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FIREARMS LAW AND THE SECOND AMENDMENT

Regulation, Rights, and Policy

Third Edition

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Nicholas J. Johnson
Professor of Law
Fordham University School of Law

David B. Kopel
Adjunct Professor of Law
University of Denver Sturm College of Law

George A. Mocsary
Professor of Law
University of Wyoming College of Law

E. Gregory Wallace
Professor of Law
Campbell University School of Law

Donald Kilmer
Professor of Law
Lincoln Law School of San Jose

Wolters Kluwer

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To my family, near and far, here and gone.

—Nicholas J. Johnson

To my wife, Deirdre—patient, supportive, good-humored, and steadfast.

—David B. Kopel

To my family and friends, for being my family and friends.

—George A. Mocsary

To my excellent wife, Stephanie, and my stalwart children, Hannah and Sam.

—E. Gregory Wallace

To Christina—The right partner makes the journey perfect.

—Donald Kilmer

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PREFACE

The field of firearms law has grown dramatically since the first edition of this text was published in 2012. Second Amendment case law has proliferated in the last decade, and so have new laws regarding the right to keep and bear arms.

The book is intended to serve as both a treatise and a textbook. It has become a reference source in litigation and has been cited in judicial opinions and briefs, including by then-Judge Brett Kavanaugh. To provide starting points for research by professors, judges, students, and other scholars, we cite many primary sources as well as the most important modern scholarship. The book covers the leading controversies about arms laws, past and present, from the ancient and medieval worlds through modern 3D gun printing. Besides firearms, this book examines law and policy for other Second Amendment arms, like knives, martial arts weapons, electroshock weapons, and others.

Although this book is all about arms, the true subject is something else. *The Lord of the Rings*—notwithstanding the title and the plot—wasn't really about rings, and this book, title notwithstanding, isn't really about firearms.

The study of arms rights, duties, and controls raises fundamental legal questions: Who is sovereign, and who has the right to be? Questions of sovereignty encompass broad questions about a nation's self-government, individual ones relating to personal defense of bodily integrity, and everything in between.

From ninth-century England to the twenty-first-century United States, the same questions recur: How do arms in the hands of individuals enhance—or endanger—community security, personal security, order, and liberty?

This book always considers arms laws in their broader social context. Cases, statutes, and other legal materials are presented in conjunction with the culture, technology, and politics of their times.

Chapter 1 provides data and summarizes research on arms possession, use, and misuse in the modern United States. Chapter 2 and succeeding chapters proceed mostly chronologically—from England to the American colonies, the Revolution, and through the twentieth century. Chapters 8 and 9 cover the two major federal statutes governing firearms. Then come the foundational Supreme Court cases of the early twenty-first century, *District of Columbia v. Heller* and *McDonald v. Chicago*. Finally, five chapters discuss how modern lower courts have applied and created Second Amendment law after *Heller* and *McDonald*.

The chronological organization has proven a natural format for classes. But users can choose their own paths. For example, one can start with *Heller* (Ch. 11.A) and then proceed immediately to the post-*Heller* cases in the lower courts (Chs. 12-16). Or one can start at the beginning, with English legal history, follow the developing story of the right to arms over the next 1,100 years, and then read *Heller* and its dissents to see how they synthesize that history. A practice-oriented approach would

closely study the National Firearms Act, the 1968 Gun Control Act (Chs. 8 and 9), and state arms laws (Ch. 10).

Throughout the book, the Notes and Questions include bolded Connection Questions ("**CQ**") to signal items that relate to other topics in other chapters.

Mindful that more pages mean a costlier textbook, we have endeavored not to increase the printed page count, even as we cover substantial new material. Thus, some cases that were excerpted in the second edition are now summarized in narrative text. Many of the excerpted cases have been further edited for brevity and clarity.

For some citations we use footnotes, rather than in-line cites. The decisions about what cites go into a footnote were made primarily with an eye on the page count. Because a footnote consumes an entire line of text, we have kept most short cites in-line. We have eliminated all citation use of *supra*, *infra*, and reduced the use of "at." Cross-references to other chapters are in the form of "Ch. 7.D.4." Cross references within a chapter are in the form of "Part E" or "Section "E.5."

The field has grown so dramatically that over a third of this work's material is provided online, at no cost. It can be found at https://www.wklegaledu.com/Johnson-SecondAmendment3 and at the book's website, firearmsregulation.org. As described below, Chapters 1-16 comprise the printed and ebook editions, and Chapters 17-23 are online only.

One scholar, noting the importance of tradition in the Supreme Court's analysis of the right to arms, points out that traditions change over time. He asks, "Whose traditions? English, American, African American, city, county, South, North? Since the thirteenth century? Since the sixteenth? The eighteenth? . . . [I]n 1791, in 1868, in 1930, or 2016?" Darrell A. H. Miller, *Second Amendment Traditionalism and Desuetude*, 14 Geo. J.L. & Pub. Pol'y 223, 225 (2016). In this book, the answer is "all of the above." The printed book proceeds chronologically beginning in ninth-century England and continues through 2021. Online Chapter 21, on Antecedents of the Second Amendment, goes as far back as ancient China and Greece. For the United States, slavery and a racial caste system are central to the history of arms rights and arms control, and we address them in detail. We also cover Native Americans in more breadth and depth than one will find in any other law school textbook other than books devoted to Indian Law. Issues involving Blacks and Indians are further treated in online Chapter 17. Other people from all over the world—including Tibetans, Chinese, Jews, Armenians, Darfuri, Czechs, Slovaks, Canadians, Venezuelans, and many others—are discussed in online Chapters 18, 19, and 21. You can decide whose traditions and history should be considered in policy making or legal interpretation. We believe that all are instructive.

Chapter 1 provides a detailed treatment of the empirical social science and commentary surrounding gun ownership, gun use, and gun crime. We have found that starting with a basic grounding in this material is helpful to students, letting them engage in an informed way with the rest of the material in the course.

Chapter 2 covers historical arms rights and duties in the United Kingdom—a topic that was not only important to the American Founders but remains a part of modern judicial analysis of American rights. Due to space considerations, this Chapter is shorter than its second edition predecessor. A fuller version is available in online Chapter 22, which provides additional social, political, and religious context.

Chapter 3 (the American colonies) and Chapter 4 (the American Revolution) were a single Chapter 3 in the second edition. The theme of Chapter 3 is how new conditions in America created a novel and distinctive American arms culture that influenced arms law and philosophy. The new Chapter 3 includes an improved and more detailed presentation of colonial laws mandating arms possession and arms carrying. It also includes more material on Native Americans, who played an important role in shaping what would become American gun culture. We include all perspectives on Native Americans—of the European colonial powers, of the American colonists, and, most importantly, of the Native Americans themselves. Coverage of Native Americans issues continues with new material in Chapters 6 and 7.

Chapter 4 examines the role of arms in the American Revolution, the role of arms control in precipitating the Revolution, and the arms laws of the Articles of Confederation and the new State governments. Having initially adopted a policy of decentralized defense by necessity, Americans came to regard dispersed arms ownership as so central to their identity that they started a war when the British government tried to confiscate arms.

Chapter 5 covers the history of the adoption of the Constitution, the controversies about the Constitution's new federal militia powers, and the adoption of the Second Amendment.

Chapter 6 covers the period from the Early Republic to the eve of the Civil War. It includes an explanation of how technological changes in arms manufacturing—such as the invention of machine tools that could produce interchangeable parts—affected the exercise of the right to arms and eventually arms laws.

In this third edition, the technology discussions in the printed book and ebook have been condensed; the full story is available in online Chapter 23.

Chapter 7 covers the Civil War through the end of the nineteenth century. It includes a summary of self-defense law and related topics, such as Stand Your Ground laws.

Chapter 8 covers the early twentieth century through the end of World War II. It includes a detailed examination of the first major federal gun control law, the National Firearms Act of 1934 (NFA). The NFA material is organized to help students become practice-ready. Although the NFA covers only a fairly small subset of arms, lawyers who practice firearms law find that the NFA generates many cases.

Chapter 9 begins with social, racial, and political history of firearms policy from the mid-twentieth century to the early twenty-first. The Chapter then proceeds to a very detailed treatment of the main federal gun control law, the Gun Control Act of 1968 (GCA), as amended. The improved structure in this third edition will help the reader become practice-ready for GCA cases—a necessity for anyone engaged in the general practice of criminal law in federal courts.

Because the NFA and the GCA have many analogues in state law, the study of the federal statutes also helps prepare students for the practice of state law. Unique issues in state law are the subject of Chapter 10. Forty-four states have their own constitutional rights to arms, with their own particular interpretations. The Chapter also covers state preemption laws (which limit or prohibit local controls)—and many other state law topics.

Chapter 11 covers modern Supreme Court Second Amendment cases. The two most important are *District of Columbia v. Heller* (2008) and *McDonald v. City of Chicago* (2010). One way to read or teach from this book is to begin with *Heller*, in

which Justice Antonin Scalia's majority opinion and Justice John Paul Stevens's dissent raise many pro/con arguments on legal history. When students then turn to the history chapters, they can read the historical materials in light of how the *Heller* Justices deployed them. Similarly, *McDonald*, which holds that the Fourteenth Amendment makes the right to arms enforceable against state and local governments, can be read immediately before reading Chapter 7, which covers the rise and decline of Reconstruction, including federal action to protect the arms rights of the freedmen. Chapter 11 also includes Supreme Court arms cases following *McDonald*. Decisions of the Court involving non-firearm arms—namely martial arts weapons and electric stun guns—are in 11.C. Controversies of the Supreme Court's denials of certiorari and reluctance to decide some important cases are in 11.D.

In April 2021, the Supreme Court granted certiorari in *New York States Rifle & Pistol Association v. Bruen*, to be argued in the Courts' 2021-22 term and presumably decided by June 2022. We are unable to include the Court's decision in this edition, which is to be published in September 2021. The book's website, however, will include an edited version of the opinion, plus commentary, that can be integrated into future classes.

In the first and second editions, post-*Heller* cases from lower courts were covered in a single massive chapter. That one chapter has now been split into five, for better clarity and readability. Each of the five chapters is suitable for one to three days of classes. For modern constitutional litigation, this is where the action is.

Chapter 12 begins by explaining standards of review in modern Second Amendment jurisprudence. It then presents three leading cases that illustrate different approaches to judicial review.

Chapter 13 covers the "Who?" of the Second Amendment. It examines laws forbidding certain types of persons from possessing arms.

Chapter 14 surveys cases and controversies over "Where?" the right to bear arms may be exercised. This includes carrying arms in public places in general and restrictions on particular locations.

Chapter 15 covers "What?" types of firearms and other arms are protected, or not protected, by the right to arms.

Finally, Chapter 16 addresses the "How and Why?" of other types of regulation. It studies laws such as bans on shooting ranges and the pandemic lockdowns of gun stores. It concludes with exercises for students to synthesize their analysis of what the Second Amendment should protect, and why.

THE ONLINE CHAPTERS

Online Chapters 12-16 from the second edition have become Chapters 17-23 since the printed edition now has 16 chapters.

Online Chapter 17 is titled "Firearms Policy and Status." It offers further coverage of modern issues involving Blacks and Indians, both discussed extensively in the printed historical chapters. The Chapter also covers arms rights in regard to physical or mental disabilities (the latter is also treated in Chapters 9 and 13), sexual orientation, marijuana use, and military service.

Chapter 18 addresses arms issues in international law. It begins with global and regional arms control treaties and human rights documents. Next, the Chapter surveys the classical founders of international law, such as Vitoria and Pufendorf, and how their views of the natural right of self-defense shaped international law. It then examines resistance to genocide and arguments for or against the right to resist. The Chapter closes by addressing the battle between efforts to create a global control system and the increasing popularity (in some places) of the idea of a right to arms.

Chapter 19 turns to comparative law—the study of particular nations. Part A studies all national constitutional provisions regarding arms rights, personal self-defense, and collective self-defense against tyranny. Part B presents social science studies comparing the effects of arms possession in different nations. The Part is structured for readers to engage in progressively more sophisticated analysis of quantitative social science. Part C presents a series of case studies of arms law and policy in eleven diverse nations: the modern United Kingdom (whose history is covered in Chapters 2 and 22), Switzerland, Canada, Mexico, Venezuela, Australia, Japan, China (a very detailed explanation of the current laws on guns and knives), Thailand, Kenya, and South Africa.

Part D of Chapter 19 looks in depth at tyranny and genocide. It includes studies of armed resistance against the Ottoman Empire genocide in World War I and against the Tibetan genocide perpetrated by the Chinese Communist Party. The worst mass murder in history—the 86 million killed by the communist regime of Mao Zedong—receives a hundred-page treatment showing how Mao's arms policies interacted with and supported his totalitarian program.

Chapter 20 offers an in-depth explanation of firearms and ammunition. It describes how firearms work, the different types of firearms, and so on. The Chapter assumes no prior knowledge. Readers unfamiliar with firearms may wish to read part of the Chapter immediately and then to refer to the Chapter as needed.

Chapter 21 treats the "Antecedents of the Second Amendment." Most of the materials influenced the intellectual history that eventually led to the Second Amendment. Confucianism and Taoism did not, but the Chapter begins with them because much of what they say about arms, defense, and militias has interesting parallels to Western ideas. The Chapter then covers Greece, Rome, Jewish thought, early and medieval Christian thought, and early modern Italian and French political philosophy.

Chapter 22 is the full story of arms rights and duties in the United Kingdom. Compared to the shorter presentation in Chapter 2, this Chapter provides more political and religious context, deeper coverage of Scotland and Ireland, and other topics.

Chapter 23 is the history of the technological development of arms, from the longbows and harquebuses of Tudor England through modern 3D printed guns. Some of the material in this Chapter is presented in a more compressed form in Chapters 2-9.

As you will see, even the cutting-edge cases in Chapters 12-16 return again and again to the question of what the right to arms has been during the full sweep of Anglo-American history. As William Faulkner wrote, "The past is never dead. It's not even past." Requiem for a Nun (1951). Understanding the good and the bad parts of our past is essential to making the decisions that will shape our future.

As the Anglo-American and the online international chapters describe, whether the power of armed physical force is widely shared or narrowly held is one of the most profound questions any society must answer.

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Gary Kleck and Shun-Yung Kevin Wang. "The Myth of Big-Time Gun Trafficking and the Overinterpretation of Gun Tracing Data," UCLA Law Review, Vol. 56 (2009). UCLA School of Law. Reprinted with permission from Gary Kleck.

Gary Kleck. "Large-Capacity Magazines and the Casualty Counts in Mass Shootings: The Plausibility of Linkages," Justice Research and Policy, Vol. 17, Iss. 1 (2016). SAGE Publications. Reprinted with permission from Gary Kleck.

Rosanna Smart, et al. *The Science of Gun Policy: A Critical Synthesis of Research Evidence on the Effects of Gun Policies in the United States (2020).* RAND Corporation. Reprinted with permission.

William Oliver. "The Structural-Cultural Perspective: A Theory of Black Male Violence" in *Violent Crime: Assessing Race and Ethnic Differences* (Darnell F. Hawkins, ed.). Cambridge University Press. Copyright © 2003.

E. Gregory Wallace. "'Assault Weapon' Lethality." The full text of this article was published at Tennessee Law Review, Vol. 88, Iss. 1 (2020). This edited version appears here by permission of the Tennessee Law Review Association, Inc.

Robert Leider. "Constitutional Liquidation, Surety Laws, and the Right to Bear Arms" in New Histories of Gun Rights and Regulation: Essays on the Place of Guns in American Law and Society (Joseph Blocher, Jacob D. Charles, & Darrell A. H. Miller eds., forthcoming). Reprinted with permission from Robert Leider.

Chapter 1

Firearms Facts, Data, and Social Science

This Chapter presents empirical data and studies on firearm use and misuse. Most of the Chapter involves criminological issues, such as gun use in crime, in resisting crime, and as a deterrent to crime. The Chapter also covers many facets of the debates about gun control or gun ownership as strategies for reducing crime. Besides the strictly criminological issues, it also presents information on suicide and accidents. The Chapter is divided into the following parts:

A. Challenges of Empirical Assessments of Firearms Policy
B. American Gun Ownership
C. Defensive Gun Use: Frequency and Results
D. Firearm Accidents
E. Firearm Suicide
F. Firearm Violent Crime
G. How Criminals Obtain Guns
H. Race, Gun Crime, and Victimization
I. Youth Crime
J. Recent Downward Trend of Violent Crime and Growth of the American Firearm Inventory
K. Does Gun Ownership Reduce Crime?
L. Does Gun Control Reduce Crime?
M. Mass Shootings

A. CHALLENGES OF EMPIRICAL ASSESSMENTS OF FIREARMS POLICY

Almost all empirical assessments of social issues involve data challenges, and this is certainly true of empirical studies of firearms policy. When the American gun control debate became a major national issue in the late 1960s, there was almost no social science research on the topic. Since the late 1970s, however, many studies, some of them of very high quality, have been completed.

Like other areas of social science, firearm studies are susceptible to methodological errors and researcher bias. As one group of researchers explains:

> One potential problem of studies on firearms laws is the way in which the author's affiliations and personal interests bias study results and influence

> what is to be published. This can be particularly problematic when researchers are funded by for-or-against firearms groups and when these organizations have control of what material is publishable and what is not, and also when researchers purposely select to present only the results that match their interests.

Julian Santaella-Tenorio et al., *What Do We Know About the Association Between Firearm Legislation and Firearm-Related Injuries*, 39 Epidemiologic Reviews 171 (2017).

The issue is not purely affiliations or grants; the gun control controversy tends to attract scholars on both "sides" who have strong ideological beliefs. That a scholar cares about an issue does not mean that the scholar's product is necessarily wrong. Many studies were funded by the federal Centers for Disease Control (CDC) in the 1990s, and today many are funded the Bloomberg School of Public Health at Johns Hopkins University. The orientation of both funders has been strongly in favor of gun control. The ideological orientation does not mean that every CDC or Bloomberg School study was invalid. Some such studies have been poor, and some quite good. Each item of research stands or falls on the strength of its evidence. Likewise, all the authors of this textbook have been involved, one way or another, in supporting Second Amendment legal advocacy, such as through amicus briefs. Professor Kopel is affiliated with the Independence Institute (in Denver) and the Cato Institute (in Washington, D.C.), two think tanks that are funded by donations from supporters who are ideologically sympathetic. Of course, both institutes solicit "pro-gun" donors.

This textbook aims to present the best scholarship from all perspectives. The large majority of scholars from the past five decades who we cite have been, within the scholarly community, identified with one "side" or another. We cite them all, including those with whom we disagree. We try to avoid citing weak or poorly reasoned research from any side. While most writers on gun control and gun rights have their biases, only a very few appear to have let their biases turn into outright deception of the reader; we have tried to minimize citations to such writers, on both sides.

A good place to start in appreciating the challenges of identifying reliable data on firearms use and misuse is with three metastudies[1] analyzing a full range of empirical claims affecting the gun debate. The first, produced in 2003 by the Task Force on Community Preventive Services with support from the federal CDC, is Robert A. Hahn et al., *First Reports Evaluating the Effectiveness of Strategies for Preventing Violence: Firearms Laws*, 52 Morbidity and Mortality Weekly Report: Recommendations and Reports 11 (Oct. 3, 2003). It contains a systematic review of then-current scientific evidence regarding whether various firearms laws—such as bans on specific firearms or ammunition, restrictions on firearms acquisition, firearms registration and licensing, "shall issue" concealed carry laws, and child access prevention laws—are effective in preventing firearm crimes or violence. The Task Force's expanded findings subsequently were published in Robert A. Hahn et al., *Firearms Laws and the Reduction of Violence: A Systematic Review*, 28 Am. J. Prev. Med. 40 (2005).

1. A metastudy is a study that combines the results of multiple other studies to provide more complete results than the combined studies do individually.

The second is the 2004 metastudy by the National Research Council, Firearms and Violence: A Critical Review (Charles F. Wellford, John V. Pepper & Carol V. Petrie eds., 2004). The book-length report was developed by the National Academies at the request of a consortium of federal agencies and private foundations, including the CDC and the Joyce Foundation (both of which have taken positions strongly favoring increased gun control).

Both the Task Force and National Research Council studies are agnostic on the effectiveness of existing gun controls. That is, both metastudies conclude that existing data and studies are insufficient to draw solid conclusions about whether gun control (in its various forms) reduces or increases violence, and the data do not permit conclusions about whether gun ownership or gun carrying (in various forms) reduce or increase crime.

The third metastudy was published by the Rand Corporation in 2018. *See* The Rand Corporation, The Science of Gun Policy: A Critical Synthesis of Research Evidence on the Critical Effects of Gun Policies in the United States (2018) [hereinafter Rand Study 2018]. The 380-page study reviews available scientific evidence from 2003-2016 on the effects of 13 different types of gun policies on firearm deaths, violent crimes, mass shootings, defensive gun use, and other outcomes. Gun policies considered include background checks, "assault weapon" and magazine bans, licensing and permitting requirements, concealed-carry laws, stand-your-ground laws, minimum age requirements, mental illness prohibitions, and child-access prevention laws. Several studies were excluded because they did not meet Rand's methodological standards. For the studies included, reviewers determined whether they provided supportive, moderate, limited, or inconclusive evidence of significant effects in each of the 13 types of gun policies. The Rand Study 2018 finds supportive evidence for only two conclusions: (1) that child-access prevention laws (safe storage laws) reduce self-inflicted firearm injuries or deaths among youth; and (2) that the same laws reduce unintentional firearm injuries or deaths among children. *Id.* at xxvi. In all other areas, the Rand Study 2018 finds that evidence regarding the effectiveness of these policies is only moderate, limited, or inconclusive, or that there is no evidence at all. The Study notes that "[i]n many cases, we were unable to identify any research that met our criteria for considering a study as providing minimally persuasive evidence for a policy's effects." *Id.* at xviii.

The Rand Study was updated in 2020. *See* Rosanna Smart et al., The Science of Gun Policy: A Critical Synthesis of Research Evidence on the Effects of Gun Policies in the United States (2nd ed. 2020) [hereinafter Rand Study 2020]. This 377-page study reviews available scientific data from 1995-2018 on the effects of 18 types of gun policies, including additional categories such as domestic violence prohibitions, extreme risk protection orders, and safety training requirements. Across the 18 types of policies reviewed, the Rand Study 2020 found that available evidence supports only two conclusions: (1) child-access prevention laws (i.e., safe-storage laws) reduce self-inflicted fatalities and injuries, intentional and unintentional, among youth; and (2) stand-your-ground laws are associated with increases in firearms homicides. As in the original study, the Rand Study 2020 finds that evidence regarding the effectiveness of policies in all other areas is only moderate, limited, or inconclusive, or that there is no evidence at all. *Id.* at xxiii-xxv.

Adding all the metastudies together, the bottom line is that except on a few topics, social science research has been unable say whether most laws that tighten

or relax gun control make any difference. It can be difficult to draw solid conclusions about the effect of such policy interventions aimed at a complicated set of behaviors.

Another good illustration of the complexity of the field—even in areas where excellent data are available—appears in Part B of this Chapter. It begins by asking a simple question: *How many guns are owned by civilians in the United States* (this excludes those owned by the military but includes guns owned by individual police officers and by police departments)?

There are decades of very reliable data from U.S. gun manufacturers about the number of guns made during a particular year. There are also solid data about how many guns per year were legally imported into the United States and exported out. For any given year, therefore, one can make a good estimate for the net addition to the U.S. gun supply. Table 1-1 presents an estimate of more than 400 million firearms (not counting muzzleloaders, antiques, or air guns) in civilian hands in the United States.

Yet fixing the total number of guns is complex. To begin with, annual production data only go back so far, and one has to estimate what the gun supply was before that. There also is the question of the net *subtractions* each year from the gun supply. The number of guns that citizens surrender to the government in occasional "buyback" programs is trivially small. But the number of police gun seizures from criminals is much larger. Some municipalities sell seized guns back to the public through licensed firearms dealers, but some seized guns are destroyed. There are no comprehensive data about how many guns leave the inventory because of police seizures. Also, guns can wear out from use or neglect. Some number of guns become nonfunctional every year, but no one really knows how many guns should be subtracted from the national gun count for this reason.

Determining gun totals also requires defining what constitutes a "firearm." According to the Gun Control Act of 1968 (GCA) (Ch. 9.C), any firearm made before 1898, and some modern replicas of pre-1898 guns, are not considered "firearms." For modern replicas, the question is whether metallic cartridge ammunition is currently on the market; so a replica of the 1873 Colt "Peacemaker" revolver *is* a GCA "firearm" because it uses commercially available metallic cartridge ammunition. Muzzleloading guns do not use metallic cartridges, so they are not GCA firearms. Manufacturers are therefore not required to compile or report production numbers for these guns. The number of modern muzzleloaders currently in use in the United States is probably at least several million, and perhaps much more. Many states have separate hunting seasons only for muzzleloaders.

Likewise, air guns, which are powered by compressed gas, rather than by burning gunpowder, are not "firearms." Data about the manufacture and ownership of air guns are scant, but the total number in America is probably at least in the tens of millions. This book uses "gun" and "firearm" interchangeably; when it refers to "guns," it means "firearms" (powder arms), not air guns. Whenever the book refers to air guns, it says so.

The number of privately manufactured firearms also must be included in the overall total. Americans do not need a license to manufacture firearms for their personal use. *See* Ch. 15.D.2. It is unknown how many homemade firearms are produced each year. There has been a recent rise in private production of firearm

parts using 3-D printers and desktop CNC milling machines, which are discussed in Chapter 15.D.2. Other homemade firearms include muzzleloaders assembled from kits, so they would not show up in the data. Illegally imported guns are also off the books. So, too, are any thefts of guns from military supplies that end up in the civilian inventory.

Another basic question is this: *How many individuals or households in America own guns?* Again, there is a wealth of data: The Gallup Poll, Pew Research Center, and the National Opinion Research Center have been asking this question annually for many years. The Rand Corporation in 2020 released a longitudinal database of state-level estimates of household firearm ownership from 1980 to 2016. The estimates are based on statistical modeling of data collected from multiple public opinion surveys as well as administrative sources (e.g., background checks, shooting death records, and more). *See* Terry L. Schell et al., State-Level Estimates of Household Firearm Ownership (Rand Corporation, 2020). Much of the data are presented later in this Chapter. There are large year-to-year swings in the polling answers, which demonstrate some of the empirical limits of opinion polling.

Polling data on gun ownership involve not only the ordinary imprecision of polling, but also the unending problem of the "dark figure." There is probably a large number of people who own guns but refuse to admit it to a stranger on the telephone. Who answers the phone can make a big difference in the result. Husbands inform pollsters about a gun in the home at a higher rate than do wives. Gary Kleck, Targeting Guns: Firearms and Their Control 67 (1997) [hereinafter Kleck, Targeting Guns]. Another study observes that in recent years, conservatives and Republicans have, relative to the rest of the population, become more reluctant to talk with pollsters. Robert Urbatsch, *Gun-shy: Refusal to Answer Questions About Firearm Ownership*, 56 Soc. Sci. J. 189 (2019); *see also* David Yamane, *Why Surveys Underestimate Gun Ownership Rates in the U.S.*, Gun Curious (Feb. 11, 2019). Taking the phenomenon of nondisclosure into account, one would probably not be too far wrong in estimating that almost half of American households own guns. In any event, one would not be wrong by an order of magnitude (which is more than one can be sure of on some of the subjects covered in this Chapter!).

When asking *how many defensive gun uses (DGUs) by private persons (not police) occur each year in the United States*, the rival measures vary enormously, with the low-end estimate separated from the high-end estimate by more than an order of magnitude. The low end is around 100,000 DGUs per year, and the high end is around 3 million. The issue is examined in detail in Part C. While we tend to think that the true number is at least several hundred thousand, the range of uncertainty is very large.

What about the *number of gun crimes per year*? The standard source is the FBI's Uniform Crime Reporting (UCR) Program, compiled annually from data voluntarily contributed by more than 18,000 municipal, county, state, college and university, tribal, and federal law enforcement agencies. The UCR by definition does not include incidents that are not reported to the police. What the UCR reports as a criminal homicide may later be determined to be lawful self-defense. Because UCR reporting is not mandatory, some jurisdictions will submit incomplete information and some no information at all. One researcher has argued that UCR underreporting distorts research on right-to-carry laws. *See* Michael D. Maltz, Bridging Gaps in

Police Crime Data (1999). Data reporting in the UCR Program is transitioning to more detailed, incident-based data in the National Incident-Based Reporting System (NIBRS), which became the UCR data standard in January 2021.

Another source of crime data is the annual National Crime Victimization Survey (NCVS), a joint project of the Department of Justice and the Census Bureau. The NCVS conducts in-depth polls of Americans to ask if they were victims of crime during the last year, and, if so, to elicit certain details. The NCVS has its own methodological advantages and disadvantages. Sometimes NCVS data are congruent with the UCR, and sometimes they are not. For a rich source of information on the uses and limitations of these and other sources of crime data, see Alexander Tabarrok, Paul Heaton & Eric Helland, *The Measure of Vice and Sin: A Review of the Uses, Limitations and Implications of Crime Data*, *in* Handbook on the Economics of Crime 53 (Alex Tabarrok, Bruce L. Benson & Paul R. Zimmerman eds., 2012).

A controversial source of information is Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) firearms trace data.[2] Local law enforcement agencies may ask the ATF to *trace* the origins of a firearm confiscated from criminals or found at a crime scene. The typical trace starts with the manufacturer's name and the serial number stamped on the gun. A trace of a relatively new gun will quickly reveal the date of manufacture, the identity of the wholesaler and retailer who originally sold the gun, and the dates the gun was transferred to them. Pursuant to the Gun Control Act (GCA), manufacturers and wholesalers must keep records on these transactions. Almost all current data are computerized and available to the ATF at any time, so the ATF can conduct a computerized trace from manufacturer to wholesaler to retailer in a few seconds.

As detailed in Chapter 9.C, the GCA also requires retailers and wholesalers to keep paper records. Many retailers today also keep additional records on their computers, and many retailers and wholesalers participate in a voluntary program to make their computer records instantly searchable by ATF. For any retailer, the ATF can contact the retailer, review the sales record electronically or on paper, and ascertain the first lawful consumer buyer of the gun. If the gun was stolen from that first lawful buyer, the trace comes to an end. If the gun was sold to someone else, the trace might extend to the subsequent purchaser.

The ATF publishes annual reports of its traces on a state-by-state basis. Every report comes with the following disclaimer, as mandated by Congress:

> (1) Firearm traces are designed to assist law enforcement authorities in conducting investigations by tracking the sale and possession of specific firearms. Law enforcement agencies may request firearms traces for any reason, and those reasons are not necessarily reported to the Federal Government. Not all firearms used in crime are traced and not all firearms traced are used in crime.
>
> (2) Firearms selected for tracing are not chosen for purposes of determining which types, makes or models of firearms are used for illicit purposes. The firearms selected do not constitute a random sample and

2. The Bureau began using a three-letter acronym in the late 1980s as an attempt to appear in the league of the more prestigious FBI (Federal Bureau of Investigation) and DEA (Drug Enforcement Agency).

> should not be considered representative of the larger universe of all firearms used by criminals, or any subset of that universe. Firearms are normally traced to the first retail seller, and sources reported for firearms traced do not necessarily represent the sources or methods by which firearms in general are acquired for use in crime.

Consolidated Appropriations Act of 2008, 18 U.S.C. § 923; Pub. L. No. 110-161 § 518.

Because the likelihood of a successful trace is low for older guns, the trace submissions skew heavily toward newer guns. In 1999, for example, roughly 164,000 firearms were submitted to the National Trace Center and "52 percent were successfully traced to the first retail purchaser." National Research Council at 39. Forty-eight percent of the trace requests failed for various reasons, with 10 percent failing because the gun was too old. *Id.* In recent years, the ATF has accepted trace requests only for guns of recent vintage. An assessment of this issue is provided later in this Chapter in the excerpt from Gary Kleck and Shun-Yung Kevin Wang, *The Myth of Big-Time Gun Trafficking and the Overinterpretation of Gun Tracing Data*, 56 UCLA L. Rev. 1233 (2009) (Part G).

All the above problems involve simple questions of counting how many guns or gun crimes there are. When one tries to estimate the effects of particular gun laws, there are two different approaches, broadly speaking. A *cross-sectional* study compares and contrasts different areas that have varying laws, and attempts to discern whether differences in crime rates might be due to the differing gun laws. A *longitudinal* study examines changes in a single area over time—for example, how crime rates changed in a particular state after a certain gun law was enacted. Many studies are both longitudinal and cross-sectional, examining changes in several jurisdictions over a period of time.

The challenge faced by all such studies is that gun laws are not the only variables that may affect crime rates. For example, New Jersey has more restrictive gun laws than does Louisiana, and also has less crime. But there are many other differences between New Jersey and Louisiana that might explain the differing crime rates—such as poverty rates, police efficacy, unemployment, percentage of the population aged 15 to 25 (the peak years for violent crime perpetration), and so on. Likewise, the bare fact that violent crime fell after a state enacted a "shall-issue" handgun carry licensing law, *see* Ch. 10.D.6.b, does not prove that the crime reduction was caused by the new law. Perhaps at about the same time the shall-issue law went into effect, new prisons were opened, which allowed more criminals to be incarcerated longer; or unemployment was falling, or the percentage of young males in the population was declining due to emigration to other states. *Multivariate analysis* uses sophisticated statistical tools to attempt to hold other variables constant, and to isolate the effect of the variable being studied (such as a change in gun laws). Multivariate analysis brings the debate to a level of complexity that few people without an advanced degree in a field of statistics can follow. Even scholars with the requisite expertise have many bitter disagreements among themselves.

Nevertheless, despite all of the above difficulties, the empirical examination of firearms issues is better grounded than many other policy debates. Much of the debate involves homicide, a drastic event that draws extensive public attention, giving homicide research a starting point of solid data. Because a corpus delecti is difficult to conceal, we know the number of homicides more accurately than we

know the number of most other crimes. In the 1960s and 1970s, when the modern American gun control debate was getting under way, empirical research was thin, and generally of poor quality. But there has since been a tremendous amount of fine research. For example, Gary Kleck's 1991 book *Point Blank: Guns and Violence in America* won the American Society of Criminology's Hindelang Prize for the best contribution to criminology over a three-year period. Besides presenting Kleck's original research, the book summarizes all preceding research. *See* Gary Kleck, Point Blank: Guns and Violence in America (1991) [hereinafter Kleck, Point Blank]. One reviewer of Kleck's book, a specialist in drunk driving, commented enviously on the amount of data and analysis amassed by gun policy scholars. H. Laurence Ross, *Book Review*, 98 Am. J. Soc. 661, 661 (1992).

Social science data on firearms use and misuse has increased considerably since 1992. Still, one should exercise caution in relying on such data and analyses because many figures and statistical claims may not be nearly as precise or determinative as one might hope.

B. AMERICAN GUN OWNERSHIP

Many first-generation firearms criminologists thought that more guns in private hands straightforwardly led to more crime. *See, e.g.*, Franklin E. Zimring & Gordon Hawkins, The Citizen's Guide to Gun Control (1987). But in recent decades, gun ownership in America has increased to record levels even as the frequency of gun crime has sharply declined. The decline in violent crime is covered in more detail in Part J. This Part details the growth and distribution of the civilian gun inventory.

There are no comprehensive records of U.S. firearms ownership. Federal law prohibits a central registry of firearms owned by private citizens. *See* 18 U.S.C. § 923(g)(1)(A) and Ch. 9.C.4.a.(i). Analysis of the extent and character of gun ownership in America relies on extrapolation from sources such as new firearms production numbers, national surveys, and the use of proxies like firearm suicides (the higher the percentage of suicides in which firearms are used, the higher the inferred rate of gun ownership), purchases of hunting licenses, and the number of licensed firearm dealers. *See, e.g.*, Deborah Azrael, Philip J. Cook & Matthew Miller, *State and Local Prevalence of Firearms Ownership: Measurement, Structure and Trends*, 20 J. Quantitative Criminology 43 (2004); Matthew Miller, Deborah Azrael & David Hemenway, *Rates of Household Firearm Ownership and Homicide Across U.S. Regions and States, 1988-1997*, 92 Am. J. Pub. Health 1988 (2002); Jay Corzine, Lin Huff-Corzine & Greg S. Weaver, *Using Federal Firearms Licenses (FFL) Data as an Indirect Measurement of Gun Availability, in* The Varieties of Homicide and Its Research: Proceedings of the Homicide Research Working Group 161 (Paul H. Blackman et al. eds., 1999).

1. Gun Ownership by Number

Based on a compilation of different sources, Table 1-1 shows that that the U.S. civilian gun inventory likely exceeds 400 million—more than one gun per person in the United States.

Table 1-1 Rate of Gun Ownership vs. Rate of Gun Homicide and Fatal Gun Accidents

Year	Population (in 1,000s)	Total gun stock	Guns per capita	Murder and nonnegligent manslaughter per 100,000 persons	Fatal gun accidents	FGAs for ages 0-14	Population age 0 to 14 (in 1,000s)	FGAs per 100,000 persons	FGAs per 100,000 persons for ages 0-14
1948	146,091	53,203,031	0.36	5.6	2,270			1.55	
1949	148,666	55,406,460	0.37	5.1	2,326			1.56	
1950	151,871	57,902,081	0.38	5.0	2,174	451	40,853	1.43	1.10
1951	153,970	59,988,664	0.39	4.7	2,247	520	42,065	1.46	1.24
1952	156,369	61,946,315	0.40	4.9	2,210	519	43,377	1.41	1.20
1953	158,946	63,945,235	0.40	4.6	2,277	498	44,759	1.43	1.11
1954	161,881	65,558,052	0.40	4.6	2,281	527	46,266	1.41	1.14
1955	165,058	67,387,135	0.41	4.3	2,120	522	47,867	1.28	1.09
1956	168,078	69,435,933	0.41	4.4	2,202	508	49,449	1.31	1.03
1957	171,178	71,416,509	0.42	4.3	2,369	549	51,080	1.38	1.07
1958	174,153	73,163,450	0.42	4.3	2,172	538	52,699	1.25	1.02
1959	177,136	75,338,188	0.43	4.5	2,258	542	54,345	1.27	1.00
1960	179,972	77,501,065	0.43	5.1	2,334	544	55,971	1.30	0.97
1961	182,976	79,536,616	0.43	4.8	2,204	507	56,046	1.20	0.90
1962	185,739	81,602,984	0.44	4.6	2,092	456	56,019	1.13	0.81
1963	188,434	83,834,808	0.44	4.6	2,263	538	55,946	1.20	0.96
1964	191,085	86,357,701	0.45	4.9	2,275	500	55,835	1.19	0.90
1965	193,457	89,478,922	0.46	5.1	2,344	494	55,619	1.21	0.89
1966	195,499	93,000,989	0.48	5.6	2,558	535	55,287	1.31	0.97
1967	197,375	97,087,751	0.49	6.2	2,896	598	54,890	1.47	1.09

Year	Population (in 1,000s)	Total gun stock	Guns per capita	Murder and nonnegligent manslaughter per 100,000 persons	Fatal gun accidents	FGAs for ages 0-14	Population age 0 to 14 (in 1,000s)	FGAs per 100,000 persons	FGAs per 100,000 persons for ages 0-14
1968	199,312	102,302,251	0.51	6.9	2,394	527	54,492	1.20	0.97
1969	201,298	107,111,820	0.53	7.3	2,309	455	54,089	1.15	0.84
1970	203,798.7	111,917,733	0.55	7.9	2,406	506	53,803	1.18	0.94
1971	206,817.5	116,928,781	0.57	8.6	2,360	481	53,835	1.14	0.89
1972	209,274.9	122,304,980	0.58	9.0	2,442	554	53,700	1.17	1.03
1973	211,349.2	128,016,673	0.61	9.4	2,618	541	53,450	1.24	1.01
1974	213,333.6	134,587,281	0.63	9.8	2,513	532	53,163	1.18	1.00
1975	215,456.6	139,915,125	0.65	9.6	2,380	495	52,895	1.10	0.94
1976	217,553.9	145,650,789	0.67	8.8	2,059	428	52,605	0.95	0.81
1977	219,760.9	150,748,000	0.69	8.8	1,982	392	52,325	0.90	0.75
1978	222,098.2	156,164,518	0.70	9.0	1,806	349	52,060	0.81	0.67
1979	224,568.6	161,888,861	0.72	9.7	2,004	372	51,523	0.89	0.72
1980	227,224.7	167,681,587	0.74	10.2	1,955	316	51,369	0.86	0.62
1981	229,465.7	173,262,755	0.76	9.8	1,871	298	51,275	0.82	0.58
1982	231,664.4	178,218,890	0.77	9.1	1,756	279	51,367	0.76	0.54
1983	233,792.0	182,273,263	0.78	8.3	1,695	243	51,458	0.73	0.47
1984	235,824.9	186,683,867	0.79	7.9	1,668	287	51,580	0.71	0.56
1985	237,923.7	190,658,136	0.80	8.0	1,649	278	51,616	0.69	0.54
1986	240,132.8	194,182,072	0.81	8.6	1,452	234	51,592	0.60	0.45
1987	242,288.9	198,526,508	0.82	8.3	1,440	247	51,965	0.59	0.48
1988	244,499.0	203,306,821	0.83	8.5	1,501	277	52,604	0.61	0.53

Year	Population (in 1,000s)	Total gun stock	Guns per capita	Murder and nonnegligent manslaughter per 100,000 persons	Fatal gun accidents	FGAs for ages 0-14	Population age 0 to 14 (in 1,000s)	FGAs per 100,000 persons	FGAs per 100,000 persons for ages 0-14
1989	246,819.2	208,489,609	0.84	8.7	1,489	273	53,405	0.60	0.51
1990	249,438.7	212,823,547	0.85	9.4	1,416	236	54,065	0.57	0.44
1991	252,127.4	216,695,946	0.86	9.8	1,441	227	55,352	0.57	0.41
1992	254,994.5	222,067,343	0.87	9.3	1,409	216	56,297	0.55	0.38
1993	257,746.1	228,660,966	0.89	9.5	1,521	205	57,203	0.59	0.36
1994	260,289.2	235,604,001	0.91	9.0	1,356	185	57,918	0.52	0.32
1995	262,764.9	240,599,526	0.92	8.2	1,225	181	58,380	0.47	0.31
1996	265,189.8	245,003,546	0.92	7.4	1,134	138	58,850	0.43	0.23
1997	267,743.6	249,261,384	0.93	6.8	981	142	59,217	0.37	0.24
1998	270,248.0	253,771,440	0.94	6.3	866	121	59,659	0.32	0.20
1999	272,690.8	258,490,668	0.95	5.7	824	88	59,955	0.30	0.15
2000	281,421.9	263,208,364	0.94	5.5	776	86	60,301	0.28	0.14
2001	285,317.6	267,335,304	0.94	5.6	802	72	60,566	0.28	0.12
2002	287,973.9	272,180,680	0.95	5.6	762	60	60,764	0.26	0.10
2003	290,809.8	276,813,674	0.95	5.7	730	56	60,911	0.25	0.09
2004	293,655.4	281,683,638	0.96	5.5	649	63	61,012	0.22	0.10
2005	296,507.1	286,837,125	0.97	5.6	789	75	60,953	0.27	0.12
2006	299,398.5	292,555,450	0.98	5.8	642	54	61,023	0.21	0.08
2007	301,621.2	299,017,274	0.99	5.7	613	65	61,295	0.20	0.11
2008	304,059.7	305,894,116	1.01	5.4	592	62	61,570	0.19	0.10
2009	307,006.6	314,862,296	1.03	5.0	554	48	61,883	0.18	0.08

Year	Population (in 1,000s)	Total gun stock	Guns per capita	Murder and nonnegligent manslaughter per 100,000 persons	Fatal gun accidents	FGAs for ages 0-14	Population age 0 to 14 (in 1,000s)	FGAs per 100,000 persons	FGAs per 100,000 persons for ages 0-14
2010	308,745.5	322,919,506	1.05	4.8	606	62	61,201	0.20	0.10
2011	311,556.8	332,416,908	1.07	4.7	591	74	61,168	0.19	0.12
2012	313,830.9	345,552,564	1.08	4.7	548	58	61,113	0.17	0.09
2013	315,993.7	361,543,774	1.10	4.5	505	69	61,067	0.16	0.11
2014	318,301.0	373,798,736	1.17	4.4	461	49	61,053	0.14	0.08
2015	320.635.2	386,743,952	1.20	4.9	489	48	60,999	0.15	0.08
2016	322,941.3	403,002,346	1.25	5.4	495	74	60,997	0.15	0.12
2017	324,985.5	415,334,094	1.28	5.3	486	62	60,968	0.15	0.10
2018	326.687.5	428,138,336	1.31	5.0	458	54	60,820	0.14	0.09

Sources: Gun supply figures through 1994 are from Kleck, Targeting Guns 96-97 (providing citations for all the data). Additions to the gun supply from 1995 through 2018 are from the 2020 edition of ATF's Firearms Commerce in the United States ex. 1-3, plus the 2018 ATF Annual Firearms Manufacturing and Export Report. The 2000-19 figures on homicide rates are from FBI, Uniform Crime Reports, tbl. 1; Sourcebook of Criminal Justice Statistics, Estimated number and rate (per 100,000 inhabitants) of offenses known to police, by offense, United States 1960-2012. Homicides for 1948-59 are from FBI Data compilation. National population is from 2010-19 from Census Bureau, Annual Estimates of the Resident Population for the United States, States, and Puerto Rico: April 1, 2010 to July 1, 2019 (2019). Fatal gun accident data are from Centers for Disease Control, Compressed Mortality File, http://wonder.cdc.gov/mortSQL.html (run query), CDC National Vital Statistics Reports, Vol. 69, No. 13, tbl. 6 at 38, (Jan. 12, 2021), CDC National Vital Statistics Reports, Vol. 68, No. 9, tbl. 6 at 35, (June 24, 2019), and Kleck, Targeting Guns at 323-24. Population age 0-14 for 2000-09 is from Census Bureau, Annual Estimates of the Resident Population by Sex and Five-Year Age Groups, 2010 version, and for 2010-19 from Census Bureau, Annual Estimates of the Resident Population for Selected Age Groups by Sex for the United States: April 1, 2010 to July 1, 2019.

Caveats: The above figures for total firearm supply do not account for removal of firearms from the gun supply; for example, guns that are seized and destroyed by law enforcement, or guns that become inoperable because of rust or wear and are not repaired. Nor do the above figures account for the very large number of firearms for which manufacturing, import, and export reports are not required by the 1968 Gun Control Act (black-powder guns, homemade guns, some modern replicas of pre-1898 guns).

Of course, these numbers will increase as new data are added. Annual FBI firearm background checks for gun purchases soared to a new high of almost 40 million in 2020. There were 4,317,804 firearm background checks in January 2021, making it the highest monthly number on record. *See* FBI, NICS Firearm Checks: Month/Year. Background checks are not on a 1:1 ratio with new gun sales, as some states require background checks for private sales of existing firearms, other states issue permits that operate as a substitute for FBI checks, and background checks sometimes are unrelated to end-user sales, such as for concealed-carry permits. The National Shooting Sports Foundation (NSSF) adjusts the numbers to better estimate how many background checks are solely for firearm purchases. According to the NSSF, the number of checks in 2020 related to firearm purchases totaled about 20 million, a 60 percent increase over 2019. National Shooting Sports Foundation, *Gun Sales Reach Record Highs in 2020 Especially Among African Americans and First-Time Gun Buyers* (Feb. 4, 2021). Women made 40 percent of all purchases, and sales to African Americans were 56 percent higher than 2019. *Id.* Factors likely contributing to the increase in gun purchases in 2020-21 include the coronavirus pandemic, receipt of stimulus checks, widespread civil unrest, calls for defunding police, and a controversial presidential election.

Survey data about the distribution of firearms are mixed. According to a 2020 Gallup poll, 44 percent of adults say they live in a household with a gun and 32 percent of U.S. adults say they personally own a gun. Lydia Saad, *What Percentage of Americans Own Guns?*, Gallup (updated Nov. 13, 2020). "Gallup has tracked both metrics of gun ownership annually since 2007, showing no clear increase or decrease in gun ownership over that time." *Id.*

The Pew Research Center survey conducted a survey in 2017 showing similar results. Four in ten adults (42 percent) say there is a firearm in their household, while three in ten (30 percent) report that they personally own a gun. Kim Parker et al., *America's Complex Relationship with Guns: An In-Depth Look at the Attitudes and Experiences of U.S. Adults* 4, 18 Pew Research Center (2017). According to the survey, a majority of gun owners (66 percent) say they own more than one gun, with 29 percent indicating that they own five or more. *Id.* at 5. More than half (52 percent) of non-gun owners could see owning a gun in the future. *Id.* at 20.

Other surveys show a long-term decline in household gun ownership. Three data sources used in a 2015 study by the National Opinion Research Center (NORC) at the University of Chicago confirm the decline. *See* Tom W. Smith et al., *Gun Ownership in the United States: Measurements and Trends* (NORC rev. 2015). The General Social Survey (GSS), conducted by the NORC, shows that the number of households with guns went from about one-half (47.5 percent) in the 1970s to about one-third (32.9 percent) by 2012. *Id.* at 6. Gallup polling showed more moderate declines in household gun-ownership levels, from 49 percent in 1959 to 47.5 percent in the 1960s to 40.4 percent by 2005, then rising to 42 percent by 2013. *Id.* The IPOLL at the Roper Center for Public Opinion Research, a composite database of more than 400 U.S. polls, shows that household gun ownership declined from 48.4 percent before 1980 to 39.4 percent by 2013. *Id.* at 7.

The Rand Corporation's estimate of household firearm ownership from 1980 to 2016 shows a decrease in the national average from 45 percent in 1980 to 32 percent in 2016. Schell et al. at 20. Part of the household trend may be relatively

smaller households than a couple generations ago. If Mom, Dad, Grandma, and three children live together, and Dad owns a gun, then there is one gun-owning household. If Mom and Dad get divorced, and Grandma lives on her own, then only one of three households has a gun.

Surveys about household gun prevalence often show erratic swings from one year to the next, sometimes up and sometimes down. *See, e.g., Guns*, In-Depth Topics A to Z, Gallup. These swings are far too large to be mere sampling error. They are so large as to be highly implausible—unless one believes that a significant percentage of the U.S. population disposes of its guns one year, acquires new guns the next year, then again disposes of its guns a few years later, and buys new ones a couple of years after that. *See* Kleck, Targeting Guns at 67-68. It is fair to say that between one-third and one-half of American households have firearms. Claims of an exact percentage within that range assume more precision than the data justify.

2. Gun Ownership by State

According to a 2020 report from the Rand Corporation, the highest average proportion of adults living in a household with a firearm during the ten-year period from 2007-2016 are in Montana (64 percent), Wyoming (59 percent), and Alaska (59 percent), while the lowest rates are in New Jersey (8 percent), Massachusetts (10 percent), and Rhode Island (11 percent). Rand Corp., Gun Ownership in America (2020) [hereinafter Gun Ownership in America].

Table 1-2 shows state-level estimates of household firearm ownership in 1980, 1990, 2000, 2010, and 2016.

Table 1-2 Changes in State-Level Estimates of Household Firearm Ownership: Percentage of Adults Living in a Household with a Firearm

State	1980	1990	2000	2010	2016
Alabama	60.8	64.1	53.8	45.6	52.8
Alaska	78.9	69.9	60.1	61.1	57.2
Arizona	56.3	59.8	42.7	34.6	36.0
Arkansas	69.3	64.7	54.2	49.3	51.8
California	36.6	37.9	27.4	17.4	16.3
Colorado	54.0	53.5	46.7	38.4	37.9
Connecticut	25.6	31.5	20.2	17.2	18.8
Delaware	34.5	39.8	35.2	26.9	38.7
Florida	43.7	41.1	32.0	27.0	28.8
Georgia	60.9	57.4	46.7	36.4	37.7
Hawaii	26.6	18.6	12.4	8.4	9.1
Idaho	65.9	66.4	60.9	52.3	57.8
Illinois	31.2	36.0	28.6	24.3	22.6
Indiana	54.1	52.7	44.4	39.1	42.4
Iowa	55.2	51.0	47.7	41.1	38.5

State	1980	1990	2000	2010	2016
Kansas	59.2	58.5	46.9	43.9	42.3
Kentucky	54.0	59.9	55.3	46.4	52.5
Louisiana	56.9	61.7	50.5	45.4	52.3
Maine	47.0	53.9	46.6	46.0	47.7
Maryland	37.0	39.8	26.5	19.6	16.7
Massachusetts	16.9	18.5	12.6	12.1	9.0
Michigan	44.4	50.8	40.1	34.2	38.9
Minnesota	52.7	44.8	44.7	41.0	39.1
Mississippi	59.0	61.4	53.6	48.0	54.1
Missouri	56.9	58.2	46.1	46.3	52.8
Montana	78.2	66.8	64.6	62.1	65.0
Nebraska	54.5	52.3	48.6	42.5	39.2
Nevada	56.1	60.7	47.1	37.2	32.9
New Hampshire	40.8	46.4	39.1	39.4	46.3
New Jersey	20.1	19.3	10.8	8.5	8.9
New Mexico	55.3	49.6	43.8	37.5	35.9
New York	20.1	26.6	19.7	14.3	14.5
North Carolina	57.9	54.1	42.6	35.0	37.1
North Dakota	53.0	55.3	55.0	54.3	53.3
Ohio	45.8	48.6	35.1	35.7	41.9
Oklahoma	60.9	65.5	55.8	48.8	54.9
Oregon	57.7	59.4	51.6	40.9	41.4
Pennsylvania	43.7	45.0	39.1	35.5	40.2
Rhode Island	11.3	18.8	15.3	9.1	13.9
South Carolina	57.5	61.0	49.2	41.8	45.0
South Dakota	59.2	61.7	54.7	52.3	55.0
Tennessee	57.3	55.7	48.9	43.8	46.9
Texas	58.0	53.0	41.7	34.6	35.5
Utah	53.0	55.1	50.5	41.6	39.7
Vermont	52.1	55.2	47.0	48.4	50.3
Virginia	55.8	51.7	41.8	36.3	35.3
Washington	48.9	47.4	40.2	33.8	32.1
West Virginia	63.2	55.8	54.1	57.2	60.0
Wisconsin	48.3	50.2	46.6	43.1	47.1
Wyoming	80.0	76.1	58.6	57.2	60.7

Source: Data in Table 1-2 are taken from the support files for Schell et al. and can be downloaded at https://www.rand.org/content/dam/rand/pubs/tools/TL300/TL354/RAND_TL354.database.zip. This information is derived from survey data, and obviously does not represent a precise counting of state households with guns.

For the average proportion of adults living in a household with a firearm from 2007-16 and for rolling averages over three-year periods from 1980-2016, see Gun Ownership in America.

3. Gun Ownership by Type

Like all gun ownership surveys, assessments of ownership by gun type are not exact. The 2017 Pew Research Center survey indicates that among all gun owners, 72 percent own a handgun or pistol, 62 percent own a rifle, and 54 percent own a shotgun. Parker et al. at 22. Among gun owners who own only one gun, 62 percent own a handgun, 22 percent own a rifle, and 16 percent own a shotgun. *Id.* at 23. According to the National Research Council's 2004 study, the Black handgun ownership rate is 6 to 9 percent higher than the rate for Whites, whereas Black long gun ownership is 11 to 29 percent lower than the rate for Whites. National Research Council at 58.

Table 1-3 breaks down annual additions to total gun stock from Table 1-1 into three separate categories by firearm type—handguns, rifles, and shotguns.

4. Gun Ownership by Demographics

Data show that gun ownership varies across demographic groups. Gallup polling in 2020 indicates that 45 percent of men report personal ownership of a gun and 51 percent live in a household with a gun. Saad. Only 19 percent of women say they own a gun personally, while 35 percent are in a household with a gun. *Id.* There is less variation among age groups, with household gun ownership rates at 38 percent for ages 18-29, 45 percent for ages 30-49 and 50-64, and 48 percent for ages 65+. *Id.*

The Pew Research Center 2017 survey shows similar numbers. About four in ten men (39 percent) report owning a gun, compared with 22 percent women who personally own a gun and another 18 percent who say someone else in their household owns a gun. Parker et al. at 18. Household gun ownership rates are 43 percent for ages 18-29, 39 percent for ages 30-49, 33 percent for ages 50-64, and 45 percent for ages 65+. *Id.*

Gun ownership also varies by race. Forty-nine percent of Whites reported having a gun in the home in Gallup's 2014 survey, compared to only 28 percent of non-Whites. Justin McCarthy, *More Than Six in 10 Americans Say Guns Make Homes Safer*, Gallup (Nov. 7, 2014). Pew Research Center's 2017 survey says that firearms are in 49 percent of White households, 32 percent of Black households, and 21 percent of Hispanic households. Parker et al. at 18.

Gun ownership is more common among Republicans than Democrats or Independents. Gallup polling in 2020 shows that 64 percent of Republicans, 39 percent of Independents, and 31 percent of Democrats report living in a household with a gun. Saad. Pew's 2017 survey shows similar percentages, with 57 percent of Republicans having a gun in the household, compared to 48 percent of Independents and 25 percent of Democrats. Parker et al. at 19.