

SEILER EPSTEIN LLP  
Attorneys at Law

1 George M. Lee (SBN 172982)  
gml@seilerepstein.com  
2 **SEILER EPSTEIN LLP**  
3 4 Embarcadero Center, 14th Floor  
San Francisco, CA 94111  
4 Phone: (415) 979-0500  
Fax: (415) 979-0511  
5

6 Raymond M. DiGuiseppe (SBN 228457)  
law.rmd@gmail.com  
7 **THE DIGUISEPPE LAW FIRM, P.C.**  
4320 Southport-Supply Road, Suite 300  
8 Southport, North Carolina 28461  
Phone: (910) 713-8804  
9 Fax: (910) 672-7705

10 Attorneys for Plaintiffs

11 UNITED STATES DISTRICT COURT

12 FOR THE EASTERN DISTRICT OF CALIFORNIA

13 WILLIAM WIESE, et al.,  
14  
15 Plaintiffs,  
16  
17 vs.

Case No. 2:17-cv-00903-WBS-KJN

**DECLARATION OF GEORGE M. LEE IN  
SUPPORT OF PLAINTIFFS' MOTION AND  
MOTION FOR SUMMARY JUDGMENT**

**[FRCP 56]**

18 ROB BONTA, in his official capacity as  
19 Attorney General of California, et al.,  
20  
21 Defendants.

Date: None Set  
Judge: Hon. William B. Shubb

22 DECLARATION OF GEORGE M. LEE

23 I, George M. Lee, declare as follows:

24 1. I am an attorney at law, in good standing, duly licensed to practice law in this  
25 state and appear before its courts. I am admitted to the Eastern District of California. I am  
26 counsel of record for plaintiffs in this matter. I have personal knowledge of the facts stated in this  
27 declaration, and if called as a witness, could competently testify thereto.  
28



**EXHIBIT A**

**SEILER EPSTEIN ZIEGLER & APPEGATE LLP**  
Attorneys at Law

1 George M. Lee (SBN 172982)  
Douglas A. Applegate (SBN 142000)  
2 **SEILER EPSTEIN ZIEGLER & APPEGATE LLP**  
601 Montgomery Street, Suite 2000  
3 San Francisco, California 94111  
Phone: (415) 979-0500  
4 Fax: (415) 979-0511

5 Raymond M. DiGuseppe (SBN 228457)  
**LAW OFFICES OF RAYMOND MARK DIGUISEPPE, PLLC**  
6 4002 Executive Park Blvd., Suite 600  
Southport, NC 28461  
7 Phone: (910) 713-8804  
Fax: (910) 672-7705

8 Attorneys for Plaintiffs  
9 WILLIAM WIESE, JEREMIAH MORRIS,  
LANCE COWLEY, SHERMAN MACASTON,  
10 ADAM RICHARDS, CLIFFORD FLORES,  
L.Q. DANG, FRANK FEDEREAU, ALAN NORMANDY,  
11 TODD NIELSEN, THE CALGUNS FOUNDATION,  
FIREARMS POLICY COALITION,  
12 FIREARMS POLICY FOUNDATION,  
and SECOND AMENDMENT FOUNDATION

13  
14 UNITED STATES DISTRICT COURT

15 FOR THE EASTERN DISTRICT OF CALIFORNIA

16  
17 WILLIAM WIESE, et al.,

18 Plaintiffs,

19 vs.

20  
21 XAVIER BECERRA, in his official capacity as  
Attorney General of California, et al.,

22 Defendants.  
23  
24

Case No. 2:17-cv-00903-WBS-KJN

**DECLARATION OF D. ALLEN YOUNGMAN IN  
SUPPORT OF PLAINTIFFS' MOTION FOR  
TEMPORARY RESTRAINING ORDER AND  
ISSUANCE OF PRELIMINARY INJUNCTION**

**[FRCP 65; E.D. L.R. 231]**

Date: TBD  
Time: TBD  
Courtroom 5  
Judge: Hon. William B. Shubb

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DECLARATION OF D. ALLEN YOUNGMAN

I, D. Allen Youngman, declare as follows:

1. I am and have been the Executive Director of the Defense Small Arms Advisory Council (“DSAAC”) since its founding in 2004. I have personal knowledge of the facts stated in this declaration, and if called as a witness, could competently testify thereto.

2. This declaration is executed in support of plaintiffs’ motion for the issuance of a temporary restraining order, and issuance of a preliminary injunction, made pursuant to FRCP 65.

3. I served in the United States Army for more than 34 years in a variety of assignments including Infantry, Special Forces, and Armor units and retired from active duty, at the rank of Major General, in 2003. I am a graduate of the Army War College and hold a B.A. in Political Science from the University of Kentucky and a J.D. from the University of Kentucky College of Law. Prior to returning to full-time active duty with the United States Army, I practiced law in Owensboro, Kentucky and served as a prosecuting attorney there from 1981-85.

4. The DSAAC is a 501(c)(6) trade association comprised of U.S.-based military and law enforcement small arms manufacturers. DSAAC represents the small arms and light weapons segment of the defense industry with the Department of Defense, the Department of State, and international fora including the United Nations and is a UN-recognized Non-Governmental Organization (NGO) providing technical advice on all aspects of the global firearms trade.

5. As part of my professional responsibilities and training in the military, and within this industry, I have necessarily become familiar with modern firearms, small arms, and the firearms trade. I am also a senior firearms instructor for the Daviess County Sheriff’s Office, and a graduate of the Kentucky Department of Criminal Justice Training Law Enforcement Firearms Instructor Course.

6. Modern, semi-automatic firearms today are designed to be used, and are sold with ammunition feeding devices, called ammunition magazines (or simply, “magazines”). A

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Attorneys at Law

1 magazine is simply “a receptacle for a firearm that holds a plurality of cartridges or shells under  
2 spring pressure preparatory for feeding into the chamber. Magazines take many forms, such as  
3 box, drum, rotary, tubular, etc. and may be fixed or removable.” See: <http://saami.org/glossary/>.  
4 A vast majority of the firearms sold at retail to law enforcement and to the civilian markets today  
5 are semi-automatic, particularly handguns, and which contain removable magazines.

6 7. Even though magazines are generally removable, that is not to say that they are  
7 separate artifacts from the firearm itself. In fact, a magazine is considered to be an inherent  
8 operating part of a functioning firearm. Semi-automatic firearms are basically inoperable  
9 without them. Ammunition should not generally be loaded into a firearm chamber without a  
10 magazine, and in fact, California’s requirement for a “magazine disconnect mechanism” on all  
11 new handguns sold by retailers in California (see Cal. Pen. Code § 31910(b)(4)-(6)), means that  
12 such firearms are literally incapable of being fired without a magazine inserted. Modern semi-  
13 automatic firearms sold at retail to civilian and law enforcement markets include at least one  
14 magazine intended to be used as a part of that pistol.

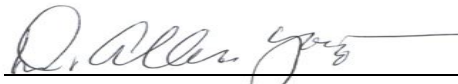
15 8. The term “large capacity magazine” is not generally used outside of those states  
16 which limit firearm magazine capacity. In most other states, firearms, including many of the  
17 most popular pistols and rifles, are sold with *standard* capacity magazines. As examples, such  
18 firearms include: the Glock 17 pistol (with 17-round magazines); the Glock 19 pistol (with 15-  
19 round magazines), the SIG Sauer P226 pistol (with 15-round 9mm magazines), and the Beretta  
20 92-series pistol (with 15, or 17-round magazines). In 2017, the U.S. Army announced its  
21 intention to replace the Beretta 92F (M9) pistol as its standard sidearm with the SIG 320  
22 (designated M17 pistol), which is designed to carry magazines containing either 17 rounds of  
23 9mm ammunition, or 14 rounds of .40 S&W ammunition. These and many other examples  
24 demonstrate that the standard capacity of these popular firearms, in both law enforcement and  
25 civilian markets, are generally greater than 10 rounds, and there is nothing “unusually large”  
26 about those capacities.  
27

28 //

1           9.       It is generally well-known, well-accepted, and generally indisputable that so-  
2 called “large capacity magazines” are commonly owned by millions of persons in the United  
3 States, for a variety of lawful purposes, including recreational target shooting, competition, home  
4 defense, collecting and hunting.

5           10.       From my experience in this industry, I am aware that there is no market, or would  
6 be no market, for the purchase and sale of used ammunition magazines that are 17 years old or  
7 older. Law enforcement agencies are largely permitted to purchase new replacement magazines  
8 for their officers. These new magazines are relatively inexpensive, and are inherently reliable.  
9 However, used magazines, from unknown sources, may suffer from defects such as worn  
10 springs, followers and feed lips, which may greatly impair their reliability. Furthermore, with  
11 literally tens of millions of new standard-capacity magazines on the market nation-wide, many of  
12 them reflective of advances in materials and design over the past several years, there is no reason  
13 for someone, law enforcement or civilian, to buy older ones from unknown sources. For these  
14 reasons, there is or would be very little demand for magazines sold by retailers, re-selling 17+  
15 year old magazines, especially much older ones, within the United States generally.

16           I declare under penalty of perjury that the foregoing is true and correct. Executed on  
17 June 11, 2017.

18  
19   
20 \_\_\_\_\_  
Maj. Gen. D. Allen Youngman (Ret.)

SEILER EPSTEIN ZIEGLER & APPEGATE LLP  
Attorneys at Law

**EXHIBIT B**



**SEILER EPSTEIN ZIEGLER & APPEGATE LLP**  
Attorneys at Law

1 George M. Lee (SBN 172982)  
Douglas A. Applegate (SBN 142000)  
2 **SEILER EPSTEIN ZIEGLER & APPEGATE LLP**  
601 Montgomery Street, Suite 2000  
3 San Francisco, California 94111  
Phone: (415) 979-0500  
4 Fax: (415) 979-0511

5 Raymond M. DiGuseppe (SBN 228457)  
**LAW OFFICES OF RAYMOND MARK DIGUISEPPE, PLLC**  
6 4002 Executive Park Blvd., Suite 600  
Southport, NC 28461  
7 Phone: (910) 713-8804  
Fax: (910) 672-7705

8 Attorneys for Plaintiffs  
9 WILLIAM WIESE, JEREMIAH MORRIS,  
LANCE COWLEY, SHERMAN MACASTON,  
10 ADAM RICHARDS, CLIFFORD FLORES,  
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11 TODD NIELSEN, THE CALGUNS FOUNDATION,  
FIREARMS POLICY COALITION,  
12 FIREARMS POLICY FOUNDATION,  
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17 WILLIAM WIESE, et al.,

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20  
21 XAVIER BECERRA, in his official capacity as  
Attorney General of California, et al.,

22 Defendants.  
23  
24

Case No. 2:17-cv-00903-WBS-KJN

**DECLARATION OF JAMES CURCURUTO IN  
SUPPORT OF PLAINTIFFS' MOTION FOR  
TEMPORARY RESTRAINING ORDER AND  
ISSUANCE OF PRELIMINARY INJUNCTION**

**[FRCP 65; E.D. L.R. 231]**

Date: TBD  
Time: TBD  
Courtroom 5  
Judge: Hon. William B. Shubb

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26 //  
27 //  
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DECLARATION OF JAMES CURCURUTO

1  
2 1. I, James Curcuruto, am not a party in the above-titled action. I am over the age  
3 of 18, have personal knowledge of the facts and events referred to in this Declaration, and  
4 am competent to testify to the matters stated below.

5 2. I am the Director, Industry Research and Analysis, at the National Shooting  
6 Sports Foundation (“NSSF”). The NSSF is the trade association for the firearms industry. Its  
7 mission is to promote, protect and preserve hunting and the shooting sports.  
8 Formed in 1961, NSSF has a membership of 12,000 manufacturers, distributors, firearms  
9 retailers, shooting ranges, sportsmen’s organizations and publishers.

10 3. In my position as Director, Industry Research and Analysis, I am responsible  
11 for most of the industry research activities at NSSF, and I direct the activities of an internal  
12 research coordinator as well as outside companies retained to conduct research and gather market  
13 and consumer information useful to NSSF members.

14 4. Many NSSF members manufacture, distribute and/or sell firearms and shooting  
15 and hunting-related goods and services, and as is usual and customary for trade associations, the  
16 NSSF collects and disseminates industry-specific, non-sensitive data reflecting consumer  
17 preferences, market trends and other information for use in their business decisions. Among the  
18 shooting and hunting-related goods and services manufactured, distributed and sold by NSSF  
19 members are ammunition magazines. Research conducted by the NSSF and under my direction  
20 demonstrates that detachable ammunition magazines are very popular and are commonly owned  
21 by millions of persons in the United States for a variety of lawful purposes, including, but  
22 not limited to, recreational and competitive target shooting, home defense, collecting and  
23 hunting.  
24

25 5. In addition to ammunition magazines accompanying firearms that utilize  
26 them at the time of sale, such magazines are also widely available for sale as a standalone  
27 item to individuals who need a replacement, different-capacity, and/or additional magazines.

28 6. I am not aware of any singular public source providing reliable figures identifying

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1 exactly how many ammunition magazines are manufactured or imported for sale within the  
2 United States each year. There are, however, data available to me from which estimations of the  
3 amount of magazines that have been sold to the general population, as well as how many of those  
4 have a capacity for ammunition exceeding ten rounds, can be calculated within a reasonable  
5 degree of certainty.

6 7. Using such data, I have, in the normal scope of my duties on behalf of the NSSF,  
7 calculated estimations of the total number of magazines possessed by consumers in the United  
8 States, as well as how many of those have a standard capacity for ammunition exceeding ten  
9 rounds. These estimations are published in the NSSF® Magazine Chart attached as Exhibit "A."

10 8. The NSSF® Magazine Chart estimates that 230 million pistol and rifle magazines  
11 were in the possession of United States consumers between 1990 and 2015. The data supporting  
12 the Chart further shows magazines capable of holding more than 10 rounds of ammunition  
13 accounted for approximately 115 million or approximately half of all magazines owned.

14 9. Sources used to compile the NSSF® Magazine Chart include the Bureau of  
15 Alcohol, Tobacco, Firearms and Explosives (ATF) Annual Firearms Manufacturers and Exports  
16 Reports (AFMER), U.S. International Trade Commission (ITC), as well as, opinions of firearms  
17 industry professionals. To prepare the NSSF® Magazine Chart, only the number of pistols and  
18 rifles were used while revolver and shotgun data was excluded as revolvers and the vast majority  
19 of shotguns do not utilize magazines.

20 10. The ATF AFMER data provide historical figures for pistols by caliber (i.e., the  
21 specific ammunition cartridge for which a firearm is chambered) and rifles produced in the  
22 United States for consumer purchase. The ITC data provides historical figures for pistol and  
23 rifles imported to and exported from the United States for consumer purchase. The total number  
24 of firearms available for consumer purchase from 1990 through 2015 was calculated by adding  
25 the total U.S.- production of firearms with total firearms imported and then subtracting total  
26 firearms exported.

27 11. The ATF AFMER and ITC data provided estimates of approximately 67.7 million  
28

1 pistols and 42.6 million rifles capable of holding a magazine were available to United States  
2 consumers between 1990 and 2015. Firearms industry professionals with knowledge of the pistol  
3 and rifle magazine market then allocated magazines to the totals to complete the data provided in  
4 the NSSF® Magazine Chart.

5 12. It can be assumed that many more such magazines were manufactured in the  
6 United States or imported to the United States for sale in the commercial marketplace both prior  
7 to 1990 as well as after 2015.

8 13. While the figure of 115 million magazines with a capacity greater than 10 rounds  
9 in circulation is an estimation based on extrapolation from indirect sources and cannot be  
10 confirmed as unequivocally accurate, it is safe to say that whatever the actual number of such  
11 magazines in United States consumers' hands is, it is in the tens-of millions, even under the most  
12 conservative estimates.

13 I declare under penalty of perjury that the foregoing is true and correct. Executed  
14 within the United States on June 9, 2017.

15  
16   
17 James Curcuruto

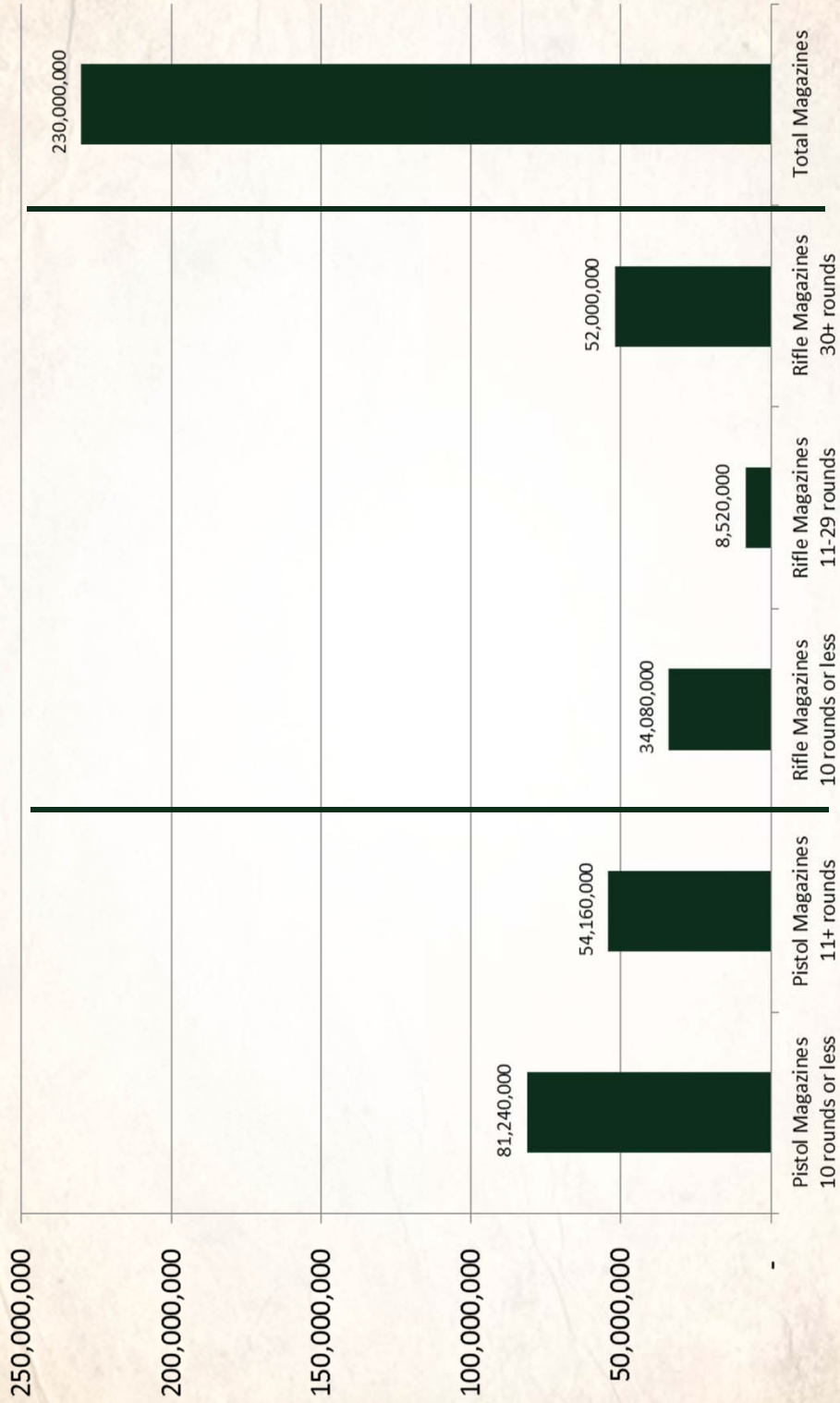
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Attorneys at Law

28

**EXHIBIT A**

# NSSF® Magazine Chart

## Estimated 230 Million Pistol and Rifle Magazines in U.S. Consumer Possession 1990 - 2015.



Sources: ATF AFMER, US International Trade Commission figures combined with NSSF and firearms industry estimates.

**NSSF.ORG**

**EXHIBIT C**

# 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).<sup>1</sup> 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).<sup>2</sup> 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.

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<sup>1</sup>See <https://www.nssf.org/research/>

<sup>2</sup>See 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 Centiment<sup>3</sup> 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.<sup>4</sup> 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).<sup>5</sup> 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

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<sup>3</sup>See <https://www.centiment.co/>

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

<sup>5</sup>See 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.<sup>6</sup> 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

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<sup>6</sup>For a description of the methods of the General Social Survey see: [https://www.nsf.gov/pubs/2007/nsf0748/nsf0748\\_3.pdf](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.<sup>7</sup>

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,

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

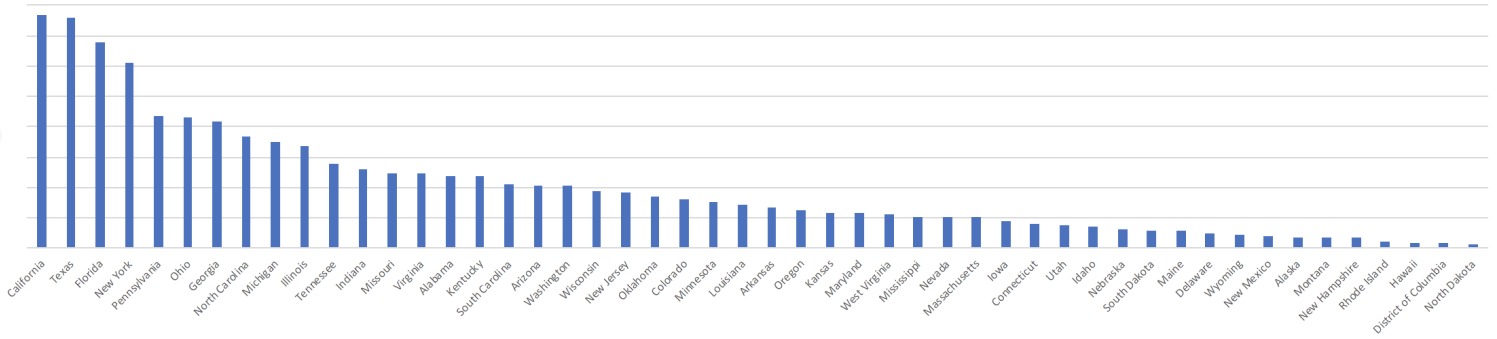


Figure 1: Distribution of Firearms Owners Surveyed

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.<sup>8</sup> 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%).

<sup>8</sup>Census 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.

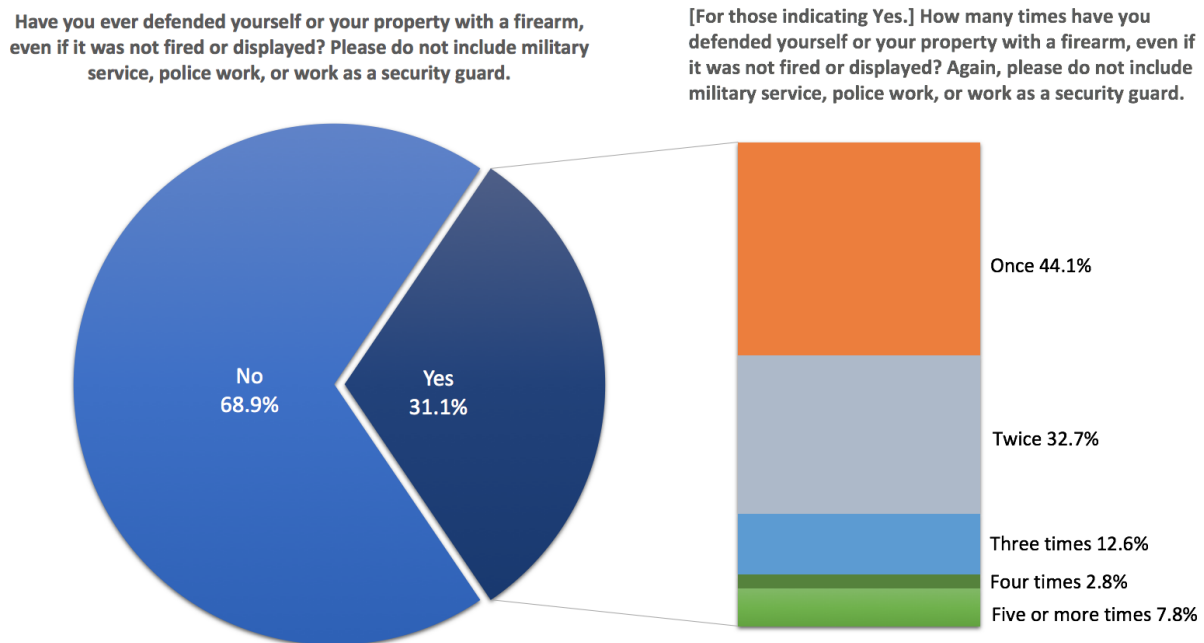


Figure 2: Defensive Gun Use: 31.1% of firearms owners have defended themselves of their property with a gun, and a majority have done so more than once.

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.

<b>Demographic Group</b>	<b>Proportion of Gun Owners Who Used Gun Defensively</b>	<b>95% Confidence Interval</b>
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).<sup>9</sup>

<sup>9</sup>This 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-

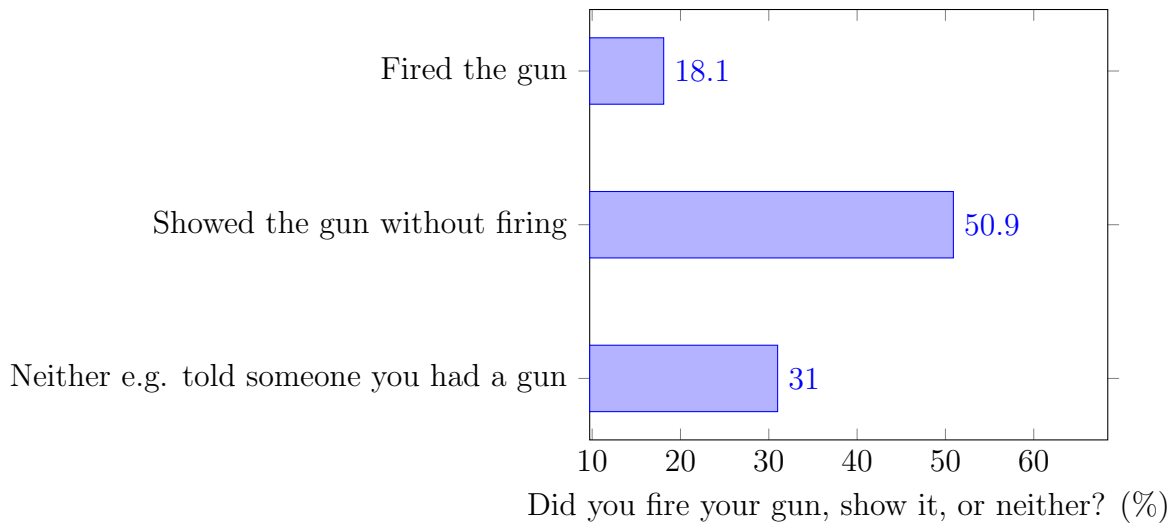


Figure 3: How Guns are Employed in Self-defense: In most defensive incidents no shots are fired.

Gun owner respondents were asked to answer detailed questions regarding each defensive incident. However, if a respondent reported a defensive gun use in later years, 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.

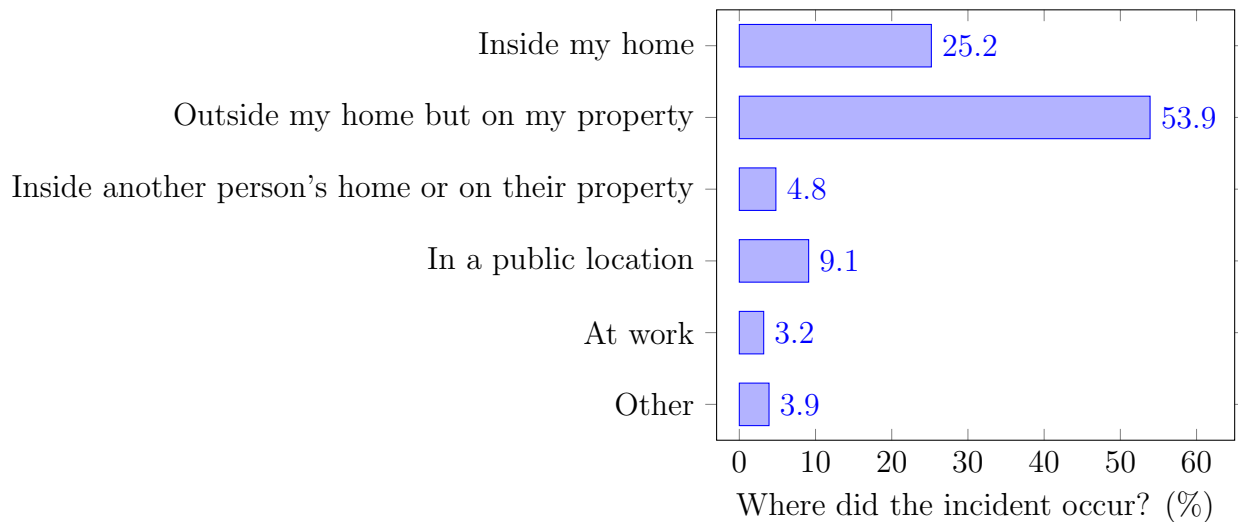


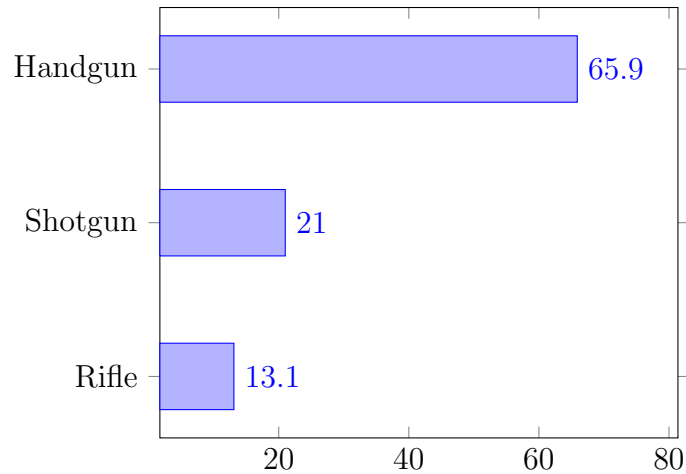
Figure 4: The Location of Defensive Incidents: Most take place outside the home.

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-  


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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).



What sort of firearm did you use during this incident? (%)

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.

defensive 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

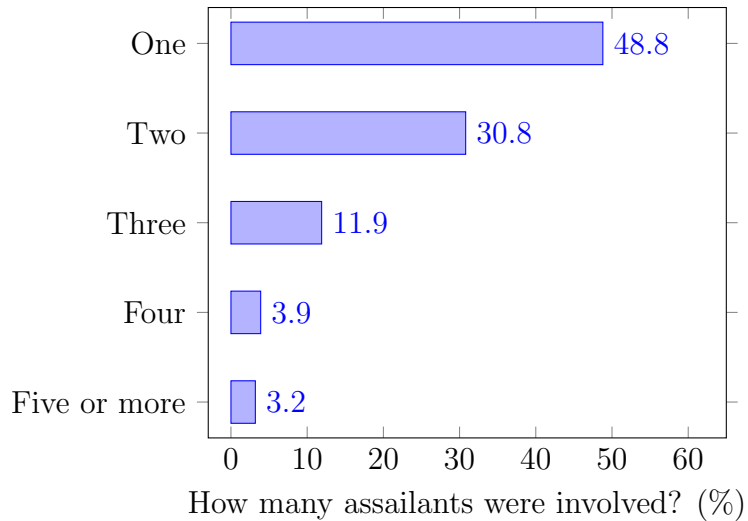


Figure 6: Distribution of the Number of Assailants Involved in a Defensive Incident: Multiple assailants are common.

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

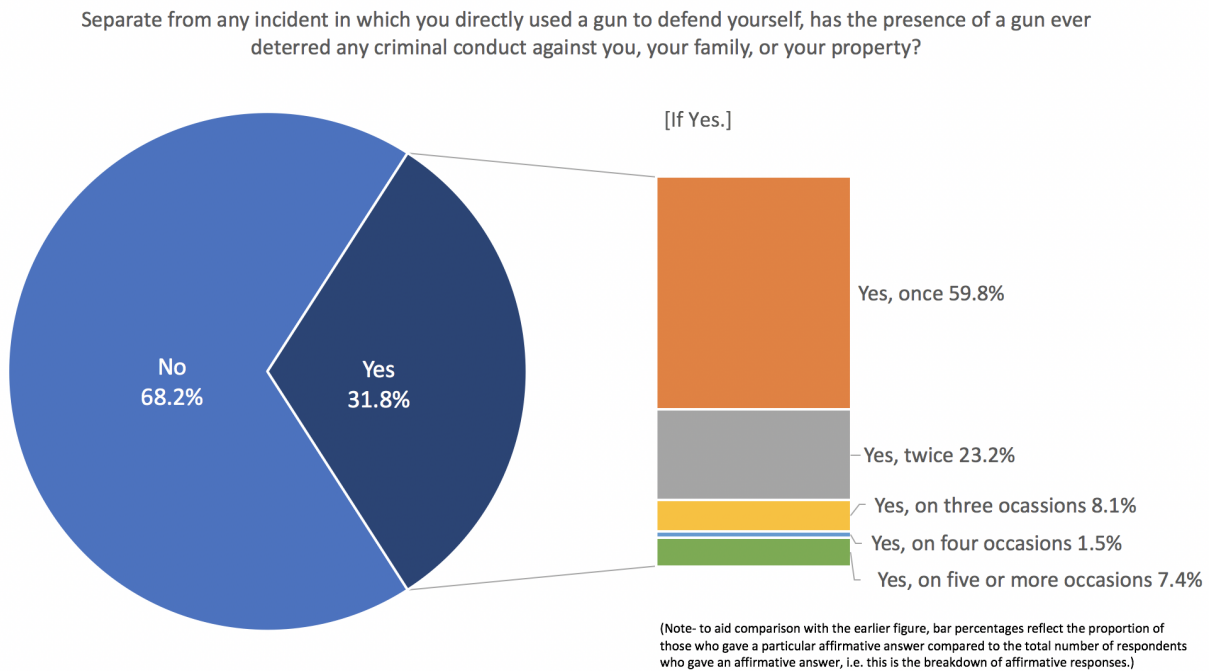


Figure 7: Frequency with which Firearms Deter Crime: 31.8% of firearms owners report that the presence of a firearm has deterred criminal conduct against them, often on more than one occasion.

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



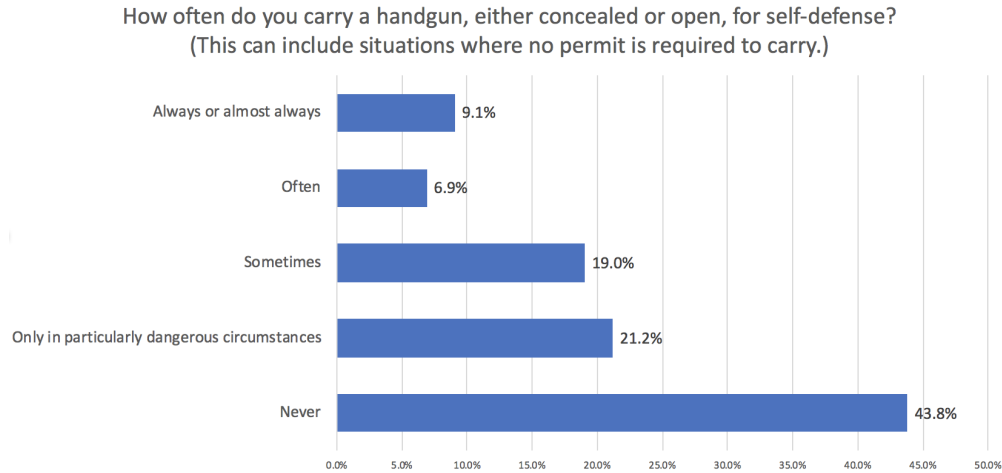


Figure 8: Frequency of Defensive Carry: Carrying a handgun for self-defense is common.

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

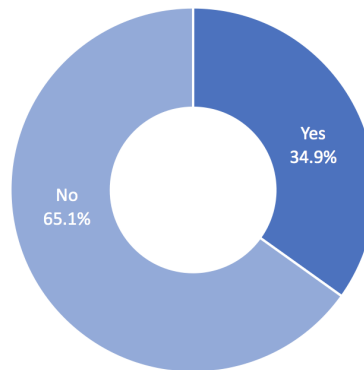


Figure 9: Prohibition of Carry: About a third of gun owners have wanted to carry a handgun for self-defense in a particular situation but local rules prohibited them from doing so.

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.<sup>10</sup> 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,<sup>11</sup> 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).<sup>12</sup>

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

<sup>11</sup>For 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/cf12016.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>

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

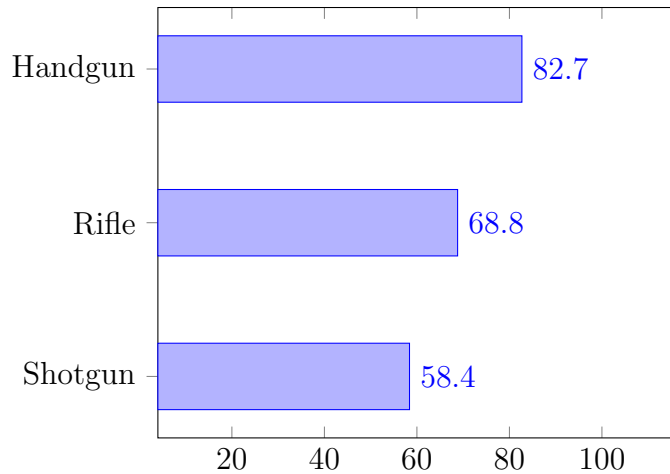
## 5 Types of Firearms and Magazines Owned

- 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.

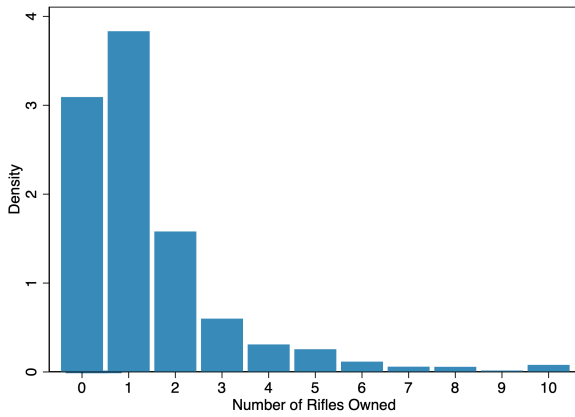
Figure 10: Percent of gun owners who own each type of firearm.

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.

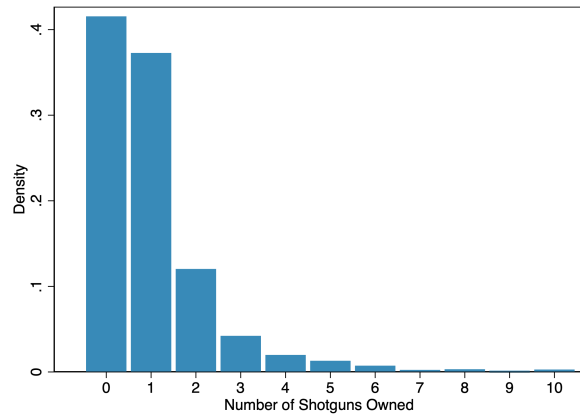
On average, gun owners owned 5.1 firearms, consisting of 1.8 rifles, 1.2 shotguns, and 2.1 handguns. Figure 11 plots histograms of the number of firearms owned by respondents. Unsurprisingly, these are skewed right, indicating that most gun owners own a small number of guns, while a smaller portion of gun owners own a large number of guns. The median gun owner owned 3 firearms. 29.0% of firearms owners owned only one firearm.<sup>13</sup> 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.

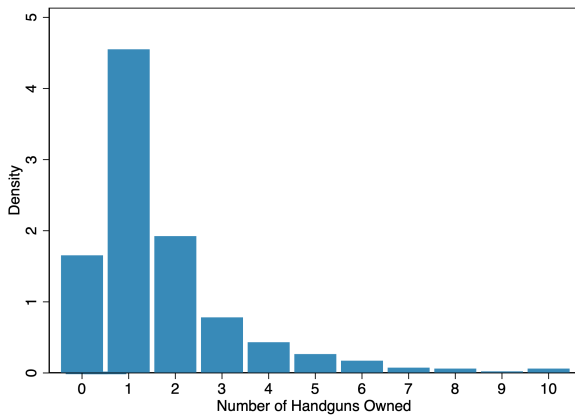
<sup>13</sup>An earlier draft had estimated that 21.9% of gun owners owned only one firearm, but the denominator for that calculation mistakenly included respondents who did not provide an answer to this question. The estimate of 29.0% properly incorporates all information provided by respondents.



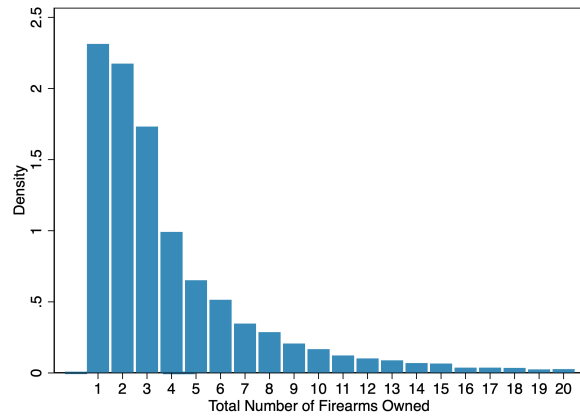
(a) Histogram of number of rifles owned



(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.

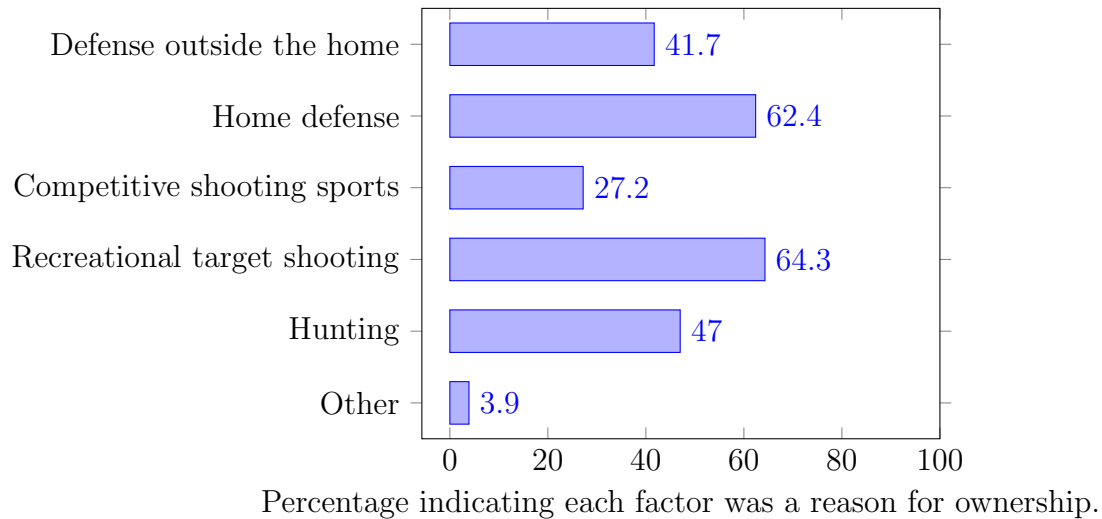


Figure 12: Purposes indicated for owning 11+ capacity magazines.

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.

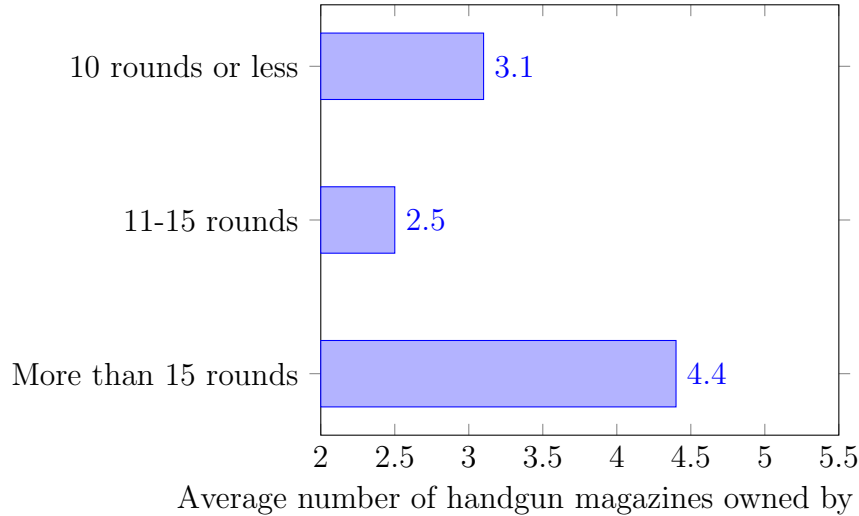


Figure 13: About how many handgun magazines of each type would you estimate you have owned?

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.

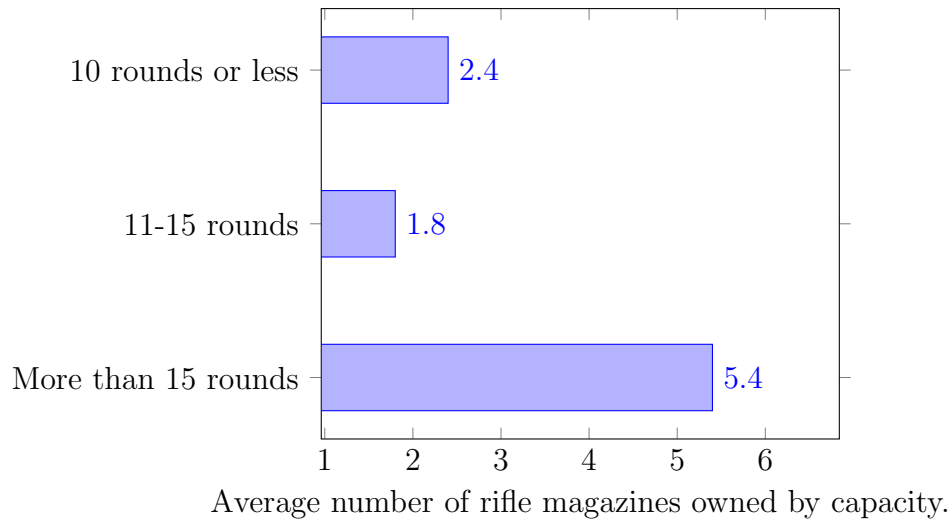


Figure 14: About how many rifle magazines of each type would you estimate you have owned?

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	95% Confidence
	Owned 11+ Mags	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 get my bones in face jaws and skull back in place from 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 parking 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 their guns at the car and the other was stabbing the window with a knife. They intended to rob and kill me. A 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 severe 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 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.

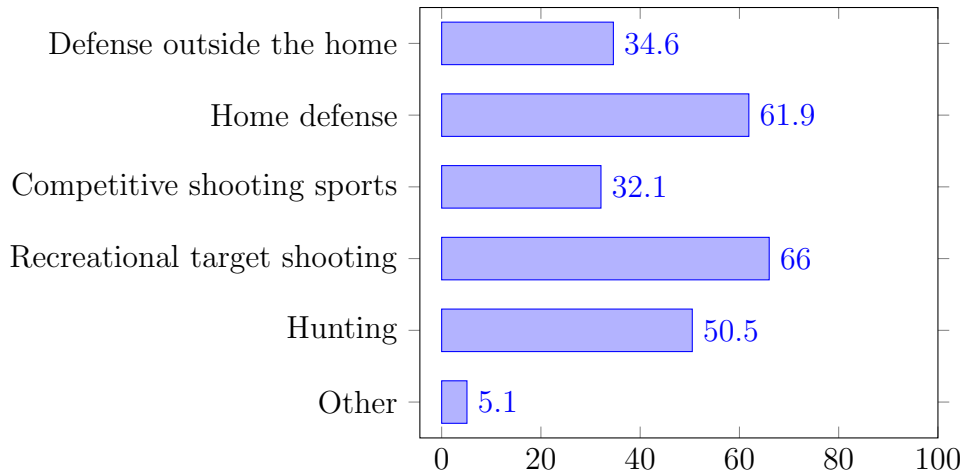
Finally, it is worth noting that, although a majority of these scenarios involve the prospect of defending against criminal aggression, a number involve defending against animals. The pilot survey in Vermont similarly documented a number of incidents involving animals (see Appendix A). This is a phenomenon 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





Percentage indicating each factor was a reason for ownership.

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.

<b>Demographic Group</b>	<b>Proportion Owned AR-15 Styled Rifle</b>	<b>95% Confidence Interval</b>
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.

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## 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).

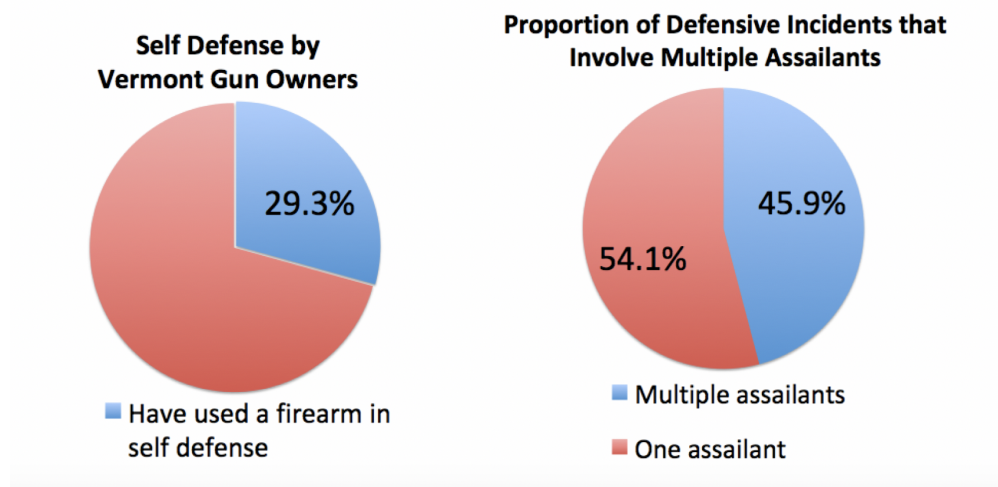


Figure 16: Proportion of gun owners in Vermont who have use a firearm in self-defense and number of assailants involved.

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

<b>Gender</b>	<b>Initial Sample Proportions</b>	<b>Census Based Weighted Proportions</b>
Male	49.32%	49.23%
Female	50.68%	50.77%

<b>Age Range</b>	<b>Initial Sample Proportions</b>	<b>Census Based Weighted Proportions</b>
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%

<b>Annual Household Income</b>	<b>Initial Sample Proportions</b>	<b>Census Based Weighted Proportions</b>
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%

<b>State of Residence</b>	<b>Initial Sample Proportions</b>	<b>Census Based Weighted Proportions</b>
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%

<b>Race</b>	<b>Initial Sample Proportions</b>	<b>Census Based Weighted Proportions</b>
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 D**

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## BERETTA MODEL U22 NEOS

**Caliber:** .22 LR, 10-shot magazine. **Barrel:** 4.5" and 6" **Weight:** 32 oz.; 36 oz. **Length:** 8.8"/ 10.3" **Sights:** Target.  
**Features:** Integral rail for standard scope mounts, light, perfectly weighted, 100 percent American made by Beretta.  
**Price:** Blue .....\$325.00  
**Price:** Inox .....\$350.00

## BERETTA MODEL PX4 STORM

**Caliber:** 9mm Para., 40 S&W. Capacity: 17 (9mm Para.); 14 (40 S&W). **Barrel:** 4" **Weight:** 27.5 oz. **Grips:** Black checkered w/3 interchangeable backstraps. **Sights:** 3-dot system coated in Superluminova; removable front and rear sights. **Features:** DA/SA, manual safety/hammer decocking lever (ambi) and automatic firing pin block safety. Picatinny rail. Comes with two magazines (17/10 in 9mm Para. and 14/10 in 40 S&W). Removable hammer unit. American made by Beretta. Introduced 2005.  
**Price:** 9mm or .40 .....\$650.00  
**Price:** .45 ACP.....\$700.00  
**Price:** .45 ACP SD (Special Duty).....\$1,150.00



## BERETTA MODEL PX4 STORM SUB-COMPACT

**Caliber:** 9mm, 40 S&W. Capacity: 13 (9mm); 10 (40 S&W). **Barrel:** 3" **Weight:** 26.1 oz. **Length:** 6.2" overall. **Grips:** NA **Sights:** NA.  
**Features:** Ambidextrous manual safety lever, interchangeable backstraps included, lock breech and tilt barrel system, stainless steel barrel, Picatinny rail.  
**Price:** .....\$650.00



## BERETTA MODEL M9

**Caliber:** 9mm Para. **Capacity:** 15 **Barrel:** 4.9" **Weight:** 32.2-35.3 oz.

**Grips:** Plastic. **Sights:** Dot and post, low profile, windage adjustable rear. **Features:** DA/SA, forged aluminum alloy frame, delayed locking-bolt system, manual safety doubles as decocking lever, combat-style trigger guard, loaded chamber indicator. Comes with two magazines (15/10). American made by Beretta. Introduced 2005.  
**Price:** .....\$675.00



## BERETTA MODEL M9A1

**Caliber:** 9mm Para. Capacity: 15. **Barrel:** 4.9" **Weight:** 32.2-35.3 oz.  
**Grips:** Plastic. **Sights:** Dot and post, low profile, windage adjustable rear. **Features:** Same as M9, but also includes integral Mil-Std-1913 Picatinny rail, has checkered frontstrap and backstrap. Comes with two magazines (15/10). American made by Beretta. Introduced 2005.  
**Price:** .....\$775.00

## BERETTA M9A3

**Caliber:** 9mm Para. Capacity: 10 or 15. Same general specifications as M9A1 with safety lever able to be converted to decocker configuration. Flat Dark Earth finish. Comes with three magazines, Vertec-style thin grip.  
**Price:** .....\$1,100.00



## BERETTA NANO

**Caliber:** 9mm Para. Six-shot magazine. **Barrel:** 3.07" **Weight:** 177 oz. **Length:** 5.7" overall. **Grips:** Polymer. **Sights:** 3-dot low profile.  
**Features:** Double-action only, striker fired. Replaceable grip frames.  
**Price:** .....\$475.00



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## EXCEL ARMS MP-5.7

**Caliber:** 5.7x28mm, 9-shot magazine. Blow-back action. Other features similar to MP-22. Red-dot optic sights, scope and rings are optional.  
**Price:** .....\$615.00  
**Price: With optic sights:**.....\$685.00  
**Price: With scope and rings** .....\$711.00

## FIRESTORM 380

**Caliber:** .380 ACP. 7+1 capacity. **Barrel:** 3.5" **Weight:** 20 oz. **Length:** 6.6" **Sights:** Fixed, white outline system. **Grips:** Rubber. **Finish:** Black matte. **Features:** Traditional DA/SA operation.  
**Price:** .....\$270.00

## FMK 9C1 G2

**Caliber:** 9mm. Magazine capacity 10+1 or 14+1. Available in either single action or double-action only. **Barrel:** 4" **Overall length:** 6.85" **Weight:** 23.45 oz. **Finish:** Black, Dark Earth or pink. **Sights:** Interchangeable Glock compatible. **Features:** Polymer frame, high-carbon steel slide, stainless steel barrel. Very low bore axis and shock absorbing backstrap are said to result in low felt recoil. DAO model has Fast Action Trigger (FAT) with shorter pull and reset. Made in the U.S.A.  
**Price:** .....\$409.95



## FN FNX SERIES

**Caliber:** 9mm, 17-shot magazine, .40 S&W (14-shot), .45 ACP (10 or 14-shot). **Barrel:** 4" (9mm and .40), 4.5" .45. **Weight:** 22 to 32 oz (.45). **Length:** 7.4, 7.9" (.45). **Features:** Double-action/single-action operation with decocking/manual safety lever. Has external extractor with loaded-chamber indicator, front and rear cocking serrations, fixed 3-dot combat sights.

**Price:** 9mm, .40.....\$699.00  
**Price:** .45 ACP.....\$824.00

## FN FNX .45 TACTICAL

Similar to standard FNX .45 except with 5.3" barrel with threaded muzzle, polished chamber and feed ramp, enhanced high-profile night sights, slide cut and threaded for red-dot sight (not included), MIL-STD 1913 accessory rail, ring-style hammer.

**Price:** .....\$1,400.00



## FN FNS SERIES

**Caliber:** 9mm, 17-shot magazine, .40 S&W (14-shot magazine). **Barrel:** 4" or 3.6" (Compact). **Weight:** 25 oz. (9mm), 27.5 oz. (.40). **Length:** 7.25" **Grips:** Integral polymer with two interchangeable backstrap inserts. **Features:** Striker-fired, double action with manual safety, accessory rail, ambidextrous controls, 3-dot Night Sights.  
**Price:** .....\$599.00



## FN FIVE-SEVEN

**Caliber:** 5.7x28mm, 10- or 20-round magazine capacity. **Barrel:** 4.8" **Weight:** 23 oz. **Length:** 8.2" **Features:** Adjustable three-dot system. Single-action polymer frame model chambered for low-recoil 5.7x28mm cartridge.

**Price:** .....\$1,349.00



## GLOCK 17/17C

**Caliber:** 9mm Para., 17/19/33-shot magazines. **Barrel:** 4.49" **Weight:**

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22.04 oz. (without magazine). **Length:** 7.32" overall. **Grips:** Black polymer. **Sights:** Dot on front blade, white outline rear adjustable for windage. **Features:** Polymer frame, steel slide; double-action trigger with "Safe Action" system; mechanical firing pin safety, drop safety; simple takedown without tools; locked breech, recoil operated action. ILS designation refers to Internal Locking System. Adopted by Austrian armed forces 1983. NATO approved 1984. Model 17L has 6-inch barrel, ported or non ported, slotted and relieved slide, checkered grip with finger grooves, no accessory rail. Imported from Austria by Glock, Inc. USA.

**Price:** From.....\$599.00  
**Price:** 17L.....\$750.00  
**Price:** 17 Gen 4.....\$649.00

## GLOCK GEN4 SERIES

In 2010 a new series of Generation Four pistols was introduced with several improved features. These included a multiple backstrap system offering three different size options, short, medium or large frame; reversible and enlarged magazine release; dual recoil springs; and RTF (Rough Textured Finish) surface. Some recent models are only available in Gen 4 configuration.

### GLOCK 19/19C

**Caliber:** 9mm Para. **15/17/19/33-shot magazines.** **Barrel:** 4.02" **Weight:** 20.99 oz. (without magazine). **Length:** 6.85" overall. Compact version of Glock 17. Imported from Austria by Glock, Inc.

**Price:** .....\$599.00  
**Price:** 19 Gen 4.....\$649.00

### GLOCK 20/20C 10MM

**Caliber:** 10mm, 15-shot magazines. **Barrel:** 4.6" **Weight:** 27.68 oz. (without magazine). **Length:** 7.59" overall. **Features:** Otherwise similar to Model 17. Imported from Austria by Glock, Inc. Introduced 1990.

**Price:** From.....\$637.00  
**Price:** 20 Gen 4.....\$687.00

### GLOCK MODEL 20 SF SHORT FRAME

**Caliber:** 10mm. **Barrel:** 4.61" with hexagonal rifling. **Weight:** 27.51 oz. **Length:** 8.07" overall. **Sights:** Fixed. **Features:** Otherwise similar to Model 20 but with short-frame design, extended sight radius.

**Price:** .....\$637.00

### GLOCK 21/21C

**Caliber:** .45 ACP, 13-shot magazines. **Barrel:** 4.6" **Weight:** 26.28 oz. (without magazine). **Length:** 7.59" overall. **Features:** Otherwise similar to Model 17. Imported from Austria by Glock, Inc. Introduced 1991. SF version has tactical rail, smaller diameter grip, 10-round magazine capacity. Introduced 2007.

**Price:** From.....\$637.00  
**Price:** 21 Gen 4.....\$687.00



### GLOCK 22/22C

**Caliber:** .40 S&W, 15/17-shot magazines. **Barrel:** 4.49" **Weight:** 22.92 oz. (without magazine). **Length:** 7.32" overall. **Features:** Otherwise similar to Model 17, including pricing. Imported from Austria by Glock, Inc. Introduced 1990.

**Price:** From.....\$599.00  
**Price:** 22C.....\$649.00  
**Price:** 22 Gen 4.....\$649.00



### GLOCK 23/23C

**Caliber:** .40 S&W, 13/15/17-shot magazines. **Barrel:** 4.02" **Weight:** 21.16 oz. (without magazine). **Length:** 6.85" overall. **Features:** Otherwise similar to Model 22, including pricing. Compact version of Glock 22. Imported from Austria by Glock, Inc. Introduced 1990.

**Price:** .....\$599.00  
**Price:** 23C Compensated.....\$621.00  
**Price:** 23 Gen 4.....\$649.00

### GLOCK 24/24C

**Caliber:** .40 S&W, 10/15/17 or 22-shot magazine. Similar to Model 22 except with 6.02-inch barrel, ported or non-porting, trigger pull recalibrated to 4.5 lbs.

**Price:** From.....\$750.00

### GLOCK 26

**Caliber:** 9mm Para. 10/12/15/17/19/33-shot magazines. **Barrel:** 3.46" **Weight:** 19.75 oz. **Length:** 6.29" overall. Subcompact version of Glock 17. Imported from Austria by Glock, Inc.

**Price:** .....\$599.00  
**Price:** 26 Gen 4.....\$649.00



### GLOCK 27

**Caliber:** .40 S&W, 9/11/13/15/17-shot magazines. **Barrel:** 3.46" **Weight:** 19.75 oz. (without magazine). **Length:** 6.29 overall. **Features:** Otherwise similar to Model 22, including pricing. Subcompact version of Glock 22. Imported from Austria by Glock, Inc. Introduced 1996.

**Price:** From.....\$599.00  
**Price:** 27 Gen 4.....\$649.00

### GLOCK 29 GEN 4

**Caliber:** 10mm, 10/15-shot magazines. **Barrel:** 3.78" **Weight:** 24.69 oz. (without magazine). **Length:** 6.77" overall. **Features:** Otherwise similar to Model 20, including pricing. Subcompact version of Glock 20. Imported from Austria by Glock, Inc. Introduced 1997.

**Price:** Fixed sight.....\$637.00

### GLOCK MODEL 29 SF SHORT FRAME

**Caliber:** 10mm. **Barrel:** 3.78" with hexagonal rifling. **Weight:** 24.52 oz. **Length:** 6.97" overall. **Sights:** Fixed. **Features:** Otherwise similar to Model 29 but with short-frame design, extended sight radius.

**Price:** .....\$637.00

### GLOCK 30 GEN 4

**Caliber:** .45 ACP, 9/10/13-shot magazines. **Barrel:** 3.78" **Weight:** 23.99 oz. (without magazine). **Length:** 6.77" overall. **Features:** Otherwise similar to Model 21, including pricing. Subcompact version of Glock

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21. Imported from Austria by Glock, Inc. Introduced 1997. SF version has tactical rail, octagonal rifled barrel with a 1:15.75 rate of twist, smaller diameter grip, 10-round magazine capacity. Introduced 2008.  
**Price:** ..... \$637.00  
**Price:** 30 SF (short frame) ..... \$637.00

**GLOCK 30S**  
 Variation of Glock 30 with a Model 36 slide on a Model 30SF frame (short frame). **Caliber:** .45 ACP, 10-round magazine. **Barrel:** 3.78 inches. **Weight:** 20 oz. **Length:** 7 inches.  
**Price:** ..... \$637.00

**GLOCK 31/31C**  
**Caliber:** .357 Auto, 15/17-shot magazines. **Barrel:** 4.49" **Weight:** 23.28 oz. (without magazine). **Length:** 7.32" overall. **Features:** Otherwise similar to Model 17. Imported from Austria by Glock, Inc.  
**Price:** From ..... \$599.00  
**Price:** 31 Gen 4 ..... \$649.00

**GLOCK 32/32C**  
**Caliber:** .357 Auto, 13/15/17-shot magazines. **Barrel:** 4.02" **Weight:** 21.52 oz. (without magazine). **Length:** 6.85" overall. **Features:** Otherwise similar to Model 31. Compact. Imported from Austria by Glock, Inc.  
**Price:** ..... \$599.00  
**Price:** 32 Gen 4 ..... \$649.00

**GLOCK 33**  
**Caliber:** .357 Auto, 9/11/13/15/17-shot magazines. **Barrel:** 3.46" **Weight:** 19.75 oz. (without magazine). **Length:** 6.29" overall. **Features:** Otherwise similar to Model 31. Subcompact. Imported from Austria by Glock, Inc.  
**Price:** From ..... \$599.00  
**Price:** 33 Gen 4 ..... \$614.00

**GLOCK 34**  
**Caliber:** 9mm Para. 17/19/33-shot magazines. **Barrel:** 5.32" **Weight:** 22.9 oz. **Length:** 8.15" overall. **Features:** Competition version of Glock 17 with extended barrel, slide, and sight radius dimensions. Available with MOS (Modular Optic System).  
**Price:** From ..... \$679.00  
**Price:** MOS ..... \$840.00  
**Price:** 34 Gen 4 ..... \$729.00



**GLOCK 35**  
**Caliber:** .40 S&W, 15/17-shot magazines. **Barrel:** 5.32. **Weight:** 24.52 oz. (without magazine). **Length:** 8.15 overall. **Sights:** Adjustable. **Features:** Otherwise similar to Model 22. Competition version of Glock 22 with extended barrel, slide, and sight radius dimensions. Available with MOS (Modular Optic System). Introduced 1996.  
**Price:** From ..... \$679.00  
**Price:** MOS ..... \$840.00  
**Price:** 35 Gen 4 ..... \$729.00

**GLOCK 36**  
**Caliber:** .45 ACP, 6-shot magazines. **Barrel:** 3.78. **Weight:** 20.11 oz. (without magazine). **Length:** 6.77 overall. **Sights:** Fixed. **Features:** Single-stack magazine, slimmer grip than Glock 21/30. Subcompact. Imported from Austria by Glock, Inc. Introduced 1997.  
**Price:** ..... \$637.00

**GLOCK 37**  
**Caliber:** .45 GAP, 10-shot magazines. **Barrel:** 4.49. **Weight:** 25.95 oz. (without magazine). **Length:** 7.32 overall. **Features:** Otherwise similar to Model 17. Imported from Austria by Glock, Inc. Introduced 2005.  
**Price:** ..... \$614.00  
**Price:** 37 Gen 4 ..... \$664.00

**GLOCK 38**  
**Caliber:** .45 GAP, 8/10-shot magazines. **Barrel:** 4.02. **Weight:** 24.16 oz. (without magazine). **Length:** 6.85 overall. **Features:** Otherwise similar to Model 37. Compact. Imported from Austria by Glock, Inc.  
**Price:** ..... \$614.00

**GLOCK 39**  
**Caliber:** .45 GAP, 6/8/10-shot magazines. **Barrel:** 3.46. **Weight:** 19.33 oz. (without magazine). **Length:** 6.3 overall. **Features:** Otherwise similar to Model 37. Subcompact. Imported from Austria by Glock, Inc.  
**Price:** ..... \$614.00

**GLOCK 40 GEN 4**  
**Caliber:** 10mm. Similar features as Model 41 except for 6.01" barrel. Includes MOS optics.  
**Price:** ..... \$840.00



**GLOCK 41 GEN 4**  
**Caliber:** .45 ACP, 13-round magazine capacity. **Barrel:** 5.31" **Weight:** 27 oz. **Length:** 8.9" overall. **Features:** This is a long-slide .45 ACP Gen4 model introduced in 2014. Operating features are the same as other Glock models. Available with MOS (Modular Optic System).  
**Price:** ..... \$749.00  
**Price:** MOS ..... \$840.00



**GLOCK 42 GEN 4**  
**Caliber:** .380 ACP, 6-round magazine capacity. **Barrel:** 3.25" **Weight:** 13.8 oz. **Length:** 5.9" overall. **Features:** This single-stack, slimline sub-compact is the smallest pistol Glock has ever made. This is also the first Glock pistol made in the USA.  
**Price:** ..... \$499.00

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### SIG SAUER 250 SERIES

Caliber: 9mm Para. (16-round magazine), 357 SIG, .40 S&W and .45 ACP. Barrel: 4.7, 3.9, 3.6. Weight: : 24.9 to 29.4 oz. Length: 7.2" overall. Grips: Interchangeable polymer. Sights: Siglite night sights. Features: Modular polymer frame design allows for immediate change in caliber. Available in full, compact and subcompact sizes. Six different grip combinations for each size. Introduced 2008. A compact version is available in .22 LR. From SIG Sauer, Inc.

Price: P250 .....\$480.00  
 Price: P250 .22 LR .....\$434.00



### SMITH & WESSON M&P SERIES

Caliber: .22 LR, 9mm, .357 Sig, .40 S&W. Magazine capacity, full-size models: 12 rounds (.22), 17 rounds (9mm), 15 rounds (.40). Compact models: 12 (9mm), 10 (.40). Barrel: 4.25, 3.5 inches. Weight: 24, 22 oz. Length: 7.6, 6.7 inches. Grips: Polymer with three interchangeable palmswell grip sizes. Sights: 3 white-dot system with low-profile rear. Features: Zytel polymer frame with stainless steel slide, barrel and structural components. VTAC (Viking Tactics) model has Flat Dark Earth finish, VTAC Warrior sights. Compact models available with Crimson Trace Lasergrrips. Numerous options for finishes, sights, operating controls.

Price: .....\$569.00  
 Price: (VTAC) .....\$799.00  
 Price: (Crimson Trace) .....\$699.00 to \$829.00  
 Price: M&P 22 .....\$389.00 to \$419.00



### SIG SAUER P320

Caliber: 9mm, .357 SIG, .40 S&W, .45 ACP. Magazine capacity 15 or 16 rounds (9mm), 13 or 14 rounds (.357 or .40). Barrel: 3.9 (Carry model) or 4.7" (Full size). Weight: 26 to 30 oz. Length: 7.2 or 8.0 inches overall. Grips: Interchangeable black composite. Sights: Blade front, rear adjustable for windage. Optional Siglite night sights. Features: Striker-fired double-action only, Nitron finish slide, black polymer frame. Frame size and calibers are interchangeable. Introduced 2014. Made in U.S.A. by SIG SAUER, Inc.

Price: Full size .....\$869.00  
 Price: Carry (shown) .....\$830.00

### SIG SAUER P556 SWAT

Caliber: 5.56 NATO. Pistol version of P556 rifle. Barrel: 10 inches. Capacity: 10 rounds. Weight: 7.2 lbs. Length: 27.25 inches.

Price: From.....\$1,794.00

### SIG SAUER MPX

Caliber: 9mm, .357 SIG, .40 S&W. Capacity: 10, 20 or 30 rounds. Barrel: 8 inches. Semi-auto AR-style gun with closed, fully locked short-stroke pushrod gas sytem. Weight: 5 lbs.

Price: From.....\$1,852.00

### SIG SAUER P938

Caliber: 9mm (6-shot magazine), .22 LR (10). Barrel: 3.0' Weight: 16 oz. Length: 5.9' Grips: Rosewood, Blackwood, Hogue Extreme, Hogue Diamondwood. Sights: Siglite night sights or Siglite rear with Tru-Glo front. Features: Slightly larger version of P238.

Price: .....\$809.00 to \$823.00  
 Price: .22 LR .....\$656.00



### SMITH & WESSON M&P PRO SERIES C.O.R.E.

Caliber: 9mm, .40 S&W. Magazine capacity: 17 rounds (9mm), 15 rounds (.40). Barrel: 4.25" (M&P9, M&P40), or 5" (M&P9L, M&P40L.) Features: Based on the Pro series line of competition-ready firearms, the C.O.R.E. models (Competition Optics Ready Equipment) feature a slide engineered to accept six popular competition optics (Trijicon RMR, Leupold Delta Point, Jpoint, Doctor, C-More STS, Insight MRDS). Sight not included. Other features identical to standard M&P9 and M&P40 models.

Price:.....\$769.00

**EXHIBIT E**



# NEWS

[← Back to News](#)

JULY 20, 2022

## **COMMONLY OWNED: NSSF ANNOUNCES OVER 24 MILLION MSRS IN CIRCULATION**

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(ATF) Annual Firearms Manufacturing and Exportation Report (AFMER) and U.S. International Trade Commission (U.S. ITC) data, in cooperation with manufacturers, importers and exporters of MSRs, or AR-15 and AK-style rifles. This most recent estimate includes production figures current through 2020, when the industry estimates over 2,798,000 of these rifles were produced or imported. This estimate does not include MSRs that were produced and exported or imported and later exported.

The MSR remains the most-popular selling centerfire semiautomatic rifle in the United States today. There are **more** MSRs in circulation today than there are Ford F-Series trucks on the road.

“This is a truly significant figure that demonstrates – again – the popularity of this commonly-owned style of rifle,” said NSSF President and CEO Joe Bartozzi. “The firearm industry responds to market demand and this shows that during the elevated period of firearm sales that began in 2020, this particular style of rifle is the top choice for law-abiding citizens for hunting, recreational shooting and self-defense.”

The MSR’s **popularity** for lawful ownership is attributable to several factors, including accuracy, reliability, modularity and low recoil.



Year	US Production less exports of MSR/AR platform	US Import less exports of MSR/AR, AK platform	ANNUAL TOTAL
1990	43,000	31,000	74,000
1991	46,000	69,000	115,000
1992	33,000	72,000	105,000
1993	62,000	226,000	288,000
1994	103,000	171,000	274,000
1995	54,000	77,000	131,000
1996	27,000	43,000	70,000
1997	44,000	81,000	125,000
1998	70,000	75,000	145,000
1999	113,000	119,000	232,000
2000	86,000	130,000	216,000
2001	60,000	119,000	179,000
2002	97,000	145,000	242,000
2003	118,000	262,000	380,000
2004	107,000	207,000	314,000
2005	141,000	170,000	311,000
2006	196,000	202,000	398,000
2007	269,000	229,000	498,000
2008	444,000	189,000	633,000
2009	692,000	314,000	1,006,000
2010	444,000	140,000	584,000
2011	653,000	163,000	816,000
2012	1,308,000	322,000	1,630,000
2013	1,882,000	393,000	2,275,000
2014	950,000	237,000	1,187,000
2015	1,360,000	245,000	1,605,000
2016	2,217,000	230,000	2,447,000
2017	1,406,000	158,000	1,564,000
2018	1,731,000	225,000	1,956,000

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The National Shooting Sports Foundation is the trade association for the firearm industry. Its mission is to promote, protect and preserve hunting and the shooting sports. Formed in 1961, NSSF has a membership of thousands of manufacturers, distributors, firearms retailers, shooting ranges, sportsmen's organizations and publishers nationwide. For more information, visit [nssf.org](https://nssf.org).

---

Media contact:

**Mark Oliva**

202-220-1340

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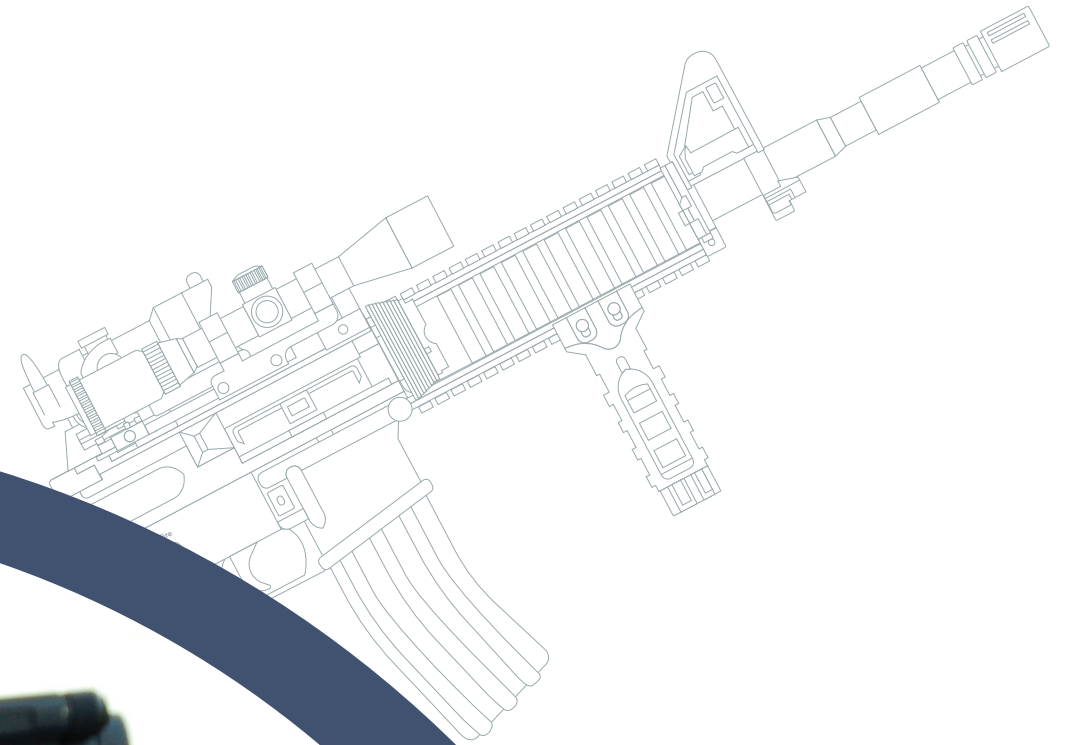
**MARCH 7, 2023**

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**EXHIBIT F**

# MODERN SPORTING RIFLE

## COMPREHENSIVE CONSUMER REPORT



Ownership, Usage and Attitudes Toward  
AR- and AK-Platform Modern Sporting Rifles



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Sports Marketing Surveys USA  
6650 West Indiantown Road, Suite 220,  
Jupiter,  
Florida 33458, USA

[www.sportsmarketingsurveys.com](http://www.sportsmarketingsurveys.com)

+1 561 427 0647  
c. 772 341 6711

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## Executive Summary

### EXPERIENCE WITH MSR<sub>s</sub>

- Ownership & Platform: The median MSR user owns nearly 4 MSR<sub>s</sub>, with 97% of owners saying they own an AR-platform MSR. 38% own another MSR platform and 27% own an AK platform MSR.
- When MSR was first owned: Over 40% obtained their first MSR since 2009, with 11% obtaining their first MSR within the last 2 years. While 20% of MSR owners obtained their first MSR prior to 1999.
- Other Firearms Owned First: 99% of MSR owners used or obtained another firearm before an MSR; the most popular firearm owned is a handgun, which 88% of MSR owners held before obtaining a MSR.
- Introduction to MSR<sub>s</sub>: One-third of MSR owners became interested through their own personal accord. About 21% first gained interest through military or their job, and another 20% through family & friends.
- Range membership: 52% of MSR owners are current members of a shooting range. 28% have never been a member, with the final 20% being former members.
- Reasons for ownership: Recreational target shooting was rated as the most important reasons for owning an MSR. Big game hunting and professional/job-related use were rated as least important.

### MOST RECENTLY ACQUIRED MSR

- When Acquired: 48% of MSR owners said they obtained their most recently acquired MSR within the last two years (2020 or 2021), with 31% saying they obtained a MSR in 2021.
- Platform: Nearly 9 out of 10 MSR owners said the most recent MSR they acquired was an AR platform.

## Executive Summary

### **MOST RECENTLY ACQUIRED MSR (cont.)**

- New/Used MSR: 83% of MSR owners said they bought their most recent MSR by purchasing it new.
- Place of purchase: 30% of owners bought their most recent MSR from a independent (mom & pop) retail store. 22% assembled their MSR using purchases of different parts, and 19% used the internet/website. The most popular retailers & online sites used were Palmetto State Armory, Gunbroker.com, Cabela's, and Sportsman's Warehouse.
- Price: The average price for a new MSR paid by owners was \$1,071; half of MSR owners paid between \$500 and \$1000 for their most recently acquired MSR.
- Brand: Survey data indicates the MSR market is highly fragmented. 11% of MSR owners said Palmetto was the brand of their most recently acquired MSR.
- Caliber – 60% of respondents said the caliber of their most recently acquired MSR is .223 / 5.56 mm.
- Reasons for buying- MSR owners said reliability, accuracy, and fun were the most important reasons for purchasing their most recently acquired MSR. The least important reasons were recommendations from a retailer and MSRs owned by family/friends.
- Accessories: 86% of MSR owners have their most recently acquired MSR customized to some extent, with 70% having 1-3 accessories. 75% of those with accessories added them to their MSR within 12 months after purchase. The average spent for accessories by owners on their most recently acquired MSR is \$618.
- Optics used: 61% of MSR owners have a scope equipped as a primary optics, while 55% utilize a red dot.

## Executive Summary

### **MOST RECENTLY ACQUIRED MSR (cont.)**

- Scope: the most common scopes used by MSR owners are the 3-9x power scope and the 1-4x power scope.
- Magazine capacity: Over half (52%) of MSR owners stated the magazine capacity of their MSR is 30 rounds. When asked why they chose their respective capacity, most frequent responses were related to popularity/standard and being readily available.
- Stock: Approximately two-thirds of MSR owners have a collapsible/folding stock on their MSR.
- Receiver: 81% of owners have a flat top upper receiver.
- Handguard: The most common type of handguard is a free floating with rails handguard, used by 43% of respondents on their most recently acquired MSR.
- Finish color: 3 out of 4 owners have a black finish color on their MSR.
- Barrel: 67% have a threaded barrel on their MSR.
- Barrel accessories: Most used barrel accessories are flash hider (39% of MSR owners) and muzzle brake/compensator (37%).
- Barrel length: 75% have a MSR with a barrel length of 16" to 20".
- Operating system: The most recently acquired MSR for 59% of owners operates by direct gas impingement.



## Executive Summary

### **MOST RECENTLY ACQUIRED MSR (cont.)**

- **Storage:** 67% store their MSR unloaded and secured in a safe, lock box, or with a trigger lock. An additional 19% store their MSR loaded and secured in a safe, lock box, or with a trigger lock.
- **Likelihood to buy:** On a scale from 1 to 10, where 1 is “not at all likely” and 10 is “very likely”, the average likelihood rating given by MSR owners that they’ll buy a MSR in the next 12 months is 6.2, slightly more to the ‘likely’ end of the scale.
- **Accessories owned:** The most common accessories currently owned by MSR owners are gun cleaning kits, extra magazines, targets, and a soft carrying case. The accessory MSR owners most frequently said they planned to buy in the next 12 months is a suppressor/silencer. About 70% of MSR owners do not own and do not plan on buying a laser designator or night vision/thermal scope in the next 12 months.

### **USAGE AND ACTIVITIES**

- **Use:** 88% of MSR owners used/shot their MSR(s) in the last 12 months. The average number of times used was 14, just over once a month. Compared to the 12 months before that, 41% said their MSR use was “about the same” while 38% said it was less.
- **Desired usage:** 75% of MSR owners said they did not use their MSR as much as they would like over the past 12 months. The most important factors preventing owners from using their MSR more are related to ammunition: lack of availability and cost.
- **Activities:** The most popular activity by MSR owners is target shooting — 54% said they did target shooting at a private range, while 49% said they did target shooting at a public range.
- **Ammo used:** Roughly 70% of MSR owners used budget factory and premium factory loads in the last 12 months. The ammo breakdown for an average MSR user is made up of 42% budget factory loads, 32% premium factory loads, 17% handloads/reloads, and 9% import ammo. The average number of rounds used by MSR owners in the last 12 months is 907 rounds. In the next 12 months, MSR owners project they’ll fire 984 rounds.

## Executive Summary

### USAGE AND ACTIVITIES (cont.)

- Ammo purchases: The average number of ammo rounds typically purchased by MSR owners is 637.
- Ammo on hand: Nearly half (45%) of MSR owners own/keep more than 1,000 rounds on hand.
- Ammo reloads: 6 out of 10 MSR owners do not reload their own ammunition. Of the 40% who do, the average percentage of ammunition they reload is 53%.
- Activities - Distance: The most frequent distance that MSR owners hunt/target shoot is at 100-300 yards.
- Target shooting alone vs with others: 43% of MSR owners who go target shooting typically go with 1 other person. 27% go alone.
- Favorite part about owning MSR: MSR owners said their favorite part about owning a MSR was: fun/enjoyment of shooting, exercising freedom/2A rights, ease of use, and reliability.

### RESPONDENT PROFILE

- Organizations: 61% of MSR owners are members of or recently donated to the NRA, the most frequently chosen organization. 21% of MSR owners are not members of or recently donated to any firearm organizations. 12% are members or recently donated to the NSSF.
- Military/Law-Enforcement: 38% of MSR owners are active/retired member of law enforcement or the military.
- Age/Gender/Race: 96% of MSR owners are Male. The average age of MSR owners is 55 years old. 88% are White/Caucasian.
- Marital status: 74% of MSR owners are married. Of these MSR owners, over half say their spouse accompanies them for target shooting. 24% say their spouse has no interest in target shooting or firearms.

## Executive Summary

### RESPONDENT PROFILE (cont.)

- Education: 45% of MSR owners have attained at least a bachelors degree. One-quarter have attended some college, but did not graduate.
- Income: The average yearly household income for MSR owners is \$110,934. More than half are in households with an annual income of greater than \$85,000.
- Children in Household: 62% of MSR owners do not have any children living with them.
- State: The states with the most respondents were Texas (9%), California (5%), and Florida (5%).

## Methodology

In 2020, the National Shooting Sports Foundation (NSSF) contracted Sports Marketing Surveys for an online consumer survey on modern sporting rifles (MSRs) that was last carried out in 2013. Due to the COVID pandemic and personnel changes at NSSF, this survey was not able to be administered until December 2021. The aim is to provide the NSSF and manufacturers insights on current consumer needs and uses of MSRs as well as educate those influencing public policy in the effort to preserve our constitutional rights.

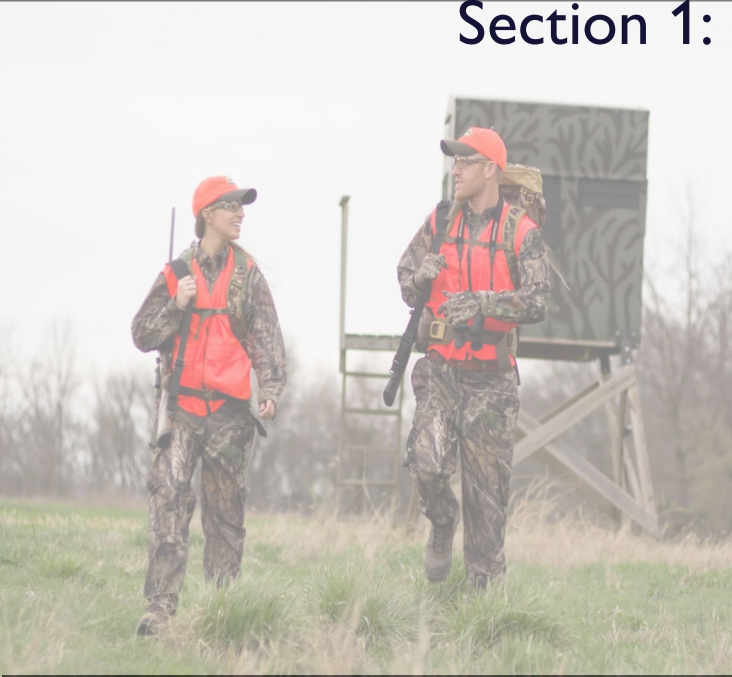
The online survey covered various aspects of MSR ownership, behavior, and attitudes. The NSSF promoted the survey via a partner email distribution list. A random drawing to win one of four \$250 Mastercard prepaid gift cards was included to incentivize participation. The term “Modern Sporting Rifle” was clearly defined as AR- or AK-platform rifles such as AR-15, AR-10, AK-47, AK-74 and did not include non-rifle firearms such as AR pistols, etc. Photographs of both AR- and AK-platform MSRs were shown on the survey landing page. All responses from those under 18 years old or said they did not own at least 1 MSR were removed from the analysis.

The survey was live from December 9, 2021 to January 2, 2022.

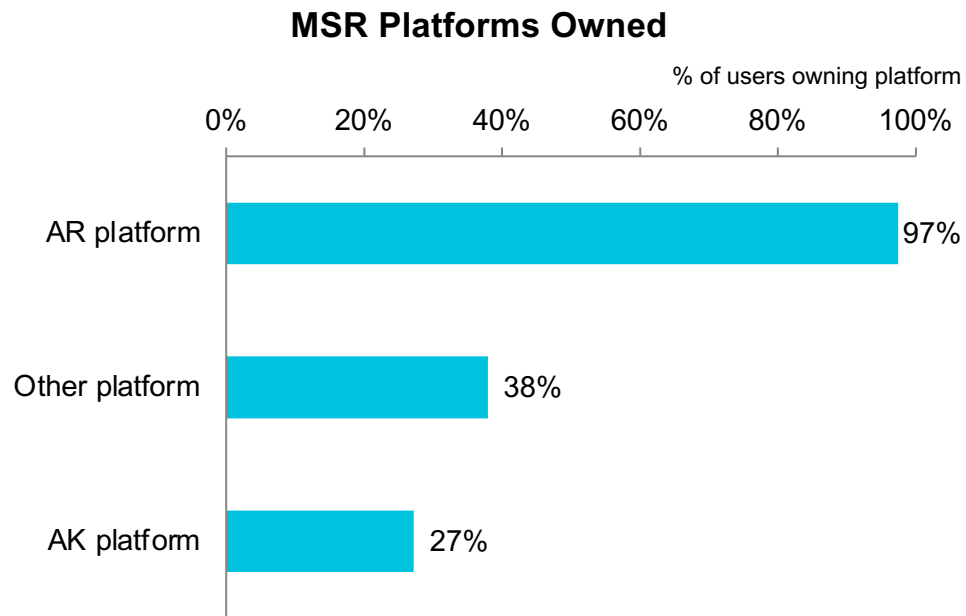
- **Completed Surveys: 2,421**
- **Usable responses for analysis: 2,185**



## Section 1: Experience with Modern Sporting Rifles



## Modern Sporting Rifle Ownership: Platforms



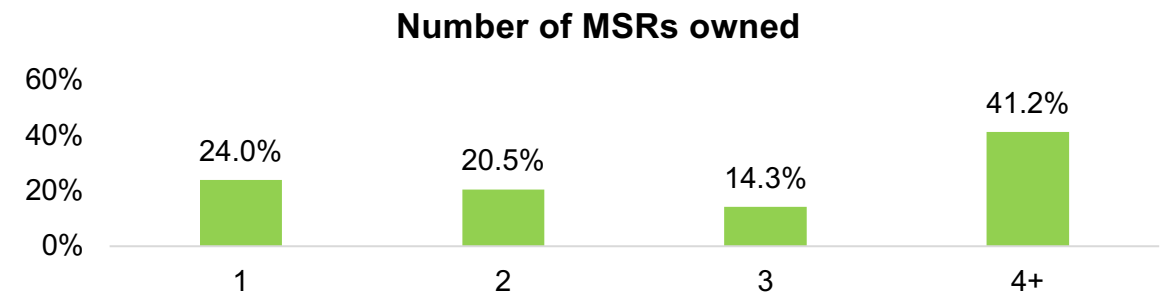
Platform	Average Number of MSRs owned ( <u>must own at least one of specified platform</u> )
AR platform	2.7
Other platform	2.3
AK platform	1.5

**Average number of MSRs owned: 3.8**

- AR – 2.6
- Other – 0.8
- AK – 0.4

Median of all MSRs owned: 3

(may own zero of one or more platform, but must at least own one MSR)

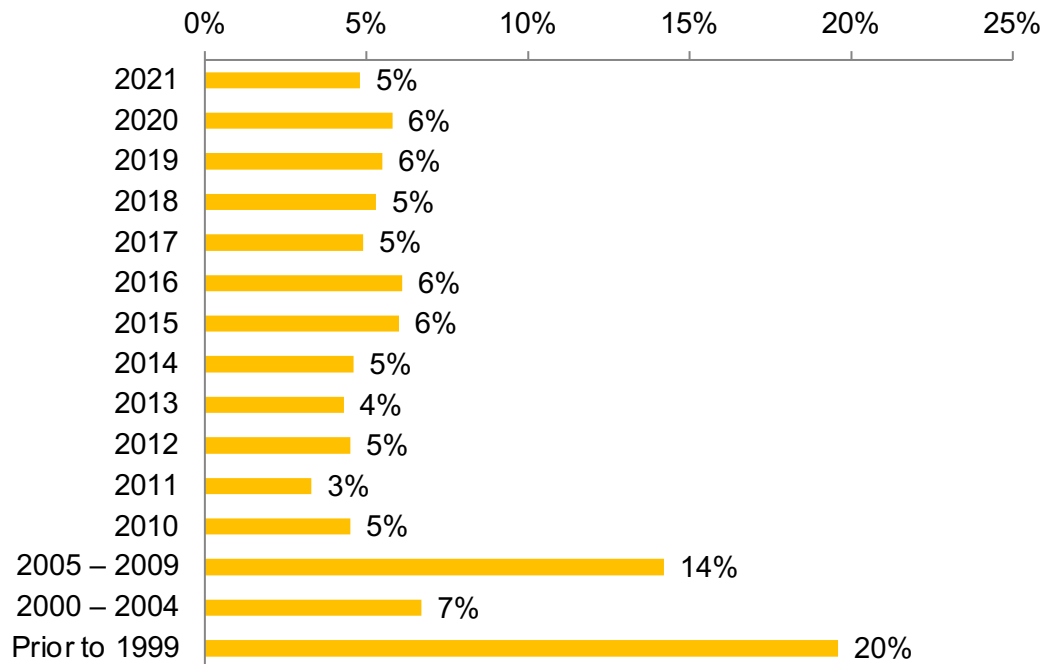


**Trend – Average Number of MSRs owned**

2010: 2.6  
 2013: 3.1  
 2021: 3.8

## Modern Sporting Rifle Ownership: Experience

When did you obtain your FIRST MSR?



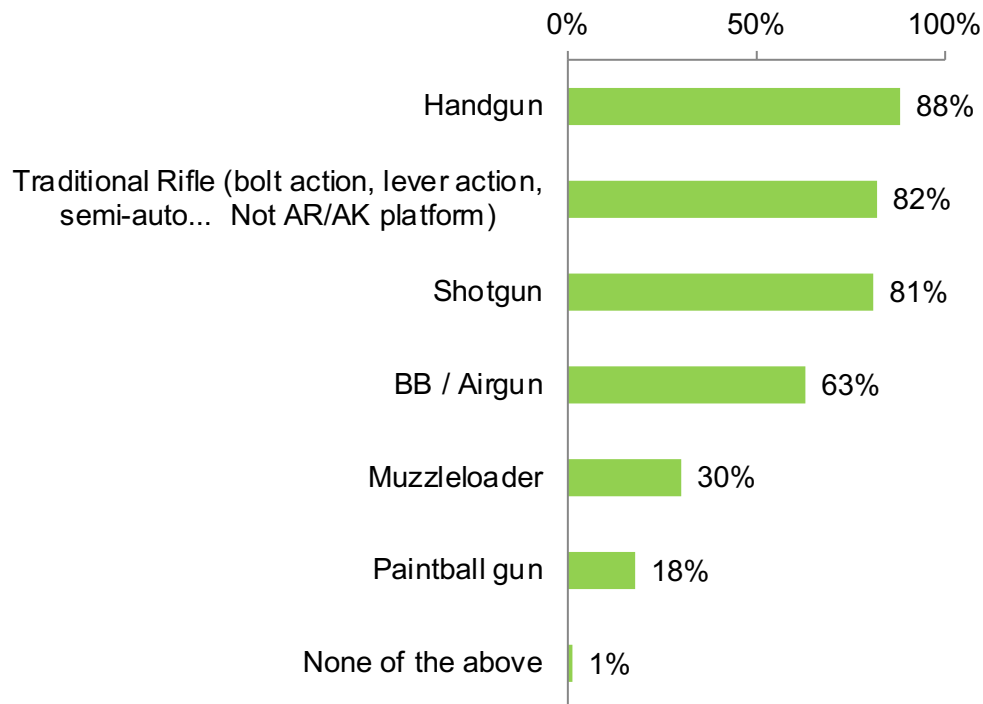
By Number of MSRs Owned

	1 MSR	2	3	4	5+
2021	14%	3%	3%	1%	1%
2020	13%	7%	3%	1%	2%
2019	9%	7%	5%	4%	2%
2018	9%	7%	5%	5%	2%
2017	8%	5%	5%	4%	3%
2016	7%	8%	8%	6%	3%
2015	7%	8%	6%	3%	5%
2014	5%	7%	3%	4%	3%
2013	3%	5%	6%	4%	4%
2012	4%	4%	4%	7%	5%
2011	2%	4%	4%	4%	4%
2010	2%	4%	7%	4%	6%
2005 – 2009	8%	13%	15%	15%	19%
2000 – 2004	3%	4%	7%	9%	11%
Prior to 1999	7%	13%	20%	28%	30%

- 20% of MSR owners obtained their first MSR before 1999. Over 40% have owned theirs since 2009.
- 11% obtained their first MSR within the last two years.
- 26% of those who own 1 MSR obtained it in 2020 or 2021.

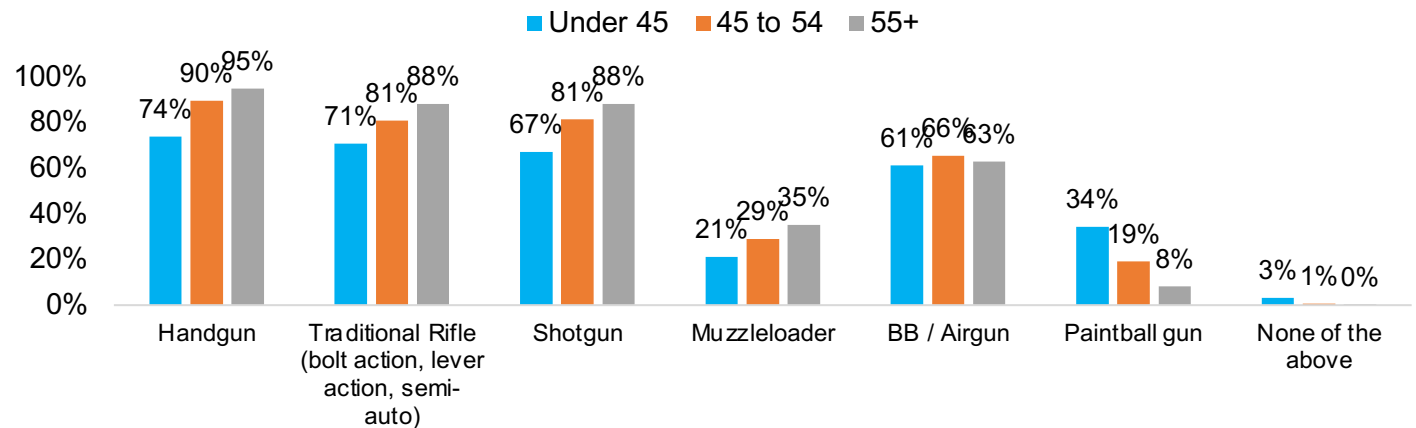
## Modern Sporting Rifle Ownership: Experience

Firearms Used/Owned BEFORE obtaining a MSR



- Handguns are the most popular firearm used/owned before obtaining an MSR, with 88% of MSR owners selecting.
- Traditional rifles were also first used/owned by 82% of MSR owners.
- Younger MSR owners show less ownership of other firearm types before a MSR compared to other age groups.

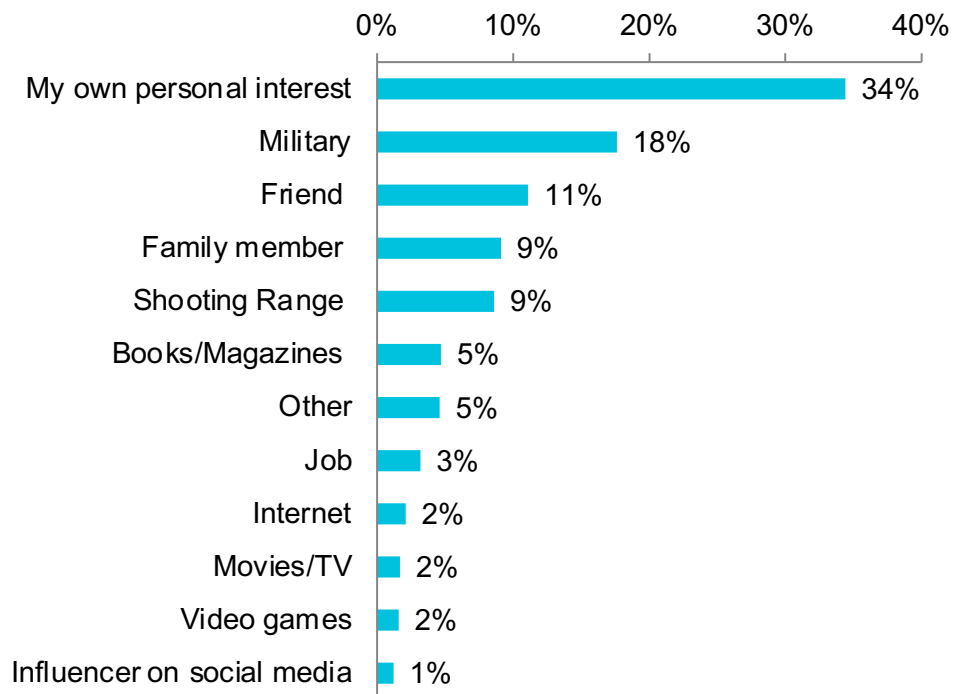
Firearms Used Before MSR - by Age



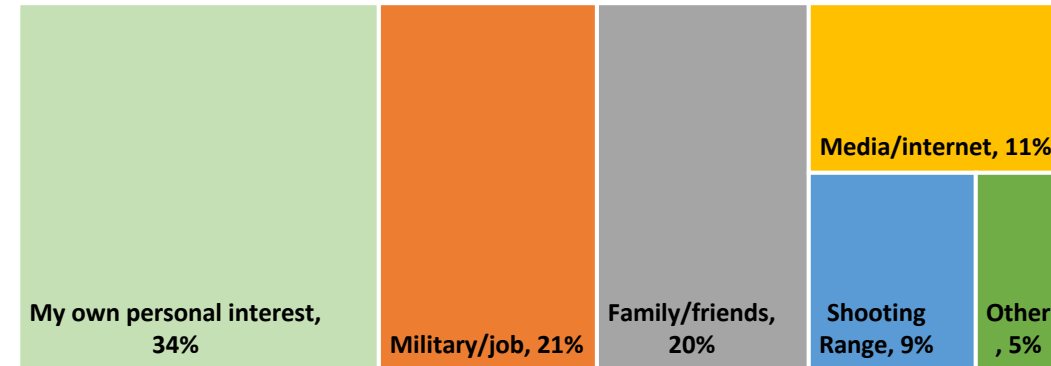


## Modern Sporting Rifle Ownership: Experience

**Introduction to MSRs: where did you first gain interest?**



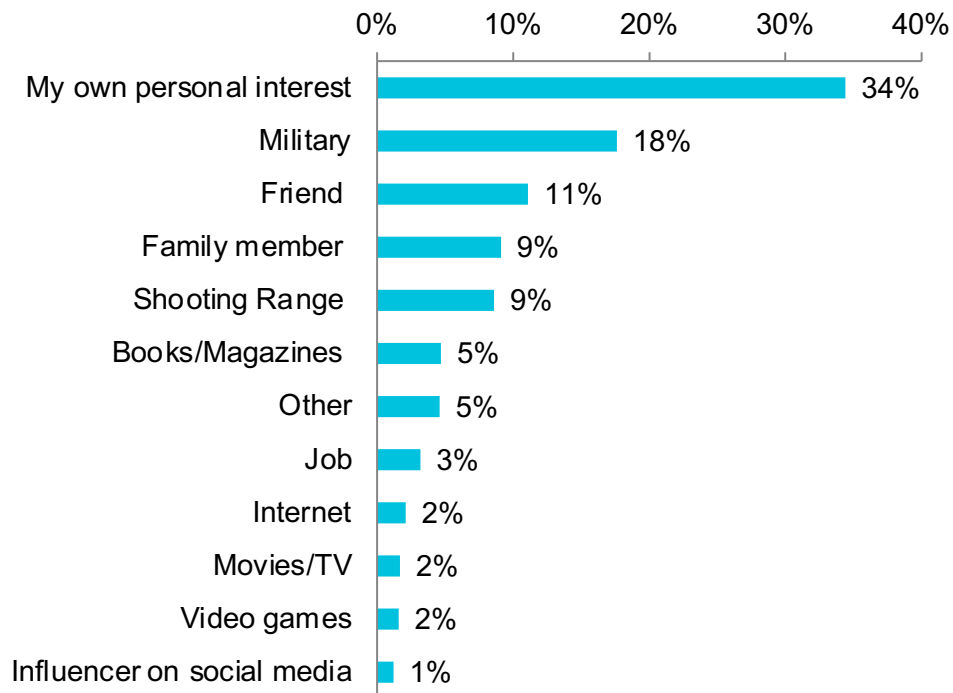
**Introduction to MSRs (Grouped)**



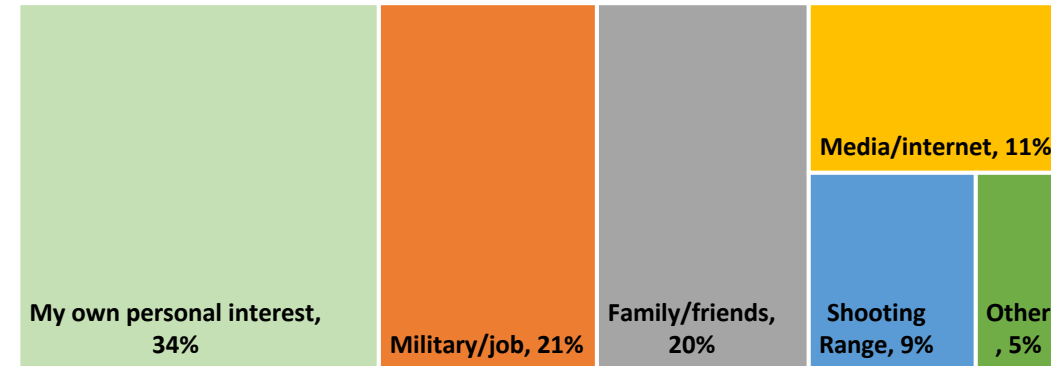
- One-third of MSR owners became interested through their own personal accord.
- About 21% first gained interest through the military or their job, and another 20% through family/friends.

## Modern Sporting Rifle Ownership: Experience

**Introduction to MSRs: where did you first gain interest?**



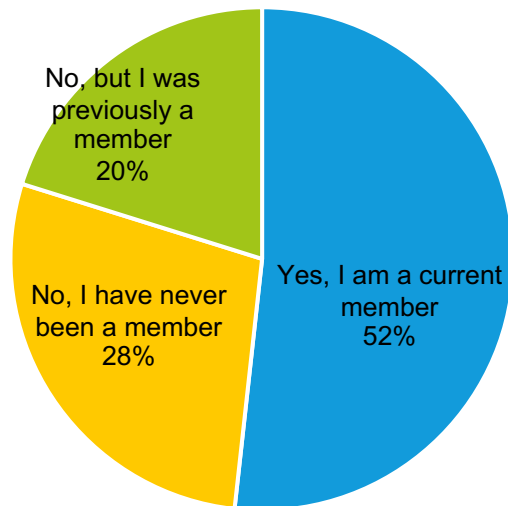
**Introduction to MSRs (Grouped)**



- One-third of MSR owners became interested through their own personal accord.
- About 21% first gained interest through the military or their job, and another 20% through family/friends.

## Modern Sporting Rifle Ownership: Shooting Ranges

**Do you currently have a membership at a shooting range?**

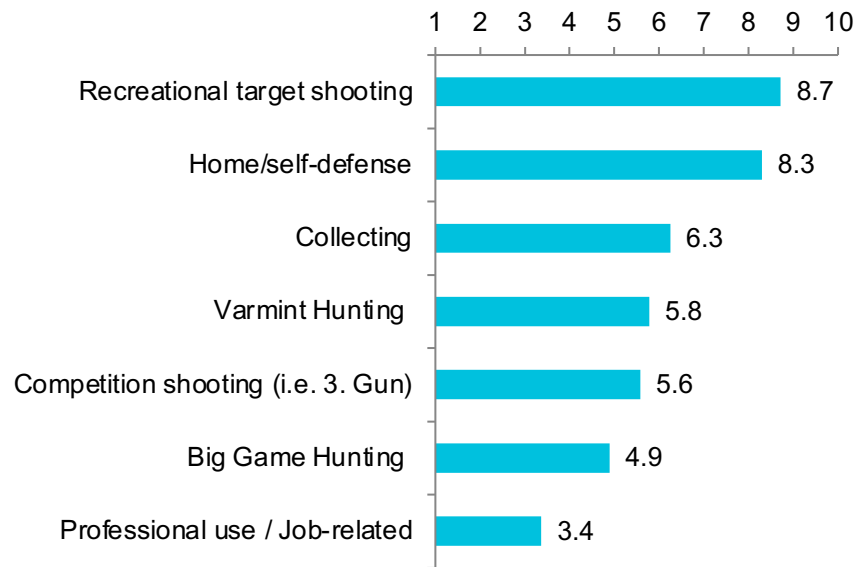


- About half of MSR owners are current members of a shooting range.
- 28% have never been a member of a shooting range.

## Modern Sporting Rifle Ownership: Reasons for Ownership

Respondents were asked to rate how important each of the following reasons are to owning an MSR. They rated each reason on a scale from 1 to 10, where 1 is “not at all important” and 10 is “very important.”

**Rating: How important are these reasons to owning an MSR?**



*Scale:  
 1=Not at all important, 10= very important*

- Recreational target shooting was rated as the most important reason for owning an MSR.
- Big game hunting and professional/job-related use were given the lowest importance ratings.

	MSR Owned					Age			Usage Frequency			
	1	2	3	4	5+	Under 45	45 to 54	55+	3 times or less	4 to 11 times	12 to 23 times	24+ times
Recreational target shooting	8.4	8.7	8.8	8.6	9	8.4	8.8	8.9	8.5	8.8	9	9.1
Home/self-defense	7.9	8.2	8.2	8.3	8.7	8.4	8.3	8.2	8	8.3	8.5	8.7
Collecting	5.2	5.8	6.6	6.7	7.1	6.9	6.5	5.8	5.9	6.2	6.4	7
Varmint Hunting	5.2	5.5	5.8	5.9	6.3	5.7	5.8	5.8	5.2	5.7	6.2	7
Competition shooting (i.e. 3. Gun)	4.6	5.3	5.6	6	6.4	6	5.8	5.2	4.9	5.4	6.3	7
Big Game Hunting	4.3	4.4	4.9	5.4	5.5	5.2	4.9	4.7	4.4	4.9	5.2	6
Professional use / Job-related	2.8	3	3.7	3.5	3.9	4	3.4	3	3	3.2	3.6	4.5

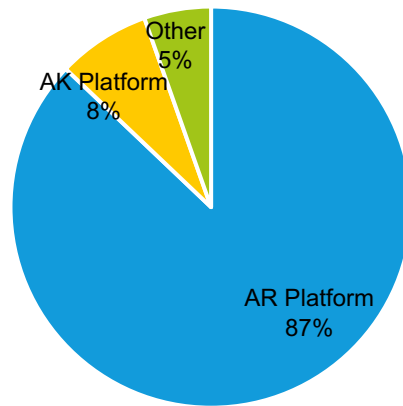


## Section 2: Most Recently Acquired Modern Sporting Rifle

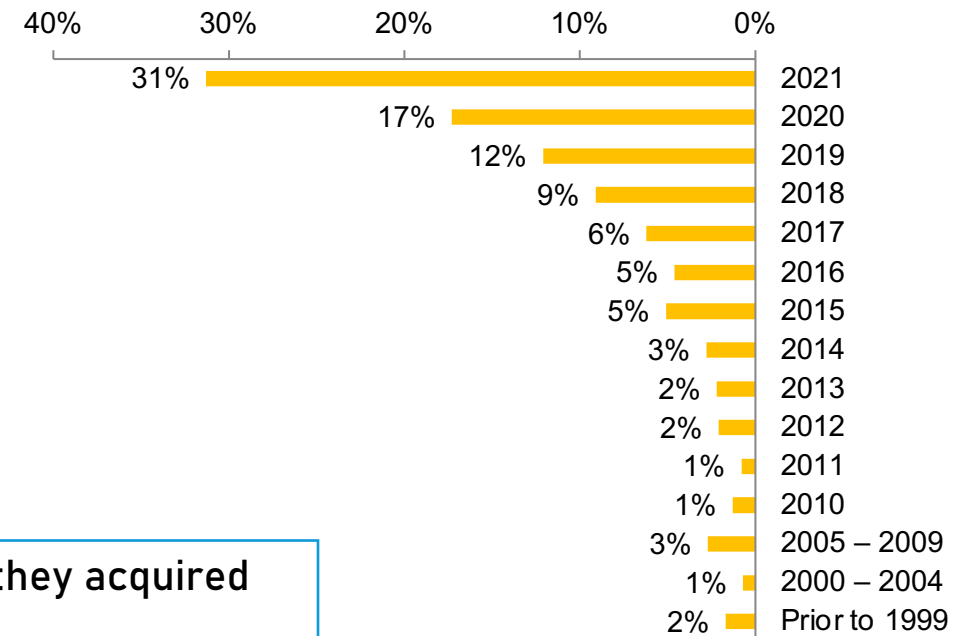


## Most Recently Acquired MSR: Platform, When Acquired

Platform - Most Recent MSR Obtained



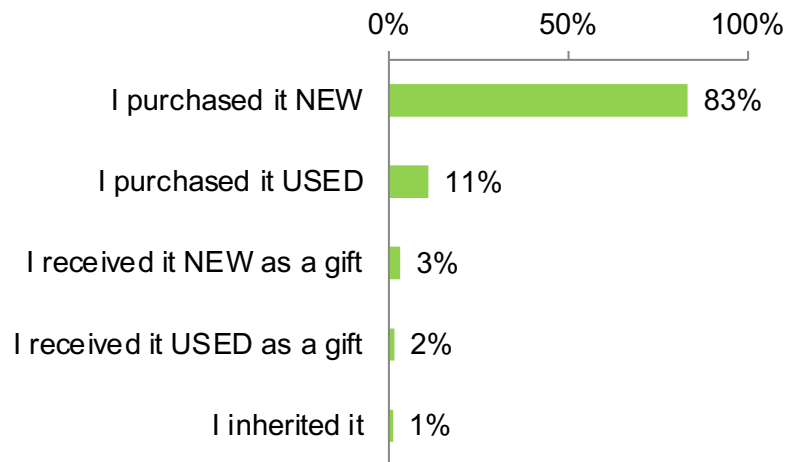
Year of Most Recently Acquired MSR



- Nearly 9 out of 10 MSR owners said the most recent MSR they acquired was an AR platform.
- Nearly one-third of MSR owners said they acquired their most recent one in 2021, nearly 50% within the last two years (2021 or 2020).

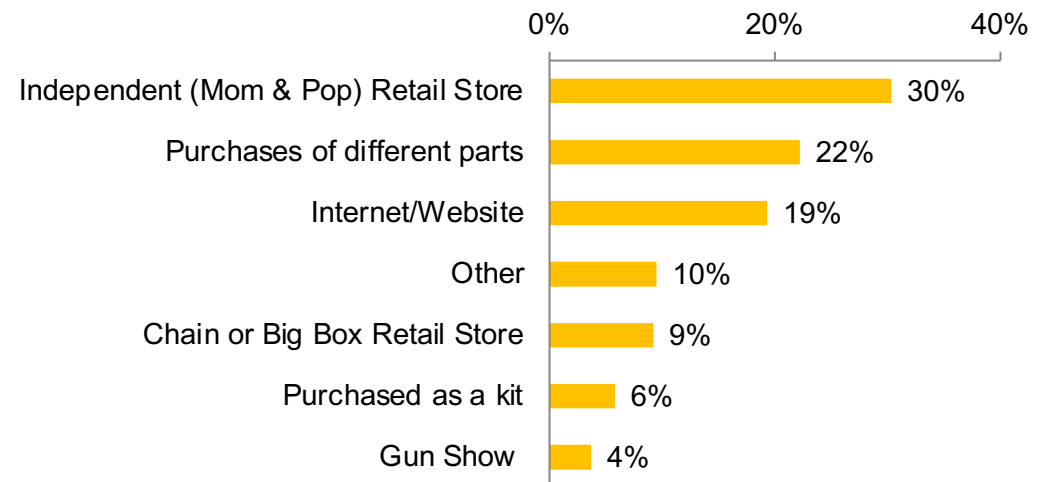
## Most Recently Acquired MSR: How? Where?

How did you obtain your most recently acquired MSR?



- 83% of MSR owners acquired their most recent MSR by purchasing it new.

Place of Purchase



- For those purchasing a new or used MSR, the most common place of purchase was an independent retail store.
- Popular retailers & online sites used: Palmetto State Armory, Gunbroker.com, Cabela's, Sportsman's Warehouse,

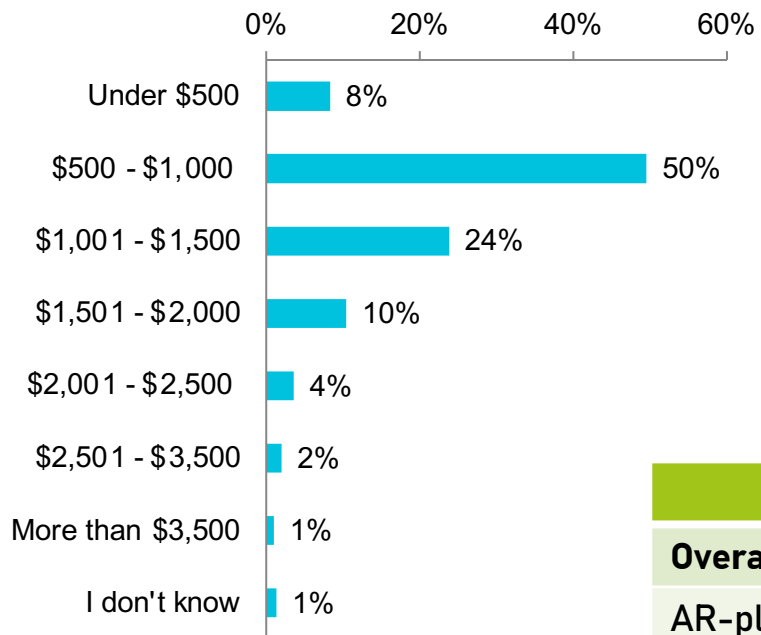
## Most Recently Acquired MSR: Place of Purchase

	Total	Number of MSRs Owned					Age			Range Membership	
		1	2	3	4	5+	Under 45	45 to 54	55+	Member	Non-member
Independent (Mom & Pop) Retail Store	30.3%	31.9%	30.5%	31.1%	29.8%	28.9%	26.6%	35.1%	30.1%	33.9%	26.5%
Purchases of different parts	22.2%	12.0%	18.8%	24.8%	29.3%	28.6%	25.4%	25.8%	19.0%	21.3%	23.2%
Internet/Website	19.3%	18.6%	21.1%	16.2%	19.1%	20.2%	24.3%	14.1%	19.1%	18.1%	20.7%
Other	9.5%	11.4%	11.2%	9.6%	8.0%	7.3%	6.1%	7.8%	11.9%	8.9%	10.1%
Chain or Big Box Retail Store	9.2%	16.2%	10.1%	7.6%	5.3%	5.2%	7.9%	8.8%	9.9%	7.9%	10.5%
Purchased as a kit	5.8%	5.6%	4.6%	6.3%	5.8%	6.4%	7.0%	4.6%	5.6%	5.9%	5.6%
Gun Show	3.7%	4.2%	3.7%	4.3%	2.7%	3.5%	2.7%	3.8%	4.2%	4.0%	3.4%



# Most Recently Acquired MSR: Price

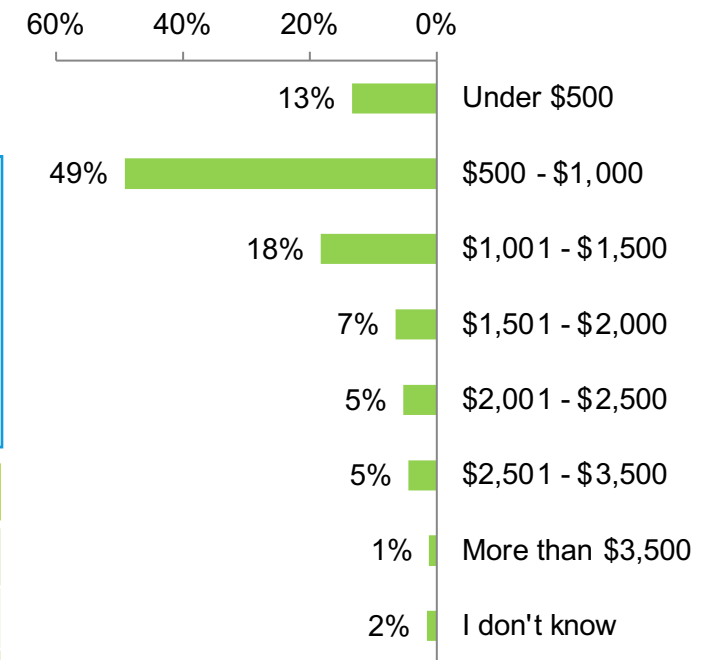
Price of most recently acquired NEW MSR



- Half of MSR owners paid between \$500 and \$1000 for their most recently purchased MSR, both those who bought a new MSR and those who bought a used MSR.
- Average price for last MSR: \$1,071.

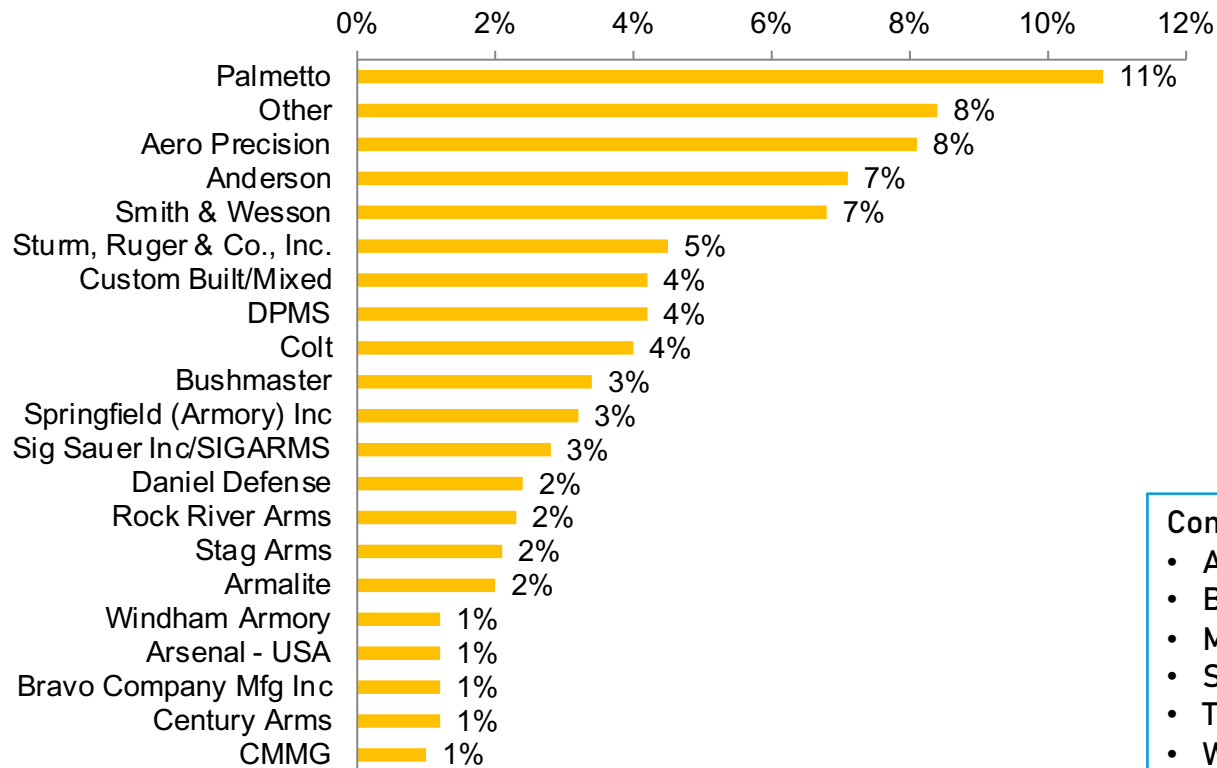
	2010	2013	2021
<b>Overall average</b>	<b>\$1,083</b>	<b>\$1,058</b>	<b>\$1,071</b>
AR-platform (new)		\$1,112	\$1,057
AR platform (used)			\$992
AK platform (new)		\$711	\$1,086
AK platform (used)			\$1,218

Price of most recently acquired USED MSR



## Most Recently Acquired MSR: Brand

Brand of Most Recently Acquired AR



• Survey data indicates the MSR market is highly fragmented. 11% of MSR owners said Palmetto was the brand of their most recently acquired MSR — the highest among the options available.

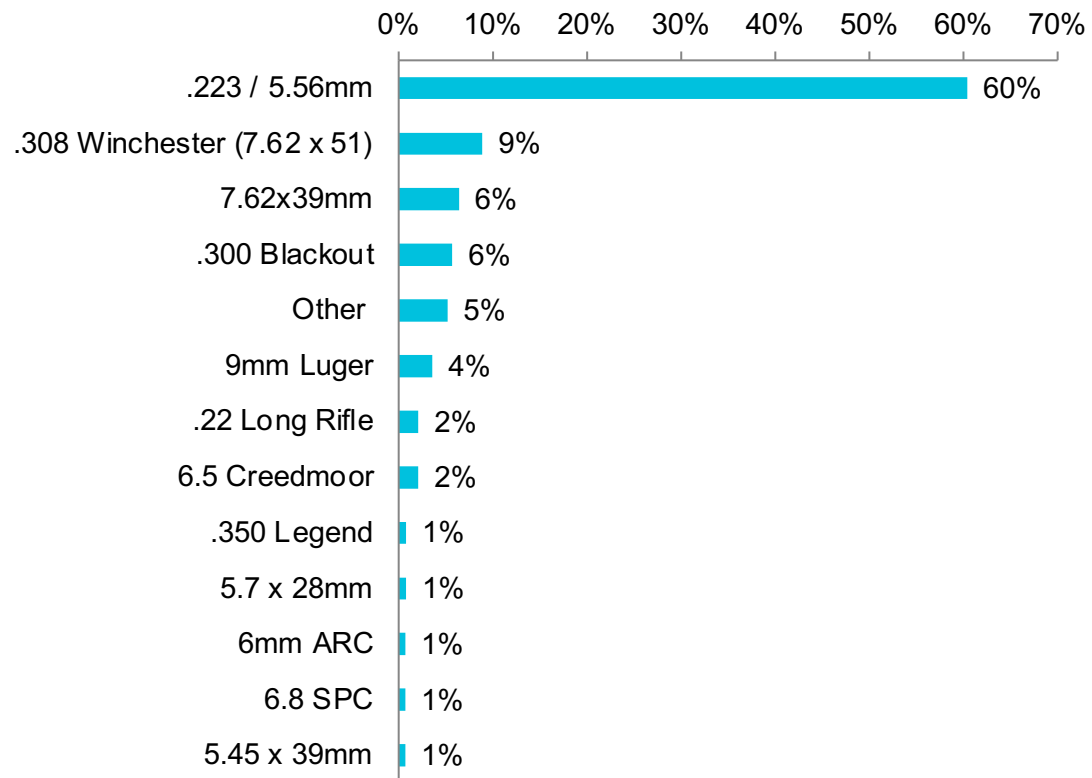
Commonly mentioned brands included in “Other”:

- ATI
- Battle Arms Development
- MBX
- Sharp Bros
- Tavor
- WBP

50+ other brands were selected by less than 1% of respondents; full list available upon request

## Most Recently Acquired MSR: Caliber

Caliber of Most Recently Acquired MSR



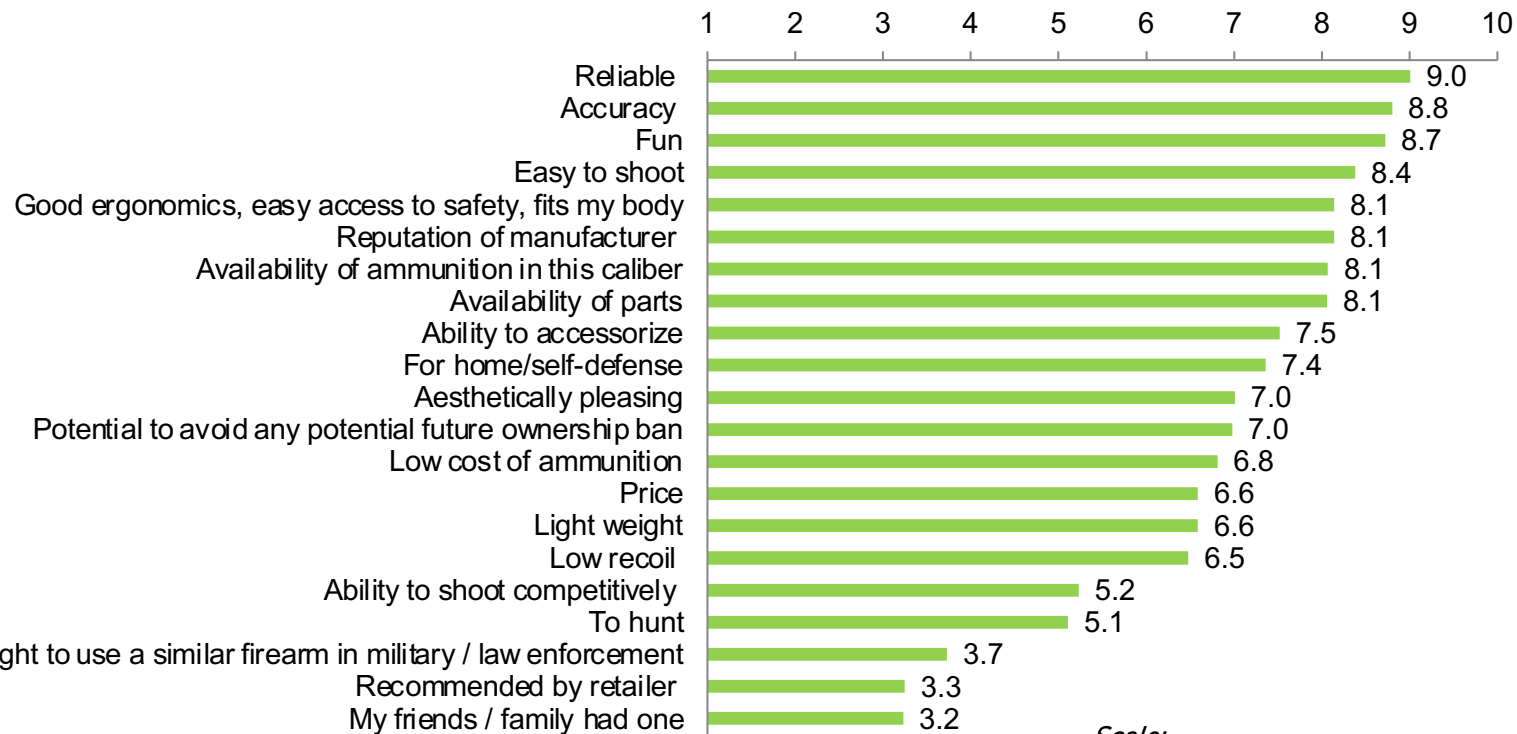
*7 other calibers were selected by less than 1% of respondents*

- 60% of respondents said the caliber of their most recently acquired MSR is .223 / 5.56 mm
- Of the 5% selecting “other,” the most frequently mentioned calibers included:
  - 6.5 Grendel
  - .458 SOCOM
  - .224 Valkyrie

## Most Recently Acquired MSR: Reasons for Buying

For the 94% of respondents that purchased their MSR new or used, they were asked to rate how important each of the following reasons are for selecting their most recently acquired MSR on a scale from 1 to 10, where 1 is “not at all important” and 10 is “very important.”

**Rating: Most Important Reasons for Buying Most Recently Purchased MSR**

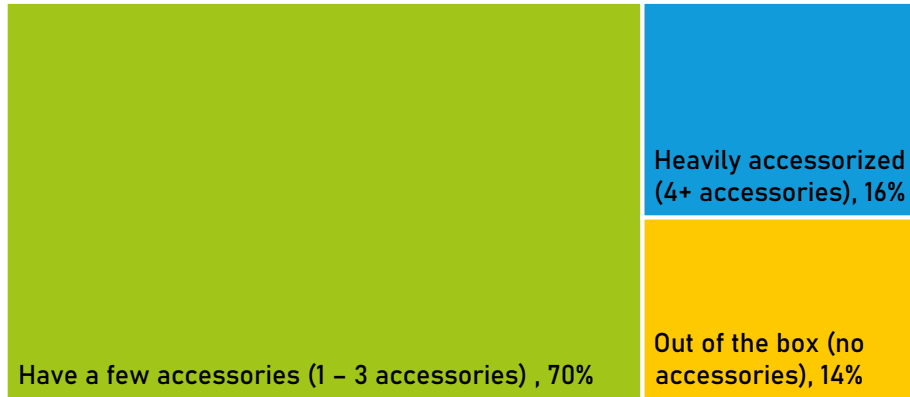


Scale:  
1=Not at all important, 10= very important

- MSR owners rated reliability, accuracy, and fun as the most important reasons for purchasing their most recently acquired MSR.
- The least important reasons as rated by MSR owners include recommendations from a retailer and MSRs owned by family/friends.

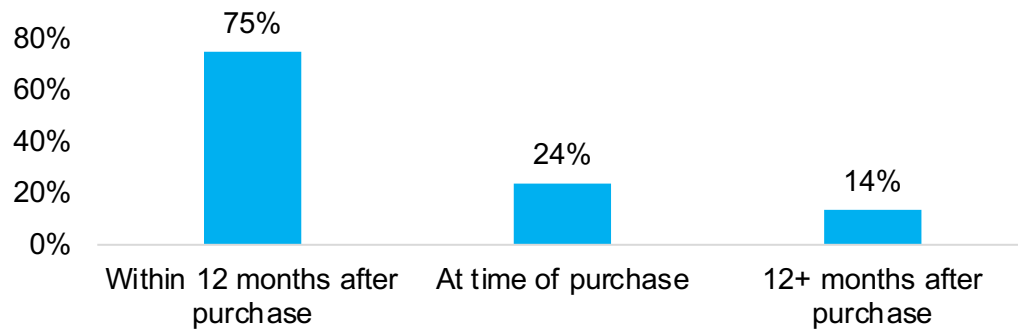
## Most Recently Acquired MSR: Accessories

MSR - Use of Accessories



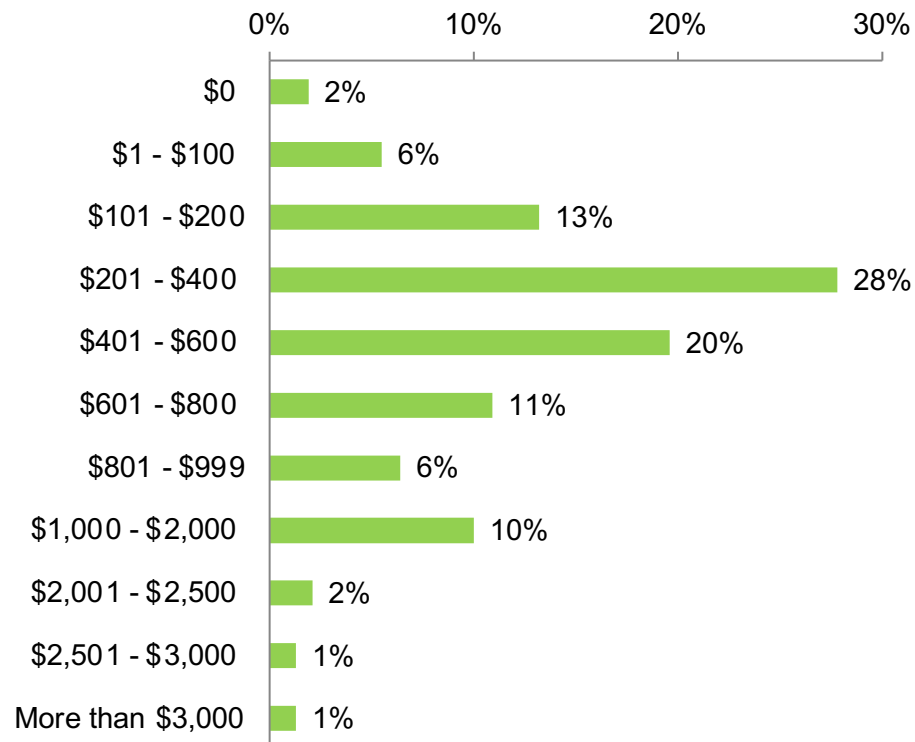
- 86% of have their most recently acquired MSR customized to some extent, 70% having 1-3 accessories.
- For those with accessories on their most recently acquired MSR, 75% added accessories within 12 months after purchase. Nearly a quarter added accessories at the time of purchase.

When have you added accessories to your MSR?



## Most Recently Acquired MSR: Accessories - Spend

Spend on After-Market Customization to Most Recently Acquired MSR

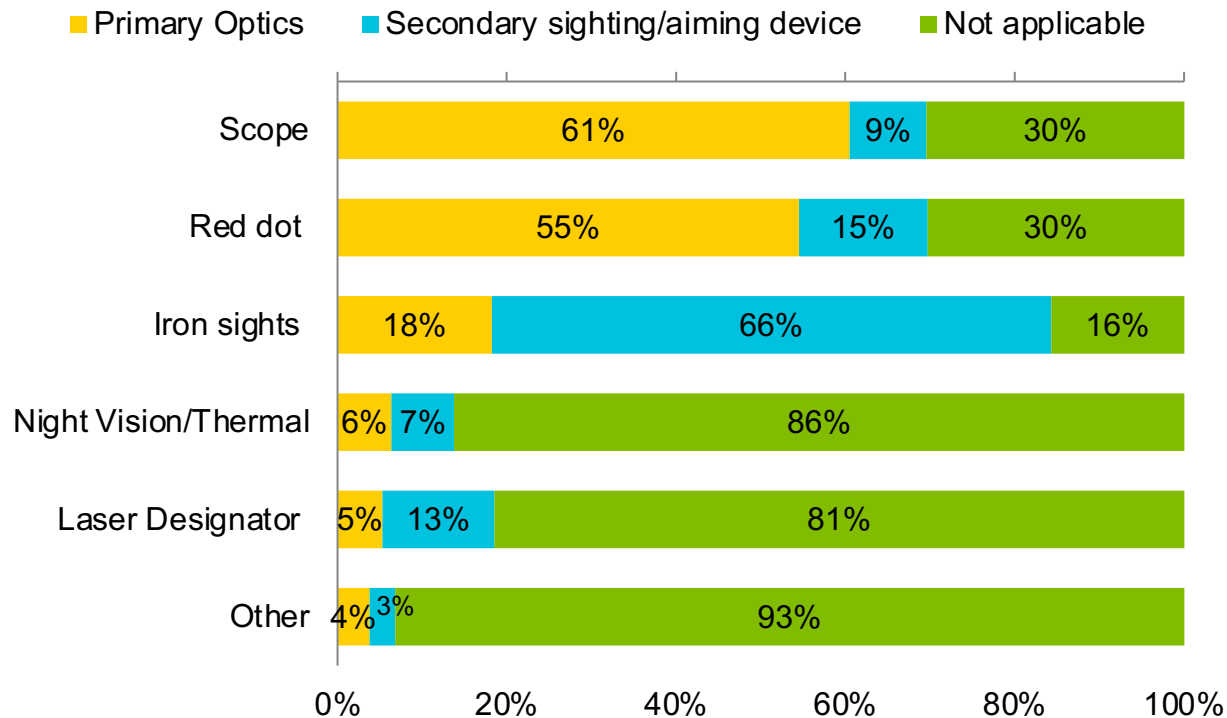


	2010	2013	2021
<b>Average spent</b>	<b>\$436</b>	<b>\$381</b>	<b>\$618</b>

- Of the MSR owners who have added accessories to their most recently acquired MSR, nearly half, or 48%, have spent between \$201 and \$600 on after-market customization.
- The average spent for accessories by owners on their most recently acquired MSR by owners is \$618.

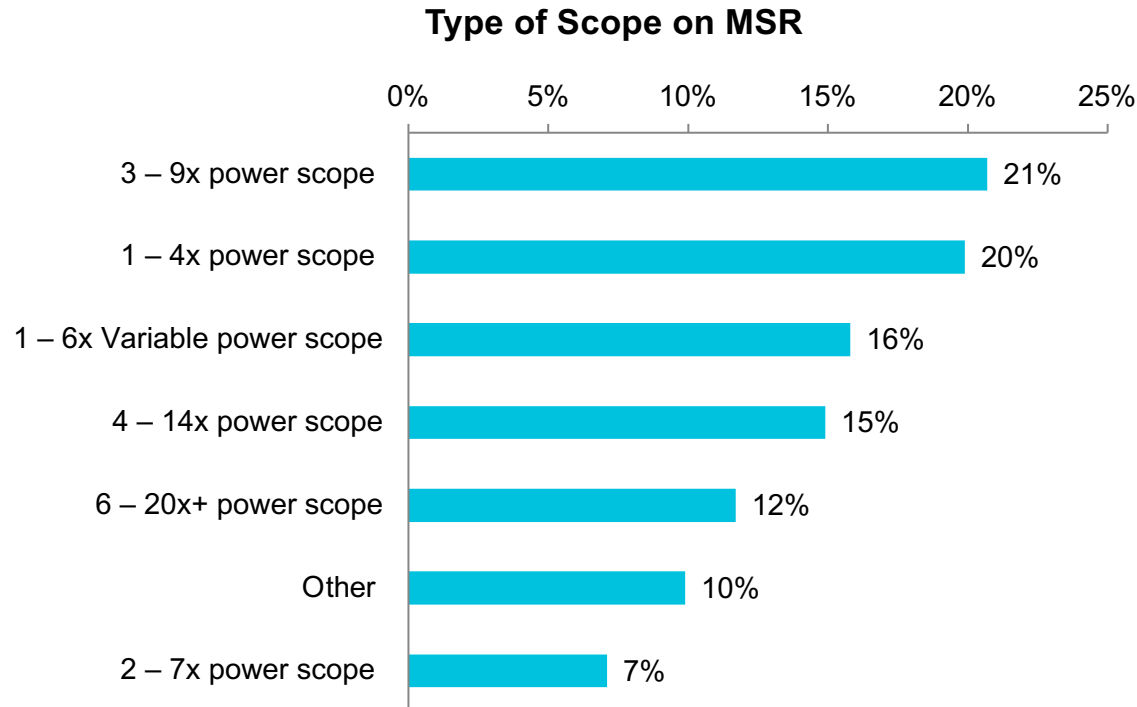
## Most Recently Acquired MSR: Optics

### Optics Used on Most Recently Acquired MSR



- 61% of MSR owners have a scope equipped as a primary optic on their most recently acquired MSR.
- Iron sights are the most common secondary aiming device, equipped on two-thirds of respondents' MSRs.

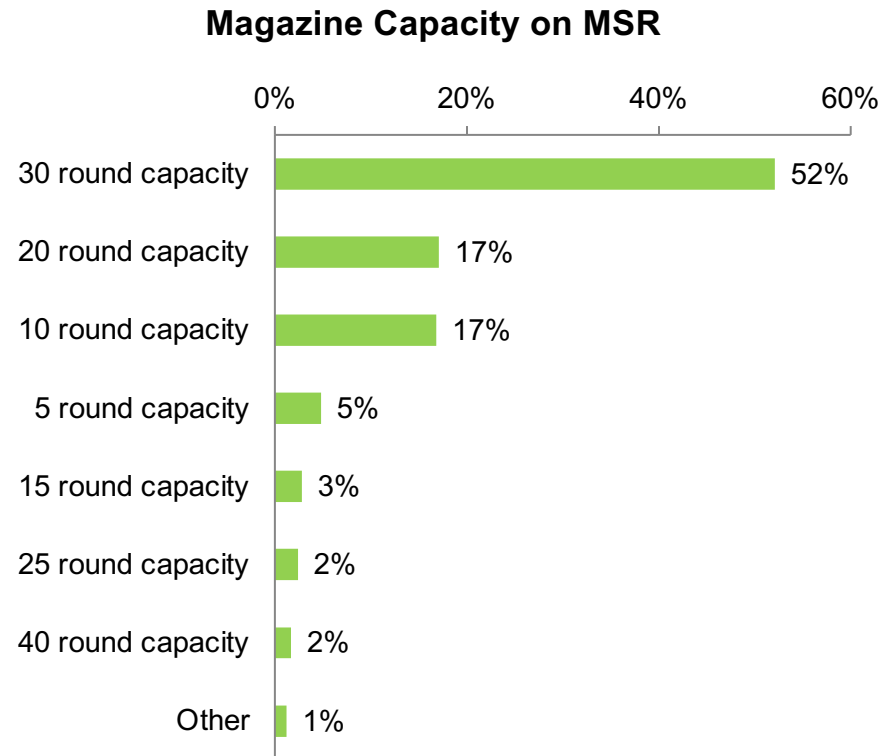
## Most Recently Acquired MSR: Scope



- The most common scopes used by MSR owners are the 3-9x power scope (21%) and the 1-4x power scope (20%).
- Of the 10% who selected “Other,” the most frequently mentioned scopes were:
  - 1-8x variable power scope
  - 1-10x variable power scope

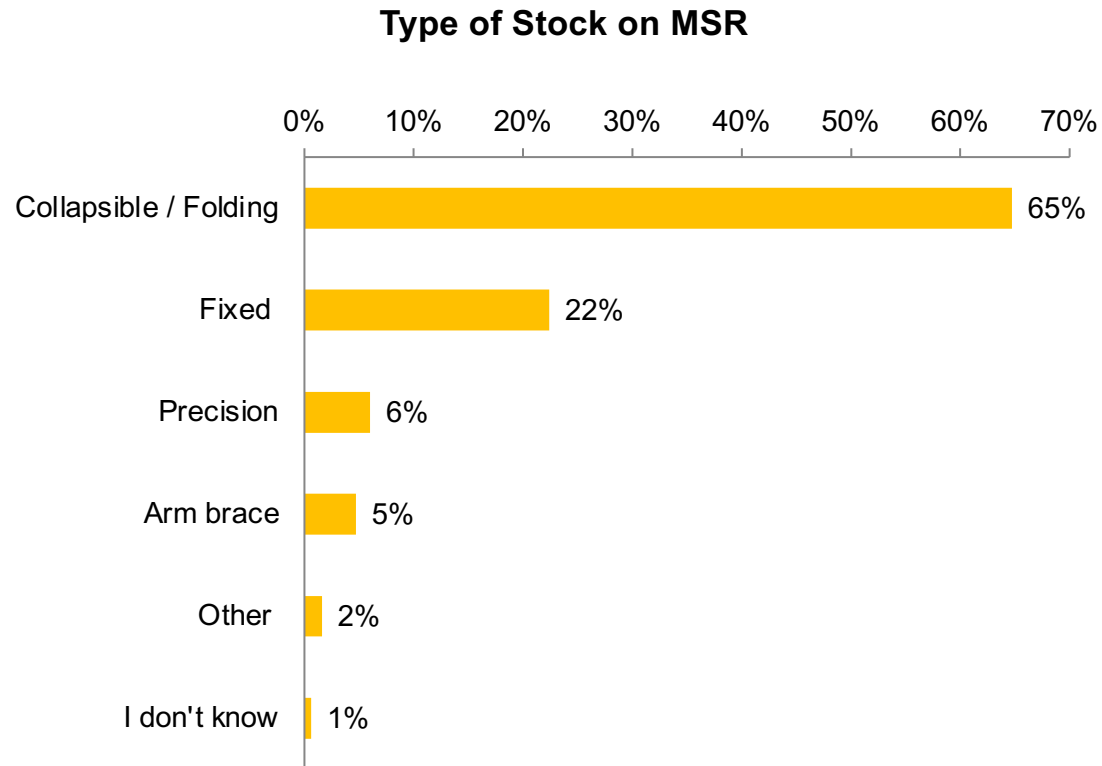


## Most Recently Acquired MSR: Magazine Capacity



- Half (52%) of MSR owners stated the magazine capacity of their most recently acquired MSR is 30 rounds.
- When asked why they chose their respective magazine capacity, the most frequent responses were:
  - Common/standard
  - Readily available

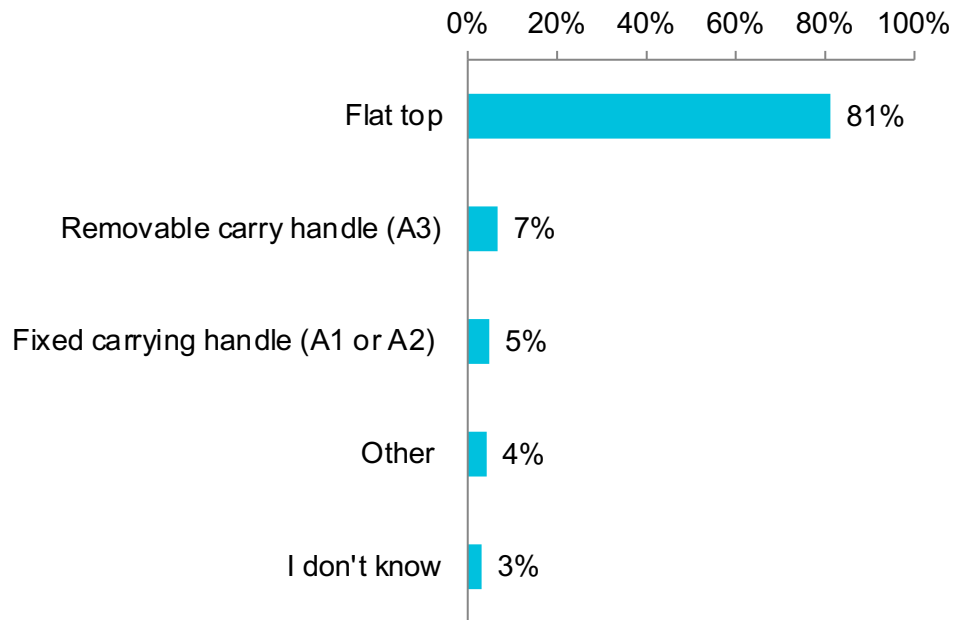
## Most Recently Acquired MSR: Type of Stock



- 65%, or approximately two-thirds, of MSR owners have a collapsible/folding stock on their most recently purchased MSR.

## Most Recently Acquired MSR: Type of Upper Receiver

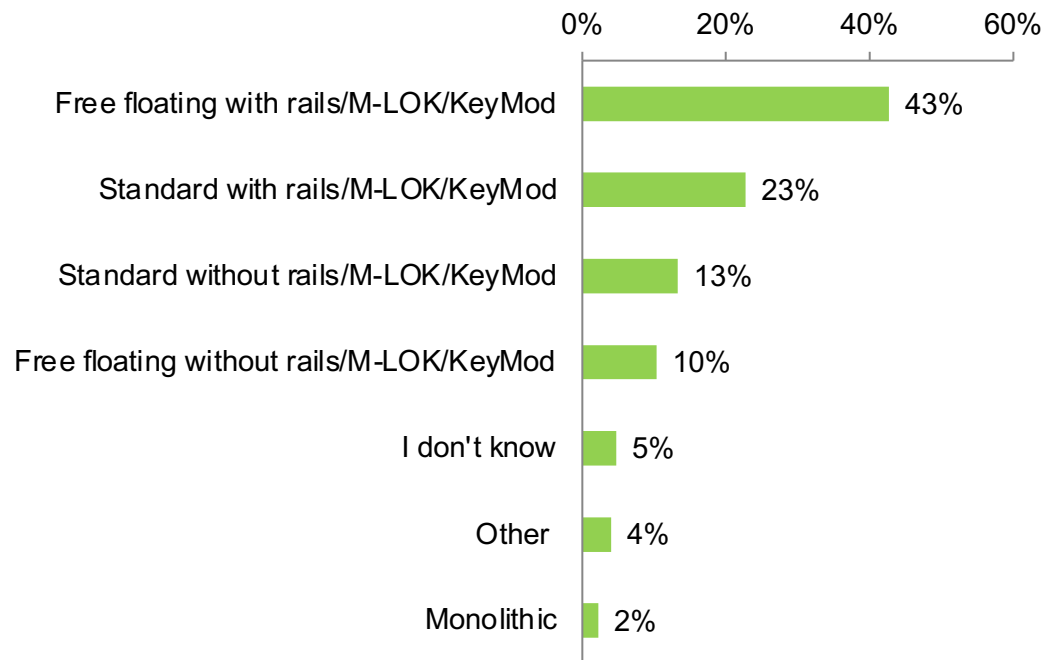
Type of Upper Receiver on MSR



- 81% have a flat top upper receiver on their most recently acquired MSR.

## Most Recently Acquired MSR: Type of Handguard

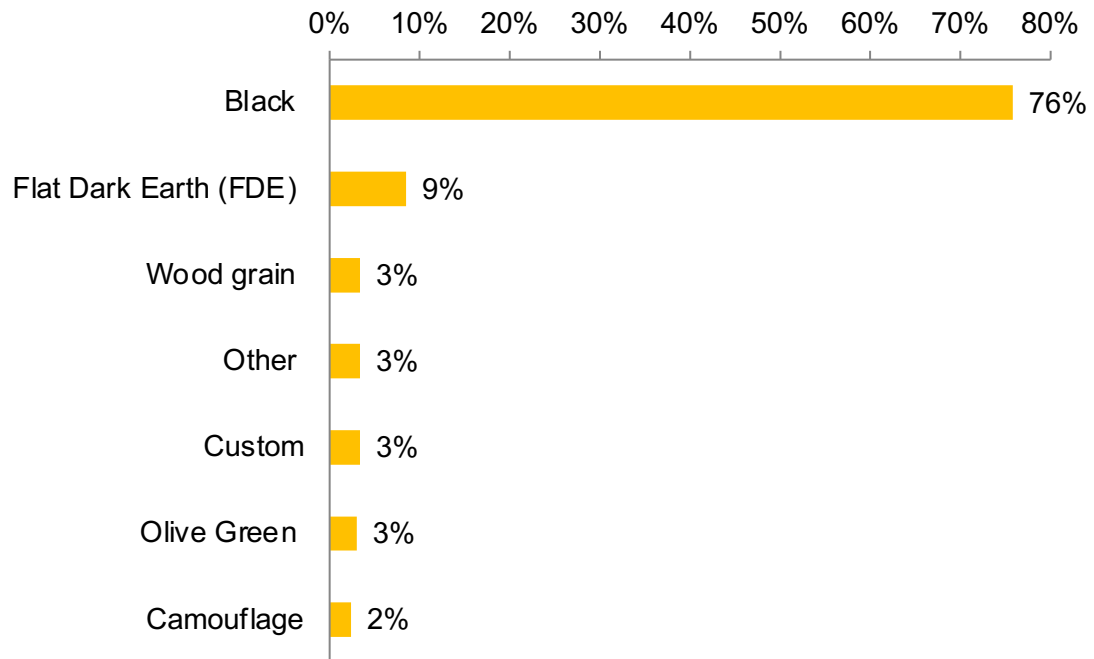
Type of Handguard on MSR



- The most common type of handguard is a free floating with rails handguard, used by 43% of respondents on their most recently acquired MSR.

## Most Recently Acquired MSR: Finish Color

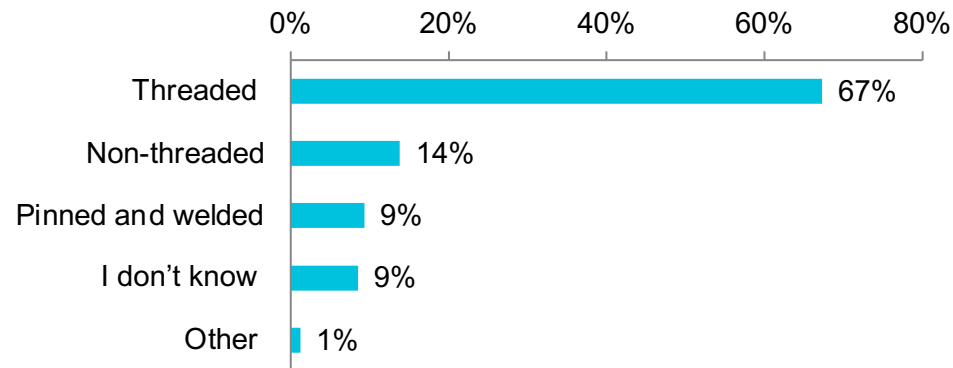
Finish Color on MSR



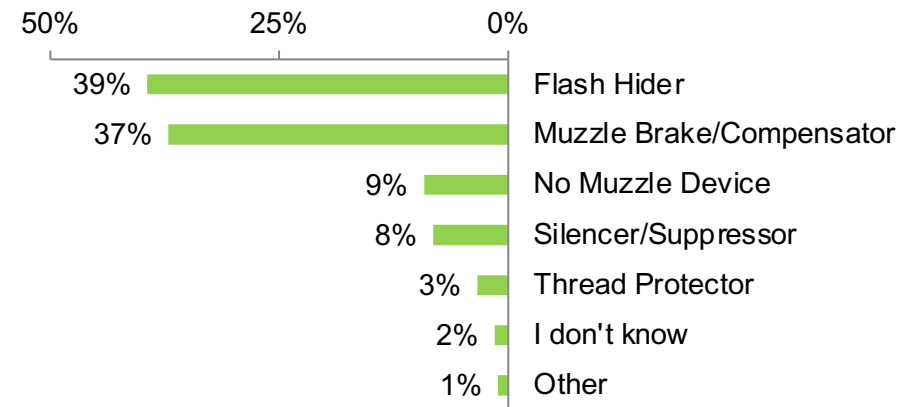
- 3 out of 4 MSR owners have a black finish color.

## Most Recently Acquired MSR: Barrels – Type, Accessories, Length

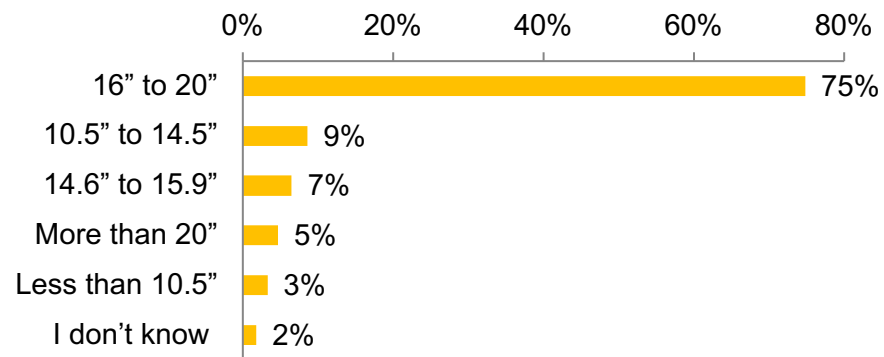
**Type of Barrel on MSR**



**Barrel Accessories on MSR**



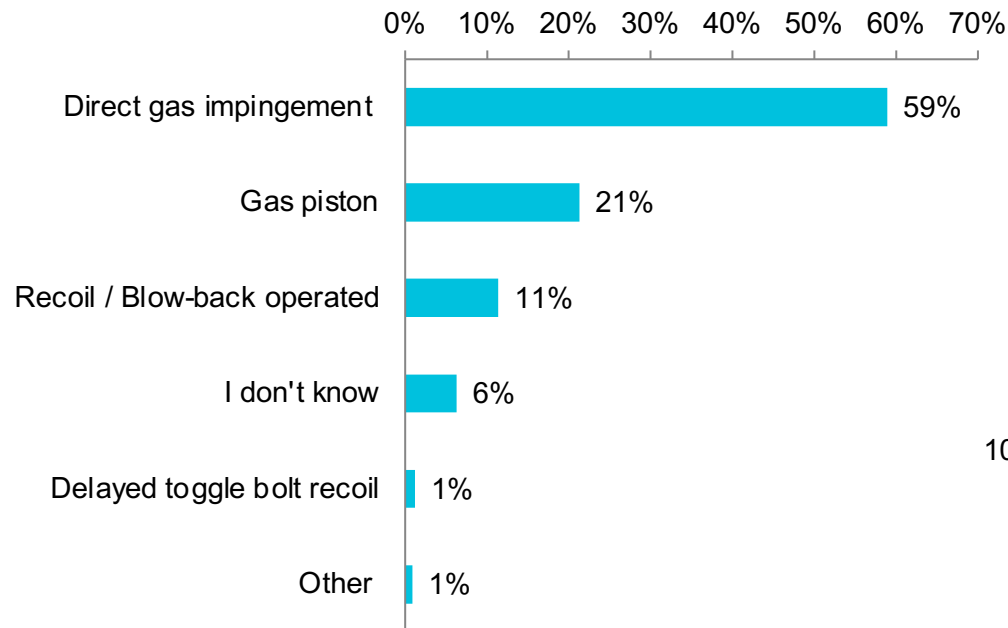
**Barrel Length on MSR**



- Two-thirds of MSR owners have a threaded barrel.
- Most common accessories: flash hider (39%), muzzle brake/compensator (37%)
- 75% have a barrel length of 16-20%

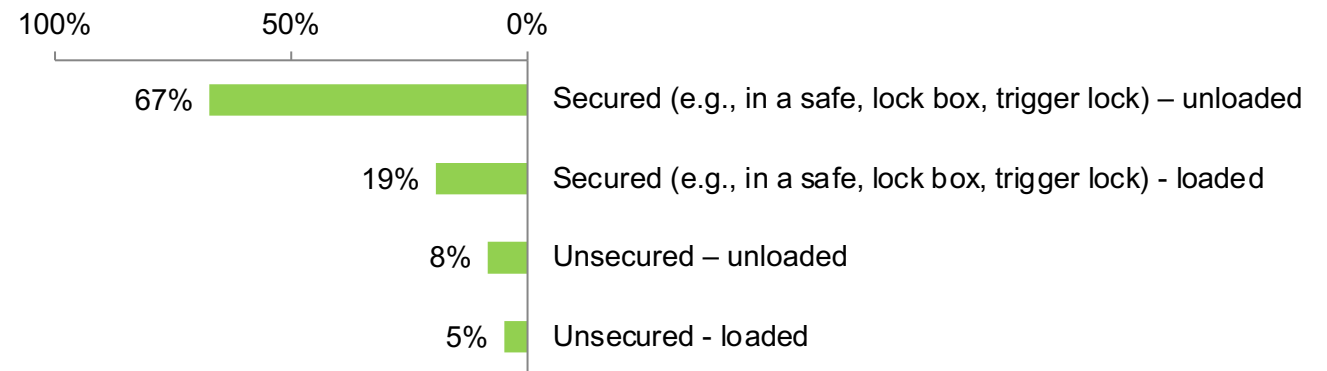
## Most Recently Acquired MSR: Operating System, Storage

Operating System on MSR

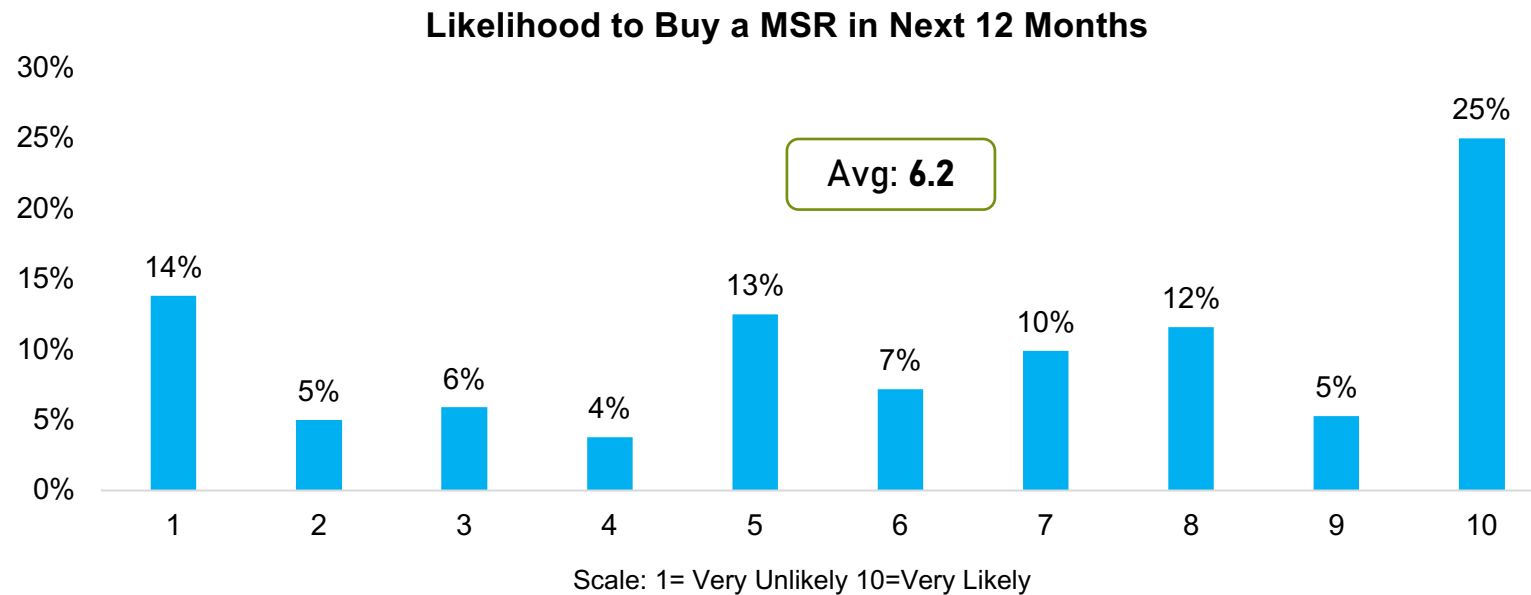


- 59% of MSR owners indicated their most recently acquired MSR is operated by direct gas impingement.
- 67%, or two-thirds, of MSR owners store their MSR secured and unloaded.

MSR Storage



## Most Recently Acquired MSR: Likelihood to Buy a MSR in Next 12 Months



- Average likelihood to buy an MSR in the next 12 months is a 6.2 out of 10, slightly more to the “likely” end of the scale.
- 25%, or one-fourth of respondents, said they are “very likely” to buy an MSR in the next 12 months.



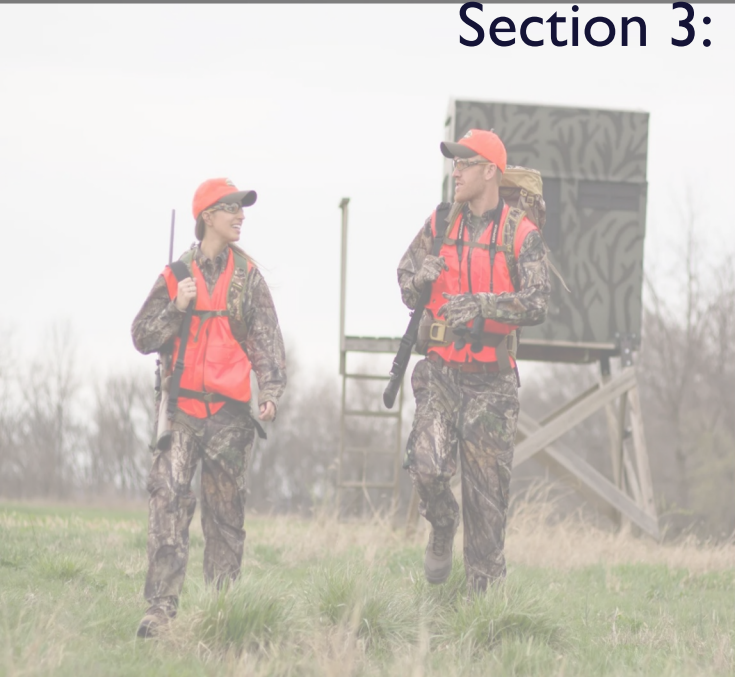
## Most Recently Acquired MSR: Accessories Owned

	Owned	Plan to buy in next 12 months	Don't own, don't plan to buy
Gun Cleaning Kit	94%	9%	3%
Extra Magazines	87%	23%	6%
Targets	84%	26%	5%
Soft Carrying Case	84%	9%	12%
Rifle Sling	81%	21%	8%
Gun Safe	78%	14%	13%
Rifle Scope	76%	23%	14%
Hard Carrying Case	69%	12%	25%
Gun Lock	64%	4%	32%
Backup sights	55%	20%	31%
Bipod	55%	21%	34%
Railed Handguard	54%	13%	36%
Spotting Scope	52%	19%	31%
Mounted Flashlight	46%	27%	36%
Trigger Upgrade	45%	26%	39%
Range Finder	43%	25%	37%
Vertical Fore-grip	41%	14%	49%
Stock Upgrade	37%	17%	49%
Suppressor/silencer	19%	37%	53%
Laser Designator	17%	12%	72%
Night Vision/Thermal	13%	26%	67%
Other	6%	4%	43%

- The most common accessories currently owned by MSR owners are gun cleaning kits, extra magazines, targets, and soft carrying case.
- The accessory that MSR owners most frequently said they planned to buy in the next 12 months is a suppressor/silencer.
- Roughly 70% of MSR owners do not own and do not plan to buy a laser designator or night vision/thermal scope in the next 12 months.

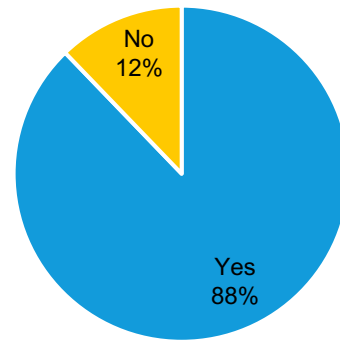


### Section 3: Modern Sporting Rifle Usage & Activities

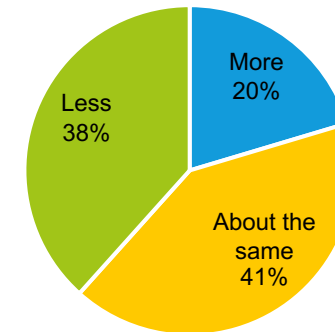


## MSR Usage and Activities

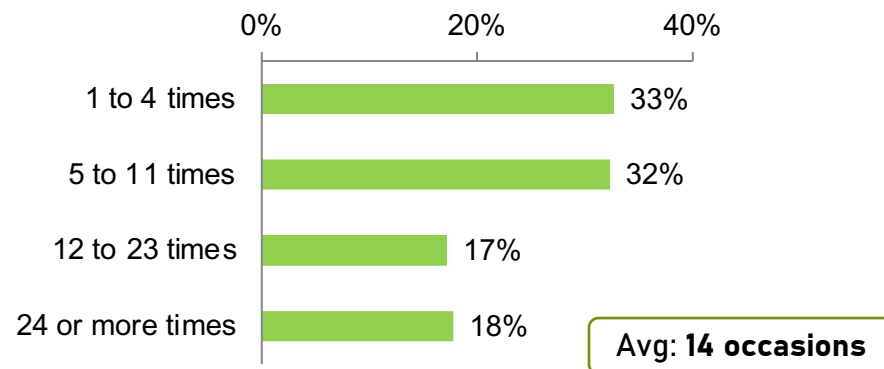
Used Your MSR(s) in the last 12 months?



MSR Use in Last 12 Months Compared to Previous 12 Months



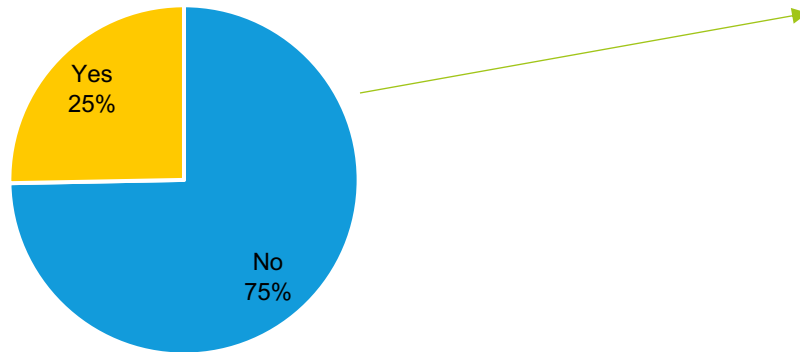
MSR Usage: Number of Times in Last 12 Months



- 88% of MSR owners used/shot their MSR(s) in the last 12 months. Compared to the 12 months before that, 41% said their MSR use was “about the same.” 38% said it was less.
- Of those who used their MSR, the average number of times respondents used it in the last 12 months is 14.

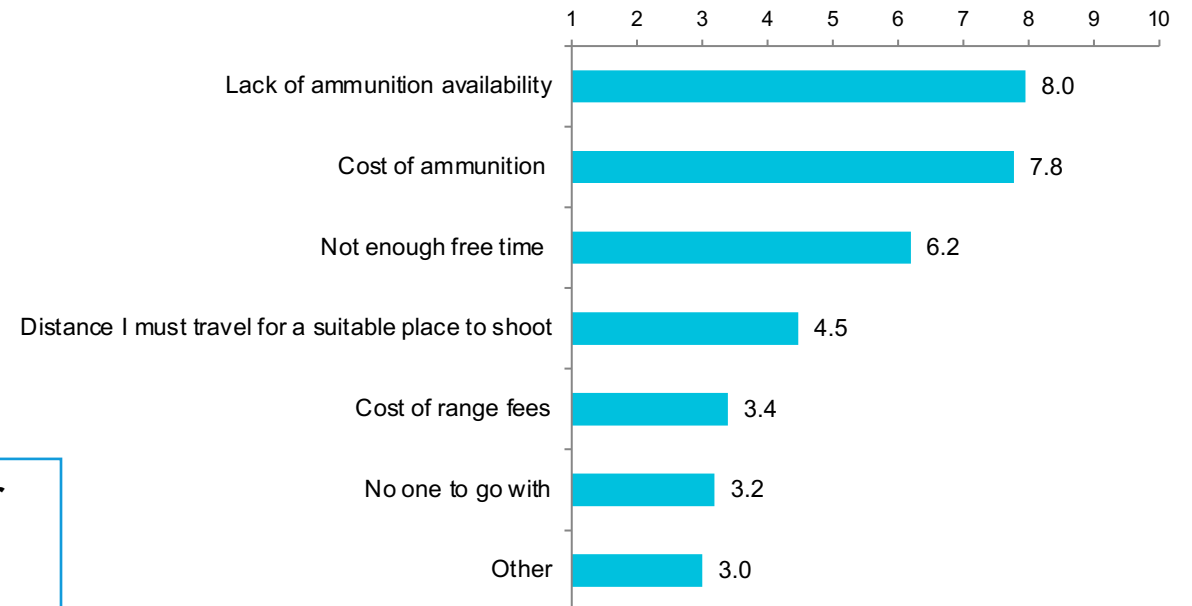
## MSR Usage and Activities: Factors Preventing Usage

Used MSR As Much As You Would Like in Last 12 Months?



- 3 out of 4 MSR owners said they did not use their MSR as much as they would like over the past 12 months.
- The most important factors preventing owners from using their MSR more are related to ammunition: lack of availability and cost.

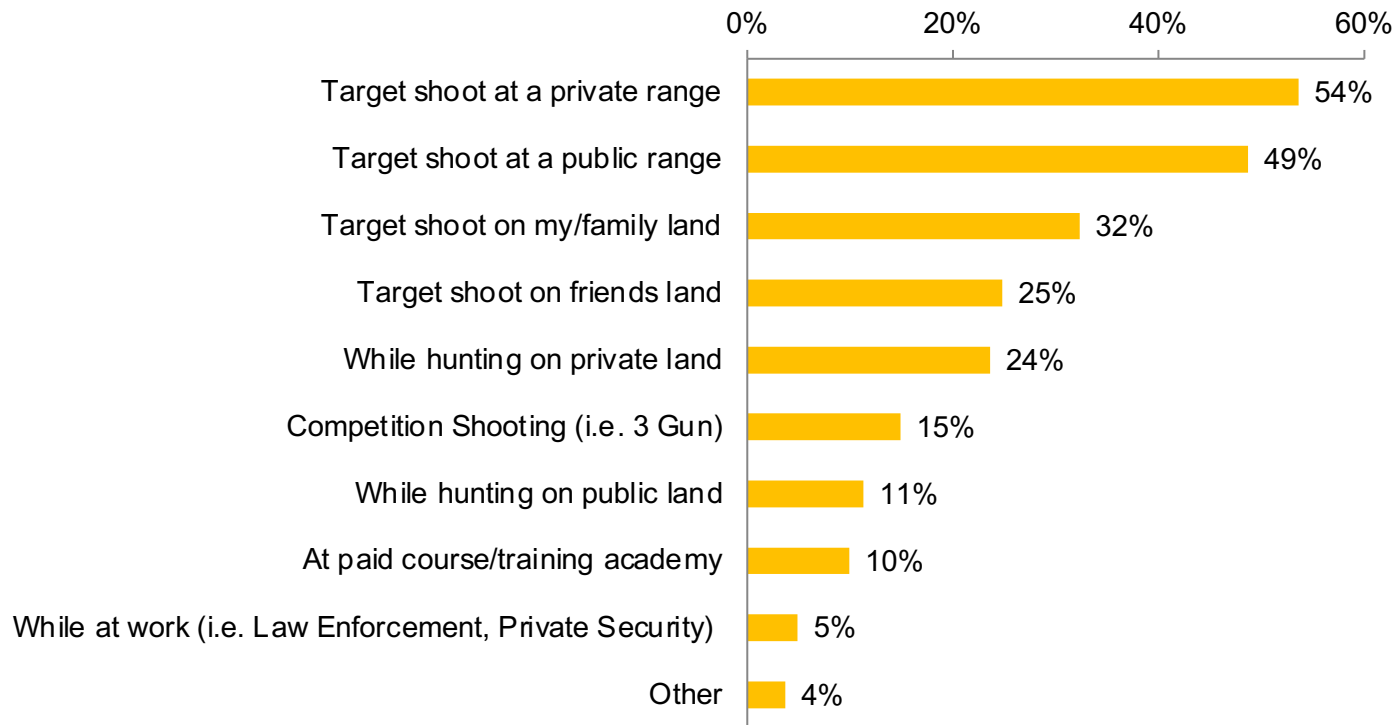
Rating: How important are the following in preventing you from using your MSR as much as you'd like?



Scale:  
1=Not at all important, 10= very important

# MSR Usage and Activities

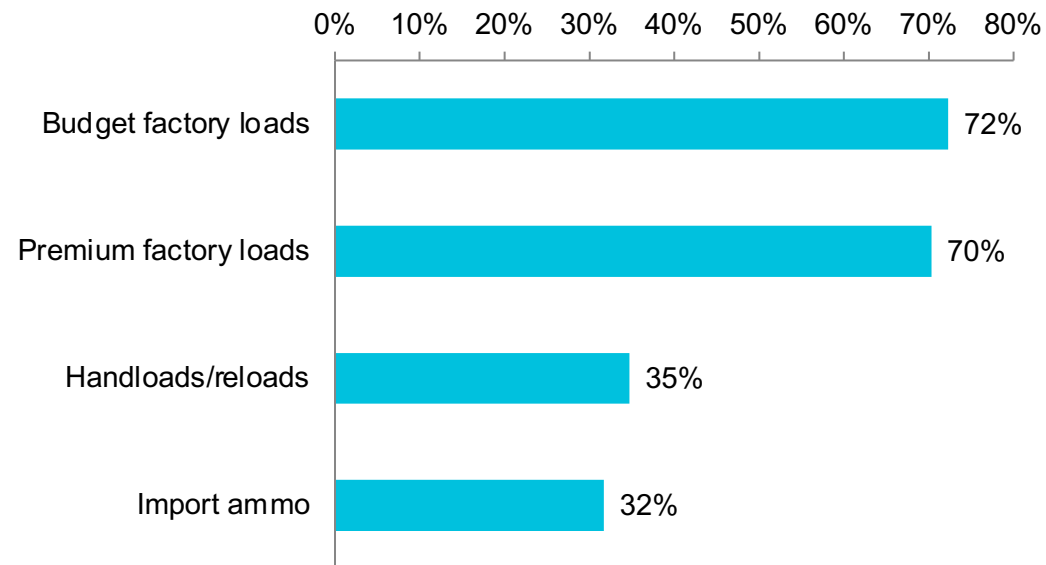
**MSR Activities in Last 12 Months**



• The most popular activity by MSR owners is target shooting; 54% said they did at a private range, while 49% said they did at a public range.

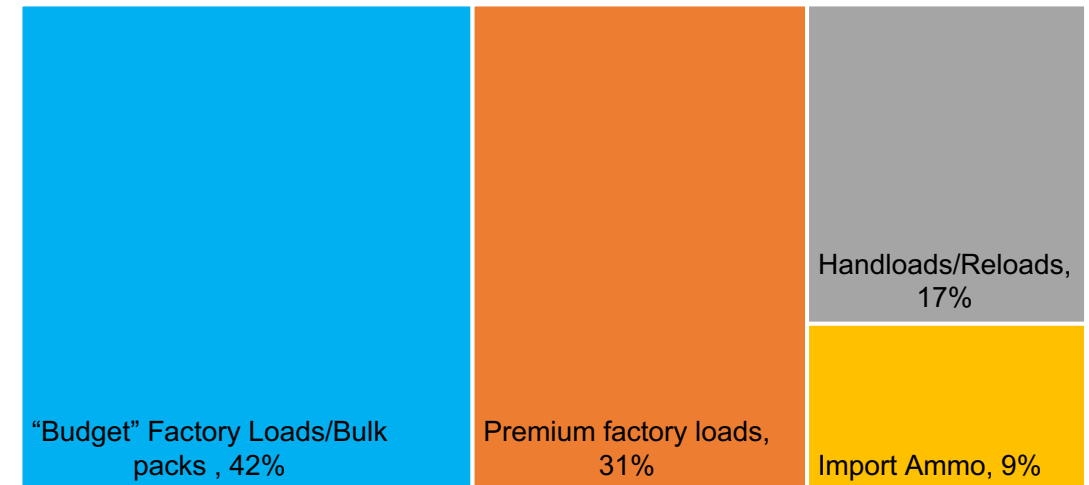
## MSR Usage and Activities: Ammunition Used - Type

**Ammo Used (% of MSR Owners Using)**



- Across all MSR owners, roughly 70% of used budget factory loads and premium factory loads in the last 12 months.

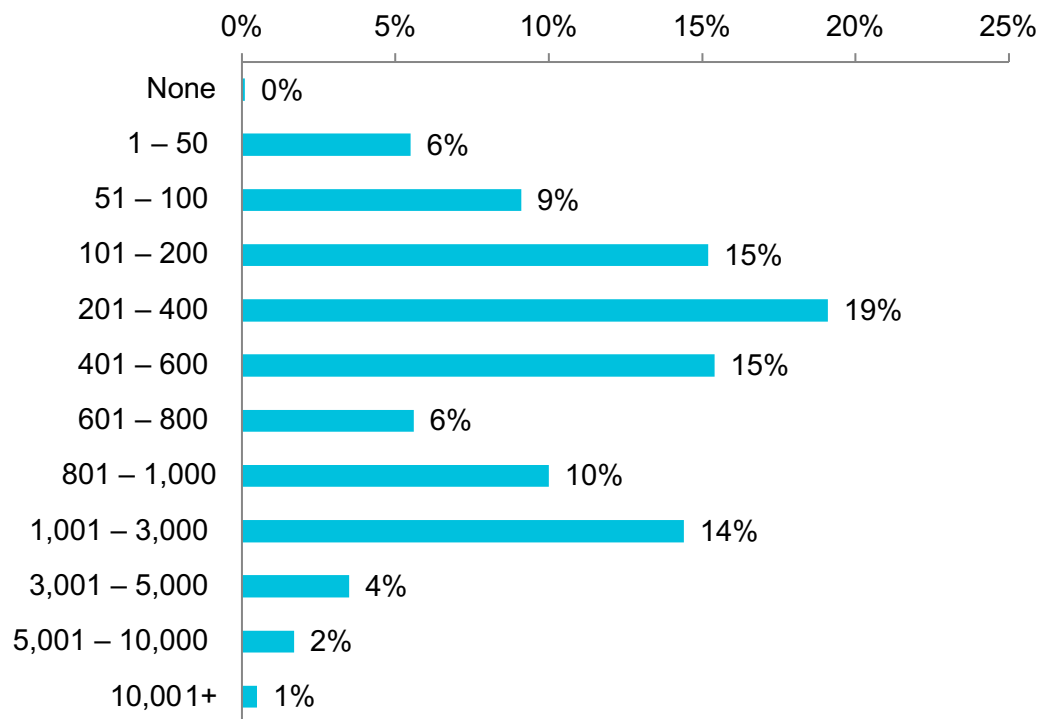
**Ammo Profile - Average % Breakdown Per MSR Owner**



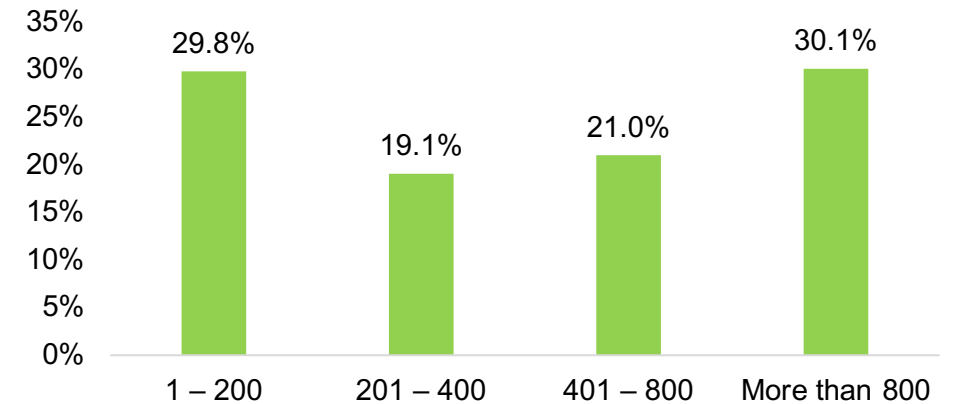
- The ammo breakdown per MSR owner shows that 42% of ammo they used in the past 12 months are factory loads/bulk packs.

## MSR Usage and Activities: Ammunition Used - Amount

Rounds of Ammo Fired Through MSR In Last 12 Months



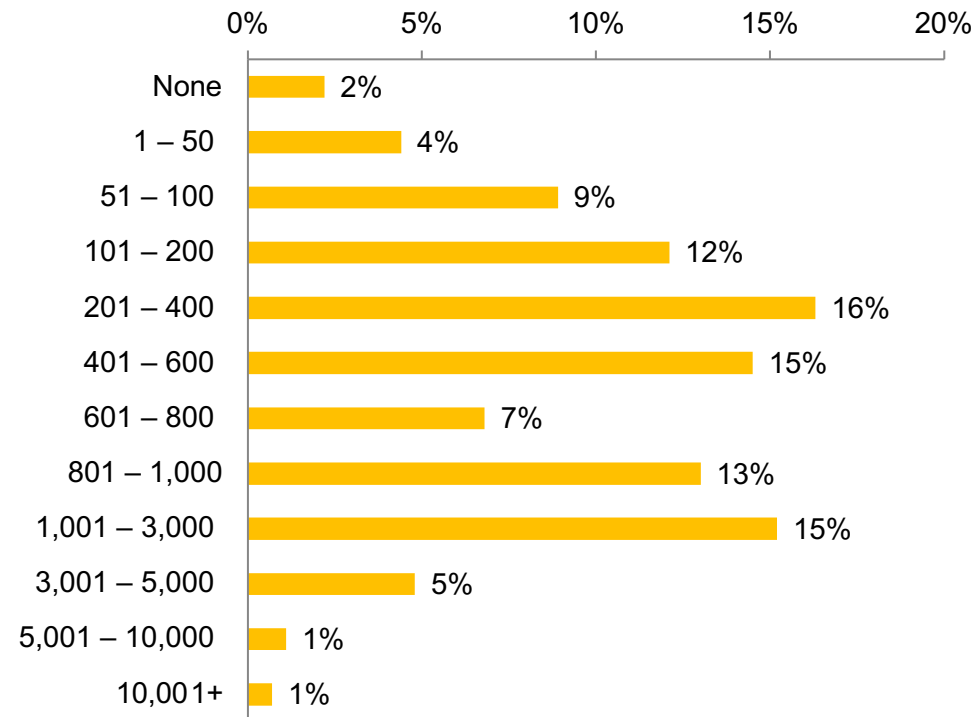
Rounds of Ammo Fired (Grouped)



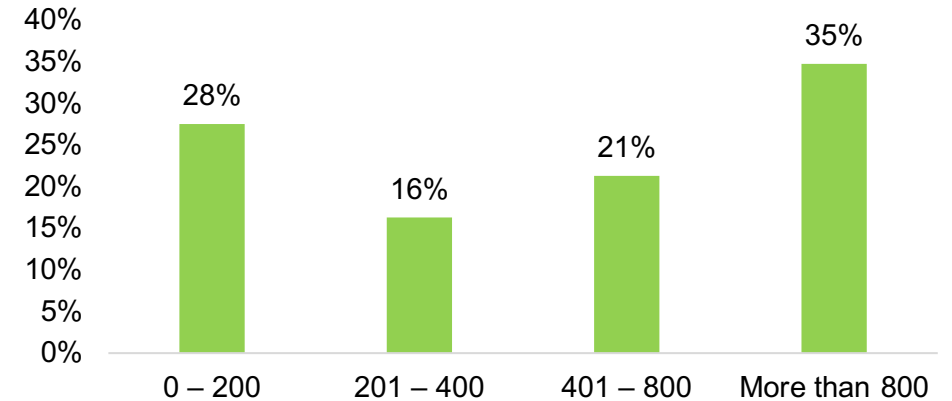
- The average number of rounds used by MSR owners in the last 12 months is 907.
- Approximately half of MSR owners fired between 1 and 400 shots in the last 12 months, the other half shooting more than 400 rounds.

## MSR Usage and Activities: Ammunition Used – Projected Amount

Projected Rounds of Ammo Fired Through MSR In Next 12 Months



Projected Rounds of Ammo Fired (Grouped)

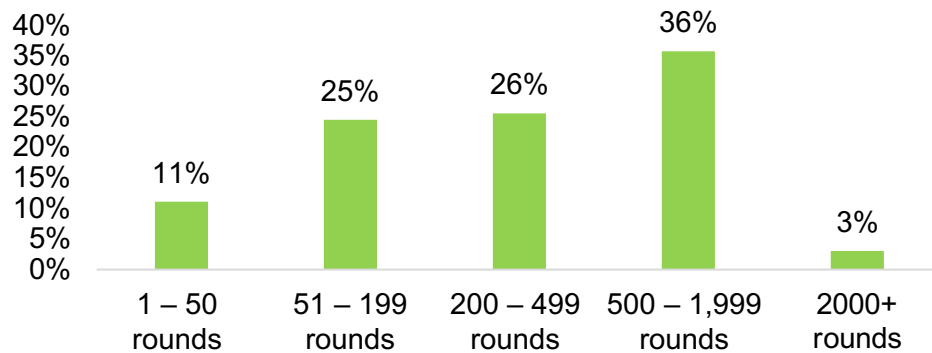


- The average number of rounds that MSR owners project they will fire in the next 12 months is 984.
- Over one-third of MSR owners anticipate firing more than 800 rounds of ammunition in the next 12 months.

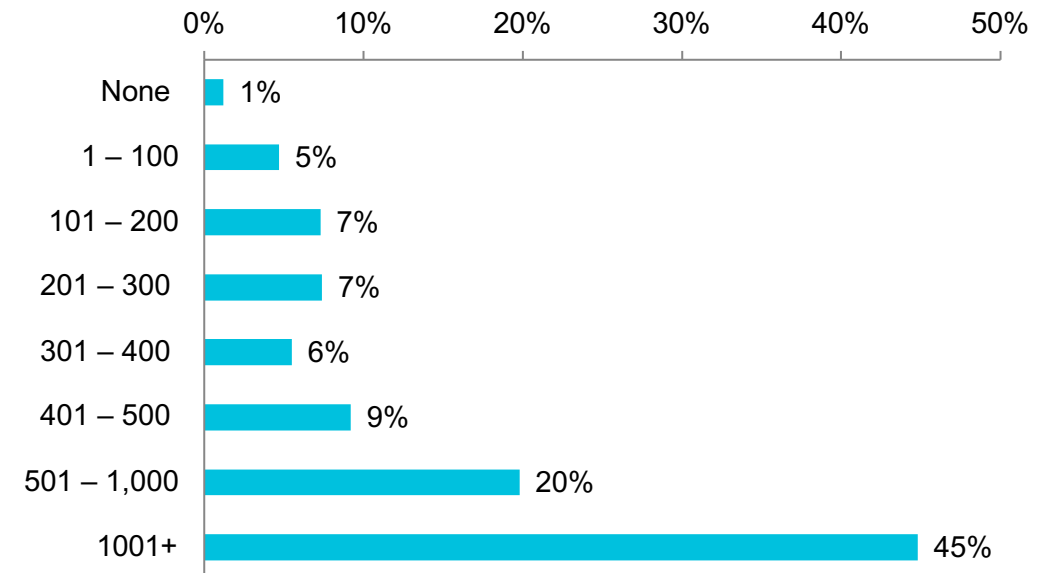


## MSR Usage and Activities: Ammunition Quantity Purchased, Kept On Hand

Quantity of MSR Ammo Typically Purchased



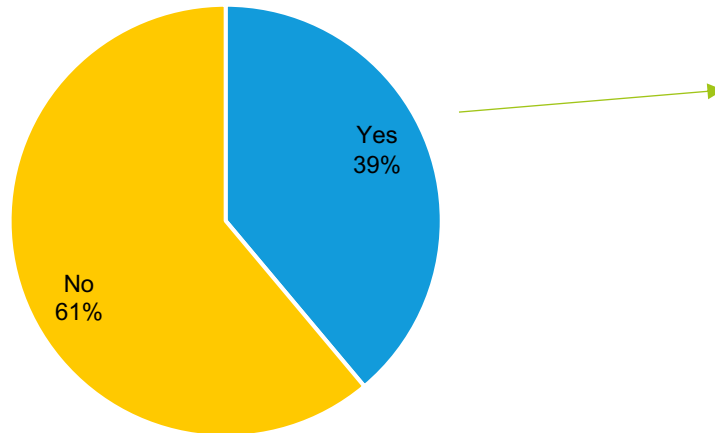
Number of MSR Rounds Owned/Kept on Hand



- When purchasing ammunition, the average number of ammo rounds typically purchased by MSR owners is 637.
- 36% of MSR owners typically purchase between 500-1,999 rounds.
- Nearly half of MSR owners own/keep more than 1,000 rounds on hand.

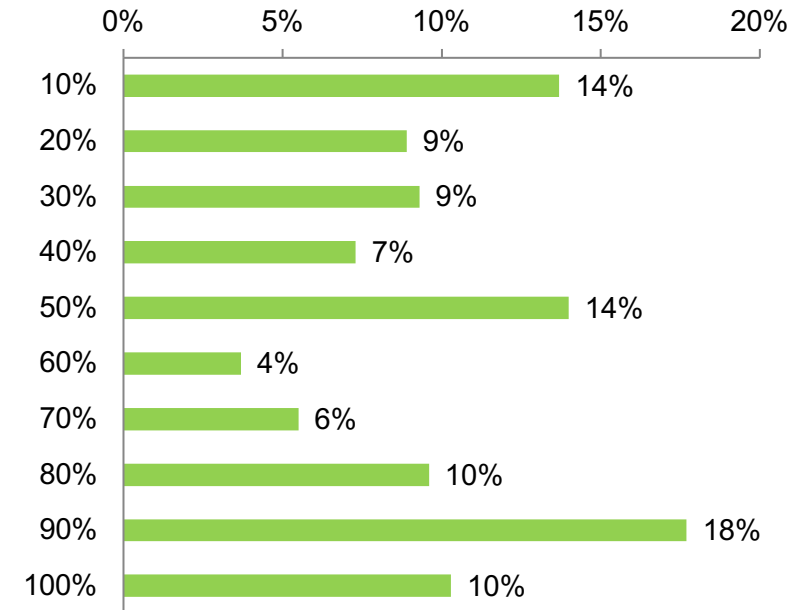
## MSR Usage and Activities: Ammunition Reloads

Do you reload your own ammunition?

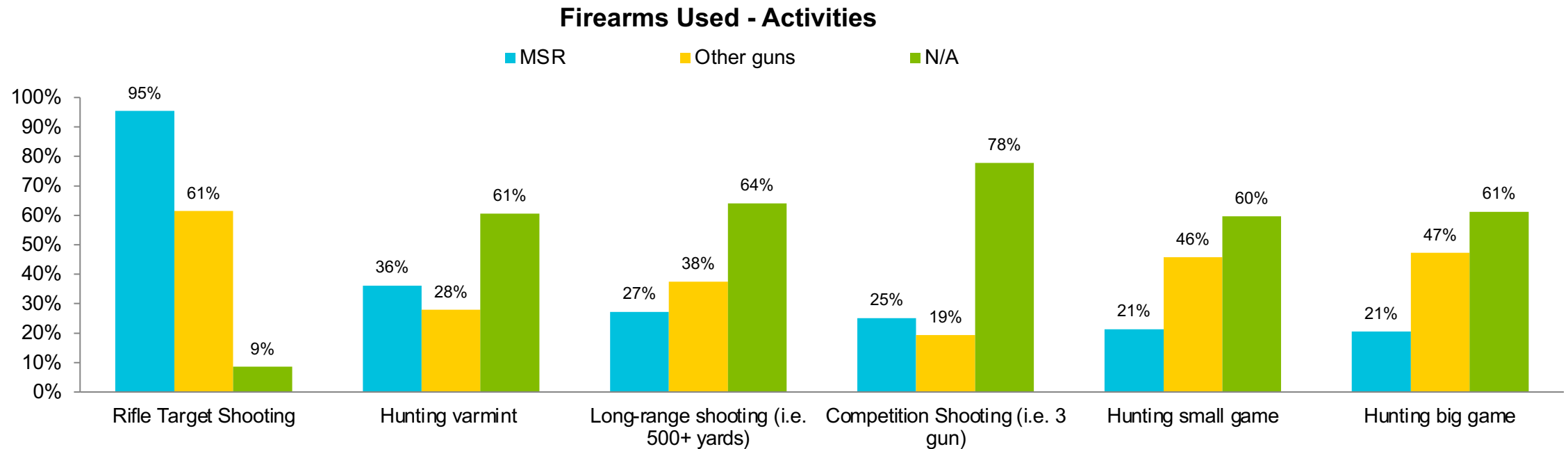


- 6 out of 10 MSR owners do not reload their own ammunition.
- Of the 40% who do, the average percentage of their ammunition they reload is 53%.

Percentage of Ammo Reloaded



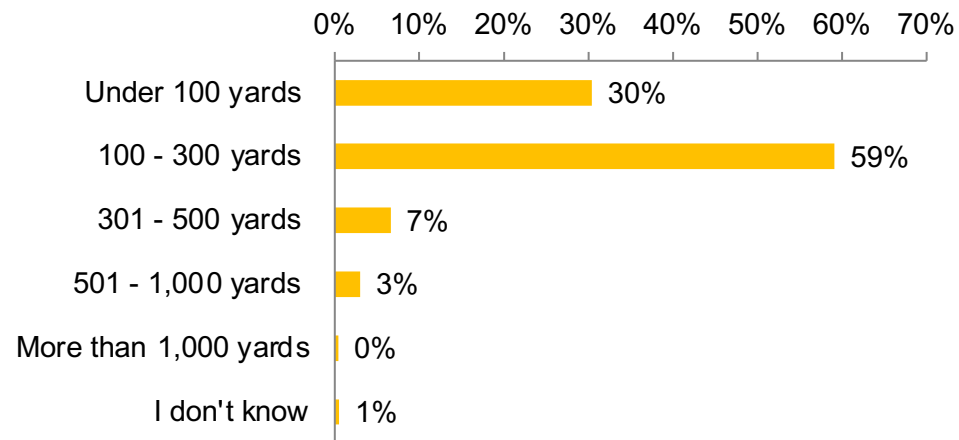
## MSR Usage and Activities: Firearms Used



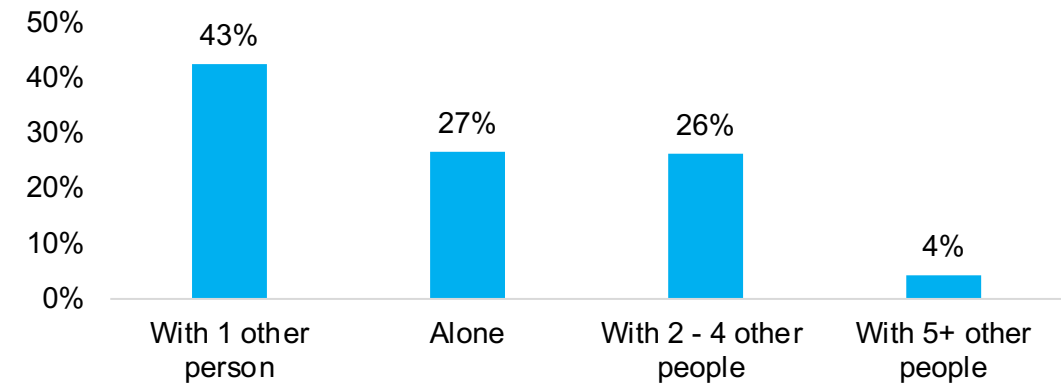
- 95% of respondents used their MSR to rifle target shoot.

## MSR Usage and Activities: Target Shooting/Hunting

**Typical Distance When Using MSR for Hunting/Target Shooting**



**Target Shooting - Do you generally go alone or with others?**



- The most frequent distance that MSR owners hunt/target shoot at is 100-300 yards.
- 43% generally go target shooting with one other person. 27% go alone.

## Respondent Profile: Favorite Part About Owning MSR

Respondents were asked in an open-ended question to explain their favorite part of owning an MSR. Common themes in answers include:

### **FUN/ENJOYMENT OF SHOOTING**

- General enjoyment of shooting; relaxing
- Challenge of target shooting, hunting; improving
- Camaraderie with others, quality time with loved ones
- Ability to customize/building from parts

### **EXERCISING FREEDOM/2A RIGHTS**

- Represents freedom and America
- Tradition and history

### **EASE OF USE**

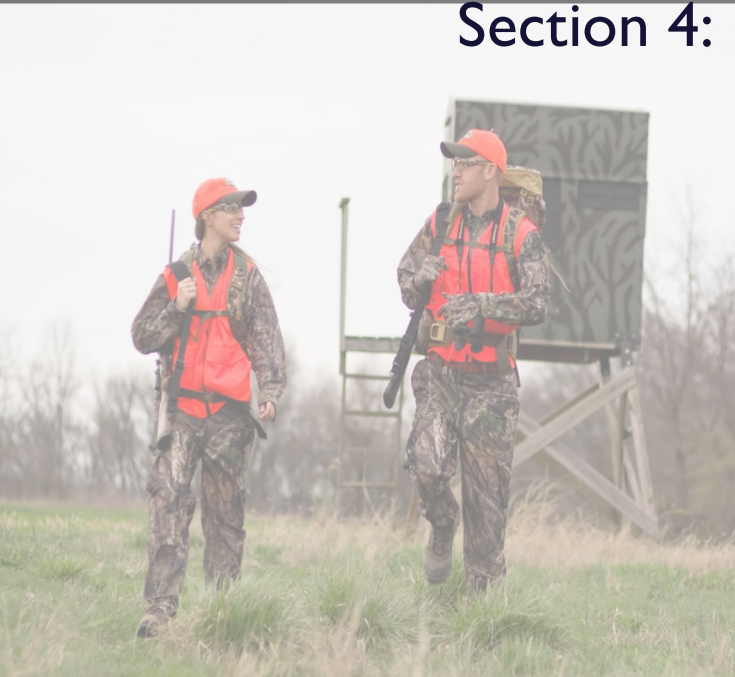
- Lightweight
- Low-recoil
- Accurate, versatile
- Instills confidence

### **RELIABLE**

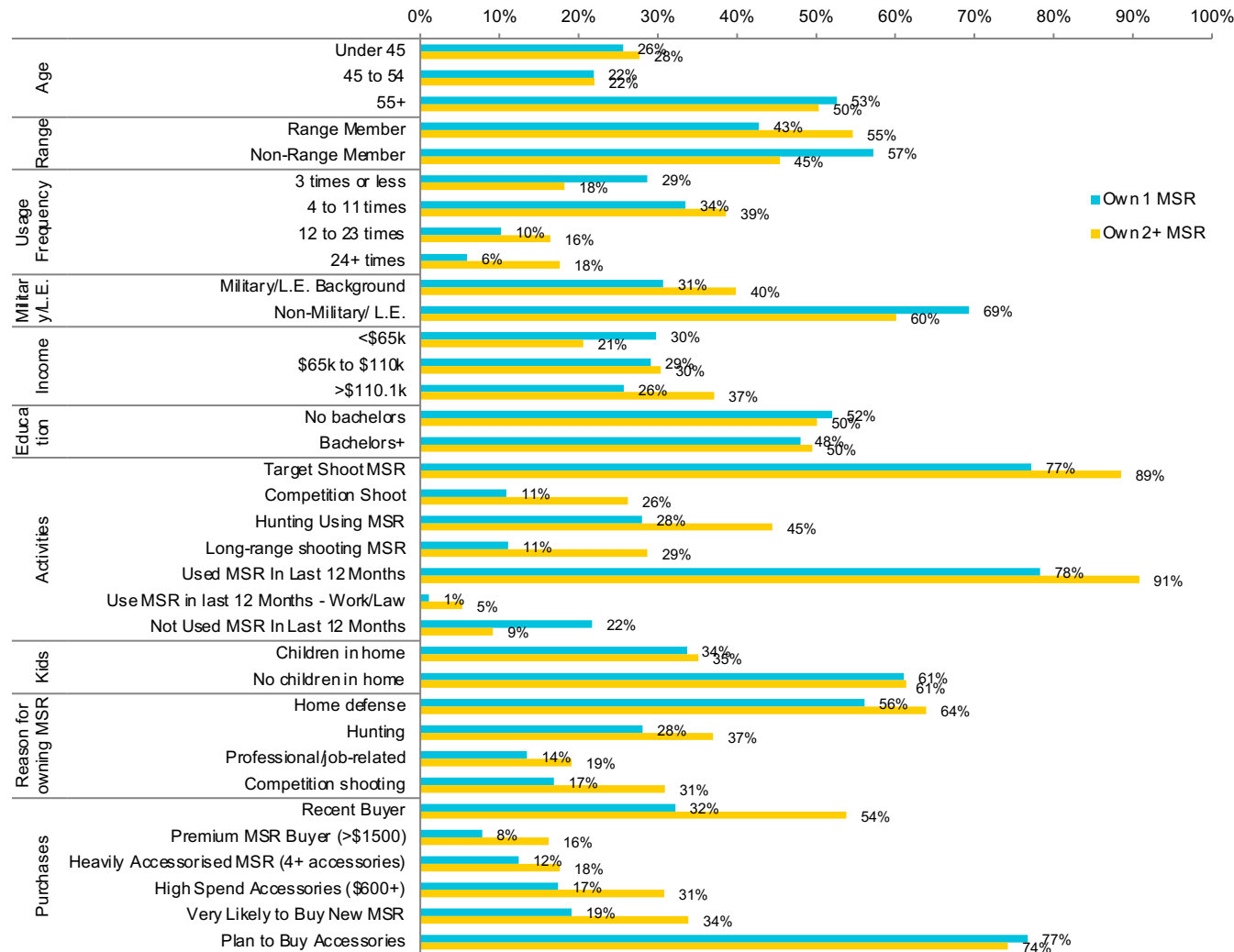
- Craftsmanship and engineering
- Peace of mind – excellent for home defense



## Section 4: MSR Owner Profiles



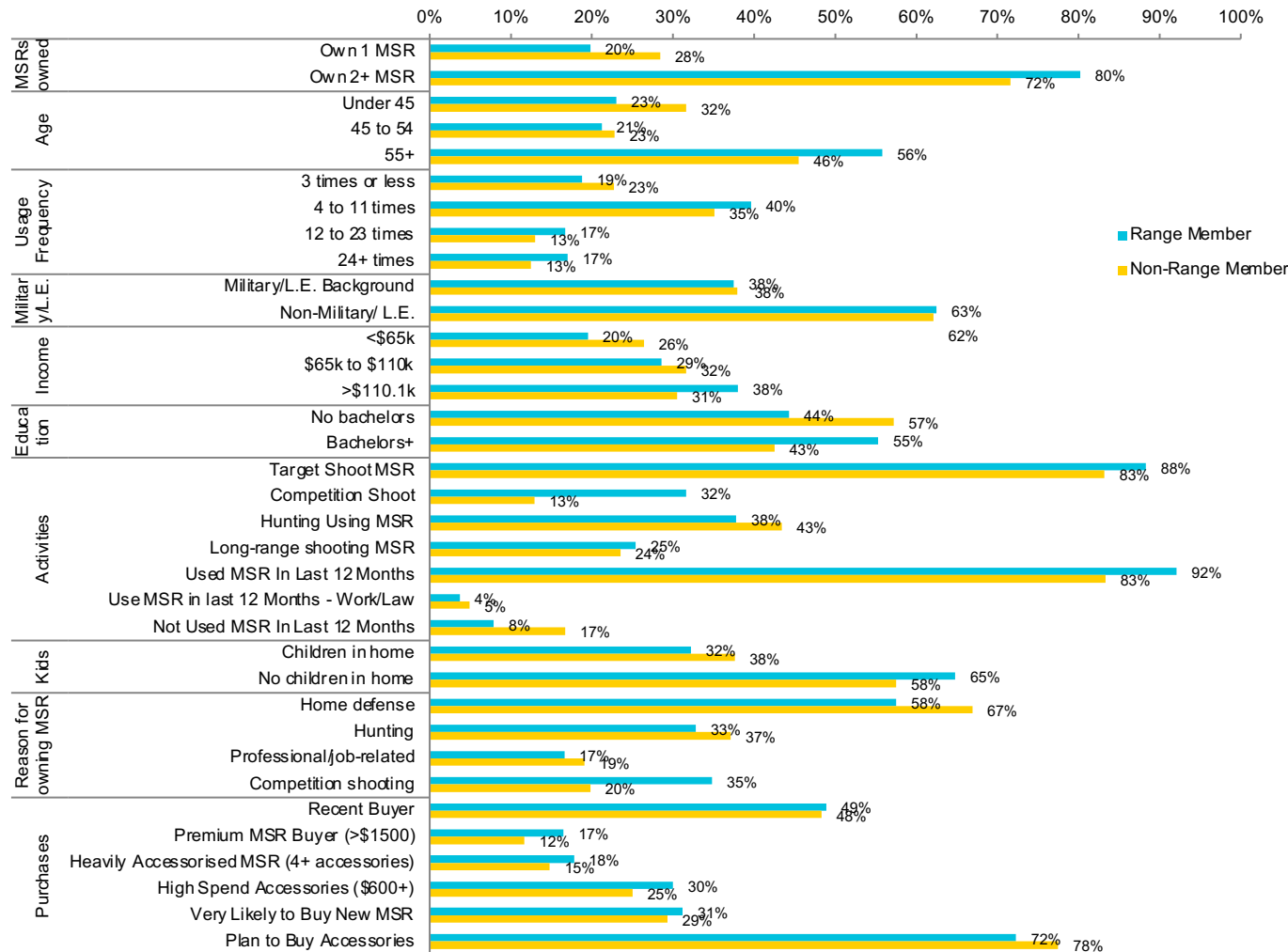
## Profile: Single MSR Owners vs Multi-MSR Owners



Multiple-MSR owners are relatively more likely to be:

- Ages 55+
- Non-range members
- Those who used MSR 11 or less times in the last 12 months
- Not from a military/law enforcement background
- Those with an income under \$65k, though there is fairly even distribution across ranges
- Users of MSR for target shooting
- Those with no kids at home
- Owners of a MSR(s) for home defense purposes
- Those who plan to buy MSR accessories in the next 12 months

## Profile: Range vs Non-Range Member

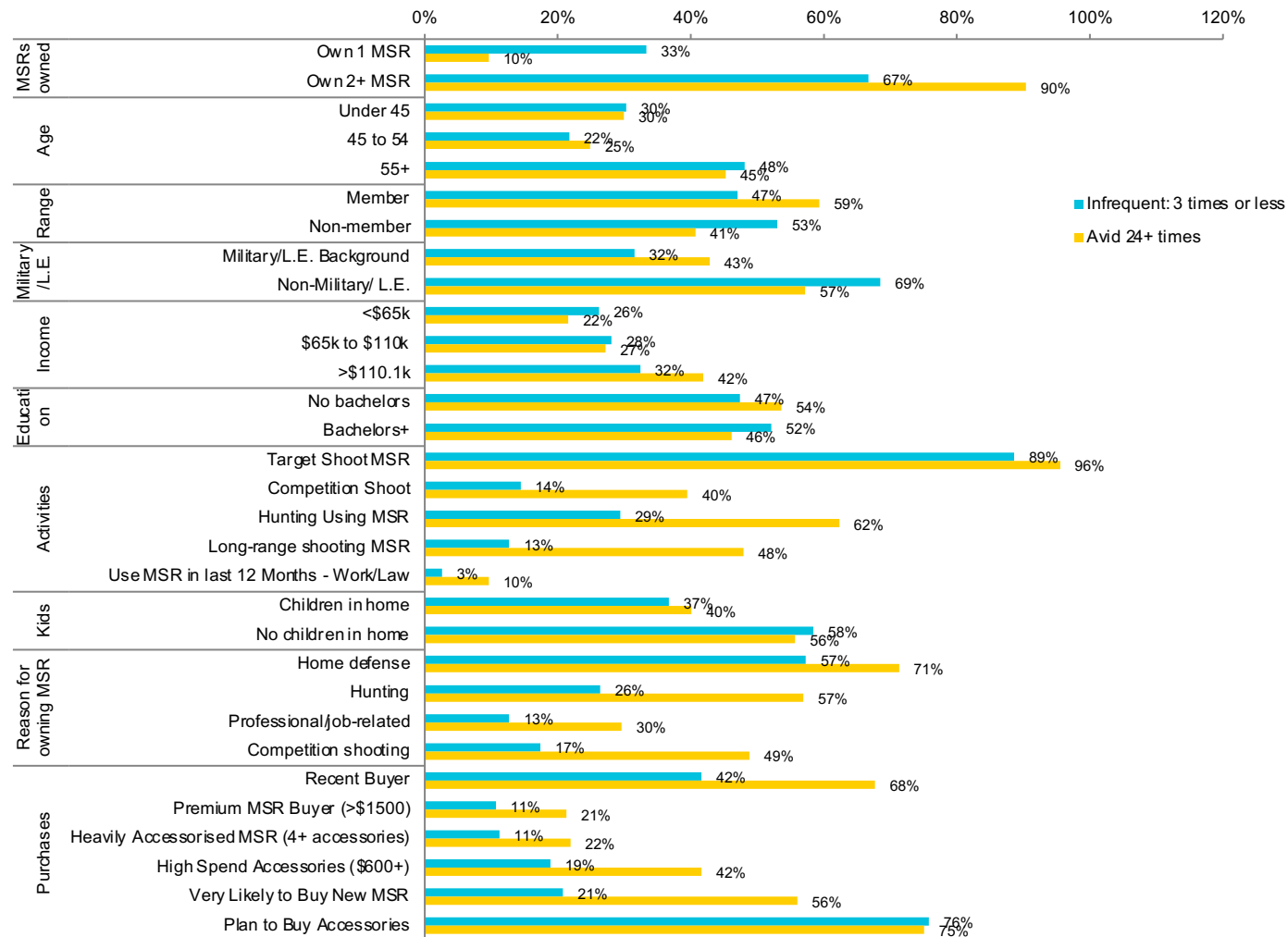


MSR owners who are shooting range members are relatively more likely to be:

- Owners of multiple MSRs
- Ages 55+
- Occasional users of MSRs – 4 to 11 times times in the last 12 months
- Not from a military/law enforcement background
- Those with an income over \$110k
- Users of MSR for target shooting
- Those with no kids at home
- Owners of a MSR(s) for home defense, hunting, competition shooting
- Those who plan to buy MSR accessories in the next 12 months



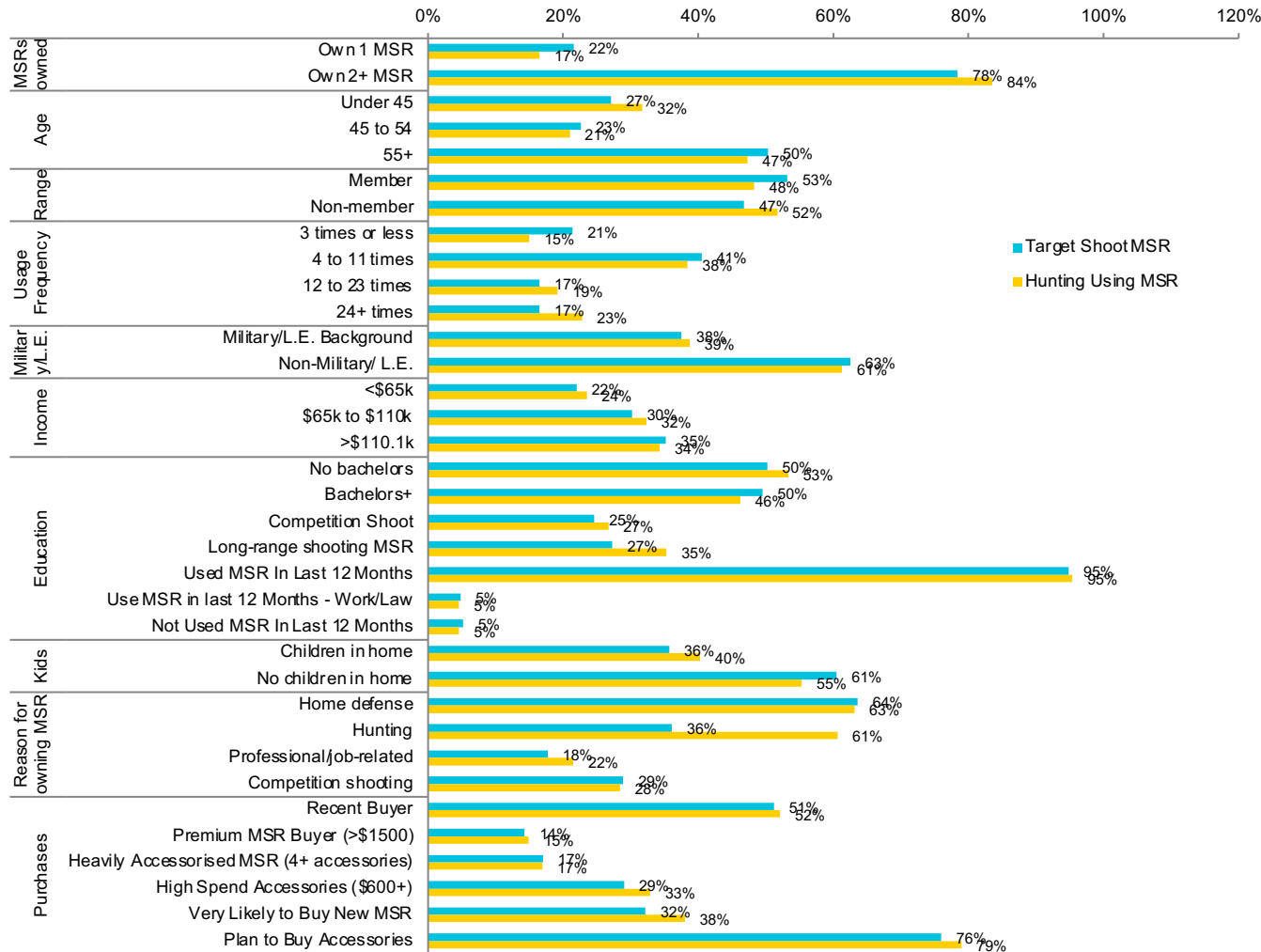
## Profile: Infrequent vs Avid MSR Users



Avid MSR owners are relatively more likely to be:

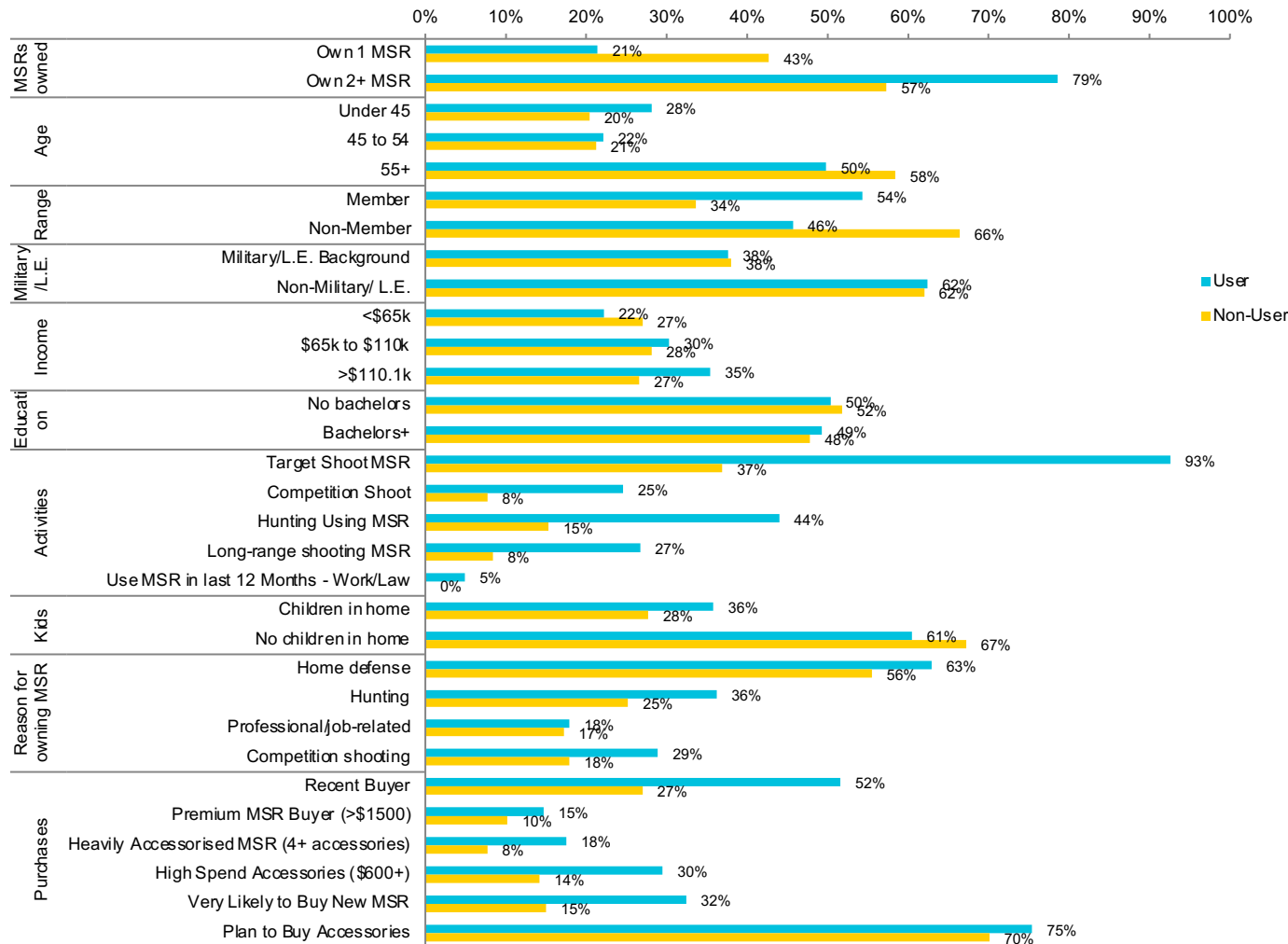
- Owners of multiple MSRs
- Ages 55+
- A member of a shooting range
- Not from a military/law enforcement background
- Those with an income over \$110k
- Users of MSR for target shooting and hunting
- Those with no kids at home
- Owners of a MSR(s) for home defense, hunting, competition shooting
- Those who recently bought a MSR in 2020 or 2021, plan to buy accessories or a new MSR in the next 12 months

# Profile: Target Shooters vs Hunters



- Target shooters and hunters have similar profiles. Hunters are slightly more likely to be:
- Owners of multiple MSRs
  - Under 45 years old
  - A frequent or avid user of MSRs
  - Those without a bachelors degree
  - Users of MSR for target shooting and hunting
  - Those with kids at home
  - Owners of a MSR(s) for home defense, hunting, competition shooting
  - Those who are likely to buy a new MSR in the next 12 months

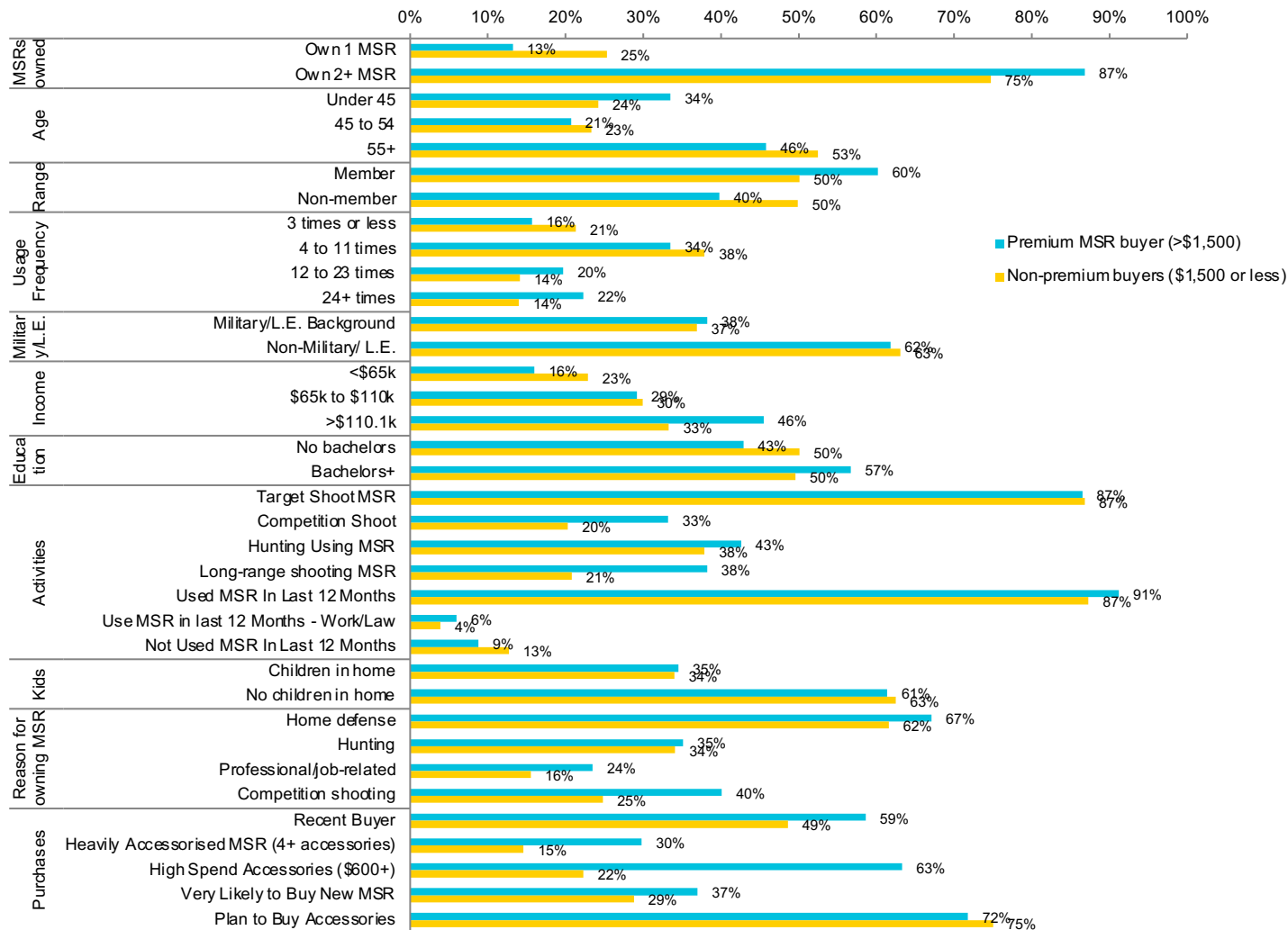
## Profile: Owners Who Haven't Used MSR In Last 12 Months



Non-MSR users are relatively more likely to be:

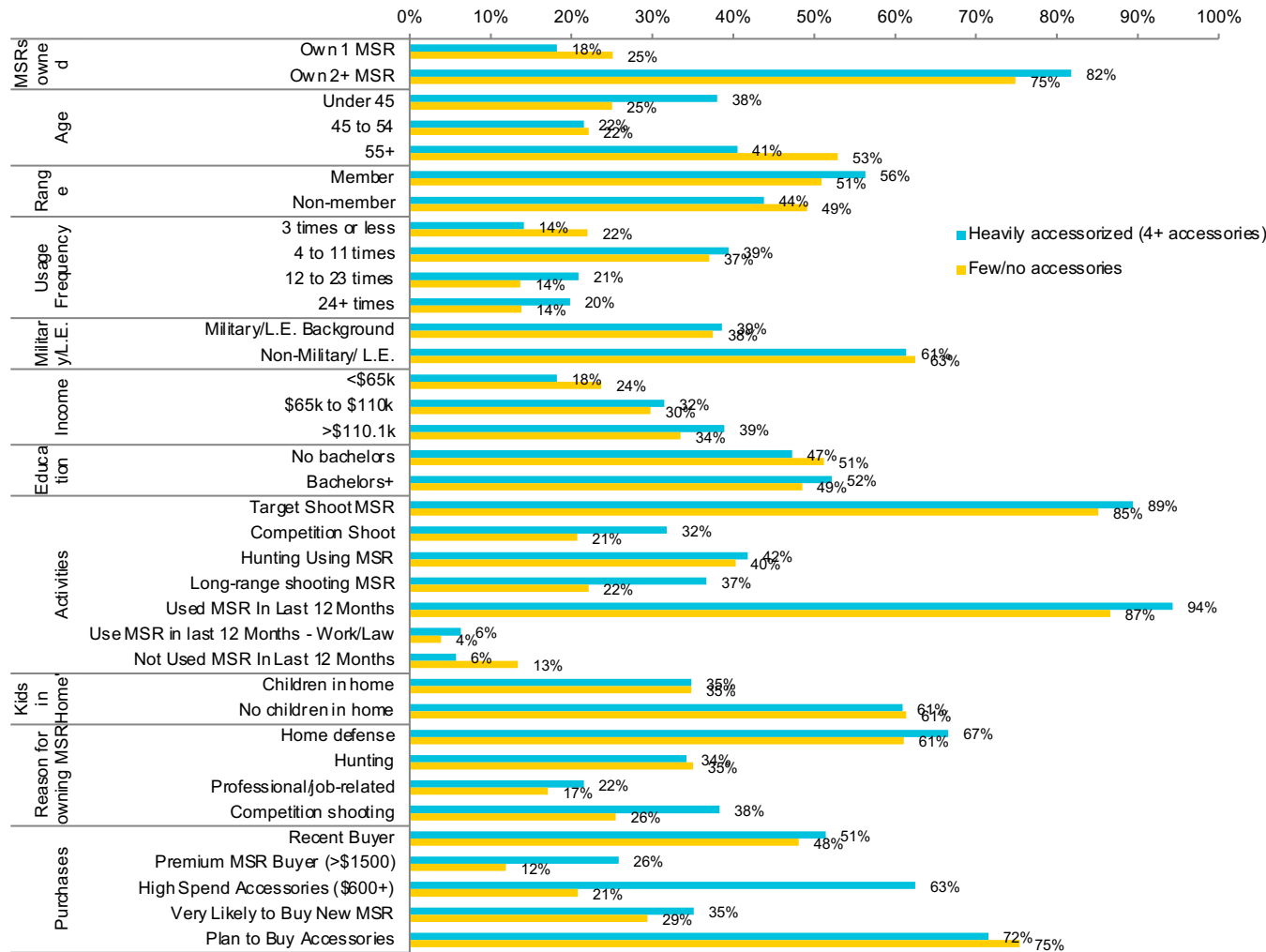
- Owners of multiple MSRs
- Ages 55 & older
- Not a member of a shooting range
- Those with a household income of less than \$110k
- Those with no kids at home
- Owners of a MSR(s) for home defense, some hunting
- Those who plan to buy accessories for their MSR in the next 12 months

## Profile: Premium Buyers (>\$1500 spent on MSR) vs Non-Premium Buyers



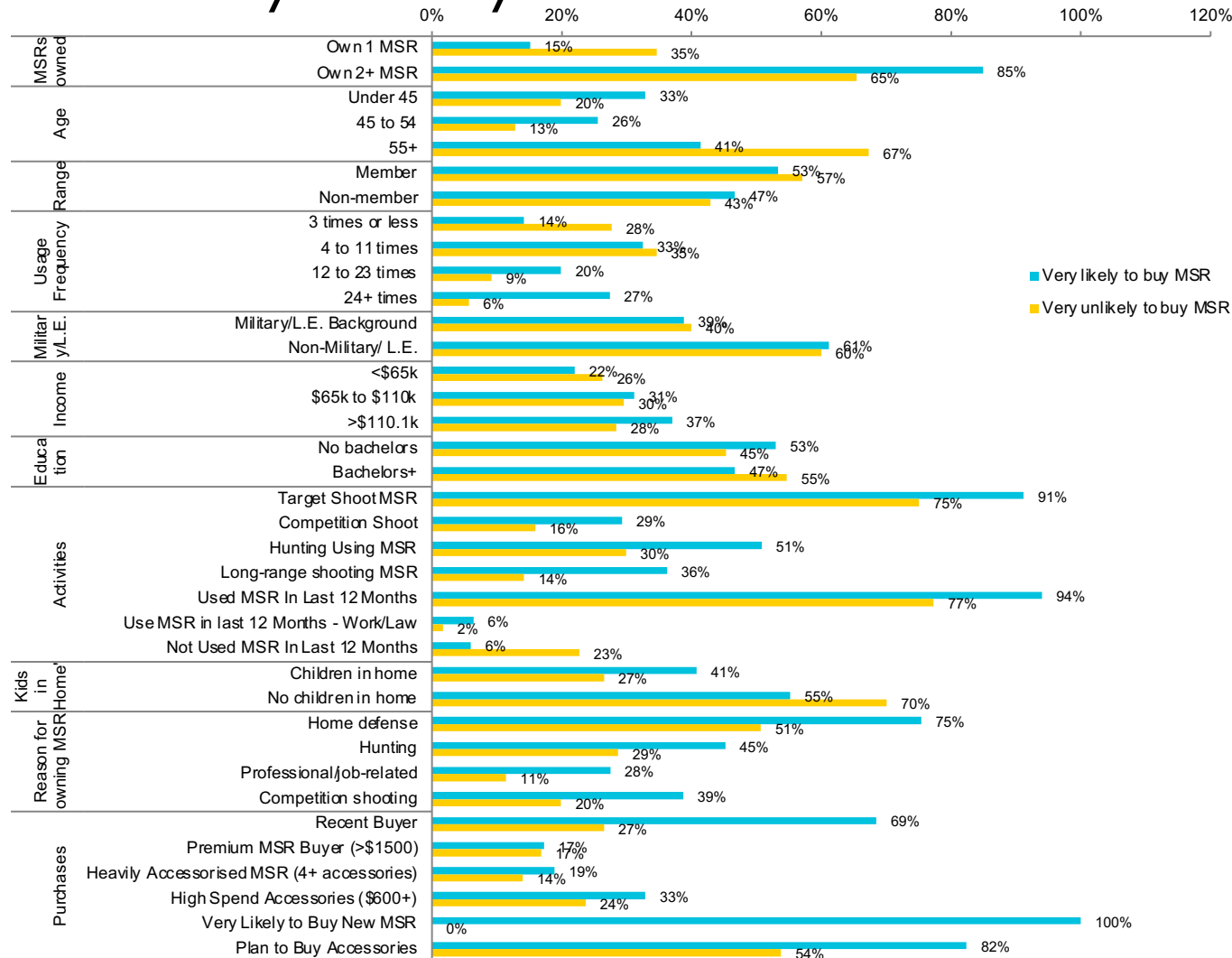
- Premium MSR buyers are relatively more likely to be:
- Owners of multiple MSRs
  - Ages 55 & older
  - A member of a shooting range
  - Regular users of MSRs, using 4 to 11 times a year
  - Those with a household income greater than \$110k
  - With a bachelors degree or more
  - Using MSR for target shooting, competition shooting, and hunting.
  - Owners of a MSR(s) for home defense, competition shooting, hunting
  - Recent buyers (purchased MSR in 2021 or 2020), high-spenders on accessories (\$600+) and very likely to buy new MSR in the next 12 months.

## Profile: Heavily Accessorized (4+ accessories) MSR Owners



- Owners of heavily accessorized MSRs are relatively more likely to be:
- Owners of multiple MSRs
  - Under 45 years old
  - A member of a shooting range
  - Frequent/avid users of MSRs
  - Those with a household income greater than \$110k
  - With a bachelors degree or more
  - Using MSR for target shooting, competition shooting, and hunting.
  - Owners of a MSR(s) for home defense, competition shooting, hunting
  - Premium MSR buyers (>\$1500 spent on last MSR), high-spenders on accessories (\$600+) and very likely to buy new MSR in the next 12 months.

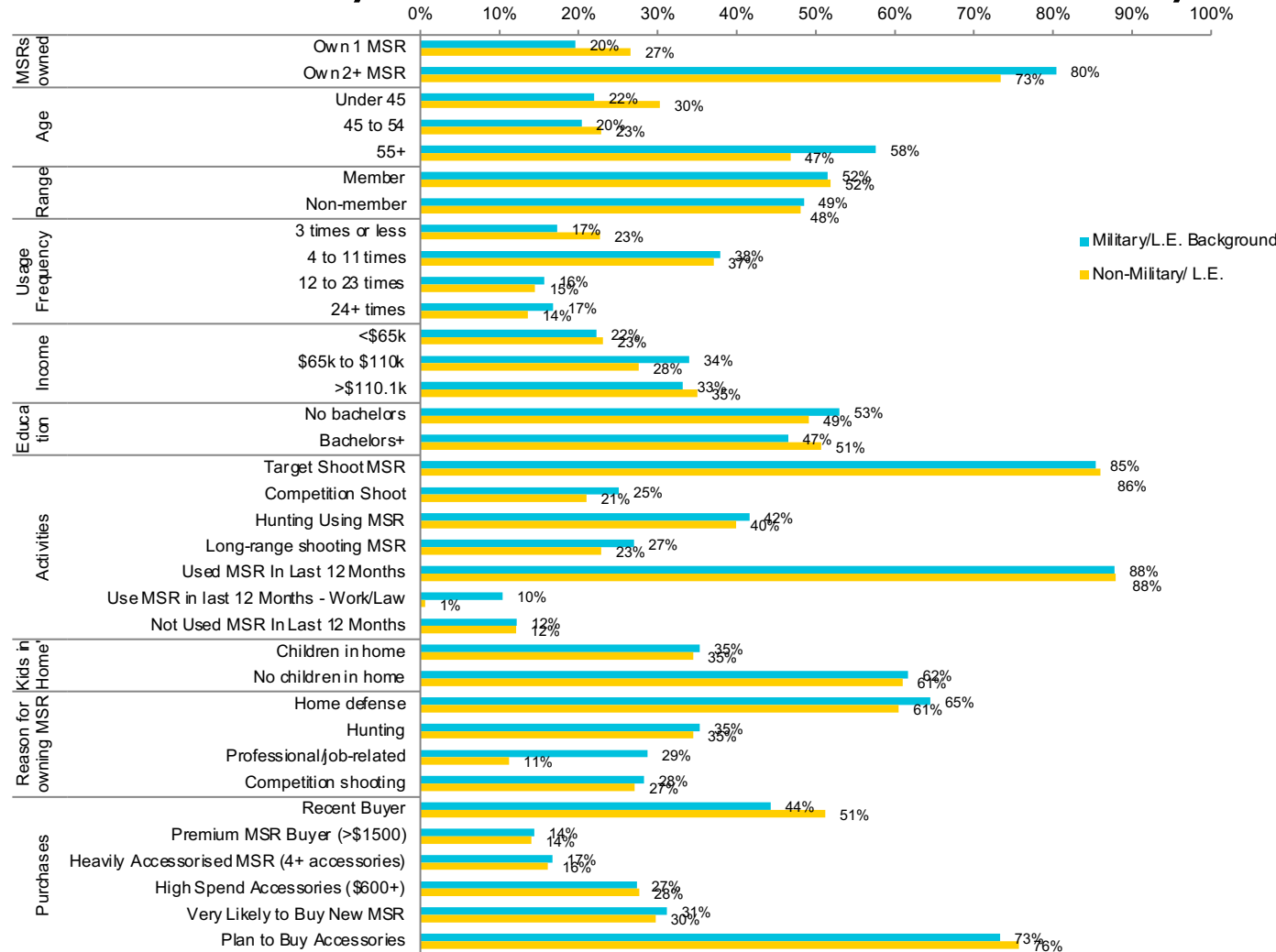
## Profile: Likely MSR buyers



Likely MSR buyers are relatively more likely to be:

- Owners of multiple MSRs
- Under 45 years old
- Frequent/avid users of MSRs
- Those with a household income greater than \$110k
- With a bachelors degree or more
- Using MSR for target shooting, competition shooting, and hunting.
- Owners of a MSR(s) for home defense, competition shooting, hunting
- Premium MSR buyers (>\$1500 spent on last MSR), high-spenders on accessories (\$600+) and very likely to buy new MSR in the next 12 months.

# Profile: Military/Law Enforcement vs Non-Military/Law Enforcement

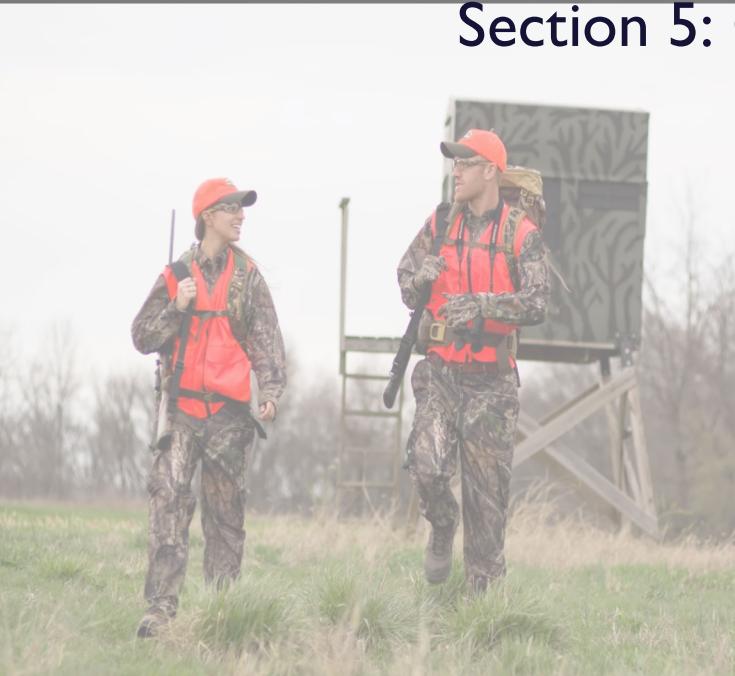


MSR owners with a military/law-enforcement background are relatively more likely to be:

- Owners of multiple MSRs
- 55 years old or older
- Frequent/avid users of MSRs
- Those with a household income of \$65-\$110k
- Those without a bachelors degree or more
- Using MSR for competition shooting or work
- Owners of a MSR(s) for home defense or professional/job-related purpose



## Section 5: Clusters/Segmentation





## Clusters Analysis/Market Segmentation Explained

A Cluster Analysis is method used in market segmentation to help marketers identify specific consumer groups based on a specific set and sub-set of demographic and specific product usage patterns. Market segmentation means dividing the market into distinct groups of individual segments or clusters with similar wants or needs and behaviors.

A market segment or cluster is a sub-set of a people, in this case, MSR owners with one or more characteristics that cause them to demand similar product and/or services based on qualities of those products – such as usage activity and demographics. A true market segment meets all of the following criteria: it is distinct from other segments (different segments have different needs), it is homogeneous within the segment (exhibits common needs), and responds similarly to market stimulus and media.

In the MSR Study, we used the following variables to establish clusters:

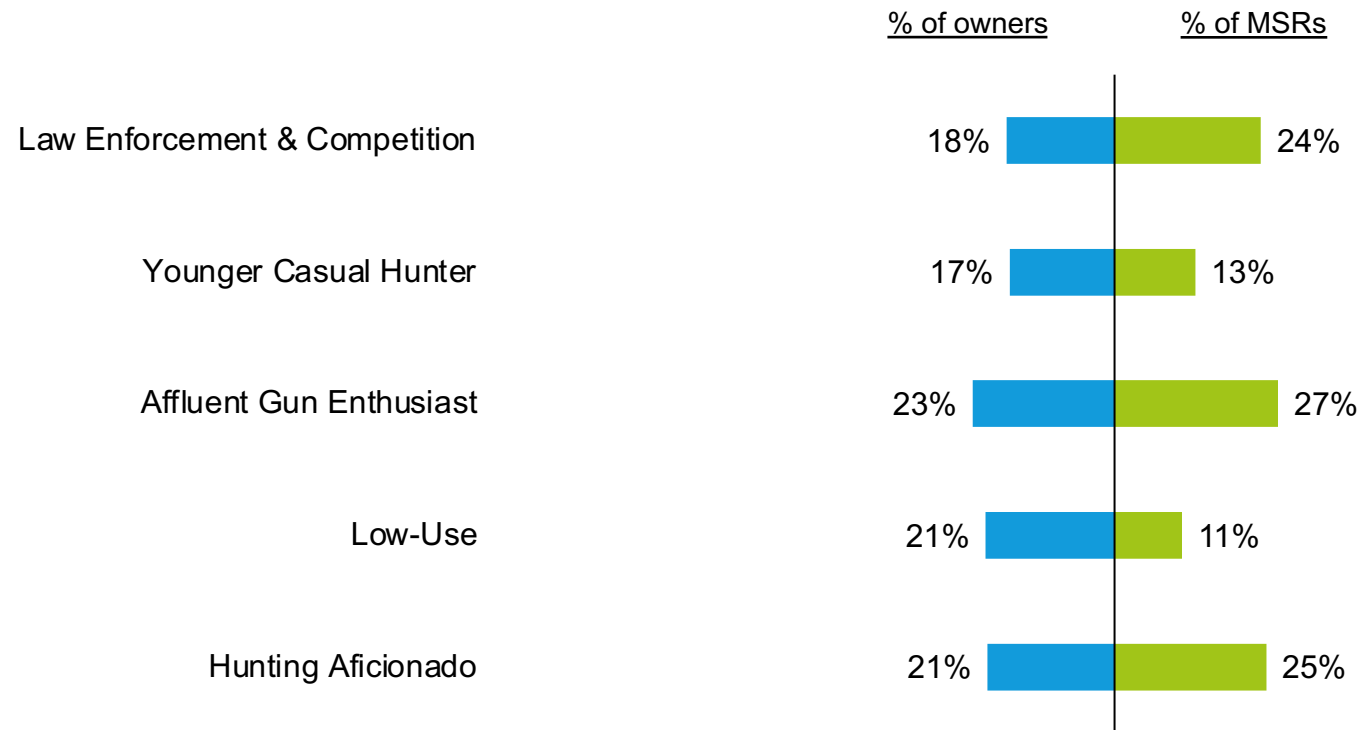
- Age
- Reasons for owning an MSR
- Annual Household Income
- Number of MSRs Owned
- Military/Law-Enforcement Affiliation

## MSR Clusters Summary

	1. Law Enforcement & Competition	2. Casual Hunter	3. Affluent Gun Enthusiast	4. Low-Use Home Defense	5. Hunting Aficionado
% of owners	18%	17%	23%	21%	21%
% of MSRs	24%	13%	27%	11%	25%
Number of MSRs Owned	3+	1	3+	1	3+
Age	Under 45	Under 45	45 to 54	55+	55+
Reasons for Owning a MSR	Professional use/job-related, competition	Hunting	Competition shooting	Home defense	Hunting
Annual Household Income	\$65 to \$110k	<\$65k	>\$110k	<\$65k	>\$110k
Military/Law-Enforcement Affiliation	Military/L.E.	Non-Military/L.E.	Non-Military/L.E.	Slightly more Military/L.E.	Slightly more non-Military/L.E.
MSR usage frequency (last 12 months)	More than 24 times	3 times or less	12 to 23 times	3 times or less	4 to 11 times
Range Member	Slightly more likely to be a range member	Non-member	Range Member	Non-member	Non-member
Education	Slightly more likely to not have a bachelors	No bachelors	Bachelors+	Both bachelors+/no bachelors	Bachelors+
Introduction to MSRs	Military/job, Other	Family/friends, personal interest	Shooting Range	Media/internet, military/job	Family/friends, personal interest
MSR Activities In Last Year	Use MSR for work, competition shooting	Hunting, long-range shooting	Competition shooting	Not Used MSR	Hunting
MSR Purchase Behavior	Very likely to buy MSR in next year, premium MSR buyer (>\$1500 for MSR), High-spend accessories, heavily accessorized, recent buyer	Very likely to buy MSR in next 12 months, plans on buying accessories	Premium MSR buyer (>\$1500), heavily accessorized MSR, high-spend on accessories, recent buyer	Slightly less likely to plan to buy accessories in next year	Recent buyer (obtained MSR in 2020 or 2021)
Place of Purchase	Mom & Pop Retail Store	Gun Show	Gun show, custom built	Chain/Big-Box Retail	Bought as kit/custom-built

# MSR Clusters Summary

## Clusters: Makeup of MSR Owners & Total MSRs Owned



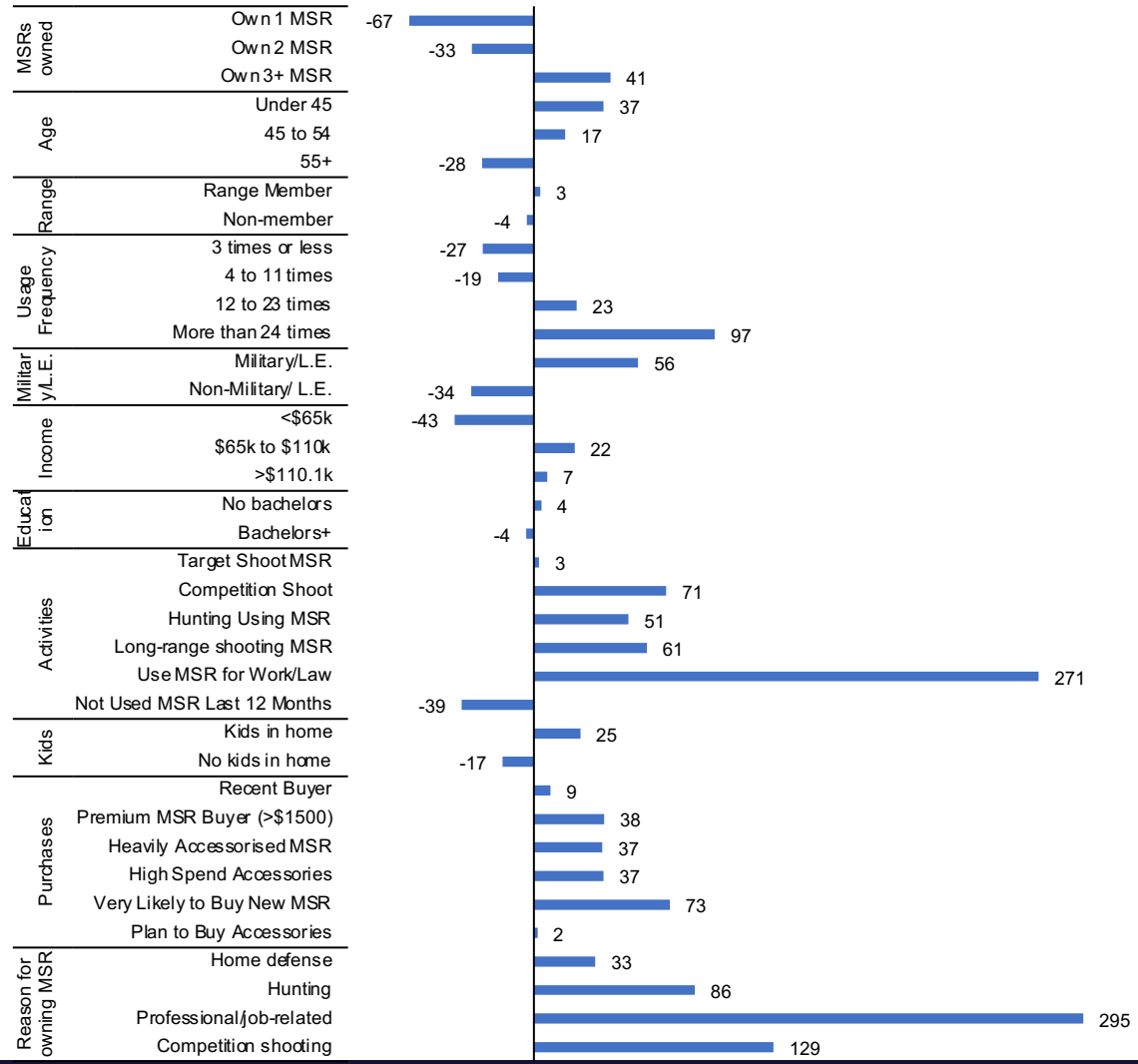
## How to Read Cluster Graphs

In the cluster graphs, the overall MSR sample profile is represented by a value of 0. The index is calculated by dividing the profile of the cluster (percentage of that cluster for a category) by the profile of the total MSR population. An index of 20 means the cluster is 20% more likely to exhibit that behavior or be a part of that group. For examples, MSR owners in Cluster 1 (Law Enforcement & Competition) have an index of 37 for ages under 45 —this means a MSR owner in this cluster is 37% relatively more likely to be under 45 years old compared to the overall MSR user population.

We describe this as a relative measure since it does not account for the percentage of the MSR owner population. Using our previous example, MSR owners in Cluster 1 (Law Enforcement & Competition) have an index of 37 for ages under 45; this does not mean MSR owners under 45 form the majority of Cluster 1, only that they're over-represented compared to the overall MSR owner population.

# Cluster 1: Law Enforcement & Competition

Index (All MSR Owners = 0)

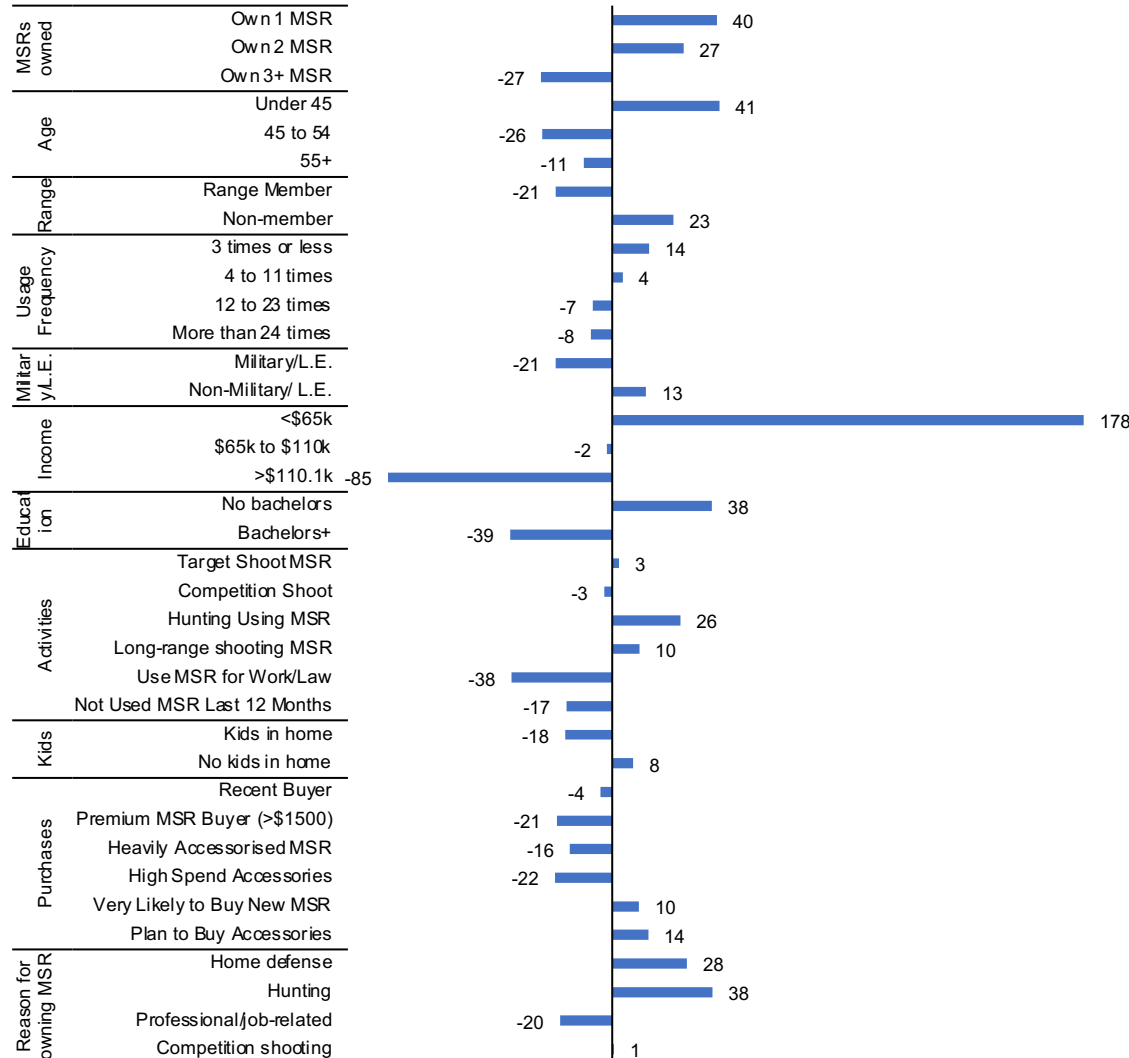


The Law Enforcement & Competition Cluster accounts for 18% of MSR owners. They tend to be:

- Owners of 3+ MSRs
- Under 45 years old
- Avid users of MSR
- From a military/law enforcement background
- Those with income of \$65k to \$110k
- Users of MSR for work/law, competition shooting
- Those with kids at home
- Very likely to buy new MSR in next 12 months, a premium buyer of MSRS (spending more than \$1500 most recently acquired MSR), high-spenders on accessories

## Cluster 2: Casual Hunter

Index (All MSR Owners = 0)

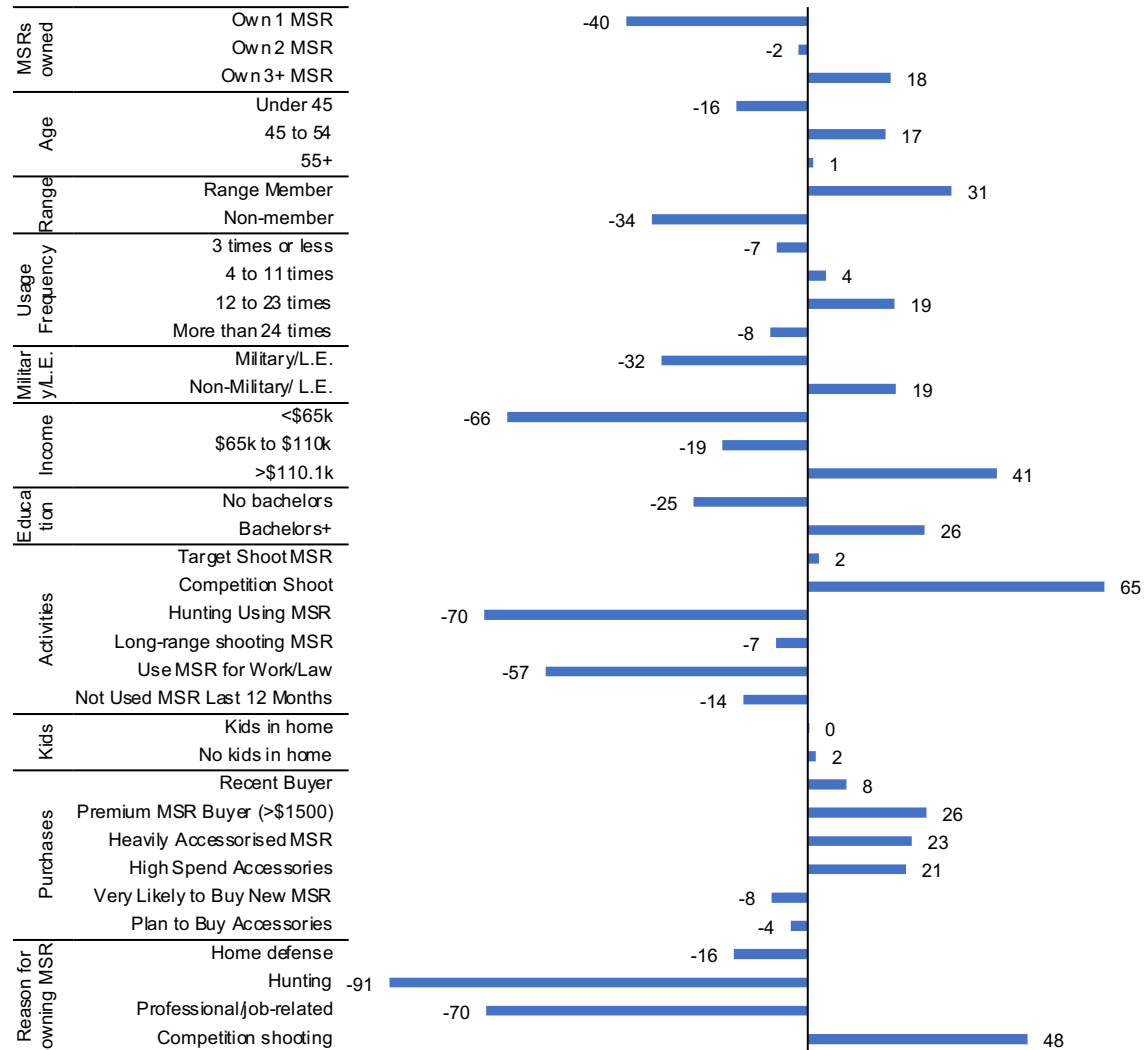


The **Casual Hunter** Cluster accounts for 17% of MSR owners. They tend to be:

- Owners of 1 MSR
- Under 45 years old
- Not members of a shooting range
- Casual users, using their MSR 3 times or less in the past 12 months
- Not from a military or law enforcement background
- Those with income less than \$65k
- Those without a bachelors degree
- Users of MSRs for hunting and long-range shooting
- Those without kids at home
- Very likely to buy new MSR in next 12 months and plan to buy accessories.
- Owners of MSRs for hunting and self-defense

## Cluster 3: Affluent Gun Enthusiast

Index (All MSR Owners = 0)

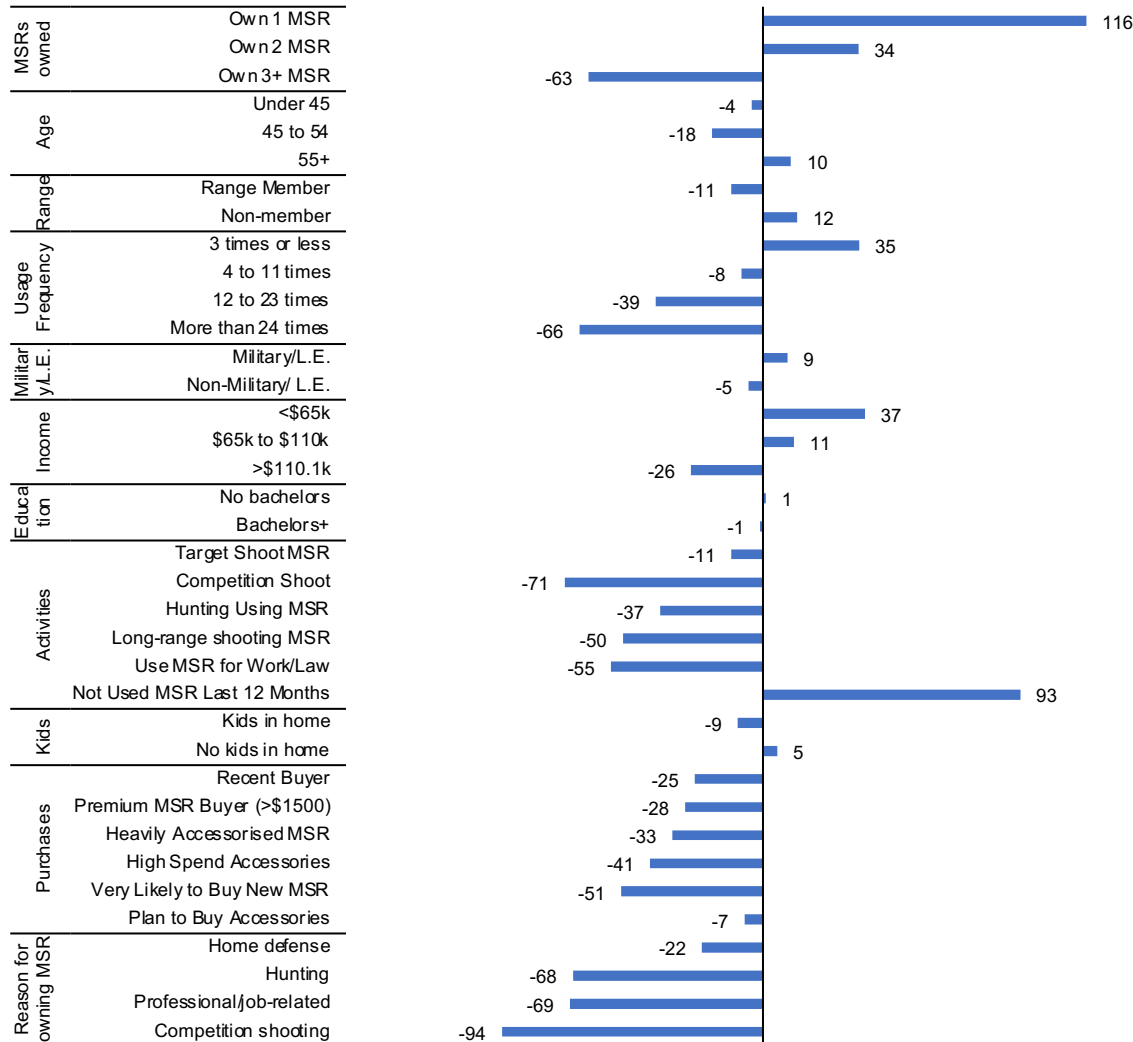


The **Affluent Gun Enthusiast** Cluster accounts for 23% of MSR owners. They tend to be:

- Owners of 3+ MSR
- 45 to 54 years old
- Members of a shooting range
- Frequent users, using their MSR 12 to 23 times in the last 12 months
- Not from a military or law enforcement background
- Those with income greater than \$110k
- Those with a bachelors degree
- Users of MSRs for competition shooting
- Premium MSR Buyers (>\$1500 on most recent MSR, heavily accessorized and high spender on accessories)
- Owners of MSRs for competition shooting

## Cluster 4: Low-Use Self Defense

Index (All MSR Owners = 0)



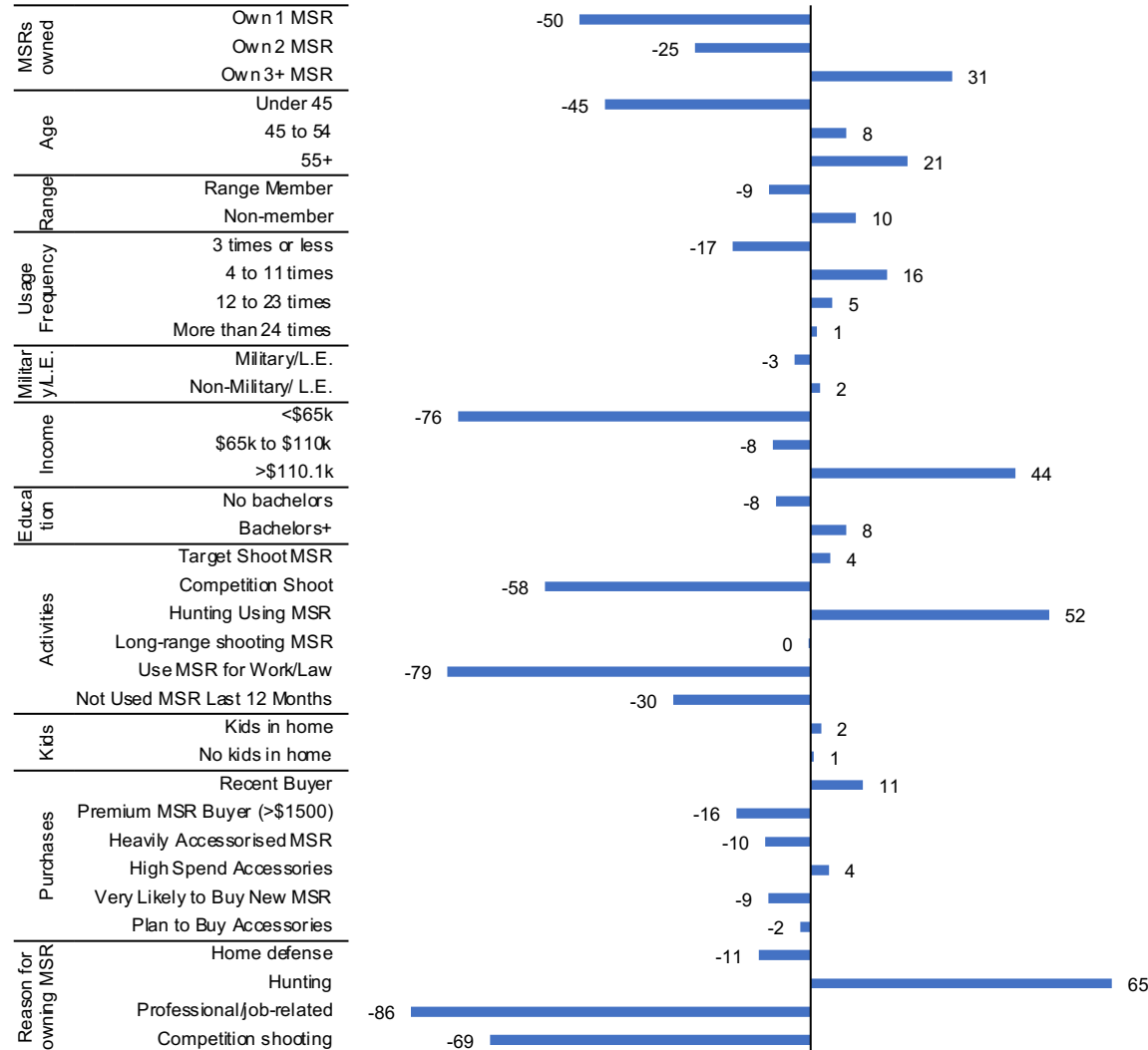
The **Low-Use Self Defense** Cluster accounts for 21% of MSR owners. They tend to be:

- Owners of 1 MSR
- 55 years old or older
- Not members of a shooting range
- Infrequent users, using their MSR 3 times or less in the last 12 months
- Slightly more likely to be from a military or law enforcement background
- Those with income less than \$65k
- Those who did not use their MSR in the last 12 months
- Those with no kids at home
- Less likely to buy new MSR or be a premium buyer
- Owners of MSRs for home defense



# Cluster 5: Hunting Aficionado

Index (All MSR Owners = 0)

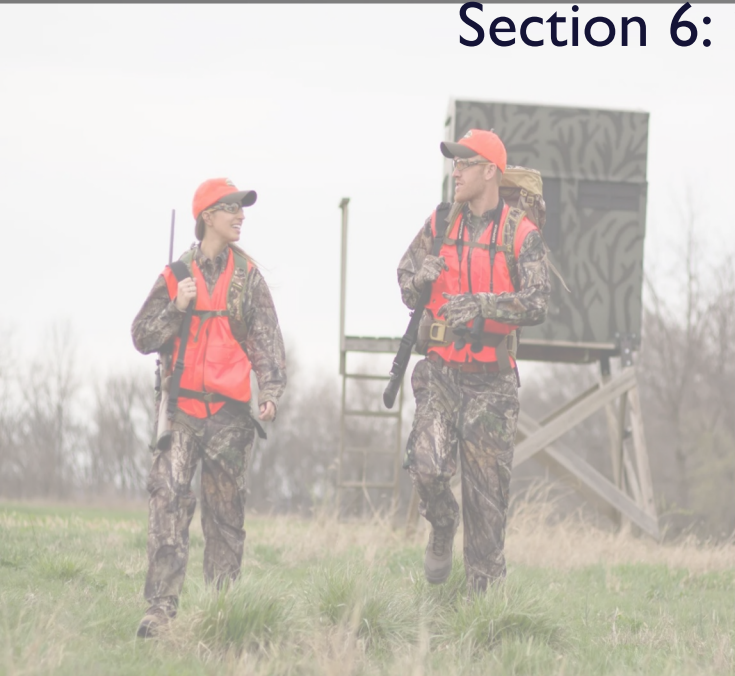


The **Hunting Aficionado** Cluster accounts for 21% of MSR owners. They tend to be:

- Owners of 3+ MSRs
- 55 years old or older
- Not members of a shooting range
- Occasional MSR users, using their MSR 4 to 11 times in the last 12 months
- Slightly more likely to not be from a military or law enforcement background
- Those with income of greater than \$110k
- Those with a bachelors degree
- Those used their MSR for hunting in the last 12 months
- Recent buyers of a MSR (in 2020 or 2021)
- Less likely to buy new MSR or be a premium buyer
- Owners of MSRs for hunting



## Section 6: Sample Profile



## Respondent Profile: Organizations

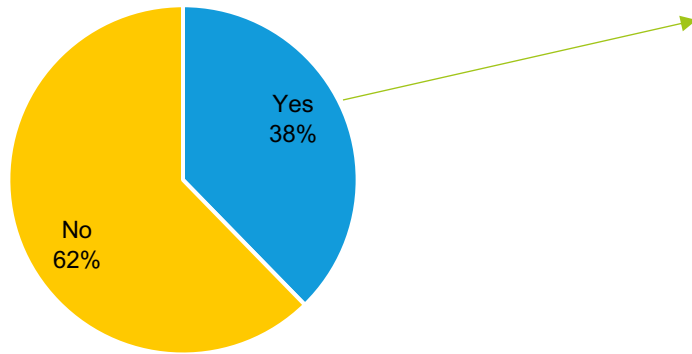
### Current Membership or Recent Donation to Organizations



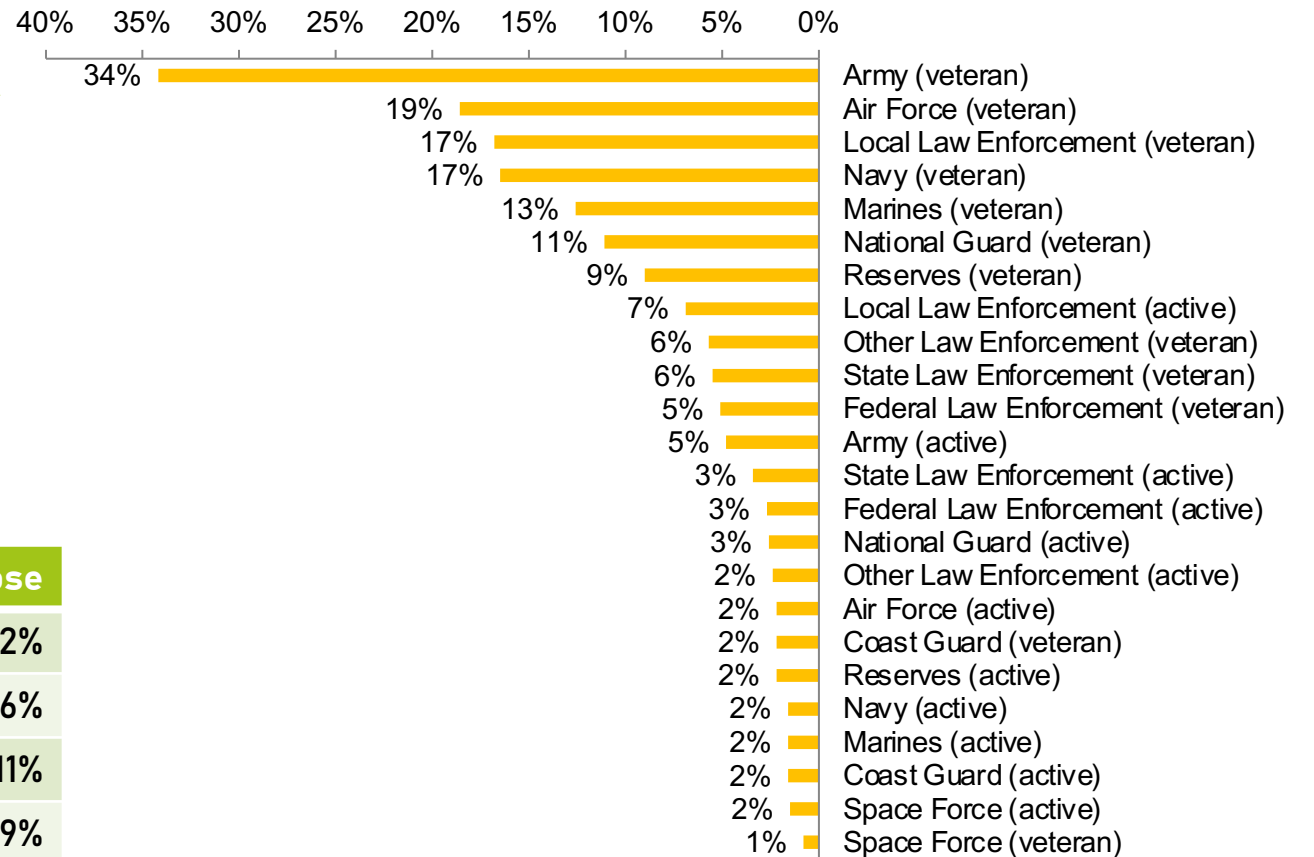
- When asked what organizations they are a member of or recently donated to, the most-selected organization was the NRA (61%), chosen more than twice as much as any other organization.
- 21% of MSR owners are not members of or recently donated to any organizations listed.
- 12% are members or recently donated to the NSSF.
- Of the 19% who selected “Other” organizations, the most common mentions were:
  - Firearms Policy Coalition
  - Liberal Gun Club/Liberal Gun Owners
  - Second Amendment Foundation
  - National Skeet Shooting Foundation
  - National Sporting Clays Association

# Respondent Profile: Military/Law-Enforcement

**Active or Veteran/Retired Member of Law Enforcement/Military**

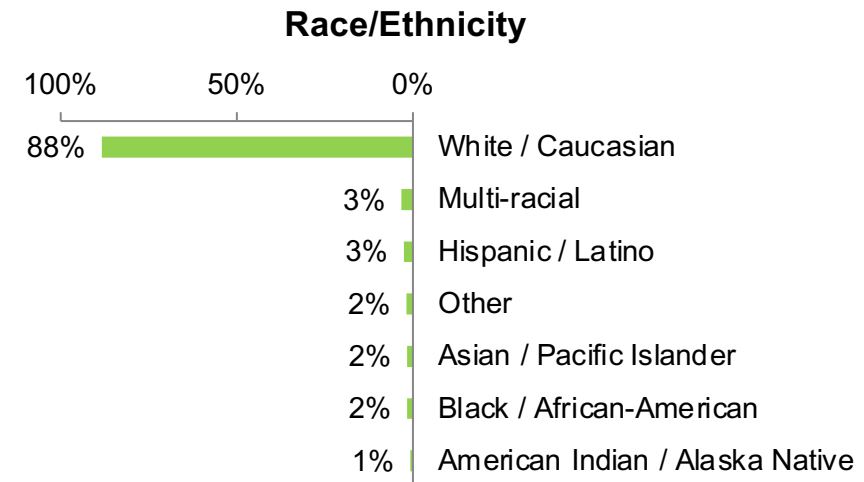
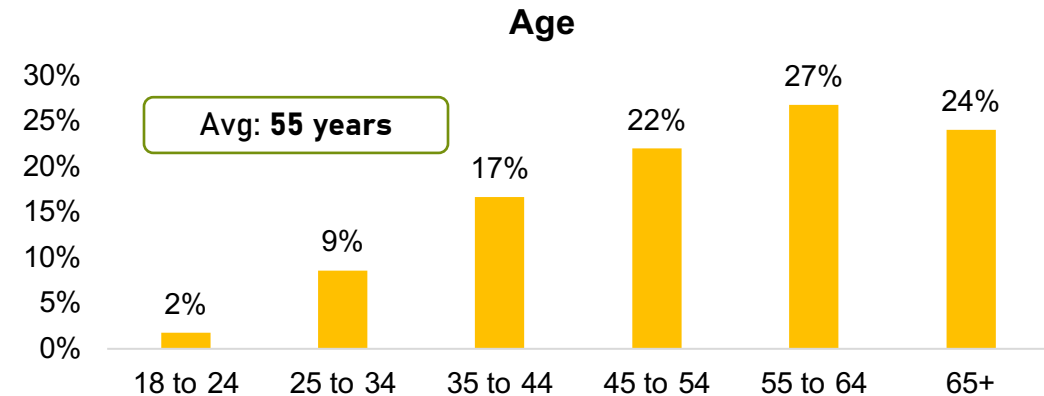
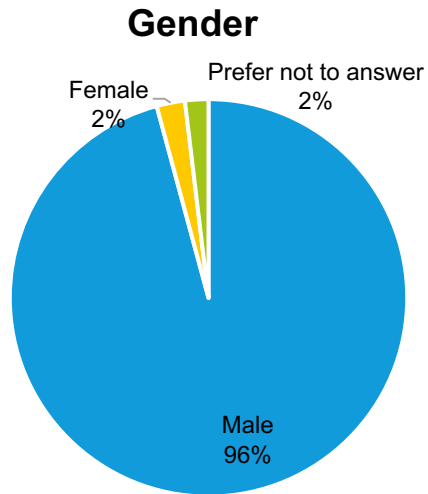


**Military/Law Enforcement Affiliation**



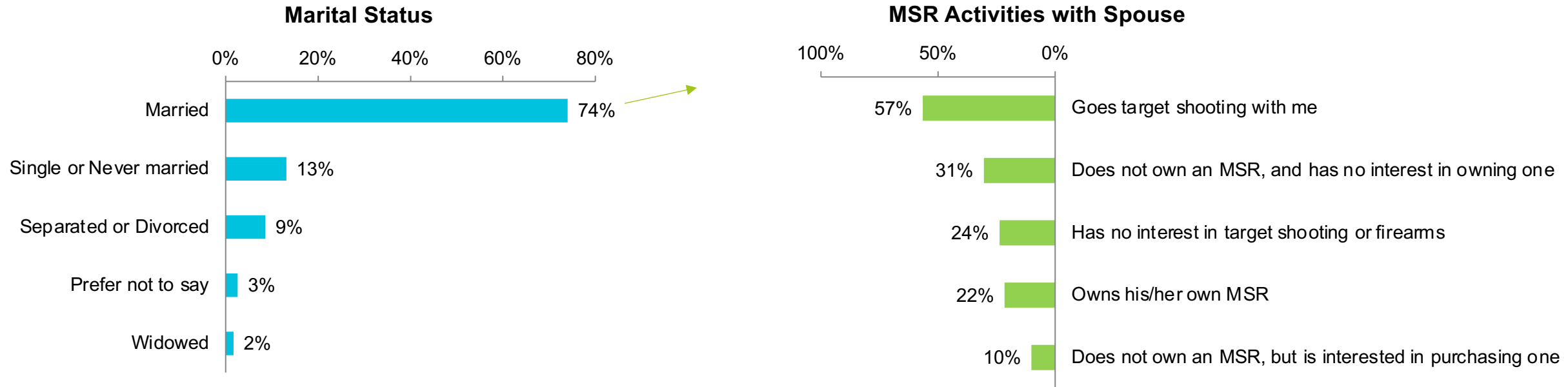
Military/law-enforcement (grouped)	% of those
Veteran military	82%
Veteran law enforcement	26%
Active law enforcement	11%
Active military	9%

## Respondent Profile: Age, Gender



- 96% of respondents are Male.
- The average age of respondents is 55 years old. Only 27% are under the age of 45.
- 88% of respondents are White/Caucasian.

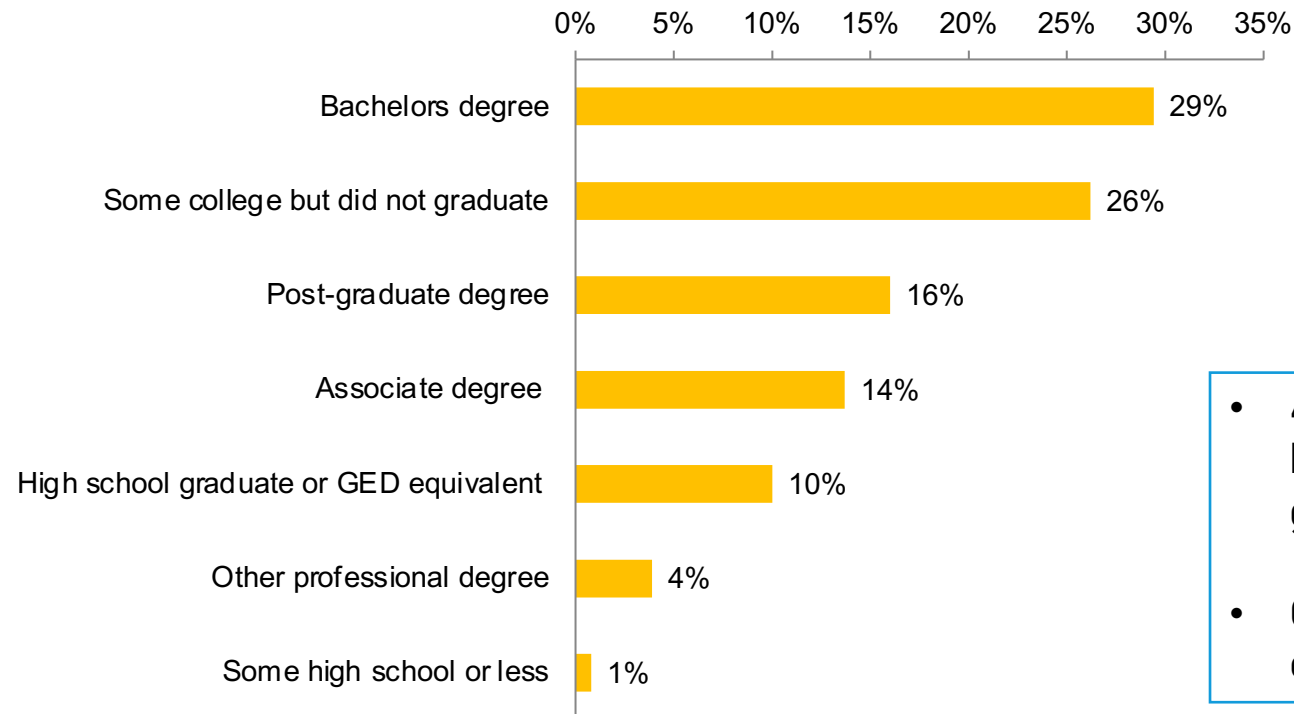
## Respondent Profile: Marital Status, Shooting Activities with Spouse



- 74% of respondents are married.
- Of these MSR owners, over half (57%) say their spouse accompanies them for target shooting. Nearly a quarter, 24%, say their spouse has no interest in target shooting or firearms.

## Respondent Profile: Education

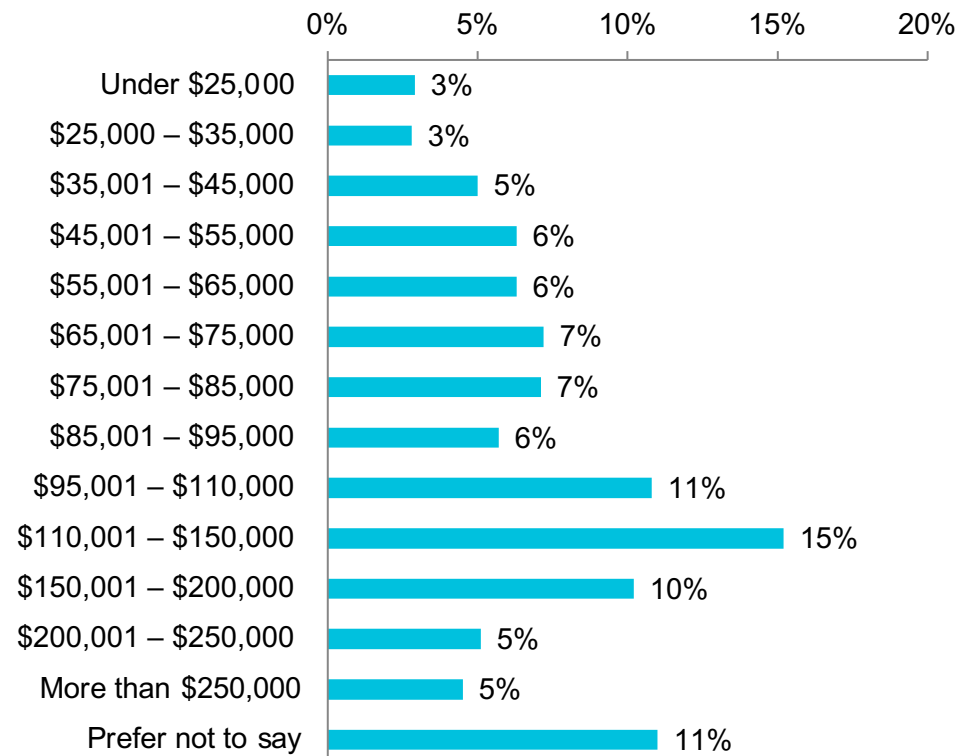
Highest Level of Education Completed



- 45% of respondents have attained at least a bachelors degree (29% have bachelors, 16% post-graduate).
- One-quarter of MSR owners have attended some college but did not graduate.

## Respondent Profile: Income

Estimated Yearly Household Income



Avg: **\$110,934**

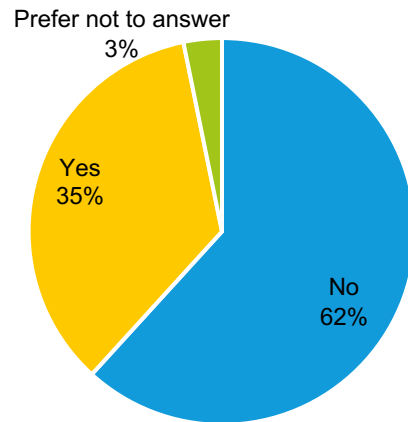
**\$85k or less: 37%**  
**More than \$85k: 52%**

- The average yearly household income for respondents is \$110,934.
- More than half of MSR owners are in households with an annual income of greater than \$85,000.

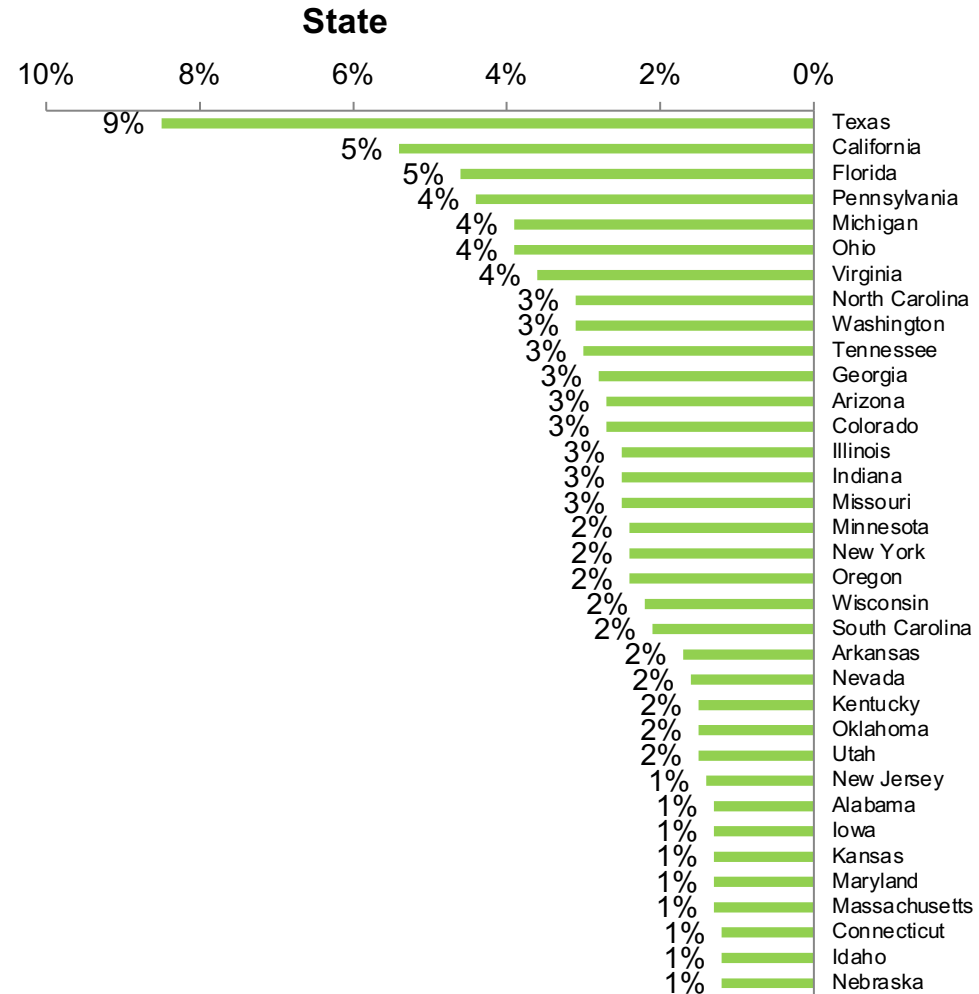


## Respondent Profile: State, Household Children

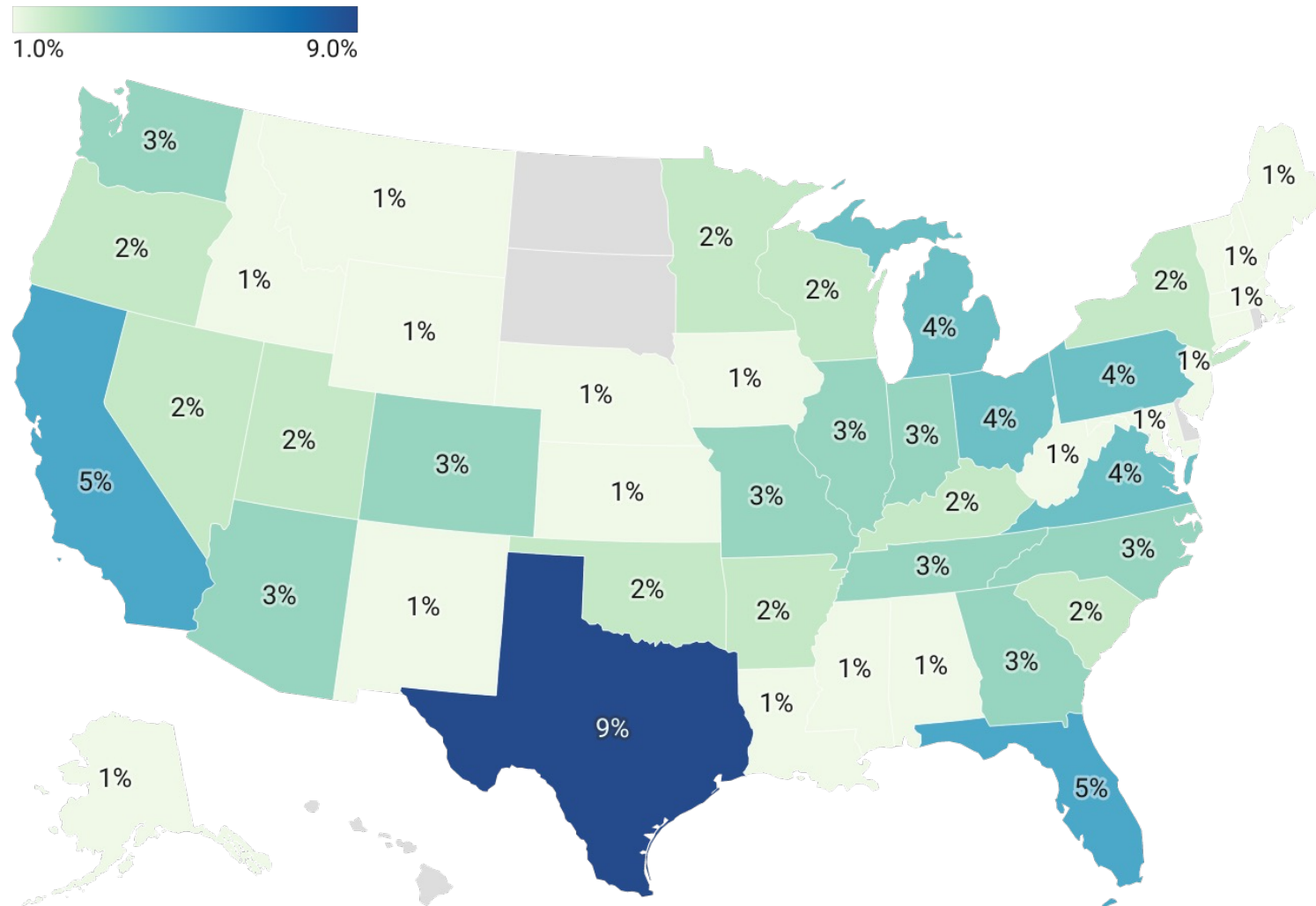
Do you have any children living with you?



- Nearly two-thirds of respondents do not have any children living with them.
- The states with the most respondents are Texas (9%), California (5%), and Florida (5%).



## Respondent Profile: State, Household Children





**EXHIBIT G**

## THE HISTORY OF FIREARM MAGAZINES AND MAGAZINE PROHIBITIONS

*David B. Kopel\**

### I. INTRODUCTION

In recent years, the prohibition of firearms magazines has become an important topic of law and policy debate. This article details the history of magazines and of magazine prohibition. The article then applies the historical facts to the methodologies of leading cases that have looked to history to analyze the constitutionality of gun control laws.

Because ten rounds is an oft-proposed figure for magazine bans, Part II of the article provides the story of such magazines from the sixteenth century onward. Although some people think that multi-shot guns did not appear until Samuel Colt invented the revolver in the 1830s, multi-shot guns predate Colonel Colt by over two centuries.<sup>1</sup>

Especially because the Supreme Court's decision in *District of Columbia v. Heller*<sup>2</sup> considers whether arms are "in common use" and are "typically possessed by law-abiding citizens for lawful purposes,"<sup>3</sup> the article also pays attention to whether and when particular guns and their magazines achieved mass-market success in the United States. The first time a rifle with more than ten rounds of ammunition did so was in 1866,<sup>4</sup> and the first time a

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\* Adjunct Professor of Advanced Constitutional Law, Denver University, Sturm College of Law. Research Director, Independence Institute, Denver, Colorado. Associate Policy Analyst, Cato Institute, Washington, D.C. Professor Kopel is the author of fifteen books and over ninety scholarly journal articles, including the first law school textbook on the Second Amendment. See generally NICHOLAS J. JOHNSON, DAVID B. KOPEL, GEORGE A. MOCSARY & MICHAEL P. O'SHEA, FIREARMS LAW AND THE SECOND AMENDMENT: REGULATION, RIGHTS, AND POLICY (2012). Professor Kopel's website is <http://www.davekopel.org>. The author would like to thank Joseph Greenlee and Noah Rauscher for research assistance.

<sup>1</sup> See Clayton E. Cramer & Joseph Edward Olson, *Pistols, Crime, and Public Safety in Early America*, 44 WILLAMETTE L. REV. 699, 716 (2008).

<sup>2</sup> *District of Columbia v. Heller*, 554 U.S. 570 (2008).

<sup>3</sup> *Id.* at 624–25, 627.

<sup>4</sup> See *infra* notes 50–55 and accompanying text.

handgun did so was in 1935.<sup>5</sup>

The detailed history of various firearms and their magazines stops in 1979—a year which is somewhat ancient in terms of the current gun control debate. Back in 1979, revolvers still far outsold semiautomatic handguns.<sup>6</sup> No one was trying to ban so-called assault weapons,<sup>7</sup> although such guns were already well established in the market.<sup>8</sup>

For the post-1979 period, Part II briefly explains how technological improvements in recent decades have fostered the continuing popularity of magazines holding more than ten rounds

Part III of the article describes the history of magazine prohibition in the United States. Such prohibitions are of recent vintage, with an important exception: during prohibition, Michigan, Rhode Island, and the District of Columbia banned some arms that could hold more than a certain number of rounds; Ohio required a special license for such guns.<sup>9</sup> The Michigan and Rhode Island bans were repealed decades ago; the Ohio licensing law was repealed in 2014, having previously been modified and interpreted so that it banned no magazines.<sup>10</sup> The District of Columbia ban, however, remains in force today, with some revisions.<sup>11</sup>

The Supreme Court's Second Amendment decisions in *District of Columbia v. Heller* and *McDonald v. Chicago*<sup>12</sup> paid careful

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<sup>5</sup> See *infra* notes 102–03 and accompanying text.

<sup>6</sup> The U.S. manufacturing figures were compiled by the Bureau of Alcohol, Tobacco & Firearms. Although they were public documents, they were not made widely available in the 1970s. The following are the full-year production data by U.S. manufacturers. The figures do not include production for sale to the military. 1973: 452,232 pistols, 1,170,966 revolvers; 1974: 399,011 pistols, 1,495,861 revolvers; 1975: 455,267 pistols, 1,425,833 revolvers; 1976: 468,638 pistols, 1,425,407 revolvers; 1977: 440,387 pistols, 1,423,984 revolvers; 1978: 499,257 pistols, 1,458,013 revolvers; 1979: 637,067 pistols, 1,531,362 revolvers; 1980: 785,105 pistols, 1,586,149 revolvers. *Statistical Tabulation of Firearms Manufactured in the United States—and Firearms Exported—as Reported Yearly by Bureau of Alcohol, Tobacco and Firearms on ATF Form 4483-A*, AM. FIREARMS INDUSTRY (Nov. 1981) at 28–29.

<sup>7</sup> See David B. Kopel, *The Great Gun Control War of the Twentieth Century—and Its Lessons for Gun Laws Today*, 39 *FORDHAM URB. L.J.* 1527, 1578–79 (2012) (beginning of “assault weapon” issue in the mid- and late 1980s); L. Ingram, *Restricting of Assault-Type Guns Okd by Assembly Unit*, *L.A. TIMES*, Apr. 9, 1985, at 3.

<sup>8</sup> Below, this article describes many models of semi-automatic rifles introduced since 1927. See *infra* notes 82–101 and accompanying text. All of them have been labeled an “assault weapon” by one or more proposed bills. See, e.g., LEGAL CMTY. AGAINST VIOLENCE, *BANNING ASSAULT WEAPONS—A LEGAL PRIMER FOR STATE AND LOCAL ACTION* 59–60 (2004), available at [http://smartgunlaws.org/wp-content/uploads/2012/05/Banning\\_Assault\\_Weapons\\_A\\_Legal\\_Primer\\_8.05\\_entire.pdf](http://smartgunlaws.org/wp-content/uploads/2012/05/Banning_Assault_Weapons_A_Legal_Primer_8.05_entire.pdf) (proposing a model assault weapons law).

<sup>9</sup> See *infra* notes 129–30, 134, 140 and accompanying text.

<sup>10</sup> See *infra* notes 131–33, 135–39 and accompanying text.

<sup>11</sup> See *infra* notes 140–45 and accompanying text.

<sup>12</sup> *McDonald v. City of Chi.*, 561 U.S. 742 (2010).

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attention to history. Several post-*Heller* lower court opinions in Second Amendment cases have also examined history as part of their consideration of the constitutionality of gun control statutes. Part IV of this article examines the legality of magazine bans according to the various historical standards that courts have employed.

## II. THE HISTORY OF MAGAZINES HOLDING MORE THAN TEN ROUNDS

In *District of Columbia v. Heller*, the Supreme Court ruled that the District of Columbia's handgun ban was unconstitutional partly because handguns are in "common use."<sup>13</sup> The Second Amendment protects arms that are "typically possessed by law-abiding citizens for lawful purposes."<sup>14</sup>

Magazines of more than ten rounds are older than the United States.<sup>15</sup> Box magazines date from 1862.<sup>16</sup> In terms of large-scale commercial success, rifle magazines of more than ten rounds had become popular by the time the Fourteenth Amendment was being ratified.<sup>17</sup> Handgun magazines of more than ten rounds would become popular in the 1930s.<sup>18</sup>

### A. *Why Consumers Have Always Sought to Avoid Having to Reload During Defensive Gun Use*

When a firearm being used for defense is out of ammunition, the defender no longer has a functional firearm. The Second Amendment, of course, guarantees the right to an *operable* firearm.<sup>19</sup> As the *Heller* Court explained, the Council of the District of Columbia could not require that lawfully-possessed guns be kept in an inoperable status (locked or disassembled) in the home, because doing so negates their utility with respect to "the core lawful purpose of self-defense."<sup>20</sup>

When the defender is reloading, the defender is especially vulnerable to attack. When ammunition is low but not exhausted (e.g., two or three rounds remaining), that may be insufficient to

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<sup>13</sup> *District of Columbia v. Heller*, 554 U.S. 570, 627–29 (2008).

<sup>14</sup> *Id.* at 625.

<sup>15</sup> *See infra* notes 21–24 and accompanying text.

<sup>16</sup> *See infra* note 65 and accompanying text.

<sup>17</sup> *See infra* notes 43–55, 172–73 and accompanying text.

<sup>18</sup> *See infra* notes 102–03 and accompanying text.

<sup>19</sup> *See Heller*, 554 U.S. at 630, 635 (declaring the District of Columbia's requirement that all firearms in the home be "rendered and kept inoperable at all times" as unconstitutional).

<sup>20</sup> *Id.*

deter or control the threat, especially if the threat is posed by more than one criminal. If the victim is attacked by a gang of four large people, and a few shots cause the attackers to pause, the victim needs enough reserve ammunition in the firearm to make the attackers worry that even if they rush the victim all at once, the victim will have enough ammunition to knock each attacker down. When guns are fired defensively, it is unusual for a single hit to immediately disable an attacker.

Accordingly, from the outset of firearms manufacturing, one constant goal has been to design firearms able to fire more rounds without reloading.

To this end, manufacturers have experimented with various designs of firearms and magazines for centuries. While not all of these experiments were successful in terms of mass sales, they indicated the directions where firearms development was proceeding. The first experiments to gain widespread commercial success in the United States came around the middle of the nineteenth century.

*B. Magazines of Greater than Ten Rounds are More than Four  
Hundred Years Old*

The first known firearm that was able to fire more than ten rounds without reloading was a sixteen-shooter created around 1580, using “superposed” loads (each round stacked on top of the other).<sup>21</sup> Multi-shot guns continued to develop in the next two centuries, with such guns first issued to the British army in 1658.<sup>22</sup> One early design was the eleven-round “Defence Gun,” patented in 1718 by lawyer and inventor James Puckle.<sup>23</sup> It used eleven preloaded cylinders; each pull of the trigger fired one cylinder.<sup>24</sup>

As with First Amendment technology (such as televisions or websites), the Second Amendment is not limited to the technology that existed in 1791.<sup>25</sup> The *Heller* Court properly described such an asserted limit as “bordering on the frivolous.”<sup>26</sup> But even if *Heller*

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<sup>21</sup> See LEWIS WINANT, FIREARMS CURIOSA 168–70 (2009); *A 16-Shot Wheel Lock*, AMERICA’S 1ST FREEDOM (June 2014), <http://www.nrapublications.org/index.php/17739/a-16-shot-wheel-lock/> (NRA member magazine).

<sup>22</sup> Cramer & Olson, *supra* note 1, at 716.

<sup>23</sup> *Id.* at 716 & n.94.

<sup>24</sup> See *id.* at 716–17; *This Day in History: May 15, 1718*, HISTORY, <http://www.historychannel.com.au/classroom/day-in-history/600/defence-rapid-fire-gun-patented> (last visited Feb. 21, 2015).

<sup>25</sup> *Heller*, 544 U.S. at 582.

<sup>26</sup> *Id.* (“Some have made the argument, bordering on the frivolous, that only those arms in



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had created such a rule, magazines of more than ten rounds are older than the Second Amendment.

At the time that the Second Amendment was being ratified, the state of the art for multi-shot guns was the Girandoni air rifle, with a twenty-two-shot magazine capacity.<sup>27</sup> Meriwether Lewis carried a Girandoni on the Lewis and Clark expedition.<sup>28</sup> At the time, air guns were ballistically equal to powder guns in terms of bullet size and velocity.<sup>29</sup> The .46 and .49 caliber Girandoni rifles were invented around 1779 for use in European armies and were employed by elite units.<sup>30</sup> One shot could penetrate a one-inch thick wood plank or take down an elk.<sup>31</sup>

*C. The Nineteenth Century Saw Broad Commercial Success for  
Magazines Holding More than Ten Rounds*

Firearm technology progressed rapidly in the 1800s. Manufacturers were constantly attempting to produce reliable firearms with greater ammunition capacities for consumers. One notable step came in 1821 with the introduction of the Jennings multi-shot flintlock rifle, which, borrowing the superposed projectile design from centuries before, could fire twelve shots before reloading.<sup>32</sup>

Around the same time, pistol technology also advanced to permit more than ten shots being fired without reloading. “Pepperbox”

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existence in the 18th century are protected by the Second Amendment. We do not interpret constitutional rights that way. Just as the First Amendment protects modern forms of communications, and the Fourth Amendment applies to modern forms of search, the Second Amendment extends, *prima facie*, to all instruments that constitute bearable arms, even those that were not in existence at the time of the founding.” (citations omitted).

<sup>27</sup> JIM SUPICA ET AL., TREASURES OF THE NRA NATIONAL FIREARMS MUSEUM 31 (2013).

<sup>28</sup> JIM GARRY, WEAPONS OF THE LEWIS & CLARK EXPEDITION 94 (2012).

<sup>29</sup> JOHN L. PLASTER, THE HISTORY OF SNIPING AND SHARPSHOOTING 69–70 (2008).

<sup>30</sup> See SUPICA ET AL., *supra* note 27, at 31.

<sup>31</sup> *Id.* The Lewis and Clark gun is on display at the National Rifle Association’s Sporting Arms Museum in Springfield, Missouri. Mark Yost, *The Story of Guns in America*, WALL ST. J., Sept. 3, 2014, at D5.

<sup>32</sup> NORM FLAYDERMAN, FLAYDERMAN’S GUIDE TO ANTIQUE AMERICAN FIREARMS AND THEIR VALUES 683 (9th ed. 2007) [hereinafter FLAYDERMAN’S GUIDE]. According to James S. Hutchins, historian emeritus at the National Museum of American History, Smithsonian Institution, Mr. Flayderman has been a “revered expert in antique American arms and a vast range of other Americana for half a century . . . .” James S. Hutchins, *Foreword* to NORM FLAYDERMAN, THE BOWIE KNIFE: UNSHEATHING THE AMERICAN LEGEND 7 (2004). Mr. Flayderman has been appointed as historical consultant to the U.S. Army Museum, U.S. Marine Corps Museum, and the State of Connecticut’s historic weapons collections. Andrea Valluzzo, *E. Norman Flayderman, 84; Antique Arms Expert*, ANTIQUES & ARTS WKLY. (July 2, 2013), <http://test.antiquesandthearts.com/node/185567#.VMvRAGjF8YM>.

pistols began to be produced in America in the 1830s.<sup>33</sup> These pistols had multiple barrels that would fire sequentially.<sup>34</sup> While the most common configurations were five or six shots,<sup>35</sup> some models had twelve independently-firing barrels,<sup>36</sup> and there were even models with eighteen or twenty-four independently-firing barrels.<sup>37</sup> Pepperboxes were commercially successful and it took a number of years for Samuel Colt's revolvers (also invented in the 1830s) to surpass them in the marketplace.<sup>38</sup>

The 1830s through the 1850s saw a number of different firearm designs intended to increase ammunition capacity. In 1838, the Bennett and Haviland Rifle was invented; it was a rifle version of the pepperbox, with twelve individual chambers that were manually rotated after each shot.<sup>39</sup> This would bring a new chamber, preloaded with powder and shot, into the breach, ready to be fired.<sup>40</sup> Alexander Hall and Colonel Parry W. Porter each created rifles with capacities greater than ten in the 1850s.<sup>41</sup> Hall's design had a fifteen-shot rotating cylinder (similar to a revolver), while Porter's design used a thirty-eight-shot canister magazine.<sup>42</sup>

The great breakthrough, however, began with a collaboration of Daniel Wesson (of Smith and Wesson) and Oliver Winchester. They produced the first metallic cartridge—containing the gunpowder, primer, and ammunition in a metallic case similar to modern ammunition.<sup>43</sup> Furthermore, they invented a firearms mechanism that was well suited to the new metallic cartridge: the lever

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<sup>33</sup> JACK DUNLAP, *AMERICAN BRITISH & CONTINENTAL PEPPERBOX FIREARMS* 16 (1964).

<sup>34</sup> LEWIS WINANT, *PEPPERBOX FIREARMS* 7 (1952).

<sup>35</sup> See, e.g., *Pocketsize Allen and Thurber Pepperbox Revolver*, ANTIQUE ARMS, <http://aaawt.com/html/firearms/f102.html> (last visited Feb. 21, 2015).

<sup>36</sup> DOE RUN LEAD COMPANY'S MUSEUM, *CATALOGUE OF CONTENTS* 66 (1912).

<sup>37</sup> DUNLAP, *supra* note 33, at 148–49, 167 (describing three European eighteen-shot models and one twenty-four-shot model); SUPICA ET AL., *supra* note 27, at 33 (describing the Marietta eighteen-shot model); WINANT, *supra* note 21, at 249–50 (describing a twenty-four-shot pepperbox).

<sup>38</sup> WINANT, *supra* note 34, at 28.

<sup>39</sup> FLAYDERMAN'S GUIDE, *supra* note 32, at 711.

<sup>40</sup> See *id.*

<sup>41</sup> *Id.* at 713, 716.

<sup>42</sup> *Id.* The Porter Rifle was said to be able to fire up to sixty shots per minute. Mary Moran, *P.W. Porter, Inventor of the Porter Rifle*, DEAD MEMPHIS TALKING (April 18, 2014), <http://deadmemphistalking.blogspot.com/2014/04/pw-porter-inventor-of-porter-rifle.html> (reprinting an article from New York Post). About 1250 of these guns were produced. S.P. Fjestad, *What's It Worth? The Porter Rifle*, FIELD & STREAM, <http://www.fieldandstream.com/articles/guns/rifles/2009/01/whats-it-worth-porter-rifle> (last visited Feb. 21, 2015).

<sup>43</sup> See FLAYDERMAN'S GUIDE, *supra* note 32, at 303 (“The self-contained cartridge was a special type, the hollowed out conical bullet containing the powder, and backed by the primer.”); HAROLD F. WILLIAMSON, *WINCHESTER: THE GUN THAT WON THE WEST* 26–27 (1952).

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action.<sup>44</sup> Their company, the Volcanic Repeating Arms Company, introduced the lever action rifle in 1855.<sup>45</sup> This rifle had up to a thirty-round tubular magazine under the barrel that was operated by manipulating a lever on the bottom of the stock.<sup>46</sup> The lever-action allowed a shooter to quickly expel spent cartridges and ready the firearm for additional shots.<sup>47</sup> An 1859 advertisement bragged that the guns could be loaded and fire thirty shots in less than a minute.<sup>48</sup> In 1862, the Volcanic evolved into the sixteen-round Henry lever action rifle, lauded for its defensive utility.<sup>49</sup>

The Henry rifle further evolved into the Winchester repeating rifle, and the market for these firearms greatly expanded with the first gun produced under the Winchester name.<sup>50</sup> Winchester touted the Model 1866 for defense against “sudden attack either from robbers or Indians.”<sup>51</sup> According to advertising, the M1866 “can . . . be fired thirty times a minute,”<sup>52</sup> or with seventeen in the magazine and one in the chamber, “eighteen charges, which can be fired in nine seconds.”<sup>53</sup> The gun was a particularly big seller in the American West.<sup>54</sup> There were over 170,000 Model 1866s produced.<sup>55</sup>

Next came the Winchester M1873, “[t]he gun that won the West.”<sup>56</sup> The Winchester M1873 and then the M1892 were lever actions holding ten to eleven rounds in tubular magazines.<sup>57</sup> There were over 720,000 copies of the Winchester 1873 made from 1873 to

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<sup>44</sup> See *Smith & Wesson History*, SMITH & WESSON, [http://www.smith-wesson.com/webapp/wcs/stores/servlet/Category4\\_750001\\_750051\\_757941\\_-1\\_757938\\_757812\\_image](http://www.smith-wesson.com/webapp/wcs/stores/servlet/Category4_750001_750051_757941_-1_757938_757812_image) (last visited Feb. 21, 2015).

<sup>45</sup> FLAYDERMAN’S GUIDE, *supra* note 32, at 304.

<sup>46</sup> *Id.* at 303; WILLIAMSON, *supra* note 43, at 13.

<sup>47</sup> WILLIAMSON, *supra* note 43, at 25. Oliver Winchester had an ownership interest in Volcanic and acquired the company in 1857. FLAYDERMAN’S GUIDE, *supra* note 32, at 300.

<sup>48</sup> WILLIAMSON, *supra* note 43, at 25.

<sup>49</sup> See *Id.*, at 28–31; Joseph Bilby, *The Guns of 1864*, AM. RIFLEMAN (May 5, 2014), <http://www.americanrifleman.org/articles/2014/5/5/the-guns-of-1864/>. About 14,000 Henry rifles were sold in 1860–66. FLAYDERMAN’S GUIDE, *supra* note 32, at 305. The Henry Rifle is still in production today. See *About Henry Repeating*, HENRY, <http://www.henryrifles.com/about-henry-repeating/> (last visited Feb. 21, 2015).

<sup>50</sup> See WILLIAMSON, *supra* note 43, at 49.

<sup>51</sup> R.L. WILSON, WINCHESTER: AN AMERICAN LEGEND 32 (1991).

<sup>52</sup> WILLIAMSON, *supra* note 43, at 49.

<sup>53</sup> LOUIS A. GARAVAGLIA & CHARLES G. WORMAN, FIREARMS OF THE AMERICAN WEST 1866–1894, at 128 (1985). The Winchester Model 1866 was produced until 1898. FLAYDERMAN’S GUIDE, *supra* note 32, at 306.

<sup>54</sup> WILSON, *supra* note 51, at 34.

<sup>55</sup> FLAYDERMAN’S GUIDE, *supra* note 32, at 306.

<sup>56</sup> *Model 1873 Short Rifle*, WINCHESTER REPEATING ARMS, <http://www.winchesterguns.com/products/catalog/detail.asp?family=027C&mid=534200> (last visited Feb. 21, 2015).

<sup>57</sup> *Id.*

1919.<sup>58</sup> Over a million of the M1892 were manufactured from 1892 to 1941.<sup>59</sup> The Italian company Uberti, which specializes in high-quality reproductions of western firearms, produces reproductions of all of the above Winchesters today.<sup>60</sup> Another iconic rifle of the latter nineteenth century was the pump action Colt Lightning rifle, with a fifteen-round capacity.<sup>61</sup>

Manufactured in Maine, the Evans Repeating Rifle came on the market in 1873.<sup>62</sup> The innovative rotary helical magazine in the buttstock held thirty-four rounds.<sup>63</sup> It was commercially successful for a while, although not at Winchester's or Colt's levels. Over 12,000 copies were produced.<sup>64</sup>

Meanwhile, the first handgun to use a detachable box magazine was the ten-round Jarre harmonica pistol, patented in 1862.<sup>65</sup> In the 1890s, the box magazine would become common for handguns.<sup>66</sup>

Pin-fire revolvers with capacities of up to twenty or twenty-one entered the market in the 1850s;<sup>67</sup> they were produced for the next half-century, but were significantly more popular in Europe than in America.<sup>68</sup> For revolvers with other firing mechanisms, there were some models with more than seventeen rounds.<sup>69</sup> The twenty-round Josselyn belt-fed chain pistol was introduced in 1866, and various other chain pistols had even greater capacity.<sup>70</sup> Chain pistols did not win much market share, perhaps in part because the large

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<sup>58</sup> FLAYDERMAN'S GUIDE, *supra* note 32, at 307. The Model 1873 was Pa Cartwright's gun on the 1959 to 1973 television series *Bonanza*. SUPICA ET AL., *supra* note 27, at 108.

<sup>59</sup> FLAYDERMAN'S GUIDE, *supra* note 32, at 311. The Model 1892 was John Wayne's gun in many movies. SUPICA ET AL., *supra* note 27, at 109.

<sup>60</sup> 2014 STANDARD CATALOG OF FIREARMS: THE COLLECTOR'S PRICE & REFERENCE GUIDE, 1237 (Jerry Lee ed., 2013). The 1995 edition of this annually-published guide was relied on by the court in *Kirkland v. District of Columbia*, 70 F.3d 629, 635 n.3 (D.C. Cir. 1995).

<sup>61</sup> The original Colt held up to fifteen rounds in calibers of .32-.20, .38-.40, and .44-.40. FLAYDERMAN'S GUIDE, *supra* note 32, at 122. Uberti currently produces a modern replica of the Colt Lightning, medium frame model, of which 89,000 were produced between 1884 and 1902. *Id.*

<sup>62</sup> *Id.* at 694.

<sup>63</sup> DWIGHT B. DEMERITT, JR., MAINE MADE GUNS & THEIR MAKERS 293-95 (rev. ed. 1997); FLAYDERMAN'S GUIDE, *supra* note 32, at 694. A later iteration of the rifle held twenty-five or twenty-eight rounds in the buttstock. DEMERITT, *supra*, at 301. The American Society of Arms Collectors endorses the Demeritt book as "the definitive work for historians and collectors" of Maine guns. DEMERITT, *supra*, at vi.

<sup>64</sup> FLAYDERMAN'S GUIDE, *supra* note 32, at 694.

<sup>65</sup> WINANT, *supra* note 21, at 244-45. The magazine stuck out horizontally from the side of the firing chamber, making the handgun difficult to carry in a holster, which perhaps explains why the gun never had mass success. SUPICA ET AL., *supra* note 27, at 33.

<sup>66</sup> See *infra* notes 72-77 and accompanying text.

<sup>67</sup> SUPICA ET AL., *supra* note 27, at 48-49; WINANT, *supra* note 21, at 67-70.

<sup>68</sup> SUPICA ET AL., *supra* note 27, at 49.

<sup>69</sup> See, e.g., WINANT, *supra* note 21, at 62-63, 207-08.

<sup>70</sup> *Id.* at 204, 206.

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dangling chain was such an impediment to carrying the gun.<sup>71</sup>

The semiautomatic firearm and its detachable box magazine were invented before the turn of the century. It was the latest success in the centuries-old effort to improve the reliability and capacity of multi-shot guns.

In 1896, Germany's Mauser introduced the C96 "broomhandle" pistol, which remained in production until the late 1930s, selling nearly a million to civilians worldwide.<sup>72</sup> The most common configuration was in ten-round capacity, but there were a variety of models with capacities as low as six or as high as twenty.<sup>73</sup> The latter was the Cone Hammer pistol, with twenty-round box magazine.<sup>74</sup>

The Luger semiautomatic pistol was brought to the market in 1899 (although it is commonly known as the "1900").<sup>75</sup> Through many variants, it was very popular for both civilians and the military markets, and remained in production for nearly a century.<sup>76</sup> The most common magazines were seven or eight rounds, but there was also a thirty-two-round drum magazine.<sup>77</sup>

*D. Manufacturers in the Twentieth Century Continued the Trend of Increasing Ammunition Capacity and Reliability for Civilian Firearms.*

The twentieth century saw improvements on the designs pioneered in the 1800s and expanding popularity for firearms with more than ten rounds.

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<sup>71</sup> See *id.* at 205.

<sup>72</sup> JOHN W. BREATHED, JR. & JOSEPH J. SCHROEDER, JR., SYSTEM MAUSER, A PICTORIAL HISTORY OF THE MODEL 1896 SELF-LOADING PISTOL 272 (1967) (production of 1,150,000, of which "almost a million" were sold on the commercial, non-military market); see John Elliot, *A Sweeping History of the Mauser C96 Broomhandle Pistol*, GUNS.COM (Jan. 26, 2012), [http://www.guns.com/2012/01/26/a-sweeping-history-of-the-mauser-c96-broomhandl e-pistol/](http://www.guns.com/2012/01/26/a-sweeping-history-of-the-mauser-c96-broomhandl-e-pistol/).

<sup>73</sup> 2014 STANDARD CATALOG OF FIREARMS, *supra* note 60, at 708–09.

<sup>74</sup> *Id.*; BREATHED & SCHROEDER, *supra* note 72, at 23, 30–31, 38–39, 54–55. At least between 1896 and 1905, Mauser's direct sales to the United States were small. *Id.* at 266–67.

Spain's Astra brought out its own versions of the Mauser, with several models having twenty-round magazines starting in 1928. *Id.* at 208. But these do not appear to have had much distribution in the United States. *Id.* at 266–67.

<sup>75</sup> See 2014 STANDARD CATALOG OF FIREARMS, *supra* note 60, at 650.

<sup>76</sup> Among the many models was the 1906 American Eagle. *Id.* at 653. George Luger's invention was licensed to many companies, including Mauser (Germany) and Vickers (England). *Id.* at 657–58. The gun was never manufactured under Luger's own name. See *id.* at 650–62.

<sup>77</sup> JEAN-NOËL MOURET, PISTOLS AND REVOLVERS 126–27 (1993); SUPICA ET AL., *supra* note 27, at 86.

Since the late 1890s, the Savage Arms Company has been one of the classic American firearms manufacturers.<sup>78</sup> In 1911, the company introduced their bolt-action Model 1911, a twenty-shot repeater with a tubular magazine in .22 short caliber.<sup>79</sup> The rifle was popular for boys and for shooting galleries.<sup>80</sup>

By the 1930s, American manufacturers such as Remington, Marlin, and Winchester were producing many tubular magazine rifles in .22 caliber.<sup>81</sup> These firearms are classic rifles for “plinking” (casual target shooting), especially popular for young people. Based on firearms catalogues from 1936 to 1971, there are over twenty such firearms models from major American manufacturers with magazines of sixteen to thirty rounds in one or more of the calibers.<sup>82</sup>

In 1927, the Auto Ordinance Company introduced their

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<sup>78</sup> See *Savage Arms History*, SAVAGE ARMS, <http://www.savagearms.com/history/> (last visited Feb. 21, 2015).

<sup>79</sup> JIM PERKINS, AMERICAN BOYS' RIFLES 1890–1945, at 191 (1976).

<sup>80</sup> *Id.* Similarly, the Remington Model 12B Gallery Special was introduced in 1910, with an optional extended magazine that held twenty-five .22 shorts. ROY MARCOT, REMINGTON, “AMERICA'S OLDEST GUN MAKER” 149 (James W. Bequette & Joel J. Hutchcroft eds. 1998).

<sup>81</sup> See, e.g., 2014 STANDARD CATALOG OF FIREARMS, *supra* note 60, at 687–88, 870, 1343.

<sup>82</sup> Models listed in the 1936 *Shooter's Bible* include; Remington Model 34 bolt action, Remington Model 121 slide action, Remington Model 341 bolt action, Stevens No. 71 slide action, Savage Model 5 bolt action, Stevens Model 76 semiauto, Stevens-Springfield Model 86 bolt action, Winchester Model 62 slide action, and Winchester Model 61 slide action. STOGER ARMS CORP., SHOOTER'S BIBLE, 1936, at 108–09, 112, 123–24, 126–27, 140 (photo. reprint 1974).

Some additional models include: Stevens Model 87 bolt action, Remington 550 semiauto, Mossberg Model 46B bolt action, Mossberg Model 46M bolt action, Winchester Model 74 semiautomatic, Marlin 39 A lever action, and Marlin Model 81 DL bolt action. BOB BROWNELL, 2 THE GUNSMITHS MART, 1949–1950, at 212, 214, 216, 218, 221 (2011) (reprinting article from *Hunting & Fishing*, Oct. 1948).

The 1959 annual edition of the *Shooter's Bible* adds the semiautomatic Savage Model 6 to the above list. STOGER ARMS CORP., SHOOTER'S BIBLE, 1959, at 103 (1959). For some of the models previously mentioned, see *id.* at 80, 87, 91, 101.

Histories of Savage and Stevens firearms include the following not listed above: Stevens No. 66 bolt action, Stevens Model 46 bolt action, Model 1914 slide action, Savage Model 29 slide action, Savage Model 29 G slide action. JAY KIMMEL, SAVAGE AND STEVENS ARMS COLLECTOR'S HISTORY 35 (1990); BILL WEST, SAVAGE AND STEVENS ARMS, at 11–12, 13–8, 14–44, 15–10, 16–10 (1971). Savage purchased Stevens in 1920. *Savage Arms History*, *supra* note 78.

For use of the *Shooter's Bible* by the courts, see *United States v. Olson*, No. 94-30387, 1995 U.S. App. LEXIS 36973, at \*1–2 (9th Cir. Dec. 15, 1995) (stating that the book was properly used as a source for a Bureau of Alcohol, Tobacco, and Firearms agent's expert opinion); *United States v. Fisher*, 353 F.2d 396, 399 (5th Cir. 1965) (Gewin, J., dissenting) (considering information in the book to determine whether the evidence relied on by the trial court was sufficient to justify the trial court's holding); *Potter v. United States*, 167 Ct. Cl. 28, 48 n.1 (Ct. Cl. 1964) (citing the book for the history of Gabilondo firearms); *United States v. Precise Imports Corp.*, 458 F.2d 1376, 1377 (C.C.P.A. 1972) (reviewing the record produced at the trial court, which included pages from the 1967 edition of the book).

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semiautomatic rifle that used thirty-round magazines.<sup>83</sup> These rifles are still in production today.<sup>84</sup>

The M-1 carbine was invented for the citizen soldier of World War II.<sup>85</sup> Thereafter, the M-1 carbine became and has remained a popular rifle for civilians in America.<sup>86</sup> The U.S. government's Civilian Marksmanship Program, created by Congress, put nearly a quarter million of these guns into the hands of law-abiding American citizens starting in 1963, at steeply-discounted prices.<sup>87</sup> Partly using surplus government parts, the Plainfield Machine Company, Iver Johnson, and more than a dozen other companies cumulatively manufactured over 200,000 for the civilian market, starting in the late 1950s.<sup>88</sup> The standard magazines are fifteen and thirty rounds.<sup>89</sup>

The most popular rifle in American history is the AR-15 platform, a semiautomatic rifle with standard magazines of twenty or thirty rounds.<sup>90</sup> The AR-15 was brought to the market in 1963, with a

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<sup>83</sup> 2014 STANDARD CATALOG OF FIREARMS, *supra* note 60, at 84; *T1-C*, THOMPSON, [www.auto-ordnance.com/firearms/thompson-t1-c.asp](http://www.auto-ordnance.com/firearms/thompson-t1-c.asp) (last visited Feb. 21, 2015).

<sup>84</sup> *See T1-C*, *supra* note 83.

<sup>85</sup> *See* BRUCE N. CANFIELD, BRUCE CANFIELD'S COMPLETE GUIDE TO THE M1 GARAND AND THE M1 CARBINE 163 (1999).

<sup>86</sup> *See id.* at 163, 279 (noting high desirability and demand for the firearm after the war ended); *see also* Joseph P. Tartaro, *The Great Assault Weapon Hoax*, 20 U. DAYTON L. REV. 619, 622 (1995) (“[T]he M1 carbine [is] beloved by millions of war veterans, collectors, and recreational shooters.”).

<sup>87</sup> CANFIELD, *supra* note 85, at 163; LARRY L. RUTH, 2 WAR BABY! COMES HOME: THE U.S. CALIBER .30 CARBINE 575 (R. Blake Stevens ed., 1993); *About the CMP*, CIV. MARKSMANSHIP PROGRAM, <http://thecmp.org/about/> (last visited Feb. 21, 2015).

<sup>88</sup> *See* CANFIELD, *supra* note 85, at 163, 279 (noting the large quantity of surplus carbine parts and that firms created commercial carbines using these parts in the 1950s and 1960s). The largest producers were Plainfield's 112,000 from 1962 to 1978 and Iver Johnson's 96,700 from 1978 to 1992. *Post WWII Commercially Manufactured M1 Carbines (U.S.A.): Iver Johnson Arms*, M1CARBINESINC.COM, [http://www.m1carbinesinc.com/carbine\\_ij.html](http://www.m1carbinesinc.com/carbine_ij.html) (last visited Feb. 21, 2015); *Post WWII Commercially Manufactured M1 Carbines (U.S.A.): Plainfield Machine Co., Inc.*, M1CARBINESINC.COM., [http://www.m1carbinesinc.com/carbine\\_plainfield.html](http://www.m1carbinesinc.com/carbine_plainfield.html) (last visited Feb. 21, 2015). The U.S. Government sold 240,000 of its own surplus in 1963 into the Civilian Marksmanship Program. CANFIELD, *supra* note 85, at 163. Thereafter, the program (then known as “DCM”—Director of Civilian Marksmanship) sold M1s to Americans from the supply of World War II M1 carbines that had been exported to allied nations and subsequently returned to the United States when the allied nation switched to a newer type of rifle. *See* RUTH, *supra* note 87, at 575, 723. As of 2014, the Civilian Marksmanship Program's supply of carbines for sale has been exhausted. *M1 Carbine*, CIV. MARKSMANSHIP PROGRAM, <http://www.thecmp.org/Sales/carbine.htm> (last visited Feb. 21, 2015).

<sup>89</sup> RUTH, *supra* note 87, at 575.

<sup>90</sup> *See* NICHOLAS J. JOHNSON, DAVID B. KOPEL, GEORGE A. MOCSARY & MICHAEL P. O'SHEA, FIREARMS LAW AND THE SECOND AMENDMENT: REGULATION, RIGHTS, AND POLICY 12, 809 (2012) (noting the wide range of uses for the gun and its popularity). The “AR” stands for “ArmaLite Rifle.” *Modern Sporting Rifle Facts*, NAT'L SHOOTING SPORTS FOUND., <http://www.nssf.org/msr/facts.cfm> (last visited Feb. 21, 2015). ArmaLite did the initial design work on

then-standard magazine of twenty; the thirty-round standard magazine was developed a few years later.<sup>91</sup> The 1994 Supreme Court case *Staples v. United States*<sup>92</sup> described the AR-15 as “the civilian version of the military’s M-16 rifle,” and noted that many parts are interchangeable between the two guns.<sup>93</sup> The crucial distinction, explained the Court, is that the AR-15 is like all other semiautomatic firearms in that it can fire “only one shot with each pull of the trigger.”<sup>94</sup> The Court pointed out that semiautomatic firearms “traditionally have been widely accepted as lawful possessions.”<sup>95</sup> So legally speaking, the semiautomatic AR-15 is the opposite of the M-16 machine gun: “[C]ertain categories of guns—no doubt including the machineguns, sawed-off shotguns, and artillery pieces that Congress has subjected to regulation— . . . have the same quasi-suspect character we attributed to owning hand grenades . . . . But . . . guns falling outside those categories traditionally have been widely accepted as lawful possessions . . . .”<sup>96</sup>

By 1969, the AR-15 faced competition from the Armalite-180 (twenty-round optional magazine), the J&R 68 carbine (thirty rounds), and the Eagle Apache carbine (thirty rounds).<sup>97</sup>

Springfield Armory brought out the M1A semiautomatic rifle in 1974, with a twenty-round detachable box magazine.<sup>98</sup> The next year, the Ruger Mini-14 rifle was introduced, with manufacturer-supplied standard five, ten, or twenty-round detachable magazines.<sup>99</sup> Both the M1A and the Mini-14 are very popular to this day.<sup>100</sup>

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the AR-15 before selling the rights to Colt’s. ARMALITE, INC., A HISTORICAL REVIEW OF ARMALITE 3 (Jan. 4, 2010), available at <http://www.armalite.com/images/Library%5CHistory.pdf>.

<sup>91</sup> PATRICK SWEENEY, THE GUN DIGEST BOOK OF THE AR-15, at 104 (2005). About this time, the Cetme-Sport semiauto rifle with an optional twenty-round detachable box mag magazine came on the market. GUN DIGEST 1968, at 335 (John T. Amber ed., 22nd Anniversary Deluxe ed. 1967).

<sup>92</sup> *Staples v. United States*, 511 U.S. 600 (1994).

<sup>93</sup> *Id.* at 603.

<sup>94</sup> *Id.* at 602 n.1, 603.

<sup>95</sup> *See id.* at 612.

<sup>96</sup> *See id.* at 611–12.

<sup>97</sup> *See* GUN DIGEST 1970, at 294 (John T. Amber ed., 24th Anniversary Deluxe ed. 1969).

<sup>98</sup> *See* 2014 STANDARD CATALOG OF FIREARMS, *supra* note 60, at 1102 (noting the twenty-round box magazine); *M1A Series*, SPRINGFIELD ARMORY, <http://www.springfield-armory.com/m1a-series/> (last visited Feb. 21, 2015).

<sup>99</sup> 2014 STANDARD CATALOG OF FIREARMS, *supra* note 60, at 1173.

<sup>100</sup> *See* M1A Scout, *What is an M1A Rifle*, M1A RIFLES (July 2, 2009), <http://www.m1arifles.com/tag/m14/>; Shawn Skipper, *8 Things You Might Not Know About the Ruger Mini-14*, DAILY CALLER (June 3, 2014), <http://dailycaller.com/2014/06/03/8-things-you-might-not-know->



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By 1979, all of the above guns were challenged in the American market by high-quality European imports such as the Belgian FN-FAL Competition rifle (optional twenty-round magazine), the German Heckler & Koch HK-91 and HK-93 rifles (twenty rounds), the Swiss SIG AMT rifle (twenty rounds), and the Finnish Valmet M-71S rifle (thirty rounds).<sup>101</sup>

Citizen firearms with detachable magazines holding more than ten rounds were not limited to rifles, however. In 1935, Browning introduced the Hi-Power pistol.<sup>102</sup> This handgun was sold with a thirteen-round detachable magazine and is still in production.<sup>103</sup>

In Europe, more so than in America, Browning had to compete against the Spanish Gabilondo twenty-round Plus Ultra, introduced in 1925.<sup>104</sup> Spain's Arostegui, Eulogio brought out the Azul—a semiautomatic with standard magazines of ten, twenty and thirty—in 1935.<sup>105</sup>

Browning's first notable American competition came with the 1964 introduction of the Plainfield Machine Company's "Enforcer," a pistol version of the M1 carbine with a thirty-round magazine.<sup>106</sup>

A tremendous commercial success was the Beretta model 92, a nine millimeter pistol with a sixteen-round magazine, which entered the market in 1976.<sup>107</sup> In various configurations (currently the Beretta 92F) the Beretta is one of the most popular of all modern handguns.<sup>108</sup> Browning introduced another popular handgun in 1977, the fourteen-round BDA (Browning Double Action).<sup>109</sup> Also coming on the market at this time were European handguns such as Austria's L.E.S. P-18 (eighteen rounds) and

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about-the-ruger-mini-14/. Another gun introduced in 1976 also used magazines larger than fifteen. The Bingham company (from Norcross, Georgia) brought out the PPS 50 and AK-22, .22 caliber rifles with detachable magazines of fifty or twenty-nine rounds. 2014 STANDARD CATALOG OF FIREARMS, *supra* note 60, at 163. The PPS-50 is currently manufactured by Mitchell's Mausers. See PPS-50/22, MITCHELL'S MOUSERS, <http://www.mauser.org/pps-50-22/> (last visited Feb. 21, 2015). That the gun is still in production four decades later is impressive, but the PPS-50 never became an all-American favorite as did the M1, AR-15, M1A and the Mini-14.

<sup>101</sup> GUN DIGEST 1980, at 319–21 (Ken Warner ed., 34th Anniversary Deluxe ed. 1979). Also on the market were the Commando Arms carbine (five, fifteen, thirty or ninety rounds), and the Wilkinson Terry carbine (thirty-one rounds). *Id.* at 319, 322.

<sup>102</sup> 2014 STANDARD CATALOG OF FIREARMS, *supra* note 60, at 182.

<sup>103</sup> *Id.* at 432–33.

<sup>104</sup> See *id.* at 465.

<sup>105</sup> *Id.* at 72; BREATHED & SCHROEDER, *supra* note 74, at 216–17.

<sup>106</sup> See GUN DIGEST 1965, at 229 (John T. Amber eds., 19th Anniversary Deluxe ed. 1964).

<sup>107</sup> 2014 STANDARD CATALOG OF FIREARMS, *supra* note 60, at 121.

<sup>108</sup> *Id.* at 122. In 1985 the M9 version of this pistol became the standard U.S. military issue sidearm. *Id.* at 124.

<sup>109</sup> *Id.* at 184.

Germany's Heckler & Koch VP 70Z (also eighteen rounds).<sup>110</sup>

### *E. Magazines After 1979*

We end this story in 1979, when Jimmy Carter was President,<sup>111</sup> the Bee Gees bestrode the AM radio Top 40,<sup>112</sup> Gaston Glock was manufacturing curtain rods in his garage,<sup>113</sup> Americans were watching *Love Boat* on broadcast television,<sup>114</sup> and people on the cutting edge of technology were adopting VisiCalc, the first spreadsheet program, run from huge floppy discs.<sup>115</sup>

Long before 1979, magazines of more than ten rounds had been well established in the mainstream of American gun ownership. Indeed, they had been so established before almost everyone alive in 1979 was born.

After 1979, technological improvements continued to foster the popularity of magazines holding more than ten rounds. First of all, there were improvements across the board in manufacturing, so that magazine springs became more reliable, particularly for magazines holding up to thirty rounds. This greatly reduced the risk of a misfeed. Reliability was also enhanced by improvements in shaping the magazines' "lips"—the angled wings at the top of the magazine which guide the next round of ammunition into the firing chamber.<sup>116</sup>

Magazines of all sizes benefited from increasing use of plastic polymers in manufacturing.<sup>117</sup> Today, many magazine walls are

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<sup>110</sup> See GUN DIGEST 1980, *supra* note 101, at 297–98. L.E.S. was the American partner of Austria's Steyr. The following courts have relied on one of the annual issues of GUN DIGEST: *Sturm, Ruger & Co. v. Arcadia Mach. & Tool, Inc.*, No. CV 85-8459 MRP, 1988 U.S. Dist. LEXIS 16451, at \*3–4 (C.D. Cal. Nov. 4, 1988); *A. Uberti & C. v. Leonardo*, 892 P.2d 1354, 1364 (Ariz. 1995) (discussing how the inclusion of the defendant's guns in the *Gun Digest* established that defendant had sufficient minimum contacts with the state to satisfy personal jurisdiction); *Couplin v. State*, 378 A.2d 197, 202 n.2 (Md. Ct. Spec. App. 1977); *Citizens for a Safer Cmty. v. City of Rochester*, 627 N.Y.S.2d 193, 203 n.5 (Sup. Ct. 1994).

<sup>111</sup> JULIAN E. ZELIZER, *JIMMY CARTER* 3 (2010).

<sup>112</sup> See DAVID N. MEYER, *THE BEE GEES: THE BIOGRAPHY* 213–14 (2013).

<sup>113</sup> PAUL M. BARRETT, *GLOCK: THE RISE OF AMERICA'S GUN* 13–16 (2012).

<sup>114</sup> GAVIN MACLEOD & MARK DAGOSTINO, *THIS IS YOUR CAPTAIN SPEAKING: MY FANTASTIC VOYAGE THROUGH HOLLYWOOD, FAITH & LIFE* 138–39 (2013).

<sup>115</sup> See, e.g., BOB DENTON, *THE PC PIONEERS* 97–100 (2d ed. 2014); ROBERT E. WILLIAMS & BRUCE J. TAYLOR, *THE POWER OF: VISICALC* (1981) (advising how to properly use the VisiCalc system and providing practice exercises on the system).

<sup>116</sup> See generally David Tong, *The Care, Feeding and Reliability of Semi-Automatic Pistols*, CHUCKHAWKS.COM, [http://www.chuckhawks.com/care\\_reliability\\_autopistols.htm](http://www.chuckhawks.com/care_reliability_autopistols.htm) (last visited Feb. 21, 2015).

<sup>117</sup> See, e.g., Tim Lau, *AR15/M16 Magazine Drop Test: Plastic Vs. Aluminum*, MODERN SERVICE WEAPONS, (Dec. 9, 2012), <http://modernserviceweapons.com/?p=1072> (comparing the performance of plastic and aluminum magazines).

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made from plastic, rather than metal. Closer tolerances in manufacturing, lower costs, and increased durability have all improved magazine quality and reliability.

Likewise, the vast majority of magazines today have a removable baseplate (also known as a “foot plate”).<sup>118</sup> Removal of the baseplate allows the magazine to be disassembled for cleaning (e.g., removal of gunpowder residue) or repair (e.g., replacing a worn-out spring).<sup>119</sup> The existence of a removable baseplate also makes it possible for consumers to add after-market extenders to a magazine.<sup>120</sup> These extenders may simply increase the grip length (to better fit a particular consumer’s hands), and they may also increase capacity by one, two, or three rounds.<sup>121</sup> Thus, a consumer with a ten-round factory magazine can add a two-rounder extender to create a twelve-round magazine.

Most importantly, the double-stack magazine was perfected. In some box magazines, the ammunition is contained in a single column.<sup>122</sup> In the double-stack magazine, there are two columns of ammunition, side-by-side and touching.<sup>123</sup> When the gun is used, the magazine will first reload a round from column A, then a round from column B, then from column A, and so on.<sup>124</sup>

The practical effect is this: for a handgun, a single stack magazine of seventeen rounds would stick out far below the bottom of the grip, making the gun unwieldy for carrying and holstering. With a double-stack configuration, a seventeen-round magazine can fit inside a standard full-sized handgun grip. The practical limitation of grip size (the size of the human hand) means that relatively larger capacity magazines are possible for relatively smaller cartridges. Thus, a double-stack magazine for the midsize nine millimeter round might hold up to twenty or twenty-one rounds, whereas a double-stack for the thicker .45 ACP cartridge would hold

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<sup>118</sup> Michael Shain, Expert Report and Opinion at 5–6, *Cooke v. Hickenlooper*, No. 13-cv-01300-MSK-MJW (D. Colo. Aug. 1, 2013), available at <http://coloradoguncase.org/Shain-report.pdf>. Kopel is counsel for the Colorado Sheriffs who are the plaintiffs in this case, which is currently on appeal to the Tenth Circuit.

<sup>119</sup> See Mike Wood, *3 Simple Keys to Cleaning Your Pistol Magazines*, POLICEONE.COM, July 11, 2014, <http://www.policeone.com/Officer-Safety/articles/7358758-3-simple-keys-to-cleaning-your-pistol-magazines/>.

<sup>120</sup> Michael Shain, Expert Report and Opinion at 5–7, *Cooke*, No. 13-cv-01300-MSK-MJW.

<sup>121</sup> See, e.g., *Magazine Adapters*, TOP GUN SUPPLY, <http://www.topgunsupply.com/gun-accessories-for-sale/magazine-adapters.html> (last visited Feb. 19, 2014) (selling magazine adapters that increase capacity and/or increase grip length).

<sup>122</sup> *Magazines, Clips, and Speedloaders*, FIREARMS ADVANTAGE, [http://www.firearmsadvantage.com/magazines\\_clips\\_speedloaders.html](http://www.firearmsadvantage.com/magazines_clips_speedloaders.html) (last visited Feb. 21, 2015).

<sup>123</sup> *Id.*

<sup>124</sup> *Id.*

no more than fifteen.

### III. THE HISTORY OF AMMUNITION CAPACITY BANS

An important factor in the consideration of the constitutionality of firearms laws is whether they are traditional and longstanding. For example, the *Heller* Court pointed out that “[f]ew laws in the history of our Nation have come close to the severe restriction of the District’s handgun ban.”<sup>125</sup> The handgun ban was contrasted with “longstanding” guns controls, such as those prohibiting gun possession by felons or the mentally ill.<sup>126</sup> Following *Heller*, the Tenth Circuit has explained that Second Amendment cases must consider “the rarity of state enactments in determining whether they are constitutionally permissible.”<sup>127</sup>

At the time the Second Amendment was adopted, there were no laws restricting ammunition capacity. This was not because all guns were single-shot. As detailed above, multi-shot guns predate the Second Amendment by about two hundred years, and Lewis and Clark carried a powerful twenty-two-round gun on their famous expedition.<sup>128</sup>

The first laws that restricted magazine capacity were enacted during the prohibition era, nearly a century and a half after the Second Amendment was adopted, and over half a century after the adoption of the Fourteenth Amendment. In 1927, Michigan prohibited “any machine gun or firearm which can be fired more than sixteen times without reloading.”<sup>129</sup> Also in 1927, Rhode Island banned “any weapon which shoots more than twelve shots semi-automatically without re-loading.”<sup>130</sup>

The Michigan ban was repealed in 1959.<sup>131</sup> That same year, the

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<sup>125</sup> District of Columbia v. Heller, 554 U.S. 570, 629 (2008).

<sup>126</sup> *Id.* at 626, 629.

<sup>127</sup> Kerr v. Hickenlooper, 744 F.3d 1156, 1178 (10th Cir. 2014).

<sup>128</sup> See *supra* notes 21–31 and accompanying text.

<sup>129</sup> Act of June 2, 1927, No. 373, § 3, 1927 Mich. Public Acts 887, 888 (repealed 1959) (“It shall be unlawful within this state to manufacture, sell, offer for sale, or possess any machine gun or firearm which can be fired more than sixteen times without reloading . . .”). In 1931, the provision was consolidated into section 224 of the Michigan Code.

<sup>130</sup> Act of Apr. 22, 1927, ch. 1052, §§ 1, 4, 1927 R.I. Acts & Resolves 256, 256–57 (amended 1959).

<sup>131</sup> Under the 1959 revision: “Any person who shall manufacture, sell, offer for sale or possess any machine gun or firearm which shoots or is designed to shoot automatically more than 1 shot without manual reloading, by a single function of the trigger . . . shall be guilty of a felony . . .” Act of July 16, 1959, No. 175, sec. 1, § 224, 1959 Mich. Pub. Acts 249, 250. Michigan’s current statute on machine guns contains very similar language. See MICH. COMP. LAWS SERV. § 750.224 (LexisNexis 2014) (“A person shall not manufacture, sell, offer

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Rhode Island law was changed to fourteen shots, and .22 caliber rimfire guns were excluded.<sup>132</sup> The Rhode Island ammunition capacity law was fully repealed in 1975.<sup>133</sup>

The two statutes applied only to firearms, with Rhode Island only for semiautomatics. Neither statute covered a magazine that was not inserted in a firearm.

In 1933, Ohio began requiring a special permit for the possession or sale of a semiautomatic firearm with an ammunition capacity of greater than eighteen rounds.<sup>134</sup> In 1971, during a recodification of the state criminal code, an exemption for .22 caliber was added, and for other calibers the limit was raised to thirty-two or more rounds.<sup>135</sup>

Significantly, the Ohio statute was interpreted to not ban the sale of any magazine or any gun, but to forbid the simultaneous purchase of a magazine and a compatible gun.<sup>136</sup> (Of course purchase was allowed if one has the special permit.)<sup>137</sup> With or without the permit, one could buy a sixty-round magazine in Ohio.<sup>138</sup> The licensing law was fully repealed in 2014.<sup>139</sup>

for sale or possess . . . [a] machine gun or firearm that shoots or is designed to shoot automatically more than 1 shot without manual reloading, by a single function of the trigger.”).

<sup>132</sup> Firearms Act, ch. 75, secs. 11-47-2, -8, 1959 R.I. Acts & Resolves 260, 260, 263 (amended 1975).

<sup>133</sup> This was accomplished by changing the Firearms Act’s definition of “Machine gun” to mirror the federal definition:

[A]ny weapon which 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. The term shall also include the frame or receiver of any such weapon, any combination of parts designed and intended for use in converting a weapon into a machinegun, and any combination of parts from which a machinegun can be assembled if such parts are in the possession or under the control of a person.

Firearms Act, ch. 278, sec. 1, § 11-47-2, 1975 R.I. Pub. Laws 738, 738–39, 742 (amended 1989). Rhode Island’s definition of machine gun was changed again in 1989. Act of July 10, 1989, ch. 542, sec. 7, § 11-47-2, 1989 R.I. Pub. Laws. 1371, 1375–76 (codified at R.I. GEN. LAWS ANN. § 11-47-2 (West 2014)).

<sup>134</sup> Act of Apr. 8, 1933, No. 166, sec. 1, §§ 12819-3, -4, 1933 Ohio Laws 189, 189 (amended 1972).

<sup>135</sup> Act of Dec. 22, 1972, No. 511, sec. 1, § 2923.11, 1972 Ohio Laws 1866, 1963; OHIO REV. CODE ANN. § 2923.11 (LexisNexis 2014).

<sup>136</sup> *Ohio: Disclaimer*, BUDSGUNSHOP.COM (July. 11, 2014), [http://www.budsgunshop.com/catalog/feeds/state\\_reg/ohio\\_restrictions.pdf](http://www.budsgunshop.com/catalog/feeds/state_reg/ohio_restrictions.pdf).

<sup>137</sup> OHIO REV. CODE ANN. § 2923.17.

<sup>138</sup> See, e.g., *Surefire 60-Round High-Capacity Magazine MAG5-60*, GANDER MTN., <http://www.gandermountain.com/modperl/product/details.cgi?pdesc=SureFire-60-Round-High-Capacity-Magazine-MAG5-60&i=447625> (last visited Feb. 21, 2015) (allowing online customers to arrange for pick-up of a SureFire 60-Round High-Capacity Magazine at any of nine Ohio stores).

<sup>139</sup> H.R. 234, 2013–2014 Leg., 130th Sess. § 2 (Ohio 2014) (enacted) (repealing relevant definition statute, and taking effect Mar. 23, 2015).

The only longstanding statute banning magazines is found in the District of Columbia. In 1932, Congress passed a District of Columbia law prohibiting the possession of a firearm that “shoots automatically or semiautomatically more than twelve shots without reloading.”<sup>140</sup> In contrast, when Congress enacted the National Firearms Act of 1934 to impose stringent regulations on machine guns, it chose to impose no restrictions on magazines.<sup>141</sup> When the District of Columbia achieved home rule in 1975,<sup>142</sup> the district council did not choose to repeal the law but instead promptly enacted the bans on handguns and on self-defense with any gun in the home,<sup>143</sup> which were later ruled unconstitutional by the Supreme Court in *Heller*.<sup>144</sup> The District of Columbia interpreted the magazine law so that it outlawed all detachable magazines and all semiautomatic handguns.<sup>145</sup> The District stands alone in its historical restriction of magazines.

The only widespread restriction on magazine capacity came in 1994 when Congress enacted a ban on new magazines holding more than ten rounds.<sup>146</sup> The law was in effect until 2004, at which point Congress allowed it to sunset.<sup>147</sup> The effects of this law were studied extensively in a series of U.S. Department of Justice reports authored by Doctor Christopher Koper and two others. The final report, issued in 2004, concluded: “there has been no discernible reduction in the lethality and injuriousness of gun violence, based on indicators like the percentage of gun crimes resulting in death or the share of gunfire incidents resulting in injury . . . .”<sup>148</sup> Further,

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<sup>140</sup> Act of July 8, 1932, Pub. L. No. 72-275, §§ 1, 8, 47 Stat. 650, 650, 652.

<sup>141</sup> National Firearms Act, Pub. L. 73-474, 48 Stat. 1236 (1934).

<sup>142</sup> *D.C. Home Rule*, COUNCIL D.C., <http://dccouncil.us/pages/dc-home-rule> (last visited Feb. 21, 2015).

<sup>143</sup> See Firearms Control Regulations Act of 1975, No. 1-142, § 201, 23 D.C. Reg. 1091, 1097 (July 23, 1976).

<sup>144</sup> See *supra* notes 13–14, 19–20 and accompanying text.

<sup>145</sup> See VIVIAN S. CHU, DC GUN LAWS AND PROPOSED AMENDMENTS 5–6 (2011) (“Prior to *Heller*, the DC Code’s definition of ‘machine gun’ included ‘any firearm, which shoots, is designed to shoot or can be readily converted to shoot . . . semiautomatically, more than 12 shots without manual reloading.’ By virtue of this broad definition, any semiautomatic weapon that could shoot more than 12 shots without manual reloading, whether pistol, rifle, or shotgun, was deemed a ‘machine gun,’ and prohibited from being registered. It appears that under the District’s old definition, registration of a pistol was largely limited to revolvers.” (quoting D.C. Code § 7-2501.01(10) (LexisNexis 2008))).

<sup>146</sup> Violent Crime Control and Law Enforcement Act of 1994, Pub. L. 103-322, § 110103(a)–(b), 108 Stat. 1796, 1998–99.

<sup>147</sup> § 110105, 108 Stat. at 2000.

<sup>148</sup> CHRISTOPHER S. KOPER ET AL., AN UPDATED ASSESSMENT OF THE FEDERAL ASSAULT WEAPONS BAN: IMPACTS ON GUN MARKETS AND GUN VIOLENCE, 1994–2003, at 96 (2004), available at <https://www.ncjrs.gov/pdffiles1/nij/grants/204431.pdf>.

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“the ban has not yet reduced the use of [such magazines] in crime . . . .”<sup>149</sup> Doctor Koper noted also that state-level firearm bans have not had an impact on crime.<sup>150</sup>

In the modern era, only a few states have enacted magazine restrictions, starting with New Jersey’s 1990 ban on magazines over fifteen rounds.<sup>151</sup> That ban applies only to detachable box magazines for semiautomatic firearms.<sup>152</sup> A couple years later, Hawaii banned handgun magazines over twenty rounds, and later reduced that to ten.<sup>153</sup> Maryland in 1994 banned the sale or manufacture of magazines over twenty rounds; the ban did not affect possession, loans, acquisition, or importation.<sup>154</sup> The Maryland limit was reduced to ten in 2013.<sup>155</sup>

In 1999 California banned the sale of magazines over ten rounds but allowed grandfathered possession, and New York did the same in 2000.<sup>156</sup> (Currently, large capacity magazine bans in Colorado, Connecticut, and Massachusetts also have grandfather provisions, while New Jersey, the District of Columbia, and Hawaii do not.)<sup>157</sup> In 2013 New York removed grandfathering and reduced the limit to seven.<sup>158</sup> The seven-round limit was suspended shortly thereafter, since there are no seven-round magazines available for many guns.<sup>159</sup> Instead, the legislature forbade owners of ten-round magazines to load more than seven rounds.<sup>160</sup> This restriction was

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<sup>149</sup> *Id.* at 2.

<sup>150</sup> *Id.* at 81 n.95.

<sup>151</sup> Act of May 30, 1990, ch. 32, §§ 2C:39-1(y), -3(j), 1990 N.J. Laws 217, 221, 235 (codified at N.J. STAT. ANN. § 2C:39-1(y), -3(j) (West 2014)).

<sup>152</sup> § 2C:39-1(y). There is an exemption for certain competitive target shooters. *Id.* § 2C:39-3(j).

<sup>153</sup> Act of June 29, 1992, ch. 286, sec. 3, § 134-8, 1992 Haw. Sess. Laws 740, 742 (codified at HAW. REV. STAT. ANN. § 134-8 (LexisNexis 2014)).

<sup>154</sup> Act of May 26, 1994, ch. 456, § 36H-5, 1994 Md. Laws 2119, 2165 (amended 2013).

<sup>155</sup> See Firearm Safety Act of 2013, ch. 427, § 4-305, 2013 Md. Laws 4195, 4210 (codified at MD. CODE ANN., CRIM. LAW § 4-305 (LexisNexis 2014)).

<sup>156</sup> See Act of July 19, 1999, ch. 129, sec. 3, § 12020(a)(2), (c)(25), 1999 Cal. Stat. 1781, 1785, 1793 (repealed 2012); Act of Aug. 8, 2000, ch. 189, sec. 11, § 265.02(8), 2000 N.Y. Laws 2788, 2793 (amended 2013).

<sup>157</sup> *Large Capacity Ammunition Magazines Policy Summary*, L. CENTER TO PREVENT GUN VIOLENCE (May 31, 2013), <http://smartgunlaws.org/large-capacity-ammunition-magazines-policy-summary/>; see *supra* notes 158, 165 and accompanying text.

<sup>158</sup> Act of Jan. 15, 2013, ch. 1, secs. 38, 46-a, §§ 265.00.23, 265.36, 2013 N.Y. Laws 1, 16, 19 (codified at N.Y. PENAL LAW § 265.36 (McKinney 2014)).

<sup>159</sup> Freeman Klopott, *Cuomo’s 7-Bullet Limit to Be Suspended Indefinitely, Skelos Says*, BLOOMBERG (Mar. 24, 2013), <http://www.bloomberg.com/news/2013-03-25/cuomo-s-7-bullet-limit-to-be-suspended-indefinitely-skelos-says.html>.

<sup>160</sup> PENAL §§ 265.36–.37; OFFICE OF DIV. COUNSEL, GUIDE TO THE NEW YORK SAFE ACT FOR MEMBERS OF THE DIVISION OF STATE POLICE 7, 9 (2013), available at [http://www.nypdcea.org/pdfs/NYSP\\_Safe\\_Act\\_Field\\_Guide.pdf](http://www.nypdcea.org/pdfs/NYSP_Safe_Act_Field_Guide.pdf).

declared to violate the Second Amendment in a federal district court decision.<sup>161</sup> New York City outlaws rifle or shotgun magazines holding more than five rounds.<sup>162</sup>

Also in 2013, Colorado enacted a ban on magazines over fifteen rounds,<sup>163</sup> and Connecticut did the same for magazines over ten.<sup>164</sup> Both statutes allowed current owners to retain possession.<sup>165</sup>

Finally, one state has followed Ohio's former approach of magazine licensing, rather than prohibition. In 1994, Massachusetts began requiring that possession and additional acquisitions of magazines over ten rounds be allowed only for citizens who have a "Class A" firearms license—which most Massachusetts gun owners have.<sup>166</sup>

#### IV. WHAT DOES THE HISTORY MEAN?

Given the history above, what does modern legal doctrine say about the permissibility of outlawing magazines, as in the so-called SAFE Act's ban on possession of magazines of more than ten rounds and loading more than seven rounds in a magazine, or New York City's ban on long gun magazines of more than five rounds? What about bans in other states of more than ten rounds (Maryland, Connecticut, the District of Columbia, California, and Hawaii for handguns only) or more than fifteen rounds (New Jersey and Colorado)?

This Part analyzes these questions in light of Second Amendment

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<sup>161</sup> N.Y. State Rifle & Pistol Ass'n v. Cuomo, 990 F. Supp. 2d 349, 372–73 (W.D.N.Y. 2013).

<sup>162</sup> N.Y.C., N.Y., ADMIN. CODE § 10-306(b) (2015).

<sup>163</sup> Act of Mar. 20, 2013, ch. 48, sec. 1, §§ 18-12-301(2)(a)(I), -302(1), 2013 Colo. Sess. Laws 144, 144–45 (codified at COLO. REV. STAT. § 18-12-302(1) (2014)).

<sup>164</sup> Act of April 4, 2013, P.A. 13-3, § 23, 2013 Conn. Acts 47, 66 (Reg. Sess.) (codified at CONN. GEN. STAT. ANN. § 53-202w (West 2015)).

<sup>165</sup> COLO. REV. STAT. § 18-12-302(2) (permitting a person to maintain possession of a banned magazine if he/she owned it prior to the effective date of the law and maintained "continuous possession" thereafter); CONN. GEN. STAT. §§ 53-202w(e)(4), 53-202x(a)(1) (permitting a person to maintain possession of a banned magazine if he/she possessed it prior to the effective date of the law and declared it to the government).

<sup>166</sup> MASS. GEN. LAWS ANN. ch. 140 §§ 121, 131(a) (West 2014) (allowing possession and acquisition of magazines manufactured before Sept. 1994 by anyone with a Class A license); Matt Carroll, *Snapshot: Gun Licenses Per 1,000, 2012*, BOSTON.COM, (Jan. 24, 2013), [http://www.boston.com/yourtown/specials/snapshot/massachusetts\\_snapshot\\_gun\\_licenses\\_2012](http://www.boston.com/yourtown/specials/snapshot/massachusetts_snapshot_gun_licenses_2012) (showing the prevalence of Class A licenses in Massachusetts). A 2014 bill enacted in Massachusetts eliminated the lower category of "Class B" firearms licenses, so presumably all licensed firearms owners in Massachusetts will be able to acquire magazines of more than ten rounds, albeit only magazines manufactured before 1995. Act of Aug. 11, 2014, ch. 284, 2014 Mass. Acts, available at <https://malegislature.gov/Laws/SessionLaws/Acts/2014/Chapter284>.



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precedents from the *Heller* Court and from subsequent cases that have relied at least in part on history and tradition in judging Second Amendment cases.

A. *The Crucial Years: 1789–1791 and 1866–1868*

For original meaning of the Second Amendment, the most important times are when the Second Amendment was created and when the Fourteenth Amendment was created, since a core purpose of the latter amendment was to make the individual's Second Amendment right enforceable against state and local government.<sup>167</sup> Congress sent the Second Amendment to the states for ratification in 1789, and ratification was completed in 1791.<sup>168</sup> The Fourteenth Amendment was passed by Congress in 1866, and ratification by the states was completed in 1868.<sup>169</sup>

1. Magazines in 1789–1791 and 1866–1868

As of 1789 to 1791, multi-shot magazines had existed for two centuries, and a variety of models had come and gone.<sup>170</sup> The state-of-the-art gun between 1789 and 1791 was the twenty- or twenty-two-shot Girandoni air rifle, powerful enough to take down an elk with a single shot.<sup>171</sup>

By the time that the Fourteenth Amendment was introduced in Congress, firearms with magazines of over ten or fifteen rounds had been around for decades.<sup>172</sup> The best of these was the sixteen-shot Henry Rifle, introduced in 1861 with a fifteen-round magazine.<sup>173</sup> The Henry Rifle was commercially successful, but Winchester Model 1866, with its seventeen-round magazine, was massively successful.<sup>174</sup> So by the time ratification of the Fourteenth Amendment was completed in 1868, it was solidly established that firearms with seventeen-round magazines were in common use.

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<sup>167</sup> See, e.g., *Ezell v. City of Chi.*, 651 F.3d 684, 702–03 (7th Cir. 2011).

<sup>168</sup> JOHNSON, KOPEL, MOCSARY & O'SHEA, *supra* note 90, at 218.

<sup>169</sup> *Id.* at 299.

<sup>170</sup> See *supra* Part II.B.

<sup>171</sup> See *supra* notes 27–31 and accompanying text.

<sup>172</sup> See *supra* notes 32–35 and accompanying text..

<sup>173</sup> RICHARD C. RATTENBURY, A LEGACY IN ARMS: AMERICAN FIREARM MANUFACTURE, DESIGN, AND ARTISTRY, 1800–1900, at 135 (2014); see *supra* note 49 and accompanying text.

<sup>174</sup> CLIFFORD R. CADWELL, GUNS OF THE LINCOLN COUNTY WAR 50 (2009); RATTENBURY, *supra* note 173, at 136; *supra* notes 55–55 and accompanying text.

## 2. Magazine Prohibitions in 1789–1791 and 1866–1868

From the colonial period to the dawn of American independence on July 4, 1776, and through the ratification of the Fourteenth Amendment, there were no prohibitions on magazines. Indeed, the first magazine prohibition did not appear until the alcohol prohibition era in 1927.<sup>175</sup> Thus, the historical evidence of the key periods for original meaning strongly suggests that magazine bans are unconstitutional.

### *B. “Typically Possessed by Law-Abiding Citizens for Lawful Purposes” or “Dangerous and Unusual”?*

The Supreme Court’s *Heller* decision distinguished two broad types of arms. Some arms, such as handguns, are “typically possessed by law-abiding citizens for lawful purposes.”<sup>176</sup> These arms are also described by the Court as being “in common use.”<sup>177</sup> In contrast, some other arms are “dangerous and unusual.”<sup>178</sup> Examples provided by the Court were short-barreled shotguns or machine guns.<sup>179</sup> The common, typical, arms possessed by law-abiding citizens are protected by the Second Amendment; the “dangerous and unusual” arms are not protected.<sup>180</sup> By definition, “unusual” arms are not “in common use” or “typically possessed by law-abiding citizens for lawful purposes.”<sup>181</sup>

The *Heller* Court did not expressly mandate that historical analysis be used when deciding whether an arm is typical or common or “dangerous and unusual.” The *Heller* Court approvingly quoted the 1939 Supreme Court decision *United States v. Miller*,<sup>182</sup> which had described the original meaning of the Second Amendment as protecting individually-owned firearms that were “in common use at the time.”<sup>183</sup> The *Miller* Court’s 1939 decision did not extend Second Amendment protection to sawed-off

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<sup>175</sup> See *supra* notes 129–30 and accompanying text; see also Act of June 2, 1927, No. 372, § 3, 1927 Mich. Public Acts 887, 888–89 (repealed 1959) (regulating the possession of and carrying of certain firearms that were capable of firing sixteen shots without reloading).

<sup>176</sup> See *id.* at 625, 629 (majority opinion).

<sup>177</sup> *Id.* at 627 (quoting *United States v. Miller*, 307 U.S. 174, 179 (1939)).

<sup>178</sup> *Heller*, 554 U.S. at 627.

<sup>179</sup> See *id.* at 625, 627.

<sup>180</sup> See *id.* at 627.

<sup>181</sup> See *id.*

<sup>182</sup> *Id.* (quoting *Miller*, 307 U.S. at 179).

<sup>183</sup> *Heller*, 554 U.S. at 627 (quoting *Miller*, 307 U.S. at 179) (internal quotation marks omitted).

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shotguns;<sup>184</sup> as *Heller* explained *Miller*, the *Miller* principle was that sawed-off shotguns are dangerous and unusual.<sup>185</sup>

To be precise, *Miller* did not formally rule that short shotguns are *not* Second Amendment arms; the Court simply reversed and remanded the district court's decision granting criminal defendant Miller's motion to quash his indictment.<sup>186</sup> The Supreme Court said that the suitability of sawed-off shotguns as Second Amendment arms was not a fact that was subject to "judicial notice."<sup>187</sup> Presumably the federal district court in Arkansas could have taken up the remanded case and then received evidence regarding what sawed-off shotguns are used for and how common they are. But Miller and his co-defendant Frank Layton had disappeared long before the case was decided by the Supreme Court.<sup>188</sup>

Regardless, subsequent courts, including the court in *Heller*, read *Miller* as affirmatively stating that sawed-off shotguns are not protected by the Second Amendment.<sup>189</sup>

Even though *Heller*'s "common" or "typical" versus "dangerous and unusual" dichotomy seems primarily concerned with contemporary uses of a given type of arm, history can still be useful. As detailed in Part II, magazines of more than ten rounds have been very commonly possessed in the United States since 1862.<sup>190</sup> Common sense tells us that the small percentage of the population who are violent gun criminals is not remotely large enough to explain the massive market for magazines of more than ten rounds that has existed since the mid-nineteenth century. We have more than a century and a half of history showing such magazines to be owned by many millions of law-abiding Americans.<sup>191</sup>

Thus, a court which today ruled that such magazines are "dangerous and unusual" would seem to have some burden of explaining how such magazines, after a century and a half of being

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<sup>184</sup> *Miller*, 307 U.S. at 178.

<sup>185</sup> *Heller*, 554 U.S. at 625.

<sup>186</sup> *Miller*, 307 U.S. at 177, 183.

<sup>187</sup> *Id.* at 178. "Judicial notice" is when courts rely on facts that are not in the record of the case, but which are indisputably true. FED. R. EVID. 201. For example, they may be a subject of common knowledge (e.g., that in Arkansas, the sun is never visible in the sky at midnight) or can be ascertained from indisputable sources (e.g., that a particular section of the Code of Federal Regulations contains certain language). *See id.*

<sup>188</sup> Brian L. Frye, *The Peculiar Story of United States v. Miller*, 3 N.Y.U. J.L. & LIBERTY 48, 65–68 (2008). *The Peculiar Story of United States v. Miller* was cited by the Court in *Heller*. *Heller*, 554 U.S. at 623.

<sup>189</sup> *Heller*, 554 U.S. at 621–22.

<sup>190</sup> *See supra* Part II.

<sup>191</sup> *See supra* Part II.

“in common use” and “typically possessed by law-abiding citizens for lawful purposes,” became “dangerous and unusual” in the twenty-first century.

This is not possible. Today, magazines of more than ten rounds are more common than ever before.<sup>192</sup> They comprise about forty-seven percent of magazines currently possessed by Americans today.<sup>193</sup> The AR-15 rifle (introduced in 1963) is the most popular rifle in American history, with sales of several million;<sup>194</sup> its standard magazines are twenty or thirty rounds.<sup>195</sup>

*C. “Longstanding” Controls Versus “Few Laws in the History of Our Nation”*

Just as *Heller* distinguishes types of arms (common or typical versus dangerous and unusual), *Heller* distinguishes types of arms-control laws. One type of arms controls are “longstanding,” and these are “presumptively lawful.”<sup>196</sup> Examples listed by *Heller* are bans on gun possession “by felons and the mentally ill,” bans on carrying guns “in sensitive places such as schools and government buildings,” and “conditions and qualifications on the commercial sale of arms.”<sup>197</sup>

The *Heller* Court highlighted the unusual nature of the District of Columbia anti-gun laws:

Few laws in the history of our Nation have come close to the severe restriction of the District’s handgun ban. And some of those few have been struck down. In *Nunn v. State*, the Georgia Supreme Court struck down a prohibition on carrying pistols openly (even though it upheld a prohibition on carrying concealed weapons). In *Andrews v. State*, the Tennessee Supreme Court likewise held that a statute that forbade openly carrying a pistol “publicly or privately, without regard to time or place, or circumstances,” violated

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<sup>192</sup> See *Fyock v. City of Sunnyvale*, No. C-13-5807-RMW, 2014 U.S. Dist. LEXIS 29722, at \*13 (N.D. Cal. Mar. 5, 2014) (agreeing with and incorporating affidavit from plaintiffs’ expert that “whatever the actual number of such magazines in United States consumers’ hands is, it is in the tens-of-millions, even under the most conservative estimates.”).

<sup>193</sup> *Id.* (“Plaintiffs cite statistics showing that magazines having a capacity to accept more than ten rounds make up approximately 47 percent of all magazines owned.”).

<sup>194</sup> PATRICK SWEENEY, *THE GUN DIGEST BOOK OF THE AR-15*, at 14 (2005); see Meghan Lisson, *Run on Guns: AR-15s Sales Soar*, CNBC (Apr. 25, 2013), <http://www.cnbc.com/id/100673826>.

<sup>195</sup> SWEENEY, *supra* note 194, at 99.

<sup>196</sup> *District of Columbia v. Heller*, 554 U.S. 570, 626, 627 n.26 (2008).

<sup>197</sup> *Id.* at 626–27.

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the state constitutional provision (which the court equated with the Second Amendment). That was so even though the statute did not restrict the carrying of long guns.<sup>198</sup>

What was the history that led the Court to declare the handgun prohibition to be “unusual”—that is, to be the opposite of a traditional gun control that was presumptively constitutional? The District of Columbia handgun ban was enacted in 1975 and took effect in 1976.<sup>199</sup> Chicago enacted a similar ban in 1982, and a half-dozen Chicago suburbs followed suit during the 1980s.<sup>200</sup> In 1837, the Georgia legislature had enacted a handgun ban, but that was ruled unconstitutional on Second Amendment grounds by the unanimous Georgia Supreme Court in 1846.<sup>201</sup> In 1982 and 2005, San Francisco enacted handgun bans, but they were both ruled unlawful because of their plain violation of the California state preemption statute, which forbids localities to outlaw firearms which are permitted under state law.<sup>202</sup>

These are the facts under which the Supreme Court declared handgun bans to be suspiciously rare in America’s history—at the other end of the spectrum from the presumptively constitutional “longstanding” controls.

The 1975 District of Columbia handgun ban was thirty-three years old when the Supreme Court decided *Heller* in 2008. This suggests that thirty-three years is not sufficient for a gun control to be considered “longstanding.”

As detailed in Part III, the first of today’s magazine bans was enacted by New Jersey in 1990, at fifteen rounds.<sup>203</sup> The first state-level ten-round ban did not take effect until California passed such

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<sup>198</sup> *Id.* at 629 (citations omitted) (citing *Nunn v. State*, 1 Ga. 243, 251 (1846); *Andrews v. State*, 50 Tenn. 165, 187 (1871)); *see also Heller*, 554 U.S. at 629 (“A statute which, under the pretence of regulating, amounts to a destruction of the right, or which requires arms to be so borne as to render them wholly useless for the purpose of defence, would be clearly unconstitutional . . . .” (quoting *State v. Reid*, 1 Ala. 612, 616–17 (1840)) (internal quotation marks omitted)).

<sup>199</sup> Edward D. Jones, III, *The District of Columbia’s “Firearms Control Regulations Act of 1975”: The Toughest Handgun Control Law in the United States—Or Is It?*, 455 ANNALS AM. ACAD. POL. & SOC. SCI. 138, 139 (1981).

<sup>200</sup> *See McDonald v. City of Chi.*, 561 U.S. 742, 749 (2010); Steve Chapman, *Chicago’s Pointless Handgun Ban: City Gun Ordinances Proved to Be a Failure*, CHI. TRIB., Mar. 4, 2010, at C21.

<sup>201</sup> *Nunn*, 1 Ga. at 246, 251. The *Heller* Court cited this case with approval. *Heller*, 554 U.S. at 612.

<sup>202</sup> *Fiscal v. City & Cnty. of S.F.*, 70 Cal. Rptr. 3d 324, 326, 341–42 (Ct. App. 2008); *Doe v. City & Cnty. of S.F.*, 186 Cal Rptr. 380, 381 (Ct. App. 1982).

<sup>203</sup> *See supra* note 151–52 and accompanying text.

a law in 2000.<sup>204</sup> These statutes, and other post-1990 magazine bans, would not qualify as “longstanding.”

Previously, three states and the District of Columbia had enacted some magazine restrictions during the alcohol prohibition era.<sup>205</sup> The District of Columbia ban, with modifications, is still in effect.<sup>206</sup> The Michigan and Rhode Island bans were repealed long ago.<sup>207</sup> The Ohio special licensing statute allowed the free purchase of any magazine, but required a permit to insert a magazine of thirty-two rounds or more into a firearm; the permit requirement was repealed in 2014.<sup>208</sup> It is indisputable in the modern United States that magazines of up to thirty rounds for rifles and up to twenty rounds for handguns are standard equipment for many popular firearms.

Several post-*Heller* lower courts have conducted in-depth examinations of the history of particular gun control laws. The next Part examines each of those cases and then applies their methodology to the historical facts of bans on magazines of more than five, seven, ten, and fifteen rounds.

#### *D. Lower-Court Decisions Applying History*

##### 1. *Ezell v. City of Chicago*

After *McDonald v. City of Chicago* made it clear that the Second Amendment applies to municipal governments, the Chicago City Council relegalized handgun possession and outlawed all target ranges within city limits.<sup>209</sup> Assessing the constitutionality of the ban, the Seventh Circuit used a two-step test, similar to analysis that is sometimes used in First Amendment cases: (1) Is the activity or item within the scope of the Second Amendment, as historically understood? If the answer is “no,” then the restrictive law does not violate the Second Amendment.<sup>210</sup> (2) If the answer to the first question is “yes,” then the court will apply some form of the heightened scrutiny. The intensity of the scrutiny will depend on how close the restriction comes to affecting the core right of armed self-defense.<sup>211</sup>

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<sup>204</sup> See *supra* note 156 and accompanying text.

<sup>205</sup> See *supra* notes 129–30, 134, 140 and accompanying text.

<sup>206</sup> See *supra* notes 140–45 and accompanying text.

<sup>207</sup> See *supra* notes 131, 133 and accompanying text.

<sup>208</sup> See *supra* notes 135–39 and accompanying text.

<sup>209</sup> *Ezell v. City of Chi.*, 651 F.3d 684, 690–91 (7th Cir. 2011).

<sup>210</sup> *Id.* at 702–03.

<sup>211</sup> *Id.* at 703.

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So the *Ezell* court began the step-one analysis by considering whether target practice was historically considered part of the Second Amendment right.<sup>212</sup> Chicago had argued to the contrary, listing some eighteenth- and nineteenth-century state statutes and municipal ordinances restricting firearms discharge within city limits.<sup>213</sup> The Seventh Circuit found almost all of the listed ordinances to be irrelevant.<sup>214</sup> Many of them did not ban firearms discharge but simply required a permit.<sup>215</sup> Others were plainly concerned with fire prevention, an issue that would not be a problem at a properly-designed modern range.<sup>216</sup> Thus:

Only two—a Baltimore statute from 1826 and an Ohio statute from 1831—flatly prohibited the discharge of firearms based on concerns unrelated to fire suppression, in contrast to the other regulatory laws we have mentioned. This falls far short of establishing that target practice is wholly outside the Second Amendment as it was understood when incorporated as a limitation on the States.<sup>217</sup>

So according to the Seventh Circuit, the historical example of repressive laws in one state and one city are insufficient to support the inference that the repressed activity is outside the scope of the Second Amendment.<sup>218</sup> The historical basis of restrictions that would affect magazines over fifteen rounds is nearly as thin: two states with statutes enacted in 1927, and later repealed, plus the District of Columbia's 1932 law.<sup>219</sup> As for imposing a ban for guns with magazines of more than ten rounds (or seven or five), there is *no* historical basis.

Thus, under the *Ezell* analysis, bans on magazines infringe the Second Amendment right as it was historically understood, and such bans must be analyzed under heightened scrutiny.

## 2. *United States v. Rene E.*

In 2009, the First Circuit heard a Second Amendment challenge

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<sup>212</sup> *Id.* at 704.

<sup>213</sup> *Id.* at 705–06.

<sup>214</sup> *Id.*

<sup>215</sup> *Id.* at 705.

<sup>216</sup> *Id.* at 706.

<sup>217</sup> *Id.* (quoting *District of Columbia v. Heller*, 554 U.S. 570, 632 (2008)); *see also Heller*, 554 U.S. at 632 (“[W]e would not stake our interpretation of the Second Amendment upon a single law . . . that contradicts the overwhelming weight of other evidence . . .”).

<sup>218</sup> *See Ezell*, 652 F.3d at 706.

<sup>219</sup> *See supra* notes 131, 133, 140 and accompanying text.

to a federal statute that restricted, but did not ban, handgun possession by juveniles.<sup>220</sup> The federal statute was enacted in 1994,<sup>221</sup> and so of course was not “longstanding.”<sup>222</sup> The First Circuit looked at the history of state laws restricting juvenile handgun possession, to see if they were longstanding.<sup>223</sup>

The First Circuit found state or local restrictions on handgun transfers to juveniles and judicial decisions upholding such restrictions from Georgia (1911 case), Tennessee (1878 case),<sup>224</sup> Pennsylvania (1881 case),<sup>225</sup> Indiana (1884 case),<sup>226</sup> Kentucky (1888 case),<sup>227</sup> Alabama (1858 case),<sup>228</sup> Illinois (1917 case upholding a Chicago ordinance),<sup>229</sup> Kansas (1883 case allowing tort liability for transfer), and Minnesota (1918 case allowing tort liability for transfer).<sup>230</sup>

Thus, the First Circuit was able to point to six state statutes, all of them enacted well over a century previously.<sup>231</sup> They were buttressed by one municipal ordinance and two cases allowing tort liability, both of these being nearly a century old.<sup>232</sup>

The history of magazine restrictions is considerably weaker than that of the juvenile handgun statutes analyzed in *Rene E.* There were six statutes on juveniles, all of which were enacted before 1890, and one of which predated the Civil War.<sup>233</sup> This is much more than the pair of state statutes on magazines dating from the late 1920s.

The *Rene E.* case does not attempt to quantify how many state statutes are necessary for a gun control to be longstanding; however, we can say that magazine restrictions fall well short of the historical foundation that the First Circuit relied on to uphold juvenile handgun restrictions.

While *Rene E.* and *Ezell* both used history, the particular way that they used it was different. For *Rene E.*, history was mixed in

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<sup>220</sup> 18 U.S.C. § 922(x)(2)–(3) (2013); *United States v. Rene E.*, 583 F.3d 8, 16 (1st Cir. 2009).

<sup>221</sup> *Rene E.*, 583 F.3d at 12.

<sup>222</sup> *Id.*

<sup>223</sup> *Id.* at 14–15.

<sup>224</sup> *State v. Callicutt*, 69 Tenn. 714, 716–17 (1878).

<sup>225</sup> *McMillan v. Steele*, 119 A. 721, 722 (Pa. 1923).

<sup>226</sup> *State v. Allen*, 94 Ind. 441, 441 (1884).

<sup>227</sup> *Tankersly v. Commonwealth*, 9 S.W. 702, 703 (Ky. 1888).

<sup>228</sup> *Coleman v. State*, 32 Ala. 581, 582–83 (1858).

<sup>229</sup> *Biffer v. Chicago*, 116 N.E. 182, 184 (Ill. 1917).

<sup>230</sup> *Schmidt v. Capital Candy Co.*, 166 N.W. 502, 503–04 (Minn. 1918).

<sup>231</sup> *United States v. Rene E.*, 583 F.3d 8, 14–15 (1st Cir. 2009).

<sup>232</sup> *Id.*

<sup>233</sup> *Id.*



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with substantive analysis of the modern federal statute, which the First Circuit praised for its “narrow scope” and “important exceptions.”<sup>234</sup>

For *Ezell*, history was just the first step. *Ezell* used history to determine that the range ban was not presumptively lawful; once that question was answered, *Ezell* proceeded to analyze the ban under heightened scrutiny.<sup>235</sup>

### 3. *Heller II*

#### a. *Majority Opinion*

In the 2008 case *District of Columbia v. Heller*, the Supreme Court ruled that two District of Columbia ordinances violated the Second Amendment: the handgun ban and the ban on the requirement that any firearm in the home be kept locked or disassembled and thus unusable for self-defense.<sup>236</sup> Further, the District of Columbia required a permit to carry a gun anywhere (even from room to room in one’s home)<sup>237</sup> and permits were never granted; the Court ordered that plaintiff Dick Heller be granted a permit.<sup>238</sup>

The Council of the District of Columbia responded by repealing all three of the unconstitutional ordinances and enacting the most severe gun control system in the United States.<sup>239</sup> Dick Heller and several other plaintiffs challenged the new ordinances in the case known as *Heller II*.<sup>240</sup>

Using the two-step test, the District of Columbia Circuit majority first examined whether any of the challenged provisions were “longstanding.”<sup>241</sup> If so, then the provision would be held as not violating the Second Amendment right, with no further analysis needed.<sup>242</sup>

Regarding handgun registration, the majority identified statutes from New York (1911), Illinois (1881), Georgia (1910), Oregon

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<sup>234</sup> *Id.* at 11–16 (“[T]his law, with its narrow scope and its exceptions, does not offend the Second Amendment.”). Exceptions include farm and ranch work as well as target shooting or other activities under parental supervision. 18 U.S.C. § 922(x)(3)(A)(i)–(ii) (2013).

<sup>235</sup> *Ezell v. City of Chi.*, 651 F.3d 684, 706 (7th Cir. 2011).

<sup>236</sup> *District of Columbia v. Heller*, 554 U.S. 570, 635 (2008).

<sup>237</sup> *Id.* at 574–75.

<sup>238</sup> *Id.* at 635.

<sup>239</sup> *See Heller v. District of Columbia (Heller II)*, 670 F.3d 1244, 1248–49 (D.C. Cir. 2011).

<sup>240</sup> *Id.* at 1247.

<sup>241</sup> *Id.* at 1252–53.

<sup>242</sup> *See id.* at 1252.

(1917), and Michigan (1927).<sup>243</sup> In addition, some jurisdictions required handgun buyers to provide information about themselves to retailers, but did not require that the retailer deliver the information to the government: California (1917), Territory of Hawaii (1927), and the District of Columbia (1932).<sup>244</sup> So “[i]n sum, the basic requirement to register a handgun is longstanding in American law, accepted for a century in diverse states and cities and now applicable to more than one fourth of the nation by population.”<sup>245</sup>

The requirement that the government be provided with some basic information about persons acquiring handguns, in a manner that was “self-evidently *de minimis*” was therefore constitutional.<sup>246</sup> Seven states, with laws originating between 1881 and 1927, were apparently sufficiently numerous and “diverse” to qualify as “longstanding.”

However, although *de minimis* registration of handguns was longstanding, many of the new District of Columbia requirements went beyond traditional *de minimis* systems.<sup>247</sup> Further, “[t]hese early registration requirements, however, applied with only a few exceptions solely to handguns—that is, pistols and revolvers—and not to long guns. Consequently, we hold the basic registration requirements are constitutional only as applied to handguns. With respect to long guns they are novel, not historic.”<sup>248</sup> So the case was remanded to the district court for further fact-finding, since the District of Columbia government had provided the court with almost no information about whether the novel requirements passed heightened scrutiny by being narrowly tailored.<sup>249</sup>

The case had come to the District of Columbia Circuit following cross motions for summary judgment.<sup>250</sup> While the circuit court decided that the novel registration requirements needed a more complete factual record, the panel also decided that the record contained enough information for a ruling on the merits of the District’s ban on various semiautomatic rifles, which the district council labeled “assault weapons,” and on the District’s ban on

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<sup>243</sup> *Id.* at 1253–54.

<sup>244</sup> *See id.* at 1254.

<sup>245</sup> *Id.* The court listed seven states that today have handgun registration laws. *Id.* at n.\*.

<sup>246</sup> *Id.* at 1254–55.

<sup>247</sup> *Id.* at 1255.

<sup>248</sup> *Id.*

<sup>249</sup> *See id.* at 1247.

<sup>250</sup> *See id.*

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magazines holding more than ten rounds.<sup>251</sup>

The District of Columbia Circuit majority stated “[w]e are not aware of evidence that prohibitions on either semi-automatic rifles or large-capacity magazines are longstanding and thereby deserving of a presumption of validity.”<sup>252</sup> In a footnote, the majority cited the 1927 Michigan magazine statute and the 1932 District of Columbia ordinance detailed in Part III of this article.<sup>253</sup> There is no reason to think that the majority’s determination on this point would change if the 1927 Rhode Island statute had also been cited.

Importantly, the majority did not suggest that the magazine bans enacted in 1990 or thereafter had any relevance to whether magazine bans are “longstanding.”

Accordingly, the majority proceeded to analyze the rifle and magazine bans. The majority provided two paragraphs of explanation of why the rifle ban passed intermediate scrutiny and one paragraph on why the magazine ban did so.<sup>254</sup>

Discussion of whether intermediate scrutiny was the correct standard, or whether magazine bans pass intermediate scrutiny, is beyond the scope of this article. However, it does seem to appear that the District of Columbia Circuit would have acted more prudently by remanding the case for fact-finding in the district court. To support the ban, the panel majority could only point to legislative testimony by a gun-prohibition lobbyist and by the District of Columbia police chief, plus a Department of Justice report on the 1994 to 2004 federal ban on such magazines.<sup>255</sup> Notably, the panel majority did not address the report’s finding that a ten-year nationwide ban had led to no discernible reduction in homicides, injuries, or the number of shots fired in crimes.<sup>256</sup>

#### *b. Dissent*

A forceful dissent by Judge Brett Kavanaugh critiqued the majority’s application of intermediate scrutiny.<sup>257</sup> He argued that

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<sup>251</sup> *Id.* at 1246, 1260, 1264.

<sup>252</sup> *Id.* at 1260.

<sup>253</sup> *Id.* at 1260 n.\*.

<sup>254</sup> *Id.* at 1262–64.

<sup>255</sup> *Id.* at 1263–64.

<sup>256</sup> KOPER EL AL., *supra* note 148, at 92.

<sup>257</sup> *Heller II*, 670 F.3d at 1285 (Kavanaugh, J., dissenting) (“A ban on a class of arms is not an ‘incidental’ regulation. It is equivalent to a ban on a category of speech. Such restrictions on core enumerated constitutional protections are *not* subjected to mere intermediate scrutiny review. The majority opinion here is in uncharted territory in suggesting that intermediate scrutiny can apply to an outright ban on possession of a class of weapons that have not

the majority's approach was necessarily incorrect, because its logic on banning semiautomatic rifles would allow a ban on all semiautomatic handguns—which constitute the vast majority of handguns produced today.<sup>258</sup>

More fundamentally, he argued that *Heller* does not tell courts to use tiered scrutiny to assess gun control laws.<sup>259</sup> Rather, *Heller* looks to history and tradition.<sup>260</sup> So gun controls that are well-grounded in history and tradition are constitutional; gun control laws which are not so grounded are unconstitutional.<sup>261</sup>

Using the standard of history and tradition, Judge Kavanaugh argued that the entire District of Columbia registration scheme was unconstitutional.<sup>262</sup> Regarding de minimis handgun registration, the statutes cited by the majority were mostly record-keeping requirements for gun dealers, not centralized information collection by the government.<sup>263</sup> The novel and much more onerous requirements of the District of Columbia registration system for all guns had no basis in history and tradition.<sup>264</sup> For all firearms, any registration system beyond dealer record-keeping requirements was unconstitutional.<sup>265</sup>

Judge Kavanaugh examined the history of semiautomatic rifles and found them to be in common use for over a century and thus protected by the Second Amendment from prohibition.<sup>266</sup> He did not have similar information on magazines and thus urged that the magazine issue be remanded for fact-finding.<sup>267</sup> In light of the evidence on magazines that has been presented subsequent to the 2011 *Heller II* decision, Judge Kavanaugh's methodology

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traditionally been banned.”).

<sup>258</sup> *Id.* at 1285–86.

<sup>259</sup> *See id.* at 1282.

<sup>260</sup> *Id.* (“*Heller* was resolved in favor of categoricalism—with the categories defined by text, history, and tradition—and against balancing tests such as strict or intermediate scrutiny or reasonableness.”).

<sup>261</sup> *See id.*

<sup>262</sup> *Id.* at 1286.

<sup>263</sup> *See id.* at 1292–93.

<sup>264</sup> *Id.* at 1294.

<sup>265</sup> *See id.*

<sup>266</sup> *See id.* at 1287 (citing JOHNSON, KOPEL, MOCSARY & O’SHEA, *supra* note 90, at 11).

<sup>267</sup> *Heller II*, 670 F.3d at 1296 n.20 (Kavanaugh, J., dissenting) (“The D.C. ban on magazines of more than 10 rounds requires analysis in the first instance by the District Court. In order to apply *Heller*’s test to this prohibition, we must know whether magazines with more than 10 rounds have traditionally been banned and are not in common use. The parties here did not brief that question in much detail. Evidence presented to the District Court on the history and prevalence of magazines of more than 10 rounds would be helpful to the proper disposition of that issue under the *Heller* test. Therefore, I would remand to the District Court for analysis of that issue.”).

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straightforwardly leads to the conclusion that the District of Columbia magazine ban is unconstitutional.<sup>268</sup> The *Heller II* majority rightly recognized that magazine bans are not “longstanding,”<sup>269</sup> and this article has demonstrated that magazines of more than ten rounds have been a common part of the American tradition of firearms ownership since before the ratification of the Fourteenth Amendment in 1868.

#### 4. *Silvester v. Harris*

Another decision carefully employing historical analysis is *Silvester v. Harris*,<sup>270</sup> from the United States District Court for the Eastern District of California.

A California statute requires that firearms purchasers wait ten days before they can take their gun home from the store.<sup>271</sup> In California, background checks on firearms buyers are sometimes completed within minutes and sometimes can take a week or longer.<sup>272</sup> Senior District Judge Anthony Ishii (appointed to the federal court in 1997 by President Clinton)<sup>273</sup> ruled the waiting period unconstitutional, to the extent that the waiting period lasted longer than the time required to complete the background check on a given buyer.<sup>274</sup>

Like the Seventh Circuit in *Ezell*, Judge Ishii looked to 1791 and 1868 as the crucial periods.<sup>275</sup>

California Attorney General Kamala Harris had directed the court to a book arguing that between 1790 and 1840 many Americans might have to travel for several days in order to buy a gun, so there was a de facto waiting period between the time a person decided to buy a gun and when a person could take possession of the gun.<sup>276</sup> Judge Ishii held this irrelevant; the court’s job was to consider the legality of government regulations that

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<sup>268</sup> See Lindsay Colvin, Note, *History, Heller, and High-Capacity Magazines: What Is the Proper Standard of Review for Second Amendment Challenges?*, 41 FORDHAM URB. L.J. 1041, 1075–80 (2014).

<sup>269</sup> *Heller II*, 670 F.3d at 1260.

<sup>270</sup> *Silvester v. Harris*, No. 1:11-CV-2137 AWI SAB, 2014 U.S. Dist. LEXIS 118284 (E.D. Cal. Aug. 25, 2014).

<sup>271</sup> CAL. PENAL CODE §§ 26815(a), 27540(a) (West 2014).

<sup>272</sup> *Silvester*, 2014 U.S. Dist. LEXIS 118284, at \*82.

<sup>273</sup> *Chief District Court Judge Anthony W. Ishii*, U.S. DIST. COURT: E. DIST. OF CAL., [http://www.caed.uscourts.gov/caed/staticOther/page\\_630.htm](http://www.caed.uscourts.gov/caed/staticOther/page_630.htm) (last visited Feb. 21, 2015).

<sup>274</sup> *Silvester*, 2014 U.S. Dist. LEXIS 118284, at \*101–02.

<sup>275</sup> *Compare id.* at \*30, *with Ezell v. City of Chi.*, 651 F.3d 684, 702–03 (7th Cir. 2011).

<sup>276</sup> *Silvester*, 2014 U.S. Dist. LEXIS 118284, at \*8–9.

might impede the exercise of a constitutional right and the book provided no evidence that government-imposed waiting periods for firearm purchases existed between 1790 and 1840.<sup>277</sup>

Another book explained that the first waiting period law was proposed in 1923—a one-day waiting period for handguns.<sup>278</sup> The law was adopted in California and eventually by eight other states.<sup>279</sup> This too was irrelevant, ruled the court, because it had nothing to do with 1791 or 1868.<sup>280</sup>

The court explained that “[i]t is Defendant’s burden to show that the 10–day waiting period either falls outside the scope of Second Amendment protections as historically understood or fits within one of several categories of longstanding regulations that are presumptively lawful.”<sup>281</sup>

The complete absence of evidence of waiting periods in 1791 and 1868 eliminated the first possibility.<sup>282</sup> What about the question of whether waiting periods were “longstanding regulations that are presumptively lawful”? The answer to this question is not confined to 1791 and 1868.

The court explained that “the concept of a ‘longstanding and presumptively lawful regulation’ is that the regulation has long been accepted and is rooted in history.”<sup>283</sup> California’s 1923 statute did not come close. Besides that, the California wait was only one day and only for retail handguns.<sup>284</sup> Not until 1975 was the number of days extended to double digits and not until 1991 to long guns.<sup>285</sup> Consistent with the unusual nature of waiting periods, only ten states and the District of Columbia today have a waiting period for at least some firearms.<sup>286</sup>

Thus, the court concluded that the plaintiffs’ challenge had passed step one of the two-step test,<sup>287</sup> and the court proceeded to apply heightened scrutiny.<sup>288</sup> The court stated that it did not have to decide whether to use strict or intermediate scrutiny.<sup>289</sup> The

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<sup>277</sup> *See id.* at \*9–10, \*78.

<sup>278</sup> *Id.* at \*11.

<sup>279</sup> *Id.*

<sup>280</sup> *Id.* at \*11–12.

<sup>281</sup> *Id.* at \*75.

<sup>282</sup> *Id.* at \*75–76.

<sup>283</sup> *Id.* at \*78 (citations omitted).

<sup>284</sup> *Id.* at \*79.

<sup>285</sup> *Id.*

<sup>286</sup> *Id.* at \*30.

<sup>287</sup> *Id.* at \*75–76.

<sup>288</sup> *Id.* at \*80.

<sup>289</sup> *Id.*

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waiting period statute failed intermediate scrutiny, as applied to persons who already possessed a firearm (based on state registration data), and who passed the background check when purchasing an additional firearm.<sup>290</sup> Therefore, *a fortiori*, the statute would fail strict scrutiny. The court gave the state legislature 180 days to revise the statute so as to eliminate the post-background-check waiting period for persons who already have a gun.<sup>291</sup> The plaintiffs had not challenged the waiting period as applied to first-time gun buyers, nor as to persons who had not yet passed the background check.<sup>292</sup>

## V. CONCLUSION

Rifle magazines holding more than ten or fifteen rounds have been common in the United States since the mid-nineteenth century.<sup>293</sup> Handgun magazines over ten rounds have been common since 1935, and handgun magazines over fifteen have been common since the mid-1960s.<sup>294</sup>

Magazine prohibition has historically been rare. There is *no* historical basis for a magazine limit of ten rounds or lower. As for prohibitions with higher limits, there are only two examples, both of them from 1927, the outer edge of what courts have considered to be examples of state statutes that may be considered “longstanding”: Michigan (enacted 1927, repealed 1959), Rhode Island (enacted 1927, loosened 1959, repealed 1975).<sup>295</sup> Ohio formerly required a special permit to actually insert a magazine above a certain size into a firearm but never banned sales.<sup>296</sup> (The original limit was eighteen rounds or more and later was thirty-two rounds or more.)<sup>297</sup> As is often the case, the District of Columbia is the *sui generis* outlier, with its 1932 restriction still in effect today, with some modifications.<sup>298</sup>

Of all the courts that have examined history when ruling on gun control issues, no court has ever held that laws of two or three states plus one city are sufficient to establish a gun law as being

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<sup>290</sup> *Id.* at \*90–91, 96–97.

<sup>291</sup> *Id.* at \*101–03.

<sup>292</sup> *See id.* at \*23–25.

<sup>293</sup> *See supra* notes 43–64 and accompanying text.

<sup>294</sup> *See supra* notes 102–06 and accompanying text.

<sup>295</sup> *See supra* notes 130, 132–33 and accompanying text.

<sup>296</sup> *See supra* notes 136–39 and accompanying text.

<sup>297</sup> *See supra* notes 134–35 and accompanying text.

<sup>298</sup> *See supra* notes 140–45 and accompanying text.

“longstanding” or part of American history and tradition. To the contrary, ammunition capacity limits are far outside the norm of the traditional exercise and regulation of Second Amendment rights. Not until California in 1999 did any state set a magazine limit as low as ten.<sup>299</sup>

What does this mean for modern legal analysis? Under judicial methods which hew closely to history and tradition, the historical absence (of limits of ten or less) or the extreme rarity (limits of fifteen or less) would be sufficient for any such modern limit to be ruled unconstitutional. Owning such magazines is very long-established manner in which the right to arms has historically been exercised in America.

Other courts perform a two-step test. Challengers to magazine limit laws should always pass step one, since magazine limits are not “longstanding.”

As for step two—review under some form of heightened scrutiny—the Supreme Court taught in *Heller* that when the “severe restriction” of a “ban” has support from “[f]ew laws in the history of our Nation,” the law’s constitutionality is very doubtful. This was true for the prohibition of handguns, and it is also true for the prohibition of magazines holding more than five, seven, ten, or fifteen rounds.

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<sup>299</sup> See *supra* note 156 and accompanying text.