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8
9 IN THE UNITED STATES DISTRICT COURT
10 FOR THE SOUTHERN DISTRICT OF CALIFORNIA

11 VIRGINIA DUNCAN, et al.,
12
13 Plaintiffs,
14 v.

15 XAVIER BECERRA, in his official
capacity as Attorney General of the
16 State of California,
17 Defendant.

Case No: 17-cv-1017-BEN-JLB

**DECLARATION OF MARK
HANISH IN SUPPORT OF
PLAINTIFFS' SUPPLEMENTAL
BRIEF; EXHIBITS 2-7**

1 I, Mark Hanish, declare as follows:

2 1. I am a firearm industry senior executive with over two decades worth of
3 experience building indoor shooting ranges, running domestic and international sales
4 and marketing departments for firearms, ammunition, and accessory companies,
5 along with designing products with various engineering departments for the
6 commercial, law enforcement, and military markets. I have also spent over 25 years
7 as a professional shooter, holding several world, national and state level titles, using
8 the firearms technologies that are relevant to this case.

9 2. I have been retained by the plaintiffs in this matter to provide a well-
10 rounded industry perspective on firearms technology and the marketplace over the
11 last twenty years, specifically as it relates to semi-automatic firearms with
12 detachable magazines that are capable of holding over ten rounds. This report has
13 been prepared for the supplemental briefing that was ordered following the 9th
14 Circuit's remand in Virginia Duncan, et al. v. Rob Bonta. I have been retained to
15 write a declaration at the rate of \$300/hour.

16 **Background and Qualifications**

17 3. I have spent the last twenty years as a firearms, ammunition, and
18 defense industry executive. In addition to my role in the firearms industry, I have
19 also been a professional shooter, competing in domestic and international matches in
20 practical pistol and 3-gun for over 25 years.¹ I have a Bachelor of Science Degree in
21 Entrepreneurship and Business Management from the W.P. Carey School of
22 Business at Arizona State University. Through the Barrett Honors College, I wrote
23 an Honor's Thesis for the basis of my first firearms training and supply business,
24 whose growth led to the conceptualization of a luxury indoor shooting range. My
25 partners and I founded the Scottsdale Gun Club, which at the time of the facility
26

27 ¹ 3 Gun is a speed and accuracy sport, where the athlete uses the three platforms
28 of semi-automatic firearms – rifles, pistols, and shotguns – all with what were
considered large capacity magazines.

1 opening (2004) was the world's largest and most luxurious public indoor range,
2 creating a new market segment.

3 4. While developing the Scottsdale Gun Club, my partners and I operated
4 The Armory gun store, which focused on self-defense and tactical products and
5 training. My position was Founder and Vice President of Sales and Marketing for
6 the Scottsdale Gun Club and at the time we created an entirely new model of high-
7 end shooting and retail facilities. In addition to my sales and marketing roles, I was
8 responsible for our product selection and purchasing. The Scottsdale Gun Club
9 retained its tactical firearms and training roots and was nationally known as the
10 leader in that category. We were doing such high volume in those categories we
11 started a firearms and ammunition distribution business to resell products to other
12 gun stores. Prominent firearms manufacturers would consult with me on their
13 potential expansions into tactical market segments. Notably, we also launched a
14 manufacturing brand, U.S. PALM, that developed and produced a line of high-tech
15 polymer 30rd magazines for AK pattern rifles. These magazines are still
16 manufactured and distributed nationwide.

17 5. In 2010, I transitioned from the dealer and distributor side of the
18 industry into sales for FNH USA, LLC (later becoming FN America, LLC), which is
19 a subsidiary of Fabrique Nationale out of Herstal, Belgium. In the South Carolina
20 manufacturing facility FN has produced a multitude of arms for the US Military to
21 include the M4, M16, M249, M240, and MK19. FN also began developing a robust
22 commercial presence of which I was a part. Over six years, I rose to the position of
23 Senior Director of Commercial Sales. I also was on the FNH USA professional
24 shooting team. During my tenure at FN, I contributed to many aspects of the
25 commercial business for US operations, including sales, product management,
26 production forecasting, and marketing. At FN America we produced and marketed
27 both pistol and rifle lines, almost all were sold with "large capacity" magazines as
28 the standard offering. I have first-hand knowledge of the changes within the firearms

1 industry market over the past several decades and I have been able to create
2 consistent growth of the core business even in unstable market conditions. I worked
3 closely with the production and engineering side of the company. With those
4 departments, I principally directed the design for most models in the FN-15 line,
5 working to define the market position and models for the consumer, which included
6 both Law Enforcement and Commercial markets. The FN-15 is the company's AR-
7 15 style line of rifles. Additionally, I conceptualized and worked with the team to
8 design a high-end collector line of firearms, known as the Military Collector Series.
9 These firearms included semi-automatic versions of American military issue
10 firearms: the M4, the M16, and the M249 which generated over \$10million in
11 revenue the first year of production.

12 6. In 2016, I became the Vice President of Sales and Marketing for
13 Surefire, LLC, a company that specializes in tactical illumination devices, firearm
14 suppressors, and "large capacity" magazines for AR-15 style rifles for the civilian,
15 law enforcement, and military markets. At Surefire, I managed US commercial and
16 law enforcement business. Internationally, I managed commercial, law enforcement
17 and military markets. In 2019, I became the President of Global Sales and Marketing
18 for Ammo Inc. and in just over 3 years sales increased from \$4M to \$240M. I was
19 responsible for all sales, marketing, and product development activities including the
20 design and development of specialty cartridges for US Special Operations
21 Command. I successfully competed for and won several government contracts in a
22 short period of time. AMMO acquired GunBroker.com, the largest internet
23 marketplace for the firearms industry in 2021. In 2022, I joined the team at Timney
24 Triggers as their Vice President of Sales, thanks in large part to my rich and well-
25 rounded knowledge of the firearms industry. Due to my high-profile positions in a
26 range of companies that directly impact the conversation about firearms technology
27 available to the public and the military, as well as the ammunition side of the
28 market. I am uniquely qualified to discuss this matter.

1 7. As I have previously stated, not only is my experience in the industry as
2 an executive, but as a shooter and collector. I have personal experience purchasing
3 and using “large capacity magazines” prior to 1994 and continuing both throughout
4 the entire 10 years of the federal ban. I also have an extensive background of
5 practical application as a professional shooter. I have held multiple world, national,
6 and state shooting titles across disciplines for over 25 years. Notably, I was a part of
7 the 3 Gun National Pro Tour for six years, as a regular finalist and 2012 overall
8 runner up. 3 Gun Nation was a television show that aired on NBC Sports and
9 Sportsman Channel promoting the practical shooting use of semi-automatic rifles,
10 pistols, and shotguns with “large capacity” magazines.

11 8. Due to my professional background within the firearms industry, I have
12 served on the Board of the American Suppressor Association and have regularly
13 appeared as an on-camera expert for the National Shooting Sports Foundation, the
14 Outdoor Channel’s Gun Stories with Joe Mantegna, and Gallery of Guns TV. I have
15 also been an industry guest speaker for college students at institutions such as the
16 School of the Art Institute of Chicago and the W.P. Carey School of Business’ MBA
17 Program.

18 **Scope of Work**

19 9. I have been asked to write this statement as a direct response to
20 assertions made in Ryan Busse’s declaration for the supplemental briefing that was
21 ordered following the 9th Circuit’s remand in Virginia Duncan, et al. v. Rob Bonta.
22 In this document, I will provide a general statement on the popularity of AR-15 style
23 and similar rifles and their popularization on the firearms market, with a specific
24 emphasis on limitations in advertising and other avenues that contributed to this
25 robust market. I will then discuss the importance of magazines to the fundamental
26 operation of a semi-automatic firearm, as well as address their extensive use before
27 and after 1994 and the ways in which manufacturers have responded to the changing
28

1 in legislation. I will conclude on a discussion surrounding the 1911 style semi-
2 automatic pistol and its waning popularity in a defensive handgun market.

3 10. For the purposes of this report, I will use the terms “high capacity”
4 magazine and “large capacity magazine” and the abbreviation “LCM”
5 interchangeably to reference magazines capable of holding more than ten rounds. I
6 use the terms as they relate to the ways in which Busse categorizes them in his
7 declaration and the way they are defined in the Violent Crime Control and Law
8 Enforcement Act (1994).

9 **AR-15 and Civilian Popularity**

10 11. The demand for AR-15s and similar rifles grew steadily since their
11 inception and continued through the 1994-2004 federal “Assault Weapons Ban”
12 (AWB). The Colt AR-15 first became available on the commercial market in 1964.
13 In addition to the domestic production, throughout the 1970s and 1980s, semi-
14 automatic rifles with “large capacity magazines”, similar in style and function, were
15 imported into the United States for sale to the commercial market. These
16 comparable rifles followed an overarching trend in firearms design towards smaller
17 calibers with larger magazine capacities. A few notable examples of these were
18 manufactured by Beretta, Daewoo, FN, HK, IMI, SIG, STEYR, as well as several
19 AK pattern rifles. The importation of these foreign made rifles however was
20 restricted in 1989. Domestic manufacturers such as Colt, Bushmaster, Olympic
21 Arms, Pac-West Arms, Eagle Arms / Armalite, and DPMS that were previously
22 building AR-15 style rifles continued, for the most part, with production of slightly
23 modified rifles to comply with the new federal regulations. These rifles increased
24 exponentially in popularity as more consumers became aware of them, as they have
25 many benefits for a multitude of applications including personal defense, target
26 shooting, competition, and hunting. The AR-15 style of rifle is lightweight, has low
27 recoil, is relatively easy to learn how to use, can be customized by the consumer, and
28 is easily adjustable to fit most users of varying sizes and physical abilities. During

1 the AWB period, many companies were discouraged from investing in production
2 capacity to enter the AR-15 style rifle market due to legislative uncertainty. In the
3 years following the sunset of the AWB more recognizable brands such as Smith &
4 Wesson, Ruger, Sig Sauer, FN, and Remington were willing to invest the capital and
5 enter the market. These well-known and trusted brands responded to market demand
6 for AR-15 style rifles manufactured by established companies.

7 12. There is a lot of debate surrounding the effectiveness of advertising and
8 its impact on the consumer. In terms of firearms marketing, however, it is important
9 to note that there are significant limitations on the manufacturer due to the nature of
10 the product which must be considered when analyzing how successful and how
11 much of an impact firearms industry marketing has actually had on consumer
12 decision making.

13 Marketing and Advertising Limitations and Considerations

14 13. As a Senior Executive at one of the larger firearms manufacturers in the
15 world, I have been responsible for determining the firearms product mix and
16 production quantities based on the marketplace. Most manufacturers forecast their
17 future sales, and corresponding production, to match the products and quantities
18 their customers are demanding rather than the other way around. Its common sense
19 to manufacture and deliver what your customers are asking to purchase. Beyond
20 those core product sales, companies introduce new products to market that are either
21 a variation of a core product, a direct response to new customer demand, or a totally
22 new concept product. Consumer demand for the AR-15 style and similar rifles,
23 along with “high capacity” magazines for both rifles and pistols, has been the market
24 driver for the increased production and sales.

25 14. In Ryan Busse’s declaration, he asserts that the gun industry is
26 responsible for collectively pushing AR-15 style rifles and “high capacity”
27 magazines onto the market – a notion that fails to consider the myriad of factors that
28 influence consumer purchasing behavior. There are many fine marketing

1 professionals in the industry capable of creating innovative campaigns, but they still
2 are forced to compete for consumer attention without access to most standard
3 marketing avenues. Marketing is severely restricted and companies in the firearms
4 industry are prohibited or limited when using typical services to sell to the
5 consumers through means of television, Google Ads, e-commerce platforms,
6 merchant payment processing services and mainstream social media (Facebook,
7 Instagram, YouTube, etc). Without the ability to advertise via most technology,
8 industry does its best to respond to consumer demand with antiquated feedback
9 channels. Most firearms industry advertising is limited to endemic periodicals,
10 limited cable television channels such as the Outdoor Channel, and websites visited
11 directly by consumers or found through organic search results.

12 15. While firearms manufacturers have had restrictions imposed upon on
13 their abilities to market, there are other factors to consider for the proliferation and
14 popularity of the AR-15 and similar rifles that were completely outside of the scope
15 of the industry. For example, the Global War on Terror (GWOT) starting in 2001
16 produced images and video of American service members with their rifles and
17 tactical gear, which was broadcast across major media outlets. In the early years of
18 the war, the televised GWOT exposed the entire American consumer market to the
19 likeness of the iconic Colt and FN M4/M16 fueling awareness of the semi-automatic
20 commercial AR-15 style rifle. The War on Terror has continued for decades, and a
21 generation of consumers, including service members, now desired to own AR-15
22 style semi-automatic rifles. There is a long history of service rifles becoming
23 familiar to the generation that used them in conflict, and the resulting desire to bring
24 those rifles home from service and onto the shooting range and into the field for
25 sporting uses.

26 16. However, the Hughes Amendment, a portion of the Firearm Owners'
27 Protection Act of 1986, which essentially banned the civilian ownership of machine
28 guns made after 1986, prevents this practice in some form from continuing. The

1 military issued machine guns are no longer allowed to be transferred, but the desire
 2 to own and use the issued rifles has not subsided. While in my role at FN America, I
 3 directed the design and sales for most of the commercial FN15 model rifles.
 4 Additionally, I was instrumental in creating and launching the Military Collector
 5 Series consisting of the FN15 M4 (attached as **Exhibit 2**), FN15 M16 (**Exhibit 3**),
 6 and FN M249s (**Exhibit 4**). This Military Collector Series was comprised of semi-
 7 automatic replicas of the government issued M4, M16, and M249. These rifles were
 8 exceptionally well received by general commercial customers and service members
 9 desiring a replica of their issued rifle. The consumer demand for these rifles was
 10 driven mainly by the customer's familiarity with the designs either through service
 11 or media exposure.

12 17. Today the AR-15 style rifle is one of the most popular rifles in
 13 America. However, that popularity was not just engineered by the firearms industry,
 14 who have limited advertising channels. Rather, the popularity of this firearm has
 15 more to do with the design's features, benefits, and adaptability to be well suited for
 16 a wide array of legitimate uses. To quantify the acceptance and widespread adoption
 17 of these rifles, it is of note that according to the 2021 National Firearms Survey
 18 (expanded May 2022) about 24.6 million people, have owned an AR-15 or similarly
 19 styled rifle, and up to 44 million such rifles have been owned.²

20 **“Large Capacity Magazines” and the Firearms Market**

21 18. In Busse's declaration, he asserts that “large capacity magazines”
 22 (LCM) are only recently popular, which is a specious argument. In 1993, the year
 23 prior to the 1994 federal ban, semi-automatic pistols accounted for 80% of handguns
 24 produced in the US.³ According to Christopher S. Koper in his 2004 Updated

26 ² English, William, 2021 National Firearms Survey: Updated Analysis Including
 27 Types of Firearms Owned (May 13, 2022). Georgetown McDonough School of
 28 Business Research Paper No. 4109494, Available at SSRN: <https://ssrn.com/abstract=4109494> or <http://dx.doi.org/10.2139/ssrn.4109494> (**Exhibit 5**)

³ (Zawitz, 1995, p. 3) (**Exhibit 6**).

1 Assessment of the Federal Assault Weapons Ban: Impacts on Gun Markets and Gun
2 Violence, 1994-2003 report “*Approximately 40 percent of the semiautomatic*
3 *handgun models and a majority of the semiautomatic rifle models being*
4 *manufactured and advertised prior to the ban were sold with LCMs or had a*
5 *variation that was sold with an LCM*”.⁴ This study clearly illustrates the significance
6 of large capacity magazines on the market even before the Federal Assault Weapons
7 Ban. Today, that trend continues to grow. The 2021 National Firearms Survey
8 (expanded May 2022) reported:

9 48.0% of gun owners, about 39 million people, have owned
10 magazines that hold over 10 rounds, and up to 542 million such
11 magazines have been owned.⁵

12 19. As far as I am aware, the legal concept at the federal level of using the
13 arbitrary quantity of greater than 10 rounds to define a magazine as a “large capacity
14 ammunition feeding device” first appeared in the Violent Crime Control and Law
15 Enforcement Act of 1994. Since the inception of magazine fed firearms, designers
16 explored magazine designs and manufacturing methods to maximize intended
17 functionality and reliability of their firearms without arbitrary capacity limitations. It
18 wasn’t until restrictions were legally mandated did engineers modify or alter their
19 designs to conform to a random capacity limit. In order to comply with capacity
20 laws, manufacturers were compelled to redesign or modify existing standard
21 capacity magazines to limit their capacity to hold no more than 10rds, with severe
22 consequences if an 11th round can still be forced in the magazine. Often the
23 regulations are left ambiguous and subject to court interpretation after the fact as to
24 what constitutes a permanent modification preventing the magazine from being

25
26 ⁴ <https://www.ojp.gov/pdffiles1/nij/grants/204431.pdf>

27 ⁵ English, William, 2021 National Firearms Survey: Updated Analysis Including
28 Types of Firearms Owned (May 13, 2022). Georgetown McDonough School of
Business Research Paper No. 4109494, Available at SSRN: <https://ssrn.com/abstract=4109494> or <http://dx.doi.org/10.2139/ssrn.4109494> (Exhibit 5)

1 considered readily convertible back to standard capacity. Manufacturers make every
2 effort to avoid exposing themselves and their customers to this legal risk. Reducing
3 the standard capacity of a magazine to hold 10 or fewer rounds has been
4 accomplished through a variety of methods, some of which result in a less than
5 optimal magazine design while potentially introducing a higher risk of failure,
6 increased costs, and often adding unnecessary complexity. Some of the methods
7 used to reduce capacity include:

- 8 i. Narrowing of the internal width down the entire length of
9 the magazine, altering the internal geometry from the
10 original design intent.
- 11 ii. Creating indentations in the side of the magazine designed to
12 limit the downward travel of the follower in the magazine
13 tube. This method is sometimes coupled with weakening
14 cuts made to the remainder of the circumference of the
15 magazine tube adjacent to the indentations. In this design the
16 magazine spring usually extends to the baseplate and is at
17 risk of catching or hanging up on the indentations, impeding
18 normal operation.
- 19 iii. Shortening the magazine tube in conjunction with designing
20 a novel base pad that extends upward into the firearm to
21 connect with and complete the magazine assembly. These
22 base pads with magazine tube extender pieces are more
23 complicated to use, costly to manufacture, and their
24 increased complexity invites a possible reduction in
25 structural integrity.
- 26 iv. Inserting an object into the magazine to limit follower travel
27 and permanently attaching the base pad to encapsulate the
28 object in the magazine tube.
- 29 v. Installing a pin or rivet through the exterior of the magazine
30 body to limit the travel of the follower.

31 20. The burden on the manufacturers to produce these 10rd or less
32 magazines was reduced with the sunset of the AWB in 2004. The few states

1 remaining with their own capacity limits require manufacturers to continue to
2 modify their products as described above to comply with the restrictions. This
3 increases costs for manufacturers to design or redesign magazines, producing lower
4 quantities of the restricted magazines that potentially don't reach the manufacturing
5 amounts required to realize volume savings. Manufacturers may also choose not to
6 offer the affected models for sale to the residents of the restrictive state, reducing the
7 options for those residents to select from.

8 Magazines are an Integral Part of a Firearm

9 21. Magazine fed firearms are systems with many parts that must function
10 together in order to operate properly, and the ammunition feeding device is critical
11 to the overall performance and success of the firearm. To this day, especially in
12 modern handguns, the magazine is often the cornerstone of the pistol design. Unless
13 designing a new pistol to utilize an existing magazine, engineers will start a new
14 pistol project with designing the magazine first. The ammunition feeding device
15 must be optimized to reliably deliver cartridges into the operating system. The
16 engineers must consider the dimensions of the cartridge, with specific attention to
17 the cartridge case being either a straight wall or a tapered case, and angles at which
18 the magazine presents cartridges to the action. The manner in which the magazine
19 and action interface is critical. The remainder of the firearm design builds upon the
20 foundation laid by the magazine's form. Many, if not most, modern pistols are built
21 around a magazine designed to hold more than 10 rounds. Pistols designed for
22 defensive use balance maximizing the number of rounds carried for personal
23 protection within a size constraint of the pistol to perform its intended function.
24 Even though subcompact pistols are designed primarily for concealment and safety
25 while carrying, designers also attempt to maximize magazine capacity as well.
26 Pistols designed for recreation, sport, and competition are usually designed to
27 maximize capacity, accuracy, and reliability with few constraints on size.
28

1 22. As an integral part of the firearm, magazines are required for proper
2 function. While firearms are one of the few consumer items designed for several
3 lifetimes of service, their magazines are an item that can degrade with use. In
4 addition to the routine maintenance of replacing springs and worn followers, feed
5 lips of magazines which hold the next round in position to be presented to the action,
6 may both wear and crack from the cycling of the action. Magazines and their feed
7 lips are also susceptible to bending, cracking, denting, or deforming and being
8 rendered unserviceable when dropped during normal use. This is not uncommon,
9 and therefore, not an exceptionally rare occurrence that would only affect high
10 volume shooters.⁶ Shooters run the risk of damaging a magazine every time they
11 practice a reload and eject a magazine onto the ground.

12 23. A prudent firearms owner will purchase enough magazines to sustain
13 the use of their firearm as intended over the remainder of their lifetime, accounting
14 for damaged and worn-out magazines along the way. Many handguns and rifles have
15 proprietary magazines that are specific to the manufacturer, product family, and
16 many times the specific model. Replacement magazines may not be available in the
17 future as there is no guarantee the manufacturer will be in business to support the
18 platform, and there is no guarantee that an aftermarket company will produce that
19 specific magazine. A firearm without a functional magazine is of little use to an
20 owner, and of little value to another consumer. There is less risk for consumers that
21 possess firearms capable of accepting a magazine with a somewhat standardized
22 interface. These firearms are generally older legacy designs that were used in rifles
23 and pistols adopted by militaries. Magazines for the AR-15 style rifles, AK pattern
24 rifles, and model 1911 pistols fall into this category. Busse also asserts that one may
25 simply purchase a kit to refurbish a previously owned magazine. This option has
26 effectively been nullified as the possible enforcement of CA Penal Code Section
27

28 ⁶ Busse Decl., ¶10.

1 32311 regulating “conversion kits” has limited retailers from selling magazine repair
2 kits.⁷ During the 1994-2004 AWB period, individual manufacturers would not sell
3 consumers all the magazine components required to build a new magazine. Many
4 would designate a single component of the magazine as their control item and refuse
5 to sell that item to consumers. Any consumer needing to repair a legally owned pre-
6 ban magazine was out of luck if they had broken or damaged the restricted part.

7 24. As previously stated, magazines are so critical to the firearm, engineers
8 often start the design of a new firearm around the magazine. Magazines are a highly
9 specialized item to manufacture, whether they are stamped and welded from steel or
10 aluminum, injection molded from an advanced polymer, or a combination of
11 stamped feed lip and mag catch parts over-molded into a polymer body. These
12 specific manufacturing processes require specialized equipment, skillsets, and
13 sometimes stabilized environments not found in most firearms manufacturing
14 facilities. Firearms manufacturers choose to utilize the services of highly skilled
15 outside vendors to deliver a superior product built to their design specifications
16 precisely because of the importance of the magazine in the overall system. As an
17 added benefit to all commercial, law enforcement, and military customers, these
18 specialized magazine companies have grown and matured and are far more capable
19 to produce significantly higher quality products for the entire marketplace.

20 Magazines built today are some of the most advanced magazines in history and as a
21 result, are structurally safer and more reliable for the end user. Gun barrels and other
22 critical components are also routinely outsourced to specialized manufacturers. For
23 example, a firearm manufacturer may specify a hammer forged barrel to meet safety
24

25
26 ⁷ [https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=](https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=PEN§ionNum=32311)
27 [PEN§ionNum=32311](https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=PEN§ionNum=32311). (b) For purposes of this section, a “large capacity
28 magazine conversion kit” is a device or combination of parts of a fully functioning
large-capacity magazine, including, but not limited to, the body, spring, follower,
and floor plate or end plate, capable of converting an ammunition feeding device
into a large-capacity magazine.

1 and performance standards, and it would be absurd to contend the mere act of
2 outsourcing somehow reduces the importance of the barrel.

3 25. The magazine is correctly considered an integral part of the firearm, not
4 merely an accessory. It is considered such a vital part of the firearm that the
5 magazine's value is included in the cost of the firearm for calculation of the
6 Firearms and Ammunition Excise Tax (FAET) paid by the manufacturer or
7 importer.⁸ It is only additional magazines that are treated as non-taxable extra parts.
8 To contrast, accessories, even if included with the firearm, are not subject to FAET.
9 Typical examples of accessories include holsters, cleaning kits, gun locks, optics,
10 and other accoutrement not critical to the function of the firearm.

11 **Consumer Demand and Defensive Pistol Selection**

12 26. In Busse's declaration he focuses heavily on the 1911 design as the
13 basis for his claims that 7 or 8 rounds of .45 ACP is more than adequate for a pistol.
14 This limited perspective is understandable given his career at one of the larger
15 manufacturers of 1911 style pistols. However, there are a multitude of shortcomings
16 with the anecdotal statements he employs to support his position. There are many
17 pistols that are more effective for self-defense while offering a superior balance of
18 reliability, affordability, and capacity. It is widely understood that most of the less
19 expensive models of 1911s, and even many of the mid-level price point pistols in the
20 \$1000-\$1500 range from companies like Colt and Kimber may require an additional
21 investment in gunsmithing services to make them suitably reliable for defensive use.
22 Many people cannot afford one of the higher priced 1911 pistols he espouses, nor
23 can everyone handle the recoil of the .45 ACP and have the confidence to defend
24 themselves with the 7 or 8 rounds Busse advocates. Persons of a smaller stature
25 and/or having reduced strength may select a 1911 design pistol in 9mm for its
26 reduced recoil, but in turn they are accepting the accompanying risk of using single
27

28 ⁸ <https://www.ttb.gov/images/pdfs/presentations/FAET-Return-Walkthrough.pdf>

1 stack 9mm magazines which are inherently less reliable due to the tapered case of
2 the 9mm cartridge. The century old 1911 design is also less intuitive and requires
3 more familiarity and training for novice shooters to master. For these and other
4 reasons, many of the leading firearms trainers in the country recommend a multitude
5 of superior modern design pistol options for self-defense firearms.

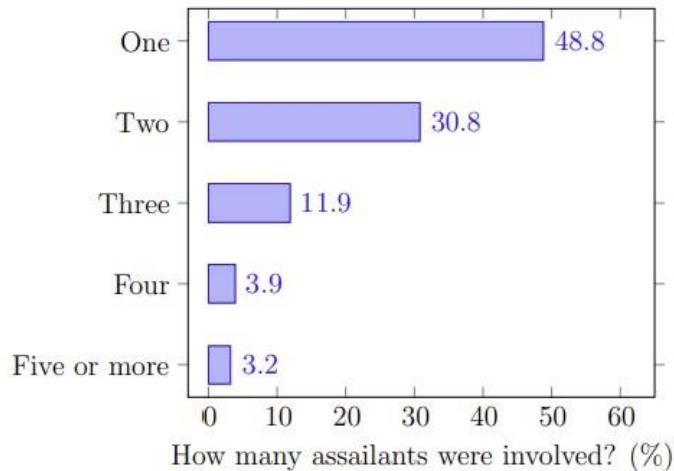
6 27. Busse also claims the 1911 to be “still one of the most widely sold guns
7 in the United States”. This claim might be referring to a wide geographic territory as
8 the defining standard of sales, as the “high volumes” of the past cannot be favorably
9 compared to current modern pistol sales. In comparing aggregated data on broad
10 categories of self-defense pistols, the BATF&E’s 2020 Annual Firearms
11 Manufacturing and Export Report does not give specific model information, but
12 rather we can make inferences from the pistol category, which is broken down into
13 caliber ranges. We find there were just shy of 3.9 million 9mm and .380 pistols
14 manufactured in 2020, and in comparison, just over 705,000 pistols comprise the up
15 to .50 caliber category.⁹ This category includes all pistols chambered in .45 ACP, not
16 just 1911s, as well as additional designs and calibers such as the .40 S&W, making
17 the 1911 production somewhere below that ceiling. With further examination of the
18 manufacturer’s individual reporting data, it is evident the market clearly indicates
19 significantly higher demand for modern pistols in calibers smaller than .45 ACP.

20 28. Busse goes on to state that based on his experience, “a large-capacity
21 magazine is not necessary to use a firearm effectively for self-defense or other
22 sporting purpose, like hunting.” However, the 2021 National Firearms Survey
23 (expanded May 2022) provides contrary information regarding the carry and use of
24 firearms for self-defense. According to the Survey:

25 31.1% of gun owners, or approximately 25.3 million adult Americans,
26 have used a gun in self-defense. Gun owners engage in approximately
27 1.67 million defensive uses of firearms per year. Handguns are the

28 ⁹ 2022.06.10_afmer_2020_cover_sheet_508 (1) (**Exhibit 7**).

firearm most commonly used in defensive incidents (65.9%) The majority of defensive gun uses take place outside of the home (74.8%). About half of defensive gun uses involve more than one assailant (51.2%).



29. Conclusions drawn in the survey state that “presumably, it would be advantageous to have a firearm with a larger capacity magazine if one needed to engage more than one assailant, which these responses suggest is indeed common. Although in most defensive gun uses the gun was not fired (81.9%), we can further analyze the subset of incidents in which a gun was fired. In 67.8% of these cases in which a gun was fired in self-defense, multiple rounds were fired.”¹⁰

Conclusion

30. In this report, I have addressed several statements made in Ryan Busse’s declaration. It is my findings, as an industry expert with a range of backgrounds in the tactical firearms market and culture, that several factors contributed to the popularity of the AR-15 style and comparable rifles starting in the 1960s and that this phenomenon is not solely the result of an industry marketing

¹⁰ English, William, 2021 National Firearms Survey: Updated Analysis Including Types of Firearms Owned (May 13, 2022). Georgetown McDonough School of Business Research Paper No. 4109494, Available at SSRN: <https://ssrn.com/abstract=4109494> or <http://dx.doi.org/10.2139/ssrn.4109494> (Exhibit 5)

1 scheme. Furthermore, I conclude that large capacity magazines have been popular
2 since well before their 1994 regulation and rebut the assertion that these magazines
3 are not ubiquitous. Additionally, I provided a perspective on the importance of a
4 magazine to firearms design as well as ways in which the industry have improved
5 these magazines to be of superior technology ultimately being fundamentally safer. I
6 finish the report with an analysis on the proliferation of self defense handguns that
7 have far surpassed the production and popularity of the 1911 style design in today's
8 gun ownership community.

9 I declare under penalty of perjury that the foregoing is true and correct.

10 Executed within the United States on November 30th, 2022.

11
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13 Mark Hanish
14 Declarant
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EXHIBIT 2



FN 15™ M4 MILITARY COLLECTOR

THE WORLD'S MOST BATTLE-PROVEN FIREARMS™

CARBINES

FN 15™ SERIES



FN 15™ M4 MILITARY COLLECTOR

5.56x45mm **30 Rd.** **6.6 LBS.** **30.5"-34.2"** **16"**
CALIBER MAGAZINE WEIGHT LENGTH BARREL LENGTH

OPERATION: DIRECT IMPINGEMENT

FINISH: BLACK

SIGHTS: A2-STYLE FRONT, ADJUSTABLE REAR SIGHT

The FN 15™ Military Collector Series brings to market military replica rifles made to FN's exacting specifications. The semi-automatic rifles are chambered in 5.56x45mm NATO and feature M4 -profile 16 and 20-inch 1:7" RH, button broached and chrome-lined barrels, respectively. Each UID-labeled lower receiver is equipped with an ambidextrous selector switch, just like its select-fire big brother.

PRIMARY FEATURES

- Knights Armament M4RAS Adapter rail w/ rail adapter covers
- Ambidextrous safety lever

RECEIVER

- Hard-anodized aluminum
- Flat-top receiver, M-1913
- MIL-STD rail at the 12 o'clock position
- A2-style front sight, adjustable rear sight
- UID Label

BARREL

- 16" Button-broached, chrome-lined
- A2-style compensator (Permanently attached)
- 1:7" RH twist

STOCK

- Collapsible, 6-position with sling mount
- M4 with pistol grip

OPERATING CONTROLS

- Ambidextrous safety lever
- Ergonomic magazine release
- Forward assist

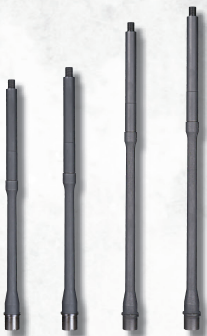
MAGAZINE

- Aluminum body, Low friction follower, AR-style 30 round capacity

ACCESSORIES



FN UNIVERSAL TACTICAL SLING



FN PREMIUM COLD HAMMER-FORGED AR-15 BARRELS

Product	Designation	Product Type	UPC
36318	FN 15™ M4 Military Collector	Consumer	845737006211
36318-02	FN 15™ M4 Military Collector LE	Law Enforcement	TBD

FOR MORE INFORMATION, CONTACT YOUR LOCAL FIREARMS RETAILER OR VISIT FNAMERICA.COM

EXHIBIT 3



FN 15™ M16 MILITARY COLLECTOR

THE WORLD'S MOST BATTLE-PROVEN FIREARMS™

CARBINES

FN 15™ SERIES



FN 15™ M16 MILITARY COLLECTOR

5.56x45mm **30 Rd.** **8.2 LBS.** **39.5"** **20"**
CALIBER MAGAZINE WEIGHT LENGTH BARREL LENGTH

OPERATION: DIRECT IMPINGEMENT

FINISH: BLACK

SIGHTS: A2-STYLE FRONT, ADJUSTABLE REAR SIGHT

The FN 15™ Military Collector Series M4 and M16 bring to market military replica rifles made to FN's exacting specifications. The semi-automatic rifles are chambered in 5.56x45mm NATO and feature M4 -profile 16 and 20-inch 1:7" RH, button broached and chrome-lined barrels, respectively. Each UID-labeled lower receiver is equipped with an ambidextrous selector switch, just like its select-fire big brother.

PRIMARY FEATURES

Knights Armament M5RAS Adapter rail w/ rail adapter covers
Ambidextrous safety lever

RECEIVER

Hard-anodized aluminum
Flat-top receiver, M-1913
MIL-STD rail at the 12 o'clock position
A2-style front sight, adjustable rear sight
UID Label

BARREL

20" Button-broached, chrome-lined
A2-style compensator
1:7" RH twist

STOCK

Fixed, A2 Rifle Butt-Stock
M16 with pistol grip

OPERATING CONTROLS

Ambidextrous safety lever
Ergonomic magazine release
Forward assist

MAGAZINE

Aluminum body, Low friction follower, AR-style 30 round capacity

ACCESSORIES



FN UNIVERSAL TACTICAL SLING



FN PREMIUM COLD HAMMER-FORGED AR-15 BARRELS

Product	Designation	Product Type	UPC
36320	FN 15™ M16 Military Collector	Consumer	845737005061
36320-02	FN 15™ M16 Military Collector LE	Law Enforcement	TBD

FOR MORE INFORMATION, CONTACT YOUR LOCAL FIREARMS RETAILER OR VISIT FNAMERICA.COM

EXHIBIT 4



CARRY THE FUTURE™

FN M249S®



FN M249S
Standard Black



FN M249S
Standard FDE



FN M249S
Para Black



FN M249S
Para FDE

PRIMARY FEATURES

- Semi-automatic, closed-bolt operation
- Primary sights graduated to 1000 meters with MIL-STD 1913 rail system for optics
- Quick change barrel and integral steel bipod

RECEIVER

- Formed steel frame with magazine well for alternate feed
- Fixed, pivoting ejector for robust ejection
- Top cover integrated MIL -STD 1913 mounting rail for sighting systems

BARREL

- Changeable barrel
- Cold hammer-forged steel
- Chrome-lined bore and chamber
- Heat shield and carry handle included

STOCK

- STANDARD** - Highly ergonomic polymer buttstock assembly with hydraulic recoil buffer system and non-slip buttplate
- PARA** - Rotating, telescoping buttstock with hydraulic recoil buffer and non-slip buttplate

OPERATING CONTROLS

- Crossbolt safety
- Curved trigger for improved finger position and control
- Non-reciprocating charging handle

FEED SYSTEM

- Standard disintegrating link belt-fed
- Under-mounted polymer ammunition container helps keep ammunition cleaner for reduced wear and added reliability

FN M249S® STANDARD

5.56x45mm	30/200 Rd.	17.2 LBS.	40.7"	18.5"
CALIBER	CAPACITY	WEIGHT	LENGTH	BARREL LENGTH

FN M249S® PARA

5.56x45mm	30/200 Rd.	16.9 LBS.	31.5-37"	16.1"
CALIBER	CAPACITY	WEIGHT	LENGTH	BARREL LENGTH

OPERATION: SEMI-AUTOMATIC, CLOSED BOLT

FINISH: BLACK OR FDE

SIGHTS: STEEL, ADJUSTABLE TO 1,000 METERS

RIFLE

FN M249S®

Product	Designation	UPC
46-100169	M249S Standard Black	845737015077
46-100170	M249S Standard FDE	845737015091
46-100171	M249S Para Black	845737015084
46-100172	M249S Para FDE	845737015107

The FN M249S Standard and Para, semi-automatic versions of the M249 SAW light machine gun, originally developed by FN Herstal as the FN MINIMI® and adopted by the U.S. Military in 1988. Features the signature FN cold hammer-forged, chrome-lined barrel and operates from a closed bolt position. Chambered in 5.56x45mm NATO, the rifle will accept both magazine and linked belt ammunition.

EXHIBIT 5

2021 National Firearms Survey: Updated Analysis Including Types of Firearms Owned

William English, PhD

Georgetown University

Expanded Report: May 13, 2022

Abstract

This report summarizes the findings of a national survey of firearms ownership and use conducted between February 17th and March 23rd, 2021 by the professional survey firm Centiment. This survey, which is part of a larger book project, aims to provide the most comprehensive assessment of firearms ownership and use patterns in America to date. This online survey was administered to a representative sample of approximately fifty-four thousand U.S. residents aged 18 and over, and it identified 16,708 gun owners who were, in turn, asked in-depth questions about their ownership and their use of firearms, including defensive uses of firearms.

Consistent with other recent survey research, the survey finds an overall rate of adult firearm ownership of 31.9%, suggesting that in excess of 81.4 million Americans aged 18 and over own firearms. The survey further finds that approximately a third of gun owners (31.1%) have used a firearm to defend themselves or their property, often on more than one occasion, and it estimates that guns are used defensively by firearms owners in approximately 1.67 million incidents per year. Handguns are the most common firearm employed for self-defense (used in 65.9% of defensive incidents), and in most defensive incidents (81.9%) no shot was fired. Approximately a quarter (25.2%) of defensive incidents occurred within the gun owner's home, and approximately half (53.9%) occurred outside their home, but on their property. About one out of ten (9.1%) defensive gun uses occurred in public, and about one out of thirty (3.2%) occurred at work.

A majority of gun owners (56.2%) indicate that they carry a handgun for self-defense in at least some circumstances, and about 35% of gun owners report carrying a handgun with some frequency. We estimate that approximately 20.7 million gun owners (26.3%) carry a handgun in public under a "concealed carry" regime; and 34.9% of gun owners report that there have been instances in which they had wanted to carry a handgun for self-defense, but local rules did not allow them to carry.

The average gun owner owns about 5 firearms, and handguns are the most common type of firearm owned. 48.0% of gun owners – about 39 million individuals – have

owned magazines that hold over 10 rounds (up to 542 million such magazines in total), and 30.2% of gun owners – about 24.6 million individuals – have owned an AR-15 or similarly styled rifle (up to 44 million such rifles in total). Demographically, gun owners are diverse. 42.2% are female and 57.8% are male. Approximately 25.4% of Blacks own firearms, 28.3% of Hispanics own firearms, 19.4% of Asians own firearms, and 34.3% of Whites own firearms. In total, Americans own over 415 million firearms, consisting of approximately 171 million handguns, 146 million rifles, and 98 million shotguns.

1 Introduction

This report summarizes the main findings of a national survey of firearms ownership and use conducted between February 17th and March 23rd, 2021 by the professional survey firm Centiment. This survey, which is part of a larger book project, aims to provide the most comprehensive assessment of firearms ownership and use patterns in America to date.

Before this survey, the most authoritative resource for estimating details of gun ownership in the U.S. has been the “Comprehensive National Survey on Firearms Ownership and Use” conducted by Cook and Ludwig in 1994 (Cook and Ludwig, 1996), and the most authoritative resource for estimating defensive gun use in the U.S. has been the “National Self-Defense Survey” conducted by Kleck and Gertz in 1993 (Kleck and Gertz, 1995, 1998). While valuable resources, they are both now a quarter century old, and no surveys of similar scope and depth have documented firearms ownership and use in more recent years.

Hepburn et al. (2007) conducted a more limited survey to ascertain the “gun stock” in 2004, a version of which was repeated in 2015 (Azrael et al., 2017). However, as they explain in introducing their latter survey, data sources on firearms ownership and use remain scarce:

Although the National Opinion Research Center’s General Social Survey and other surveys have asked respondents whether they personally own a firearm or live in a home with firearms, few have asked about the number of guns respondents own, let alone more detailed information about these firearms and the people who own them, such as reasons for firearm ownership, where firearms were acquired, how much firearms cost, whether they are carried in public, and how they are stored at home (Smith and Son 2015; Gallup 2016; Morin 2014). Because of this, the best and most widely cited estimates of the number of firearms

in civilian hands are derived from two national surveys dedicated to producing detailed, disaggregated, estimates of the U.S. gun stock, one conducted in 1994, the other in 2004 (Cook and Ludwig 1997, 1996; Hepburn et al. 2007).

Miller, Zhang, and Azrael conducted an expanded survey in 2021 of 5,932 gun owners with a focus on characterizing the demographics of those who acquired firearms for the first time during the COVID-19 Pandemic, based on a sub-sample of 447 individuals who fit this criterion (Miller et al., 2022). This team also described their survey as a “2021 National Firearms Survey,” and it is helpful to clarify that their survey was distinct from the survey reported here.

Richer survey data on firearms ownership and use has been collected by industry associations such as the National Shooting Sports Foundation (NSSF).¹ However, these surveys generally aim at assessing industry trends and market segmentation and are not necessarily designed to be nationally representative. In 2017, the Pew Research Center conducted one of the most recent and detailed surveys of the demographics of gun ownership (Brown, 2017).² Although it did not ask detailed questions concerning defensive use of firearms and the types of firearms owned, this recent Pew survey serves as a helpful benchmark for corroborating the general ownership estimates of the present survey.

Advances in survey research technologies make it possible to reach large, representative respondent populations today at a much lower cost than a quarter century ago. One of the limitations of the Cook and Ludwig survey, which sought to be nationally representative, was that the survey sample was relatively small, with about 2,500 respondents of whom only about 600, or (24.6%), owned a firearm when the survey was administered. As the investigators noted in their report, some sub-questions were not sufficiently well powered to make confident inferences, particularly concerning the defensive use of firearms. Similarly, Kleck and Gertz’s survey was limited to 4,977 respondents, and the more recent surveys by Pew, Hepburn, and Azrael are all based on less than 4,000 respondents.

¹See <https://www.nssf.org/research/>

²See Pew Research Center, June 2017, “America’s Complex Relationship With Guns” <https://www.pewresearch.org/social-trends/wp-content/uploads/sites/3/2017/06/Guns-Report-FOR-WEBSITE-PDF-6-21.pdf>

Today, professional survey firms like Centiment³ cultivate large pools of survey respondents, enabling representative sampling, and have techniques that encourage high response and completion rates while also ensuring the integrity of responses.⁴ The online survey summarized here was presented to a nationally representative sample (excluding residents of Vermont who had already responded to a pilot version of this survey) of 54,244 individuals aged 18 or over who completed an initial questionnaire that included an indirect question indicating whether they owned a firearm (respondents were presented with a list of items commonly owned for outdoor recreational purposes, including firearms, and were asked to select all items that they own).

This question identified 16,708 individuals as gun owners, who were then transferred to the main survey, which then asked detailed questions about their ownership and use of firearms. Given the length and detail of the survey, there was a slight amount of attrition, as 7.5%, or 1,258 individuals, did not make it through all questions to the end of the survey. However, 92.5% of the responding firearms owners (15,450) did proceed through all of the survey questions.

This survey thus contains what we believe is the largest sample of firearms owners ever queried about their firearms ownership and firearms use in a scientific survey in the United States. This survey was approved by Georgetown University's Institutional Review Board. Of note, this survey was conducted just after a period of widespread social unrest across the U.S. and a contentious presidential election, which background check data suggests led to record gun sales (approximately 39.7 million in 2020, up 40% from the prior year).⁵ It is thus a comprehensive and timely assessment of the state of firearms ownership and use in the United States. Finally, the extraordinarily large size of this sample enables us to make well-powered, statistically informative inferences within individual states, which considerably extends the value of this data.

The initial sample of respondents achieved excellent demographic representation across

³See <https://www.centiment.co/>

⁴See <https://help.centiment.co/how-we-safeguard-your-data>

⁵See McIntyre, Douglas A. "Guns in America: Nearly 40 million guns were purchased legally in 2020 and another 4.1 million bought in January" <https://www.usatoday.com/story/money/2021/02/10/this-is-how-many-guns-were-sold-in-all-50-states/43371461/>

all 49 states and DC, excluding Vermont (see Appendix A and B). For the purpose of estimating firearms ownership rates for the general U.S. population we employed raked weighting on gender, income, age, race, and state of residence. Note that there was a brief period in the first two days after the soft launch of the survey that comprehensive demographic data was not collected from those respondents who did not indicate firearms ownership, and thus did not proceed to the main survey (approximately 300 respondents). Although the survey company, Centiment, maintained demographic data on these panel respondents, it was determined that this data was not as comprehensive as the data collected by the survey, at which point the demographic questions were moved to the front of the survey, and asked of all respondents, including those who did not indicate firearms ownership. For the purpose of calculating statistics on national firearms ownership rates, we exclude the entire sample of both firearms owners and non-firearms owners from these first two days (410 respondents), leaving us with 53,834 respondents after this date for whom we have comprehensive demographic data. Firearms-owning respondents from the first two days are included in subsequent analysis of firearms owners, and we do possess comprehensive demographic information for these individuals.

Appendix B contains tables reporting the demographic sampling rates and the Census demographics used for raked weighting of the national survey. Note that the overall effect of weights is minimal given the high representativeness of the initial sample. For the purposes of analyzing responses within the sub-sample of firearms owners, we do not employ weighting schemes, in part because the “true” demographics of gun ownership are not knowable from an authoritative source analogous to the U.S. Census Bureau. However, as a robustness exercise, using weights based on estimates derived from the larger survey response rates yields results that are substantially identical for the analysis of responses from firearms owners.

One of the challenges in asking questions about firearms is eliciting truthful responses from firearms owners who may be hesitant to reveal information about practices that are associated with public controversy. The “tendency to respond to questions in a socially acceptable direction” when answering surveys is often referred to as “social desirability bias” (Spector, 2004), and there is evidence that it can influence survey responses to questions regarding firearms. For example, when Rafferty et al. (1995) conducted a telephone survey

of Michigan residents who had purchased a hunting license or registered a handgun, only 87.3 percent of the handgun registrants and 89.7 percent of hunting license holders reported having a gun in their household. Similarly, Ludwig et al. (1998) have documented a large gender gap in reporting of firearms ownership, finding that “in telephone surveys, the rate of household gun ownership reported by husbands exceeded wives’ reports by an average of 12 percentage points.” Asking questions via an anonymous survey instrument on the internet is likely to cause less concern or worry than traditional phone-based questionnaires with a live person on the other end or during face-to-face interviews, which is how the General Social Survey – one of the most prominent national surveys that regularly asks about firearm ownership – is conducted.⁶ Even when presented in the more impersonal setting of a computer interface, however, a survey must be worded thoughtfully so as to assure anonymity, and not give respondents reason to worry about answering truthfully.

This survey employs five common devices to encourage more truthful responses. First, it uses an indirect “teaser” question to pre-screen respondents in order to select those who own firearms. The initial question prompt presents the survey as concerned with “recreational opportunities and related public policies” and asks respondents if they own any of the following items, presented in a random order: Bicycle, Canoe or Kayak, Firearm, Rock Climbing Equipment, None of the Above. Only those who select “Firearm” are then presented the full survey. We also ask demographic questions at the outset, which allows us to assess the representativeness of the sample, including those who do not indicate firearms ownership. Second, the survey was carefully phrased so as to not suggest animus towards gun owners or ignorance of firearms-related terminology. Third, the survey assures respondents of anonymity. Fourth, in order to ensure that respondents are reading the survey questions carefully, and then responding with considered answers thereto, a “disqualifying” question (sometimes referred to as a “screening” question) was embedded a little over half of the way through the survey instructing respondents to select a particular answer for that question, which only those who read the question in its entirety would understand. Anyone registering an incorrect answer to this question was disqualified from the survey and their responses to

⁶For a description of the methods of the General Social Survey see: https://www.nsf.gov/pubs/2007/nsf0748/nsf0748_3.pdf

any of the survey questions were neither considered nor tallied.

Finally, while responses were required for basic demographic questions, if questions of a sensitive nature were left blank, the software would first call attention to the blank response and prompt the respondent to enter a response. However, if a respondent persisted in not responding and again tried to progress, rather than kick them out of the survey, they would be allowed to progress to the next section in the interest of obtaining the maximum amount of information that they were willing to share. Respondents were not made aware of this possibility in advance, and in practice such “opting out” of a particular question was seldom done (less than 1% of responses for the average question). This is the reason that small variations are sometimes observed in the total number of respondents for certain questions.

A pilot version of this survey was first fielded in Vermont as part of a research project aimed at documenting firearms ownership and firearms use rates in that specific state. The Vermont survey served as a proof of concept for the national version, demonstrating that this survey is a viable instrument for eliciting responses from firearms owners with both high response rates and low disqualification rates. The results of the Vermont survey are presented separately in Appendix A of this report and closely mirror national results.

This report focuses on providing descriptive statistics of answers to the major questions asked in the survey. Future research will examine responses, and relationships between them, in more detail. The report proceeds as follows: the next (second) section summarizes national firearms ownership estimates and demographics; the third section examines defensive uses of firearms; the fourth section examines question regarding carrying for self-defense; the fifth section summarizes ownership statistics, and the sixth section concludes.

2 Gun Ownership Demographics

- About a third of adults in the U.S. report owning a firearm, totaling about 81.4 million adult gun owners.
- 57.8% of gun owners are male, 42.2% are female.
- 25.4% of Blacks own firearms.

- 28.3% of Hispanics own firearms.
- 19.4% of Asians own firearms.
- 34.3% of Whites own firearms.

With raked weighting employed for gender, state, income, race, and age we find that 32.5% of US adults age 21 and over own a firearm (95% Confidence Interval, 32.1 - 32.9%). Expanding the sample population to include those age 18-20, who are restricted in some states from purchasing firearms, 31.9% of US adults age 18 and over own firearms (95% Confidence Interval, 31.5% - 32.3%). This is slightly above, but consistent with, the most recent in-depth survey of firearms ownership conducted by Pew in 2017 before the Covid-19 pandemic, which found that 30% of adults in America own a firearm (Brown, 2017). It is also consistent with recent Gallup polling in 2020 and 2021, which found that 32% and 31% of adults personally own a firearm (Gallup, 2021).

As a benchmark to assess the accuracy of the teaser question used to ascertain firearm ownership, we can also compare ownership rates of other items reported by respondents for this question. We find 52% of respondents indicating owning a bicycle, which closely matches Pew's finding that 53% of Americans own a bicycle, according to a poll conducted in 2014.⁷

The distribution of gun owners surveyed by state is illustrated in Figure 1, and ranges from 1,287 in California and 1,264 in Texas to 26 in Washington, DC and 24 in North Dakota.

Table 1 shows the proportion of the population in each state estimated to own a firearm. Massachusetts, Hawaii, Rhode Island, and New Jersey have the lowest rates of ownership with less than 20% of the adult population owning firearms, while Kentucky, Montana, West Virginia, and Idaho have the highest rates of ownership with more than 45% of the adult population owning firearms.

With regard to the demographics of gun ownership, we find that 57.8% of gun owners are male and 42.2% are female, the average age of gun owners is 46-50 years old, and the average annual household income is \$80,000-\$90,000. Approximately 18% of gun owners do not identify as White (alone). Overall, approximately 10.6% of gun owners identify as Black,

⁷See <https://www.pewresearch.org/fact-tank/2015/04/16/car-bike-or-motorcycle-depends-on-where-you-live/>

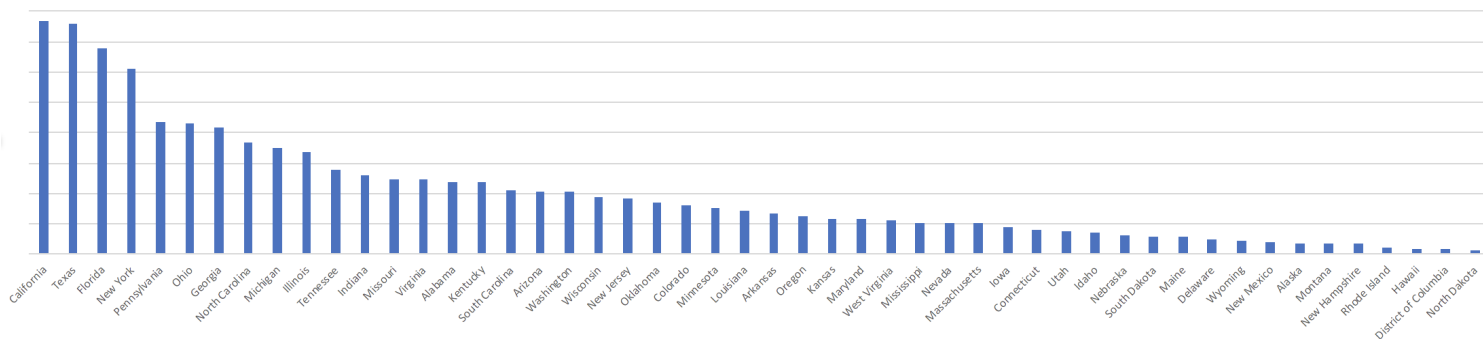


Figure 1: Distribution of Firearms Owners Surveyed

3.6% identify as Asian, 1.6% identify as American Indian, .2% identify as Pacific Islander, 82.0% identify as White, and 2.0% identify as Other. When analyzed within racial groups, we find that 25.4% of Blacks own firearms, 28.3% of Hispanics own firearms, 19.4% of Asians own firearms, and 34.3% of Whites own firearms.

According to the latest (2019) census estimates, there are approximately 255,200,373 individuals age 18 and over in the U.S., which implies that there are about 81.4 million adult gun owners.⁸ Note that this figure does not include those under the age of 18 who may use or possess firearms for purposes such as hunting or shooting sports.

In sum, firearms ownership is widespread, and firearms owners are diverse.

3 Defensive Use of Firearms

- 31.1% of gun owners, or approximately 25.3 million adult Americans, have used a gun in self-defense.
- In most cases (81.9%) the gun is not fired.
- Gun owners engage in approximately 1.67 million defensive uses of firearms per year.
- The majority of defensive gun uses take place outside of the home (74.8%).

⁸Census data is available at <https://www2.census.gov/programs-surveys/popest/tables/2010-2019/national/asrh/nc-est2019-syasexn.xlsx>

State	Proportion of adult population estimated to own firearms	95% Confidence Interval
Alabama	39.6%	35.2% – 44.1%
Alaska	33.4%	25.7% – 42.1%
Arizona	32.0%	28.8% – 35.4%
Arkansas	36.6%	31.1% – 42.5%
California	25.5%	24.0% – 27.0%
Colorado	33.6%	29.8% – 37.7%
Connecticut	20.2%	16.8% – 24.1%
Delaware	24.7%	18.9% – 31.6%
District of Columbia	23.9%	15.6% – 34.9%
Florida	30.3%	28.5% – 32.2%
Georgia	37.1%	34.5% – 39.9%
Hawaii	16.4%	10.6% – 24.5%
Idaho	54.5%	45.5% – 63.1%
Illinois	26.5%	24.3% – 28.9%
Indiana	40.3%	36.6% – 44.1%
Iowa	33.2%	28.1% – 38.8%
Kansas	42.8%	37.4% – 48.3%
Kentucky	46.7%	42.6% – 50.8%
Louisiana	32.8%	28.0% – 38.0%
Maine	35.9%	29.7% – 42.6%
Maryland	21.7%	18.5% – 25.2%
Massachusetts	15.8%	13.4% – 18.6%
Michigan	34.7%	32.0% – 37.5%
Minnesota	32.5%	28.4% – 36.8%
Mississippi	39.5%	33.5% – 45.8%
Missouri	39.7%	36.2% – 43.4%
Montana	48.4%	38.7% – 58.3%
Nebraska	37.2%	29.8% – 45.2%
Nevada	38.0%	32.8% – 43.4%
New Hampshire	24.1%	18.4% – 30.9%
New Jersey	19.3%	16.9% – 22.0%
New Mexico	33.8%	25.9% – 42.7%
New York	22.7%	21.3% – 24.2%
North Carolina	37.3%	34.5% – 40.2%
North Dakota	42.6%	29.9% – 56.4%
Ohio	33.7%	31.1% – 36.4%
Oklahoma	40.5%	36.2% – 45.0%
Oregon	38.3%	32.7% – 44.2%
Pennsylvania	30.3%	28.1% – 32.6%
Rhode Island	16.9%	11.4% – 24.2%
South Carolina	40.7%	36.5% – 45.1%
South Dakota	39.2%	32.4% – 46.4%
Tennessee	43.0%	39.5% – 46.6%
Texas	36.0%	34.1% – 38.0%
Utah	42.8%	36.1% – 49.8%
Virginia	30.6%	27.6% – 33.7%
Washington	32.8%	29.3% – 36.4%
West Virginia	53.0%	45.6% – 60.2%
Wisconsin	33.3%	29.9% – 36.9%
Wyoming	42.7%	34.5% – 51.2%

Table 1: Proportion of the population estimated to own a firearm in each state.

- About half of defensive gun uses involve more than one assailant (51.2%).
- Handguns are the firearm most commonly used in defensive incidents (65.9%), followed

by shotguns (21.0%) and rifles (13.1%).

Defensive use of firearms was assessed through a series of questions that asked for increasingly detailed information from those who indicated that they had used a firearm in self-defense.

First, all gun owners were asked, “Have you ever defended yourself or your property with a firearm, even if it was not fired or displayed? Please do not include military service, police work, or work as a security guard.” About a third (31.1%) answered in the affirmative, and they were then asked how many times they defended themselves with a firearm (from “once” to “five or more times”). As Figure 2 shows, a majority of gun owners who have used a firearm to defend themselves have done so on more than one occasion.

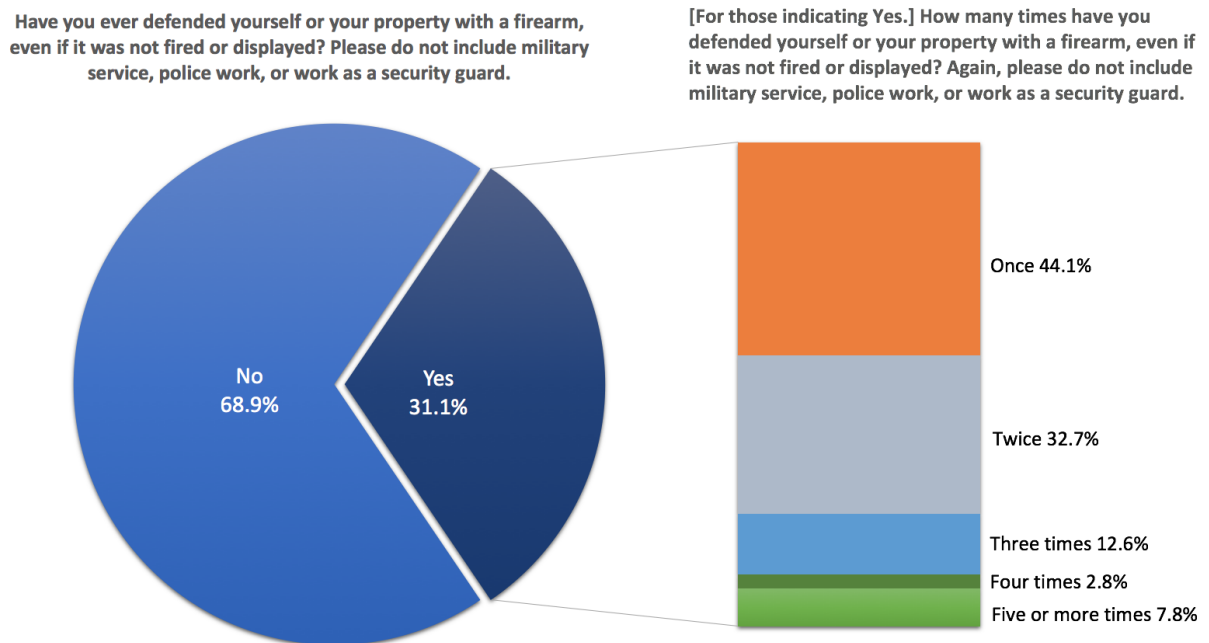


Figure 2: Defensive Gun Use: 31.1% of firearms owners have defended themselves of their property with a gun, and a majority have done so more than once.

Both men and women report having used firearms in self-defense at high rates, with 33.8% of male gun owners indicating they have defensively used a gun, and 27.3% of female gun owners indicating they have defensively used a gun. Table 2 further breaks down reports of

defensive use of firearms by categories of race and ethnic ancestry, illustrating that defensive gun use rates are higher in some minority groups.

Demographic Group	Proportion of Gun Owners Who Used Gun Defensively	95% Confidence Interval
White	29.7%	29.0% – 30.5%
Black	44.3%	41.2% – 47.5%
Asian	26.0%	21.7% – 30.9%
Native American	47.7%	42.7% – 52.7%
Pacific Islander	37.1%	26.0% – 49.7%
Other Ethnic Ancestry	36.2%	30.3% – 42.7%
Hispanic (any ancestry)	39.3%	36.0% – 42.8%
Male	33.8%	32.8% – 34.8%
Female	27.3%	26.2% – 28.4%

Table 2: Demographics of defensive gun use.

Given that 31.1% of firearms owners have used a firearm in self-defense, this implies that approximately 25.3 million adult Americans have defended themselves with a firearm. Answers to the frequency question suggest that these gun owners have been involved in a total of approximately 50 million defensive incidents. Assuming that defensive uses of firearms are distributed roughly equally across years, this suggests at least 1.67 million defensive uses of firearms per year in which firearms owners have defended themselves or their property through the discharge, display, or mention of a firearm (excluding military service, police work, or work as a security guard).⁹

⁹This is calculated by taking the total number of defensive incidents represented by the survey responses (50 million) and dividing by the number of adult years of the average respondent, which is 30. According to U.S. Census data, the average age of U.S. adults (i.e. the average age of those in the set of everyone 18 years or older) is 48, which also matches our survey data. Thus, the average respondent of the survey has 30 years of adult experience (48 years - 18 years = 30 adult years), over which the defensive incidents captured in this survey are reported.

Note that this estimate is inherently conservative for two reasons. First, it assumes that gun owners possessed firearms, or had access to firearms, from the age of 18. In so far as firearms were only first ac-

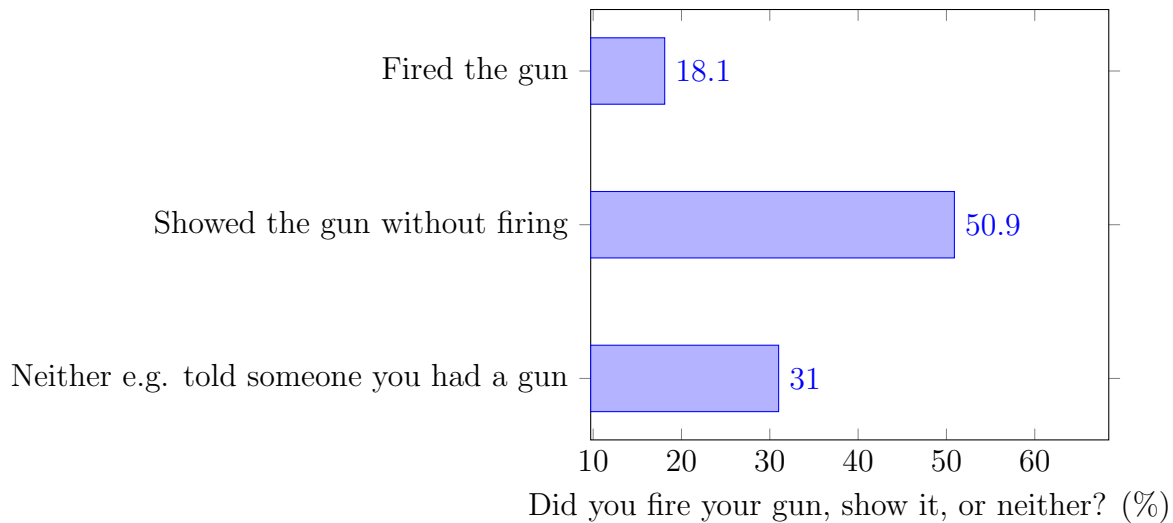


Figure 3: How Guns are Employed in Self-defense: In most defensive incidents no shots are fired.

Gun owner respondents were asked to answer detailed questions regarding each defensive incident. First, because the survey only captures defensive gun uses by those currently indicating firearms ownership, this would reduce the number of adult firearms owning years represented by the survey responses and result in a higher estimate of the number of defensive incidents per year. Second, this figure only captures defensive gun uses by those currently indicating firearms ownership. According to Kleck and Gertz (1995), only 59.5% of respondents who reported a defensive gun use personally owned a gun (p.187). This would suggest that the true number of defensive gun uses, if those who do not personally own firearms are included in the estimate, could be substantially higher - perhaps as high as 2.8 million per year.

This approach is also robust to critiques that have been made by Hemenway (1996) and others who argue that defensive gun use estimates from surveys can be exaggerated due to recollection bias when respondents are asked to recount incidents within a limited time period. The intuition behind these critiques is that if respondents are asked, for example, if they used a gun defensively within the last year, there is a possibility that people will respond affirmatively if they used a gun in self-defense in recent memory, even if that incident wasn't strictly within the last 12 months. This could lead to inflated "per year" estimates of defensive gun uses, which would only be further magnified when extrapolated out to total defensive gun uses over many years. However, the approach of this survey is not vulnerable to this critique because the survey asks about defensive gun use at any time, not simply those within the last year or some other short time horizon. We thus do not engage in the exercise of extrapolating out estimates from potentially biased measures of comparatively rare events in a restricted window of time. Rather our approach asks questions about defensive gun use in the manner that is most methodologically sound for eliciting unbiased estimates.

Finally, note that our overall approach assumes that children are not employing firearms for self-defense

incident that they reported. As Figure 3 shows, in the vast majority of defensive gun uses (81.9%), the gun was not fired. Rather, displaying a firearm or threatening to use a firearm (through, for example, a verbal threat) was sufficient. This suggests that firearms have a powerful deterrent effect on crime, which, in most cases, does not depend on a gun actually being fired or an aggressor being injured.

Figure 4 shows where defensive gun uses occurred. Approximately a quarter (25.2%) of defensive incidents took place within the gun owner's home, and approximately half (53.9%) occurred outside their home but on their property. About one out of ten (9.1%) of defensive gun uses occurred in public, and about one out of thirty (3.2%) occurred at work.

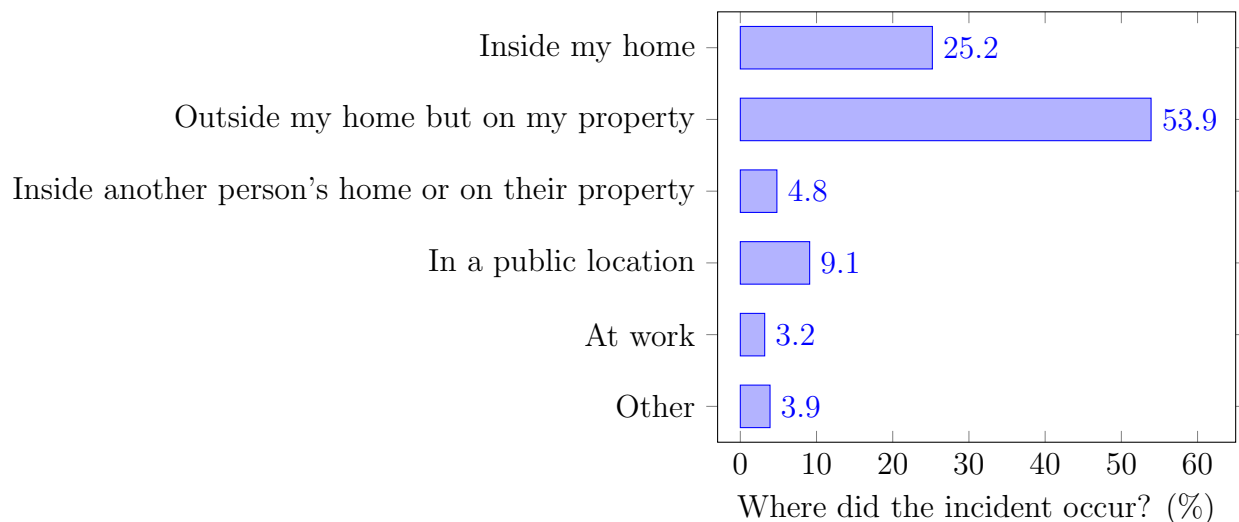


Figure 4: The Location of Defensive Incidents: Most take place outside the home.

For each incident, respondents were asked to indicate what sort of firearm was used. Figure 5 show the distribution of types of firearms employed in defensive incidents. Handguns were the most commonly used firearm for self-defense, used in nearly two-thirds (65.9%) of defensive incidents, followed by shotguns (21.0%) and rifles (13.1%).

Respondents were also asked to indicate how many assailants were involved in each de-

with any meaningful frequency. However, for the purpose of sensitivity analysis, if we lower the age used for calculating defensive incident frequency to assume that children as young as 12 years old are commonly possessing and using firearms for self-defense (and no non-firearms owning adults used firearms for self-defense), this would still imply 1.39 million defensive uses of firearms per year (48 years - 12 years = 36 years over which 50 million defensive incidents took place).

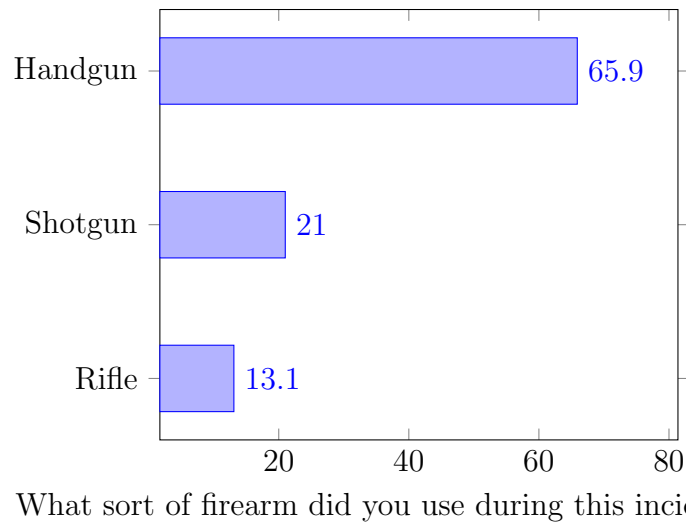


Figure 5: Type of Gun Used for Defense: Handguns are the most common type of firearm used in defensive encounters, followed by shotguns and rifles.

fensive incident. As Figure 6 illustrates, about half of defensive encounters (51.2%) involved more than one assailant. Presumably, part of the value of using a firearm in self-defense is that it serves as a force multiplier against more powerful or more numerous assailants. Survey responses confirm that encountering multiple assailants is not an infrequent occurrence in defensive incidents. 30.8% of defensive incidents involved two assailants, and 20.4% involved three or more, while slightly less than half (48.8%) involved a single assailant.

Finally, after respondents answered these detailed questions about each defensive incident, which all flowed from their initial affirmative answer to the question, “Have you ever defended yourself or your property with a firearm, even if it was not fired or displayed?”, all gun owners were asked, “Separate from any incident in which you directly used a gun to defend yourself, has the presence of a gun ever deterred any criminal conduct against you, your family, or your property?” This question was meant to capture incidents that did not involve active self-defense, but for which individuals believed that the presence of a firearm helped deter predatory behavior. For example, a situation in which a combative customer calmed down after noticing that shop owner had a handgun on his or her hip, or a situation in which a trespasser cooperatively left a property when questioned by a landowner who had a rifle slung over his or her shoulder, or a situation in which a friend showed up with a firearm

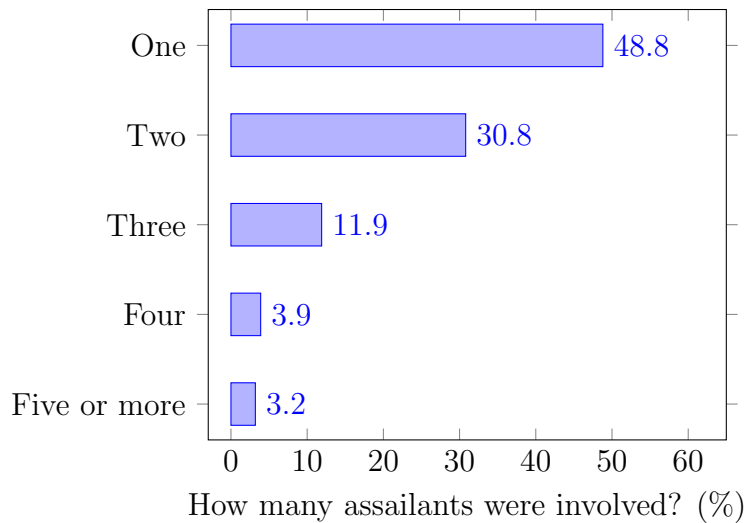


Figure 6: Distribution of the Number of Assailants Involved in a Defensive Incident: Multiple assailants are common.

to help diffuse a dangerous situation, could fall into this category. Respondents answering in the affirmative could indicate how many times such deterrence occurred, from once to five or more occasions. As Figure 7 illustrates, separate from the self-defense incidents summarized earlier, 31.8% of gun owners reported that the mere presence of a gun has deterred criminal conduct, and 40.2% of these individuals indicated that this has happened on more than one occasion. Extrapolated to the population at large, this suggests that approximately 25.9 million gun owners have been involved in an incident in which the presence of a firearm deterred crime on some 44.9 million occasions. This translates to a rate of approximately 1.5 million incidents per year for which the presence of a firearm deterred crime.

4 Carry Outside of the Home

- A majority of gun owners (56.2%) indicate that there are some circumstances for which they carry a handgun for self-defense.
- Approximately 26.3% of gun owners, or 20.7 million individuals, carry handguns for defensive purposes under a “concealed carry” regime.
- About a third of gun owners (34.9%) have wanted to carry a handgun for self-defense

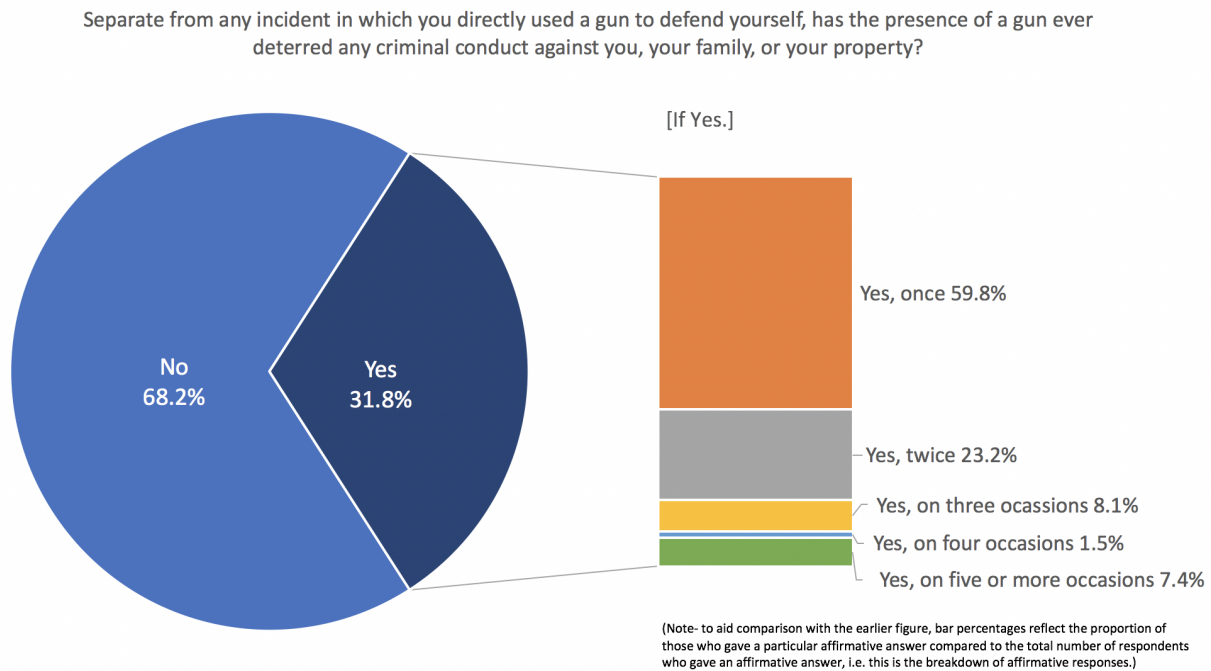


Figure 7: Frequency with which Firearms Deter Crime: 31.8% of firearms owners report that the presence of a firearm has deterred criminal conduct against them, often on more than one occasion.

in a particular situation but local rules prohibited them from doing so.

As Figure 8 illustrates, a majority of gun owners (56.2%), or about 45.8 million, indicate that there are some circumstances in which they carry a handgun for self-defense (which can include situations in which no permit is required to carry, such as on their own property); and about 35% of gun owners report carrying a handgun with some frequency (indicating that they carry “Sometimes,” “Often,” or “Always or almost always.”). Moreover, as Figure 9 summarizes, 34.9% of gun owners report that there have been instances in which they wanted to carry a handgun for self-defense, but local rules did not allow them to carry.

Assessing the number of people who carry a concealed handgun in public is complicated due, in part, to the proliferation of so-called “constitutional carry” or “permitless carry” states in recent years. These states - about 18 at the time this survey was conducted - generally allow adults in good legal standing (often restricted to those age 21 and older) to

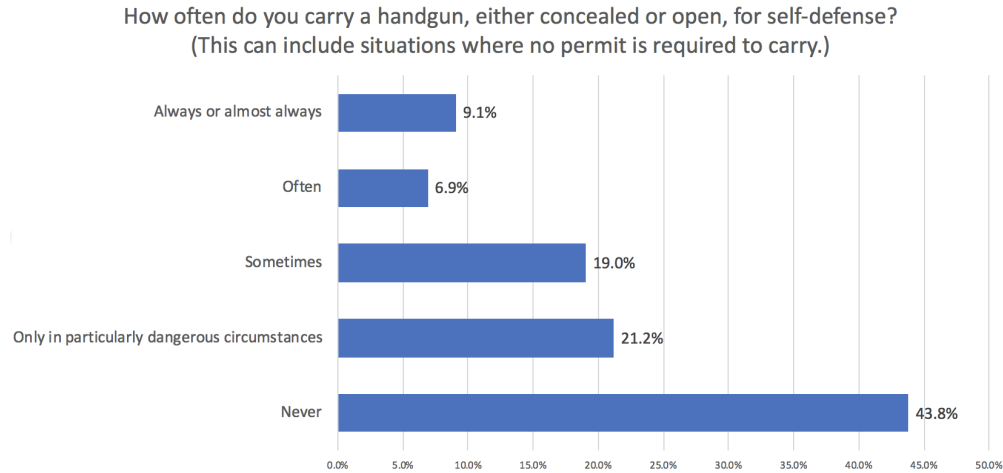


Figure 8: Frequency of Defensive Carry: Carrying a handgun for self-defense is common.

Have you ever wanted to carry a handgun for self-defense
but local rules did not allow you to carry?

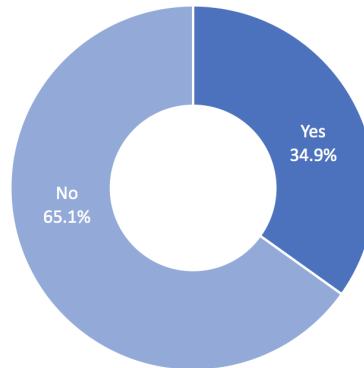


Figure 9: Prohibition of Carry: About a third of gun owners have wanted to carry a handgun for self-defense in a particular situation but local rules prohibited them from doing so.

carry a concealed weapon without a permit. Most of these states previously had a permitting process for concealed carry and required permits to be renewed at regular intervals in order to remain valid. Under constitutional carry, law abiding adults in these states are permitted to carry concealed without an official “permit.” However, most of these states continue to issue permits to residents who desire them because such permits can be useful for reciprocal carry benefits in other states. For example, a person acquiring a Utah carry permit would be entitled to carry a handgun in a number of other states such as neighboring Colorado and

Nevada.¹⁰ Thus, while basically all gun owners age 21 and over are “permitted” to carry a handgun for self-defense in constitutional carry states, many individuals may also possess a “permit,” even though it is redundant for in-state carry.

Unsurprisingly, when asked “Do you have a concealed carry permit?” gun owning residents of many constitutional carry states respond in the affirmative at high rates. Also complicating this question about concealed carry permits is the fact that many states refer to such permits by different names, the fact that the right to carry a handgun can be conferred in certain circumstances by hunting or fishing licenses in some states,¹¹ and the existence of other related permits, some of which do not license concealed carry (e.g. standard pistol permits in North Carolina or New York, eligibility certificates in Connecticut) and some of which do (most License To Carry permits required for handgun ownership in Massachusetts, state pistol permits in Connecticut, and LEOSA permits available to current and retired law enforcement officers nationwide). Finally, it is also possible for individuals to obtain concealed carry permits in states other than the one in which they reside.

In order to provide a robust but conservative estimate of those who actually carry in public, we code as “public carriers” those individuals who indicated both that they have a concealed carry permit and that they carry a handgun for self-defense at least “sometimes.” We also restrict analysis and population estimates to those age 21 and over given that most states restrict those under 21 from carrying concealed in public.

Using this simple definition, we find that 26.3% of gun owners are “public carriers,” which translates to approximately 20.7 million individuals who carry handguns in public under a concealed carry regime. Note that this could include current and former law enforcement officers who may be represented in the survey. However, the number of active law enforcement officers in the U.S. is well under a million (approximately 700,000 in 2019).¹²

¹⁰See <https://bci.utah.gov/concealed-firearm/reciprocity-with-other-states/>

¹¹For example, a number of states such as California, Georgia, and Oregon allow those with a hunting or fishing license to carry concealed while engaged in hunting or fishing or while going to or returning from an expedition. See: <https://oag.ca.gov/sites/all/files/agweb/pdfs/firearms/pdf/cfl2016.pdf>, <https://law.justia.com/codes/georgia/2010/title-16/chapter-11/article-4/part-3/16-11-126/>, <https://codes.findlaw.com/or/title-16-crimes-and-punishments/or-rev-st-sect-166-260.html>

¹²See <https://ucr.fbi.gov/crime-in-the-u.s/2019/crime-in-the-u.s.-2019/tables/table-74>

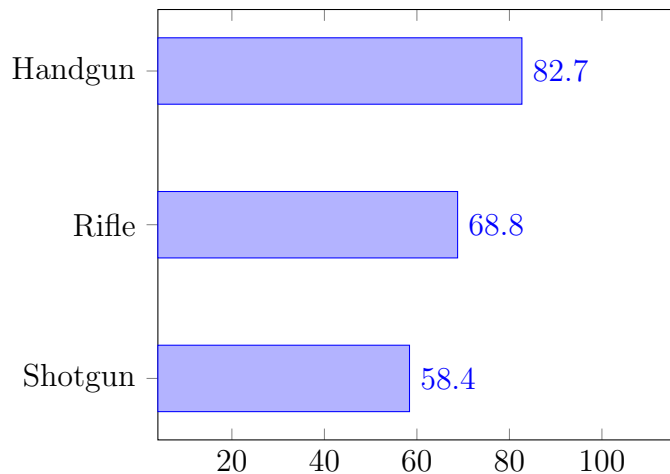
5 Types of Firearms and Magazines Owned

- 82.7% of gun owners report owning a handgun, 68.8% report owning a rifle, and 58.4% report owning a shotgun.
- The average gun owner owns about 5 firearms. The median gun owner owns 3.
- 29.0% of gun owners own only one firearm.
- 30.2% of gun owners, about 24.6 million people, have owned an AR-15 or similarly styled rifle, and up to 44 million such rifles have been owned.
- 48.0% of gun owners, about 39 million people, have owned magazines that hold over 10 rounds, and up to 542 million such magazines have been owned.
- Overall, Americans own in excess of 415 million firearms, consisting of approximately 171 million handguns, 146 million rifles, and 98 million shotguns.

5.1 Rifles, Shotguns, and Handguns

Respondents were asked to indicate the number of rifles, shotguns, and handguns that they owned. 82.7% of gun owners report owning a handgun (95% CI 82.0% - 83.3%), 68.8% reported owning a rifle (95% CI 68.1% - 69.6%), and 58.4% report owning a shotgun (95% CI 57.6% - 59.2%). Note that using survey weights based on in-survey demographics of firearms ownership has no substantive effect on these estimates: Handgun, 83.7% (82.9% - 84.4%), Rifle, 68.6% (67.7% - 69.6%), Shotgun 58.6% (57.6% - 59.6%).

Approximately 99.8% of respondents indicated owning fewer than 100 firearms of each type, and approximately 97.2% indicated owning fewer than 10 firearms of each type. In order to provide a conservative estimate of ownership rates and to ensure that average estimates are not skewed by a small number of large outliers, we exclude the 0.2% of responses that indicated owning over 100 firearms in any category in the analysis that examines average numbers of guns owned. Also, 1.5% of respondents entered zero for each category of firearms ownership. While ostensibly inconsistent with having earlier indicated ownership of a firearm, there are a number of plausible explanations for this discrepancy including a reluctance to



Percentage of gun owners reporting ownership of at least one firearm in the indicated category.

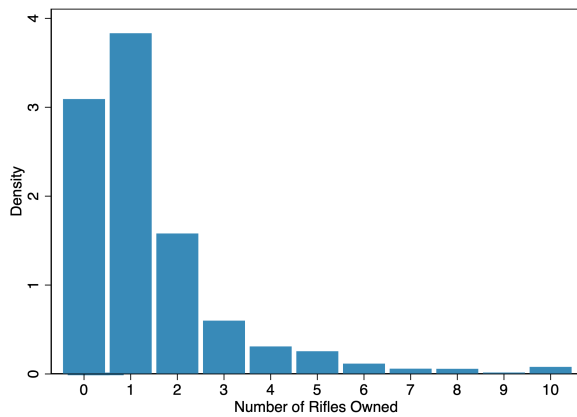
Figure 10: Percent of gun owners who own each type of firearm.

provide this level of detailed information, having use of a firearm in one's household which one does not personally own, or owning a firearm that technically does not fall into one of these three categories. We exclude these response in analyzing ownership rates below. However, including them has no significant effect on estimates.

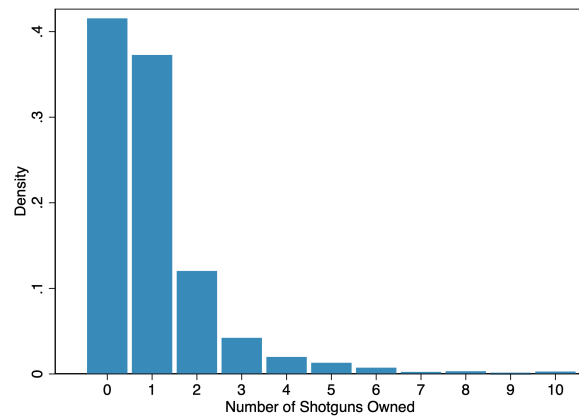
On average, gun owners owned 5.1 firearms, consisting of 1.8 rifles, 1.2 shotguns, and 2.1 handguns. Figure 11 plots histograms of the number of firearms owned by respondents. Unsurprisingly, these are skewed right, indicating that most gun owners own a small number of guns, while a smaller portion of gun owners own a large number of guns. The median gun owner owned 3 firearms. 29.0% of firearms owners owned only one firearm.¹³ Among those who only own one firearm, handguns are the most commonly owned type of gun (64.7%), followed by rifles (22.5%) and shotguns (13.3%).

Overall, these estimates imply that Americans own over 415 million firearms, consisting of approximately 171 million handguns, 146 million rifles, and 98 million shotguns.

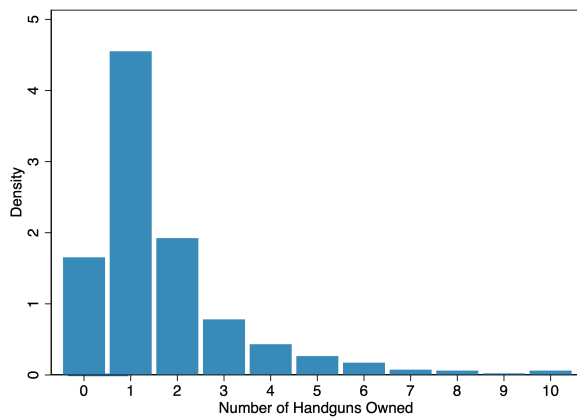
¹³An earlier draft had estimated that 21.9% of gun owners owned only one firearm, but the denominator for that calculation mistakenly included respondents who did not provide an answer to this question. The estimate of 29.0% properly incorporates all information provided by respondents.



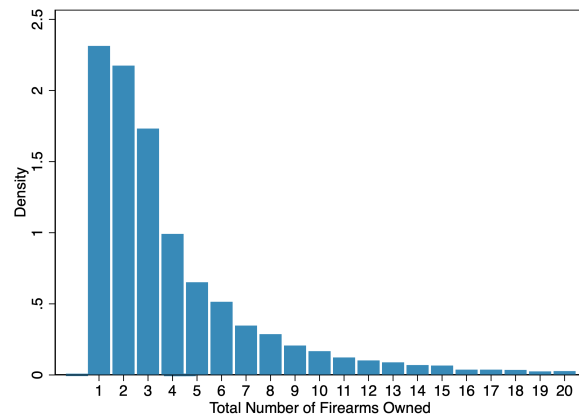
(a) Histogram of number of rifles owned



(b) Histogram of number of shotguns owned



(c) Histogram of number of handguns owned



(d) Histogram of total number of guns owned

Figure 11: Histograms showing the distributions of gun ownership.

5.2 Magazine Ownership

The survey asked respondents whether they have ever owned a magazine that holds more than 10 rounds. Those who answered in the affirmative were then asked to indicate the purposes for which they owned such magazines and to estimate how many magazines of different types they owned.

48.0% of gun owners (95% CI 47.2%-48.7%) responded yes to the question, “Have you ever owned a handgun or rifle magazine that holds more than 10 rounds? (You can count magazines that you may keep in another state if there are local restrictions against ownership.)” indicating that they had owned such magazines. Note that, again, using survey

weights based on in-survey demographics of firearms ownership has no substantive effect on this estimate (47.4%, CI 46.5%-48.4%). This suggests that approximately 39 million adults in the U.S. have owned magazines that hold more than 10 rounds.

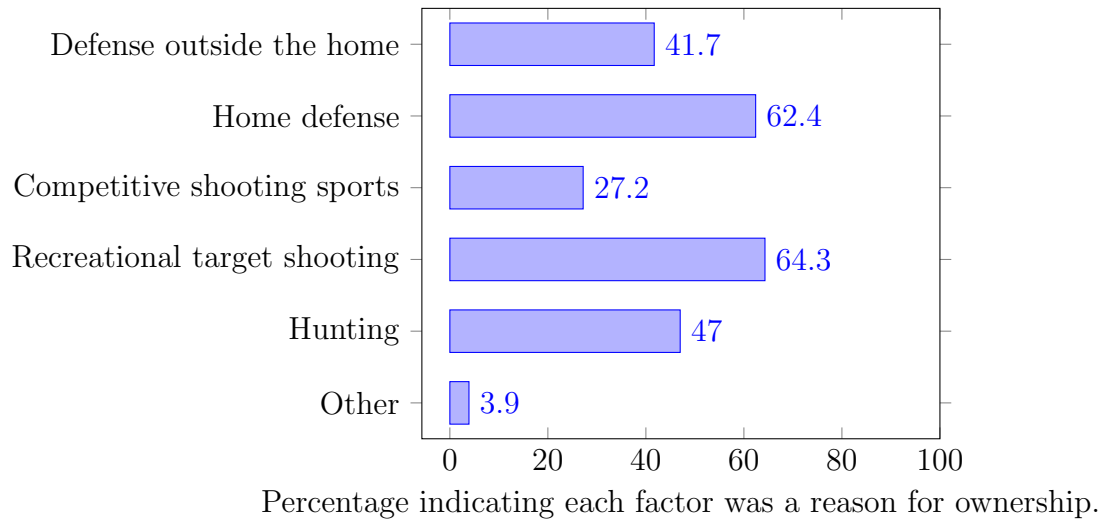


Figure 12: Purposes indicated for owning 11+ capacity magazines.

Figure 12 shows the percentage of respondents who indicated that they owned magazines that can hold more than 10 rounds for the following purposes: defense outside the home (41.7%), home defense (62.4%), competitive shooting sports (27.2%), recreational target shooting (64.3%), hunting (47.0%), and other (3.9%). Note that respondents could choose multiple purposes for which they owned such magazines. Home defense and recreational target shooting were the two most common reasons indicated for owning these magazines, with approximately two-thirds of respondents identifying each of these as a rationale for ownership.

Respondents who indicated that they had owned magazines that can hold more than 10 rounds were also asked to estimate the number of pistol and rifle magazines they owned of particular sizes. Numerical responses were unbounded. Approximately 99.8% of respondents indicated owning fewer than 100 magazines of each type, and approximately 96.5% indicated owning fewer than 10 magazines of each type. In order to provide a conservative estimate of ownership rates and to ensure that average estimates are not skewed by a small number of large outliers, we exclude the 0.2% of responses that indicated owning over 100 magazines

in a category.

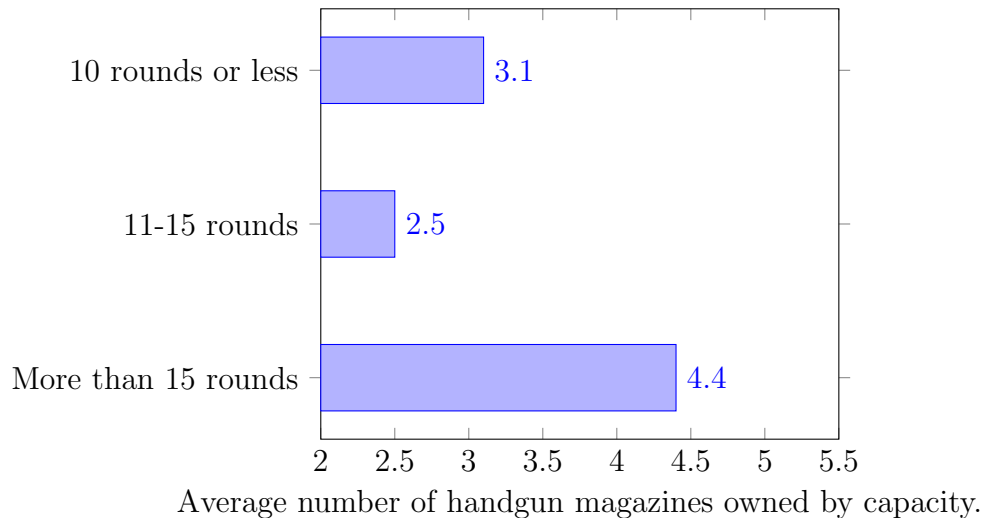


Figure 13: About how many handgun magazines of each type would you estimate you have owned?

Figure 13 shows the average number of handgun magazines of each type reported by respondents in this section: 10 rounds or less (3.1 magazines), 11-15 rounds (2.5 magazines), more than 15 rounds (4.4 magazines). In sum, the average respondent (who indicated that they have owned a magazine that holds more than 10 rounds), owns about 10 handgun magazines, and more than two-thirds of these magazines hold more than 10 rounds. Note that the question asked whether respondents have ever owned such magazines and how many such magazines they have owned, so these estimates should be interpreted as an upper bound on current ownership given that some magazines may have been resold. Building on earlier estimates, this suggests that U.S. gun owners have owned up to 269 million handgun magazines that hold over 10 rounds.

Figure 14 shows the average number of rifle magazines of each type reported by respondents in this section: 10 rounds or less (2.4 magazines), 11-15 rounds (1.8 magazines), over 15 rounds (5.4 magazines). In sum, the average respondent (who indicated that they have owned a magazine that holds more than 10 rounds), owns about 9.6 rifle magazines, and about three-quarters of these magazines hold more than 10 rounds. Building on earlier estimates, this suggests that U.S. gun owners have owned up to 273 million rifle magazines that

hold over 10 rounds.

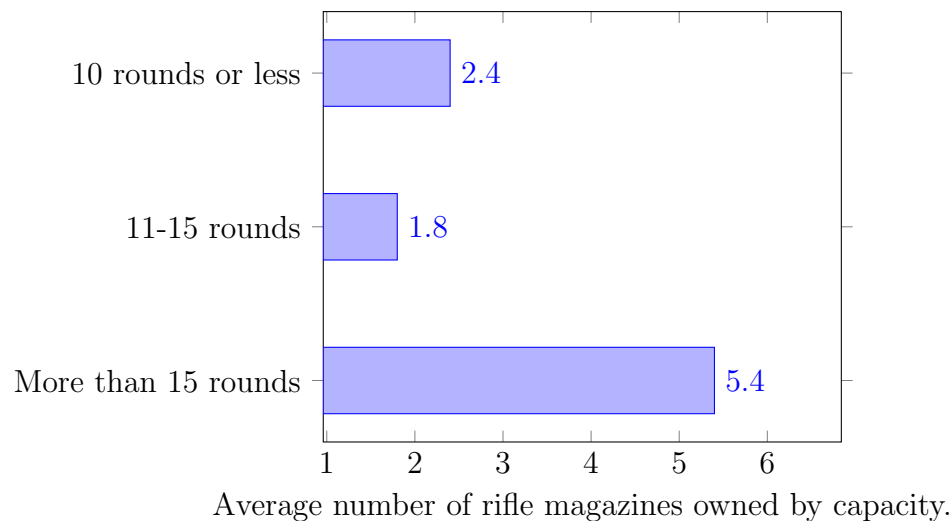


Figure 14: About how many rifle magazines of each type would you estimate you have owned?

These estimates suggest that Americans have owned some 542 million rifle and handgun magazines that hold over 10 rounds. Finally, note that these questions about the types of magazines owned were only asked of those who indicated that they had owned a magazine that holds more than 10 rounds, and thus we do not know how many magazines up to 10 rounds are owned by the 52.0% of gun owners who are not in this category.

Table 3 shows the breakdown of ownership of magazines that hold over 10 rounds across different demographic segments.

Table 4 shows the percentage of gun owners in each state who indicated that they have owned magazines that hold more than 10 rounds. Note that this question explicitly instructed respondents that “You can count magazines that you may keep in another state if there are local restrictions against ownership.” This presumably explains the relatively high rates of ownership in states that restrict the purchase or ownership of such magazines. It’s also possible that those answering in the affirmative possess magazines that were grandfathered in because they were acquired before such bans or that some respondents have gotten rid of magazines that they owned in the past.

Another dynamic that likely contributes to such differences in ownership rates derives

Demographic Group	Proportion Owned 11+ Mags	95% Confidence Interval
White	47.0%	46.1% – 47.8%
Black	55.2%	52.2% – 58.2%
Asian	50.0%	44.8 – 55.2%
Native American	52.6%	47.7% – 57.4%
Pacific Islander	59.1%	47.4% – 69.9%
Other Ethnic Ancestry	59.6%	53.3% – 65.6%
Hispanic (any ancestry)	61.6%	58.3% – 64.7%
Male	57.7%	56.7% – 58.7%
Female	34.1%	33.0% – 35.3%

Table 3: Demographics of ownership of magazines that hold more than 10 rounds.

from the fact that in states with low rates of firearms ownership, such as DC and Hawaii, those few individuals who do own guns are presumably more likely to be gun enthusiasts. Indeed, analysis of the survey data reveals that states with higher rates of firearms ownership are associated with slightly lower rates of ownership of magazines that own over 10 rounds, and this difference is statistically significant (coef = -0.36, p=.03).

Given that such a large percentage of gun owners indicated that they owned magazines that hold over ten rounds for defensive purposes, we further analyze the potential value of these magazines for defense. Recall that a majority of defensive incidents involved multiple assailants (51.2%). Presumably, it would be advantageous to have a firearm with a larger capacity magazine if one needed to engage more than one assailant, which these responses suggest is indeed common. Although in most defensive gun uses the gun was not fired (81.9%), we can further analyze the subset of incidents in which a gun was fired. In 67.8% of these cases in which a gun was fired in self defense, multiple rounds were fired.

As part of the self-defense section of the survey, respondents were invited to answer an open response question that asked: “Have you ever been in a situation (including any referenced in earlier responses) in which it would have been useful for defensive purposes

State	Owned 11+ cap. mags	95% Confidence Interval
Alabama	48.1%	42.7% – 53.6%
Alaska	52.7%	39.6% – 65.4%
Arizona	47.5%	42.3% – 52.8%
Arkansas	50.7%	44.1% – 57.3%
California	53.8%	51.0% – 56.5%
Colorado	51.4%	45.3% – 57.4%
Connecticut	42.6%	34.4% – 51.3%
Delaware	50.6%	39.8% – 61.5%
District of Columbia	69.2%	49.5% – 83.8%
Florida	46.9%	43.9% – 49.8%
Georgia	52.4%	48.7% – 56.2%
Hawaii	59.3%	40.3% – 75.8%
Idaho	45.4%	36.7% – 54.4%
Illinois	51.5%	47.3% – 55.6%
Indiana	46.5%	41.8% – 51.2%
Iowa	35.4%	28.0% – 43.6%
Kansas	42.2%	35.4% – 49.4%
Kentucky	43.7%	38.5% – 49.0%
Louisiana	47.4%	41.1% – 53.8%
Maine	37.9%	28.7% – 48.0%
Maryland	50.8%	43.7% – 57.8%
Massachusetts	53.3%	45.7% – 60.8%
Michigan	37.1%	33.2% – 41.1%
Minnesota	39.8%	34.0% – 46.0%
Mississippi	44.6%	37.3% – 52.2%
Missouri	50.6%	45.8% – 55.5%
Montana	52.6%	39.8% – 65.1%
Nebraska	45.5%	35.9% – 55.3%
Nevada	61.0%	52.8% – 68.5%
New Hampshire	43.9%	31.6% – 56.9%
New Jersey	52.2%	46.5% – 57.8%
New Mexico	49.2%	36.9% – 61.5%
New York	54.9%	51.8% – 58.0%
North Carolina	43.9%	39.9% – 47.9%
North Dakota	44.4%	24.0% – 67.0%
Ohio	42.0%	38.4% – 45.7%
Oklahoma	47.5%	41.7% – 53.4%
Oregon	49.8%	42.9% – 56.6%
Pennsylvania	39.6%	36.0% – 43.2%
Rhode Island	55.3%	39.5% – 70.1%
South Carolina	42.8%	37.7% – 48.0%
South Dakota	50.0%	40.2% – 59.8%
Tennessee	44.1%	39.5% – 48.7%
Texas	54.1%	51.3% – 56.8%
Utah	46.8%	38.2% – 55.6%
Virginia	47.5%	42.7% – 52.4%
Washington	53.1%	47.8% – 58.4%
West Virginia	44.8%	37.7% – 52.1%
Wisconsin	33.6%	28.5% – 39.0%
Wyoming	63.0%	51.4% – 73.3%

Table 4: Percent of gun owners who have indicated that they have ever owned magazines that hold over 10 rounds by state. Note that this includes magazines that an owner holds in other states if there are local ownership restrictions.

to have a firearm with a magazine capacity in excess of 10 rounds? If so, please briefly describe that situation.” Approximately 550 respondents gave a affirmative response with most sketching out details of the encounter. Examples of these responses (reported verbatim) include:

- I got jumped by multiple people in a carjacking in front of our apartments with my wife and children.
- Yes. I was robbed on a street 1 time by a group of about 6 people that at least 1 was armed and I wasn't. It took about 6 hours of emergency surgery to gat my bones in face jaws and skull back in place form being beaten in the head face kicked all over. Damn near killed me.
- Yes, a man broke into our apartment, high. He was approx 6'4, 300 pounds & threw a friend of ours around the living room like a rag doll. Beat her repeatedly.
- Yes. The first incident I mentioned. Three men attempted to rob me outside my home, with the intention of entering my home thereafter. My wife and child were inside the home at the time. That was in California with a magazine that only held 7 shots. I am a great shot, prior military and other firearms training, but I hate to only have 7 shots with three people. In such a situation, very well trained people, pumped up with adrenalin can and do miss their target. Thank you.
- Yes, absolutely. I am mobility challenged and was walking my dog one day. Three men ambushed me from behind, but luckily my dog chased them away. My dog actually bit one of the men.
- On the farm, we have had mountain lions killing our calves so a larger animal could require more rounds
- When two people attacked my company's warehouse
- Yes, I was alone with my son and 3 large men were trying to break in, I was unable to reload, thank goodness they realized and left.

- I was charged by a bear. It was very scary in the moment I panicked and rattled over multiple shots. Most missed but some hit home and eventually stopped him.
- Yes. I went in but into a store and 4 thugs approached me telling me to give them money. I produced my handgun at my side and they left. If this had been a shooting with multiple bad guys with guns a 15 round magazine is best.
- When I was a teenager 4 guys did a home invasion at our house. I could easily see needing a 20 to 30 round clip would be necessary.. we didnt have weapons and my mom and dad were hurt pretty bad. Dad was stabbed 4 times and they had a gun too. Thats when I decided when I was on my own that I would have protection.
- About 20 coyotes attacked some of my livestock. It took two 30 round magazines to repel the animals and then only after killing 10 of them.
- Yes. I was surrounded by would-be assailants in a perking lot. I was able to escape unharmed, but if they had rushed me, I would most certainly had to lay down a rapid field of fire, alternately in various directions. In that scenario, I probably would have missed the targets and needed multiple, rapid follow-up shots to hit or at least dissuade the attackers from pressing forward. Only a firearm with 10 or more round magazine would offer that kind of defensive capability.
- Had several people trespass on my property doing something illegal and when I called the police said it would be a while before they could come out so when I asked the people to leave they threatened to kill me but after they seen that I was open carry the left if the situation went a different way I dont know if I would have been about to protect myself with as many of them as there was
- The time when there were 4 people in my home and I was fearful of being hurt and my concern was do I have enough rounds to protect myself what if I missed if I had to fire the weapon .
- Yes. Been stalked by a pack of coyotes while hiking with my children

- Yes when I had more than one person trying to break into my car. I live out in the country so I do not have time to wait for police to get to me I have to act fast and protect myself and my family.
- Yes, I ran into a situation where there were numerous criminals breaking the law and rioting at a public venue during an annual festival event. They were blocking my self and my friends, two of which were females, from leaving the area as well as preventing the police from reaching us. I was very glad that I had multiple magazines that had more then a 10 round capacity.
- 2 men broke into my home while I was sleeping. I woke up and heard them breaking stuff downstairs. I grabbed my gun and ran down stairs and confronted them. I pointed my gun at them and told them to get out. They ran off.
- I was stopped at a red light. Car in front of me backed up and the car behind me pulled up to my bumper. Both drivers got out and approached both sides of my car. Light turned green. I gassed it pushing the car in front of me out of the way. They had bats to break my windows. Would've robbed me I think. Was under a overpass.
- Twice it was people attempting to break into my home I was alone age 64 and 4 burly men thought no one was home as I had been napping. They learned quickly this old lady was not without protection. They saw the gun and quickly left. I called 911 and they were appended they had been robbing homes for 6 weeks in the area. Those home who had guns they left and went elsewhere. Another time people a group wanted a big party came to the wrong road half were drunk or stoned. I had small children. There was finally someone sober enough to see I had a gun and that I meant business it was the middle of the night and they wanted to party but had the wrong road. The sane person got them to all leave and they never came back. We had no phone at that time. The third time was a cougar attacking my livestock. It ran off but had killed 4 goats. We called the game warden they had a special hunt and killed it as we had been the 4th place hit it had killed livestock. We have had cougar on our property in our yard 3 times since once my son shot one stalking him and his dog the other time

it ran off before he could get his gun ready.

- yes, but not at home, we were camping in prescott arizona and several men came up and wanted to harass and steal from our family. We all felt very threatened and if another couple of people had not shown up with their guns the people would have over ran us and my family would have been hurt.
- It could have helped during a robbery at my residence where 4 intruders entered my home
- I was a small business owner before I became disabled. I would often carry large amounts of cash. On more than 1 occasion I was faced with pulling my weapon or lose my cash
- I was walking a long distance through Philadelphia to get to a restaurant and was approached by 3 men who demanded to know why I thought I could go through their neighborhood. I told them I did not want any trouble and tried to continue walking but one stood in my way and asked if I actually thought I was going to leave without answering them. I began to wonder if I was going to be robbed or assaulted when they first approached and at this point it seemed like they would prevent me from leaving. I lifted my shirt and placed my hand on a pistol I was legally able to conceal carry and said yes I would be leaving. They backed away from me but continued to yell things at me as I left the area. I never pulled the gun out, but them knowing I had it and may use it to stop them was enough to escape unharmed. Having less than 10 rounds against 3 attackers, especially if they were also armed, would have put me at a disadvantage if I was unable to accurately hit my targets initially and they continued to Pursue me.
- Yes, I was in Illinois, which does not honor Indiana concealed carry. I had to leave my firearm at home. This was truly the only time in my life I felt I needed to actually use a firearm, but almost was killed. 4 men (3 with guns displayed and 1 with a knife in his hand) were walking up to me fast in a parking lot screaming stop and give me everything you have. The parking lot was near empty, and dark outside. I was able

to unlock my car while running, start the car and speed off. Just as I got in the car, I had just enough time to lock the door before the 3 men pointed there guns at the car and the other was stabbing the window with a knife. They intended to rob and kill me. I couple rounds were fired as I sped off. I would have needed minimally 10 rounds if I had discharged given their distancing. I almost died because of Illinois law and my street smarts and luck was the only thing that saved me

- Yes An incident occurred when a man was drunk and crashed his car in front of me while I was carrying my 2 small children. A large group of his friends tried to get the drunk away before the police arrived. A fight started with them punching my elderly dad and threatened my elderly mother with violence.
- I was confronted then attacked by a group of about 12 teens when I was a teenager. They kicked me and caused a sever head injury and fractured ribs. I was defenseless. Being able to brandish a weapon with the capacity to take on a group of that size would have deterred their next step of physically assaulting me
- The two large males that attempted to break into my home. Much larger than myself. A 9mm would take several shots to slow down either and/or both.
- Yes. I am a 5'2" disabled female. I was stalked by a homeless drug addict. He was detained 4-5 times due to red behavior because he was high on methamphetamine. This person could have potentially done great harm to me. Meth addicts don't always go down easy. Sometimes it takes numerous rounds to get them down.
- My brother and I were robbed at gun point when i one of the men got in the car with me after my brother got out of the car. The man had already told my brother that he wanted his money and that there were other people watching across the parking lot in case he had any problems with us. So when my brother got out, that man got in with a gun and stuck it right into my right side. He told me not to look at him and to give him all my money. With the other men standing in different positions in the parking lot my brother could have tried to shoot them (or at them) to try and scare them off

and if he could have had a larger capacity magazine he could have been able to fire more rounds at them to keep them away while we tried to get help from someone.

Finally, it is worth noting that, although a majority of these scenarios involve the prospect of defending against criminal aggression, a number involve defending against animals. The pilot survey in Vermont similarly documented a number of incidents involving animals (see Appendix A). This is a phenomenon that has been largely neglected in the scholarly literature examining the value of firearms for self-defense, and it would be helpful for future research to evaluate the frequency with which firearms are employed in defense against animal threats.

5.3 Ownership of AR-15 and similarly styled rifles

All gun owners were asked, “Have you ever owned an AR-15 or similarly styled rifle? You can include any rifles of this style that have been modified or moved to be compliant with local law.” 30.2% of gun owners, about 24.6 million people, indicated that they have owned an AR-15 or similarly styled rifle. Using survey weights based on in-survey demographics of firearms ownership has no effect on this estimate. Respondents were then asked to indicate how many of such rifles they have owned. Approximately 99.7% indicated owning under 100 and 98.4% under 10. In order to provide a conservative estimate of ownership rates and to ensure that average estimates are not skewed by a small number of large outliers, we disregard the 0.3% that indicate owning over 100 in calculating average ownership numbers. Among those who indicate having owned AR-15 and similarly styled rifles, they indicate having owned an average of 1.8, with the median owner having owned 1. This suggests that up to 44 million AR-15 styled rifles have been owned by U.S. gun owners. Note, again, that this estimate is based on a question that asks whether someone has ever owned such a rifle, so this estimate should be interpreted as an upper bound on current ownership given that some rifles may have been resold.

Figure 15 shows the percentage of respondents who indicated that they owned AR-15 styled rifles for the following purposes: defense outside the home (34.6%), home defense (61.9%), competitive shooting sports (32.1%), recreational target shooting (66.0%), hunting (50.5%), and other (5.1%). Note that respondents could choose multiple purposes for which

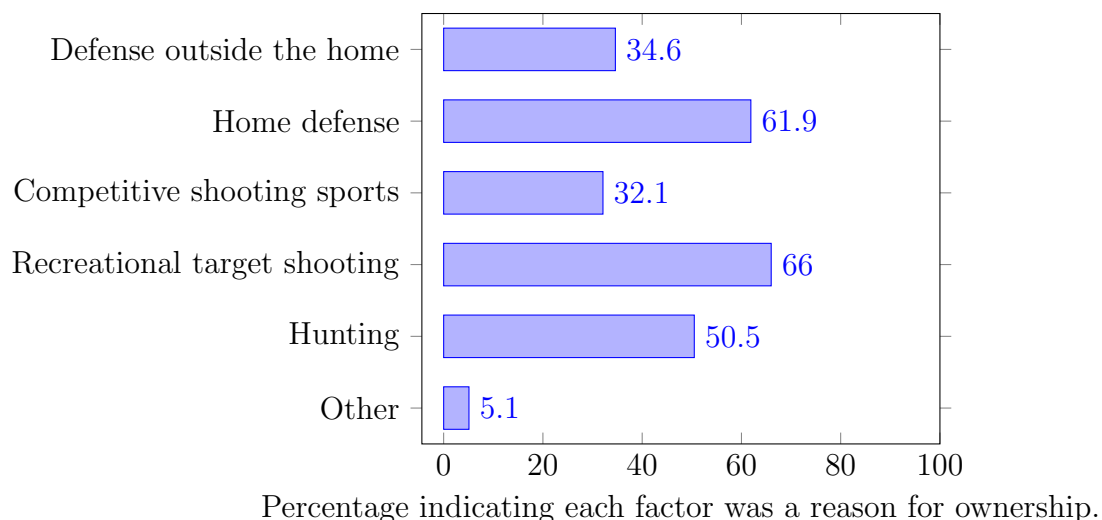


Figure 15: Purposes indicated for owning AR-15 styled rifles.

they owned such firearms. Home defense and recreational target shooting were the two most common reasons indicated for owning these magazines, with approximately two-thirds of respondents identifying each of these as a rationale for ownership.

Demographic Group	Proportion Owned AR-15 Styled Rifle	95% Confidence Interval
White	29.6%	28.9% – 30.4%
Black	34.0%	31.0% – 37.1%
Asian	29.2%	24.6% – 34.2%
Native American	35.4%	30.8% – 40.3%
Pacific Islander	48.4%	36.3% – 60.7%
Other Ethnic Ancestry	34.6%	28.8% – 41.1%
Hispanic (any ancestry)	38.3%	35.0% – 41.8%
Male	36.4%	35.5% – 37.4%
Female	21.3%	20.3% – 22.3%

Table 5: Demographics of ownership of AR-15 styled rifles.

Table 5 shows the breakdown of ownership of AR-15 styled rifles across different demographic segments. As this table demonstrates, AR-15 styled rifles are commonly owned at

high rates across many different demographic groups.

Table 6 shows the percentage of gun owners in each state who indicated that they have owned AR-15 styled rifles. Note that this question explicitly instructed respondents that “You can include any rifles of this style that have been modified or moved to be compliant with local law.” Thus, as with magazines, these answers can include firearms that are kept in other states, as well as firearms that were grandfathered in or modified to be compliant with local law, or respondents who have since sold or disposed of such guns. This presumably explains the relatively high rates of ownership in states that restrict the purchase or ownership of such firearms.

6 Conclusion

This report summarizes the main findings of the most comprehensive survey of firearms ownership and use conducted in the United States to date. While many of its estimates corroborate prior survey research in this area, it also provides unique insights that are relevant to timely public policy debates, particularly regarding the defensive use of firearms and the ownership and use of AR-15 styled rifles and magazines that hold over 10 rounds.

This survey finds firearms ownership rates slightly above those documented before the Covid-19 pandemic, which is consistent with other recent scholarly research finding a large surge in firearms purchases during the pandemic, particularly among first time buyers (Crifasi et al., 2021; Miller et al., 2022).

In sum, about 31.9% of U.S. adults, or 81.4 million Americans, own over 415 million firearms, consisting of approximately 171 million handguns, 146 million rifles, and 98 million shotguns. About 24.6 million individuals have owned a up to 44 million AR-15 and similarly styled rifles, and 39 million individuals have owned up to 542 million magazines that hold over 10 rounds. Approximately a third of gun owners (31.1%) have used a firearm to defend themselves or their property, often on more than one occasion, and guns are used defensively by firearms owners in approximately 1.67 million incidents per year. A majority of gun owners (56.2%) indicate that they carry a handgun for self- defense in at least some circumstances, and about 35% of gun owners report carrying a handgun with some frequency.

State	Owned AR-15 Style Rifle	95% Confidence Interval
Alabama	28.9%	24.1% – 34.3%
Alaska	37.0%	24.4% – 51.6%
Arizona	28.8%	24.2% – 34.0%
Arkansas	35.0%	28.7% – 41.8%
California	37.5%	34.8% – 40.2%
Colorado	33.3%	27.7% – 39.5%
Connecticut	21.8%	15.3% – 30.2%
Delaware	20.3%	12.6% – 30.9%
District of Columbia	30.0%	14.1% – 52.7%
Florida	28.1%	25.5% – 30.9%
Georgia	31.4%	27.9% – 35.1%
Hawaii	34.6%	19.1% – 54.3%
Idaho	31.0%	23.3% – 40.0%
Illinois	32.6%	28.7% – 36.7%
Indiana	30.8%	26.5% – 35.5%
Iowa	27.1%	20.4% – 35.1%
Kansas	28.4%	22.4% – 35.4%
Kentucky	29.9%	25.2% – 35.1%
Louisiana	27.5%	22.0% – 33.7%
Maine	22.0%	14.6% – 31.6%
Maryland	29.9%	23.7% – 36.9%
Massachusetts	33.8%	26.9% – 41.4%
Michigan	24.9%	21.5% – 28.6%
Minnesota	20.7%	16.1% – 26.3%
Mississippi	30.4%	23.8% – 38.0%
Missouri	28.0%	23.8% – 32.7%
Montana	26.8%	16.8% – 39.8%
Nebraska	22.4%	15.3% – 31.8%
Nevada	42.4%	34.6% – 50.6%
New Hampshire	23.2%	14.0% – 36.0%
New Jersey	30.7%	25.7% – 36.2%
New Mexico	29.5%	19.4% – 42.1%
New York	37.8%	34.8% – 41.0%
North Carolina	25.6%	22.2% – 29.4%
North Dakota	44.4%	24.0% – 67.0%
Ohio	25.9%	22.7% – 29.4%
Oklahoma	29.3%	24.1% – 35.0%
Oregon	25.6%	20.0% – 32.2%
Pennsylvania	24.4%	21.3% – 27.8%
Rhode Island	29.7%	17.3% – 46.1%
South Carolina	25.3%	21.0% – 30.2%
South Dakota	35.8%	26.8% – 45.9%
Tennessee	28.9%	24.8% – 33.3%
Texas	36.0%	33.3% – 38.7%
Utah	24.8%	17.9% – 33.2%
Virginia	26.0%	21.9% – 30.6%
Washington	35.3%	30.3% – 40.6%
West Virginia	27.4%	21.3% – 34.5%
Wisconsin	19.7%	15.6% – 24.6%
Wyoming	36.1%	25.9% – 47.8%

Table 6: Percent of gun owners who have indicated that they have ever owned an AR-15 styled rifle by state. Note that this includes rifles that an owner holds in other locations if there are local ownership restrictions and rifles modified to be compliant with local laws.

Finally, the demographics of firearms ownership and defensive use are diverse, with different demographic groups commonly owning and using firearms at substantial rates.

References

- Deborah Azrael, Lisa Hepburn, David Hemenway, and Matthew Miller. The stock and flow of us firearms: results from the 2015 national firearms survey. *RSF: The Russell Sage Foundation Journal of the Social Sciences*, 3(5):38–57, 2017.
- Anna Brown. *America’s Complex Relationship With Guns: An In-depth Look at the Attitudes and Experiences of US Adults*. Pew Research Center, 2017.
- Philip J Cook and Jens Ludwig. *Guns in America: results of a comprehensive national survey on firearms ownership and use*. Police Foundation Washington, DC, 1996.
- Cassandra K Crifasi, Julie A Ward, Emma E McGinty, Daniel W Webster, and Colleen L Barry. Gun purchasing behaviours during the initial phase of the covid-19 pandemic, march to mid-july 2020. *International review of psychiatry*, 33(7):593–597, 2021.
- Gallup. *In Depth: Topics, Guns*. <https://news.gallup.com/poll/1645/guns.aspx> , <https://news.gallup.com/poll/264932/percentage-americans-own-guns.aspx>, 2021.
- David Hemenway. Survey research and self-defense gun use: an explanation of extreme overestimates. *J. Crim. L. & Criminology*, 87:1430, 1996.
- Lisa Hepburn, Matthew Miller, Deborah Azrael, and David Hemenway. The us gun stock: results from the 2004 national firearms survey. *Injury prevention*, 13(1):15–19, 2007.
- Gary Kleck and Marc Gertz. Armed resistance to crime: the prevalence and nature of self-defense with a gun. *J. Crim. L. & Criminology*, 86:150, 1995.
- Gary Kleck and Marc Gertz. Carrying guns for protection: results from the national self-defense survey. *Journal of Research in Crime and Delinquency*, 35(2):193–224, 1998.
- Jens Ludwig, Philip J Cook, and Tom W Smith. The gender gap in reporting household gun ownership. *American Journal of Public Health*, 88(11):1715–1718, 1998.
- Matthew Miller, Wilson Zhang, and Deborah Azrael. Firearm purchasing during the covid-19 pandemic: results from the 2021 national firearms survey. *Annals of internal medicine*, 175(2):219–225, 2022.

Ann P Rafferty, John C Thrush, Patricia K Smith, and Harry B McGee. Validity of a household gun question in a telephone survey. *Public Health Reports*, 110(3):282, 1995.

Paul Spector. Social desirability bias. *The SAGE encyclopedia of social science research methods*, 2004.

Appendix A: Vermont Pilot Survey

An initial version of this survey was fielded in Vermont. We report below the top line results from the Vermont survey, which closely mirror the results of the national survey.

In sum, 572 Vermont residents were surveyed, of which 163 indicated owning firearms. The survey sample represented the demographics of Vermont well on all dimensions except gender, as women were over represented and comprised 65.2% of respondents. Thus, weights were employed for gender.

With weighting employed, we find that 30% of Vermont residents own a firearm. Given that the adult population of Vermont is approximately 486,000, this suggest that there are over 145,600 firearms owners in Vermont. 42.1% of Vermont firearms owners are estimated to be female and 57.9% male.

As Figure 16 illustrates, almost a third of gun owners (29.3%) reported having used a firearm to defend themselves or their property (not counting incidents that were due to military service, police work, or work as a security guard). In nearly half of these defensive gun uses (45.9%), respondents reported facing multiple assailants. 85.8% of all incidents were resolved without the firearm owner having to fire a shot (e.g. by simply showing a firearm or verbally threatening to use it).

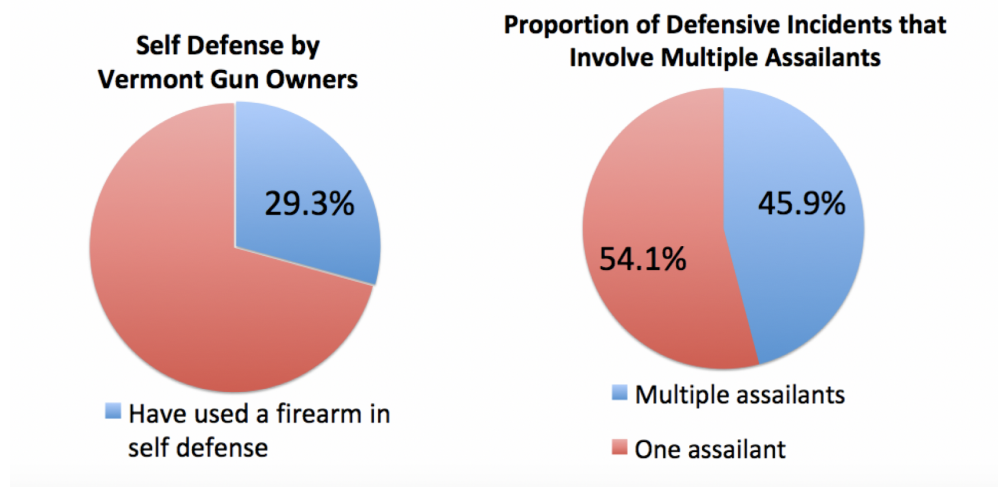


Figure 16: Proportion of gun owners in Vermont who have use a firearm in self-defense and number of assailants involved.

Sample of Vermont responses to open ended question prompt of “Have you ever been in a situation (including any referenced in earlier responses) in which it would have been useful for defensive purposes to have a firearm with a magazine capacity in excess of 10 rounds?”:

- in the first incident it was five to one. I was outnumbered. three rounds per person if needed
- The time I was assaulted by 10 individuals.
- Yes. We have bear that frequently come to our home. They’ve attempted to get into my truck, they have come onto our porch thru the dog door (XL size) they have been in our chicken coops and in our garage. They have damaged many items, destroyed gas grills and threatened my dogs and children. Sometimes a warning shot isn’t enough. And if, God forbid, the bear turned and started to attack us multiple bullets would be needed to stop him.
- About 6 individuals broke into my house one night. I locked myself in my room and they tried to break my door down. I threatened them with use of deadly force, but they kept trying. One of them was outside and broke my bedroom window and I aimed my shotgun at him and he ran off. I threatened again with the sound of charging my shotgun that they knew I wasn’t bluffing and they all fled. Had they entered with the intent to kill my family and I, then we would have been out numbered. If there was an exchange of gun fire, I wouldn’t want to have the restriction of reloading within the time I needed to protect my family and myself. Outgun the enemy or the enemy will surely outgun you. Limiting everyone’s right to weapons is not the answer, and clearly this attempt to ban high capacity magazines is just the catalyst to a government gun grab for easier totalitarian control of the population.
- Yes, i had two run ins with a mountain lion.
- We had a home invasion two times in a month
- Yes. We live in VT. Every time I fired my gun in defense of my property it was to deter bears from damaging my property. It takes more than 1 shot to scare a bear. If

it charges you or your family it'll definitely take a bunch of shots to stop the bear.

- Yes. Just because there are 10 rounds in a magazine does not mean all will be on target during a self defense incident. In 2012 while I was in college in Connecticut, I got jumped by 4 people in Hartford ct. I had nothing on me to defend myself. The men all threatened me with knives and handguns. I wish I was able to carry a firearm at that point.

Appendix B: Sampling Proportions With and Without Weights for National Survey

Gender	Initial Sample Proportions	Census Based Weighted Proportions
Male	49.32%	49.23%
Female	50.68%	50.77%

Age Range	Initial Sample Proportions	Census Based Weighted Proportions
18-20	7.89%	5.04%
21-25	8.11%	8.58%
26-30	7.30%	9.24%
31-35	11.67%	8.67%
36-40	12.66%	8.44%
41-45	8.49%	7.70%
46-50	6.46%	8.09%
51-55	6.37%	8.13%
56-60	7.39%	8.52%
61-65	7.67%	7.87%
66-70	8.03%	6.59%
71-75	5.07%	5.13%
76-80	1.94%	3.50%
Over 80	0.93%	4.49%

Annual Household Income	Initial Sample Proportions	Census Based Weighted Proportions
Less than \$10,000	8.87%	3.40%
\$10,000-20,000	8.95%	4.89%
\$20,000-30,000	9.69%	6.26%
\$30,000-40,000	8.78%	7.06%
\$40,000-50,000	7.44%	7.21%
\$50,000-60,000	7.72%	6.96%
\$60,000-70,000	6.00%	6.96%
\$70,000-80,000	6.37%	6.37%
\$80,000-90,000	4.51%	5.76%
\$90,000-100,000	5.89%	5.76%
\$100,000-150,000	17.67%	19.11%
Over \$150,000	8.12%	20.23%

State of Residence	Initial Sample Proportions	Census Based Weighted Proportions
Alabama	1.83%	1.52%
Alaska	0.39%	0.22%
Arizona	2.10%	2.16%
Arkansas	1.10%	0.91%
California	9.75%	11.95%
Colorado	1.59%	1.75%
Connecticut	1.23%	1.09%
Delaware	0.56%	0.30%
District of Columbia	0.27%	0.21%
Florida	7.29%	6.51%
Georgia	3.67%	3.24%
Hawaii	0.36%	0.44%
Idaho	0.44%	0.56%
Illinois	4.14%	3.87%
Indiana	2.13%	2.05%
Iowa	0.91%	0.96%
Kansas	0.92%	0.89%
Kentucky	1.61%	1.36%
Louisiana	1.23%	1.41%
Maine	0.51%	0.41%
Maryland	1.67%	1.87%
Massachusetts	1.88%	2.13%
Michigan	3.21%	3.05%
Minnesota	1.36%	1.73%
Mississippi	0.83%	0.90%
Missouri	1.93%	1.86%
Montana	0.25%	0.33%
Nebraska	0.53%	0.59%
Nevada	0.90%	0.94%
New Hampshire	0.40%	0.42%
New Jersey	2.97%	2.81%
New Mexico	0.36%	0.64%
New York	8.09%	6.11%
North Carolina	3.18%	3.16%
North Dakota	0.13%	0.24%
Ohio	4.13%	3.57%
Oklahoma	1.32%	1.20%
Oregon	1.05%	1.28%
Pennsylvania	4.30%	3.93%
Rhode Island	0.33%	0.33%
South Carolina	1.68%	1.55%
South Dakota	0.48%	0.27%
Tennessee	2.18%	2.09%
Texas	6.91%	8.81%
Utah	0.56%	0.99%
Virginia	2.43%	2.61%
Washington	2.03%	2.33%
West Virginia	0.71%	0.54%
Wisconsin	1.83%	1.78%
Wyoming	0.32%	0.17%

Race	Initial Sample Proportions	Census Based Weighted Proportions
White	81.26%	76.30%
Black	9.85%	13.40%
Asian	3.98%	5.90%
Native American	2.19%	1.30%
Pacific Islander	0.49%	0.20%
Other	2.22%	2.90%

EXHIBIT 6



Bureau of Justice Statistics Selected Findings

July 1995, NCJ-148201

Firearms, crime, and criminal justice

Guns Used in Crime

By Marianne W. Zawitz
BJS Statistician

How often are guns used in violent crimes?

According to the National Crime Victimization Survey (NCVS), almost 43.6 million criminal victimizations occurred in 1993, including 4.4 million violent crimes of rape and sexual assault, robbery, and aggravated assault. Of the victims of these violent crimes, 1.3 million (29%) stated that they faced an offender with a firearm.*

In 1993, the FBI's *Crime in the United States* estimated that almost 2 million violent crimes of murder, rape, robbery, and aggravated assault were reported to the police by citizens. About 582,000 of these reported murders, robberies, and aggravated assaults were committed with firearms. Murder was the crime that most frequently involved firearms; 70% of the 24,526 murders in 1993 were committed with firearms.

How do we know about the guns used by criminals?

No national collection of data contains detailed information about all of the guns used in crimes. Snapshots of

Highlights

- Although most crime is not committed with guns, most gun crime is committed with handguns. *pages 1 & 2*
- Although most available guns are not used in crime, information about the 223 million guns available to the general public provides a context for evaluating criminal preferences for guns. *page 2*
- By definition, stolen guns are available to criminals. The FBI's National Crime Information Center (NCIC) stolen gun file contains over 2 million reports; 60% are reports of stolen handguns. *page 3*
- In 1994, the Bureau of Alcohol, Tobacco and Firearms (ATF) received over 85,132 requests from law enforcement agencies for traces of guns used in crime. Over three-quarters of the guns traced by the

ATF in 1994 were handguns (mostly pistols), and almost a third were less than 3 years old. *page 4*

- Surveys of inmates show that they prefer concealable, large caliber guns. Juvenile offenders appear to be more likely to possess guns than adults. *page 5*

- Studies of the guns used in homicides show that large caliber revolvers are the most frequent type of gun used in homicides, but the number of large caliber semiautomatic guns used in murders is increasing. *page 5*
- Little information exists about the use of assault weapons in crime. The information that does exist uses varying definitions of assault weapons that were developed before the Federal assault weapons ban was enacted. *page 6*

information about the guns used by criminals are available from —

- official police records concerning the guns recovered in crimes and reports gathered from victims
- surveys that interview criminals
- surveys that interview victims of crime.

From these sources, we know how often guns are involved in crime, how guns are used in crime, what general categories of firearms are most often used in crime, and, to a limited extent, the specific types of guns most frequently used by criminals.

* See note on page 7.

What are the different types of firearms?**Types**

Handgun	A weapon designed to fire a small projectile from one or more barrels when held in one hand with a short stock designed to be gripped by one hand.
Revolver	A handgun that contains its ammunition in a revolving cylinder that typically holds five to nine cartridges, each within a separate chamber. Before a revolver fires, the cylinder rotates, and the next chamber is aligned with the barrel.
Pistol	Any handgun that does not contain its ammunition in a revolving cylinder. Pistols can be manually operated or semiautomatic. A semiautomatic pistol generally contains cartridges in a magazine located in the grip of the gun. When the semiautomatic pistol is fired, the spent cartridge that contained the bullet and propellant is ejected, the firing mechanism is cocked, and a new cartridge is chambered.
Derringer	A small single- or multiple-shot handgun other than a revolver or semiautomatic pistol.
Rifle	A weapon intended to be fired from the shoulder that uses the energy of the explosive in a fixed metallic cartridge to fire only a single projectile through a rifled bore for each single pull of the trigger.
Shotgun	A weapon intended to be fired from the shoulder that uses the energy of the explosive in a fixed shotgun shell to fire through a smooth bore either a number of ball shot or a single projectile for each single pull of the trigger.

Firing action

Fully automatic	Capability to fire a succession of cartridges so long as the trigger is depressed or until the ammunition supply is exhausted. Automatic weapons are considered machineguns subject to the provisions of the National Firearms Act.
Semiautomatic	An autoloading action that will fire only a single shot for each single function of a trigger.
Machinegun	Any weapon that shoots, is designed to shoot, or can be readily restored to shoot automatically more than one shot without manual reloading by a single function of the trigger.
Submachinegun	A simple fully automatic weapon that fires a pistol cartridge that is also referred to as a machine pistol.

Ammunition

Caliber	The size of the ammunition that a weapon is designed to shoot, as measured by the bullet's approximate diameter in inches in the United States and in millimeters in other countries. In some instances, ammunition is described with additional terms, such as the year of its introduction (.30/06) or the name of the designer (.30 Newton). In some countries, ammunition is also described in terms of the length of the cartridge case (7.62 x 63 mm).
Gauge	For shotguns, the number of spherical balls of pure lead, each exactly fitting the bore, that equals one pound.

Sources: ATF, *Firearms & Explosives Tracing Guidebook*, September 1993, pp. 35-40, and Paul C. Giannelli, "Ballistics Evidence: Firearms Identification," *Criminal Law Bulletin*, May-June 1991, pp. 195-215.

Handguns are most often the type of firearm used in crime

- According to the Victim Survey (NCVS), 25% of the victims of rape and sexual assault, robbery, and aggravated assault in 1993 faced an offender armed with a handgun. Of all firearm-related crime reported to the survey, 86% involved handguns.
- The FBI's Supplemental Homicide Reports show that 57% of all murders in 1993 were committed with handguns, 3% with rifles, 5% with shotguns, and 5% with firearms where the type was unknown.
- The 1991 Survey of State Prison Inmates found that violent inmates who used a weapon were more likely to use a handgun than any other weapon; 24% of all violent inmates reported that they used a handgun. Of all inmates, 13% reported carrying a handgun when they committed the offense for which they were serving time.

What types of guns do criminals prefer?

Research by Wright and Rossi in the 1980's found that most criminals prefer guns that are easily concealable, large caliber, and well made. Their studies also found that the handguns used by the felons interviewed were similar to the handguns available to the general public, except that the criminals preferred larger caliber guns.

What types of guns are available generally?

The Bureau of Alcohol, Tobacco and Firearms (ATF) estimates that from 1899 to 1993 about 223 million guns became available in the United States, including over 79 million rifles, 77 million handguns, and 66 million shotguns. The number of guns seized, destroyed, lost, or not working is unknown.

The number of new handguns added to those available has exceeded the number of new shotguns and rifles in recent years. More than half of the guns added in 1993 were handguns.

Over 40 million handguns have been produced in the United States since 1973.

Since over 80% of the guns available in the United States are manufactured here, gun production is a reasonable indicator of the guns made available. From 1973 to 1993, U.S. manufacturers produced —

- 6.6 million .357 Magnum revolvers
- 6.5 million .38 Special revolvers
- 5.4 million .22 caliber pistols
- 5.3 million .22 caliber revolvers
- 4.5 million .25 caliber pistols
- 3.1 million 9 millimeter pistols
- 2.4 million .380 caliber pistols
- 2.2 million .44 Magnum revolvers
- 1.7 million .45 caliber pistols
- 1.2 million .32 caliber revolvers.

During the two decades from 1973 to 1993, the types of handguns most frequently produced have changed. Most new handguns are pistols rather than revolvers. Pistol production grew from 28% of the handguns produced in the United States in 1973 to 80% in 1993.

The number of large caliber pistols produced annually increased substantially after 1986. Until the mid-1980's, most pistols produced in the United States were .22 and .25 caliber models. Production of .380 caliber and 9 millimeter pistols began to increase substantially in 1987, so that by 1993 they became the most frequently produced pistols. From 1991 to 1993, the last 3 years for which data are available, the most frequently produced handguns were —

- .380 caliber pistols (20%)
- 9 millimeter pistols (19%)
- .22 caliber pistols (17%)
- .25 caliber pistols (13%)
- .50 caliber pistols (8%).

Stolen guns are a source of weapons for criminals

All stolen guns are available to criminals by definition. Recent studies of adult and juvenile offenders show that many have either stolen a firearm or kept, sold, or traded a stolen firearm:

- According to the 1991 Survey of State Prison Inmates, among those inmates who possessed a handgun, 9% had acquired it through theft, and 28% had acquired it through an illegal market such as a drug dealer or fence. Of all inmates, 10% had stolen at least one gun, and 11% had sold or traded stolen guns.
- Studies of adult and juvenile offenders that the Virginia Department of Criminal Justice Services conducted in 1992 and 1993 found that 15% of the adult offenders and 19% of the juvenile offenders had stolen guns; 16% of the adults and 24% of the juveniles had kept a stolen gun; and 20% of the adults and 30% of the juveniles had sold or traded a stolen gun.
- From a sample of juvenile inmates in four States, Sheley and Wright found that more than 50% had stolen a gun at least once in their lives and 24% had stolen their most recently obtained handgun. They concluded that theft and burglary were the original, not always the proximate, source of many guns acquired by the juveniles.

How many guns are stolen?

The Victim Survey (NCVS) estimates that there were 341,000 incidents of firearm theft from private citizens annually from 1987 to 1992. Because the survey does not ask how many guns were stolen, the number of guns stolen probably exceeds the number of incidents of gun theft.

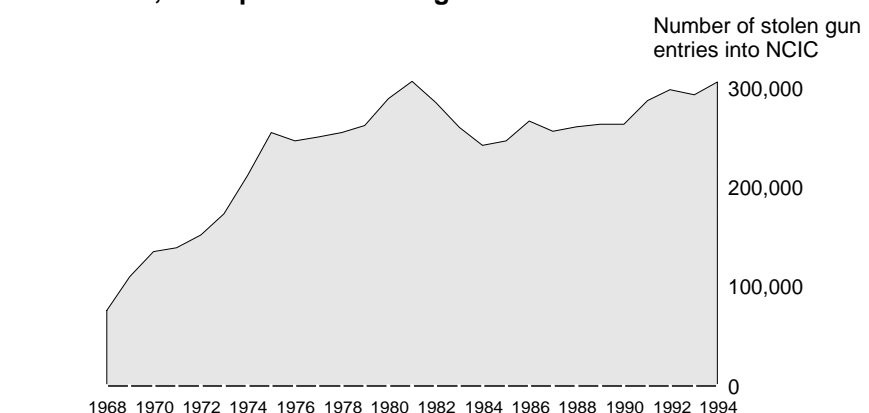
The FBI's National Crime Information Center (NCIC) stolen gun file contained over 2 million reports as of March 1995. In 1994, over 306,000 entries were added to this file including a variety of guns, ammunition, canons, and grenades. Reports of stolen guns are included in the NCIC files when citizens report a theft to law enforcement agencies that submit a report to the FBI. All entries must include make, caliber, and serial number. Initiated in 1967, the NCIC stolen gun file retains all entries indefinitely unless a recovery is reported.

Most stolen guns are handguns

Victims report to the Victim Survey that handguns were stolen in 53% of the thefts of guns. The FBI's stolen gun file's 2 million reports include information on —

- 1.26 million handguns (almost 60%)
- 470,000 rifles (22%)
- 356,000 shotguns (17%).

From 1985 to 1994, the FBI received an annual average of over 274,000 reports of stolen guns



Source: FBI, National Crime Information Center, 1995.

How many automatic weapons are stolen?

Under the provisions of the National Firearms Act, all automatic weapons such as machine guns must be registered with the ATF. In 1995, over 240,000 automatic weapons were registered with the ATF. As of March 1995, the NCIC stolen gun file contained reports on about 7,700 machine guns and submachine guns.

What types of handguns are most frequently stolen?

Most frequently reported handguns in the NCIC stolen gun file

Percent of stolen handguns	Number	Caliber	Type
20.5%	259,184	.38	Revolver
11.7	147,681	.22	Revolver
11.6	146,474	.357	Revolver
8.8	111,558	9 mm	Semiautomatic
7.0	87,714	.25	Semiautomatic
6.7	84,474	.22	Semiautomatic
5.4	68,112	.380	Semiautomatic
3.7	46,503	.45	Semiautomatic
3.3	41,318	.32	Revolver
3.1	39,254	.44	Revolver
1.5	18,377	.32	Semiautomatic
1.3	16,214	.45	Revolver

Upon request, the ATF traces some guns used in crime to their origin

The National Tracing Center of ATF traces firearms to their original point of sale upon the request of police agencies. The requesting agency can use this information to assist in identifying suspects, providing evidence for subsequent prosecution, establishing stolen status, and proving ownership. The number of requests for firearms traces increased from 37,181 in 1990 to 85,132 in 1994.

Trace requests represent an unknown portion of all the guns used in crimes. ATF is not able to trace guns manufactured before 1968, most surplus military weapons, imported guns without the importer's name, stolen guns, and guns missing a legible serial number.

Police agencies do not request traces on all firearms used in crimes. Not all firearms used in crimes are recovered so that a trace could be done and, in some States and localities, the police agencies may be able to establish ownership locally without going to the ATF.

Most trace requests concern handguns

Over half of the guns that police agencies asked ATF to trace were pistols and another quarter were revolvers.

Type of gun	Percent of all 1994 traces
Total	100.0%
Handgun	79.1
Pistol	53.0
Pistol Revolver	24.7
Pistol Derringer	1.4
Rifle	11.1
Shotgun	9.7
Other including machinegun	0.1

While trace requests for all types of guns increased in recent years, the number of pistols traced increased the most, doubling from 1990 to 1994.

What are the countries of origin of the guns that are traced?

Traced guns come from many countries across the globe. However, 78% of the guns that were traced in 1994 originated in the United States and most of the rest were from —

- Brazil (5%)
- Germany (3%)
- China (3%)
- Austria (3%)
- Italy (2%)
- Spain (2%).

Almost a third of the guns traced by ATF in 1994 were 3 years old or less

Age of traced guns	Traces completed in 1994	
	Number	Percent
Total	83,362	100%
Less than 1 year	4,072	5
1 year	11,617	14
2 years	6,764	8
3 years	4,369	5

What crimes are most likely to result in a gun-tracing request?

Crime type	Percent of all 1994 traces	Percent of traces by crime type						
		Handgun					Rifle	Shotgun
		Total	Total	Pistol	Pistol Derringer	Pistol Revolver		
Weapons offenses	72%	100%	81%	55%	1%	25%	10%	9%
Drug offenses	12	100	75	50	2	23	14	11
Homicide	6	100	79	49	1	29	11	10
Assault	5	100	80	50	1	28	10	11
Burglary	2	100	57	34	1	22	24	19
Robbery	2	100	84	53	1	29	7	10
Other	2	100	76	54	1	21	14	10

Note: Detail may not add to total because of rounding.
Source: ATF, unpublished data, May 1995.

What guns are the most frequently traced?

The most frequently traced guns vary from year to year. The ATF publishes a list of the 10 specific guns most frequently traced annually. The total number of traced guns on the top 10 list was 18% of the total traced from 1991 to 1994. Most of the top 10 guns were pistols (over 30% were .25 caliber pistols), although a number of revolvers and a few shotguns and rifles were also included. The most frequently traced gun was a Smith and Wesson .38 caliber revolver in 1990, the Raven Arms P25 (a .25 caliber pistol) from 1991 through 1993, and the Lorcin P25 in 1994.

10 most frequently traced guns in 1994

Rank	Manufacturer	Model	Caliber	Type	Number traced
1	Lorcin	P25	.25	Pistol	3,223
2	Davis Industries	P380	.38	Pistol	2,454
3	Raven Arms	MP25	.25	Pistol	2,107
4	Lorcin	L25	.25	Pistol	1,258
5	Mossburg	500	12G	Shotgun	1,015
6	Phoenix Arms	Raven	.25	Pistol	959
7	Jennings	J22	.22	Pistol	929
8	Ruger	P89	9 mm	Pistol	895
9	Glock	17	9 mm	Pistol	843
10	Bryco	38	.38	Pistol	820

Source: ATF, May 1995.

What caliber guns do criminals prefer?

In their 1983 study, Wright, Rossi, and Daly asked a sample of felons about the handgun they had most recently acquired. Of the felons sampled —

- 29% had acquired a .38 caliber handgun
- 20% had acquired a .357 caliber handgun
- 16% had acquired a .22 caliber handgun.

Sheley and Wright found that the juvenile inmates in their 1991 sample in four States preferred large caliber, high quality handguns. Just prior to their confinement —

- 58% owned a revolver, usually a .38 or .357 caliber gun
- 55% owned a semiautomatic handgun, usually a 9 millimeter or .45 caliber gun
- 51% owned a sawed-off shotgun
- 35% owned a military-style automatic or semiautomatic rifle.

Do juvenile offenders use different types of guns than adult offenders?

A study of adult and juvenile offenders by the Virginia Department of Criminal Justice Services found that juvenile offenders were more likely than adults to have carried a semiautomatic pistol at the crime scene (18% versus 7%).

They were also more likely to have carried a revolver (10% versus 7%). The same proportion of adults and juveniles (3%) carried a shotgun or rifle at the crime scene.

Some studies of guns used in homicides provide information about caliber

McGonigal and colleagues at the University of Pennsylvania Medical Center studied firearm homicides that occurred in Philadelphia: 145 in 1985 and 324 in 1990. Most of the firearms used in the homicides studied were handguns: 90% in 1985 and 95% in 1990. In both years, revolvers were the predominant type of handgun used; however, the use of semiautomatic pistols increased from 24% in 1985 to 38% in 1990. The caliber of the handguns used also changed:

In Philadelphia, handguns most often used:

In 1985, of 91 homicides	In 1990, of 204 homicides
44% .38 caliber revolver	23% 9 mm pistol
19% .25 caliber pistol	18% .38 caliber revolver
14% .22 caliber revolver	16% .357 caliber revolver
14% .32 caliber revolver	16% .22 caliber revolver
3% 9 mm pistol	10% .32 caliber revolver
2% .357 caliber revolver	6% .380 caliber pistol

The Virginia Department of Criminal Justice Services studied 844 homicides that occurred in 18 jurisdictions

from 1989 through 1991. Firearms were identified as the murder weapon in 600 cases. Over 70% of the firearms used were handguns. Of those handguns for which the caliber and firing action could be identified, 19% were .38 caliber revolvers, 10% were .22 caliber revolvers, and 9% were 9 millimeter semiautomatic pistols.

The Hawaii Department of the Attorney General, Crime Prevention Division, studied 59 firearm-related homicides in Honolulu from 1988 to 1992. Handguns were used in 48 homicides (over 80%) including 11 handguns of 9 millimeter caliber, 10 of .357 caliber, 10 of .38 caliber, and 5 of .25 caliber.

What caliber guns are used in the killings of law enforcement officers?

From 1982 to 1993, of the 687 officers who were killed by firearms other than their own guns, more were killed by .38 caliber handguns than by any other type of weapon.

Type of firearm	Percent of law enforcement officers killed with a firearm
.38 caliber handgun	25.2%
.357 Magnum handgun	12.1
9 millimeter handgun	9.5
12 gauge shotgun	7.4
.22 caliber handgun	5.4
.22 caliber rifle	4.4

How often are assault weapons used in crime?

Little information exists about the use of assault weapons in crime. The information that does exist uses varying definitions of assault weapons that were developed before the Federal assault weapons ban was enacted.

In general, assault weapons are semiautomatic firearms with a large magazine of ammunition that were designed and configured for rapid fire and combat use. An assault weapon can be a pistol, a rifle, or a shotgun. The Federal Violent Crime Control and Law Enforcement Act of 1994 bans the manufacture and sale of 19 specific assault weapons identified by make and manufacturer. It also provides for a ban on those weapons that have a combination of features such as flash suppressors and grenade launchers. The ban does not cover those weapons legally possessed before the law was enacted. The National Institute of Justice will be evaluating the effect of the ban and reporting to Congress in 1997.

In 1993 prior to the passage of the assault weapons ban, the Bureau of Alcohol, Tobacco and Firearms (ATF), reported that about 1% of the estimated 200 million guns

in circulation were assault weapons. Of the gun-tracing requests received that year by ATF from law enforcement agencies, 8% involved assault weapons.

Assault weapons and homicide

A New York State Division of Criminal Justice Services study of homicides in 1993 in New York City found that assault weapons were involved in 16% of the homicides studied. The definition of assault weapons used was from proposed but not enacted State legislation that was more expansive than the Federal legislation. By matching ballistics records and homicide files, the study found information on 366 firearms recovered in the homicides of 271 victims. Assault weapons were linked to the deaths of 43 victims (16% of those studied).

A study by the Virginia Department of Criminal Justice Services reviewed the files of 600 firearm murders that occurred in 18 jurisdictions from 1989 to 1991. The study found that handguns were used in 72% of the murders (431 murders). Ten guns were identified as assault weapons, including five pistols, four rifles, and one shotgun.

Assault weapons and offenders

In the 1991 BJS Survey of State Inmates, about 8% of the inmates reported that they had owned a military-type weapon, such as an Uzi, AK-47, AR-15, or M-16. Less than 1% said that they carried such a weapon when they committed the incident for which they were incarcerated. A Virginia inmate survey conducted between November 1992 and May 1993 found similar results: About 10% of the adult inmates reported that they had ever possessed an assault rifle, but none had carried it at the scene of a crime.

Two studies indicate higher proportions of juvenile offenders reporting possession and use of assault rifles. The Virginia inmate survey also covered 192 juvenile offenders. About 20% reported that they had possessed an assault rifle and 1% said that they had carried it at the scene of a crime. In 1991, Sheley and Wright surveyed 835 serious juvenile offenders incarcerated in 6 facilities in 4 States. In the Sheley and Wright study, 35% of the juvenile inmates reported that they had owned a military-style automatic or semiautomatic rifle just prior to confinement.

Sources

Assault Weapons and Homicide in New York City, Office of Justice Systems Analysis, New York State Division of Criminal Justice Services, May 1994.

Bureau of Alcohol, Tobacco and Firearms, *ATF Facts*, November 1994.

Bureau of Alcohol, Tobacco and Firearms, *Firearms & Explosives Tracing Guidebook*, September 1993.

Bureau of Alcohol, Tobacco and Firearms, unpublished data.

BJS, *Criminal Victimization 1993*, Bulletin, NCJ-151658, May 1995.

BJS, *Guns and Crime*, Crime Data Brief, NCJ-147003, April 1994.

BJS, National Crime Victimization Survey, 1992, unpublished data.

BJS, *Survey of State Prison Inmates, 1991*, NCJ-136949, March 1993.

"Crimes Committed with Firearms in the State of Hawaii, 1983-1992," *Crime Trends Series*, Department of the Attorney General, Crime Prevention Division, Vol. 2, Issue 1, April 1994.

Federal Bureau of Investigation, *Crime in the United States 1993*, October 4, 1994.

Federal Bureau of Investigation, *Law Enforcement Officers Killed and Assaulted*, annually 1987 to 1992.

Federal Bureau of Investigation, National Crime Information Center, unpublished data.

Giannelli, Paul C., "Ballistics Evidence: Firearms Identification," *Criminal Law Bulletin*, May-June 1991.

Guns and Violent Crime, Criminal Justice Research Center, Commonwealth of Virginia, Department of Criminal Justice Services, January 1994 with updated data for homicide study.

McGonigal, Michael D., MD, John Cole, BS, C. William Schwab, MD, Donald R. Kauder, MD, Michael R. Rotondo, MD, and Peter B. Angood, "Urban Firearm Deaths: A Five-year Perspective," *The Journal of Trauma*, Vol. 35, No. 4, October 1993, pp. 532-37.

Sheley, Joseph F., and James D. Wright, "Gun Acquisition and Possession in Selected Juvenile Samples," National Institute of Justice and Office of Juvenile Justice and Delinquency Prevention, *Research in Brief*, NCJ-145326, December 1993.

Wright, James D., and Peter H. Rossi, *Armed and Considered Dangerous* (New York: Adline de Gruyter) 1986.

Wright, James D., Peter H. Rossi, and Kathleen Daly, *Under the Gun: Weapons, Crime, and Violence in America* (New York: Adline de Gruyter) 1983.

Note

Data in this report from the 1993 National Crime Victimization Survey are the first released on this topic since the survey was redesigned. Because of changes in the methodology, direct comparisons with BJS's victim survey data from prior years are not appropriate. Additional information about the survey's redesign can be obtained from the Bureau of Justice Statistics Clearinghouse at 1-800-732-3277.

The Bureau of Justice Statistics is the statistical arm of the U.S. Department of Justice. Jan M. Chaiken, Ph.D., is director.

BJS Selected Findings summarize statistics about a topic of current concern from both BJS and non-BJS datasets.

Substantial assistance in preparing this document was provided by Roy Weise and Gary Boatman of the Criminal Justice Information Systems Division of the FBI; Edward Troiano, Emmett Masterson, Gerald Nunziato, Gary Kirchoff, and Kris Denholm of the Bureau of Alcohol, Tobacco and Firearms; Jim McDonough of the Virginia Department of Criminal Justice Services; Henry Brownstein and Kelly Haskin-Tenenini of the New York State Division of Criminal Justice Services; and Larry Greenfeld, Thomas Hester, and Michael Rand of the Bureau of Justice Statistics. Verification and publication review were provided by Yvonne Boston, Ida Hines, Rhonda Keith, and Priscilla Middleton of the Bureau of Justice Statistics.

July 1995, NCJ-148201

Guns Used in Crime is the first of a series of reports on firearms and crime that will become part of a longer document, *Firearms, Crime, and Criminal Justice*. Other topics to be covered in this series include weapons offenses and offenders, how criminals obtain guns, and intentional firearm injury. The full report will focus on the use of guns in crime, trends in gun crime, consequences of gun crimes, characteristics of offenders who use guns, and sanctions for offenders who use guns. This report will not cover the involvement of firearms in accidents or suicides.

EXHIBIT 7

ANNUAL FIREARMS MANUFACTURING AND EXPORT REPORT



YEAR 2020 Final*

MANUFACTURED



<i>PISTOLS</i>		<i>REVOLVERS</i>	
TO .22	678,967	TO .22	597,015
TO .25	195,992	TO .32	4,124
TO .32	56,887	TO .357 MAG	152,921
TO .380	659,899	TO .38 SPEC	181,585
TO 9MM	3,211,775	TO .44 MAG	27,151
TO .50	705,663	TO .50	30,282
TOTAL	5,509,183	TOTAL	993,078
 <i>RIFLES</i>	 2,760,392		
 <i>SHOTGUNS</i>	 476,682		
 <i>MISC. FIREARMS</i>	 1,324,743		

EXPORTED

<i>PISTOLS</i>	382,758
<i>REVOLVERS</i>	19,264
<i>RIFLES</i>	99,454
<i>SHOTGUNS</i>	17,874
<i>MISC. FIREARMS</i>	9,788

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PREPARED BY LED 03/10/2021
REPORT DATA AS OF 03/10/2021

CERTIFICATE OF SERVICE
UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF CALIFORNIA

Case Name: *Duncan, et al. v. Becerra*
Case No.: 17-cv-1017-BEN-JLB

IT IS HEREBY CERTIFIED THAT:

I, the undersigned, declare under penalty of perjury that I am a citizen of the United States over 18 years of age. My business address is 180 East Ocean Boulevard, Suite 200 Long Beach, CA 90802. I am not a party to the above-entitled action.


I have caused service of the following documents, described as:

**DECLARATION OF MARK HANISH IN SUPPORT OF PLAINTIFFS'
SUPPLEMENTAL BRIEF; EXHIBITS 2-7**

on the following parties by electronically filing the foregoing on December 1, 2022, with the Clerk of the District Court using its ECF System, which electronically notifies them.

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Attorney General of California
Mark R. Beckington
Supervising Deputy Attorney General
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I declare under penalty of perjury that the foregoing is true and correct.
Executed on December 1, 2022, at Long Beach, CA.


Laura Palmerin