

2026 National Firearms Survey: Results from the Second Wave, Including Current Ownership of AR-15 Style Rifles, Other “Assault Weapons,” and Magazines that Hold More than 10 Rounds

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Abstract

This report summarizes the findings of the second wave of the National Firearms Survey, a national survey of firearms ownership and use conducted in July and August of 2026. The survey was administered online to a representative sample of 51,398 U.S. residents aged 18 and over, and it identified 16,688 internally validated gun owners who answered in-depth questions concerning their ownership and use of firearms, including questions about using a firearm in self-defense. The second wave incorporates a series of methodological refinements that respond directly to scholarly discussion of the first (2021) wave: ownership questions specify individual rather than household or spousal ownership; questions about magazines and “assault weapons” ask about current rather than past ownership; AR-15 type rifles and other similarly styled semi-automatic rifles are asked about separately; respondents who report defensive gun uses are asked the approximate age at which each incident occurred and whether the defensive use succeeded in averting a crime (or was directed against an animal threat); and, as a two-stage data-integrity check, respondents are counted as gun owners only if they both indicated firearm ownership on a screening question and subsequently reported owning a positive number of rifles, shotguns, or handguns in a detailed count of firearm types that required a response. In addition, the analyzed sample reflects standard quality-control checks, including an embedded attention check and the removal of responses with low reCAPTCHA scores and suspected duplicate responses.

With raked weighting on gender, age, race, and state of residence, using targets from the 2024 American Community Survey, the survey finds that 32.7% of U.S. adults (95% CI 32.2% – 33.2%) personally own firearms, suggesting that approximately 88 million

American adults own guns. Following the practice of major survey programs such as the General Social Survey, Gallup, and Pew’s American Trends Panel, household income is not employed as a weighting dimension. However, income-raked estimates, which range up to 34.9%, are reported as robustness exercises in an appendix. Ownership is demographically diverse: 45.7% of validated gun owners are female, 25.6% do not identify as White (alone), and the gap in ownership rates between White Americans (34.6%) and Black Americans (33.0%) has narrowed to less than two percentage points. The survey finds that 37.6% of gun owners have used a firearm to defend themselves, their property, a family member, or a member of their household, and it estimates that guns are used defensively by firearms owners in approximately 2.2 million incidents per year. In most defensive incidents no shot was fired (76.3%), about half (50.8%) involved more than one assailant, and in 70.6% of incidents respondents report that the defensive use was successful, such that no crime remained to be reported to the police. 8.4% of defensive incidents were directed against animal threats rather than criminal threats. Separate from these self-defense incidents, 34.7% of gun owners reported that the mere presence of a gun has deterred criminal conduct.

A majority of gun owners (70.0%) indicate that there are some circumstances in which they carry a handgun for self-defense. We estimate that approximately 33.6 million gun owners (39.3% of those aged 21 and over) are “public carriers” who are permitted to carry and carry at least sometimes. The average gun owner owns about 5.2 firearms, and handguns are the most common type of firearm owned (91.6% of owners). 50.5% of gun owners – approximately 44.5 million adults – report that they *currently* own magazines that hold more than 10 rounds (approximately 539 million such magazines in total), and 88.0% of these owners cite a defensive purpose for owning them. 25.0% of gun owners currently own an AR-15 type rifle, 12.9% currently own other similarly styled semi-automatic rifles, and 30.0% – approximately 26.4 million adults – currently own at least one firearm in one of these two categories, with approximately 40 million AR-15 type rifles and 20 million other similarly styled rifles owned in total. Overall, Americans own approximately 461 million firearms, consisting of approximately 208 million handguns, 154 million rifles, and 99 million shotguns.

1 Introduction

This report summarizes the main findings of the second wave of the National Firearms Survey, conducted in July and August of 2026. Like the first wave, which was fielded in early 2021, this survey aims to provide the most comprehensive assessment of firearms ownership and use patterns in America to date, and it does so with a sample large enough to make well-powered, statistically informative inferences within individual states.

The first wave of this survey (English, 2022, 2023) was, to our knowledge, the largest survey of firearms owners ever conducted in the United States, drawing on a representative sample of approximately fifty-four thousand U.S. residents and identifying 16,708 gun owners

who answered detailed questions about their ownership and use of firearms. Before that survey, the most authoritative resource for estimating details of gun ownership in the U.S. had 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 had been the “National Self-Defense Survey” conducted by Kleck and Gertz in 1993 (Kleck and Gertz, 1995, 1998). More recent but smaller surveys include Hepburn et al. (2007), Azrael et al. (2017), Brown (2017), and Miller et al. (2022).

The 2021 survey wave, whose results were reported across three working papers that were downloaded over 18,000 times with 150,000 abstract views, attracted considerable scholarly and public attention. This included a detailed but moderate academic critique by Azrael et al. (2024), commentary by paid expert witnesses in firearms litigation (Klarevas, 2024), and coverage by the New York Times (McIntire and Kantor, 2024). We have responded to these criticisms in detail elsewhere (English, 2024a,b), arguing that the minor criticisms made of the survey results are largely unpersuasive or immaterial to the survey’s main findings. However, several of the questions raised in the exchange with Azrael et al. (2024) have empirical implications that can be further investigated. Rather than rely only on the strength of existing arguments, the second wave of this survey was designed to help adjudicate questions raised about the first survey wave that could be addressed with data. Specifically, the second wave incorporates the following innovations:

1. **Individual, not household, ownership.** Critics speculated that some first-wave respondents, particularly women, may have answered ownership questions on behalf of their household rather than themselves, notwithstanding that all questions were addressed to the individual respondent (“you”). The second wave forecloses this interpretation: the detailed ownership questions now instruct respondents explicitly to “only count” items “that you personally own, not that other family members may own.” Moreover, the second wave also asks about marital status.
2. **Current, not lifetime, ownership of magazines and “assault weapons.”** The first wave asked whether respondents had *ever* owned magazines holding more than 10 rounds or AR-15 style rifles, which we noted should be interpreted as an upper bound

on current ownership. Critics emphasized that current ownership is a distinct question. The second wave asks directly whether respondents currently own these items.

3. **AR-15 type rifles and other “assault weapons” asked about separately.** Discussion of the first wave noted that there was some ambiguity regarding the scope of the “assault weapons” question, which covered AR-15s and similarly styled rifles together, whereas some comparison surveys asked only about AR-platform rifles. The second wave asks separately about (a) AR-15 type rifles and (b) other similarly styled semi-automatic rifles with a pistol grip, allowing both narrow and broad definitions to be measured directly.
4. **Richer defensive gun use detail, including age at incident.** For each reported defensive incident, respondents now indicate the approximate age at which the incident occurred and whether the defensive use succeeded in averting a crime (or was directed against an animal threat). The age data enables us to investigate how reports of defensive incidents over a lifetime should be allocated across years and age cohorts, while the outcome data contributes to longstanding debates regarding how defensive gun uses are reflected in crime statistics.
5. **Marital status.** The survey now collects marital status, permitting a fuller demographic characterization of gun owners and, in combination with the individual-ownership clarification, a direct examination of the conjecture that married respondents conflate their own ownership with a spouse’s.
6. **Two-stage validated ownership.** For the purposes of data integrity, we count a respondent as a gun owner only if they both (a) indicated that they own a firearm on the initial screening question and (b) near the end of the survey reported counts of rifles, shotguns, and handguns owned that total more than zero in a question that forced responses (in the 2021 wave, responses were not forced for this question). This two-stage confirmation rule is conservative and guards against misclicks, careless responses, and insincere respondents.

In addition, numerical entry fields in the second wave were restricted to numeric values,

eliminating the small number of narrative entries (e.g. “None of your business”) that required judgment calls in the first wave, and the response options for questions about the purposes of magazine and rifle ownership now include “Prevention of animal attacks,” an option motivated by the unexpectedly frequent references to animal threats in first-wave open-ended responses (English, 2022, 2024a).

The survey was administered online to a representative national sample of 51,398 U.S. residents aged 18 and over. It identified 18,206 respondents who indicated firearm ownership on the screening question, of whom 16,688 were validated as gun owners under the two-stage rule described above. The survey was sponsored and paid for by a grant from the Wealth of Nations Institute, and the complete dataset, which includes the full survey instrument, is publicly available on Harvard’s Dataverse.¹ This report focuses on providing descriptive statistics of answers to the major questions asked in the survey. The report proceeds as follows: the next (second) section describes the survey methodology and sample; the third section summarizes national firearms ownership estimates and demographics; the fourth section examines defensive uses of firearms; the fifth section examines carrying for self-defense; the sixth section summarizes ownership statistics for types of firearms; the seventh section examines current ownership of magazines that hold more than 10 rounds; the eighth section examines current ownership of AR-15 type rifles and other similarly styled rifles; the ninth section reviews the methodological strengths of the second wave; and the tenth section concludes.

2 Survey Methodology and Sample

The online survey was presented to a nationally representative sample of 51,398 individuals aged 18 or over who completed an initial questionnaire that included an indirect question indicating whether they owned a firearm. As in the first wave, respondents were presented with a list of items commonly owned for outdoor recreational purposes, Bicycle, Canoe or Kayak, Firearm (gun), Rock Climbing Equipment, None of the Above, presented in a random order, and were asked to select all items that they own. This indirect “teaser”

¹Data can be found here <https://doi.org/10.7910/DVN/QNSWP1>.

question avoids priming respondents with the sensitive topic of the survey and allows the representativeness of the full sample, including non-owners, to be assessed. Unlike the first wave, complete demographic information (age, gender, marital status, household income, ethnic ancestry, and state of residence) was collected from every respondent from the first day of fielding, so no soft-launch exclusions are required. Also unlike the first wave, which excluded Vermont because a pilot version of the survey had recently been fielded there, the second wave includes residents of all 50 states and the District of Columbia.

The 51,398 respondents analyzed in this report are those remaining after standard quality checks. In addition to the embedded attention-check question described below, responses were removed via standard quality-control filters, including platform screens applied at survey entry (such as those flagging low reCAPTCHA scores) and the removal of suspected duplicate responses. A response was classified as a suspected duplicate if it shared a panel-member identifier with an earlier response, or if it shared a geographic identifier together with an identical complete demographic profile (gender, age, state of residence, household income, ethnic ancestry, and marital status) with an earlier response. In each case, the earliest response was retained. This applied to only 238 responses, which constituted less than 0.5% of the respondents. Because removed duplicate responses closely resemble the retained responses from the same individuals, their removal changes the headline ownership estimate by less than one hundredth of a percentage point.

Of the 51,398 respondents, 1,214 respondents indicated firearm ownership on the screening question but did not complete the main survey. These partial completes have indeterminate ownership status because respondents did not indicate how many firearms they own, which was a necessary step for internally validating firearms ownership. Additionally, 304 respondents who indicated firearm ownership on the screening question finished the survey but entered zero total firearms currently owned, which likewise disqualified them from being counted as firearms owners. Thus, in total, 1,518 respondents who indicated firearm ownership on the screening question were not counted as internally verified gun owners.²

²The 1,214 partial respondents are retained in the data but are used only to compute the sensitivity bounds on the ownership estimate, and they are excluded from all other calculations. Excluding the partial completes leaves 50,184 respondents with complete responses. Counting every respondent who selected

Overall, 18,206 respondents (35.4% of the sample) selected “Firearm (gun),” and these respondents were routed to the main survey instrument. Of these, 1,214 (6.7%) did not complete the main survey, an attrition rate comparable to the 7.5% observed in the first wave. As in the first wave, a “disqualifying” attention-check question was embedded a little over half of the way through the survey instructing respondents to select a particular answer, which only those who read the question in its entirety would understand. Every validated gun owner analyzed in this report answered this question correctly. The median completion time among validated gun owners was 5.1 minutes for the main instrument.

2.1 Validated Gun Owners

Near the end of the survey, all respondents who had indicated firearm ownership were asked, “About how many firearms of each type would you estimate that you own?” and were required to enter a numeric response for rifles, shotguns, and handguns. Unlike the first wave, this response was forced and could not be left blank. A respondent was counted as a gun owner only if they both indicated firearm ownership on the screening question and reported a total number of rifles, shotguns, and handguns greater than zero. 16,992 respondents who indicated firearms ownership on the screening question reached this question concerning the number of each type of firearm owned. 16,688 (98.2%) reported a positive total and constitute the sample of validated gun owners analyzed throughout this report, while 304 (1.8%) entered zero for every category and were thus classified as non-owners. 1,214 respondents who partially completed the survey never reached the questions at the end of the survey asking about the number of firearms owned. Since these respondents cannot fulfill the verification check, they are excluded from calculations of national ownership rates. Given that 98.2% of respondents who reached the validation questions gave responses consistent with ownership, the effect of this exclusion on estimated ownership rates is small, but sensitivity analysis is also reported below.

“Firearm (gun)” on the screener as an owner, including the 1,214 partial completes and the 304 who later entered zero, yields a weighted ownership estimate of 34.7%. Treating the 1,214 partial completes as non-owners yields 31.9%. The actual estimates reported in this paper lie between these bounds.

2.2 Weighting

For the purpose of estimating firearms ownership rates for the general U.S. population raked weighting was employed on gender, age, race, and state of residence. Weighting targets were drawn from the 2024 American Community Survey 1-year estimates for the resident population aged 18 and over,³ except for race targets, which were taken from the Census Bureau’s Vintage 2025 Modified Race population estimates.⁴ Appendix A reports the sample proportions alongside all weighting targets.

Household income is not employed as a weighting instrument in this report’s main estimates for a number of reasons explained in greater detail in Appendix E, which reports estimates using household income weights as a robustness exercise. First, self-reported categorical household income is by a wide margin the noisiest demographic item collected by the survey. Studies have shown that many respondents do not know the total income of their household, and this is particularly true of young adults living with parents and of adults in shared households, who often report their personal income (?). Weighting has an outsized and distorting effect on such misclassifications when respondents who are placed into sparse categories inherit large weights. Second, published census income targets describe the distribution of households, whereas the survey samples individual adults. Moreover, since the number of adults per household rises with household income, household-share targets are not a conceptually accurate benchmark for an adult sample. Third, and most importantly, high-income respondents willing to join an online panel are unlikely to be representative of high-income adults generally. The well-documented “missing rich” problem that plagues most survey research is one of selection and not only under-sampling. Weighting the 9.0% of the sample reporting incomes over \$150,000 toward its 23.4% population share would more

³Gender, age, and state targets are derived from the ACS 2024 table S0101. Since the survey’s five-year age brackets are offset from the ACS’s published brackets (e.g. 21–25 versus 20–24), single years of age within ACS brackets are allocated uniformly. Population estimates in this report use the Census Bureau’s Vintage 2025 population estimate of 269,763,509 U.S. residents aged 18 and over (256,289,120 aged 21 and over).

⁴Table NC-EST2025-ASR6H, available at <https://www.census.gov/programs-surveys/popest.html>. The survey’s residual “Other” category is mapped to the Modified Race “Two or more races” category, as in the first wave.

than double the influence of whatever makes those respondents unrepresentative, while inflating the design effect by more than a quarter. Finally, this practice of not incorporating weights for income follows other major survey programs including the General Social Survey, Gallup, and Pew Research Center’s American Trends Panel.⁵

An external benchmark supports this choice: under the main weighting scheme, the survey’s estimate of adult bicycle ownership is 53.5% (95% CI 53.0% – 53.9%), nearly identical to the 53% benchmark measured by Pew, whereas income-raked weighting pushes the bicycle estimate to 56.5%, well above it. As an additional robustness exercise, Appendix G reports the headline ownership estimate under a scheme that adds marital status, which is a demographic dimension newly collected in the second wave, as a fifth raking margin. Doing so raises the estimate modestly, from 32.7% to 33.7%.

For the purposes of analyzing responses within the sub-sample of validated firearms owners, we do not employ a weighting scheme for top line results, 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 in the first wave, we employ a two-step reweighting procedure as a robustness exercise, which involves first estimating the demographic composition of gun owners from the weighted national sample, and then raking the owner subsample to that estimated composition. This yields results that are substantively identical for the analysis of responses from firearms owners. We note the weighted values for major findings throughout, and Appendix F collects the two-step estimates for all major within-owner findings in one place, including two-step counterparts of every AR-15 and other “assault weapon” estimate, with the averages and implied national totals.

2.3 Encouraging Truthful Responses

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 (Spector, 2004; Rafferty et al., 1995; Ludwig et al., 1998;

⁵See, for example, Pew Research Center’s American Trends Panel methodology, <https://www.pewresearch.org/our-methods/u-s-surveys/u-s-survey-methodology/>, and the General Social Survey methodology documentation, <https://gss.norc.umd.edu/us/en/gss/about-the-gss.html>.

Urbatsch, 2019). The second wave retains the five devices employed in the first wave to encourage truthful responses: the indirect screening question; careful phrasing that does not suggest animus towards gun owners or ignorance of firearms-related terminology; assurances of anonymity; an embedded attention-check question; and a soft-prompt design that calls attention to blank responses on sensitive questions while still allowing respondents who persist to progress, in the interest of obtaining the maximum amount of information that they are willing to share. In practice such “opting out” was seldom done, and this is the reason that small variations are sometimes observed in the total number of respondents for particular questions. Recent research continues to suggest that, to the extent survey measures of firearm ownership are biased, the bias is likely toward under-reporting rather than over-reporting (Bond et al., 2024).

3 Gun Ownership Demographics

- 32.7% of adults in the U.S. are estimated to own a firearm, totaling approximately 88 million adult gun owners.
- 54.3% of validated gun owners are male, 45.7% are female.
- 33.0% of Blacks own firearms, a rate within two percentage points of Whites (34.6%).
- 31.3% of Hispanics own firearms.
- 23.0% of Asians own firearms.
- 38.9% of men and 26.8% of women own firearms.

With raked weighting employed for gender, state, race, and age, and with gun owners validated by the two-stage rule described above, we find that 32.7% of U.S. adults age 18 and over own a firearm (95% Confidence Interval, 32.2% – 33.2%). Restricting the sample population to those age 21 and over, who face fewer restrictions on purchasing firearms, 33.3% own firearms (95% Confidence Interval, 32.9% – 33.8%). Applying these proportions to the Census Bureau’s Vintage 2025 population estimates implies approximately 88.2 million gun

owners aged 18 and over (85.4 million aged 21 and over). The estimated firearm ownership rate of 32.7% is slightly above the 31.9% documented by the first wave in 2021 (English, 2022). However, growth in ownership is consistent with the record volumes of firearm sales documented over the intervening five years as well as with survey research finding large numbers of first-time buyers entering gun ownership since 2020 (Crifasi et al., 2021; Miller et al., 2022). Moreover, the 32.7% finding is in line with other recent national surveys. Pew’s latest estimate from the June 5–11, 2023 American Trends Panel survey found that 32% of U.S. adults reported personally owning a gun,⁶ while Gallup documented an individual ownership rate of 34% in their Oct 1-12, 2024 survey.⁷

The raw, unweighted ownership rate documented by the survey is 33.3%, which is nearly identical to the weighted estimate. This is indicative of the weighting scheme having a modest design effect (1.23), for which weights are only fine tuning an already highly representative sample.

The distribution of validated gun owners surveyed by state is illustrated in Figure 1, and ranges from 1,686 in Texas and 1,549 in California to 30 in Alaska and 28 in Vermont.

⁶<https://www.pewresearch.org/short-reads/2024/07/24/key-facts-about-americans-and-guns/>

⁷<https://news.gallup.com/poll/1645/guns.aspx>

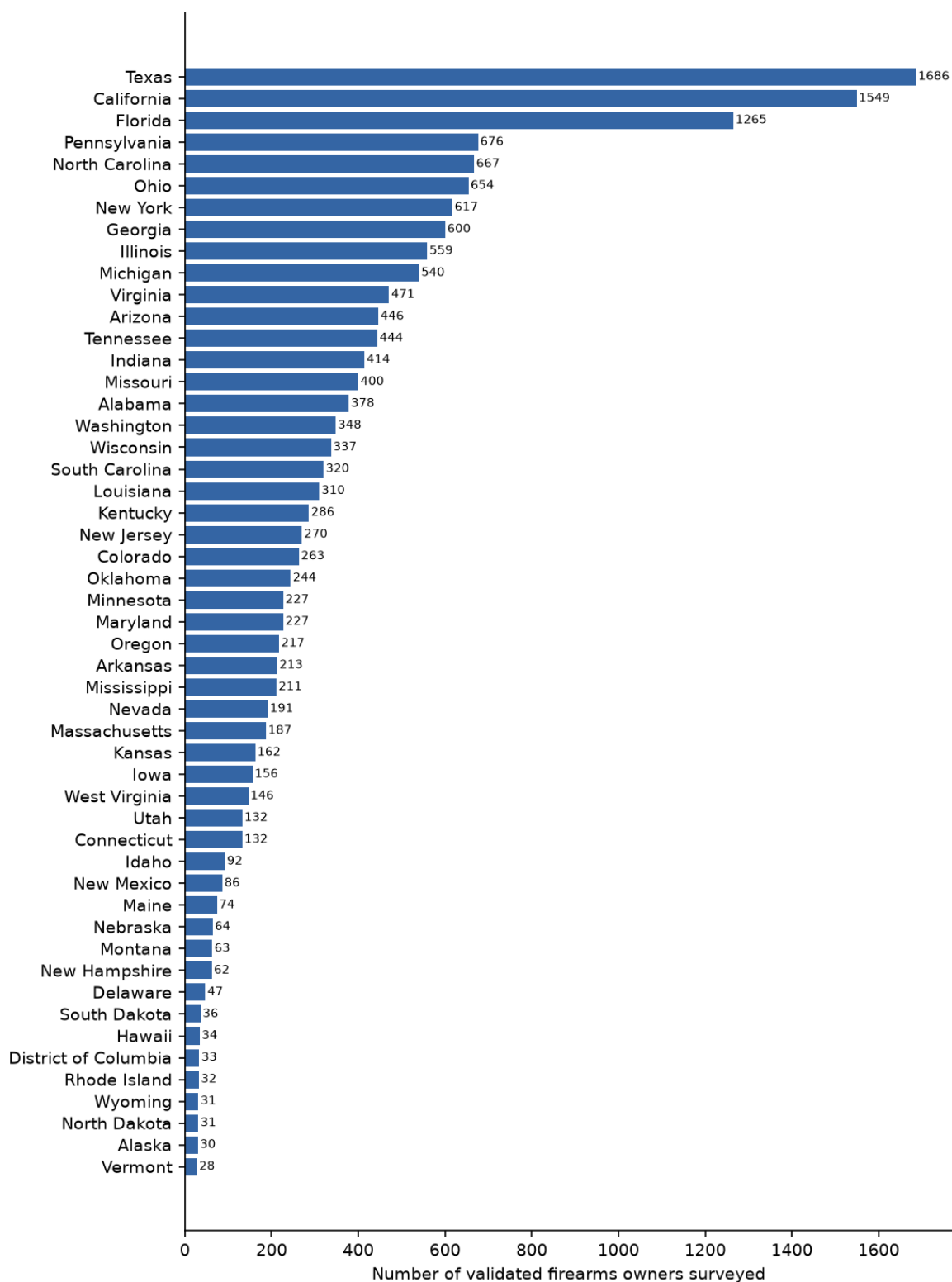


Figure 1: Distribution of Validated Firearms Owners Surveyed

State	Proportion of adult population estimated to own firearms	95% Confidence Interval
Alabama	47.1%	43.4% – 50.7%
Alaska	37.2%	26.4% – 49.5%
Arizona	34.6%	31.7% – 37.6%
Arkansas	43.9%	38.9% – 49.1%
California	24.7%	23.5% – 25.9%
Colorado	33.3%	29.7% – 37.1%
Connecticut	21.4%	17.9% – 25.3%
Delaware	26.9%	20.3% – 34.7%
District of Columbia	29.7%	21.1% – 40.0%
Florida	33.5%	31.8% – 35.3%
Georgia	38.2%	35.6% – 40.8%
Hawaii	14.5%	10.1% – 20.5%
Idaho	40.1%	33.2% – 47.3%
Illinois	30.9%	28.5% – 33.4%
Indiana	37.8%	34.6% – 41.0%
Iowa	33.1%	28.8% – 37.8%
Kansas	41.5%	36.3% – 46.8%
Kentucky	40.8%	37.0% – 44.8%
Louisiana	39.1%	35.2% – 43.2%
Maine	28.5%	22.9% – 34.9%
Maryland	25.2%	22.1% – 28.5%
Massachusetts	18.6%	16.1% – 21.4%
Michigan	34.5%	32.0% – 37.2%
Minnesota	32.2%	28.4% – 36.2%
Mississippi	45.6%	40.9% – 50.4%
Missouri	38.9%	35.6% – 42.3%
Montana	53.9%	44.4% – 63.1%
Nebraska	27.5%	21.6% – 34.3%
Nevada	32.3%	28.2% – 36.7%
New Hampshire	28.1%	22.3% – 34.7%
New Jersey	17.6%	15.6% – 19.8%
New Mexico	34.8%	28.7% – 41.5%
New York	19.2%	17.7% – 20.8%
North Carolina	37.5%	35.0% – 40.1%
North Dakota	38.0%	26.9% – 50.5%
Ohio	34.4%	32.1% – 36.7%
Oklahoma	42.5%	38.1% – 47.1%
Oregon	33.5%	29.7% – 37.6%
Pennsylvania	33.2%	31.0% – 35.4%
Rhode Island	17.7%	12.3% – 24.7%
South Carolina	39.8%	36.2% – 43.6%
South Dakota	31.8%	22.5% – 42.8%
Tennessee	43.1%	39.8% – 46.4%
Texas	38.7%	37.1% – 40.3%
Utah	41.3%	35.4% – 47.5%
Vermont	29.4%	21.0% – 39.5%
Virginia	35.5%	32.6% – 38.5%
Washington	34.1%	31.0% – 37.5%
West Virginia	44.0%	38.5% – 49.6%
Wisconsin	39.1%	35.6% – 42.6%
Wyoming	57.2%	43.5% – 70.0%

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

Table 1 shows the proportion of the population in each state estimated to own a firearm. Hawaii, New Jersey, Rhode Island, and Massachusetts have the lowest rates of ownership, with less than 19% of the adult population owning firearms, while Mississippi, Alabama,

Montana, and Wyoming have the highest rates of ownership, with 45% or more of the adult population owning firearms.

With regard to the demographics of gun ownership, we find that 54.3% of validated gun owners are male and 45.7% are female, the median gun owner is 41–45 years old, and the median annual household income of gun owners is \$70,000–\$80,000. Approximately 25.6% of gun owners do not identify as White (alone). Overall, approximately 17.5% of gun owners identify as Black, 3.8% identify as Asian, 3.0% identify as American Indian, 0.4% identify as Pacific Islander, 74.4% identify as White, and 0.9% identify as Other, while 11.3% of gun owners identify as Hispanic (of any ancestry). When analyzed within demographic groups, we find that 33.0% of Blacks own firearms, 31.3% of Hispanics own firearms, 23.0% of Asians own firearms, and 34.6% of Whites own firearms. The 2021 wave found a substantial gap between White (34.3%) and Black (25.4%) ownership rates. In the 2026 wave this gap has narrowed to less than two percentage points, which is consistent with industry and survey reports that new gun buyers in recent years have been disproportionately drawn from demographic groups with historically lower rates of ownership.

3.1 Marital Status and Individual Ownership

The second wave collected marital status, a demographic dimension that was not measured in the first wave. Table 2 reports ownership rates by marital status alongside the composition of gun owners. Married adults exhibit the highest rate of individual firearm ownership (39.2%), followed by never-married adults (28.5%), while widowed adults exhibit the lowest rate (25.8%). 49.4% of gun owners are married. Appendix G reports a robustness exercise in which marital status is added to the main weighting scheme as a fifth raking margin.

Marital Status	Ownership Rate	95% Confidence Interval	Share of Gun Owners
Married	39.2%	38.5% – 40.0%	49.4%
Never married	28.5%	27.8% – 29.2%	32.1%
Divorced	28.3%	27.1% – 29.5%	11.4%
Separated	27.7%	25.5% – 30.1%	2.8%
Widowed	25.8%	23.9% – 27.8%	4.4%

Table 2: Firearm ownership by marital status (weighted ownership rates; unweighted owner composition).

The marital status data also allow us to address directly a concern raised about the first wave, namely the speculation that some respondents, particularly women married to gun owners, might report household rather than personal ownership (Azrael et al., 2024). Two features of the second wave militate against this interpretation of its results. First, the detailed ownership questions explicitly instruct respondents to count only firearms, magazines, and rifles “that you personally own, not [those] that other family members may own.” Second, under the validated-owner rule, every gun owner analyzed here affirmatively reported a positive count of specific types of firearms that they personally own after reading this instruction. It is notable that, even with these clarifications in place, women constitute 45.7% of validated gun owners, which is higher than the 42.2% documented in 2021, and the female ownership rate (26.8%) remains high. The growth of female gun ownership documented across the two waves is consistent with the picture painted by firearm retail surveys of surging female participation since 2020, and it suggests that the comparatively high female ownership rates documented in the first wave reflected a real phenomenon rather than an artifact of question wording (English, 2024a; Bond et al., 2024).

In sum, firearms ownership has continued to grow, and firearms owners are more diverse than ever.

4 Defensive Use of Firearms

- 37.6% of gun owners, or approximately 33.1 million adult Americans, have used a gun in defense of themselves, their property, a family member, or a member of their household.
- In most cases (76.3%) the gun is not fired.
- Gun owners engage in approximately 2.2 million defensive uses of firearms per year.
- The majority of defensive gun uses take place outside of the home (74.6%).
- About half of defensive gun uses involve more than one assailant (50.8%).
- Handguns are the firearm most commonly used in defensive incidents (74.0%), followed by rifles (16.4%) and shotguns (9.6%).
- In 70.6% of defensive incidents, the defense was successful, such that no crime remained to be reported to the police; 8.4% of defensive incidents were against animal threats.
- The median age at which reported defensive incidents occurred was 29, and 45.8% of reported incidents occurred within approximately the past five years.

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, your property, a family member, or a member of your household 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.” Note that this question wording was broader than the wording of the first wave, which asked only about defense of “yourself or your property.” Some of the increase relative to the 31.1% documented in 2021 is likely attributable to this broader wording, which is meant to capture the full range of meaningful DGUs. 37.6% of validated gun owners (95% CI 36.8% – 38.3%) answered in the affirmative, and they were then asked how many times they had done so

(from “once” to “five or more times”). As Figure 2 shows, a majority of gun owners who have used a firearm defensively (55.3%) have done so on more than one occasion.

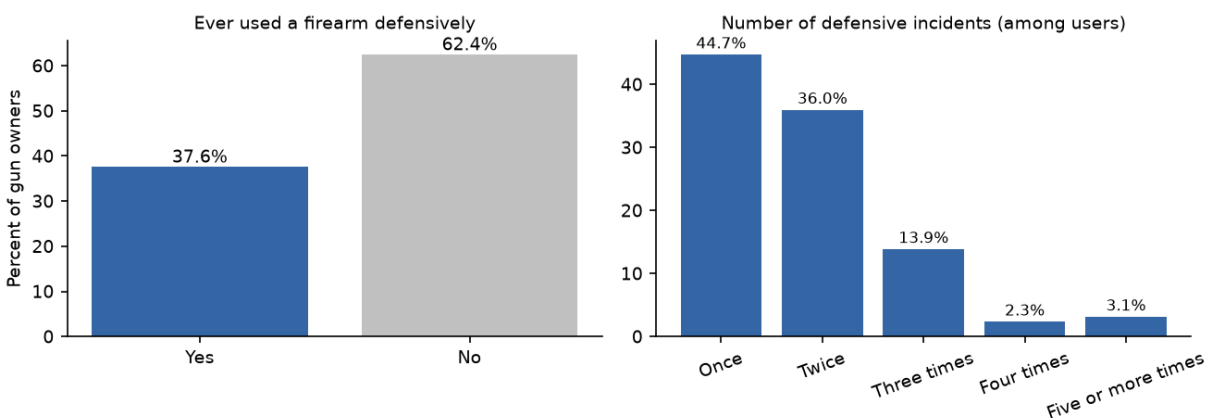


Figure 2: Defensive Gun Use: 37.6% of firearms owners have defended themselves, their property, or a family or household member with a gun, and a majority have done so more than once.

Both men and women report having used firearms defensively at high rates, with 41.0% of male gun owners and 33.4% of female gun owners indicating a defensive use. Table 3 further breaks down reports of defensive use of firearms by categories of race and ethnic ancestry, illustrating that defensive gun use rates are higher in some minority groups.

Demographic Group	Proportion of Gun Owners Who Used Gun Defensively	95% Confidence Interval
White	31.9%	31.0% – 32.8%
Black	54.3%	52.5% – 56.1%
Asian	33.3%	29.7% – 37.1%
Native American	46.7%	42.4% – 51.0%
Pacific Islander	39.7%	28.9% – 51.6%
Other Ethnic Ancestry	35.4%	28.1% – 43.4%
Hispanic (any ancestry)	46.1%	43.9% – 48.4%
Male	41.0%	40.0% – 42.0%
Female	33.4%	32.4% – 34.5%

Table 3: Demographics of defensive gun use.

Given that 37.6% of firearms owners report a defensive use, this implies that approximately 33.1 million adult Americans have defended themselves or those close to them with a firearm. Answers to the frequency question suggest that these gun owners have been involved in a total of approximately 60.7 million defensive incidents (counting “five or more” responses conservatively as five).

Dividing the total number of reported incidents by the total number of adult person-years represented by respondents, and then applying the resulting owner-year rate to the estimated population of gun owners, yields approximately 2.2 million DGUs per year in which firearms owners have defended themselves, their property, or family or household members through the discharge, display, or mention of a firearm (excluding military service, police work, or work as a security guard).⁸

⁸This calculation follows the lifetime-averaging methodology of the first wave, refined to the individual level: rather than dividing the aggregate number of incidents by the adult years of the average respondent, we compute the ratio of total reported incidents to total adult person-years across respondents (a mean of 27.6 adult years per respondent, counting a half-year at the respondent’s current age), and multiply the resulting per-owner-per-year rate by the estimated population of gun owners. Restricting the numerator to the 10,757 incidents with valid adult ages yields approximately 2.1 million per year. The estimate is

4.1 New Detail: When Defensive Incidents Occurred

A methodological innovation of the second wave is that, for each defensive incident described in detail (up to five per respondent), respondents were asked, “Approximately how old were you when this incident occurred?” These responses, in combination with respondents’ current ages, allow the temporal distribution of defensive incidents to be characterized for the first time. 11,483 incidents were described in detail by 6,267 respondents, and valid age-at-incident data were provided for over 99% of these incidents.⁹

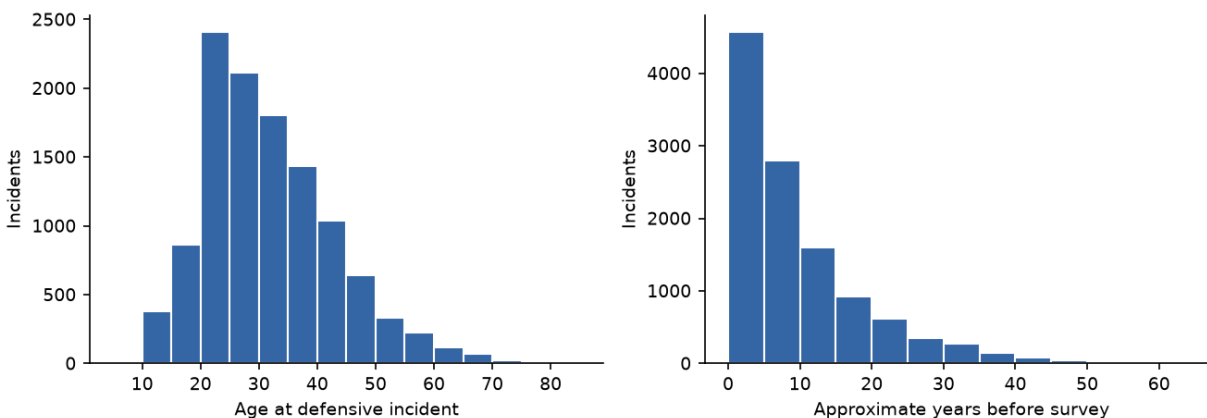


Figure 3: Age of respondent at the time of reported defensive incidents (left) and the approximate number of years between the incident and the survey (right).

As Figure 3 illustrates, defensive gun use is concentrated in early adulthood: the median age at incident was 29, with 32.5% of incidents occurring between the ages of 18 and 25 and a further 33.3% between 26 and 35. A small percentage of incidents (6.0%) reportedly occurred before the respondent turned 18, which is relevant to the sensitivity analysis in the inherently conservative for the reasons detailed in the first-wave report: it assumes gun owners had access to firearms from age 18, it caps “five or more” responses at five, and it counts only defensive uses by current firearm owners, whereas Kleck and Gertz (1995) found that a large share of defensive gun uses are reported by individuals who do not personally own firearms. As discussed, the lifetime-averaged approach is robust to the recall-bias critique made by Hemenway (1996) because the survey asks about defensive gun use at any time rather than within a restricted time horizon.

⁹We exclude from age-based calculations 38 DGU reports (0.3%) for which the reported age at incident exceeded the upper bound of the respondent’s current age bracket.

first-wave report concerning the age at which firearm access is assumed to begin.

Based on the respondents’ current ages, the median DGU happened about six years before the survey. About 45.8% of DGU incidents occurred within the past five years, and 67.1% of such incidents occurred within the past ten years. The clustering of incidents in the more recent past is consistent with several possible explanations that are not necessarily exclusive.

First, the early 2020s witnessed a spike in crime rates along with a corresponding spike in gun sales. This included an influx of new gun owners. Second, respondents tend to recall recent events more clearly than events from the distant past. Third, these patterns may be an artifact of the age profile of the gun-owning population, with younger and newer gun owners simply having fewer gun owning years during which they could have used a firearm in self defense. Using recent DGU counts alone to estimate the average annual defensive gun uses (approximately 5.5 million per year) could be vulnerable to a recency bias and should be treated as an upper limit. The lifetime-averaged estimate of approximately 2.2 million per year is arguably more defensible, and the true current annual rate is likely between these two values.

In any case, even the most conservative reading of this data exceeds the range that critics of survey-based DGU estimates have asserted (Hemenway, 1996; Azrael et al., 2024). Rather, the estimates derived from this survey are within the range of “about 500,000 to more than 3 million” suggested by the National Academies’ review of this literature (National Research Council, 2013).

The age at DGU data also speak directly to a question about cohort effects raised by Azrael et al. (2024) regarding the first wave’s lifetime-averaging methodology. Appendix B reports total defensive gun uses by age cohort. As in the first wave, per respondent lifetime incident counts rise only modestly with age and are highest among respondents in early middle age. This is a pattern that is consistent with the age-at-incident distribution documented above. Because DGUs are concentrated in young adulthood, older cohorts don’t accumulate proportionally more lifetime incidents. This means that the lifetime-averaged annual estimate isn’t driven by any single cohort. Appendix D shows this, using the ages at which DGUs were reported to construct exposure-adjusted incident rates by age, birth

cohort, and calendar period. This allows us to estimate constrained age-period-cohort models. This analysis estimates that the current annual DGU rate is between approximately 1.6 and 5.5 million incidents per year, with the most defensible lifetime-averaged estimate being approximately 2.2 million DGUs per year.

4.2 New Detail: Outcomes of Defensive Incidents

For each detailed incident, respondents were also asked, “Did your defensive use of a firearm successfully deter violence or other criminal conduct, such that there was no crime to report to the police? (Or, if you defended yourself against an animal, indicate that below.)” Table 4 summarizes the responses.

Incident Outcome	Share of Incidents
Defense succeeded; no crime remaining to report	70.6%
A crime remained that deserved to be reported	21.0%
Defense was against an animal threat	8.4%

Table 4: Outcomes of defensive incidents.

In 70.6% of defensive incidents, respondents report that the defensive use of the firearm was successful, such that no crime remained to be reported to the police. This finding sheds light on longstanding debates regarding the relationship between survey based defensive gun use estimates and official crime statistics. Precisely because the successful use of a gun to defend oneself presumably prevents a crime from being committed in many cases, such incidents would never appear in police reports or victimization surveys that require that a crime occurred (English, 2024a). It is also notable that 8.4% of defensive incidents were directed against animal threats rather than criminal threats. The first-wave report and response to critics observed that defense against animals is a real and neglected phenomenon (Conover, 2019). This second wave quantifies DGUs in response to animal threats directly, finding that they constitute about 8.4% of DGU incidents. This wave also documents that roughly a third of owners of magazines holding more than 10 rounds cite prevention of animal

attacks as one reason for their ownership of these items as do about a third of those who own AR-15s and similarly styled rifles. However, excluding animal-defense incidents entirely would reduce annual DGU estimates by less than a tenth.

4.3 Incident Characteristics

Gun owner respondents were asked to answer detailed questions regarding each defensive incident that they reported. As Figure 4 shows, in the majority of defensive gun uses (76.3%), the gun was not fired. Rather, displaying a firearm (50.9% of incidents) or threatening to use a firearm (25.3%) was sufficient. This again 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. Among the incidents in which the gun was fired, the average number of shots was 3.9, and multiple rounds were fired in 70.4% of cases.

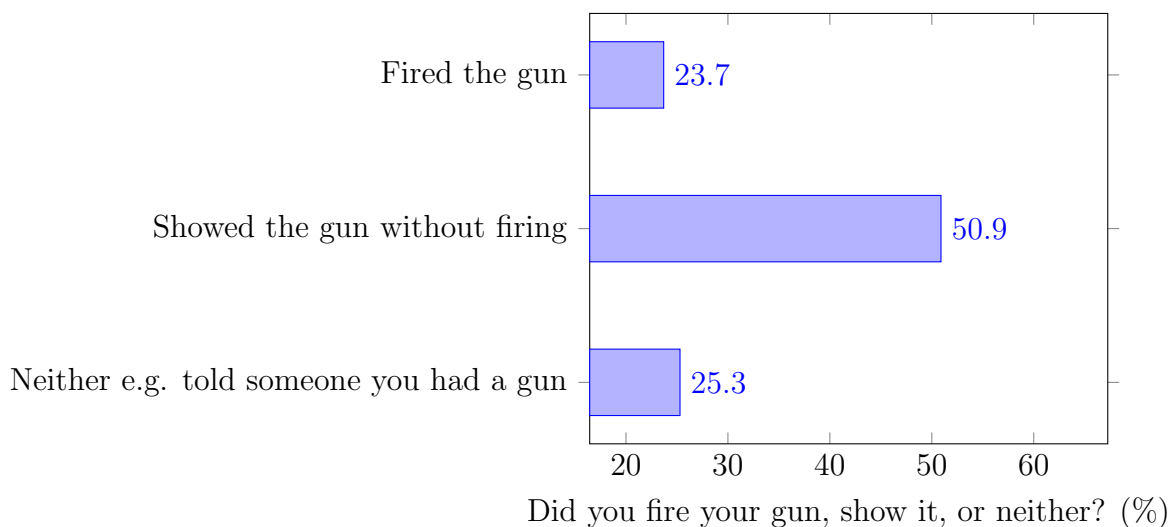


Figure 4: How Guns are Employed in Self-defense: In most defensive incidents no shots are fired.

Figure 5 shows where defensive gun uses occurred. Approximately a quarter (25.4%) of defensive incidents took place within the gun owner's home, and approximately half (53.3%) occurred outside their home but on their property. About one out of nine (11.7%) defensive gun uses occurred in public, and about one out of forty-five (2.2%) occurred at work.

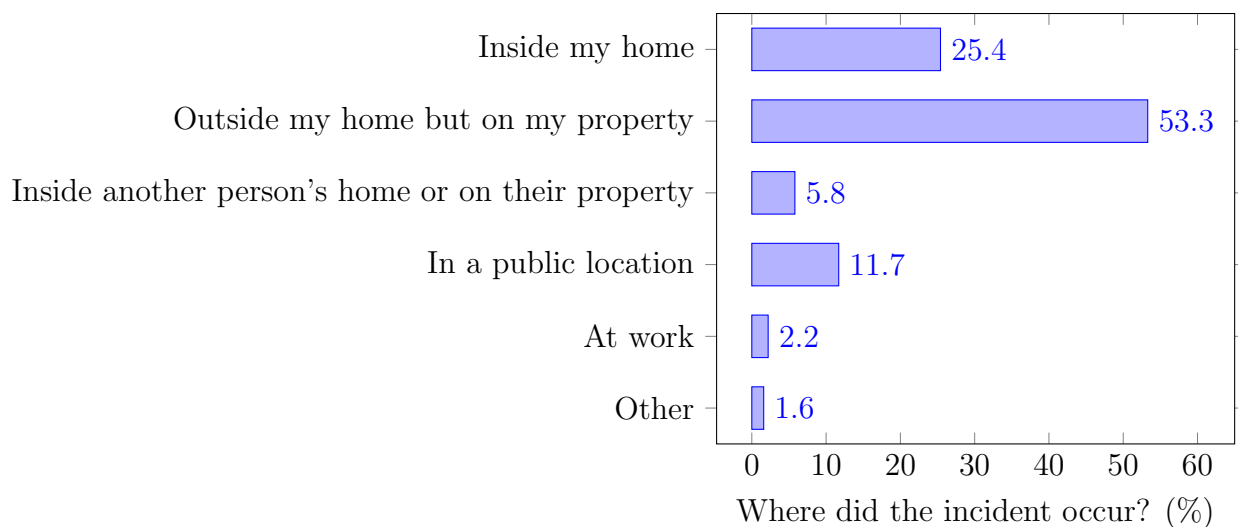


Figure 5: The Location of Defensive Incidents: Most take place outside the home.

For each incident, respondents were asked to indicate what sort of firearm was used. Figure 6 shows the distribution of types of firearms employed in defensive incidents. Handguns were the most commonly used firearm for self-defense, used in nearly three-quarters (74.0%) of defensive incidents, followed by rifles (16.4%) and shotguns (9.6%).

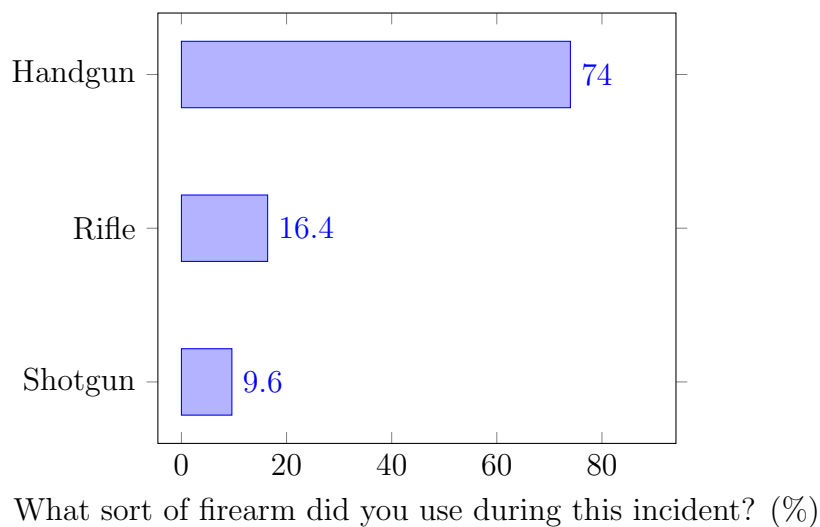


Figure 6: Type of Gun Used for Defense: Handguns are the most common type of firearm used in defensive encounters, followed by rifles and shotguns.

Respondents were also asked to indicate how many assailants were involved in each defensive incident. As Figure 7 illustrates, about half of defensive encounters (50.8%) 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. 32.9% of defensive incidents involved two assailants, and 17.9% involved three or more, while slightly less than half (49.2%) involved a single assailant.

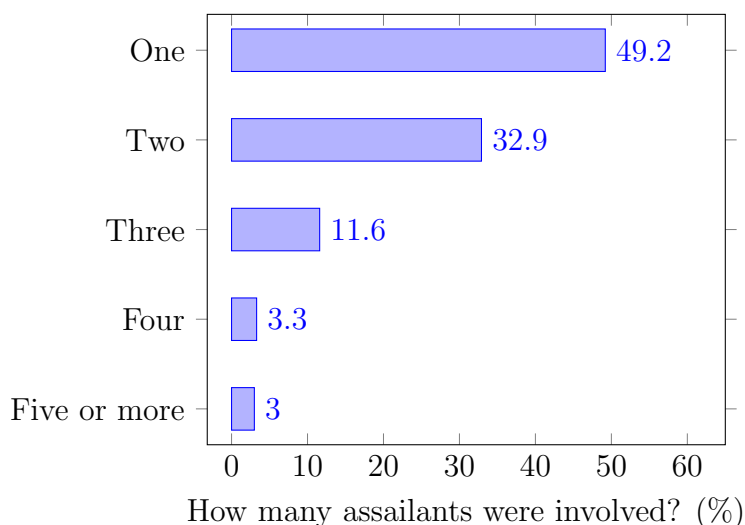


Figure 7: Distribution of the Number of Assailants Involved in a Defensive Incident: Multiple assailants are common.

Finally, after respondents answered these detailed questions about each defensive incident, all gun owners were asked, “Separate from any incident in which you directly used a gun to defend yourself, your property, a family member, or a member of your household, 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. As Figure 8 illustrates, separate from the self-defense incidents summarized earlier, 34.7% of gun owners reported that the mere presence of a gun has deterred criminal conduct, and 35.8% of these individuals indicated that this has happened on more than one occasion. Extrapolated to the population at large, this suggests that approximately 30.6 million gun owners have been involved in an incident in which the presence of a firearm deterred crime on some 48.2 million occasions, which translates to a rate of approximately

1.7 million incidents per year for which the presence of a firearm deterred crime.

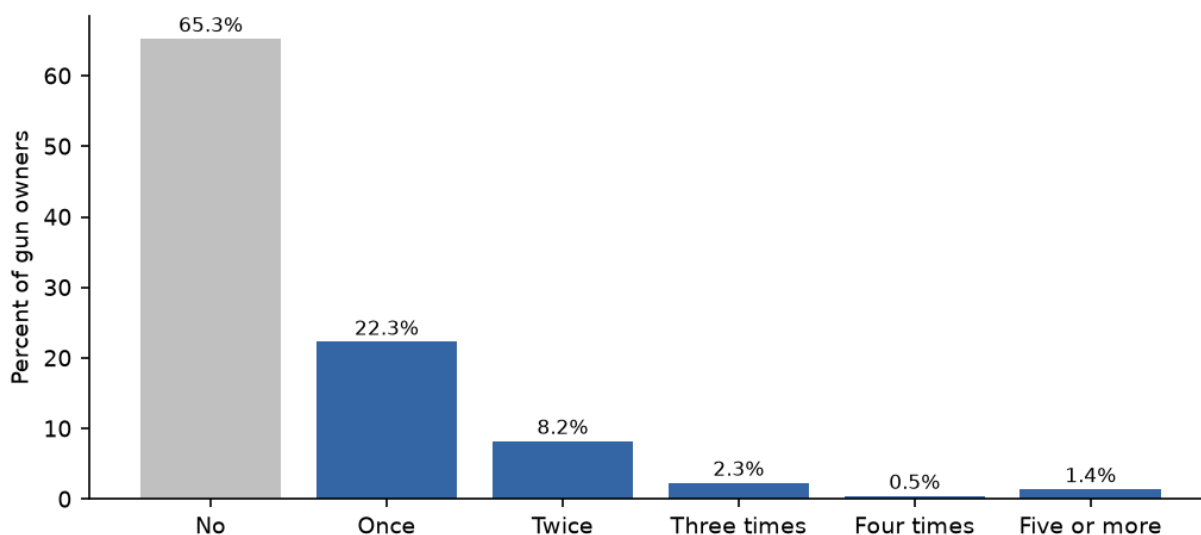


Figure 8: Frequency with which Firearms Deter Crime: 34.7% of firearms owners report that the presence of a firearm has deterred criminal conduct against them, often on more than one occasion.

5 Carry Outside of the Home

- A majority of gun owners (70.0%) indicate that there are some circumstances for which they carry a handgun for self-defense.
- Approximately 39.3% of gun owners age 21 and over, or 33.6 million individuals, are “public carriers” who hold a permit and carry a handgun at least sometimes.
- About a third of gun owners (36.0%) have wanted to carry a handgun for self-defense in a particular situation but local rules prohibited them from doing so.

As Figure 9 illustrates, a majority of gun owners (70.0%), or about 61.7 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 49% of gun owners report carrying a handgun with some frequency (indicating

that they carry “Sometimes,” “Often,” or “Always or almost always”). Moreover, 36.0% 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 (Figure 10).

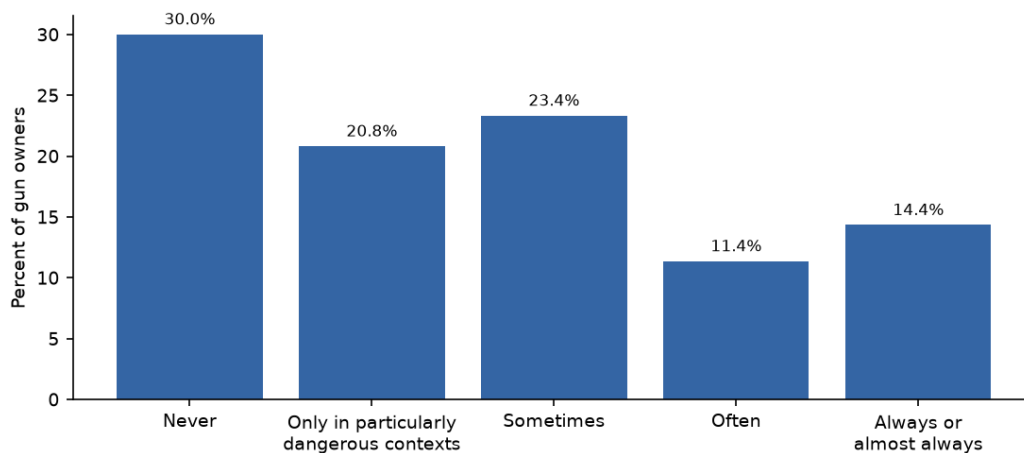


Figure 9: Frequency of Defensive Carry: Carrying a handgun for self-defense is common.

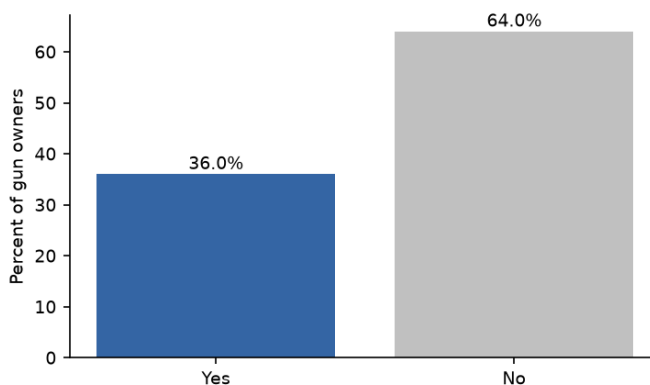


Figure 10: Prohibition of Carry: About a third of gun owners have wanted to carry a handgun for self-defense in a particular situation but local rules prohibited them from doing so.

Assessing the number of people who carry a concealed handgun in public remains complicated by the continued proliferation of “constitutional carry” or “permitless carry” regimes, which as of the 2026 fielding had been adopted in over half the states, and by the Supreme

Court’s decision in *New York State Rifle & Pistol Association, Inc. v. Bruen* (2022), which required the remaining “may issue” states to move to “shall issue” permitting. Because permits remain useful for reciprocal carry benefits in other states (among other conveniences), many gun owners in permitless states continue to hold permits that are redundant for in-state carry. When asked “Do you have a concealed carry permit?”, 58.6% of gun owners answered affirmatively: 46.1% hold a permit in their home state only, 10.5% hold permits in both their home state and another state, and 2.0% hold a permit only in a state other than their home state. This is substantially higher than the 47.2% documented in 2021, consistent with the large expansion of both permitting and permitless carry over the intervening period. However, it’s also likely that many respondents who live in permitless carry states may answer in the affirmative, indicating that they are permitted to carry, even though they do not hold a formal permit.

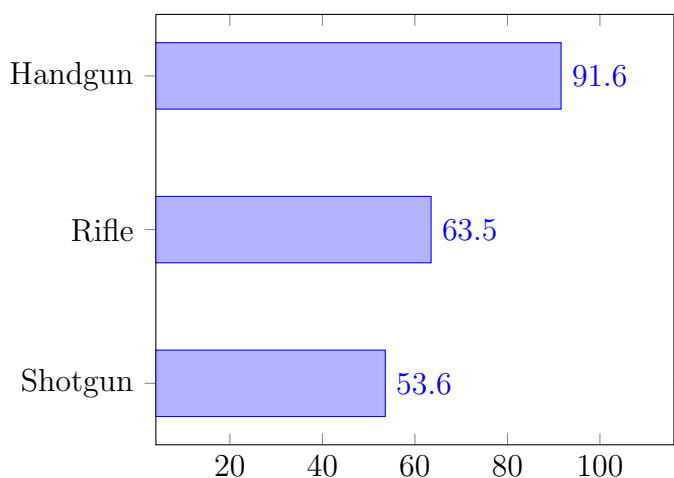
In order to provide a robust but conservative estimate of those who actually carry in public, we again code as “public carriers” those individuals who indicated both that they have a concealed carry permit and that they carry a handgun for self-defense at least “sometimes,” and we restrict analysis and population estimates to those age 21 and over given that most states restrict those under 21 from carrying concealed in public. Using this definition, we find that 39.3% of gun owners age 21 and over are “public carriers” (95% CI 38.5% – 40.0%), which translates to approximately 33.6 million individuals who carry handguns in public under a concealed carry regime, up from approximately 20.7 million in 2021. Note that this definition remains conservative in permitless carry states, where individuals may lawfully carry with some frequency without holding any permit.

6 Types of Firearms Owned and Hunting Participation

- 91.6% of gun owners report owning a handgun, 63.5% report owning a rifle, and 53.6% report owning a shotgun.
- The average gun owner owns about 5.2 firearms. The median gun owner owns 3.
- 24.1% of gun owners own only one firearm; among these, 81.9% own a handgun.

- Overall, Americans own approximately 461 million firearms, consisting of approximately 208 million handguns, 154 million rifles, and 99 million shotguns.

Under the validated-owner rule, every gun owner analyzed in this report entered counts for the number of rifles, shotguns, and handguns that they personally own. 91.6% of validated gun owners report owning a handgun (95% CI 91.2% – 92.0%), 63.5% report owning a rifle (95% CI 62.8% – 64.3%), and 53.6% report owning a shotgun (95% CI 52.9% – 54.4%). Note that using survey weights based on in-survey demographics of firearms ownership has no substantive effect on these estimates: Handgun, 91.1%; Rifle, 64.1%; Shotgun, 54.1%. The share of owners owning a handgun is notably higher than the 82.7% documented in 2021, while rifle and shotgun ownership shares are somewhat lower, a compositional shift consistent with the profile of recent first-time buyers, who disproportionately purchase handguns for self-defense.



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

Figure 11: Percent of gun owners who own each type of firearm.

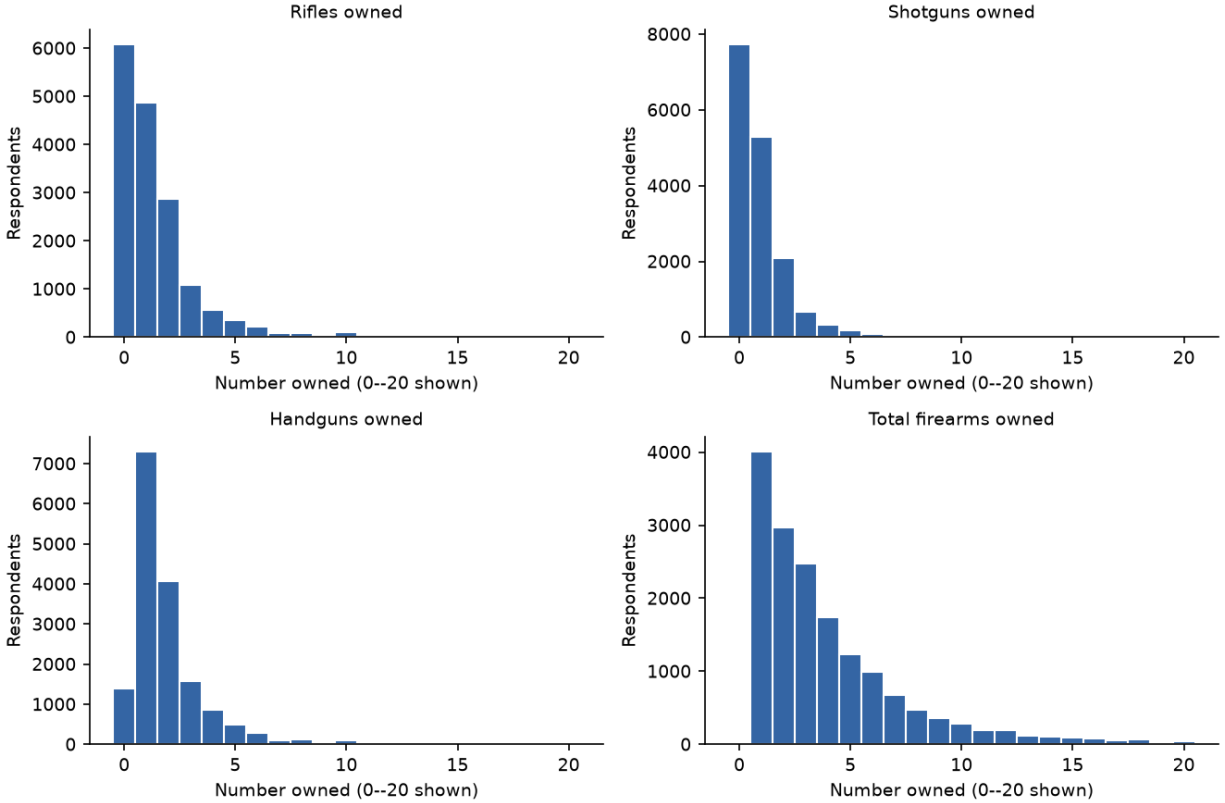


Figure 12: Histograms showing the distributions of gun ownership.

Because numerical entry fields in the second wave accepted only numeric values, no narrative or non-numeric responses required coding. Approximately 99.9% of validated owners indicated owning 100 or fewer firearms of each type, and approximately 97.2% indicated owning 10 or fewer 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 0.1% of respondents who indicated owning over 100 firearms in any category from the analysis of average numbers of guns owned, replicating the outlier rule of the first wave.

On average, gun owners own 5.2 firearms, consisting of 1.7 rifles, 1.1 shotguns, and 2.4 handguns. Figure 12 plots histograms of the number of firearms owned by respondents. As in the first wave, 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 owns 3 firearms. 24.1% of firearms owners own only one firearm, and among those who own only one firearm, handguns are by far the most commonly owned type of gun (81.9%), followed by rifles (10.7%) and shotguns (7.4%).

Overall, these estimates imply that Americans own approximately 461 million firearms, consisting of approximately 208 million handguns, 154 million rifles, and 99 million shotguns. The growth relative to the 415 million firearms estimated in 2021 is consistent with the tens of millions of firearms that background-check data indicate have been sold in the intervening five years, and the comparison is conservative given that the 2021 figure was built on income-raked weighting (the comparable income-raked 2026 figure is approximately 492 million; see Appendix E).

7 Current Ownership of Magazines that Hold More than 10 Rounds

- 50.5% of gun owners, approximately 44.5 million adults, *currently* own magazines that hold more than 10 rounds.
- 88.0% of these owners cite a defensive purpose (home defense or defense outside the home) for owning such magazines, and 32.4% cite prevention of animal attacks.
- Approximately 539 million magazines holding more than 10 rounds are currently owned by U.S. gun owners: roughly 265 million handgun magazines and 273 million rifle magazines.

The first wave asked whether respondents had ever owned a handgun or rifle magazine that holds more than 10 rounds, and we emphasized that the resulting figures should be interpreted as upper bounds on current ownership (English, 2022, 2023). The second wave asks about current ownership directly: “Some have argued that few gun owners actually want or use magazines that can hold over 10 rounds. Do you currently own 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. However, only count magazines that you personally own, not magazines that other family members may own.)”

50.5% of validated gun owners (95% CI 49.7% – 51.2%) responded that they currently own such magazines. Using survey weights based on in-survey demographics of firearms ownership has no substantive effect on this estimate (49.3%). This suggests that approximately 44.5 million American adults currently own magazines that hold more than 10 rounds. It is striking that the current-ownership rate documented in 2026 (50.5%) exceeds the lifetime-ownership rate documented in 2021 (48.0%). A straightforward reading is that continued heavy sales of firearms that ship with such magazines as standard equipment have more than offset any divestitures over the intervening five years.

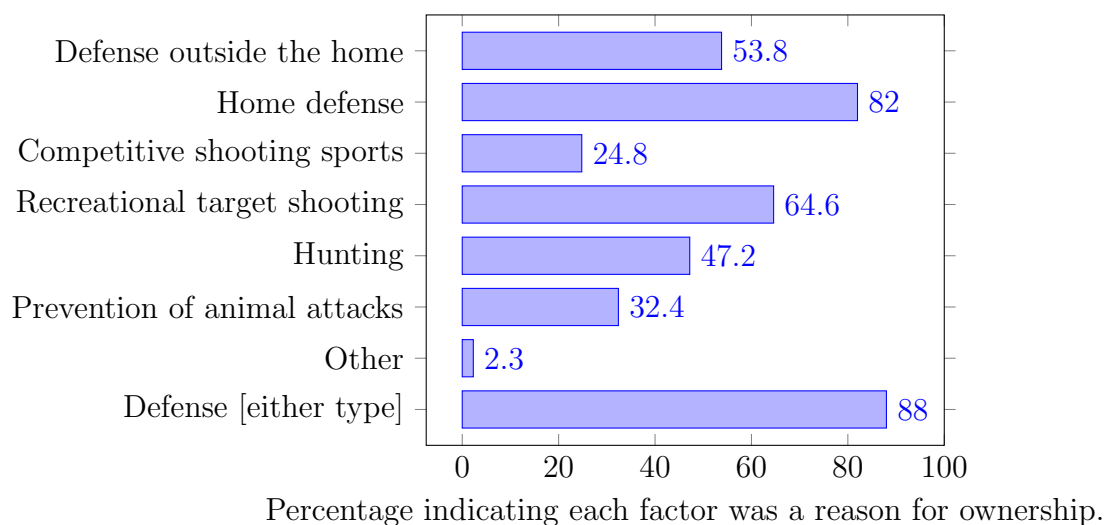


Figure 13: Purposes indicated for owning 11+ capacity magazines.

Figure 13 shows the percentage of magazine owners who indicated that they own magazines that can hold more than 10 rounds for the following purposes: home defense (82.0%), recreational target shooting (64.6%), defense outside the home (53.8%), hunting (47.2%), prevention of animal attacks (32.4%), competitive shooting sports (24.8%), and other (2.3%). Note that respondents could choose multiple purposes. Examining both forms of defensive use together (Home Defense or Defense Outside the Home), 88.0% of respondents indicate that they own such magazines for defensive purposes, making defense by far the most common reason cited for ownership of 11+ round capacity magazines. As a share of all gun owners, approximately 44.4%, or some 39.2 million adults, currently own 11+ round magazines for defensive purposes. The new “Prevention of animal attacks” response option that

was incorporated because of the animal-threat narratives noted in the first wave’s open-ended responses was selected by roughly a third of magazine owners, corroborating our earlier observation that defense against animal threats is a substantial and neglected dimension of firearms utility (Conover, 2019; English, 2024a).

Demographic Group	Proportion Currently Owning 11+ Mags	95% Confidence Interval
White	45.0%	44.1% – 45.9%
Black	66.2%	64.4% – 67.9%
Asian	50.8%	46.9% – 54.7%
Native American	53.3%	49.0% – 57.6%
Pacific Islander	51.5%	39.8% – 62.9%
Other Ethnic Ancestry	46.9%	39.1% – 55.0%
Hispanic (any ancestry)	59.3%	57.1% – 61.5%
Male	61.2%	60.2% – 62.2%
Female	37.7%	36.6% – 38.8%

Table 5: Demographics of current ownership of magazines that hold more than 10 rounds (share of gun owners in each group).

Table 5 shows the breakdown of current ownership of magazines that hold over 10 rounds across different demographic segments of gun owners. Ownership of such magazines is common across all groups, ranging from roughly 38% of female gun owners to 61% of male gun owners, and is above 50% for Black and Hispanic gun owners.

7.1 Ownership by Capacity Category

Respondents who indicated currently owning magazines that hold more than 10 rounds were asked to estimate the number of handgun and rifle magazines they own in each of five capacity categories (up to 10 rounds; 11–15; 16–20; 21–30; 31 or more). Because entries were restricted to numeric values, no narrative responses required coding. Among those

respondents, approximately 99.8% indicated owning 100 or fewer magazines of each type, and approximately 91.9% indicated owning 10 or fewer of each type; consistent with the first wave’s outlier rule, we exclude the 0.2% of responses over 100 in a category from average and total calculations.

Expressed as shares of all gun owners, 37.0% currently own handgun magazines holding 11–15 rounds, 26.7% own handgun magazines holding 16 or more rounds, 17.3% own handgun magazines holding 21 or more rounds, and 12.1% own handgun magazines holding 31 or more rounds. With regard to rifle magazines, 23.5% of gun owners currently own rifle magazines holding 11–15 rounds, 26.2% own rifle magazines holding 16 or more rounds, 21.1% own rifle magazines holding 21 or more rounds, and 13.8% own rifle magazines holding 31 or more rounds.¹⁰

Among those who currently own 11+ round magazines, the average owner reports approximately 8.7 handgun magazines (2.8 holding up to 10 rounds, 2.3 holding 11–15 rounds, 1.5 holding 16–20 rounds, 1.1 holding 21–30 rounds, and 1.0 holding 31 or more rounds) and approximately 8.2 rifle magazines (2.0 holding up to 10 rounds, 1.5 holding 11–15 rounds, 1.4 holding 16–20 rounds, 2.0 holding 21–30 rounds, and 1.2 holding 31 or more rounds). In sum, roughly two-thirds of the magazines owned by this group hold more than 10 rounds. Building on the ownership estimates above, this implies that U.S. gun owners currently own approximately 265 million handgun magazines and 273 million rifle magazines that hold more than 10 rounds, totaling approximately 539 million such magazines overall. Because these are current ownership estimates rather than estimates of how many have been owned at any time, they are not upper bounds in the sense that the first wave’s 542 million figure was. The fact that the currently owned stock of magazines is close to the 2021 lifetime figure further indicates that there has been a net accumulation of magazines over the intervening period.

Figure 14 plots histograms of the number of 11+ round handgun and rifle magazines

¹⁰These capacity-specific figures are computed from the count grid and are slightly conservative: approximately 6% of respondents who affirmed currently owning an 11+ round magazine entered counts only in the 10-or-under cells of the grid. The direct question yields the headline figure of 50.5%; the count-validated share owning a positive number of 11+ round magazines is 44.7%.

reported by current owners of such magazines. As with firearms, the distributions are skewed right with most owners holding a modest number of such magazines.

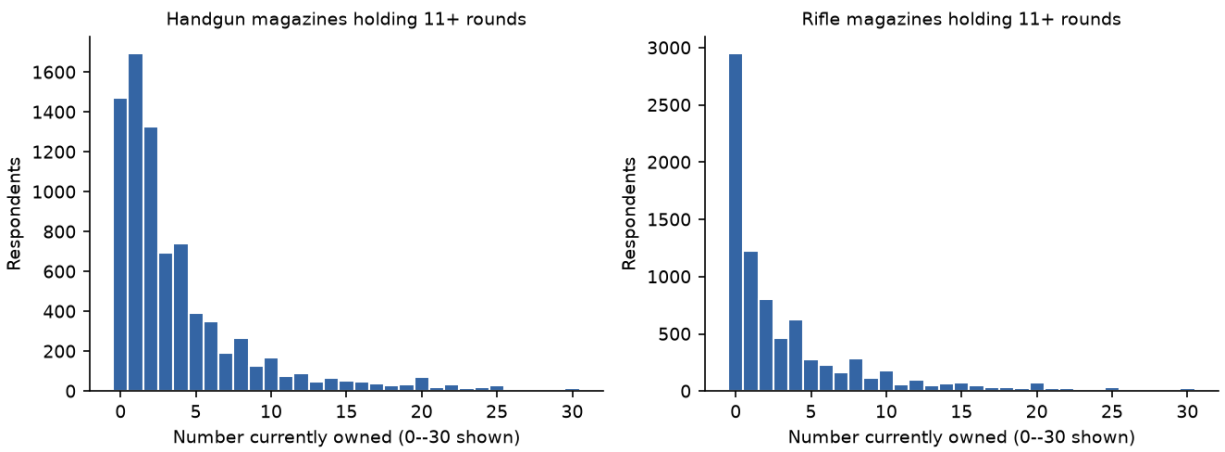


Figure 14: Histograms of the number of 11+ round handgun magazines (left) and rifle magazines (right) currently owned, among gun owners who currently own such magazines.

State	% gun owners who currently own 11+ rd magazines	95% Confidence Interval	Estimated # of owners
Alabama	46.8%	41.9% – 51.9%	898,178
Alaska	60.0%	42.3% – 75.4%	126,297
Arizona	52.7%	48.1% – 57.3%	1,098,806
Arkansas	43.7%	37.2% – 50.4%	463,459
California	47.7%	45.2% – 50.2%	3,672,751
Colorado	46.8%	40.8% – 52.8%	746,233
Connecticut	47.7%	39.4% – 56.2%	303,449
Delaware	59.6%	45.3% – 72.4%	136,397
District of Columbia	69.7%	52.7% – 82.6%	117,808
Florida	53.8%	51.0% – 56.5%	3,429,053
Georgia	53.3%	49.3% – 57.3%	1,790,743
Hawaii	47.1%	31.5% – 63.3%	78,784
Idaho	50.0%	40.0% – 60.0%	312,202
Illinois	56.0%	51.9% – 60.1%	1,747,314
Indiana	46.9%	42.1% – 51.7%	955,253
Iowa	42.3%	34.8% – 50.2%	353,094
Kansas	46.9%	39.4% – 54.6%	446,209
Kentucky	46.2%	40.5% – 51.9%	676,434
Louisiana	54.5%	49.0% – 60.0%	761,198
Maine	43.2%	32.6% – 54.6%	144,475
Maryland	50.7%	44.2% – 57.1%	628,178
Massachusetts	44.9%	38.0% – 52.1%	487,031
Michigan	51.3%	47.1% – 55.5%	1,429,273
Minnesota	41.9%	35.6% – 48.4%	612,191
Mississippi	50.7%	44.0% – 57.4%	531,130
Missouri	44.5%	39.7% – 49.4%	849,357
Montana	54.0%	41.8% – 65.7%	265,697
Nebraska	48.4%	36.6% – 60.4%	204,950
Nevada	54.5%	47.4% – 61.4%	458,029
New Hampshire	40.3%	29.0% – 52.7%	132,524
New Jersey	47.0%	41.2% – 53.0%	625,317
New Mexico	53.5%	43.0% – 63.7%	314,285
New York	50.7%	46.8% – 54.7%	1,569,619
North Carolina	49.5%	45.7% – 53.3%	1,639,792
North Dakota	41.9%	26.4% – 59.2%	98,109
Ohio	52.0%	48.2% – 55.8%	1,673,175
Oklahoma	45.9%	39.8% – 52.2%	617,959
Oregon	54.8%	48.2% – 61.3%	636,729
Pennsylvania	49.0%	45.2% – 52.7%	1,702,782
Rhode Island	40.6%	25.5% – 57.7%	65,802
South Carolina	55.6%	50.1% – 61.0%	979,570
South Dakota	58.3%	42.2% – 72.9%	132,628
Tennessee	50.7%	46.0% – 55.3%	1,253,320
Texas	55.1%	52.7% – 57.5%	5,137,454
Utah	42.4%	34.3% – 51.0%	458,571
Vermont	32.1%	17.9% – 50.7%	50,526
Virginia	53.1%	48.6% – 57.5%	1,322,399
Washington	52.3%	47.1% – 57.5%	1,136,448
West Virginia	47.3%	39.3% – 55.3%	295,596
Wisconsin	43.3%	38.1% – 48.7%	803,929
Wyoming	58.1%	40.8% – 73.6%	153,383
Overall Proportion	50.5%	49.7% – 51.2%	Total 44,523,892

Table 6: Percent of gun owners who currently own magazines that hold over 10 rounds by state, with estimated numbers of such owners. Note that owners may keep magazines in other states if there are local ownership restrictions.

Table 6 breaks down current ownership rates across all 50 states and the District of

Columbia, accompanied by 95% confidence intervals and estimates of the number of individual owners in each state, calculated using Vintage 2025 Census population data and the state-level ownership rates of Table 1. Current ownership of 11+ round magazines is widespread in every state. As in the first wave, gun owners in some jurisdictions with restrictive magazine laws (most notably the District of Columbia) report comparatively high ownership rates. In interpreting this result, it’s important to note that the question explicitly permits counting magazines kept in another state where local restrictions apply. Moreover, as we noted in the first-wave reports, jurisdictions where the barriers to gun ownership are high tend to select for the most committed gun owners. Thus, while a smaller percentage of the population in jurisdictions like DC own guns compared to national averages, those who do own guns are more likely to be gun enthusiasts who own large magazines at higher rates.¹¹

7.2 Situations in Which Larger Magazines Would Have Been Useful

Given that such a large percentage of gun owners indicate that they own magazines holding over ten rounds for defensive purposes, we again analyze the potential value of these magazines for defense. Recall that about half of defensive incidents involved multiple assailants (50.8%), and that in 70.4% of the incidents in which a gun was fired, multiple rounds were fired.

As part of the self-defense section of the survey, respondents were asked: “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? If so, please briefly describe that situation.” 2,386 respondents (14.3% of validated gun owners) answered in the affirmative, with most providing a description of the situation. A small selection of these responses, reported verbatim, appears in Appendix H.

As in the first wave, although a majority of these scenarios involve the prospect of de-

¹¹DC is also distinguished by a relatively transient population driven in part by its status as the nation’s capital and large staffing shifts that occur with changes in government.

fending against criminal aggression, a substantial number involve defending against animals such as bears, cougars, coyotes, feral hogs, and snakes, all of which appear in the second wave’s responses. This reinforces the conclusion that defense against animal threats is a meaningful component of the value of firearms (and of larger magazines) for self-defense.

8 Current Ownership of AR-15 Type Rifles and Other “Assault Weapons”

- 25.0% of gun owners, approximately 22.1 million adults, currently own an AR-15 type rifle.
- 12.9% of gun owners currently own other similarly styled semi-automatic rifles with a pistol grip; 7.9% own both types.
- In total, 30.0% of gun owners, approximately 26.4 million adults, currently own at least one rifle of the type commonly classified as an “assault weapon,” and approximately 60 million such rifles are currently owned (40 million AR-15 type rifles and 20 million similarly styled rifles). At a population level, about one out of every ten adults in the U.S. owns an AR-15 or similarly styled rifle.
- 83.0% of these owners cite a defensive purpose for owning such rifles.

Discussion of the first survey wave revealed a persistent definitional ambiguity in the literature. Some surveys ask only about AR-platform rifles, while state “assault weapons” statutes typically sweep in a much broader class of semi-automatic rifles (English, 2024a; Azrael et al., 2024). The second wave resolves this ambiguity by asking about the two categories separately. All gun owners were asked: “Some have argued that few gun owners actually want or use guns that are commonly classified as ‘assault weapons.’ Do you currently own 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. However, only count rifles that you personally own, not rifles that other family members may own.” Respondents could select, separately or together: “Yes, I own one or more AR-15 type rifles” (entering the total

number owned) and “Yes, I own other similarly styled semi-automatic rifles with a pistol grip” (again entering the number owned).

25.0% of validated gun owners (95% CI 24.4% – 25.7%) report currently owning one or more AR-15 type rifles, and 12.9% (95% CI 12.4% – 13.4%) report currently owning other similarly styled semi-automatic rifles, with 7.9% owning both types. Overall, 30.0% of gun owners (95% CI 29.3% – 30.7%) currently own at least one rifle in one of these categories; using survey weights based on in-survey demographics of firearms ownership has no substantive effect on this estimate (29.3%). Extrapolated to the population, approximately 22.1 million adults currently own an AR-15 type rifle, and approximately 26.4 million adults currently own a rifle of the type commonly classified as an “assault weapon.” At a population level, this indicates that about one out of every ten adults in the U.S. owns an AR-15 or similarly styled rifle.

These figures resolve the definitional debate from the first wave in an instructive way. The 2021 wave found that 30.2% of gun owners had *ever* owned an AR-15 *or* similarly styled rifle. The Washington Post-Ipsos poll of 2022 found that 20% of gun owners *currently* owned rifles built on the AR platform alone. Critics treated the gap between these numbers as evidence of overestimation (Azrael et al., 2024). The second wave, which specifically measures both types directly, finds that 25.0% of gun owners currently own AR-15s specifically, while 30.0% of gun owners currently own AR-15s or similarly styled firearms commonly described as “assault weapons.” This finding confirms that a modest percentage of those who own so-called “assault weapons” own non-AR platform firearms, exactly as we argued in responding to those critiques (English, 2024a). This indicates that the difference between the surveys was primarily a matter of question scope rather than measurement error.

Because the second wave collects both the itemized AR-15 and similarly-styled rifle counts and, separately, a total count of rifles owned in the firearm-count validation question, the two reports can be checked against each other. AR-15 type rifles and other similarly styled rifles are rifles, so a respondent’s two itemized claims, taken together, should not exceed the total number of rifles the respondent separately reported owning.¹² This allows us to

¹²The increasing commonality of AR-15s that resemble short barreled rifles but utilize braces to legally be classified as pistols may complicate how respondents reported these two figures, but the survey was consistent

implement an additional rule to ensure data integrity, counting a numeric value only if it is below 100 as established in the first wave and if the two rifle values are not inconsistent with one another.¹³ Under this rule, among those who currently own AR-15 type rifles, the average owner reports owning 1.8 such rifles (median 1), and among those who own other similarly styled rifles, the average owner reports 1.7 (median 1).

Combining ownership rates, population extrapolations, and average counts, we estimate that approximately 40 million AR-15 type rifles and 20 million other similarly styled semi-automatic rifles are currently owned by American gun owners. The two-step weighted counterparts of these estimates, reported in Appendix F, are essentially identical. For context, the first wave estimated that up to 44 million AR-15 or similarly styled rifles had ever been owned as of 2021. The 2026 estimate likely reflects both the high volume of sales of these rifles over the intervening five years, during which AR-15s have consistently been among the best selling long guns in America, as well as broader coverage achieved by asking about the two rifle categories separately rather than under a single category. Note that the estimate of 40 million AR-15 rifles currently owned closely aligns with reports from the Bureau of Alcohol, Tobacco, Firearms and Explosives’ (ATF’s) Annual Firearms Manufacturing and Export Reports (AFMER), which place the number of AR-15 styled rifles produced between 1990-2023 at about 32 million.¹⁴ In recent years, the annual number of such firearms entering the market has averaged more than 2.5 million per year. Thus, if these trends continued, we would expect the ATF numbers to indicate approximately 39.5 million such rifles entering in the manner in which it asked specifically about rifles.

¹³Only seven respondents entered AR-15 counts above 100 and four entered counts of other similarly styled rifles above 100. The joint-consistency requirement excludes a further 906 AR-15 count reports and 876 other-styled count reports. It is possible that some of these discrepancies are due to the fact that many AR-15 platform firearms are legally classified as pistols because they have a barrel length under 16 inches and are equipped with a brace rather than a conventional stock, although the survey was consistent in asking about rifles. Overall, 76.8% of owners of either rifle type provide jointly consistent counts. Because the responses that were excluded tended to be those that reported larger numbers, this rule is conservative with respect to the estimated totals. A small number of respondents (23) who selected the AR-15 ownership option entered zero as the number they owned. They are counted as owners for prevalence estimates, consistent with their explicit affirmative selection, but contribute zero to the rifle count totals.

¹⁴See: <https://www.nssf.org/articles/nssf-releases-most-recent-firearm-production-figures-3/>

the market from 1990-2026. These estimates also do not include the sizable number of rifles commonly classified as “assault weapons” that were produced before 1990.

Figure 15 plots histograms of the number of rifles of each category reported by owners of that category, under the count rule just described. As with firearms generally, the distributions are skewed right: the median owner of each category owns a single such rifle, and a majority own one or two.

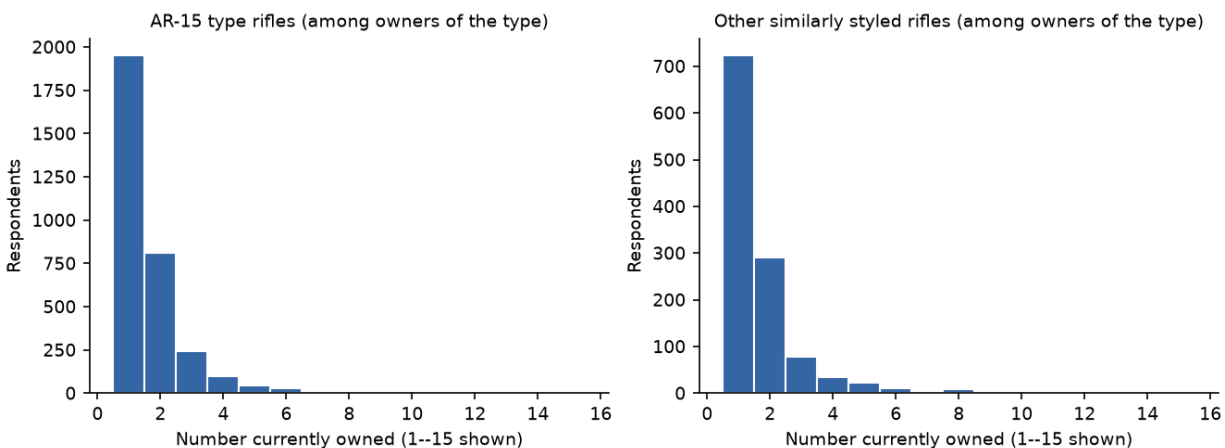


Figure 15: Histograms of the number of AR-15 type rifles (left) and other similarly styled semi-automatic rifles (right) currently owned, among owners of each category (counts ≤ 100 and jointly consistent with the reported rifle total).

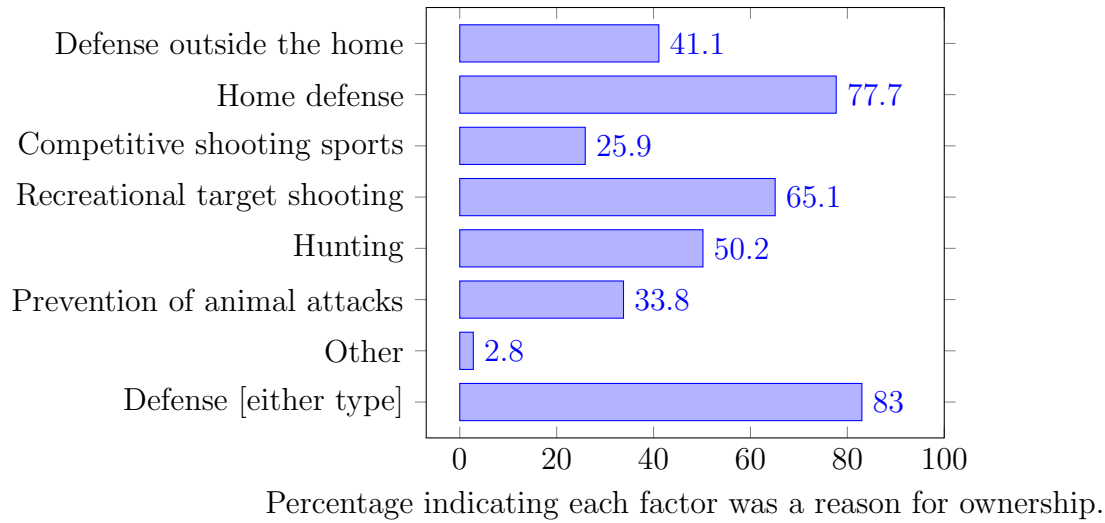


Figure 16: Purposes indicated for owning AR-15 type and similarly styled rifles.

Figure 16 shows the percentage of such owners who indicated each purpose for ownership: home defense (77.7%), recreational target shooting (65.1%), hunting (50.2%), defense outside the home (41.1%), prevention of animal attacks (33.8%), competitive shooting sports (25.9%), and other (2.8%). Taking home defense and defense outside the home together, 83.0% of owners cite a defensive purpose for owning these rifles, and half report using them for hunting, which are patterns that are difficult to reconcile with the claim that these firearms are not commonly acquired and used for lawful purposes.

Demographic Group	Proportion Currently Owning AR-15 or Similar Rifle	95% Confidence Interval
White	27.0%	26.2% – 27.9%
Black	36.4%	34.7% – 38.2%
Asian	30.7%	27.3% – 34.4%
Native American	33.1%	29.1% – 37.3%
Pacific Islander	32.4%	22.4% – 44.2%
Other Ethnic Ancestry	17.0%	11.8% – 23.9%
Hispanic (any ancestry)	38.2%	36.1% – 40.4%
Male	37.2%	36.3% – 38.2%
Female	21.3%	20.4% – 22.3%

Table 7: Demographics of current ownership of AR-15 type and similarly styled rifles (share of gun owners in each group).

Table 7 shows the breakdown of current ownership of AR-15 type and similarly styled rifles across demographic segments. As in the first wave, these rifles are commonly owned across many different demographic groups.

State	Currently Owns AR-15 or Similar	95% Confidence Interval
Alabama	26.5%	22.3% – 31.1%
Alaska	36.7%	21.9% – 54.5%
Arizona	29.8%	25.8% – 34.2%
Arkansas	25.8%	20.4% – 32.1%
California	29.9%	27.7% – 32.2%
Colorado	31.2%	25.9% – 37.0%
Connecticut	24.2%	17.7% – 32.2%
Delaware	27.7%	16.9% – 41.8%
District of Columbia	57.6%	40.8% – 72.8%
Florida	29.1%	26.7% – 31.7%
Georgia	33.0%	29.4% – 36.9%
Hawaii	35.3%	21.5% – 52.1%
Idaho	30.4%	22.0% – 40.5%
Illinois	29.9%	26.2% – 33.8%
Indiana	27.3%	23.2% – 31.8%
Iowa	23.7%	17.7% – 31.0%
Kansas	27.8%	21.5% – 35.1%
Kentucky	26.2%	21.5% – 31.6%
Louisiana	33.5%	28.5% – 39.0%
Maine	21.6%	13.8% – 32.3%
Maryland	31.3%	25.6% – 37.6%
Massachusetts	28.3%	22.4% – 35.2%
Michigan	31.5%	27.7% – 35.5%
Minnesota	26.4%	21.1% – 32.5%
Mississippi	27.5%	21.9% – 33.9%
Missouri	27.5%	23.4% – 32.1%
Montana	31.7%	21.6% – 44.0%
Nebraska	32.8%	22.6% – 45.0%
Nevada	33.0%	26.7% – 39.9%
New Hampshire	14.5%	7.8% – 25.3%
New Jersey	28.5%	23.5% – 34.2%
New Mexico	38.4%	28.8% – 48.9%
New York	31.0%	27.4% – 34.7%
North Carolina	30.3%	26.9% – 33.9%
North Dakota	29.0%	16.1% – 46.6%
Ohio	28.0%	24.7% – 31.5%
Oklahoma	25.0%	20.0% – 30.8%
Oregon	38.7%	32.5% – 45.3%
Pennsylvania	27.1%	23.9% – 30.5%
Rhode Island	15.6%	6.9% – 31.8%
South Carolina	33.1%	28.2% – 38.5%
South Dakota	19.4%	9.8% – 35.0%
Tennessee	33.1%	28.9% – 37.6%
Texas	33.3%	31.1% – 35.6%
Utah	29.5%	22.4% – 37.8%
Vermont	39.3%	23.6% – 57.6%
Virginia	27.8%	24.0% – 32.0%
Washington	36.2%	31.3% – 41.4%
West Virginia	27.4%	20.8% – 35.1%
Wisconsin	26.1%	21.7% – 31.1%
Wyoming	38.7%	23.7% – 56.2%

Table 8: Percent of gun owners who currently own an AR-15 type or similarly styled rifle by state. Note that this includes rifles kept in other locations if there are local ownership restrictions and rifles modified to be compliant with local laws.

Table 8 shows the percentage of gun owners in each state who currently own such rifles.

As with magazines, the question explicitly permits counting rifles kept in other states or modified for compliance, which presumably contributes to the non-trivial ownership rates observed in restrictive jurisdictions.

9 Methodological Strengths of the Second Wave

Because survey-based estimates of firearms ownership and use are frequently contested, it is worth highlighting the design features and methodological innovations that distinguish the second wave and indicating how each bears on the reliability of the estimates reported above.

1. Two-stage validated ownership. Every gun owner analyzed in this report passed through two independent affirmations of ownership: the indirect screening question at the outset, and a positive count of specific firearm types near the end of the survey, after an embedded attention check. Respondents whose answers could not be validated because they abandoned the survey or reported zero firearms of every type were excluded from the owner sample entirely, and the 304 who reported owning zero firearms were counted as non-owners. This is a powerful data integrity check as it requires respondents to give consistent answers in different formats at two widely separated points in the survey. The fact that 98.2% of screener identified owners also confirmed positive ownership counts constitutes strong evidence that the screening question was reliable.

2. Individual, current ownership measured explicitly. Two related concerns raised about the first wave of the survey were that respondents might be reporting household rather than personal firearms ownership and that lifetime ownership questions (“have you ever owned...”) would overstate current ownership rates (Azrael et al., 2024). Both are addressed in the design of the second wave. Questions in this wave specify personal ownership (“only count [items] that you personally own, not that other family members may own”) and current ownership (“Do you currently own...”). The demographic diversity of gun owners documented in the first wave, particularly among female owners, actually increases in this wave, demonstrating that these findings were not artifacts of question wording.

3. Forced numeric entry and transparent outlier treatment. In the second wave respondents were required to answer questions about the number of guns or magazines

owned with numeric values, preventing both skipped responses and narrative entries. The distribution-based outlier rule of the first wave (excluding counts above 100 in a category from averages) was applied unchanged, but likewise had minimal implications, affecting only about two responses per thousand. In addition to the newly disaggregated AR-15 and other similarly styled rifle counts, the survey also collected total rifle counts separately for each category and forced a response. This enabled an additional internal consistency check, verifying if the number of rifles reported at the end of the survey is consistent with the number of AR-15 rifles reported and the number of similarly styled rifles reported (see Section 8).

4. A defensive gun use questionnaire designed against recall bias, with age at incident data reported. As in the first wave, defensive gun use questions ask about lifetime experience rather than a bounded recall window so as to avoid the recency biased inflation critique of Hemenway (1996). The second wave also adds a question asking how old a respondent was when each incident occurred. This allows us to empirically examine age and cohort dynamics. The incident-age distribution we witness in the data is as expected, concentrated in early adulthood and internally consistent with respondents' current ages in over 99% of reports. The age data also allows us to calculate lifetime-averaged estimates and estimates based on recent years, as well as conduct formal age-period-cohort analysis, which is reported in Appendix D.

5. Incident outcomes distinguish crime-averting uses and animal defense. An expanded set of DGU questions document that 70.6% of defensive uses succeed in averting any reportable crime. This provides a clear, quantitative explanation for why defensive gun uses are largely invisible to crime conditioned DGU estimates such as have been derived from the National Crime Victimization Survey (NCVS). Another newly added question documents that 8.4% of DGU incidents involved animal threats, which are likewise defensive uses of firearms that would not be captured by crime conditioned DGU estimates like those derived from the NCVS.

6. External benchmarks. The indirect screening question again permits benchmarking against non-firearm items. Under the main weighting scheme the survey's bicycle ownership estimate (53.5%) is nearly identical to Pew's independent 53% benchmark. And the survey's

headline ownership rate can be benchmarked against the full range of alternative internal treatments (31.9% – 34.7%), all of which meet or exceed the 2021 estimate and are in line with recent estimates from other national surveys such as surveys by Pew and Gallup.

7. Scale. With 16,688 validated gun owners, which is nearly identical to the first wave in scale despite the stricter ownership definition, the second wave remains, together with the first, among the largest surveys of firearms owners ever conducted, and it supports statistically informative estimates within all 50 states and the District of Columbia.

10 Conclusion

This report summarizes the main findings of the second wave of the National Firearms Survey, the most comprehensive assessment of firearms ownership and use in the United States since the first wave was fielded in 2021. Table 9 summarizes the headline estimates of the two waves.

Estimate	2021 Wave	2026 Wave
Adult firearm ownership rate	31.9% ^c	32.7%
Adult gun owners	81.4 million ^c	88.2 million
Total firearms owned	415+ million ^c	~461 million
Female share of gun owners	42.2%	45.7%
Black ownership rate	25.4%	33.0%
Hispanic ownership rate	28.3%	31.3%
Defensive use of firearm (ever)	31.1% ^a	37.6% ^a
Estimated defensive uses per year	1.67 million	2.2 million
Defensive incidents with no shot fired	81.9%	76.3%
Defensive incidents with multiple assailants	51.2%	50.8%
Carry a handgun in some circumstances	56.2%	70.0%
“Public carriers” (age 21+)	26.3% (20.7M)	39.3% (33.6M)
Own magazines holding 10+ rounds	48.0% (ever)	50.5% (currently)
Such magazines owned	up to 542 million	~539 million
Own AR-15 or similarly styled rifle	30.2% (ever)	30.0% (currently)
Such rifles owned	up to 44 million	~60 million ^b

Table 9: Headline estimates across survey waves. ^aThe 2026 DGU questionnaire adds defense of family and household members to the 2021 wording (self and property), so these rates are not strictly comparable, and we should expect that the broader wording documents additional incidents. ^bThe 2026 estimate specifically measures the current ownership of AR-15 type rifles (~40 million) as well as other similarly styled semi-automatic rifles (~20 million), whereas the 2021 survey asked about present and past ownership of these rifles in combination. ^cThe 2021 estimates employed income-raked weighting; the comparable income-raked 2026 figures are 34.9%, 94.1 million owners, and approximately 492 million firearms (Appendix E).

Measured five years after the first wave, the second wave finds that firearms ownership in America has continued to broaden and deepen. The adult ownership rate has risen from 31.9% to 32.7%, with the estimated number of adult gun owners growing from about 81 million to 88 million. The demographic profile of owners has continued to diversify,

with women now constituting 45.7% of gun owners, and the Black-White ownership gap has narrowed from nearly nine percentage points to less than two. Approximately half of gun owners currently own magazines that hold more than 10 rounds, and nearly a third currently own AR-15 type or similarly styled rifles. Moreover, respondents overwhelmingly report owning these items for defensive, recreational, and hunting purposes. Defensive use of firearms remains common, with roughly 2.2 million defensive uses per year, the large majority of which are resolved without a shot being fired and which succeed at preventing a crime such that there is no crime to report.

The second wave was designed so that the methodological questions raised about the first wave could be answered with data rather than argument. However, the data overwhelmingly support the arguments that were already made in the first wave and in responses to critics. Ownership questions that specify individual, current ownership yield estimates as high as or higher than the first wave's. The separation of AR-15 type rifles from other "assault weapons" confirms that the broader statutory category is substantially more widely owned than the AR platform alone. The DGU age data show that lifetime DGU reports are coherent in terms of their timing. Finally, the two part validated ownership rule along with the congruence of the firearms ownership rate estimate with recent national surveys strongly supports the reliability of survey measures of gun ownership. Taken together these results provide strong evidence that firearms ownership is widespread, growing, and demographically diverse, that magazines holding more than 10 rounds and rifles classified as "assault weapons" are in common use for lawful purposes, and that defensive gun use is frequent and successful.

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Appendix A: Sampling Proportions and Weighting

The tables below report the unweighted demographics of the national sample ($N = 50,184$, after dropping 1,214 partial completes) alongside the census based targets used for raked weighting. Gender, age, state, and household income targets are taken from the 2024 American Community Survey 1-year estimates for the resident population aged 18 and over (with single years of age allocated uniformly within ACS five-year brackets to construct the survey's age bands). Race targets are taken from the Census Bureau's Vintage 2025 Modified Race population estimates. The main weighting scheme rakes on gender, age, race, and state. As a robustness exercise, household income is added to the weighting scheme in Appendix E.

Gender	Sample Proportions	Census Based Weighted Proportions
Male	45.30%	49.01%
Female	54.70%	50.99%

Age Range	Sample Proportions	Census Based Weighted Proportions
18-20	3.27%	5.03%
21-25	7.06%	8.33%
26-30	8.39%	8.47%
31-35	9.57%	8.89%
36-40	11.05%	8.66%
41-45	11.22%	8.32%
46-50	9.48%	7.63%
51-55	8.58%	7.63%
56-60	8.02%	7.60%
61-65	7.18%	7.96%
66-70	7.02%	7.01%
71-75	5.05%	5.76%
76-80	2.93%	4.13%
Over 80	1.18%	4.58%

Annual Household Income	Sample Proportions	Census Based Weighted Proportions
Less than \$10,000	8.32%	5.13%
\$10,000-\$20,000	8.69%	6.02%
\$20,000-30,000	10.97%	6.21%
\$30,000-\$40,000	8.50%	6.53%
\$40,000-\$50,000	7.13%	6.68%
\$50,000-\$60,000	9.15%	6.43%
\$60,000-\$70,000	5.69%	6.14%
\$70,000-\$80,000	6.07%	5.60%
\$80,000-\$90,000	5.03%	5.05%
\$90,000-\$100,000	5.38%	5.05%
\$100,000-\$150,000	16.04%	17.76%
Over \$150,000	9.02%	23.40%

Race	Sample Proportions	Census Based Weighted Proportions
White	71.99%	73.94%
Black	18.08%	12.97%
Native American	2.63%	1.94%
Asian	5.40%	7.08%
Pacific Islander	0.54%	0.26%
Other	1.35%	3.81%

State of Residence	Sample Proportions	Census Based Weighted Proportions
Alabama	1.66%	1.51%
Alaska	0.15%	0.21%
Arizona	2.45%	2.24%
Arkansas	0.99%	0.89%
California	12.01%	11.61%
Colorado	1.48%	1.78%
Connecticut	1.20%	1.10%
Delaware	0.36%	0.31%
District of Columbia	0.21%	0.21%
Florida	7.22%	7.07%
Georgia	3.15%	3.24%
Hawaii	0.44%	0.43%
Idaho	0.42%	0.57%
Illinois	3.51%	3.75%
Indiana	2.12%	2.00%
Iowa	0.94%	0.94%
Kansas	0.80%	0.85%
Kentucky	1.40%	1.34%
Louisiana	1.53%	1.32%
Maine	0.50%	0.43%
Maryland	1.76%	1.83%
Massachusetts	1.91%	2.16%
Michigan	3.04%	3.01%
Minnesota	1.36%	1.69%
Mississippi	0.98%	0.85%
Missouri	1.98%	1.83%
Montana	0.24%	0.34%
Nebraska	0.46%	0.57%
Nevada	1.18%	0.97%
New Hampshire	0.44%	0.43%
New Jersey	2.94%	2.79%
New Mexico	0.48%	0.63%
New York	6.09%	5.95%
North Carolina	3.48%	3.25%
North Dakota	0.17%	0.23%
Ohio	3.76%	3.49%
Oklahoma	1.14%	1.17%
Oregon	1.25%	1.29%
Pennsylvania	4.03%	3.91%
Rhode Island	0.36%	0.34%
South Carolina	1.62%	1.62%
South Dakota	0.21%	0.26%
Tennessee	2.11%	2.12%
Texas	8.53%	8.85%
Utah	0.61%	0.96%
Vermont	0.21%	0.20%
Virginia	2.61%	2.60%
Washington	1.96%	2.36%
West Virginia	0.67%	0.53%
Wisconsin	1.75%	1.77%
Wyoming	0.11%	0.17%

Appendix B: Defensive Gun Uses by Age Cohort

The table below reports, for each age cohort of validated gun owners who answered the defensive-use question, the number of respondents, the total number of lifetime defensive gun uses reported (with “five or more” counted as five), and defensive gun uses per respondent.

Age	Respondents	Total DGUs	DGUs per Respondent
18-20	351	247	0.70
21-25	1,297	1,177	0.91
26-30	1,651	1,625	0.98
31-35	1,854	1,651	0.89
36-40	2,075	1,711	0.82
41-45	1,985	1,562	0.79
46-50	1,666	1,145	0.69
51-55	1,401	798	0.57
56-60	1,307	636	0.49
61-65	1,008	376	0.37
66-70	965	280	0.29
71-75	655	169	0.26
76-80	341	91	0.27
Over 80	132	15	0.11
Total	16,688	11,483	

Table 10: Breakdown of respondents and total reported lifetime DGUs by age cohort.

Appendix C: Key Survey Questions New or Changed in the Second Wave

Wording of the principal survey questions that were added or revised for the 2026 wave.

Current, individual magazine ownership. “Some have argued that few gun owners actually want or use magazines that can hold over 10 rounds. Do you currently own 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. However, only count magazines that you personally own, not magazines that other family members may own.)”

Current, individual “assault weapon” ownership, with AR-15s asked separately. “Some have argued that few gun owners actually want or use guns that are commonly classified as ‘assault weapons.’ Do you currently own 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. However, only count rifles that you personally own, not rifles that other family members may own. Answering this will help us establish how popular these types of firearms are. (Note that it is possible to select two responses below if you own both an AR-15 and other similarly styled rifles).” Response options: “Yes, I own one or more AR-15 type rifles. The total number I own is: ____”; “Yes, I own other similarly styled semi-automatic rifles with a pistol grip. The total number of those I own is: ____”; “No, I do not own any such rifles.”

Defensive gun use, broadened to household. “Have you ever defended yourself, your property, a family member, or a member of your household 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.”

Age at incident. “Approximately how old were you when this incident occurred?”

Incident outcome. “Did your defensive use of a firearm successfully deter violence or other criminal conduct, such that there was no crime to report to the police? (Or, if you defended yourself against an animal, indicate that below.)” Response options: “Yes, the defense was so successful that there was no need to report a crime to the police.”; “No, there was still a crime committed that deserved to be reported to the police.”; “Defense was against an animal threat, not a criminal threat.”

Purposes of ownership (magazines and rifles). “What are the purposes for which you own such [magazines/rifles]? (Check all that apply.)” Response options presented in random order: Hunting; Recreational target shooting; Competitive shooting sports; Home defense; Defense outside the home (for example, concealed carry); Prevention of animal attacks; Other.

Firearm count validation. “Surveys consistently show that about 30-40% of households in America possess a firearm, but less is known about the types of firearms that the average household owns. About how many firearms of each type would you estimate that you own?” (Separate numeric entries for the number of rifles, shotguns, and handguns owned.)

Appendix D: A Formal Age-Period-Cohort Analysis of Defensive Gun Use

The addition of age-at-incident questions in the second wave makes it possible to subject lifetime reports of defensive gun use to a formal age-period-cohort (APC) analysis. This appendix reports that analysis. There are two principal reasons to examine these age dynamics. First, this analysis directly addresses concerns raised by Azrael et al. (2024) that lifetime averaged calculations of defensive gun use may be distorted by the differential representation of “life years” across age cohorts. Second, this analysis helps characterize the degree to which incidents that happened in the recent past shape estimates of the annual rate of defensive gun use.

D.1 Data Construction

Each of the 16,688 validated gun owners who answered the defensive-use question contributes one “person-year” of exposure for every completed adult year from age 18 through the year before the midpoint of their current age bracket, and a half-year at their current age, whether or not they reported any defensive incident. The midpoint of the respondent’s age bracket is used as their current age. We examine the 10,757 DGU incidents reported by those age 18 and older (688 incidents reported as occurring before age 18 are excluded, along with the 38 reports failing the age-consistency check described in Section 4). Total exposure is approximately 461,000 person-years. Because the details of incidents are collected for at most five incidents per respondent, all rates in this appendix are inherently conservative.

Each incident is classified three ways. The first classification tracks the respondent’s age when the DGU happened (six groups: 18–25 through 66+). The second classification examines the respondent’s birth cohort, proxied by current age bracket (grouped as current ages 18–30, 31–45, 46–60, and 61+). The third classification is based on the calendar period of the incident, calculated as the survey year minus the elapsed time implied by current age and age at incident (five periods: 1995 and earlier through 2021–2026). Because respondents indicated their age within brackets (five year intervals, except for 18–20 and 80+), there is

an approximation error of roughly ± 2 years. However, this is small relative to the size of the periods being examined. Since these three dimensions are linearly dependent (Period = Cohort + Age), no analysis can jointly identify all three linear trends. Rather, we present descriptive exposure adjusted rates first, followed by two constrained models whose contrast illuminates what the data can and cannot say.

D.2 Descriptive Exposure-Adjusted Rates

Table 12 reports incident rates per 1,000 person-years by age at incident, both pooled and separately by cohort, and Table 13 reports rates by calendar period. Figure 17 displays both.

Age at incident	Cohort (current age)				All cohorts
	18–30	31–45	46–60	61+	
18–25	108.1	22.2	9.2	4.0	29.1
26–35	111.9	47.3	14.0	4.9	28.5
36–45	–	51.0	21.6	5.8	22.6
46–55	–	–	20.0	6.5	12.9
56–65	–	–	14.7	7.3	8.0
66+	–	–	–	5.1	5.1

Table 12: Defensive incidents per 1,000 person-years of adult exposure, by age at incident and birth cohort. Cells in which a cohort contributes no (or structurally impossible) exposure are marked “–”.

Calendar period	Person-years	Incidents	Rate per 1,000 p-y
1995 and earlier	85,720	388	4.5
1996–2005	84,675	735	8.7
2006–2015	124,620	2,111	16.9
2016–2020	75,200	2,331	31.0
2021–2026	90,380	5,192	57.4

Table 13: Defensive incidents per 1,000 person-years of exposure by calendar period of the incident.

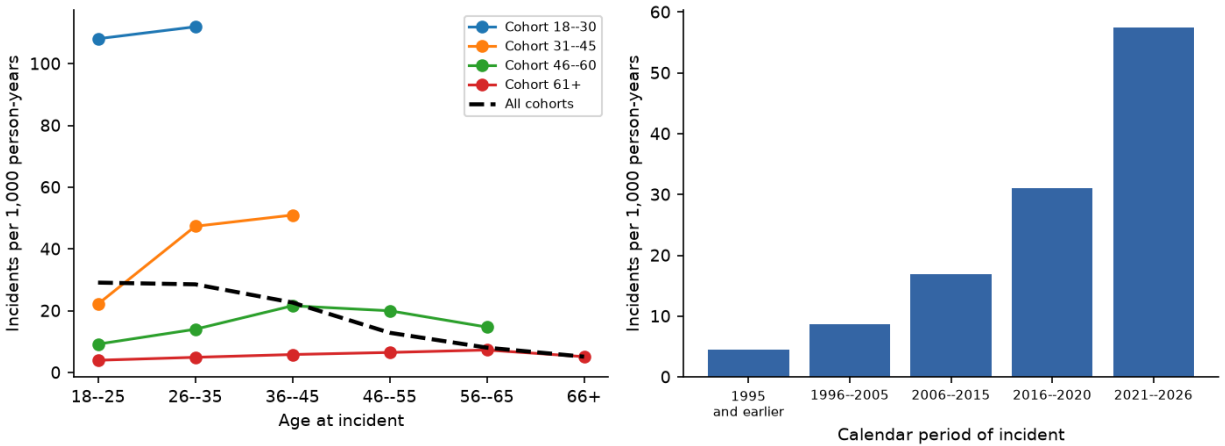


Figure 17: Left: exposure-adjusted incident rates by age at incident, by cohort and pooled. Right: incident rates by calendar period.

Three features stand out. First, in the pooled data, incident rates decline with age at incident, from 29.1 per 1,000 person-years at ages 18–25 to 5.1 at ages 66 and over. Second, however, this decline conceals diverse within-cohort patterns. Within every cohort, DGU rates are highest in the most recent age bracket period (for example, the 46–60 cohort’s rate rises from 9.2 per 1,000 person-years at ages 18–25 to 20.0 at ages 46–55, while the youngest cohort reports over 100 per 1,000 person-years at the ages it just lived). Third, the same structure appears in calendar time with period rates rising monotonically from 4.5 per 1,000 person-years before 1996 to 57.4 in 2021–2026. In sum, the dominant feature of the data is

not the age profile, but a rise in reported incident rates with proximity to the survey date, which is captured by the diagonal of the APC array.

D.3 Constrained Poisson Models

Table 14 reports incidence-rate ratios from two Poisson models of incident counts with log-exposure offsets: an age + cohort (AC) specification, and an age + period (AP) specification. Given the APC definition, these two models are alternative descriptions of the same diagonal pattern. Their comparison is instructive.

In the AC model, the observed pattern is mainly explained by strong cohort effects. Compared with the youngest cohort, the rate for the 31–45 cohort is only 0.27 times as high, for the 46–60 cohort it is 0.10 times as high, and for the 61+ cohort it is 0.03 times as high. After removing these cohort differences, the age pattern rises modestly into middle age and then declines at older ages.

In the AP model, the same pattern is instead explained by period effects. Compared with 2021–2026, rates are 0.48 times as high in 2016–2020, 0.23 times as high in 2006–2015, 0.10 times as high in 1996–2005, and 0.05 times as high before 1996. In this model, the age gradient declines steeply.

Term	Age + Cohort model	Age + Period model
	IRR (95% CI)	IRR (95% CI)
Age 18–25	1.00 (ref.)	1.00 (ref.)
Age 26–35	1.61 (1.53–1.69)	0.75 (0.72–0.79)
Age 36–45	2.05 (1.93–2.18)	0.48 (0.46–0.51)
Age 46–55	2.07 (1.89–2.27)	0.23 (0.22–0.25)
Age 56–65	2.08 (1.81–2.40)	0.12 (0.10–0.13)
Age 66+	1.60 (1.25–2.05)	0.06 (0.04–0.07)
Cohort 18–30	1.00 (ref.)	
Cohort 31–45	0.27 (0.25–0.28)	
Cohort 46–60	0.10 (0.09–0.10)	
Cohort 61+	0.03 (0.03–0.04)	
Period 1995 and earlier		0.05 (0.04–0.05)
Period 1996–2005		0.10 (0.10–0.11)
Period 2006–2015		0.23 (0.22–0.24)
Period 2016–2020		0.48 (0.46–0.50)
Period 2021–2026		1.00 (ref.)

Table 14: Incidence-rate ratios from constrained Poisson models of defensive incident counts with log person-year offsets.

D.4 Interpretation and Implications for Annualized Estimates

What could produce the observed pattern of more DGUs in recent years? There are three mechanisms that could plausibly be at play, although they are observationally equivalent in a single cross-section.

First, there could be period effects rooted in distinctive features of the last five years. The Covid and post-Covid period around 2020-2023 saw a spike in crime relative to the early and mid-2010s, record firearm sales, a large number of new gun owners, and an expansion of carry rights. All of these dynamics would be expected to raise the frequency of DGUs over the last five years.

Second, there may be genuine cohort differences. Younger gun owners may have faced and responded to threats differently than cohorts that grew up in earlier periods. This is plausible given evidence that younger gun owners in recent years have been composed of higher percentages of new gun owners, including urban, female, and minority gun owners who specifically acquired firearms for self-protection (Crifasi et al., 2021; Miller et al., 2022).

Finally, there could be issues related to recall. Research has unsurprisingly shown that respondents report events from the distant past at lower rates than events from the recent past (Bradburn et al., 1987; Sudman and Bradburn, 1973). In the context of DGU reporting, this would inflate rates from recent periods relative to distant periods, even if the true rates were relatively constant. It's important to emphasize, however, that a tendency to not recall events the further back they happened implies under reporting of old incidents not the invention of recent ones. So, this would bias lifetime totals downward at the same time that it would reinforce the time based patterns observed.

Although this analysis does not allow us to distinguish between these different mechanisms, it does help clarify the different possible dynamics at play in ways that may be helpful for policymakers and future research.

- **Lower bracket (~1.6 million per year).** If we assume no period based effects and no problems with the recall of DGUs from the distant past (such that averaged lifetime age-specific rates are the best estimate of current age-specific rates), applying the pooled rates of Table 12 to the current age distribution of gun owners results in an age-standardized estimate of approximately 0.018 incidents per owner-year, or approximately 1.6 million defensive uses per year at the current owner population. This is a lower limit. It considers the comparatively lower reported rates for distant decades as true rates rather than as rates that were underreported due to recall bias, and it rests on pooling to estimate averaged lifetime age-specific rates.
- **Upper bracket (~5–6 million per year).** If we view the reported 2021–2026 period rates as accurate representations of DGU rates in general, then the recent rate of 57.4 incidents per 1,000 owner-years implies approximately 5.1 million DGUs per year. This is an upper limit and consistent with the estimate of approximately 5.5 million reported

in Section 4, which was based on the per year DGU reports from recent incidents alone.

- **Most plausible estimate (~2.2 million per year).** The lifetime averaged estimate of Section 4, which reports total lifetime DGU incidents divided by total adult person years, weighs all reported DGUs equally. It is not vulnerable to the bounded recall critique of Hemenway (1996) and it is also conservative from the perspective of recall decline over time. Moreover, as the cohort analysis shows, this estimate is not inflated by the older cohorts, which was a concern expressed by Azrael et al. (2024). Upon investigation, older cohorts actually report lower lifetime accumulated rates, such that their greater representation of distant life-years pulls the lifetime average down, not up.

The data thus shows that the concerns raised by critics regarding potential cohort effects biasing the estimation of DGUs in the first wave were wrong. Accounting for cohort structure in fact raises the plausible estimates of the current annual rate relative to the lifetime average. Moreover, every estimation approach, including the most conservative, implies that the annual number of DGUs in the U.S. is in the millions. This is far above the figures derived from the National Crime Victimization Survey (which requires that a crime was not successfully prevented by a DGU in order for a DGU to be counted) but consistent with the “500,000 to more than 3 million” range identified by the National Academies (National Research Council, 2013).

Appendix E: Robustness of Ownership Estimates to Income Weighting

The first wave of this survey, like many one-off surveys, employed household income as one of five raking dimensions. This report’s main estimates do not for the reasons summarized in Section 2.2. Self-reported categorical household income is the noisiest demographic item the survey collects. Moreover, published income targets describe households while the survey samples individual adults. Finally, the under-representation of high-income respondents in online panels likely presents a selection problem that weighting exacerbates rather than

ameliorates. For these reasons, major national surveys, such as the General Social Survey, Gallup, and Pew Research Center’s American Trends Panel, exclude income from their weighting schemes. Because researchers may still ask about the effects of income-adjusted figures, this appendix reports the headline ownership estimate under two income-raked robustness schemes, both using household income targets constructed from the 2024 American Community Survey (table B19001).¹⁵

Variant A: full weighting scheme. This replicates the first wave’s weighting design, raking on gender, age, race, state, and the full twelve-bracket household income distribution with updated ACS 2024 targets. It assumes that the survey’s high income respondents are missing at random, such that the 9.0% of the sample that reports household incomes over \$150,000 can stand in, at 2.6 times their sample weight, for the 23.4% of adults that the ACS reports live in such households. Also, since reported firearm ownership rates rise with household income (from 13.1% in the lowest bracket to roughly 42% between \$80,000 and \$150,000), this up-weighting raises the estimated ownership rate substantially. It also raises the design effect from 1.23 to 1.57 and the maximum weight from 12 to 29.

Variant F: income weighting on the bottom ten brackets only. The skewed representation of income levels in the sample has two different components. Low-income households are over-represented (28.0% of the sample reports household income under \$30,000, compared to an ACS target of 17.4%), which is not unusual given that survey panel participants are often motivated by participation incentives. However, the over sampling of these brackets is statistically informative, so down-weighting them comes at little potential statistical cost. In contrast, high-income households are under-represented, and correcting this with weights involves inflating less statistically informative samples whose respondents are also less likely to resemble the broader population of high-income households. Variant F therefore applies the income weighting correction only where it is most statistically appropriate, namely on the brackets below \$100,000. This corrects for the over-sampled poor while not amplifying any potential representational biases with higher income households. Moreover,

¹⁵The survey’s \$60,000–\$100,000 brackets are constructed from the ACS \$50–75k and \$75–100k brackets by uniform allocation within brackets. The ACS 2024 household income targets for the survey brackets are reported in Appendix A.

since high income adults own firearms at above average rates, keeping these respondents at their sample share can only understate ownership estimates. This makes Variant F a relatively conservative income adjusted estimate.

Weighting scheme	Ownership	95% CI	Design effect	Implied owners
Main scheme: gender, age, race, state (no income)	32.7%	32.2% – 33.2%	1.23	88.2 million
A. Full five-margin raking incl. 12-bracket income	34.9%	34.4% – 35.4%	1.57	94.1 million
F. Income raking on bottom ten brackets only	33.5%	33.1% – 34.0%	1.26	90.4 million
Unweighted	33.3%			

Table 15: Robustness of the adult firearm ownership estimate to income weighting. All approaches weight based on gender, age, race, and state using 2024 ACS targets, while the variants add household income as described.

Three observations from Table 15 are worth highlighting. First, income is the single most consequential weighting choice, as it moves the estimate about 2.2 percentage points (32.7% to 34.9%), which is more than double the impact of all other plausible weighting choices. Second, the direction of every income weighting is upward. So, if one believes the survey’s high-income respondents are representative of high-income adults generally, the main estimates in the body of this report understate national firearm ownership by two to three percentage points, and the estimate of approximately 88 million adult gun owners rises to approximately 94 million. Third, even the more conservative approach employed with the main weighting scheme exceeds the income-raked firearms ownership estimate of 31.9% documented in 2021. Thus, the substantive conclusion that firearm ownership has grown since the first wave does not depend on any one approach. Since the first wave’s published estimates were income-raked, wave-over-wave comparisons in this report flag this difference wherever it is material, and the growth in the new wave is larger under the income-raked comparison.

Appendix F: Two-Step Reweighting of Within-Owner Estimates

The estimates reported for the sub-sample of validated gun owners in the body of this report are unweighted. Although employing weights is a straightforward exercise when estimating the proportion of Americans who own a firearm, using weights systematically to estimate responses *within* the subset of those who own firearms is less straightforward, because there is no independent, authoritative source akin to the Census Bureau that can provide the “true” baseline demographic composition of firearms owners. The next best approximation, employed as a robustness check in the first wave of this survey (English, 2022, 2024a) and repeated here, is a two-step procedure. The first step involves taking the demographic composition of gun owners (across gender, age, race, and state) that was estimated from the weighted national sample and using that as the main weighting scheme target described in Section 2.2. The second step then rakes the validated-owner subsample using that estimated composition, calculating the within-owner estimates using those weights.

Table 16 reports the unweighted and two-step-weighted values, with 95% confidence intervals, for the major within-owner estimates of this report, including the prevalence of current AR-15 type rifle ownership, other similarly styled rifle ownership, and ownership of either or both types. Table 17 reports the two-step counterparts of the count-based AR-15 and other “assault weapon” estimates. This shows the average number of such rifles owned per owner of each type (computed under count rule C of Section 8, with the weighted average taken over the same jointly consistent respondents) and the implied national totals, obtained by combining the two-step-weighted prevalence, the two-step-weighted average, and the estimated population of gun owners.¹⁶

¹⁶The defensive-use and deterrence rows are calculated using validated owners who answered the relevant question, and the “public carrier” row is restricted to owners aged 21 and over, as in Section 5.

Estimate	Unweighted		Two-step weighted	
	Value	95% CI	Value	95% CI
Owens a handgun	91.6%	91.2% – 92.0%	91.1%	90.6% – 91.5%
Owens a rifle	63.5%	62.8% – 64.3%	64.1%	63.3% – 64.9%
Owens a shotgun	53.6%	52.9% – 54.4%	54.1%	53.2% – 54.9%
Currently owns 11+ round magazines	50.5%	49.7% – 51.2%	49.3%	48.5% – 50.1%
Currently owns AR-15 type rifle	25.0%	24.4% – 25.7%	24.5%	23.8% – 25.2%
Currently owns other similarly styled rifle	12.9%	12.4% – 13.4%	12.5%	12.0% – 13.1%
Currently owns either type of rifle	30.0%	29.3% – 30.7%	29.3%	28.6% – 30.1%
Currently owns both types of rifle	7.9%	7.5% – 8.3%	7.7%	7.3% – 8.2%
Ever used firearm defensively	37.6%	36.8% – 38.3%	35.7%	34.9% – 36.5%
Presence of firearm deterred crime	34.7%	34.0% – 35.5%	33.5%	32.8% – 34.3%
Carries handgun in some circumstances	70.0%	69.3% – 70.7%	68.0%	67.2% – 68.8%
Holds concealed carry permit	58.6%	57.8% – 59.3%	57.1%	56.2% – 57.9%
“Public carrier” (age 21+)	39.3%	38.5% – 40.0%	37.5%	36.7% – 38.3%
Hunts at least once in a typical year	40.8%	40.0% – 41.5%	40.2%	39.4% – 41.0%

Table 16: Major within-owner estimates, unweighted versus two-step reweighted. The two-step procedure rakes the validated-owner subsample to the demographic composition of gun owners estimated from the weighted national sample (gender, age, race, and state).

Estimate	Unweighted	Two-step weighted
Mean AR-15 type rifles per AR-15 owner (rule C)	1.82	1.86
Mean other similarly styled rifles per owner of such rifles (rule C)	1.73	1.75
Implied total AR-15 type rifles	40.2 million	40.2 million
Implied total other similarly styled rifles	19.7 million	19.3 million
Implied total, both categories combined	59.9 million	59.4 million

Table 17: Count-based AR-15 and other “assault weapon” estimates, unweighted versus two-step reweighted. Averages were calculated using rule C of Section 8 (≤ 100 and jointly consistent with the reported rifle total). The totals are calculated using the estimates of Table 16, the per-owner averages, and the estimated population of 88.2 million adult gun owners.

As in the first wave, these two approaches yield substantively identical results. No estimate shifts by more than two percentage points and most shift by less than one. The largest differences are with DGU rates (37.6% unweighted versus 35.7% two-step weighted) and carrying in some circumstances (70.0% versus 68.0%). However, these differences remain small in magnitude and immaterial to any substantive interpretations.

The count-based “assault weapon” estimates of Table 17 also show a high degree of stability. The two-step weighted average number of AR-15 type rifles per owner (1.86) is nearly identical to the unweighted average (1.82), and the implied national totals differ from the unweighted totals by less than one million rifles (approximately 40 million AR-15 type rifles and 19 million other similarly styled rifles, approximately 59 million in total). Also, when the lifetime-averaged annual DGU estimate of Section 4 is calculated using the two-step weighting scheme, it is only about 10% lower (approximately 2.0 rather than 2.2 million defensive uses per year), which is well inside the 1.6 to 5.5 million bracket established by the age-period-cohort analysis of Appendix D. As in the first wave, it is important to emphasize that the two-step procedure is an approximation, and the first-step targets inherit any error in the national weighting scheme. In any case, detailed analysis reveals that in all cases the unweighted within-owner estimates, drawn from a large and demographically diverse owner sample, are substantively identical to the two-step weighting estimates.

Appendix G: Marital-Status Raking

The second wave’s marital-status question makes it possible, for the first time in this research program, to include marital status in the weighting scheme. This appendix reports the result of doing so as a robustness exercise. The exercise is of particular interest because marital status may be a plausible proxy for some socioeconomic factors and it is a stable, well-understood demographic statistic that respondents generally report accurately. In contrast, the household income item discussed in Appendix E is often not reported accurately by certain subdemographics.

Table 18 compares the survey’s marital composition to the population. Married adults are under-represented in the sample (41.1% unweighted, and 41.3% under the main weights, against an ACS 2024 target of 50.2% of adults 18 and over), while never-married adults are over-represented (37.0% against a target of 31.6%). This is consistent with the composition of online panels, which skew toward younger, unmarried respondents, and which the main weighting margins correct only partially because marital status varies within age, gender, race, and state cells.¹⁷

Marital Status	Sample	Main Weights	ACS 2024 Target
Married	41.08%	41.30%	50.24%
Never married	37.03%	36.30%	31.56%
Divorced	13.13%	12.91%	10.81%
Widowed	5.45%	6.61%	5.72%
Separated	3.30%	2.88%	1.67%

Table 18: Marital composition of the national estimation sample, unweighted and under the main weighting scheme, alongside ACS 2024 targets for adults 18 and over.

Because married adults have the highest firearm ownership rates of any marital category

¹⁷Marital-status targets are constructed from ACS 2024 1-year table B12002 (sex by marital status by age) for the population aged 18 and over. The ACS “now married” category is split into “married” (spouse present, or spouse absent for reasons other than separation) and “separated” to match the survey’s five response options.

(39.2%; see Table 2), weighting based on marital status raises the overall ownership estimate. Table 19 reports the result of adding marital status for the main weighting estimates. The estimated adult ownership rate rises from 32.7% to 33.7% (95% CI 33.3% – 34.2%), or approximately 91.0 million adult gun owners. Among adults 21 and over the estimate is 34.4%. The adjustment is also modest, and the design effect rises only slightly, from 1.23 to 1.28, in contrast to the income raked variants of Appendix E.

Weighting scheme	Ownership	95% CI	Design effect	Implied owners
Main scheme (gender, age, race, state)	32.7%	32.2% – 33.2%	1.23	88.2 million
M. Main margins + marital status	33.7%	33.3% – 34.2%	1.28	91.0 million

Table 19: Robustness of adult firearm ownership rates to adding marital status in the weighting scheme.

Like income adjustments in Appendix E, the marital adjustment moves the headline estimate upward. Correcting the panel’s under-representation of married adults, who in turn own firearms at higher rates, adds a full percentage point to the estimated ownership rate. The 32.7% main estimate is thus again shown to be conservative. Also, the direction and magnitude of this adjustment reinforces the interpretation of Section 3.1 that the survey’s high female ownership share is not an artifact of spousal overreporting of firearms owned by their partner. If married respondents were systematically reporting a spouse’s firearms as their own, then one would expect that the married ownership rate would be inflated relative to other groups in ways that weighting could not correct. However, the pattern that is actually observed with higher ownership among married respondents is exactly what population benchmarks predict for a demographic group that is older, more rural, and wealthier than average.

Appendix H: Verbatim Responses on Situations in Which Larger Magazines Would Have Been Useful

As described in Section 7.2, respondents were asked: “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? If so, please briefly describe that situation.” 2,386 respondents (14.3% of validated gun owners) answered in the affirmative, with most providing a description of the situation. A selection of responses is reported below verbatim. They were chosen to be illustrative of the range of situations described by respondents, with an emphasis on accounts that are more detailed and specific. These include incidents implicating the defensive use of firearms against home invasions and burglaries, robberies and assaults in public places, incidents involving multiple assailants, and encounters with threatening animals.

- In 2014 my brother and I were shopping at our local convenience store after midnight one Saturday night and it was robbed
- while hiking in a remote area ,i encounted several aggressive wild animals at once and felt that having additonal ammuniton without reloading would have provided a grater sense of safty.
- When I went to visit family in Wyoming and we were confronted by a large grizzly bear.
- I needed that many to keep a few young men at bay in front of my house.
- In the woods with a coyote that may have been rabid. I would have liked to have more rounds.
- If i did nit have a gun I would have been robbed at my work. I worked at a liquor store
- Approached in a large downtown area by a large group of unruly people
- Had someone break into my house when I was alone with two children.

- When I ended off an attempted carjacking by three subjects, I was carrying a pistol with a 12 round magazine
- Walking in busy cities where gang presence is common. There is always potential to come across multiple threats. I want to have enough ammunition to stop them, because they certainly won't be following magazine laws.
- When I fired 5 rounds at a ferrel hog that charged me and was so stunned I was afraid I would be harmed and wished I had more rounds in case I missed
- Going hunting a cougar came up on me and I fired 15 shots for it to go away
- Yes outside a store when a gang showed up and if it had turned bad I definitely would've needed more rounds
- 3 trespassers with mask came late one night onto my property. In the event if I would have had to use my firearm, a high capacity magazine would be preferred against 3 people.
- I was being attacked by a homeless deranged lunatic on the street while trying to put gas in my car.
- I am a stay at home mom with a baby girl and a guy was harassing me and my daughter and I feel like I would have felt more secure knowing that I had something to protect me
- If I was required to fire my weapon at the 4 assailants, I want enough rounds to stop all threats.
- I am an elderly widow who lives alone in a particular dangerous neighborhood. One night I had a crazed man on meth beating at my door demanding I let him in. I told him I had a 357 Mag Smith & Wesson pointed at the door and if he didn't get off my porch I would blow him off it. He left and I called the police and they picked him up down the street.
- A home invasion back in 2018. I fired 12 rounds that night to keep my family safe.

- Had the sound of the round being loaded not deterred the home invaders I was alone and would have needed several rounds- maybe more than 10 for 3 male home invaders
- I was visiting a friend at his home when a home invasion robbery took place. There were 4 assailants and two of them were armed. Being the only armed person against 4 violent assailants inside of a residential home, I was outnumbered. Having a high capacity magazine allows me to effectively battle those assailants.
- In that earlier trespassing incident I'd described, the guy was acting crazy/ high as a kite. Now I realize the matter was settled by me just showing my pistol, but I'd be worried that the guy may have had a gun, or been one of multiple, and my magazine on my standard capacity (10 rounds) pistol may not be enough. Having a gun with a larger-capacity magazine like one of my rifles would have given me a bit more peace of mind, should the situation have escalated.
- There were three individuals who chased a female into an alley and I was able to talk them into letting her walk away. Police were called but they ran off.
- Late at night, at a rest stop on the interstate, a man approached my car and started looking in the windows. I placed the gun in his view and he quickly left
- After a hurricane disaster I was forced to warn off looters to leave my street where my house was. I had to announce that I was armed to get them to leave.
- I was driving home and was followed by a car full of people who blocked me in when I parked. I was afraid I would have to shoot my way out as they meant harm. Having a firearm with a large capacity gave me a fighting chance.
- I am a service and Repair Plumber, I give discounts to customers to pay me in cash. There are some days when I have a lot of cash on me and I'm in some pretty questionable neighborhoods where there is a lot of crime after dark. My handguns are 9 mm I am X military police 15 to 18 round magazines sound about right to me. If I was ever, I'm looking up to need a handgun to defend myself you never know how many shots you might miss because of adrenaline.

- My first situation I emptied 2 15 round magazines and fired at least 5 from a 3rd magazine.
- When a dog with rabies was attacking my livestock and would not go down even after several shots and reloading
- We had an aggressive bear come onto our property and was going after animals .had a Glock 9mm had to use 2 clips
- A mob of over 40 people rioted in the street in our neighborhood with 2 people pulling out illegal firearms to threaten others and they began going into people's yards threatening neighbors and vandalizing vehicles.
- You can never be too safe. Especially because I'm a small vulnerable female I need to protect myself for vigilantly. More than 10 rounds would be necessary for me if I was up against a big group of people trying to harm me. It takes too long to reload when your life is in danger. Every second counts and can be the difference between life and death.
- My husband was murdered but if he had carried his gun to the door he might be alive today