counseling, shelter, or legal services they would have traditionally relied on to escape abusive situations. The added stressors of the pandemic, including economic stressors and isolation, often caused abuse to further escalate. Research shows that access to firearms is one of the primary predictors of lethality in abusive relationships, and even when not used fatally, firearms are a tool for ongoing coercive control and threats. While the CDC data do not show how many of the gun violence deaths were related to domestic violence, studies show that there was an increase in domestic violence during the COVID-19 epidemic.<sup>4</sup> FBI data from 2020 show that over 1,400 individuals were murdered by current or former dating partners or spouses.<sup>5</sup> More information on the intersection of domestic violence and firearms is available at [www.disarmdv.org](http://www.disarmdv.org).

## Gun Deaths Over the Last 40 Years

The crisis of gun violence in the United States is not new. For over four decades, people have suffered from persistently high gun death rates. Over this time, 1,357,000 people have died from gun violence. This is more than the number of Americans who have died in wars fought throughout U.S. history.<sup>6</sup>

3 Evans ML, Lindauer M, & Farrell ME. (2020). A pandemic within a pandemic — Intimate partner violence during Covid-19. *The New England Journal of Medicine*.

4 Piquero AR, Jennings WG, Jemison E, Kaukinen C, & Knaul FM. (2021). Domestic violence during COVID-19: Evidence from a systematic review and meta-analysis. *Council on Criminal Justice*. Available: <https://build.neoninspire.com/counciloncj/wp-content/uploads/sites/96/2021/07/Domestic-Violence-During-COVID-19-February-2021.pdf>

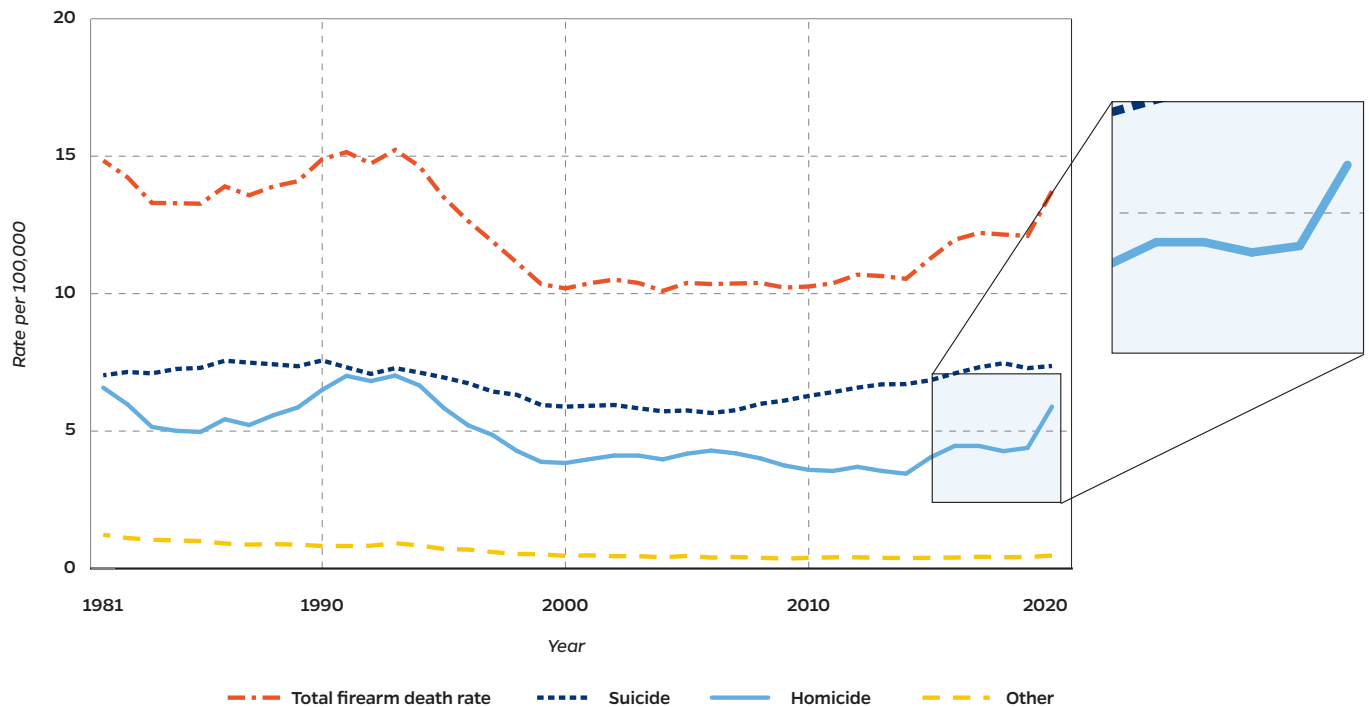
5 Federal Bureau of Investigation crime data explorer. (2021). *FBI Uniform Crime Reporting Program*. Available: <https://crime-data-explorer.fr.cloud.gov/pages/home>

6 Crigger M & Santhanam L. (2015). How many Americans have died in U.S. wars? *PBS*. Available: <https://www.pbs.org/newshour/nation/many-americans-died-u-s-wars>



The overall firearm suicide rate hasn't fluctuated much over the last 40 years. It dipped slightly in the 2000s before starting to rise in the 2010s. In 2020, the firearm suicide rate remained at essentially the same level it was in 1981. The firearm homicide rate has fluctuated much more than the gun suicide rate. It peaked in the early 1990s, declined significantly, and then leveled off in the 2000s. The gun homicide rate spiked in 2015–2016; and in 2020, the gun homicide rate experienced the largest one-year increase in modern history. Despite this monumental one-year spike, the gun homicide rate is still lower than it was in the early 1990s.

**FIGURE 1: Firearm Death Rate, 1980–2020**

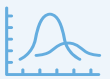


**Note:** The gun death rates depicted in the graph above are classified from two versions of the International Classification of Diseases (ICD). The data from 1981 to 1998 were classified using ICD-9 codes, and from 1999 to 2020 classified using ICD-10.

### WHY USE RATES?

The numbers of gun deaths can help illustrate the burden of gun violence in a particular population. However, because the total population varies by geographic area and over time, firearm death rates (typically measured as the number of gun deaths per 100,000 people) provide an important measure for comparison.

For example, 2020 had the highest **number** of gun deaths ever, but not the highest **rate** because the U.S. population in 2020 was larger than in prior years. While there were fewer gun **deaths** in the early 1990s, the gun death **rate** in the early 1990s was higher than it is today because the number of gun deaths compared to the population was higher.<sup>7</sup>



<sup>7</sup> Rates in this report are generally age-adjusted. Age adjustment allows for accurate comparisons between populations with different age distributions. To learn more about age adjustment see the definition in the glossary.





# Policy Recommendations

Gun violence is a complex issue requiring many approaches to its prevention. We are committed to evidence-based policies, programs, and practices and ensuring that all of these preventative measures are designed and implemented equitably. Below, we highlight a few promising policy recommendations to stop gun violence in all its forms. For more information on gun violence solutions, visit our website at <https://publichealth.jhu.edu/gun-violence-solutions>.



## States should implement firearm purchaser licensing (also known as permit-to-purchase) that requires prospective gun purchasers to obtain a license prior to buying a gun.

- Firearm purchaser licensing systems create a robust structure to verify individuals' identities and ensure they are not prohibited from gun ownership. Background checks as part of a firearm purchaser licensing system often are facilitated using fingerprints and utilize records at the state level that might not have been reported to the federal system. Firearm purchaser licensing laws are associated with lower rates of diversion of guns for use in crime, homicide and suicide by firearm, mass shootings, and shootings by police.<sup>8,9,10,11</sup> These laws are supported by more than 75% of adults, including more than 60% of gun owners and Republicans.<sup>12</sup>



## States should enact and implement firearm removal laws—Domestic Violence Protection Orders (DVPOs) and Extreme Risk Protection Orders (ERPOs).

- DVPOs are civil court orders to protect victims and survivors of domestic abuse, including dating partners. Federal law prohibits anyone subject to a DVPO issued after notice and hearing from purchasing or possessing firearms. Research shows that the stronger the DVPO protections, the stronger the life-saving benefits. For example, the largest reductions in intimate partner homicide connected to DVPO firearm restrictions are those that extend to dating partners, temporary or emergency orders, and those that explicitly require defendants to surrender their firearms.<sup>13</sup>
- ERPO laws, which are modeled off of DVPOs, create a civil process allowing law enforcement, family members, and, in some states, medical professionals to petition a court to temporarily separate someone at risk of harming themselves or others from their firearms. ERPOs also prohibit individuals from acquiring new guns for the duration of the order. ERPO laws are associated with lower rates of firearm suicide and have been successfully used in response to threats of mass shootings. Law enforcement-initiated ERPOs are supported by 76% of adults, including more than 65% of gun owners and Republicans. Family-initiated ERPOs are supported by 80% of adults, including more than 70% of gun owners and Republicans.<sup>14</sup>

8 Crifasi CK, McCourt AD, & Webster DW. (2020). The impact of handgun purchaser licensing on gun violence. *Johns Hopkins University Bloomberg School of Public Health*. Available: [https://www.jhsph.edu/research/centers-and-institutes/johns-hopkins-center-for-gun-violence-prevention-and-policy/\\_docs/Impact\\_of\\_Handgun.pdf](https://www.jhsph.edu/research/centers-and-institutes/johns-hopkins-center-for-gun-violence-prevention-and-policy/_docs/Impact_of_Handgun.pdf)

9 McCourt AD, Crifasi CK, Stuart EA, Vernick JS, Kagawa RMC, Wintemute GJ, & Webster DW. (2020). Purchaser licensing laws, point-of-sale background check laws, and firearm homicide and suicide in 4 US States, 1985-2017. *American Journal of Public Health*.

10 Webster DW, McCourt AD, Crifasi CK, Booty MD, & Stuart EA. (2020). Evidence concerning the regulation of firearms design, sale, and carrying on fatal mass shootings in the United States. *Criminology and Public Policy*.

11 Crifasi CK, Pollack K, & Webster DW. (2016). The influence of state-level policy changes on the risk environment for law enforcement officers. *Injury Prevention*.

12 Barry CL, Stone E, Crifasi CK, Vernick JS, Webster DW, & McGinty EE. (2019). Trends in Americans' support for gun policies. *Health Affairs*.

13 Zeoli AM, McCourt A, Buggs S, Frattaroli S, Lilley D, & Webster DW. (2018). Analysis of the strength of legal firearms restrictions for perpetrators of domestic violence and their associations with intimate partner homicide. *American Journal of Epidemiology*.

14 Barry CL, Stone E, Crifasi CK, Vernick JS, Webster DW, & McGinty EE. (2019). Trends in Americans' support for gun policies. *Health Affairs*.



## Cities should prioritize funding for Homicide Review Commissions (HRC) and community violence intervention (CVI).

- Homicide Review Commissions (HRC) are a public health and public safety partnership that seek to analyze patterns and trends in gun violence, gather community input, and generate recommendations for action. An HRC is comprised of three committees: a criminal justice review, a community-based review, and an executive committee review. The HRC is led by a public health researcher who serves as a neutral convener to review data, synthesize findings, and generate recommendations. Prior research of Milwaukee's HRC found a 50% decline in homicide in the intervention districts compared to control districts.<sup>15</sup>
- Community violence interventions (CVI) are promising programs that aim to identify and support the small number of people at risk for violence by helping them peacefully resolve conflicts and providing them with wraparound mental health and social support. CVI is most effective when cities first establish an inter-agency process, like a Homicide Review Commission, to identify the drivers of violence within a city and deploy resources comprehensively to address these drivers of violence. Promising CVI initiatives that can help reduce violence include: violence interruption programs, group violence intervention strategies, violence reduction through blight remediation, hospital-based violence intervention programs, programs that use cognitive behavioral therapy, and programs that provide life coaching and case management to those at risk for violence.

Gun violence prevention advocates, policy makers, and researchers should ensure that the policies they pursue to reduce gun violence are equitable and don't unintentionally harm the very communities they aim to help. To do this, stakeholders should consider using a Racial Equity Impact Assessment (REIA) to examine policies through an equity lens, engage with impacted communities, anticipate the potential outcomes, and mitigate foreseeable risks. The Educational Fund to Stop Gun Violence and DC Justice Lab—in collaboration with five other organizations—have developed a [Racial Equity Impact Assessment Tool](#) specifically designed for gun violence.<sup>16</sup>

<sup>15</sup> Azrael D, Braga AA, & O'Brien ME. (2010). Developing the capacity to understand and prevent homicide: An evaluation of the Milwaukee Homicide Review Commission. *National Institute of Justice*. Available: <https://nij.ojp.gov/library/publications/developing-capacity-understand-and-prevent-homicide-evaluation-milwaukee>

<sup>16</sup> Educational Fund to Stop Gun Violence, DC Justice Lab, Cities United, March for Our Lives, Community Justice Action Fund, Consortium for Risk-Based Firearm Policy, and Johns Hopkins Center for Gun Violence Prevention and Policy. (2022). *Racial Equity Framework for Gun Violence Prevention*. <https://efsgv.org/racialequity/>

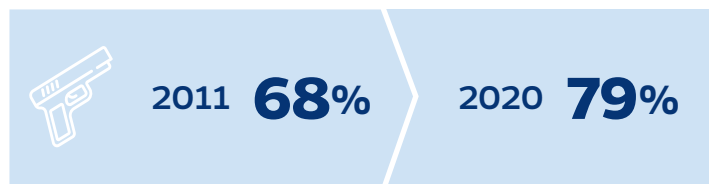


# The Lethality and Availability of Firearms

Due to their high lethality and availability, firearms fuel our nation's high suicide and homicide rates. Nearly 80% of all homicides and more than half of all suicides are by firearm. Yet far too often, the role of firearms is left out of policy and programmatic efforts to reduce homicides and suicides. In order to effectively prevent these tragedies, we need to incorporate policy solutions that acknowledge the lethality of firearms and address their availability, especially among those at an elevated risk for suicide or interpersonal violence.

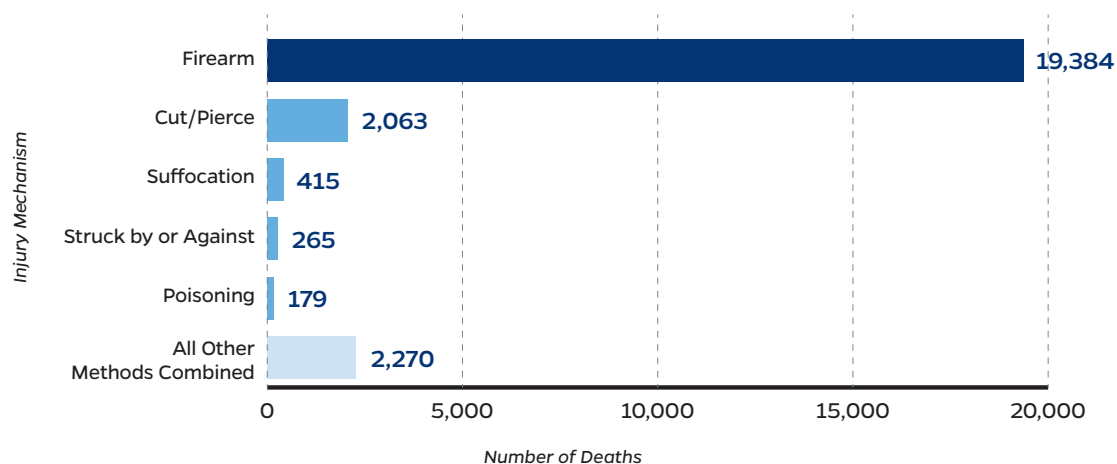
## Homicides

In 2020, 79% of all homicides were by firearm, the highest proportion of homicides by firearm in history:



- The lethality and availability of guns drive our nation's high homicide rate. In fact, other high-income countries with fewer guns and stronger gun laws have comparable rates of violent assault to the U.S., but the U.S. has a firearm homicide rate 25 times higher than other high-income countries.<sup>17</sup>
- Guns are used in homicides nine times more than the second most common method of homicide (cutting/piercing) and 47 times more than suffocation.
- The increase in homicides from 2019 to 2020 was driven almost exclusively by firearms. Firearm homicides increased by 35% from 2019 to 2020. Non-firearm homicides only increased by 10% during the same period.

**FIGURE 2: Homicides by Method, 2020**



**Note:** The "All other methods combined" category includes: Unspecified injury (1,375 deaths), Other specified, not elsewhere classified injury (450), Other specified, classifiable injury (187), Fire/flame (116), Other land transport (99), Drowning (26), Fall (14), and Hot object/substance (3).

<sup>17</sup> Grinshteyn E & Hemenway D. (2019). Violent death rates in the US compared to those of the other high-income countries, 2015. *Preventive Medicine*.

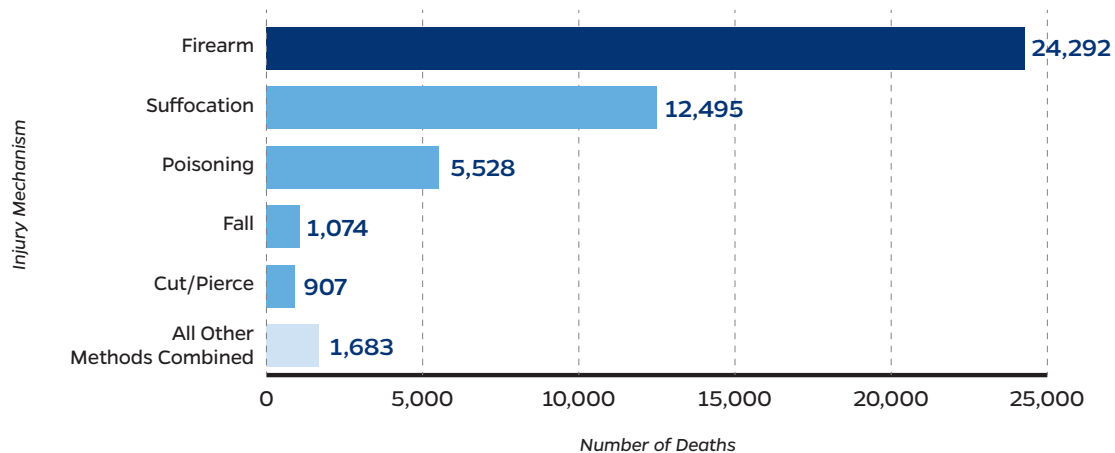


## Suicides

In 2020, 53% of all suicides were by firearm:

- Access to lethal means, like firearms, greatly increases the risk that a suicide attempt will result in death. 90% of suicide attempts involving firearms are fatal.<sup>18</sup>
- Because firearms are so lethal, they account for more than half of all suicide deaths even though they make up less than 10% of all suicide attempts.<sup>19</sup>
- Drug poisoning and cutting account for around 80% of all suicide attempts, but fewer than 1 in 20 suicide attempts involving these methods result in death.<sup>20</sup>
- Delaying a suicide attempt can also allow suicidal crises to pass and lead to fewer suicides. Ninety percent of individuals who attempt suicide do not eventually go on to die by suicide.<sup>21</sup>
- Guns are used in suicides twice as often as the second most common method of suicide (suffocation) and 27 times more than cutting/piercing.

**FIGURE 3: Suicides by Method, 2020**



**Note:** The “All other methods combined” category includes: Other specified, classifiable injury (638 deaths), Drowning (498), Fire/flame (175), Other land transport (161), Other specified, not elsewhere classified injury (125), and Unspecified injury (86).

18 Azrael D & Miller M. (2016). Reducing suicide without affecting underlying mental health: Theoretical underpinnings and a review of the evidence base linking the availability of lethal means and suicide. *The International Handbook of Suicide Prevention*.

19 Conner A, Azrael D, & Miller M. (2019). Suicide case-fatality rates in the United States, 2007 to 2014. A nationwide population-based study. *Annals of Internal Medicine*.

20 Ibid.

21 Owens D, Horrocks J, & House A. (2002). Fatal and non-fatal repetition of self-harm. Systematic review. *The British Journal of Psychiatry*.



# The Burden of Gun Violence Relative to Other Injuries and Diseases

## A Leading Cause of Death Among Young People

Gun violence is the leading cause of death among children, teens, and young adults under the age of 25, taking the lives of over 10,000 young people in 2020 alone. When young people are shot and killed, they lose decades of potential: the potential to grow up, have a family, contribute to society, and pursue their passions in life. These losses are felt across neighborhoods and communities.

Compared to other causes of death, gun violence often poses a larger burden on society in terms of years of potential life lost. Years of potential life lost calculations estimate the average time a person would have otherwise been expected to live if they did not die prematurely. In 2020, firearm deaths accounted for 1,131,105 years of potential life lost before the age of 65—more than diabetes, stroke, and liver disease combined.<sup>22</sup>

Shockingly, firearms also had a much larger burden on young people in terms of mortality than COVID-19 did in 2020. In fact, young people under the age of 30 were nearly 10 times more likely to die by firearm than by COVID-19 in 2020.<sup>23,24</sup> In 2020, firearms also accounted for 1.6 times more years of potential life lost before the age of 65 than COVID-19.<sup>25</sup> These comparisons are not meant to diminish the unprecedented toll of the COVID-19 epidemic and the devastating effect it had on the same communities disproportionately impacted by gun violence, but they do help illuminate the often overlooked public health epidemic of gun violence that impacts our country year after year.

Despite the enormous toll of gun violence, scant attention and only minimal funding are allocated to prevent this leading cause of death. We must treat gun violence with the same urgency we have addressed COVID-19 and other public health crises. Every week we delay action on gun violence prevention, hundreds of young people—including children—are needlessly killed.

## IMPACT ON CHILDREN, TEENS, AND YOUNG ADULTS

- Firearms were the leading cause of death for children and teens ages 1–19, prematurely taking the lives of 4,357 young people.
- Homicides are the most common type of gun death among children and teens—64% of child and teen gun deaths were homicides and 30% were suicides.
- While teenagers account for the majority of these deaths, younger children are not immune. An average of eight children ages 0–12 were killed by guns every single week in 2020.
- Every 2.5 days a child or teen was killed by an unintentional gun injury.
- Black children and teens face alarmingly high rates of gun victimization. More than half of all Black teens (15–19) who died in 2020—a staggering 52%—were killed by gun violence.

22 WISQARS years of potential life lost (YPLL) Report, 1981–2020. (2020). *Centers for Disease Control and Prevention*. Available: <https://wisqars.cdc.gov/ypll>

23 According to provisional CDC data, there were 1,682 deaths due to COVID-19 in 2020 among those ages 0–29. There were 15,835 firearm deaths among this population.

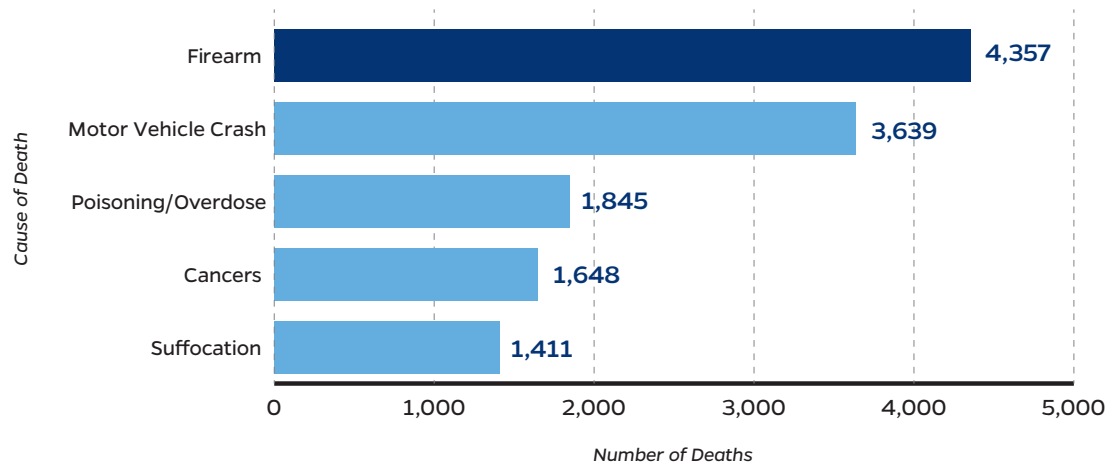
24 Provisional death counts for Coronavirus disease 2019 (COVID-19). (2022). *National Center for Health Statistics*. Available: [https://www.cdc.gov/nchs/nvss/vsrr/covid\\_weekly/index.htm#SexAndAge](https://www.cdc.gov/nchs/nvss/vsrr/covid_weekly/index.htm#SexAndAge)

25 WISQARS years of potential life lost (YPLL) Report, 1981–2020. (2020). *Centers for Disease Control and Prevention*. Available: <https://wisqars.cdc.gov/ypll>



- Gun violence remains a leading cause of death for young adults in their 20s and 30s. These age groups are particularly impacted by gun homicide. People ages 20–39 years old made up 27% of the population but accounted for 61% of all homicide victims in 2020.

**FIGURE 4: Leading Causes of Death, Ages 1–19**

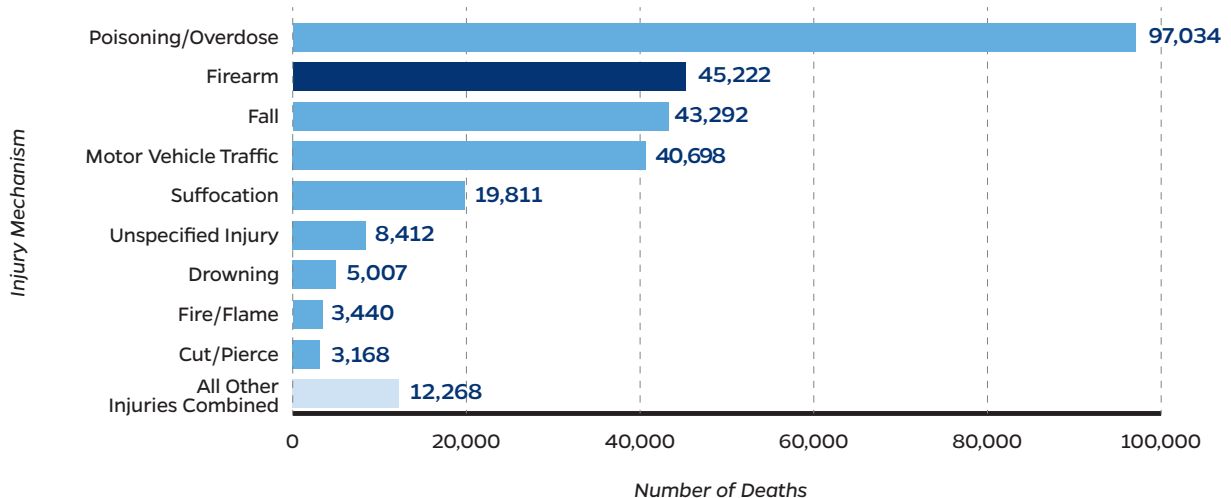


**Note:** We chose not to include infant deaths in our analyses, as infants (under age 1) are at a unique risk for age-specific causes of death, including perinatal period deaths and congenital anomalies. In 2020, 11 infants were killed by firearms. There were 1,711 deaths classified as “all other diseases” making it the fourth leading cause of death behind poisoning/overdose.

## Firearm Fatalities Compared to Other Forms of Fatal Injuries

Injuries make up a substantial burden of premature death in the United States, and among injury mechanisms, firearms are one of the deadliest. In 2020, firearms contributed to the second most injury fatalities in the U.S., surpassed only by poisonings (overdose).

**FIGURE 5: Total Injury Deaths by Mechanism, 2020**



**Note:** The “All other injuries combined” category includes: Natural/environmental (2,118 deaths), Other specified, not elsewhere classified injury (2,002), Other land transport (1,696), Struck by or against (1,173), Other transport (938), Other pedestrian (899), Machinery (530), Other pedal cyclist (454), Hot object/substance (89), Overexertion (20).



## Firearm Fatalities Compared to Car Crashes

The burden of firearm mortality is often compared to car crashes, in part because their numbers are similar. In the last four years, however, for the first time more people died by guns than by car crashes (in 2020, there were 45,222 and 40,698 deaths, respectively). However, there are vast differences in exposure to motor vehicles compared to firearms. The average person spends around eight hours per week in their car.<sup>26</sup> Cars are a part of our daily lives, while, for many people, firearms are not.

By using a comprehensive public health approach to car safety that included vehicle and road design improvements, the United States reduced per-mile driving deaths by nearly 80% from 1967 to 2017 (see figure 6).<sup>27</sup> This public health approach to car safety prevented more than 3.5 million deaths over 50 years.<sup>28</sup> Reducing motor vehicle injuries and their severity has long been a focus of injury prevention policy. While there is more work to do, substantial reductions have been made. A similarly comprehensive approach to gun violence prevention also holds promise.<sup>29,30</sup>

To learn more about this approach, read the Educational Fund to Stop Gun Violence report entitled “[The Public Health Approach to Gun Violence Prevention](#).”

	Preventing Car Crashes 	Preventing Gun Deaths 
 <b>Research</b>	Allocate funds to study the epidemic of motor vehicle crashes.	Allocate federal funds to research gun violence.
 <b>Industry Regulations and Oversight</b>	Federal agencies regulate car manufacturers and ensure car safety.  Cars are monitored and regulated, and recalls are issued for unsafe models. Manufacturers are held liable if they sell a dangerous vehicle.	Allow federal agencies to regulate firearm manufacturers, require gun safety components, and ensure industry accountability and liability for reckless practices.
 <b>Licensing</b>	Drivers must submit an application and pass a test to obtain a driver's license.	Require firearm purchasers to submit an application, undergo a background check, get fingerprinted, and take safety education to obtain a license to own a firearm.
 <b>Prohibiting Risky People</b>	Reckless and drunk driving laws ensure that risky individuals do not endanger others on the road.	Expand firearm prohibitions to include individuals who are at elevated risk for violence.
 <b>Age Requirements</b>	Age requirements for obtaining a driver's license, including a graduated licensing system (driver's permit) for young drivers.	Enact stronger age requirements for owning or possessing all types of firearms.

26 How much time do Americans spend behind the wheel? (2017). U.S. Department of Transportation. Available: <https://www.volpe.dot.gov/news/how-much-time-do-americans-spend-behind-wheel>

27 Traffic safety facts: A compilation of motor vehicle crash data. (2020). National Highway Traffic Safety Administration. Available: <https://cdan.nhtsa.gov/tsftables/tsfar.htm>

28 On 50th anniversary of Ralph Nader's 'Unsafe at Any Speed,' safety group reports auto safety regulation has saved 3.5 million lives. (2015). The Nation. Available: [www.thenation.com/article/archive/on-50th-anniversary-of-ralph-naders-unsafe-at-any-speed-safety-group-reports-auto-safety-regulation-has-saved-3-5-million-lives/](http://www.thenation.com/article/archive/on-50th-anniversary-of-ralph-naders-unsafe-at-any-speed-safety-group-reports-auto-safety-regulation-has-saved-3-5-million-lives/)

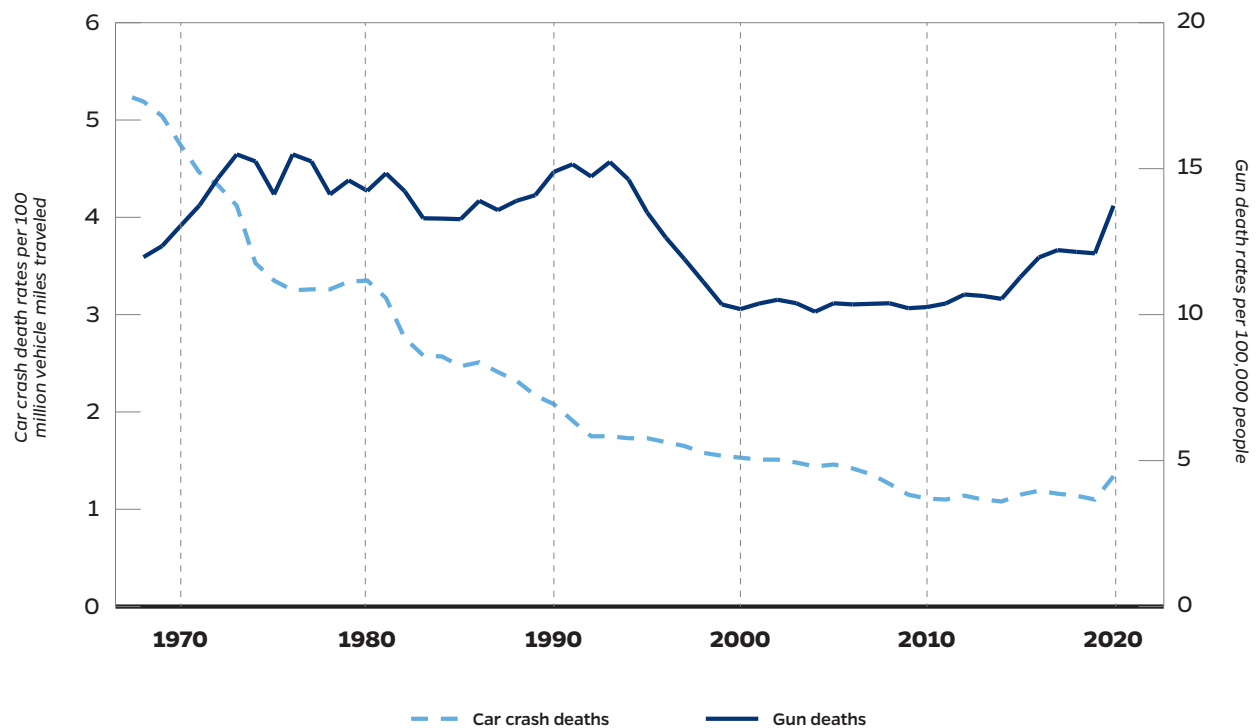
29 Mozaffarian D, Hemenway D, & Ludwig DS. (2013). Curbing gun violence: Lessons from public health successes. JAMA Network Open

30 The Public Health Approach to Gun Violence Prevention. (2020). Educational Fund to Stop Gun Violence. Available: [www.efsgv.org/PublicHealthApproachToGVP](http://www.efsgv.org/PublicHealthApproachToGVP)





**FIGURE 6: Comparison of Car Crash Deaths and Gun Deaths Over Time<sup>31</sup>**



**Note:** This graph depicts the gun death rate per 100,000 people (ICD code classifications 8-10) and the car crash fatality rate per 100 million vehicle miles traveled as reported by the National Highway Traffic Safety Administration. Because car use has increased dramatically over the last 50 years, examining the fatality rate per million miles traveled more accurately depicts how much safer cars have become, and as a result, how many fatalities have been prevented.

<sup>31</sup> National Highway Traffic Safety Administration. Traffic safety facts annual report tables. Motor vehicle traffic fatalities and fatality rates. Available: <https://cdan.nhtsa.gov/tsftables/tsfar.htm>



# Gun Deaths by Demographic Groups

To stop gun violence in all its forms, we must implement broad prevention efforts to reduce risk to the population as a whole, together with tailored solutions for high-risk populations. Understanding how risk differs across the population by sex, race/ethnicity, and age, and broken down by gun death intent (homicide and suicide), is critical for designing these interventions.

While nobody is immune from gun violence, some demographic groups are at much higher risk than others:



**By sex:** Males are much more likely to die by all forms of gun violence than females.

- Nearly nine in ten (87%) firearm suicide decedents and 85% of homicide victims were male in 2020.
- Males were five times more likely to be gun homicide victims than females.
- Males were nearly seven times more likely to die by firearm suicide than females.



**By age:** In general, young people are most impacted by gun homicides and elderly people are most impacted by gun suicides.

- Young people ages 15–34 years old are at the highest risk for dying by firearm homicide. They had a gun homicide rate twice the national average and accounted for three out of every five gun homicide victims.
- Elderly people ages 75 and older are at the highest risk for dying by gun suicide. They had a gun suicide rate twice the national average.



**By race/ethnicity:** In general, white people are overrepresented among gun suicide decedents and Black people are disproportionately impacted by gun homicides.

## CDC DEMOGRAPHIC CATEGORIES

### The Need for More Inclusive Classifications

The demographic categories used by the CDC WONDER database are limited, and we acknowledge that these categorizations are not inclusive of all racial, ethnic, and gender identities. However, because this report is an analysis of CDC WONDER data, we chose to list the categories and labels used by the CDC.

While Hispanic origin is classified by the CDC as an ethnicity, not a race category, we chose to use “Hispanic or Latino” as a distinct category regardless of race, and selected “Not Hispanic or Latino” for each of the race categories. This ensured that individuals were not counted twice in different demographic groups and follows common practice used by the CDC for data analyses.

Ultimately, more nuanced and inclusive data classification is needed to understand and address how gun violence impacts different demographic groups.





People of different races and ethnicities in the U.S. are impacted by gun violence differently. This is a result of social and economic factors that are associated with increased risk of violence. For example, gun homicides are highly concentrated within neighborhoods composed of predominantly Black and Hispanic/Latino residents. These neighborhoods face a host of systemic inequalities—hypersegregation, discrimination, lack of economic opportunities, and under-resourced public services. As a result, young Black and Hispanic/Latino people, particularly males, are disproportionately impacted by gun homicide. In contrast, elderly white men are at increased risk for gun suicide because this demographic is most likely to live in more rural communities with limited availability of mental health services and easy access to firearms.<sup>32,33</sup>

### Black/African American:

- Black people are at highest risk for gun homicide. They were more than 12 times more likely to be a victim of gun homicide than white people.
- Black men were 15 times more likely to die by firearm homicide than white men.
- Black women were more than five times more likely to die by firearm homicide than white women.
- Gun suicides among Black teenagers and young men ages 15–24 doubled from 2011 to 2020.
- Gun suicides among Black teenagers and young women ages 15–24 have increased dramatically over the last decade. The gun suicide rate nearly doubled from 2012 to 2020.<sup>34</sup>

### BLACK PEOPLE ARE DISPROPORTIONATELY IMPACTED BY GUN HOMICIDE

- In 2020, one out of every 1,000 young Black males (15–34) was shot and killed. Young Black males (15–34) are disproportionately impacted—although they represented 2% of the total population in the U.S., they accounted for 38% of all gun homicide fatalities in 2020. Their rate of firearm homicide was almost 21 times higher than white males of the same age group.
- The firearm homicide rate among young Black females (15–34) was seven times higher than white females of the same age group.
- In 2020, there was a 49% increase in Black females who died by gun homicide compared to 2019.

**These racial disparities are largely the result of structural inequities that increase the risk of interpersonal violence.**



### Hispanic/Latino:

- Hispanic/Latino people were twice as likely to die by gun homicide than their white counterparts.
- Hispanic/Latino men were 2.5 times more likely to die by firearm homicide than white men.
- Among Hispanic/Latino teenagers and young women ages 15–24, the gun suicide rate was 2.6 times higher in 2020 than it was in 2011.
- Hispanic/Latino people in New Mexico had a gun violence death rate 2.5 times higher than the rate for Hispanic/Latino people nationally. In fact, the homicide rate was nearly two times higher and the suicide rate was 3.2 times higher than the average homicide and suicide rates for Hispanic/Latino people in 2020.

32 Ibrahim SE, Xiao Y, Bergeron CD, & et al. (2021). Suicide distribution and trends among male older adults in the U.S., 1999–2018. *American Journal of Preventive Medicine*.

33 Steelesmith DL, Fontanella CA, & Campo JV. (2019). Contextual factors associated with county-level suicide rates in the United States, 1999 to 2016. *JAMA Network Open*.

34 We used 2012 instead of 2011 because the gun suicide rate among Black females ages 15–34 was reported as unreliable in 2011 (fewer than 20 fatalities).



## American Indian/Alaska Native:

- American Indian/Alaska Native people were 3.7 times more likely to be a victim of firearm homicide compared to their white counterparts.
- American Indian/Alaska Native women were two times more likely to be firearm homicide victims than white women.
- American Indian/Alaska Native males had the highest firearm suicide rate compared to the other races/ethnicities. While the available data highlight the gun violence many American Indian/Alaska Native people face, the data on this demographic under-report the true number of victims of gun violence. This is a result of incomplete and inconsistent reporting of missing persons especially among females, as well as misclassification of race and ethnicity categories among American Indian/Alaska Native people.<sup>35</sup>

## White:

- White males are overrepresented among gun suicides. White males accounted for 30% of the U.S. population but 72% of all firearm suicide decedents in 2020.
- White men over the age of 34 made up 18% of the U.S. population but accounted for 54% of all gun suicides in 2020. Gun ownership is most common among white men with about half (48%) of all white men reporting that they own a gun.<sup>36</sup>
- White females were overrepresented among female gun suicide decedents. In 2020, white females made up 60% of the female population in the U.S. but accounted for 84% of all female firearm suicide decedents.

## Asian/Pacific Islander:

- Although Asian/Pacific Islander people had the lowest gun death rates of all races and ethnicities, 531 Asian/Pacific Islander people died by firearm in 2020.
- Among young Asian/Pacific Islander males ages 15–24, the gun suicide rate was 2.4 times higher in 2020 than it was in 2011.
- The proportion of suicides carried out by firearm among Asian/Pacific Islander people was far lower than other racial or ethnic groups. For example, in 2020, 25% of all suicides among Asian/Pacific Islander people were by firearm. By comparison, 56% of all suicides among white people were by firearm. The low gun suicide rate among Asian/Pacific Islander people is likely because they have lower rates of gun ownership.
- Anti-Asian hate crimes, sparked by the COVID-19 pandemic, increased by 76% from 2019 to 2020 and another 339% from 2020 to 2021. As discrimination and violence against Asian/Pacific Islander people continues to increase, Asian/Pacific Islander people are buying guns for protection against hate crimes. This is concerning because increased gun ownership is associated with increases in non-fatal firearm injuries and deaths.<sup>37,38,39</sup>

35 Healy J. (2019). In Indian country, a crisis of missing women. And a new one when they're found. *New York Times*. Available: <https://www.nytimes.com/2019/12/25/us/native-women-girls-missing.html>

36 Parker K, Horowitz JM, Igielnik R, Oliphant JB, & Brown A. (2017). The demographics of gun ownership. *Pew Research Center*. Available: [www.pewresearch.org/social-trends/2017/06/22/the-demographics-of-gun-ownership/](http://www.pewresearch.org/social-trends/2017/06/22/the-demographics-of-gun-ownership/)

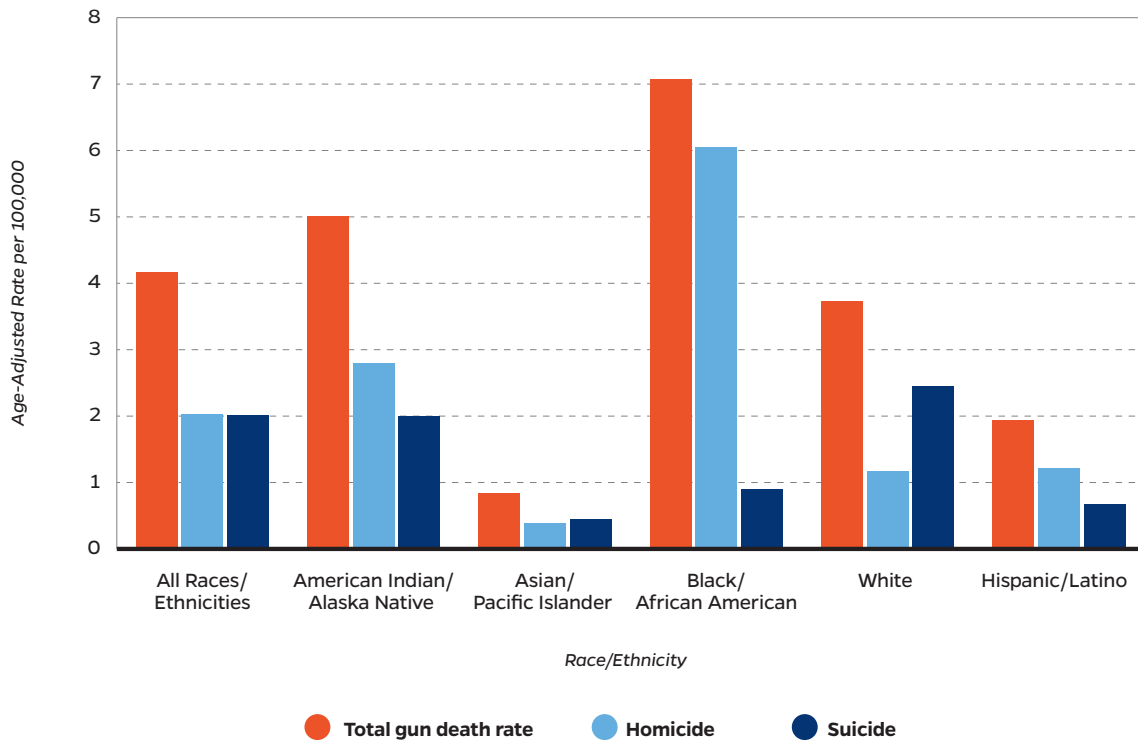
37 Fact sheet: Anti-Asian prejudice March 2021. (2021). *Center for the Study of Hate & Extremism*. Available: [www.csusb.edu/sites/default/files/FACT%20SHEET-%20Anti-Asian%20Hate%202020%20rev%203.21.21.pdf](http://www.csusb.edu/sites/default/files/FACT%20SHEET-%20Anti-Asian%20Hate%202020%20rev%203.21.21.pdf)

38 Choi J. (2022). Anti-Asian hate crimes in US spiked 339 percent in 2021: Report. *The Hill*. Available: <https://thehill.com/blogs/blog-briefing-room/news/592191-anti-asian-hate-crimes-in-us-spiked-339-percent-in-2021-report>

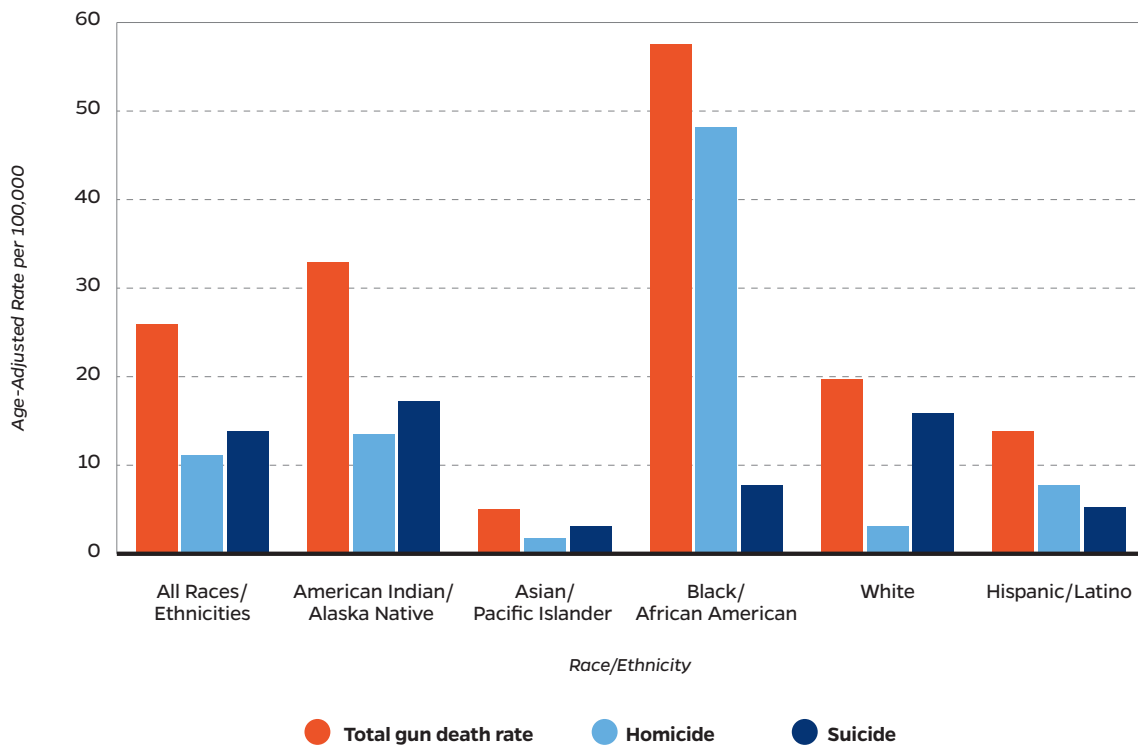
39 How the firearms industry markets guns to Asian Americans. (2021). *Violence Policy Center*. Available: <https://vpc.org/studies/AAPi2021.pdf>



**FIGURE 7: Female Gun Death Rates by Race/Ethnicity, 2020**

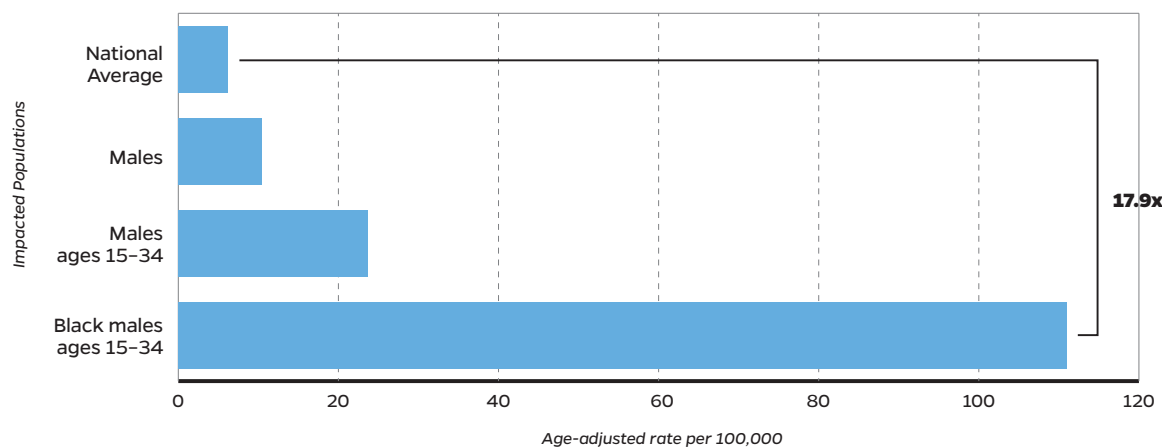


**FIGURE 8: Male Gun Death Rates by Race/Ethnicity, 2020**

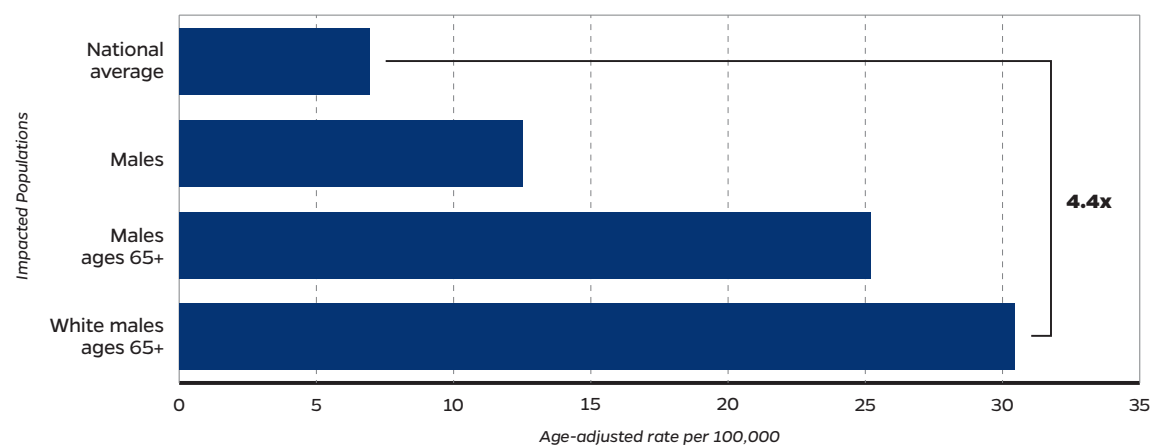




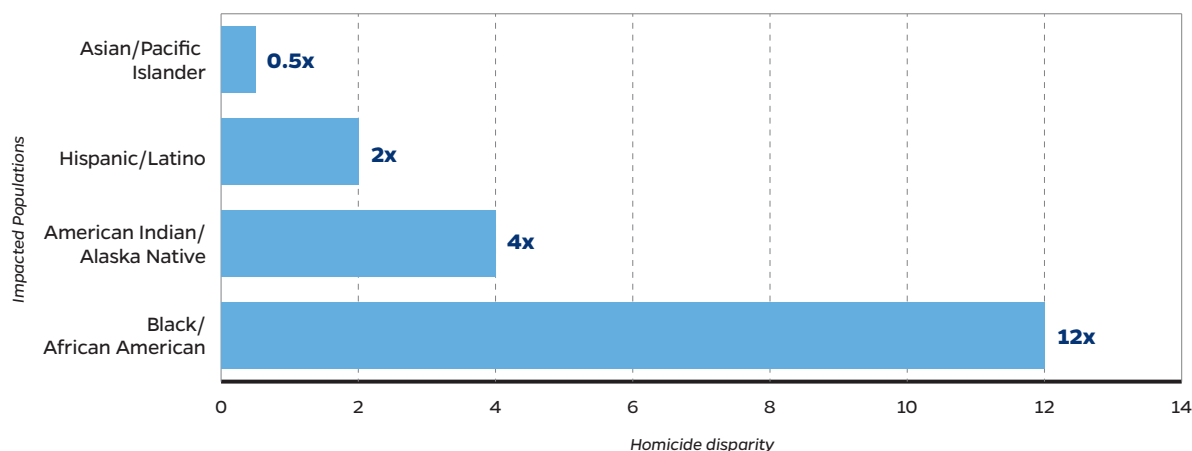
**FIGURE 9: Firearm Homicide Rates by Disproportionately Impacted Populations, 2020**



**FIGURE 10: Firearm Suicide Rates by Disproportionately Impacted Populations, 2020**

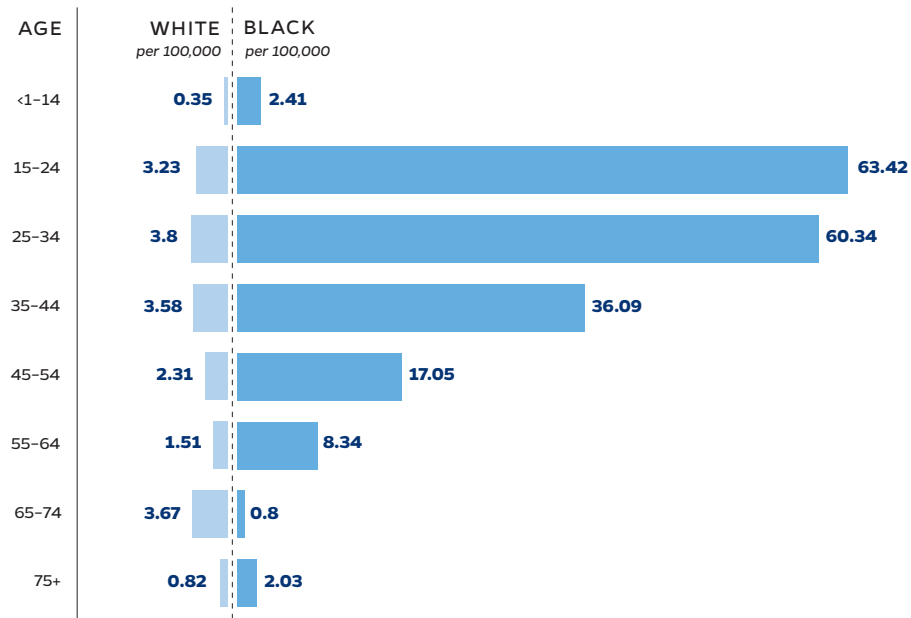


**FIGURE 11: Racial/Ethnic Disparities in Gun Homicide: Likelihood of Homicide Victimization Relative to White Population**

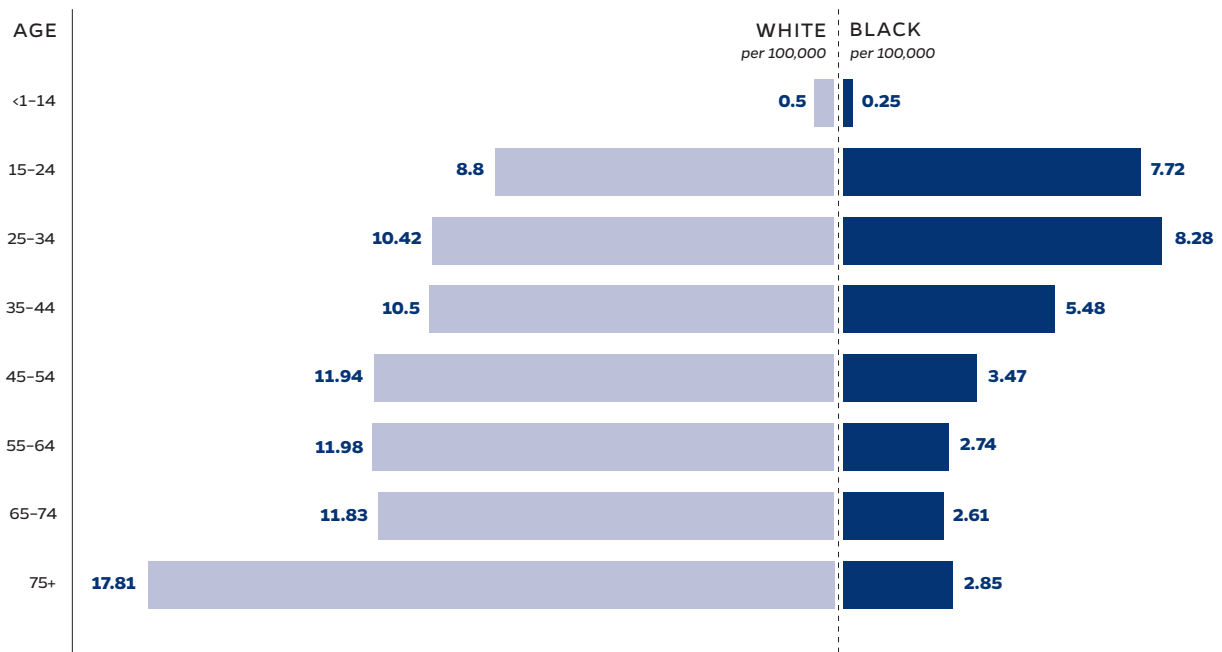




**FIGURE 12: Difference in Gun Homicide Rates by Race and Age, 2020**



**FIGURE 13: Difference in Gun Suicide Rates by Race and Age, 2020**







## Gun Violence Rates Across States

Gun death rates vary widely between states. For example, in 2020, Hawaii, the state with the lowest gun death rate, had a rate eight times lower than Mississippi, the state with the highest gun death rate. A wide number of factors influence state level gun death rates including demographics, socio-economic factors, and gun policies. In many rural states, gun suicides make up the largest proportion of gun deaths, while in more urban states, gun homicides generally account for a larger proportion of gun deaths.

In general, the states with the highest gun death rates tend to be rural states in the South or West with weaker gun laws. While the media often focuses on gun violence in cities in states like New York, Pennsylvania, Maryland, and Illinois, all of these states had gun death rates lower than the national average. New York, for example, had a rate 2.5 times lower than the national rate. Many of the states with the lowest gun death rates have strong gun violence prevention policies. **For example, all five of the states with the lowest gun death rates had both: 1) a firearm purchaser licensing law or a purchaser waiting period, and 2) an extreme risk protection order (ERPO) law. Conversely, all five of the states with the highest gun death rates had stand your ground legislation, and three of the five had permitless carry laws (a fourth state, Alabama, passed permitless carry in 2022).**

The five states with the lowest overall gun death rates in 2020 were:

State	Purchaser Licensing	ERPO
Hawaii	●	●
Massachusetts	●	●
New Jersey	●	●
Rhode Island	● <sup>40</sup>	●
New York	●	●

The five states with the highest overall gun death rates in 2020 were:

State	Permitless Carry	Stand Your Ground
Mississippi	●	●
Louisiana		●
Wyoming	●	●
Missouri	●	●
Alabama	● <sup>40</sup>	●

Figure 14 displays state gun death rates in 2020, ranking the gun death rates from lowest to highest. Additionally, it shows the proportion of deaths attributed to homicide, suicide, and other intents (legal intervention<sup>41</sup>, unintentional, and unclassified).

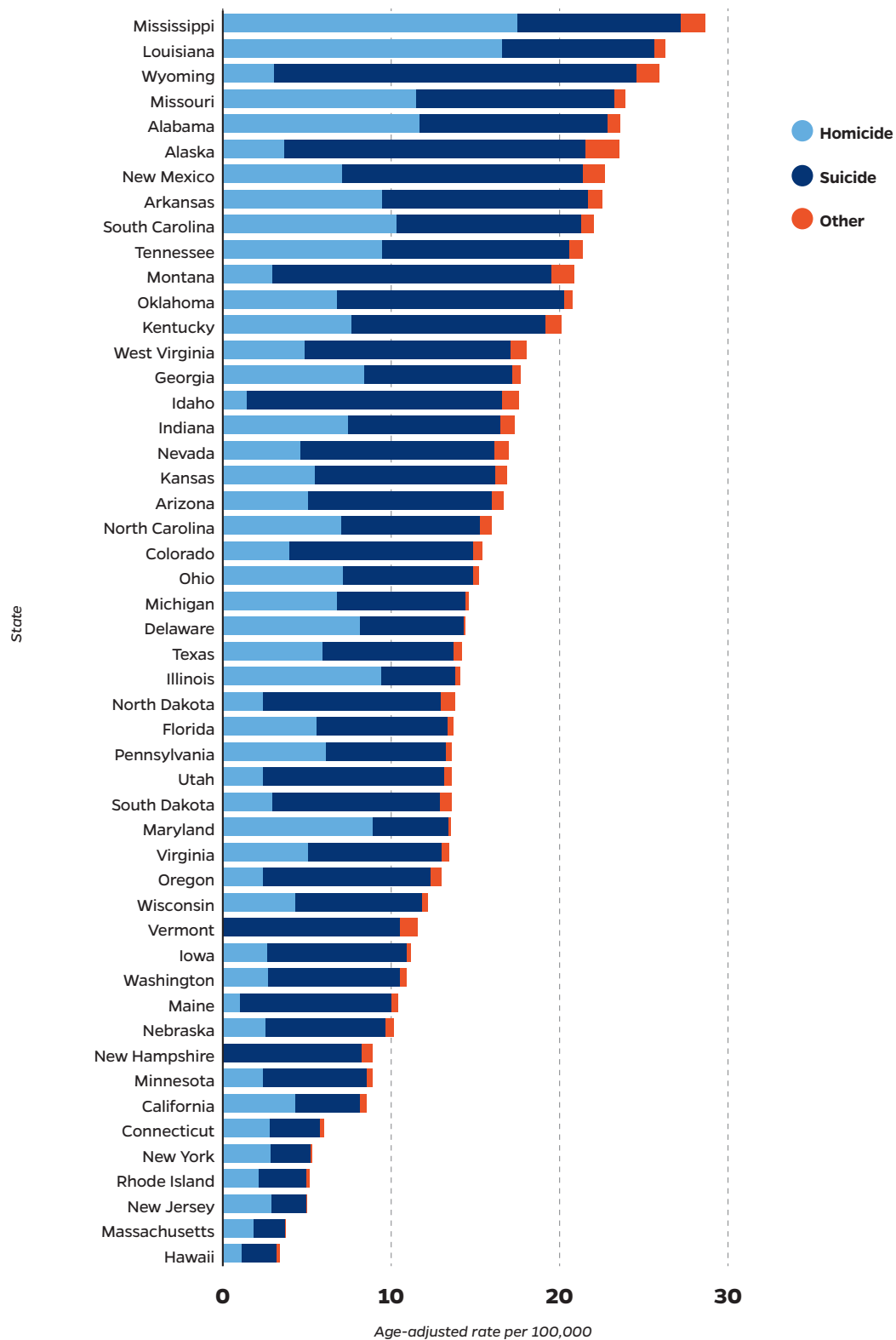
<sup>40</sup> Rhode Island has a firearm purchaser waiting period but does not have a full firearm purchaser licensing law.

Alabama passed a permitless carry law in 2022.

<sup>41</sup> The CDC data classification "legal intervention" under-counts police-involved gun fatalities. To address this gap, media sources like the Washington Post's Fatal Force database have tracked police-involved shootings in recent years, reporting that 1,021 people were shot and killed by police in 2020.



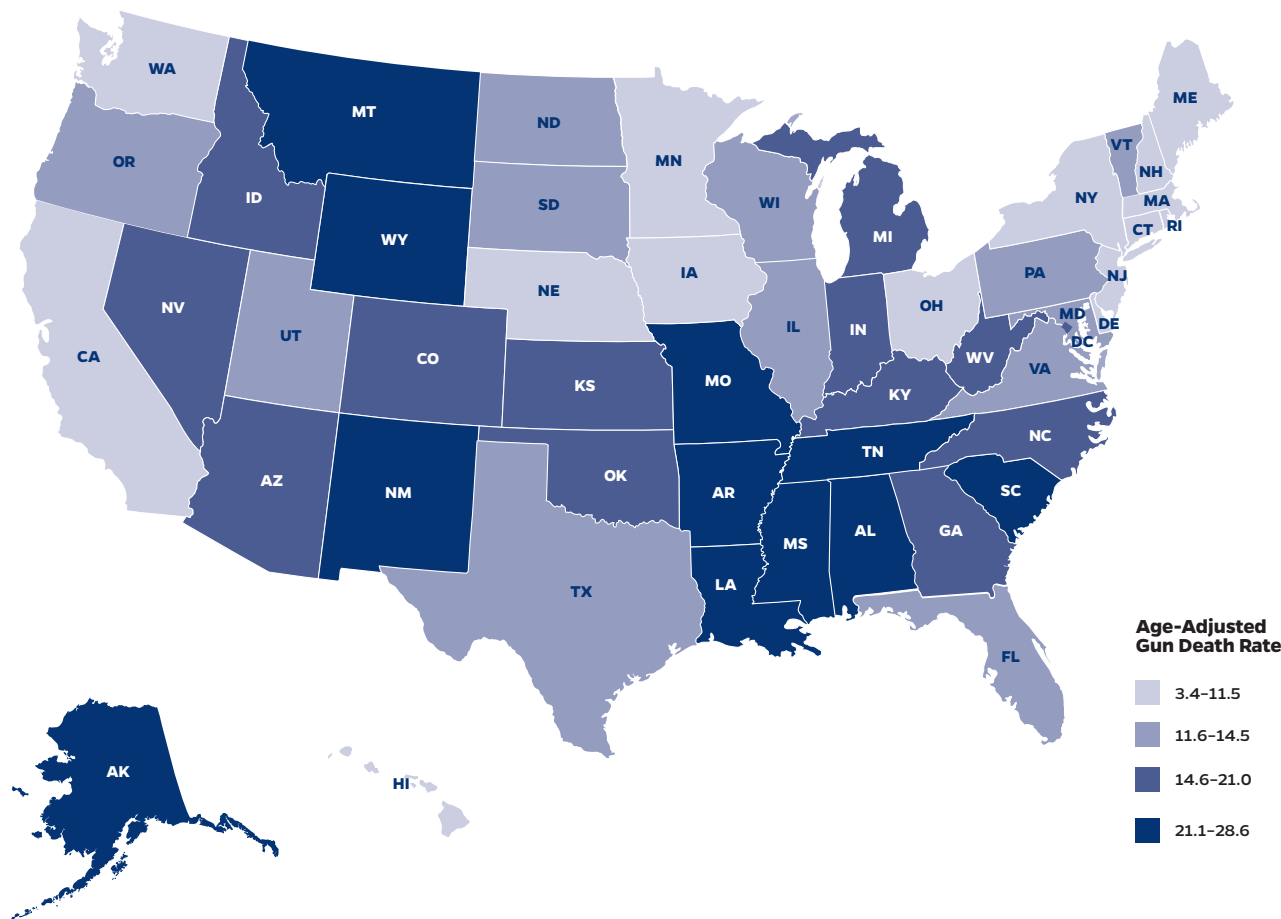
**FIGURE 14: Gun Death Rates by State, Ranked Highest to Lowest, 2020**



**Note:** The total number of homicide deaths in New Hampshire and Vermont was less than 10 and thus repressed by CDC. Homicide deaths are thus listed as “other gun death rate” for these two states.



**FIGURE 15: Gun Death Rates by State, 2020**

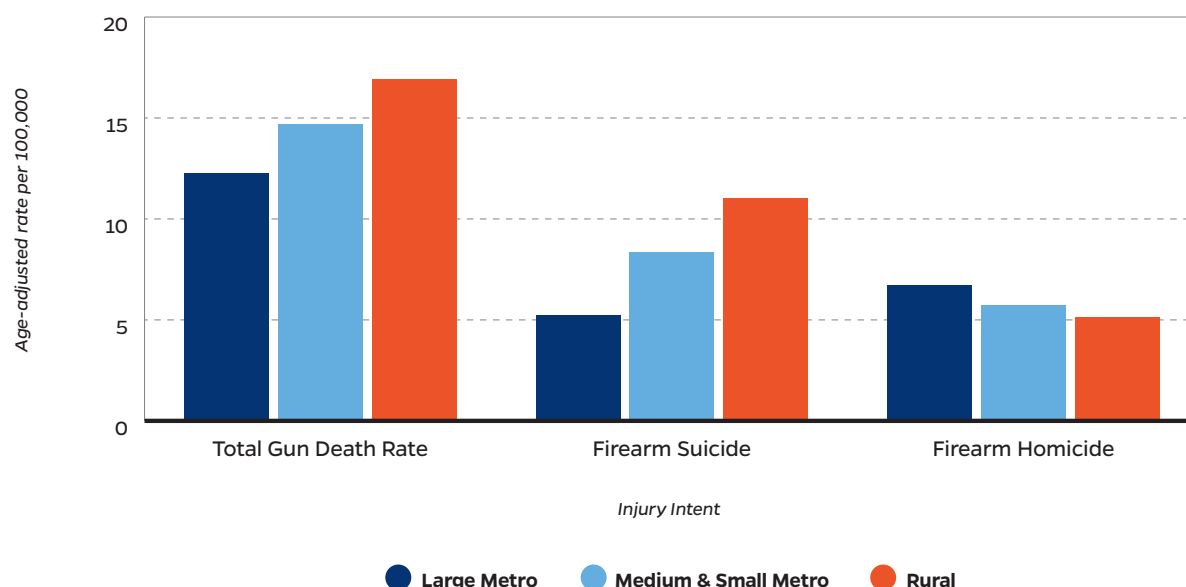




## A Closer Look: Gun Violence by Intent Across Counties and Urbanization Levels

While the narratives around gun violence tend to focus on cities like Chicago, Baltimore, or Philadelphia, all areas in the United States—urban, suburban, and rural—are impacted by gun violence. The CDC’s 2020 gun fatality data clustered by county urbanization level (large metro, small & medium metro, and rural) highlight this reality. As illustrated in figure 16, the rural counties in the U.S. had the highest gun death rates in 2020, a rate 1.4 times higher than the most urban counties (large metro). This difference is driven by gun suicides, which make up the majority of gun deaths and disproportionately impact rural people. **While different communities experience different types of gun violence, it’s important to recognize how gun violence in the U.S. is not uniquely an “urban” or a “rural” issue.**

**FIGURE 16: Gun Death Rates by Urbanization, 2020**



**Note:** The 2013 urban classifications were combined for simplification. Large Central Metro and Large Fringe Metro classifications were combined as “Large Metro.” Medium Metro and Small Metro classifications were combined as “Medium & Small Metro.” Lastly, Micropolitan and Noncore classifications were combined as “Rural.”

### FIREARM HOMICIDES

Contrary to popular belief, gun homicide rates were relatively the same across urbanization levels in 2020.

- The most urban counties in the U.S. had only a slightly higher gun homicide rate in 2020 than rural counties, and many rural counties had homicide rates far higher than large cities.
- Thirteen of the 20 counties with the highest rates of firearm homicides from 2016 to 2020 were rural.
- Phillips County, Arkansas, with only 22,000 residents, had the nation’s highest homicide rate. Meanwhile, Cook County, Illinois (Chicago), which often captures the media’s attention around violence, had the 79th highest gun homicide rate.



While high rates in sparsely-populated counties represent small total numbers of deaths, these rates are alarmingly high and indicate a significant burden on many communities across the U.S., not just in cities. Policy solutions are needed to address the crisis of gun homicides in our biggest cities as well as in our most rural communities.

## CONCENTRATED FIREARM VIOLENCE



This urbanization data illustrate that both rural and urban communities are impacted by gun violence, yet this does not mean that all communities are equally impacted. In fact, gun homicide tends to occur in highly concentrated areas. One analysis, for instance, found that in 2015, 26% of all firearm homicides in the United States occurred in census tracts that contained only 1.5% of the population.<sup>42</sup>

The CDC does not provide census tract gun fatality data and therefore our analysis relies on the county level as the smallest geographic area to analyze. Because county size varies significantly within and between states, data at this level does not consistently portray the most accurate representation of the local areas most impacted by gun violence. Data at the census tract level is needed to truly understand concentrations of gun violence.

Despite this, even an examination of 2020 county level data can illustrate geographic disparities of firearm victimization in the U.S. For example, in Maryland from 2016–2020, someone living in Baltimore City was 30 times more likely to die by firearm than someone living 40 miles away in Montgomery County.<sup>43</sup>

Geographic disparities in gun victimization help to shed light on the upstream factors that often contribute to violence, including poverty, lack of opportunity, and concentrated disadvantage. The example above illustrates this, as Montgomery County is among the wealthiest counties in the country based on the median household income; and in contrast, one in five residents in Baltimore City live in poverty.<sup>44,45</sup> Understanding the geographic disparities of gun violence, and how it concentrates in our most disadvantaged communities, is vital in developing effective policy solutions.

## FIREARM SUICIDES

Firearm suicide rates are closely related to urbanization. The more rural a county is, the higher the firearm suicide rate is.

- In 2020, rural counties had the highest rate of firearm suicide, 2.1 times higher than the most urban counties, where the firearm suicide rate was lowest.
- Seventeen out of the 20 counties with the highest gun suicide rates from 2016 to 2020 were rural counties.

Rural counties tend to have limited access to mental health services, high rates of alcohol use, and, importantly, the highest rates of gun ownership. All of these factors contribute to high rates of firearm suicide.<sup>46</sup>

42 Aufrichtig A, Beckett L, Diehm J, & Lartey J. (2017). Want to fix gun violence in America? Go local. *The Guardian*. Available: <https://www.theguardian.com/us-news/ng-interactive/2017/jan/09/special-report-fixing-gun-violence-in-america>

43 Baltimore City is an independent city and thus classified by the United States Census Bureau as a county equivalent.

44 QuickFacts: Montgomery County, Maryland; Baltimore city, Maryland. (2021). *United States Census Bureau*. Available: <https://www.census.gov/quickfacts/fact/table/montgomerycountymaryland,baltimorecitymaryland/PST045221>

45 Income in the past 12 months (in 2019 inflation-adjusted dollars). (2019). *United States Census Bureau*. Available: <https://data.census.gov/cedsci/table?t=Income%20and%20Poverty&g=0100000US%240500000&tid=ACST1Y2019.S1902>

46 Steelesmith DL, Fontanella CA, & Campo JV. (2019). Contextual factors associated with county-level suicide rates in the United States, 1999 to 2016. *JAMA Network Open*.



Limited access to mental health care such as healthcare provider shortages, unreliable transportation, being uninsured or underinsured, poverty, and mental health stigma may be more of a concern for those living in rural areas and small communities, impeding help-seeking. In addition, consuming alcohol is considered a proximal risk factor for suicidal behavior due to its variety of effects on the body, including affecting behaviors and moods.<sup>47</sup> Individuals with a diagnosis of alcohol use disorder or dependence are at a 10 times greater risk for suicide compared to the general population, and suicide is a leading cause of death among people who misuse alcohol and drugs.<sup>48</sup>

While social, health, and economic disparities affect suicide rates in rural communities, the primary driver of the difference in suicide rates between rural and urban communities is gun access. Gun ownership is much more common among rural areas as nearly six in ten people have a gun in their household (compared to three in ten people in urban areas), allowing for easier accessibility and exposure to guns, and resulting in higher firearm suicide rates.<sup>49,50</sup>

The high rates of these risk factors within rural communities coupled with high rates of gun ownership, make rural people particularly at risk for firearm suicide. Effective solutions to address our nation's high gun suicide rate should be aimed at supporting rural communities to address these disparities as well as easy access to firearms by those in crisis.

## Conclusion

In 2020, the outbreak of COVID-19 exacerbated the ongoing gun violence epidemic impacting individuals, families, and communities. Gun violence affects all of us; it remains the leading cause of death for young people, and it disproportionately impacts both communities of color and those in the most rural communities. Fortunately, this crisis of gun violence is preventable. We must call for a comprehensive public health approach to address this crisis, pushing for evidence-based and equitable gun violence solutions.

47 Substance use and suicide: A nexus requiring a public health approach. (2016). *Substance Abuse and Mental Health Services Administration*. Available: <https://store.samhsa.gov/sites/default/files/d7/priv/sma16-4935.pdf>

48 Ibid.

49 Igielnik R. (2017). Rural and urban gun owners have different experiences, views on gun policy. *Pew Research Center*.

50 Nestadt PS, Triplett P, Fowler DR, & Mojtabai R. (2017). Urban-rural differences in suicide in the state of Maryland: The role of firearms. *American Journal of Public Health*.

## Appendix 1: Gun Deaths, 2020

	Gun deaths total, 2020	Average daily gun deaths, 2020	Gun death rate (age-adjusted) per 100,000, 2020
<b>Homicide</b>	19,384	53	6.19
<b>Suicide</b>	24,292	66	6.95
<b>Unintentional</b>	535	2	0.17
<b>Legal Intervention*</b>	611	2	0.20
<b>Undetermined Intent</b>	400	1	0.12
<b>Total</b>	45,222	124	13.62

## Appendix 2: Gun Deaths Among Children and Teens, 2020

	Child and teen gun deaths total, 2020	Average weekly child and teen gun deaths, 2020	Child and teen gun death rate (age-adjusted) per 100,000, 2020
<b>Homicide</b>	2,811	54	3.46
<b>Suicide</b>	1,293	25	1.59
<b>Unintentional</b>	149	3	0.18
<b>Legal Intervention*</b>	25	<1	0.03
<b>Undetermined Intent</b>	90	2	0.11
<b>Total</b>	4,368	84	5.38

## Appendix 3: Average Number of Gun Deaths, 2016–2020

	Average annual gun deaths, 2016–2020	Average daily gun deaths, 2016–2020	Average gun death rate (age-adjusted) per 100,000, 2016–2020
<b>Homicide</b>	15,343	42	4.91
<b>Suicide</b>	23,891	65	6.92
<b>Unintentional</b>	492	1	0.15
<b>Legal Intervention*</b>	547	1	0.17
<b>Undetermined Intent</b>	347	1	0.10
<b>Total</b>	40,620	111	12.23



## Appendix 4: Average Number of Gun Deaths Among Children and Teens, 2016–2020

	Average annual child and teen gun deaths, 2016–2020	Average weekly child and teen gun deaths, 2016–2020	Average child and teen gun death rate (age-adjusted) per 100,000, 2016–2020
<b>Homicide</b>	2,088	40	2.55
<b>Suicide</b>	1,231	24	1.50
<b>Unintentional</b>	125	2	0.15
<b>Legal Intervention*</b>	26	<1	0.03
<b>Undetermined Intent</b>	70	1	0.09
<b>Total</b>	3,540	68	4.33

## Appendix 5: United States Gun Deaths by Intent, 2011–2020

	Total Gun Deaths	Firearm Suicide Deaths	Firearm Homicide Deaths	Unintentional Gun Deaths	Legal Intervention Deaths*	Gun Deaths by Undetermined Intent
<b>2011</b>	32,351	19,990	11,068	591	454	248
<b>2012</b>	33,563	20,666	11,622	548	471	256
<b>2013</b>	33,636	21,175	11,208	505	467	281
<b>2014</b>	33,594	21,386	11,008	461	464	275
<b>2015</b>	36,252	22,018	12,979	489	484	282
<b>2016</b>	38,658	22,938	14,415	495	510	300
<b>2017</b>	39,773	23,854	14,542	486	553	338
<b>2018</b>	39,740	24,432	13,958	458	539	353
<b>2019</b>	39,707	23,941	14,414	486	520	346
<b>2020</b>	45,222	24,292	19,384	535	611	400

**Note:** The CDC data classification “legal intervention” under-counts police-involved gun fatalities. To address this gap, media sources like the Washington Post’s Fatal Force database have tracked police-involved shootings in recent years, reporting that 1,021 people were shot and killed by police in 2020.

## Appendix 6: United States Gun Death Rates, by Intent, 2011–2020

	Gun Death Rate (age-adjusted) per 100,000	Firearm Suicide Rate (age-adjusted) per 100,000	Firearm Homicide Rate (age-adjusted) per 100,000	Unintentional Gun Death Rate (age-adjusted) per 100,000
<b>2011</b>	10.22	6.2	3.6	0.2
<b>2012</b>	10.51	6.31	3.79	0.19
<b>2013</b>	10.43	6.41	3.63	0.16
<b>2014</b>	10.31	6.37	3.53	0.14
<b>2015</b>	11.06	6.51	4.17	0.15
<b>2016</b>	11.78	6.75	4.63	0.17
<b>2017</b>	11.99	6.93	4.65	0.16
<b>2018</b>	11.9	7.04	4.44	0.14
<b>2019</b>	11.86	6.84	4.59	0.16
<b>2020</b>	13.62	6.95	6.19	0.17

## Appendix 7: United States Gun Death Numbers by Demographic Groups, 2020

	Total Gun Deaths	Firearm Homicide Deaths	Firearm Suicide Deaths
<b>Female</b>	6,241	2,956	2,904
American Indian or Alaska Native (non-Hispanic)	72	38	31
Asian or Pacific Islander (non-Hispanic)	96	44	48
Black (non-Hispanic)	1,589	1,356	206
White (non-Hispanic)	3,870	1,141	2,619
Hispanic or Latino (any race)	608	375	204
<b>Male</b>	38,981	16,428	19,551
American Indian or Alaska Native (non-Hispanic)	450	183	236
Asian or Pacific Islander (non-Hispanic)	531	183	326
Black (non-Hispanic)	12,530	10,548	1,646
White (non-Hispanic)	21,000	2,911	17,343
Hispanic or Latino (any race)	4,395	2,572	1,586

## Appendix 8: United States Gun Death Rates by Demographic Groups, 2020

	Total Gun Death Rate (age-adjusted) per 100,000	Firearm Homicide Rate (age-adjusted) per 100,000	Firearm Suicide Rate (age-adjusted) per 100,000
<b>Female (all races/ethnicities)</b>	3.77	1.86	1.79
American Indian or Alaska Native (non-Hispanic)	5.00	2.79	2.00
Asian or Pacific Islander (non-Hispanic)	0.83	0.39	0.45
Black (non-Hispanic)	7.07	6.05	0.90
White (non-Hispanic)	3.72	1.17	2.45
Hispanic or Latino (any race)	1.93	1.21	0.67
<b>Male (all races/ethnicities)</b>	23.80	10.41	12.50
American Indian or Alaska Native (non-Hispanic)	32.90	13.47	17.28
Asian or Pacific Islander (non-Hispanic)	5.04	1.71	3.13
Black (non-Hispanic)	57.49	48.16	7.78
White (non-Hispanic)	19.76	3.15	15.84
Hispanic or Latino (any race)	13.78	7.76	5.29

## Appendix 9: State Variations, 2020

State	Ranking, Highest to Lowest Total Gun Death Rate	Total Gun Deaths	Total Gun Death Rate (age-adjusted) per 100,000	Total Gun Deaths Among Children and Teens (Ages 0-19)	Child and Teen Gun Death Rate per 100,000	Firearm Homicide Deaths	Firearm Homicide Rate (age-adjusted) per 100,000	Ranking, Highest to Lowest Firearm Homicide Rate	Firearm Suicide Deaths	Firearm Suicide Rate (age-adjusted) per 100,000	Ranking, Highest to Lowest Firearm Suicide Rate
Alabama	5	1,141	23.58	96	7.92	564	12.36	4	542	10.55	14
Alaska	6	175	23.52	22	11.27	27	3.75	31	133	17.78	2
Arizona	21	1,265	16.67	101	5.48	382	5.48	25	830	10.42	17
Arkansas	8	673	22.55	77	9.91	282	10.06	7	364	11.54	7
California	45	3,449	8.54	301	3.07	1,732	4.49	29	1,552	3.63	44
Colorado	23	922	15.41	82	5.87	235	4.07	30	654	10.77	13
Connecticut	46	219	6.01	18	Unreliable	101	3.06	35	109	2.67	46
Delaware	26	135	14.4	15	Unreliable	76	8.67	11	58	5.64	41
District of Columbia	10	167	21.94	25	16.63	157	20.35	1	Suppressed	Suppressed	*
Florida	30	3,041	13.71	251	5.31	1,227	6.35	21	1,730	6.94	38
Georgia	16	1,897	17.71	209	7.48	899	8.63	12	939	8.52	26
Hawaii	51	50	3.37	Suppressed	Suppressed	16	Unreliable	*	31	2.05	48
Idaho	17	321	17.57	26	5.21	26	1.55	45	277	15.07	4
Illinois	28	1,745	14.07	196	6.33	1,167	9.74	9	543	4.05	43
Indiana	18	1,159	17.28	155	8.86	496	7.76	14	609	8.65	25
Iowa	39	351	11.16	31	3.81	83	2.85	37	260	8.03	29
Kansas	20	494	16.86	70	9.01	160	5.79	23	314	10.4	18
Kentucky	14	902	20.12	97	8.70	341	8.11	13	518	11.03	11
Louisiana	2	1,183	26.26	150	12.56	747	17.1	3	406	8.52	27
Maine	41	153	10.39	Suppressed	Suppressed	15	Unreliable	*	132	8.84	24
Maryland	34	803	13.52	73	4.91	526	9.27	10	267	4.09	42
Massachusetts	50	268	3.74	21	1.36	130	1.93	44	134	1.75	50
Michigan	25	1,454	14.6	117	4.91	672	7.3	18	761	7.1	36
Minnesota	44	513	8.9	46	3.19	138	2.53	41	354	5.96	40
Mississippi	1	818	28.63	86	11.14	499	17.89	2	278	9.35	23
Missouri	4	1,426	23.89	131	8.59	683	11.98	5	704	11.21	9
Montana	12	238	20.89	14	Unreliable	33	3.46	32	189	15.82	3
Nebraska	42	197	10.13	19	Unreliable	49	2.65	39	139	6.99	37
Nevada	19	547	16.96	48	6.27	148	4.97	27	372	11.12	10
New Hampshire	43	128	8.92	Suppressed	Suppressed	Suppressed	Suppressed	*	118	8.16	28
New Jersey	49	443	5.03	31	1.45	253	3.12	34	181	1.82	49

State	Ranking, Highest to Lowest Total Gun Death Rate	Total Gun Deaths	Total Gun Death Rate (age-adjusted) per 100,000	Total Gun Deaths Among Children and Teens (Ages 0-19)	Child and Teen Gun Death Rate per 100,000	Firearm Homicide Deaths	Firearm Homicide Rate (age-adjusted) per 100,000	Ranking, Highest to Lowest Firearm Homicide Rate	Firearm Suicide Deaths	Firearm Suicide Rate (age-adjusted) per 100,000	Ranking, Highest to Lowest Firearm Suicide Rate
New Mexico	7	479	22.66	41	7.77	149	7.54	16	303	13.73	5
New York	47	1,052	5.32	82	1.84	561	3.04	36	462	2.12	47
North Carolina	22	1,699	15.97	177	6.82	744	7.34	17	879	7.85	30
North Dakota	29	100	13.77	Suppressed	Suppressed	17	Unreliable	*	77	10.45	16
Ohio	24	1,764	15.19	186	6.48	824	7.61	15	903	7.24	34
Oklahoma	13	826	20.75	73	6.90	269	7.07	19	538	13.18	6
Oregon	36	592	12.97	39	4.07	109	2.65	40	454	9.63	21
Pennsylvania	31	1,752	13.59	169	5.72	788	6.75	20	919	6.47	39
Rhode Island	48	54	5.13	Suppressed	Suppressed	22	2.22	43	30	2.7	45
South Carolina	9	1,131	22.01	127	10.14	528	10.9	6	565	10.3	19
South Dakota	33	120	13.56	10	Unreliable	26	3.29	33	88	9.63	22
Tennessee	11	1,473	21.35	121	7.21	652	10.03	8	767	10.5	15
Texas	27	4,164	14.18	485	5.88	1,734	5.96	22	2,287	7.78	31
Utah	32	429	13.59	46	4.48	75	2.28	42	339	10.83	12
Vermont	38	76	11.58	Suppressed	Suppressed	Suppressed	Suppressed	*	69	10.24	20
Virginia	35	1,174	13.43	126	6.03	440	5.33	26	697	7.69	32
Washington	40	864	10.93	66	3.59	211	2.81	38	618	7.67	33
West Virginia	15	325	18.06	17	Unreliable	87	5.52	24	220	11.53	8
Wisconsin	37	717	12.2	59	4.18	253	4.62	28	442	7.15	35
Wyoming	3	154	25.9	Suppressed	Suppressed	18	Unreliable	*	128	20.91	1

\*Denotes where the state firearm homicide or suicide rate is unreliable and cannot be compared.

### Appendix 10: Top 5 Counties With the Highest Firearm Homicide Rate, 2016–2020

Top 5 Counties (by ranking)	County & State	Firearm Homicide Rate (age-adjusted) per 100,000
1	Phillips County, AR	55.45
2	Lowndes County, AL	48.36
3	St. Louis City, MO	45.36
4	Macon County, AL	44.34
5	Petersburg City, VA	42.45

### Appendix 11: Top 5 Counties With the Highest Firearm Suicide Rate, 2016–2020

Top 5 Counties (by ranking)	County & State	Firearm Suicide Rate (age-adjusted) per 100,000
1	Park County, CO	34.83
2	Lincoln County, MT	27.54
3	La Paz County, AZ	27.06
4	Aransas County, TX	26.82
5	Lumpkin County, GA	26.13

### Appendix 12: Top 5 Counties With the Highest Firearm Death Rate, 2016–2020

Top 5 Counties (by ranking)	County & State	Firearm Death Rate (age-adjusted) per 100,000
1	Phillips County, AR	71.77
2	Wade Hampton Census Area, AK	66.32
3	Lowndes County, AL	62.38
4	Quay County, NM	55.68
5	Petersburg City, VA	53.53



## Appendix 13: Rise in Gun Homicides by State, 2019–2020

State	Age-Adjusted Rate (per 100,000), 2019	Age-Adjusted Rate (per 100,000), 2020	2019–2020 Rate Difference	Percent Change
Alabama	10.67	12.36	1.69	16%
Alaska	7.2	3.75	-3.45	-48%
Arizona	4.11	5.48	1.37	33%
Arkansas	7.38	10.06	2.68	36%
California	3.18	4.49	1.31	41%
Colorado	2.89	4.07	1.18	41%
Connecticut	1.97	3.06	1.09	55%
Delaware	5.21	8.67	3.46	66%
District of Columbia	16.52	20.35	3.83	23%
Florida	5.2	6.35	1.15	22%
Georgia	6.67	8.63	1.96	29%
Hawaii	Unreliable	Unreliable	N/A	N/A
Idaho	Unreliable	1.55	N/A	N/A
Illinois	6.58	9.74	3.16	48%
Indiana	5.53	7.76	2.23	40%
Iowa	1.72	2.85	1.13	66%
Kansas	3.51	5.79	2.28	65%
Kentucky	4.82	8.11	3.29	68%
Louisiana	12.35	17.1	4.75	38%
Maine	Unreliable	Unreliable	N/A	N/A
Maryland	8.19	9.27	1.08	13%
Massachusetts	1.39	1.93	0.54	39%
Michigan	4.95	7.3	2.35	47%
Minnesota	1.9	2.53	0.63	33%
Mississippi	13.08	17.89	4.81	37%
Missouri	9.33	11.98	2.65	28%
Montana	2.29	3.46	1.17	51%
Nebraska	2.09	2.65	0.56	27%
Nevada	3.99	4.97	0.98	25%
New Hampshire	1.48	Suppressed	N/A	N/A
New Jersey	2.39	3.12	0.73	31%

State	Age-Adjusted Rate (per 100,000), 2019	Age-Adjusted Rate (per 100,000), 2020	2019–2020 Rate Difference	Percent Change
New Mexico	8.16	7.54	-0.62	-8%
New York	1.74	3.04	1.3	75%
North Carolina	5.41	7.34	1.93	36%
North Dakota	Unreliable	Unreliable	N/A	N/A
Ohio	5.21	7.61	2.4	46%
Oklahoma	6.56	7.07	0.51	8%
Oregon	1.88	2.65	0.77	41%
Pennsylvania	4.65	6.75	2.1	45%
Rhode Island	Unreliable	2.22	N/A	N/A
South Carolina	9.5	10.9	1.4	15%
South Dakota	Unreliable	3.29	N/A	N/A
Tennessee	7.37	10.03	2.66	36%
Texas	4.5	5.96	1.46	32%
Utah	1.6	2.28	0.68	43%
Vermont	Suppressed	Suppressed	N/A	N/A
Virginia	4.18	5.33	1.15	28%
Washington	2.22	2.81	0.59	27%
West Virginia	4.86	5.52	0.66	14%
Wisconsin	2.82	4.62	1.8	64%
Wyoming	Unreliable	Unreliable	N/A	N/A

# Glossary

**Age-adjusted rate:** The rates of almost all causes of death vary by age. Age adjustment is a technique for “removing” the effects of age from crude rates to allow meaningful comparisons across populations with different underlying age structures. Age-adjusted death rates are weighted averages of the age-specific death rates, where the weights represent a fixed population by age. An age-adjusted rate represents the rate that would have existed had the age-specific rates of the particular year prevailed in a population whose age distribution was the same as that of the fixed population. Age-adjusted rates should be viewed as relative indexes rather than as direct or actual measures of mortality risk.

**Burden of injury:** Describes the impact of a health problem (injury), including death and loss of health due to injuries, related financial costs, and other indicators.

**Cause of death:** Based on medical information—including injury diagnoses and external causes of injury—entered on death certificates filed in the United States. This information is classified and coded per the International Statistical Classification of Diseases and Related Health Problems, 10th Revision (ICD-10).

*International Classification of Diseases (ICD):* Causes of death are classified per the International Classification of Diseases. Deaths for 1999 and beyond are classified using the 10th Revision (ICD-10). ICD is designed to promote international comparability in the collection, processing, classification, and presentation of mortality statistics. This includes providing a format for reporting causes of death on the death certificate. The reported conditions are then translated into medical codes through the use of the classification structure and the selection and modification rules contained in the applicable revision of the ICD, published by the World Health Organization (WHO).

*Underlying Cause of Death database:* The database contains mortality data based on information from all death certificates filed in the 50 states and the District of Columbia. Deaths of nonresidents (e.g., nonresident aliens, nationals living abroad, residents of Puerto Rico, Guam, the Virgin Islands, and other territories of the U.S.) and fetal deaths are excluded. Each death certificate identifies a single underlying cause of death and demographic data.

**County Classification:** The CDC categorizes all counties into six levels of urbanization that incorporate population number and density. From largest and most urban to smallest and most rural, they are:

*Large central metro counties:* Counties part of a metropolitan statistical area with >1 million population and cover a principal city; most urban, large cities.

*Large fringe metro counties:* Counties part of a metropolitan statistical area with >1 million population but do not cover a principal city; akin to suburbs.

*Medium metro counties:* Counties part of a metropolitan statistical area of 250,000–999,999 population.

*Small metro counties:* Counties part of a metropolitan statistical area of less than 250,000 population.

*Micropolitan (non-metro) counties:* Counties part of a micropolitan statistical area (has an urban cluster of  $\geq 10,000$  but  $< 50,000$  population).

*Non-core (non-metro) counties:* Counties not part of a metropolitan or micropolitan statistical area; the most rural counties.

**Injury Intent:** Describes whether an injury was caused by an act carried out on purpose by oneself or by another person(s), with the goal of injuring or killing. For the CDC data used in this report, all injury-related causes of death are classified by intent and by mechanism, determined according to the ICD-10 external cause of injury coded as the underlying cause of death on the death certificate.

*Homicide:* Injuries inflicted by another person with the intent to injure or kill, by any means. Excludes injuries due to legal intervention and operations of war. The ICD-10 cause of death codes for firearm homicide include X93 Assault by handgun discharge; X94 Assault by rifle, shotgun, and larger firearm discharge; X95 Assault by other and unspecified firearm and gun discharge; and \*U01.4 Terrorism involving firearms.

*Legal Intervention:* Injuries inflicted by the police or other law-enforcing agents, including military on duty, in the course of arresting or attempting to arrest lawbreakers, suppressing disturbances, maintaining order, and other legal actions. Excludes injuries caused by civil insurrections. The ICD-10 cause of death code for legal intervention by firearm is Y35.0 Legal intervention involving firearm discharge.

*Suicide:* An intentionally self-inflicted injury that results in death. The ICD-10 cause of death codes for firearm suicide are X72 Intentional self-harm by handgun discharge; X73 Intentional self-harm by rifle, shotgun, and larger firearm discharge; and X74 Intentional self-harm by other and unspecified firearm and gun discharge.

*Undetermined Intent:* Events where available information is insufficient to enable a medical or legal authority to make a distinction between accident, self-harm, and assault. The ICD-10 cause of death codes for firearm deaths of undetermined intent are Y22 Handgun discharge, undetermined intent; Y23 Rifle, shotgun and larger firearm discharge, undetermined intent; and Y24 Other and unspecified firearm discharge, undetermined intent.

*Unintentional:* Unintentional injury that results in death. The ICD-10 cause of death codes for unintentional firearm deaths are W32 Accidental handgun discharge and malfunction; W33 Accidental rifle, shotgun and larger firearm discharge; and W34 Accidental discharge and malfunction from other and unspecified firearms and guns.

**Injury Mechanism or Method:** The cause, or mechanism, of injury is the way in which the person sustained the injury; how the person was injured; or the process by which the injury occurred.

**Suppressed:** Rates are marked as suppressed when there are zero to nine (0–9) deaths.

**Unreliable:** Rates are marked as “unreliable” when the death count is less than 20.