The Universal Pursuit of Safety and the Demand for (Lethal, Non-Lethal or No) Guns*

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Abstract

Lethal firearm ownership is deeply polarizing in the United States. We show that beneath this polarization, owners and non-owners share a common objective — safety — but disagree sharply about whether lethal firearms achieve it. Using an original survey of more than 5,400 respondents combined with randomized experiments, we document that owners feel safe and confident with firearms, while non-owners on balance feel less safe around them and perceive large private costs and social harms. Demand for lethal firearms is nonetheless potentially large and growing: one-third of non-owners express interest in acquiring one — these individuals report the lowest day-to-day safety — while very few owners would consider reducing their holdings. Persuading owners to relinquish firearms without any replacement appears unrealistic; the more tractable margins may be safe storage and non-lethal substitution for additional purchases. We organize these patterns through a framework centered on a perceived safety possibilities frontier (SPF) — the safety outcomes a household believes achievable with different combinations of lethal and non-lethal tools. Households may differ in firearm demand because they face different risk environments, weigh protective benefits against harms differently, or hold different beliefs about the frontier. Our descriptive evidence points to heterogeneous beliefs as important drivers, suggesting that levers such as information could shift the perceived frontier. These patterns motivate three experimental treatments: one on the private legal/medical costs of lethal firearm ownership, and two on a non-lethal firearm (NLFA), with and without a conservative pundit's endorsement. The private-cost treatment increases concern about harms among all respondents and support for safe storage policies, and modestly raises stated willingness to keep lethal firearms locked. NLFA treatments raise willingness to pay for an NLFA, to keep lethal firearms locked, and support for incapacitating over lethal firearms and for policies encouraging NLFAs. These effects are largely persistent. Importantly, NLFA information does *not* increase willingness to reduce lethal firearm ownership but does increase willingness to store lethal firearms safely. Our results suggest that many owners perceive the SPF differently from non-owners, neglecting harms or less-lethal alternatives, yet remain open to such tools. Overall, individuals share a common goal — safety — yet disagree about the means. Although these disagreements appear entrenched, people remain receptive to alternatives that might command broader agreement.

Keywords: safety, lethal firearms, non-lethal firearms, information, perceptions.

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1 Introduction

Lethal firearms have for decades been a polarizing political issue in the United States. There are passionate gun-rights activists, but also passionate gun-control advocates who highlight that firearms are a leading cause of death among children. Despite this polarization, there is limited understanding of why people hold such different views about personal lethal firearm ownership, and even less about what might shift those views. We ask what underlies this disagreement and if there is latent common ground.

We run an original large-scale survey of lethal firearm owners (LFAO) and non-owners (NO) to study preferences, beliefs, behaviors, and whether information shifts views. Within non-owners, we distinguish those interested in acquiring a lethal firearm (NO-I) from those not interested (NO-U). Motivated by our descriptive findings, we develop a simple framework in which all households demand safety but may differ in their preferences, true risk environments, or beliefs about how firearms contribute to safety, and we use this framework to design and interpret three randomized information treatments.

Our descriptive findings reveal a clear asymmetry in demand: roughly one-third of non-owners are interested in acquiring a lethal firearm,[1] but very few owners would consider reducing their holdings—62% are interested in acquiring more. Safety is the overriding motivation: both LFAO and non-owners cite family or self-protection as the top reason for owning or wanting a firearm. Yet groups diverge sharply in how they perceive gun-related risks and benefits. LFAO feel safe and confident owning lethal firearms and report that carrying a gun reduces their likelihood of being victimized; NO-U feel unsafe and anxious around firearms; NO-I fall in between, reporting lower daily safety and less trust in police. These gaps extend to perceived private costs: NO-U are far more worried than LFAO about a child accessing a gun or about legal liability, with NO-I falling in between. Groups also diverge sharply in perceived externalities: NO-U are far more likely to believe that firearm ownership increases crime, murders, suicides, school shootings, and serious accidents, with LFAO the least likely to hold these views. We also document widespread unawareness of non-lethal firearm alternatives (NLFAs), even though many LFAO say they would prefer a firearm that incapacitates rather than kills—suggesting unmet demand for such alternatives. Taken together, LFAO and non-owners share a demand for safety but differ in whether they view lethal firearms as making them safer.

Our descriptive findings suggest that demand for lethal firearms is expanding—with a large pool of interested non-owners and current owners seeking additional guns—while persuading owners to relinquish firearms without any replacement appears unrealistic. The more tractable margins are safe storage, substitution toward non-lethal alternatives for additional purchases, and steering new buyers toward NLFAs. These descriptive patterns also motivate the design of our experimental treatments: because perceived costs are heterogeneous, we test whether highlighting private risks shifts beliefs; because respondents demand safety but are largely unaware of NLFAs, we test whether presenting a commercially available alternative shifts demand.

To organize these empirical patterns, we use a framework in which households share a demand for safety but differ in how they think about producing it. Households purchase safety-related tools—including lethal and non-lethal firearms—that vary in their net safety benefits (protective benefits minus harms). Given their preferences (how they weigh benefits relative to harms) and their beliefs about the benefits and harms of each option, they select a point on their *perceived safety possibilities frontier* (SPF). This framework highlights three sources of heterogeneity in firearm demand. First, people may face genuinely different safety environments—different exposures to crime, different skill in handling firearms, different household

[1] Nearly one-half according to Pew Research (2024).

compositions—yielding different true SPFs. Second, they may have different preferences, i.e., different weights on benefits relative to harms, even if they share the same SPF and perceive it accurately; this purely preference-driven view is often implicitly assumed in the literature on firearm ownership. Third, they may have different *beliefs* about the SPF—different perceived frequencies of situations requiring lethal force, different perceived health and legal harms, or limited awareness of non-lethal alternatives—even if their true SPFs and preferences are identical.

Our descriptive findings point to heterogeneous beliefs as a key driver: ownership groups differ markedly in perceived costs and benefits of firearms and in awareness of NLFAs. This distinction matters for policy. Fundamental preference disagreement suggests few levers, if any, could resolve the disagreement. Heterogeneity in beliefs about the SPF, on the other hand, suggests that providing or drawing attention to information relevant to the frontier could influence beliefs and behavior—motivating our experimental treatments, which aim to shift the perceived SPF.

Our three treatments target two margins of the perceived SPF. The *Private Costs of Lethal Firearms* treatment informs all respondents about heightened risks of suicide and accidents in firearm-owning households and about legal liability when a child uses a firearm to commit a crime. For LFAO, we additionally randomize information about a commercially available NLFA (the Byrna Gun), split into a pure-information arm (*Non-Lethal Firearm Information*) and an information-plus-endorsement arm (*Non-Lethal Firearm Information and Endorsement*). The private-costs treatment increases concerns about legal liability among both LFAO and non-owners and shifts policy views toward safe storage. NLFA information raises willingness to view non-lethal firearms as alternatives to lethal ones, increases willingness to pay for an NLFA, and strengthens support for NLFA-promoting policies. The information and endorsement arms produce similar short-run effects, but endorsement generates greater persistence in a follow-up survey two to three weeks later. Despite these shifts, LFAO are unwilling to give up their lethal firearms in response to the interventions: qualitative responses reveal that while treatments favorably shifted assessments of NLFAs for self-defense, respondents continued to envision circumstances requiring lethal force.

Our framework provides a lens for why our treatments could have a non-trivial impact on firearm-related beliefs and behavior. In Section 6, we discuss potential welfare implications of encouraging NLFA adoption through three channels: correcting miscalibrated perceptions of the safety possibilities frontier, direct harm reduction through safer storage and substitution toward non-lethal force, and shifts in owners' policy views toward support for purchasing restrictions. Back-of-the-envelope calculations suggest sizable harm-reduction benefits: promoting NLFAs could prevent up to 8% of school shootings and 7% of child firearm-related suicides and accidental deaths through treatment-induced increases in safe storage.

Our contribution is fourfold. First, we field a large-scale survey of more than 5,400 LFAO and non-owners, with verified ownership status via a timed gun-part naming game in a validation survey. Second, we expand measurement beyond standard sociodemographic and policy-attitude modules to include social networks, perceived externalities, internalities, and—importantly—feelings attached to lethal firearm ownership and the use of deadly force, with real-stakes and incentive-compatible questions. Third, by fielding parallel modules for non-owners, we identify those on the cusp of purchasing (NO-I) and those uninterested (NO-U), allowing us to study not only why people own guns but also why they do not. Fourth, we experimentally test the importance of information about private costs of lethal firearm ownership and about a fairly new NLFA on gun-related beliefs, behaviors, and policy views—an avenue not previously explored.

We connect to three literatures. First, the economics of safety: Viscusi (1983) pioneered methods to

reveal willingness to pay to reduce risks, and work by Spence (1977), Shavell (1984), and others studies why unregulated markets may not produce efficient safety levels. These exercises assume individuals broadly *agree* on what reduces personal safety; we empirically unpack why people can agree on a goal yet disagree on how to achieve it.

Second, social-science work on gun ownership patterns and policy attitudes. Beginning with Cook and Ludwig (1996), who documented that lethal firearms were acquired primarily for safety and that "Americans are ambivalent about guns: they fear them and at the same time they feel safer possessing them," several strands have examined owner demographics and types (Boine et al., 2022; Yamane, 2022), links between ownership and victimization or fear (Kelley and Ellison, 2021; Kleck and Kovandzic, 2009; Warner and Steidley, 2022), shifts in gun culture (Yamane et al., 2018; Burton et al., 2021), and effects of information shocks on policy attitudes (Dixon et al., 2020; Susmann et al., 2022; Luca et al., 2020). Our contribution is to jointly and rigorously measure motivations and feelings for both owners and non-owners, and to experimentally test how information about private costs and NLFAs shifts beliefs and policy support.

Third, work on externalities and firearm demand. Cook et al. (2025) find U.S. households would pay on average $744 annually for a 20% reduction in gun violence, while Rosenberg (2024) and Knight (2013) provide causal estimates of health and cross-state externalities, respectively. A smaller literature estimates firearm demand and substitution patterns (Moshary et al., 2025; Armona and Rosenberg, 2024), and related work studies marginal purchasers and fatalities (Rosenberg, 2025). We build on this by making legal liability salient, introducing a relatively novel NLFA technology, and unpacking the "whys" behind firearm demand.

The remainder of the article proceeds as follows. Section 2 describes the survey sample including the experimental components. Section 3 provides descriptive results as to why people do and do not own lethal firearms. Section 4 presents our organizing framework for interpreting the aforementioned patterns and formalizes the potential role of drawing attention to NLFAs. Section 5 describes the experimental findings, Section 6 offers a discussion of the policy implications, and Section 7 concludes.

2 Survey and Sample

2.1 Data collection and sample

Participants were recruited via Prolific. They had to be between 18 and 64 years old and US residents.[2] A representative sample relative to the U.S. population of gun owners and non-gun owners was obtained through an obfuscated recruitment methodology. Respondents were pre-screened using a list-based approach, where they were presented with various characteristics (e.g., owning a car, owning a jet, owning a gun).[3] Thus, participants did not select in or out of the survey based on the topic of gun ownership. Those who selected or did not select the gun ownership option were then directed to our main survey as either gun owners or non-gun owners, respectively. A focus survey was run prior to launch in August 2025 to ascertain whether LFAO and NO knew about Byrna already and their assessments of which, if any, of the information treatments we were considering would be effective.[4]

[2]We originally wanted to recruit respondents above age 65 as well but the pool on Prolific of LFAO in that age bracket was too small.

[3]We use gun to refer to lethal firearm throughout the paper.

[4]The pilot contains 5 videos: health, legal liability, Byrna, Byrna + Endorsement. For the LFAO focus survey, each respondent was randomly allocated to 1 video, whereas for the NO focus survey each respondent saw 3 of the 5 and provided their views.

The main survey targeted a total sample size of 6,000 U.S. residents aged 18 to 64, with 60% lethal firearm owners and 40% non-owners. We imposed quotas within each group to obtain a nationally representative group of lethal firearm owners and non-owners. The targeted dimensions included gender, race, age, income, census region, and political affiliation. A follow-up survey was administered two weeks after participation in the main survey to all respondents.

We also conducted a separate "validation survey" recruiting a new set of participants. This survey served as a validation for firearm ownership status, a check for social desirability bias in the stated safety concerns (through two list experiments), and a few additional robustness checks.

As can be seen in Table 1, our recruitment was fairly successful vis-à-vis meeting the required quotas.[5] We obtained appropriate representativeness in a number of key dimensions including Republican party membership, Southern region, and White men. However, we had difficulty recruiting high-income gun owners on the platform. Therefore, our main estimates are reweighted along six dimensions—gender, race, age, income, U.S. region (Midwest, East, South, West), and political affiliation—using the quota targets in Table 1 to ensure representativeness. An advantage of the Prolific platform is the relatively high rate of follow-up, nearly 85%.

Table 1: Sample Representativity

	LFAO		Non-owners	
	Survey	Quota	Survey	Quota
Male	68%	73%	42%	41%
Female	31%	27%	56%	59%
White	85%	87%	67%	66%
Non-white	15%	13%	33%	34%
18-29 years old	15%	13.1%	29%	34%
30-49 years old	50%	51.5%	39%	39%
50-64 years old	35%	35.4%	32%	27%
Income 0-40,000	13%	10.9%	35%	34%
Income 40,000 - 100,000	43%	37.6%	31%	30%
Income 100,000+	43%	51.5%	33%	36%
Midwest	24%	28%	21%	20.2%
East/Northeast	12%	8%	20%	19.2%
South	46%	45%	36%	34.3%
West	18%	19%	24%	26.3%
Republican	45%	42.2%	19%	16.8%
Democrat	20%	17.8%	34%	32.6%
Independent	32%	40%	40%	50.5%

Notes: The table presents the demographic representativeness benchmark comparison between GSS 2022 data, and our sample (pre-reweight), divided by lethal firearm ownership status. The percentages shown for each category are based on the respective groups of LFAO and non-owners.

[5]This is also the case for the validation survey - see Appendix Table A-42.

2.2 The main survey

We next describe the blocks and contents of the main survey, which are illustrated in Figure 1. The survey can be visited at https://harvard.qualtrics.com/survey and the Full Questionnaire can be found in Appendix A-7.

The survey also contained multiple attention check questions — a verification mechanism to ensure respondents were paying attention to the survey. This included questions designed to detect inattentive or disengaged participants. Some sensitive questions, asked at the very end so as not to influence earlier answers, included voting behavior in previous elections and a question on the interpretation of the Second Amendment.

Lethal firearm ownership. This block included questions about lethal firearm possession, duration of ownership, and types of lethal firearms owned (including the brand and model). Respondents also provided details about whether they intend to acquire more lethal firearms in the future. After this block, all questions were asked both of lethal firearm owners and non-owners. For those who did not endorse lethal firearm ownership, the questions were worded slightly differently to reflect the possibility of owning or not owning a lethal firearm.

Reasons for owning or not owning a lethal firearm. This block explored motivations for lethal firearm ownership or reasons for non-ownership at a high level (subsequent blocks probe rationales in more detail). These included, but were not limited to, personal protection, hunting, constitutional rights, monetary and non-monetary cost concerns, and ethical considerations.

Current storage of weapons. This survey block examined storage practices, including the use of locked storage devices and ease of accessibility of lethal firearms. We viewed the ease of accessibility as a check on the stated consistent use of safe storage devices.

Lethal firearm behaviors. This block covered the frequency of lethal firearm use (e.g., shooting and hunting), collecting, and engagement in gun rights activism. For instance, respondents were asked about their participation in shooting sports, lethal firearm training, membership in lethal firearm advocacy groups (e.g., National Rifle Association (NRA), Gun Owners of America, etc.) and donations to support those groups.

Identity and social network. This block assessed the role of lethal firearm ownership in fostering one's identity and social network (including whether the respondent participated in Future Farmers of America or Boy Scouts of America).[6] The section included questions on family traditions, peer influence, perceived second-order beliefs, and whether individuals used "we" or "they" statements when referring to lethal firearm owners.

Self-view, feelings, and emotions. This block was designed to assess the emotional and psychological effects of lethal firearm ownership. Participants reflected on how owning (or not owning) a lethal firearm made them feel and how taking away a lethal firearm would make them feel.

[6] Now formally known as Scouting America.

Self-defense and safety. This section explored perceptions of threat, past experiences of violence, and trust in law enforcement.

Personal rights and freedoms. This block examined beliefs about how many other Americans own lethal firearms, Constitutional and Divine rights for ownership of lethal firearms, and whether carrying a lethal firearm made the respondents feel more vs. less safe *and* whether it would make the respondent more or less likely to be attacked or victimized.

Community defense. This block identified participation in organized community defense initiatives.

Private costs of lethal firearms. This block assessed emotional, legal, and familial concerns associated with lethal firearm ownership. Specifically, the section included questions exploring how upset the respondent would feel if they accidentally shot someone, or if someone used their lethal firearm inappropriately, including for suicide. The block also probed questions on feelings if children harmed themselves.

Externalities. This block covered public safety concerns including accidents, crime, and school shootings.

Experimental treatment section. Randomly selected subsamples of lethal firearm owner respondents and non-owners were shown video treatments providing information about the private costs of lethal or non-lethal firearm alternatives. We describe these in more detail below.

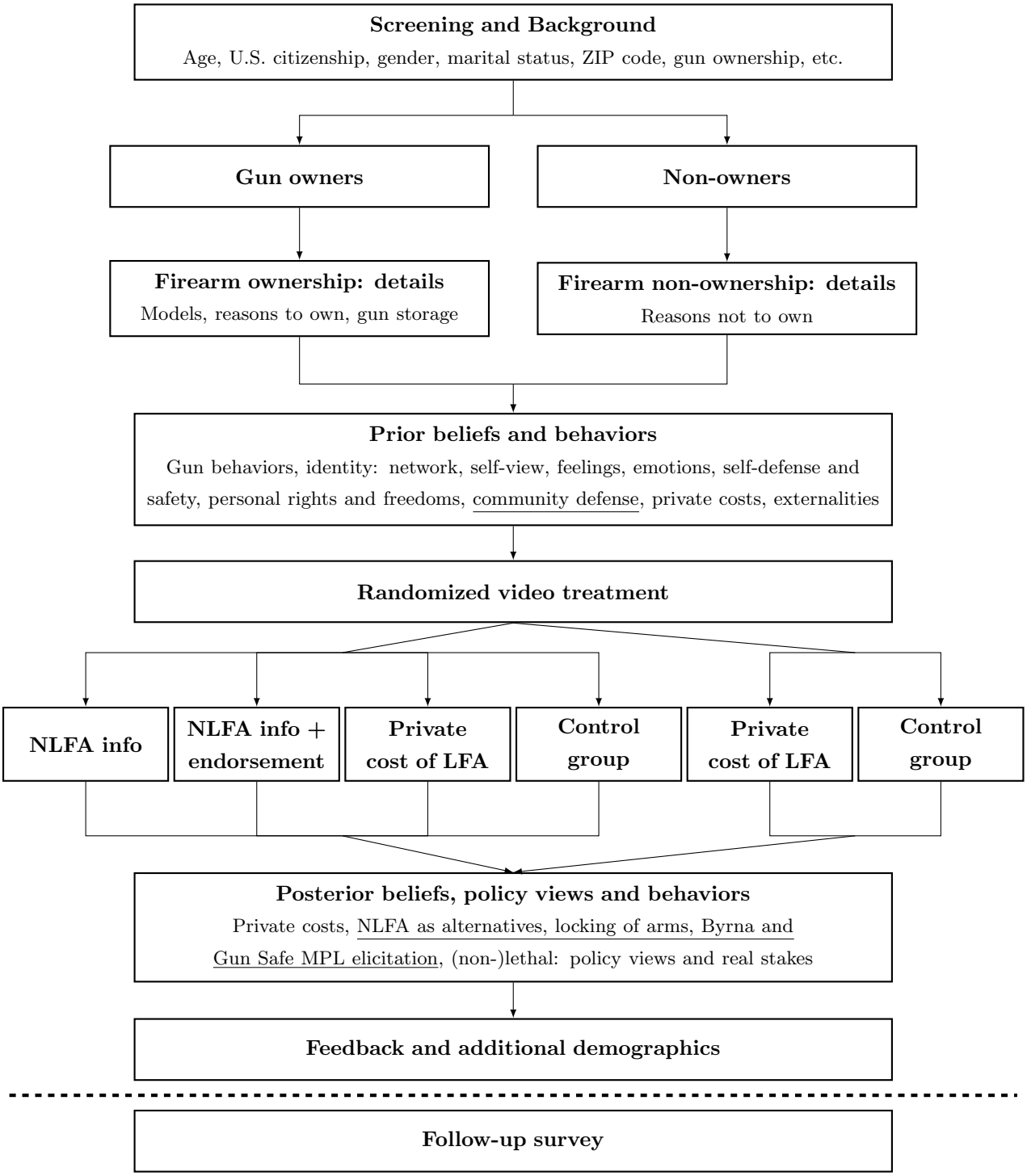
Non-lethal firearm alternatives. This block examined willingness to adopt non-lethal alternatives like Byrna guns.

Locking of arms and safe storage. This block explored whether respondents were inclined to store their lethal firearms safely.

Non-lethal firearms and gun safe multiple price list elicitation. This block elicited respondents' willingness to pay for a gun safe and a Byrna non-lethal firearm using a multiple price list (MPL) (see Appendix Figure A-2 for screenshots and full questionnaire in Appendix A-7 for the exact structure of the MPL). We also included a practice MPL to ensure that respondents understood how these types of questions worked. 94% of the LFAOs answered MPL comprehension questions accurately (see Appendix Table A-10).

Policy views on lethal firearms and non-lethal firearm alternatives. This block included questions on lethal firearm regulations, concealed carry, and gun buyback programs, as well as real-stakes questions such as support for petitions and allocating donations related to lethal firearm policies.

Figure 1: Main Survey and Experimental Design



Notes: This figure presents the survey flow for the main survey. Participants are categorized into two groups: lethal firearm owners and non-owners. Owners were randomized to receive one of the following: a video treatment on private costs associated with lethal firearm ownership, information on a legal non-lethal firearm (Byrna), the non-lethal firearm information combined with an endorsement by conservative Fox News talk show host Sean Hannity, or a pure control. Non-owners were randomly assigned to receive the cost information treatment or to a pure control. The underlined text only pertains to gun owners as non-owners were not asked these questions for ethical and relevance reasons.

2.3 The validation survey

The validation survey recruited lethal firearm owners and non-owners through the obfuscated method developed above. Respondents were then presented with a timed game where they had to identify various parts of a revolver. This helped verify that those who self-identified as gun owners were indeed better at naming gun parts. We also included list experiments to address social desirability bias for both gun owners and non-gun owners pertaining to their reasons to own lethal firearms. Specifically, the two list experiments contained, respectively, the following sensitive sentences: "My number one reason for owning guns is safety" for LFAO, and "The number one reason for gun owners to own guns is safety" for non–owners (experiment 1), "My number one reason for owning guns is because it gives me a feeling of power" for LFAO, and "The number one reason for gun owners to own guns is because it gives them a feeling of power" for non–owners (experiment 2). The survey also added questions about predicting others' reasons for owning guns (to see whether respondents accurately assess others' motivations). Appendix Section A-4 describes the validation survey and presents all results, relevant parts of which will be discussed in the main text.

2.4 Motivation and description of the experimental treatments

We introduced three information treatments in the form of short videos. Figures 2 and 3 show screenshots from these videos.

Private costs of lethal firearms treatment. As we will show, there are prominent differences between lethal firearm owners and non-owners in terms of the psychic and perceived safety benefits of firearm ownership, as well as ownership costs (see Section 3). When considering an information treatment then, accurate information on the pecuniary or non-pecuniary costs of ownership, either borne by the individual owner's family or broader society, are both plausible options. We focused on private costs (borne by the individual or their family) because we conjectured that they would be more consistently internalized by individuals, yet perceived differently across gun-ownership status. Indeed, as shown in Figure 9, there are large gaps in how lethal firearm owners vs. non-owners view the private costs of ownership. Specifically, the two groups differ in the degree to which they are concerned about their children using a lethal firearm to hurt themselves or others – 27% among current LFAO vs. 70% among non-owners who are also not interested in ownership, and 51% among those who are current non-owners yet interested in lethal firearm ownership.

Our *Private Costs of Lethal Firearms* information treatment, summarized in Figure 2, was 1.6 mins long and highlighted the financial, legal, and psychic costs associated with such ownership, with an emphasis on child safety. It explained that owners can face severe legal consequences, including criminal charges or lawsuits, if their firearm was involved in an accident – especially if a child gained access to it. The video also discussed legal requirements for safe storage and permits, emphasizing that failure to comply can result in fines or imprisonment. The video explained that even in self-defense situations, the use of a lethal firearm may lead to legal scrutiny if deemed excessive. A recent case study was provided: Jennifer and James Crumbley of Michigan were sentenced to up to 15 years in prison after their son used the gun they had given him in a school shooting. The video observed that while owners can be found liable, lethal firearm manufacturers are largely shielded from any liability. Lastly, the video cites recent statistics on increased suicides in households with a lethal firearm.

Treatments providing information on non-lethal alternatives. Our non-lethal firearm information treatments were motivated by evidence suggesting that many people do not consider such firearms in their

firearm purchase decisions, perhaps because they are not well-informed about such options. Consistent with this idea, Figure 13 displays responses from the control group of lethal firearm owners. In the absence of the treatment, only a handful of owners own a non-lethal product (4%) and only about a third have ever considered purchasing one. In addition, at the end of the survey, we queried lethal firearm owners if they had ever heard of Byrna prior to the survey – and only 20% responded affirmatively.

The *Non-Lethal Firearm Information* treatment aimed to fill these gaps, as summarized in Figure 3A, describing the Byrna, a non-lethal self-defense firearm. Using a combination of researcher and manufacturer content, the treatment accurately portrays Byrna as a lightweight launcher that "uses an easy-to-load five-round magazine and is powered by an 8-gram CO_2 cartridge. Byrna launchers fire a .68 caliber chemical-filled projectile using a patented pull-pierce technology where the CO_2 canister is only punctured on the first trigger pull, meaning your launcher is always at the ready." The Byrna launcher is reported to incapacitate an attacker for over 30 minutes, with a range of more than 60 feet, saying that it is "estimated to be more than 90% effective in stopping an assailant." The intervention noted that the non-lethal firearm did not require permits or background checks. Additionally, the intervention described its use by over 300 police departments nationwide and high consumer ratings. A security guard testimonial noted that while lethal firearms remain an option, Byrna serves as a preferred first line of defense: "I still have a handgun in my safe in my house and I've still got my rifle ready at any time [at home], but Byrna will always be my first resort."

The third and final treatment – the *Non-Lethal Firearm Information and Endorsement* treatment – was motivated by a conjectured partisan split in views on the acceptability of non-lethal firearm alternatives. Table A-24 shows that only 15% of Republicans view non-lethal firearms as a "good replacement" compared to 26% of Democrats. Further, there is a 24-ppt divide in agreeing with the statement that the respondent prefers a firearm that incapacitates but does not kill. Given these conjectured divides, and other research on the importance of trusted messengers (Ho et al., 2022; Alatas et al., 2024), we augmented the *Non-Lethal Firearm Information* treatment video with an endorsement from Fox News host Sean Hannity. The video includes Hannity training with and using the product, stating he has purchased it himself and integrates them into his "personal security strategy."

Importantly, the non-lethal firearm alternative treatments were only randomized among verified lethal firearm owners. This was motivated by a few different considerations. First was an ethical concern – by drawing more attention to non-lethal alternatives with a willingness to pay elicitation, we would potentially encourage arming a previously unarmed group, with risks of harmful unintended consequences. Second, a policy-relevant question is whether to target lethal firearm owners in particular (e.g., at gun shows) with messaging about non-lethal firearms. Third, we were unsure about the size of the non-gun owner population that is interested in acquiring firearms — if we anticipated that the interested population is as large as we show in Section 3, we may have been able to articulate a justification for a different protocol.

Figure 2: Private Cost of Lethal Firearm Ownership – Information Treatment



Notes: This figure summarizes the *Private Costs of Lethal Firearms* treatment, which presents legal and health risks associated with lethal firearm ownership. The treatment outlines potential legal consequences, including criminal charges and lawsuits, if a firearm is involved in an accident, particularly when accessed by a child. It also addresses legal requirements for firearm storage and permits, as well as the possibility of legal scrutiny in self-defense cases. Additionally, the treatment highlights that firearm manufacturers are legally protected from liability related to unintentional harm, presents data on firearm-related deaths among young people, and discusses the increased suicide risk associated with household gun ownership. A legal case in Michigan is referenced, where parents were held accountable for their child's use of a firearm in a school shooting. The video treatment can be visited at https://vimeo.com/987381143/cd1d2ae354?share=copy.

Figure 3: Non-Lethal Firearm Information (Panel A) and Endorsement (Panels A&B) Treatments

(a) Panel A







(b) Panel B







Notes: This figure summarizes the non-lethal firearm information and endorsement treatments. Panel A summarizes the *Non-Lethal Alternative Information* treatment, which presents the Byrna SD as a non-lethal self-defense option. The treatment describes the Byrna launcher as a lightweight, CO_2-powered device that fires chemical-filled projectiles with an effective range of up to 60 feet. It highlights that Byrna products do not require permits or background checks and are used by over 300 police departments nationwide. The treatment also emphasizes consumer satisfaction, noting that Byrna has received over 850 reviews with an average rating of 4.5 out of 5 stars on Amazon. The video treatment can be visited at https://vimeo.com/987381123/65831a8dba?share=copy.
Panel B summarizes the *Non-Lethal Alternative Information and Endorsement* treatment, which presents the Byrna SD as a non-lethal self-defense option with an endorsement from Fox News host Sean Hannity. The first segment of the video provides the same information as the *Non-Lethal Alternative Information* treatment. The endorsement segment features Hannity discussing Byrna as part of his security strategy. Similar to the *Non-Lethal Alternative Information* treatment, it also includes a testimonial from a security guard emphasizing Byrna as a preferred first-line defense over lethal firearms. The video treatment can be visited at https://vimeo.com/987381189/e89dc6f001?share=copy.

2.5 The follow-up survey

The follow-up survey includes a subset of sections from the main survey. Specifically, it retained the Storage of Weapons section and all questions following the treatments, including Non-Lethal Firearms as Alternatives,

Locking of Arms, Byrna and Gun Safe Multiple Price List Elicitation, Non-Lethal Policy Views and Real-Stakes, Lethal Policy Views and Real-Stakes, Sensitive Questions, and Feedback.

Among respondents who completed the main survey, 84% started the follow-up survey, and 98% out of those who started completed it. Appendix Table A-3 shows the correlates of starting the follow-up survey. Male and non-white respondents were less likely to complete the follow-up survey (-2.4ppt and -4.8ppt, respectively), while completion increased with age, by 5.1ppt for those aged 30-49 and 5.6ppt for those 50-64. We also find that LFAO randomized into the *Private Costs of Lethal Firearms* treatment were slightly less likely to follow up.

2.6 Data quality

We took multiple steps to ensure high data quality.

Obfuscated recruitment. As mentioned in Section 2, LFAO were identified through a listing exercise and then confirmed in the main survey. In the separate validation study, we found that responses to the list exercise were significantly correlated with dexterity in labeling lethal firearm parts in a timed gun game (see Appendix Table A-43). We use this recruitment for two reasons. First, to avoid potential reporting bias. Widely used national surveys report different levels of gun ownership, potentially highlighting the sensitivity of responses to survey design and question framing. For instance, the Gallup Poll Social Series wave dedicated to Crime (Gallup, 2025) typically reports higher household gun-ownership rates (e.g., around 40–45% in recent years, with a peak at 48% in 2024) and individual rates (around 30%), whereas the General Social Survey (NORC, 2024) reports lower levels (around 30–35% for households and 25% for individuals in recent years). Second, we avoid selecting respondents into the survey based on their views or habits related to guns.

We also excluded respondents whose gun-ownership status was internally inconsistent to mitigate concerns about inattention or manipulation. Specifically, we removed those who initially identified as LFAO through the listing exercise but later reported owning zero firearms, or those initially identified as NO who later reported owning at least one firearm (0.9% of respondents invited to the prescreener were excluded for this reason during the obfuscated recruitment stage).

Attention checks. We included several attention-check questions to identify inattentive or careless respondents. One of the three checks was embedded in the prescreener during the obfuscated recruitment stage; 0.4% of respondents invited to the prescreener failed this check. Among eligible participants who passed the obfuscated recruitment and began the firearm survey, 10.29% failed one of the remaining attention checks (6.39% failed the first check and 3.9% failed the second; see Appendix Table A-1).

Attrition. Appendix Tables A-1 and A-2 provide details on attrition and where respondents drop out in the survey. We have overall little attrition during the survey (drop-out rates among respondents who started the survey were 2.18% for LFAO and 1.52% for non-owners) and little differential attrition based on the treatment or individual socioeconomic characteristics or firearm ownership. We exclude respondents who did not complete the survey from the analysis but provide a robustness check on this below.

Quality sample exclusions and robustness. Of those invited to the survey, we excluded participants with duplicate submissions (7.03%), since these should normally not occur in Prolific and it is unclear which

response (if any) contains their true answers. We further excluded respondents with invalid Prolific IDs (0.27%), non-U.S. citizens (0.24%), and those outside the targeted age range (18–64) (7.96%). Finally, we removed respondents who selected every option in the pre-screener ownership question, as it is unlikely that a single respondent possesses all listed items (car, motorcycle, electric scooter, ATV, RV, sailboat, and jet) and more likely reflects careless responses (0.47%).

To test the robustness of our results, we reproduce the main figures and tables using two alternative versions of the survey sample. First, we construct a more restrictive sample by excluding "rushers" in addition to the quality filters described above. Rushers are defined as respondents who completed the survey in under 21 minutes for LFAO or under 15 minutes for NO, thresholds that roughly correspond to the fastest 5% of completion times in each group (see Appendix Figure A-1 for distribution of survey duration). Second, we construct a more lenient sample by retaining respondents who failed the attention checks, those who did not complete the survey, and for duplicate entries, the respondent's first entry. The results are reported in Appendix Section A-6 and are robust to these alternative sample definitions.

Correlation between self-reported views and real-stakes questions. We also used real-stakes questions to establish that respondents' answers tend to reflect their views and behaviors when measured via more objective methods. We analyze two real-stakes tasks: a donation decision, where participants allocated a $90 prize between a gun safety charity and a Second Amendment rights charity; and petition signing, where participants chose whether to support a petition either supporting restrictions on lethal firearms ownership or a petition upholding the right to lethal firearm ownership.

Table A-4 reports the correlation between each policy views index (which we will describe in more detail in Section 3.5) for lethal firearms and these real-stakes outcomes, estimated separately. The results confirm that participants' policy views align with their real-stakes behavior. For instance, in Panel A, LFAO who say they support safe storage and oppose carry in schools are also more likely to donate to the gun safety charity and less likely to donate to the 2nd Amendment one. They are also more likely to sign petitions advocating for limiting and restricting lethal firearm ownership. Responses among non-owners also agree with the more objective measures: those who oppose concealed carry and carry in school policies are also found to sign petitions limiting lethal firearm ownership, for example. Table A-5 demonstrates similar results for NLFAs: Among both LFAO and non-owners we find a significant positive correlation between support for NLFAs and petitions in support of policies that promote them over LFAs.

Perceived survey bias. We asked respondents whether they thought the survey was biased. Appendix Table A-6 shows that three-quarters of respondents did not think the survey was either left- or right-wing biased and around one-fifth considered it to be left-wing biased, with this share being a little higher for the treatment branch *Private Costs of Lethal Firearms*. Finally, we also included an open-ended feedback box and analyzed respondents' responses. Overall, around 10% of respondents left negative rather than positive feedback, but mainly related to the length of the survey.

3 Demand for Lethal and Non-Lethal Firearms

In this section, we provide some descriptive findings from our survey related to why people own or would want to own guns and how they view non-lethal alternatives. Four themes emerge. First, demand for guns is likely rising as there is a sizable share of non-owners who are interested in acquiring a gun and LFAO interested in acquiring another gun, but few who want to give up their guns in the current state of the world.

The group of non-owners interested in a firearm is an important group and we focus on them duly, rather than just lumping all non-owners into one.

Second, LFAO and non-owners have a common objective, which is to be safe. We thus explore feelings of safety in greater detail. Third, people perceive different costs of having guns which implies that they will make different choices about gun ownership, despite all valuing safety. Fourth, there is generally little awareness of non-lethal alternatives. Taken together, these findings will motivate our theoretical framework and the design of our experimental treatments. The main text presents descriptive results split by firearm status; for additional splits by demographic and socioeconomic characteristics, see Appendix A-2.

3.1 The (new) demand for lethal firearms

We start by documenting a clear asymmetry: while many non-owners are interested in an LFA, few LFAO want to give up their firearms or reduce their number.

New types of firearm owners. Among our 2215 non-owners, approximately one-third (701 respondents) answered the question "Are you interested in acquiring a gun?" affirmatively. We denote these by "interested non-owners" or "NO-I" for short. Thus, a first important finding is that there is a sizable share of non-owners who are interested in purchasing guns.[7]

In our descriptive analysis below, we show statistics separately for lethal firearm owners (LFAO), interested non-owners (NO-I), and non-owners who are not interested (NO-U). NO-U are more likely to be female, lower-income, more racially diverse, and to live in areas with more LFA regulation (see Appendix Table A-7).[8] In contrast, LFAO respondents skew male, older, higher-income, White, Republican, less likely to live in urban areas, more likely to have children, and more likely to reside in states with less LFA regulation. Regression results indicate that each of these characteristics is significantly associated with LFAO status. NO-I generally fall between these two groups demographically, with a younger age profile and more Independents. While LFAO have a clear family history of gun ownership (67% lived in households with a gun, and 20% say that owning guns is an important part of the family tradition), many fewer interested non-owners have a background of family ownership (39%), suggesting that new types of LFAO have the potential to appear in the future. Appendix Figure A-4 illustrates the duration of gun ownership across different demographic groups, a proxy for compositional change in ownership structure over time: newer LFAO are increasingly female, minority, lower income and left-leaning.

Few lethal firearm owners would consider reducing the number of guns they own. While one-third of non-owners are interested in a gun, very few LFAO consider giving up their guns. Only 7% would consider reducing the number of guns they have, even if they had access to a non-lethal alternative. On the contrary, 62% say that they are considering adding a firearm to their collection.

We also asked LFAO an open-ended question *"What specific factors, if any, would prompt you to consider no longer owning guns?"*. Figure A-5 shows the distribution of topics: 42% state they cannot provide any reason to no longer own a gun (e.g., "There is no reason that could arise to prompt me to stop owning a

[7] These findings are consistent with gun ownership rising over time, as shown in Figure A-3 that plots the increase in background checks and suicide by lethal firearm rates in the last two decades, two common proxies for gun ownership (Cook and Ludwig, 2006; Bollman et al., 2025).

[8] Based on the minimum-age firearm purchase laws in their respective states, 39 respondents are legally prohibited from purchasing any type of firearm, and 53 respondents are prohibited from purchasing certain types of firearms (usually handguns).

gun."), 3% answer that they would *always* want to keep a gun for safety, and around 7% leave the question blank, suggesting that they cannot think of any reason to give up LFAs. Another 12% would only give up guns if they were forced by law to do so. Thus, in total, at least 60% of LFAO are not truly contemplating giving up guns. Looking at the reasons for potentially giving up firearms, many mention situations that would require a lot of change to the current landscape, such as if crime rates were lower (7% of respondents, including blank responses). Only 13% say that they might reconsider lethal firearm ownership due to safety risks at home, particularly citing concerns about children or individuals with mental health conditions (e.g., "kids getting a hold of it"). Additionally, 3% of respondents state they would surrender lethal firearms if they were physically or mentally unable to handle them safely (e.g., "Unable to shoot due to old age.").

Thus, there are not many LFAO who would even consider giving up lethal firearms unless they are forced by law or unless there are far-reaching structural changes (such as lower crime rates). Instead, many consider purchasing additional lethal firearms. Anticipating the experimental evidence, the relevant margins are likely not full exit from ownership but safe storage, fewer additional purchases, and substitution toward alternatives.

3.2 The quest for safety

We next document that safety is a primary reason most respondents give for owning or considering acquiring a gun.

Reasons for owning lethal firearms. We begin with respondents' stated reasons for owning or considering acquiring lethal firearms, using three complementary questions. First, an open-ended question *"What is the main reason you currently own a gun?"* for LFAO and, for those interested in buying a gun, *"Why are you interested in acquiring a gun?"*. Second, we ask them to rate the importance of a list of reasons for owning guns. Third, we ask them to select the most important reason from that list.

Figure 4 shows that by far the most important reason for owning a lethal firearm is personal or family safety – 65% of current LFAO say that protecting their family is their main reason for ownership; 14% cite self-protection. Among NO-I, safety is also cited as the key reason why respondents would consider purchasing a lethal firearm: 56% cite family protection and 34% indicate self-protection (slightly more than for LFAO).

Heterogeneity by gender and political leaning is limited overall (see Appendix Table A-11), though women are more likely to say they are looking to protect themselves and men are more likely to say they want to protect their family (see Appendix Table A-12). The answers to the open-ended question confirm this pattern (see Figure 5).

Furthermore, Appendix Figure A-6 shows the share of respondents who find each reason "very important" or "extremely important" and provides additional nuance to the findings. While safety is considered at least very important by more than 80% of respondents, other reasons also matter, namely "exercising my constitutional rights" (43% for LFAO and 27% for non-owners) and hunting (25% for LFAO and 8% for non-owners).[9] We interpret safety as the dominant motive for most respondents, with hunting and constitutional-rights considerations often operating as complementary motives. Indeed, there appears to be a small group that owns guns primarily for hunting and a larger group that views guns as primarily for safety but also finds

[9]The GSS (NORC, 2024) data show a long-run decline in the share of gun owners who hunt, falling from 49.2% in 1977 to 39.8% in 2000 and reaching 30.8% in 2024.

hunting important. Another group finds it important to uphold their constitutional rights but this could be complementary to the desire for safety ("my constitutional right to hold a gun to protect myself").

A natural concern is social desirability bias, whereby respondents might provide an answer they view as socially more acceptable (safety versus other reasons for owning guns). Our validation survey performed a list experiment around the statement "My number one reason for owning guns is safety." Appendix Table A-44 shows that according to this measure 67% of LFAO hold this view, which aligns perfectly with the share in our main survey. Thus, it is unlikely these patterns are driven by social desirability bias. Furthermore, the validation survey asked respondents to predict the main reasons for owning a lethal firearm: Appendix Table A-46 shows that safety is by far the main reason and the share aligns with the responses people provided.

To confirm these findings, the validation survey asked respondents to list "three different situations in which you think your gun might be used. Think of things that could happen in everyday life, safety-related events, or even unusual or extreme scenarios."

We analyzed these open-ended answers using a LLM. The model first inductively generated a set of thematic categories based on the full set of responses; once these categories were established, the model classified each response into the single category that best captured its main idea. The distribution of responses across categories is reported in Table A-13 for LFAO and Table A-14 for NO respondents.

This open-ended question analysis confirms that safety and protection are the key concerns. When LFAO are asked to imagine scenarios in which they would use their guns, 31% mention home intrusion and 24% mention self-defense in public spaces. Together, roughly 55% of scenarios concern immediate safety; an additional 10% mention "emergency situations" such as mass shootings, 6.5% mention defense against aggressive animals, and 4% mention protection of other individuals. Overall, three-quarters of respondents mention scenarios linked to safety and protection. On the other hand, only 9% mention scenarios related to hunting and 13% mention recreational activities.

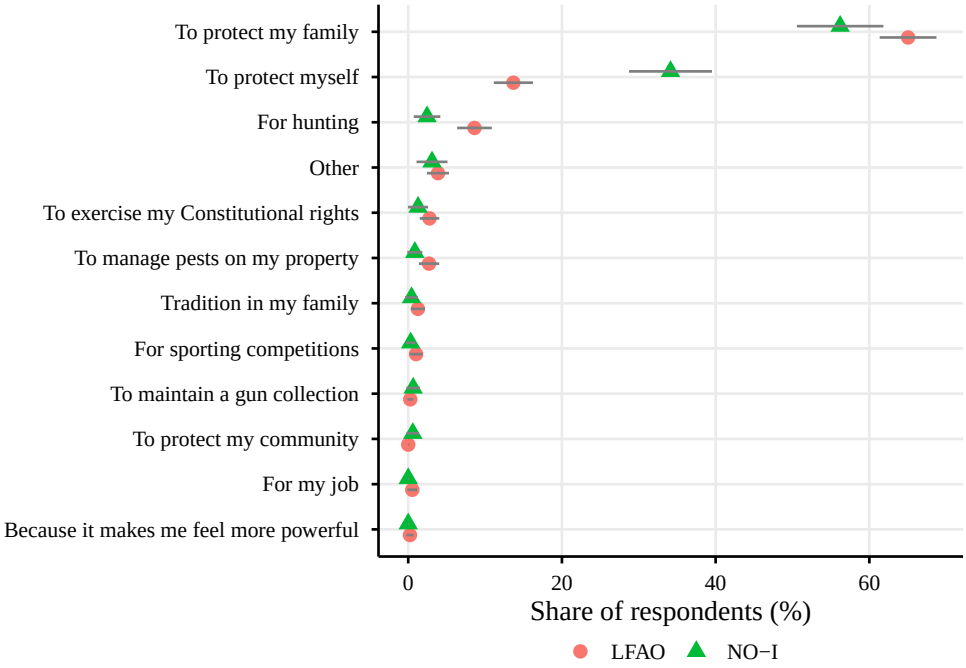
Why would non-owners consider buying a lethal firearm? As shown in Figure 4, NO-I cite protection of family and self as two main reasons to become LFAO. We then ask all non-owners, including those with no initial interest in acquisition, whether there are circumstances under which they would consider acquiring a lethal firearm.

Specifically, we asked the following open-ended question: "Can you think of any reason or situation for you to start owning a gun?" The responses are shown in Figure 5. The primary motivation in the open-ended responses is again personal protection, closely aligning with the motivations of current LFAO and the closed-ended answers. Nearly 60% of respondents cite personal protection as a potential reason to acquire a firearm, particularly in response to local crime rates and concerns about personal safety (e.g., "Relocation to a high-crime area"). Another 15% indicate that they might consider lethal firearm ownership as a precautionary measure in the event of emergencies or societal collapse (e.g., "America is a house divided. It is only time before civil war comes again.").

Response profiles are similar across NO-U and NO-I. When asked to envision any reason to start owning a lethal firearm, NO-U provide answers that mirror LFAO and NO-I. Even among NO-U, only 15% can think of no reason at all to own a lethal firearm (e.g., "I honestly cannot think of any reason-as I am so opposed to guns in the home. I don't think it is necessary at all.").

Feelings about having guns taken away among lethal firearm owners. We also asked LFAO the open-ended question of how they would feel if their *"guns were taken away"* and used an LLM to categorize

FIGURE 4: MOST IMPORTANT REASON FOR OWNING OR ACQUIRING A LETHAL FIREARM:
THE IMPORTANCE OF SAFETY



Notes: This figure shows the share of respondents who rated each reason as the "Most important" for owning (among LFAO) or acquiring (NO-I) a lethal firearm. Restricted to control group participants.

the responses into topics. Figure 6 shows that control-group LFAO would feel less safe and vulnerable: 24% use words such as insecure and vulnerable, another 10% say they'd be distressed, and 7% that they would be defenseless. This is in line with protection and safety being a main motivator for firearm ownership. 32% of respondents also express frustration or outrage at the prospect of having their guns confiscated (e.g., "Angry. Livid.").

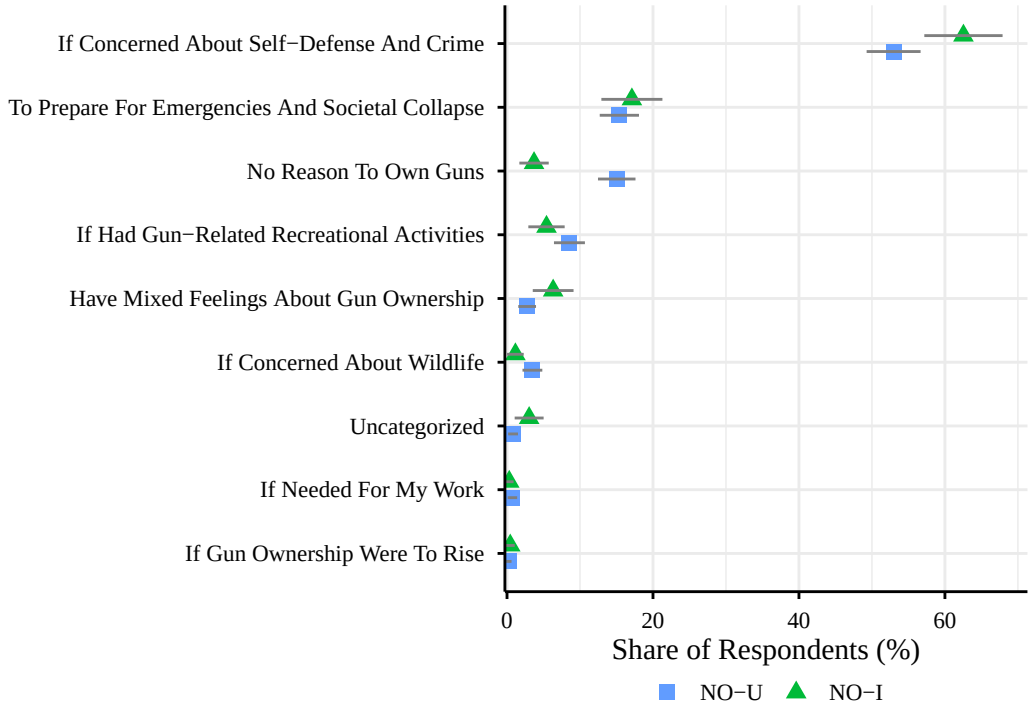
3.3 Diving deeper into the demand for safety

Given that safety concerns are so prevalent, we next ask what they correlate with.

Safety concerns and victimhood experiences across ownership types. Figure 7 dives deeper into how safe people feel in their lives. Interestingly, the share of LFAO and NO-U who feel safe in their daily lives is very similar (80%), with NO-I feeling much less safe (58%). NO-I also assign higher probability than either LFAO or NO-U to being the victim of a crime in the next year and trust the police slightly less to ensure their safety, though they agree with NO-U about the higher likelihood of violent crime being caused by a gun. In line with these patterns, a much higher share of NO-U than LFAO (18% versus 4%) say that carrying a gun would make them more likely to be the victim of a violent crime and be hurt if attacked (29% versus 7%).

In addition to NO-I feeling much less safe as manifested in several questions, another key takeaway is the congruence between NO-U and LFAO. A common view is that LFAO are more likely to be prior victims

Figure 5: Can you think of any reason or situation for you to start owning a gun? [Open-ended]



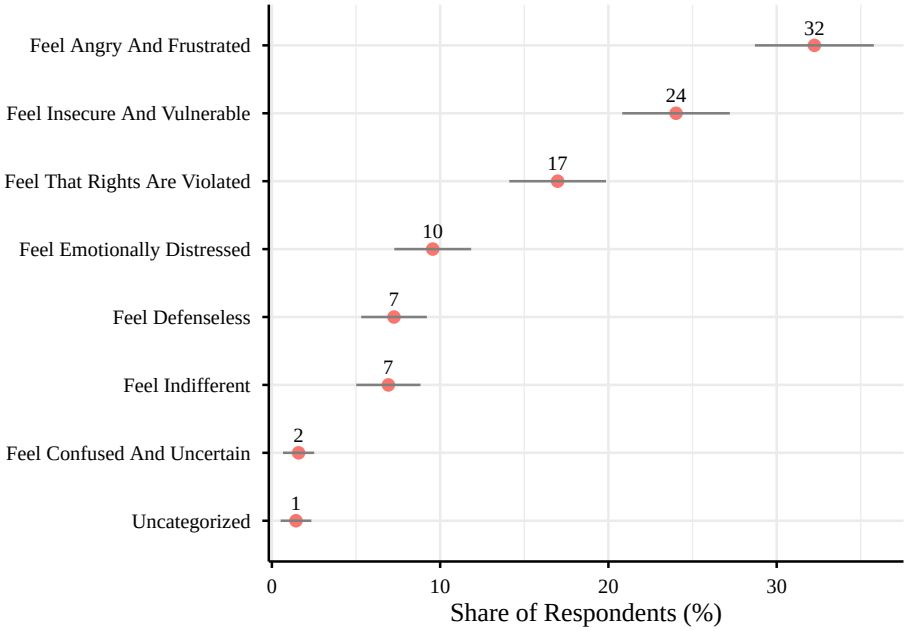
Notes: This figure displays the distribution of topics by types of non-owners responding to the question: "Can you think of any reason or situation for you to start owning a gun? Please list them here." The topic "If concerned about self-defense and crime" refers to motivations linked to personal protection against threats or crime. "To prepare for emergencies and societal collapse" captures answers about readiness for extreme events such as social unrest or societal breakdown. "No reason to own guns" reflects respondents who see no need for, or oppose, gun ownership. "If had gun-related recreational activities" relates to motivations involving leisure activities such as hunting or target shooting. "Have mixed feelings about gun ownership" represents ambivalent or uncertain attitudes toward owning a gun. "If concerned about wildlife" describes those mentioning protection from animals, often in rural contexts. "If needed for my work" refers to cases where gun ownership is seen as a professional requirement. "If gun ownership were to rise" includes respondents who might consider owning a gun if others around them did so. "Uncategorized" covers responses that do not fit any of the other topics. Restricted to control group participants and those with blank responses were excluded.

of violent crime than NO-U or have less trust in the police and thus own guns in order to "take justice into their own hands." We see little evidence that this *distinguishes* LFAO from NO-U – responses to ever being the victim of violent crime, trusting the police, and even to the perceived likelihood of being attacked are similar across NO-U and LFAO.

Perceptions of safety versus reality. How well does perceived safety match reality? Although we cannot easily measure risk at the individual level, we proxy for objective risk using data from the Uniform Crime Reporting (Federal Bureau of Investigation, 2025; hereafter UCR) system at the county level.

Figure 8 shows a binscatter plot of respondents' perceived safety on a scale of 1 to 5 against their county of residence's incidence rate of violent crime as measured in the FBI UCR data (which includes murder and non-negligent manslaughter, rape, robbery, aggravated assault). For a related but different outcome, Appendix Figure A-8 depicts the relationship between the perceived likelihood of being the victim of a violent crime and the county incidence rate. We depict the relationship separately for different lethal firearm ownership groups. For all groups, there is a clear negative relationship between the incidence rate and feeling

FIGURE 6: IN ONE OR TWO WORDS, HOW WOULD YOU FEEL IF YOUR GUN WAS TAKEN AWAY? [OPEN-ENDED]



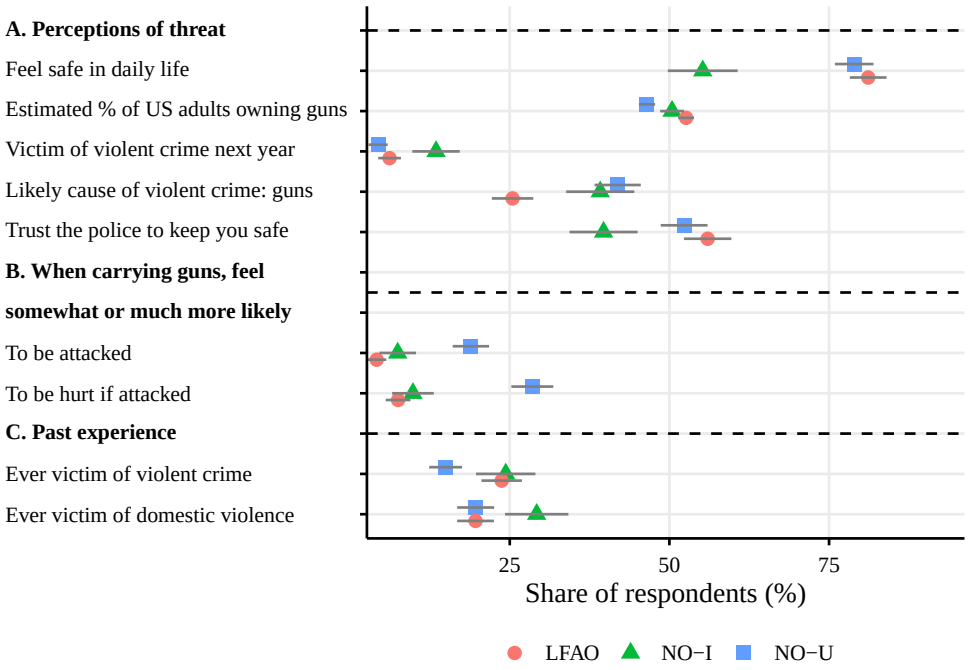
Notes: This figure displays the distribution of topics in responses from LFAO to the question: "In one or two words, how would you feel if your gun was taken away?" The topic category "Feel angry and frustrated" captures expressions of anger, rage, or frustration about the idea of losing one's gun. "Feel insecure and vulnerable" refers to feelings of exposure or fear for one's safety without a firearm. "Feel that rights are violated" reflects perceptions that gun removal would infringe upon personal freedoms or constitutional rights. "Feel emotionally distressed" represents sadness, disappointment, or loneliness linked to the emotional value placed on gun ownership. "Feel indifferent" includes respondents expressing little concern or acceptance of the situation. "Feel defenseless" highlights respondents' sense of being unable to protect themselves without a gun. "Feel confused and uncertain" describes individuals unsure or unclear about how to react to such a situation. "Uncategorized" covers responses that do not fit into any of the other topics. Restricted to control group participants and those with blank responses were excluded.

safe, as well as a positive relationship between the incidence rate and the perceived likelihood of being the victim of a violent crime.

Thus, feelings of safety are associated with the local reality of respondents. However, for any given county incidence rate, the NO-I group is substantially less likely to feel safe and more likely to think they will be victims than the other two groups, which aligns with our descriptive statistics above. In sum, the LFAO group feels similarly safe with a firearm as the NO-U group feels without, and the NO-I group seems to have an unmet demand for safety that makes them potential new firearm acquirers.

How predictive is lethal firearm ownership status for feeling safe? To benchmark the role of firearm ownership in making respondents feel safe, we predict feelings of safety conditional on ownership status plus a rich set of sociodemographic characteristics commonly highlighted in the literature as influencing the demand for lethal firearms. Figure A-9 plots the coefficients from a multivariate regression of feeling safe (an indicator variable) on ownership status, partisan leaning, gender, detailed income and age brackets, race/ethnicity categorizations, and neighborhood characteristics (poverty and crime rates). We also include though do not report state fixed effects. The omitted ownership category is NO-I, which are "potential lethal firearm consumers", and relative to this group, LFAO are 11.5 ppt more likely, and NO-U are 16 ppt more likely to feel safe. To put these magnitudes in greater context, we benchmark against other

Figure 7: Safety Perceptions and Experiences by Ownership Status



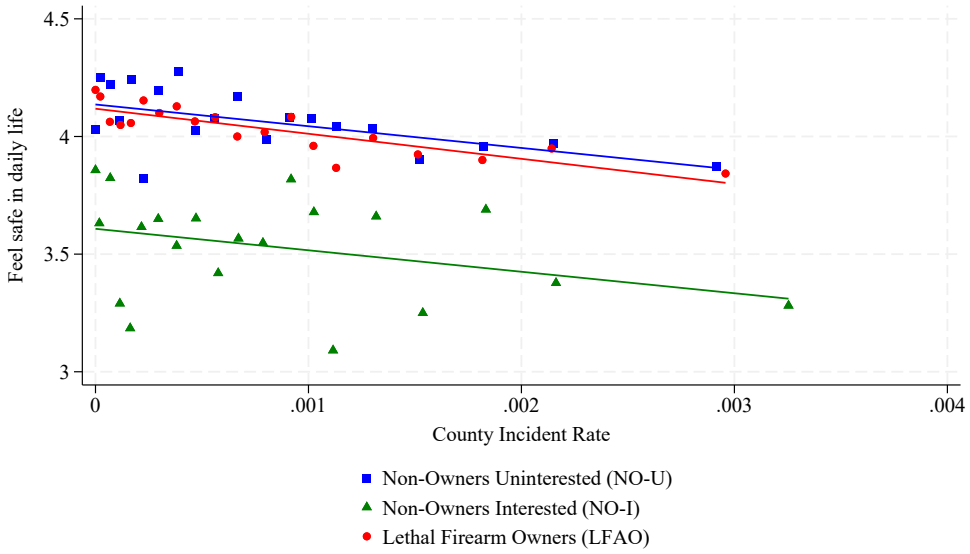
Notes: This figure shows the share of respondents who hold specific beliefs/perceptions or have past experiences related to the items listed in the rows, by firearm ownership status. *Estimated % of U.S. adults who own guns* is the average perceived percentage of U.S. adults who own a gun based on respondents' self-reported estimates. *Feel safe in daily life* is an indicator for respondents who feel somewhat safe or very safe in their daily life. *Victim of violent crime in the next year* is an indicator for respondents who believe they are somewhat or very likely to be a victim of violent crime within the next year. *Likelihood of violent crime caused by guns* is an indicator for respondents who believe a violent crime they may experience in the next year is somewhat or very likely to be caused by guns. *Trust the police to keep you safe* is an indicator for respondents who somewhat trust or completely trust the police to keep them safe. *Be the victim of crime* is an indicator for respondents who feel somewhat more likely or much more likely to be attacked or become a victim of crime when carrying a gun, or if they were to carry a gun. *Be hurt if attacked* is an indicator for respondents who feel somewhat more likely or much more likely to be hurt if attacked when carrying a gun, or if they were to carry a gun. *Ever victim of a violent crime* is an indicator for respondents who have ever been a victim of a violent crime. *Ever victim of domestic violence* is an indicator for respondents who have ever been a victim of domestic violence. Restricted to control group participants.

demographic characteristics. For example, female respondents report feeling 7 ppt less safe than male ones, Black respondents feel 5 ppt less safe than White respondents, and those aged 18-29 feel 6 ppt less safe than those aged 50-64. We also find a strong income gradient: those in the lowest household income bracket (less than $20,000 per year) are 17 ppt less likely to feel safe than those in the highest bracket (greater than $120,000 per year). Interestingly, conditional on these covariates, neighborhood crime remains negatively associated with safety feelings. A one standard deviation increase in the local crime rate (corresponding to 0.078 ppt) reduces feeling safe by 2.5 ppt.

We complement this exercise with a Shorrocks-Shapley variance decomposition (Appendix Table A-18), finding that ownership status accounts for about one-fourth of the explained variation in safety sentiment, which is slightly more than personal income categories (21.5%) and significantly more than gender (9.1%), race (6.8%), and political affiliation (6%). On the other hand, crime and poverty rates respectively account for 5.6% and 2.7% of the explained variation.

Portfolios of safety. Although our findings thus far point to safety as being paramount for owning (or wanting to own) a lethal firearm, our data also show that the median LFAO owns 2-3 guns, consistent with

FIGURE 8: PERCEIVED VS. OBJECTIVE SAFETY BY LETHAL FIREARM OWNERSHIP STATUS



Notes: This is a binscatter plot of participants' perceived feelings of safety (measured on a 5-point scale) plotted against county-level violent crime incidence. Violent crime incidence is calculated using data from the FBI's Uniform Crime Reporting (UCR) program. Specifically, the total number of violent crimes—comprising Murder and Non-Negligent Manslaughter, Forcible Rape, Robbery, and Aggravated Assault—is divided by the county's population to obtain the incidence rate. Counties are then grouped into equal-sized bins based on these rates, and each dot represents the average perceived risk within a bin. Blue dots represent the NO-U group, green dots the NO-I group, and red dots the LFAO group.

other surveys (Berrigan et al., 2022). Academic research on why lethal firearm owners build portfolios of firearms for safety is limited despite its prevalence.[10] This framing implies that wanting more firearms for safety is not self-contradictory. Consistent with that interpretation, our validation survey shows that LFAO with more than three firearms are more likely than single-firearm LFAO to possess safety devices, including gun safes, home security systems, multi-lock doors, and cameras (Appendix Table A-19), and the main survey shows that LFAO who cite protection motives are also more likely to have home security systems (Appendix Table A-20).

3.4 What stops some people from owning guns even though they demand safety? Heterogeneous perceived costs of guns

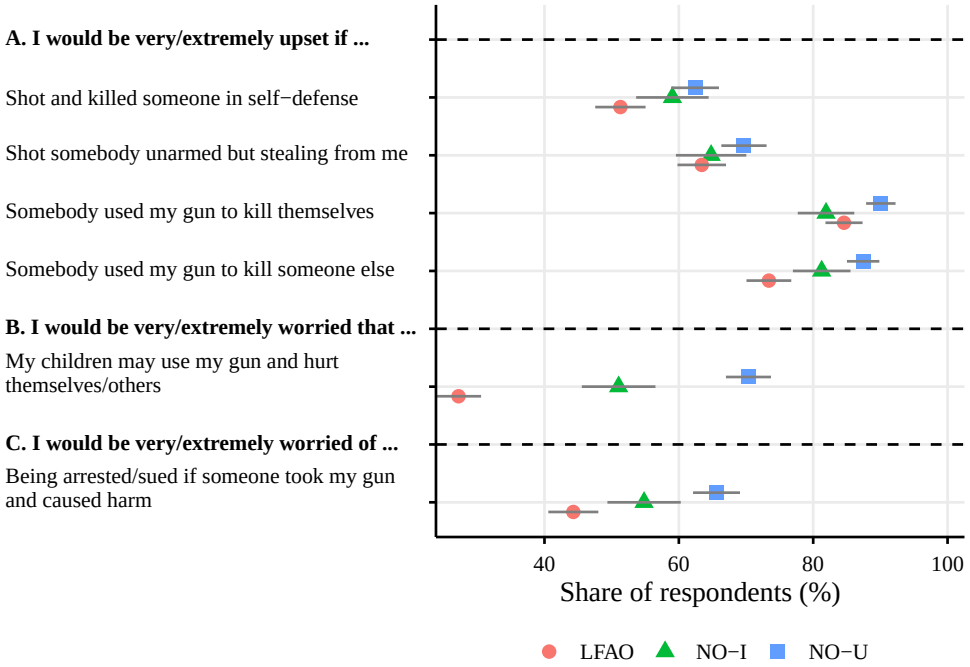
Most people demand protection and safety, but some of them end up owning LFAs while others do not. We now explore heterogeneity in the perceived costs of LFAs. People may perceive both private costs and social costs (externalities) of lethal firearm ownership, which could then influence their demand.

Perceived personal costs of lethal firearms. Figure 9 Panel A shows that most people across all ownership types would feel very or extremely upset if they shot and killed someone in self-defense, or if they

[10] We found only one article differentiating between the characteristics of single and multiple gun owners (Gresham and Demuth (2020)). In fact, 63% of LFAO in the control group are interested in another lethal firearm, and we find that there is no significant difference in safety feelings across those who have one or more guns nor in how many lethal firearms a person owns (Appendix Figure A-10). However, media, grey literature and online self-defense discourse often frames multiple firearms as a redundancy strategy for different types of threats (Ayoob, 2011; Horman, 2020; Creighton, 2023; Civilian Tactical, 2023).

shot an unarmed thief, or if someone used their gun to kill themselves or hurt others. However, they assess the probability of these events occurring quite differently. Only 27% of LFAO worry that their children or other family members would use their gun to hurt themselves or others (Panel B), as compared to 51% among NO-I and 70% among NO-U. Similarly, in Panel C, 44% of LFAO are worried about being legally liable if someone took their gun and caused harm, but this share is 55% among NO-I and 66% among NO-U.

FIGURE 9: PERCEIVED PRIVATE COSTS ASSOCIATED WITH LETHAL FIREARM OWNERSHIP ACROSS OWNERSHIP TYPES



Notes: This figure displays the share of respondents who reported feeling very upset or extremely upset and very worried or extremely worried about various scenarios involving the private costs of firearms, by firearm ownership status. Each scenario was rated on a 4-point scale, from 1 (Not upset at all/Not worried at all) to 4 (Extremely upset/Extremely worried). Restricted to control group participants.

Appendix Table A-21 shows that there are heterogeneities in the perceived costs by gender and political leaning. Among both LFAO and non-owners, female respondents are more likely to say that they would be very worried or upset if someone used their guns to hurt themselves or others; the same goes for Democratic respondents. However, female and male respondents are equally likely to worry about their children misusing their lethal firearm or about legal implications. Democratic respondents are only somewhat more likely to worry about their children misusing their lethal firearm, but equally worried about legal implications.[11]

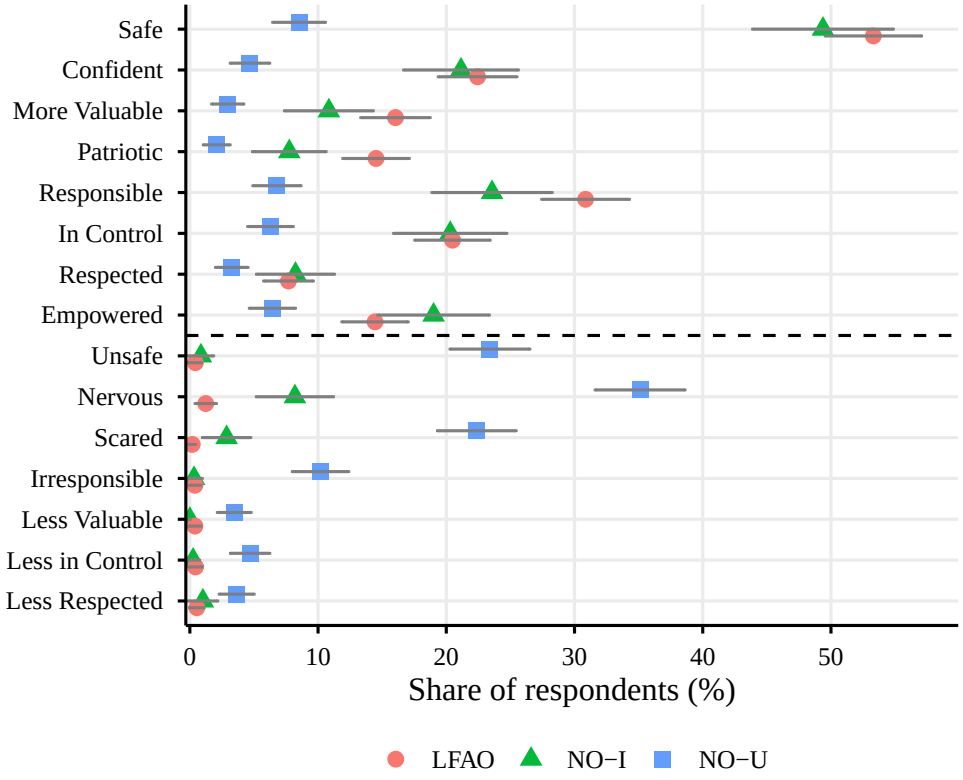
Feelings attached to (the idea of) owning a lethal firearm differ among ownership types. Figure 10 shows the distribution of answers to the closed-ended question "How does owning a gun make you feel?" (for LFAO) and "How would owning a gun make you feel?" (for non-owners). The figure is split in half by a dashed line that divides positive and negative sentiments. LFAO ascribe feelings of safety, confidence, and responsibility to ownership. Non-owners who are interested in purchasing a gun express markedly similar feelings, though they would feel more nervous than LFAO. NO-U, on the other hand, express the opposite

[11] Individuals with a child at home are more likely to worry their child could use a gun to harm themselves (Figure A-11). Even so, LFAO with children remain less concerned than the average NO.

feelings, namely nervousness, fear, and lack of safety should they acquire lethal firearms.[12]

Thus, even though most people are looking for safety, the differences in the perceived likelihood of incurring private costs of guns may help explain why LFAO feel safer with a lethal firearm, while non-owners feel less safe with one. It also highlights why they feel similarly safe in their daily lives, even though one group owns lethal firearms and the other does not.

FIGURE 10: HOW DOES OR WOULD OWNING A GUN MAKE YOU FEEL?



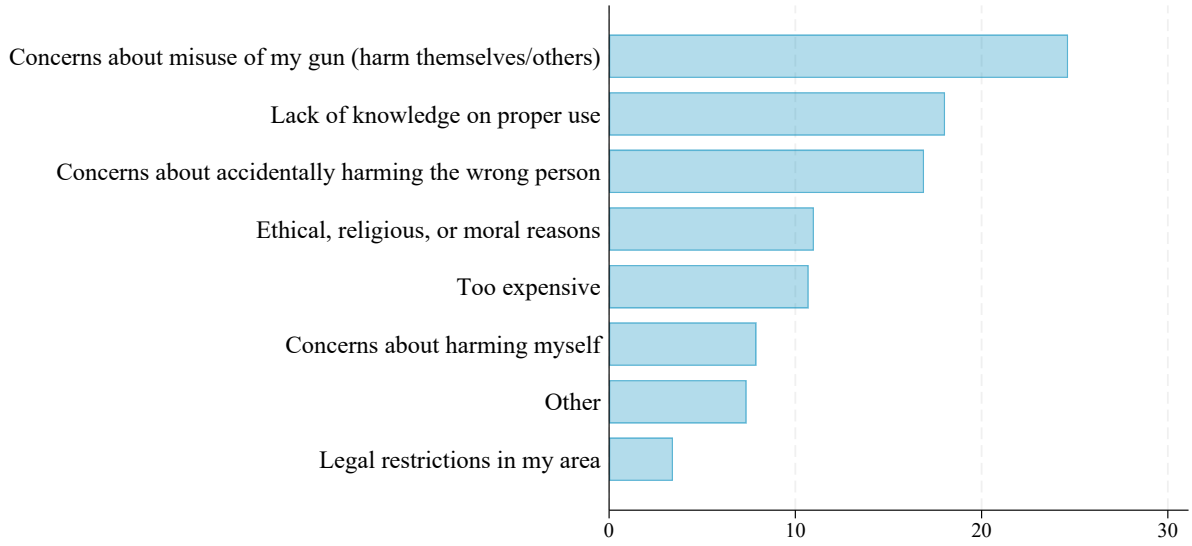
Notes: The figure illustrates respondents' perceptions about owning or potentially owning a lethal firearm, by firearm ownership status. The survey question asked: "To what extent does/would owning a gun make you feel:" with response options: No extent, Some extent, A moderate extent, and A great extent. The figure presents the share of respondents who answered "A great extent." Restricted to control group participants.

Reasons for not owning lethal firearms among non-owners. Figure 11 shows that the two main reasons for not owning a gun are concern about others misusing the respondent's guns to harm themselves or others, as well as concerns about accidentally harming the wrong person. Combined, these two reasons make up about half of all responses. Note that these concerns are much larger than the concerns about "harming myself", though roughly half of all lethal-firearm-related deaths are suicide (Kim et al., 2025). Nearly 20% of respondents say they lack knowledge on proper use of lethal firearms (a sentiment endorsed more commonly by female respondents). About 10% of respondents cite the price of firearms as being the limiting factor, while a handful cite moral or religious reasons.[13]

[12] Appendix Table A-22 shows that, within LFAO, feelings of safety and confidence with guns appear to vary in subtle ways across personal characteristics.

[13] Figure A-7 shows the share that classified each reason as very or somewhat important — the results are similar to what we find when analyzing the top two reasons.

FIGURE 11: REASONS FOR NOT OWNING A LETHAL FIREARM AMONG NON-OWNERS
CONCERNS ABOUT THE HARMS OF OWNERSHIP



Notes: This figure shows the share among non-owners who rated each reason as the most important for why they do not own a lethal firearm. Respondents were first asked how important each of these eight potential reasons were for them not to own a gun. Restricting to the reasons they classified as "very" or "extremely" important, they were then asked "You said these are very or extremely important reasons for you not to own a gun. Which one is the most important?" Restricted to control group participants. 923 out of the 1085 NO control group participants answered this question and gave their most important reason not to own a firearm.

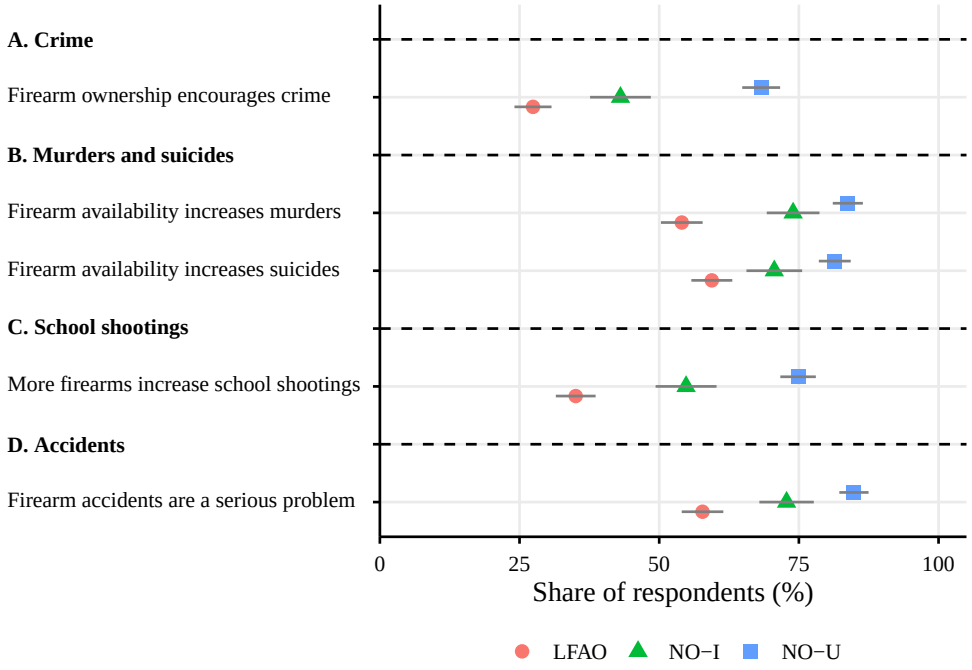
Perceived social costs of lethal firearms. We also document briefly the perceived social costs from lethal firearms, even though these social costs may not be internalized and, hence, may not play a role in individual choices. Figure 12 shows that non-owners are significantly more likely to say that lethal firearm ownership encourages crime, increases murders, suicides, and school shootings, and that firearm accidents are a serious issue. NO-U are much more likely to hold these views than NO-I. Appendix Table A-23 shows that both among LFAO and non-owners, Republican respondents are much less likely to agree that firearm ownership results in these social costs, with the largest partisan gap being on school shootings. Nevertheless, gun ownership status predicts within-party attitudes.

3.5 Demand for NLFAs and policy views

Indeed, Figure 13 shows that very few LFAO (4%) own a non-lethal alternative and less than one-third have previously considered purchasing one. Just 15% consider an NLFA to be a good replacement for an LFA and 23% would consider reducing the number of lethal firearms if they had a non-lethal alternative (15% would reduce slightly or moderately, and 7% would reduce substantially or no longer hold firearms). The remaining 77% reported they would not reduce the number of lethal firearms even if a non-lethal alternative were available. Thus, there is little current ownership or demand and a lack of agreement that NLFAs are good replacements for lethal arms. However, 43% of respondents say that they would prefer to have a firearm that is capable of incapacitating rather than killing someone, suggesting some unmet demand.

There are some significant heterogeneities in the perceptions of NLFAs. Appendix Table A-24 shows that Democrat LFAOs are more likely to consider an NLFA to be a good replacement, to want to keep their guns locked if they had one, and to seek to incapacitate rather than kill. It also shows that female LFAO are

Figure 12: Perceived Social Costs Associated with Lethal Firearm Ownership Across Ownership Types
Owners perceive lower social harms



Notes: This figure displays the share of respondents who hold specific perceptions on the items listed in the rows, by firearm ownership status. *Firearm ownership encourages crime* is an indicator for respondents who believe that firearm ownership in the U.S. somewhat encourages crime or that it encourages crime a lot. *Firearm availability increases murders* is an indicator for respondents who believe that easy access to firearms somewhat increases the number of murders or that it increases the number of murders a lot. *Firearm availability increases suicides* is an indicator for respondents who believe that easy access to firearms somewhat increases the number of suicides or that it increases the number of suicides a lot. *More firearms increase school shootings* is an indicator for respondents who believe that if firearm ownership were to increase, school shootings would somewhat increase or increase a lot. *Firearms accidents are a serious problem* is an indicator for respondents who perceive accidents from owning a gun as a very serious or extremely serious problem. Restricted to control group participants.

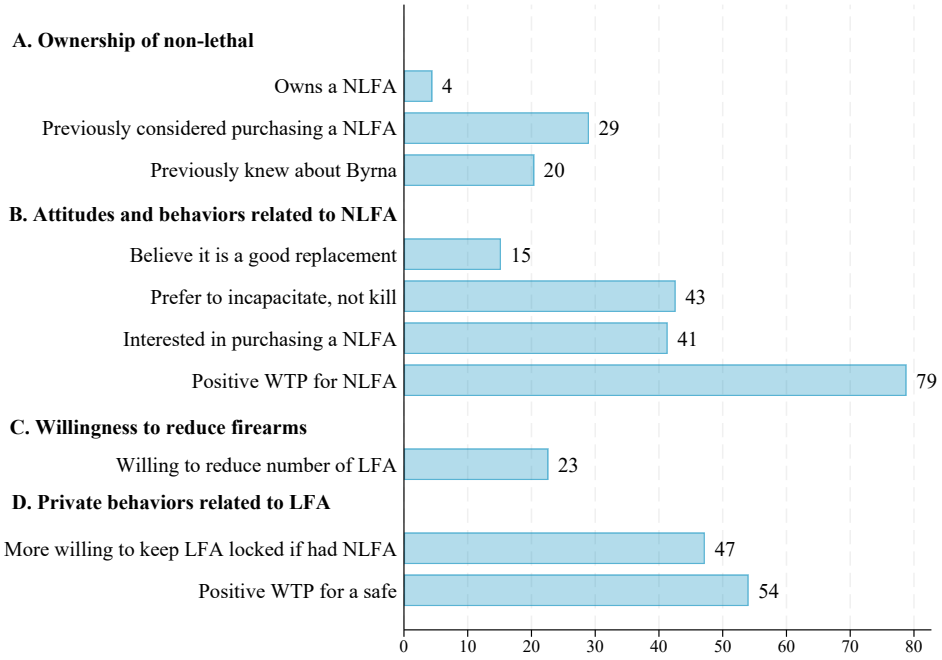
more likely to express willingness to purchase an NLFA and a wish to be able to incapacitate rather than kill. To a lesser extent, this also holds for higher-income respondents.[14]

Why are NLFAs considered good or bad substitutes for LFAs? To disentangle the reasons why LFAO consider NLFAs good or bad substitutes for LFAs, we asked them a follow-up open-ended question. For those who answered that an NLFA would be a bad substitute, we inquired why they thought so, and symmetrically for those that thought an NLFA was a good substitute.

Among those who thought that an NLFA was a good substitute, Figure 14A shows that 62% of respondents cite self-defense and deterrence as key reasons (e.g., "If you don't want to kill someone but just scare them away, it's a good option."). Additionally, 6% mention that NLFAs reduce the private (psychological) cost of owning or using a lethal firearm (e.g., "I'd be less worried about the consequences of using my gun and killing someone. As long as it still hurts them and stops them, it's a better alternative."). Female LFAO were more likely to express these views compared to men (Table A-26).

[14] Appendix Table A-25 reports respondents' attitudes toward NLFA by the stringency of gun restrictions in their states, while Appendix Table A-29 reports respondents' support for NLFA policies along the same dimension. Appendix Table A-28 displays the support for NLFA policies based on the respondents' characteristics.

Figure 13: Beliefs About NLFAs among Lethal Firearm Owners



Notes: This figure displays the distribution of LFAOs' responses to the items listed in the rows. *Owns an NLFA* is an indicator for respondents who reported owning a Byrna or another NLFA. *Previously considered purchasing an NLFA* is an indicator for respondents without an NLFA who reported having briefly or seriously considered buying one in the past. *Previously knew about Byrna* is an indicator for respondents who reported having heard about Byrna NLFAs before the survey. *Good replacement* is an indicator for respondents who consider NLFAs as a good or complete replacement for a standard, lethal firearm. *Incapacitate but not kill* is an indicator for respondents who agree or strongly agree that they prefer a firearm capable of temporarily incapacitating without killing. *Interested in purchasing an NLFA* is an indicator for respondents who showed willingness to purchase an NLFA by selecting 5, 6 or 7 on a 1 to 7 scale. *Positive willingness to pay for NLFA* is a dummy variable. *Willing to reduce number of LFAs* is an indicator for respondents who reported that they would reduce slightly, reduce moderately, reduce substantially or no longer hold any firearms if they purchased the Byrna legal non-lethal firearm. *More willing to keep LFAs locked if had NLFA* is an indicator for respondents who would definitely or probably be more willing to keep their lethal firearms locked if they had a Byrna non-lethal firearm. *Positive willingness to pay for a safe* is a dummy variable. Restricted to control group participants.

On the other hand, 19% of respondents are skeptical, believing that while NLFAs might be useful in some situations, they could not fully replace firearms in all scenarios (e.g., "It would be nice to know that a non-lethal firearm could offer the protection you need, but in a truly dangerous situation, it might not be enough."). Similarly, 6% state that they would consider using NLFAs but would need more evidence of their reliability. Male LFAO are more likely to express these concerns.

Among those who consider an NLFA to be a poor replacement, Figure 14B shows that the majority (51%) of respondents doubt that NLFAs would be effective in high-stakes situations, highlighting that a lethal response is often the only way to stop an attacker (e.g., "A lethal response to murderous intent is probably the only effective option. A non-lethal response that doesn't stop the attacker is both useless and dangerous."). Men (52%) were more likely than women (46%) to express this view (Table A-27).

Additionally, 18% of respondents state that they prioritize safety and are unwilling to take risks associated with using anything other than a lethal firearm (e.g., "I'm not convinced of their effectiveness, and I honestly don't care if the person I'm protecting myself from dies from lethal force."). Another 12% share that they were uncertain about NLFAs (e.g., "I don't know much about them. I'd need to see if they can incapacitate someone long enough for law enforcement to arrive. I've worked as a psych nurse, and I've seen people on PCP—completely out of their minds and difficult for multiple officers to control."). The divide mirrors the

gap between LFAO and NO-U in lethal firearm ownership: LFAO who are open to NLFAs cite self-defense and safety, while LFAO who are not open to NLFAs emphasize perceived ineffectiveness in high-stakes situations and resulting safety risks.

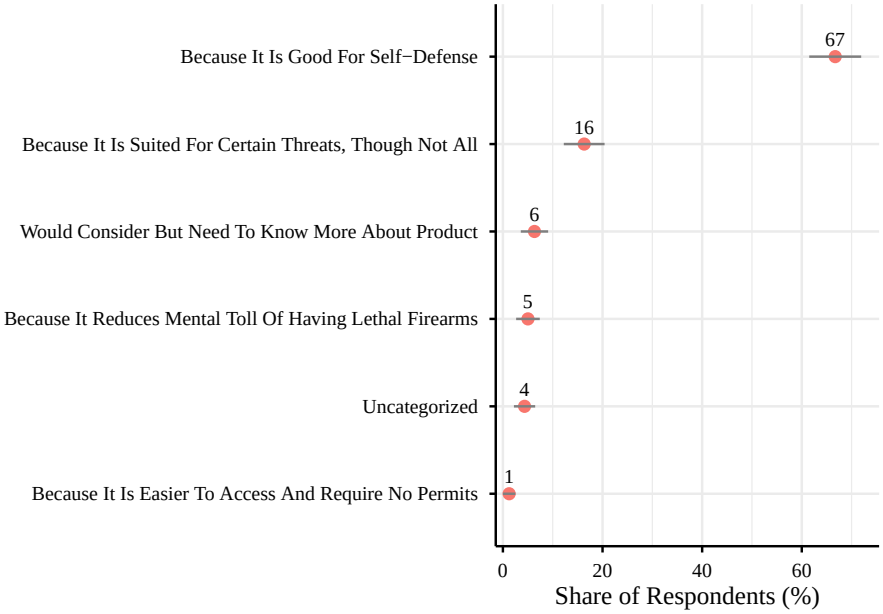
Non-lethal firearms (NLFAs) are a potential way to fulfill the need for safety while minimizing safety concerns stemming from lethal firearms themselves. Panel G of Figure 15 shows more agreement across ownership types regarding encouraging NLFAs than regarding restrictions on LFAs, apart from prohibitions on certain groups from accessing LFAs. However, the overall level of support is middling, which may reflect limited information or experience with the product.

Policy views related to lethal firearm ownership. Consistent with heterogeneous views across ownership status on the private and social costs associated with lethal firearm ownership, Figure 15 shows that LFAO and non-owners support different policies. Figure 15 Panel A shows widespread agreement on prohibiting gun purchases for people deemed at risk to themselves or others, domestic violence offenders, and, to a lesser extent, people under 21. There is also widespread agreement on background checks and firearm safety courses for purchasers. By contrast, there are large disagreements about restrictions on where guns can be carried (e.g., school campuses), what types of guns or ammunition can be used (e.g., high-capacity magazines or assault weapons), and tracking gun purchases (e.g., with permits or databases), as well as on storage and smart-gun technology (Panel C), which may relate to LFAO prioritizing immediate access to guns.

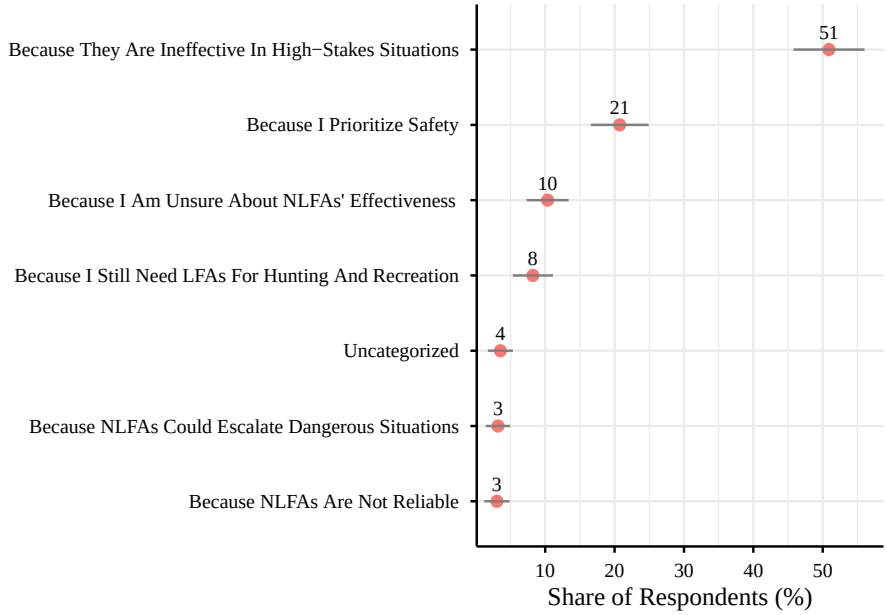
Summing up descriptive analysis. LFAO and non-owners share a common objective: to be safe. But they differ in their views on whether lethal firearm ownership makes them safer. This could be because LFAO weigh heavily the protective benefits, whereas NO-U emphasize the private and social costs of guns. Interested non-owners fall in between NO-U and LFAO on many items, though they are the group that feels the most unsafe. There is substantial disagreement between ownership types vis-à-vis policies, with at least two notable exceptions: there is agreement on prohibiting ownership among unfit groups and in promoting ownership of NLFAs. However, most LFAO have not considered purchasing NLFAs.

Figure 14: Why are NLFAs a good or bad replacement for LFAs, among Lethal Firearm Owners [Open-ended]

(a) Why do you consider nonlethal firearms like Byrna to be a good replacement for LFAs?

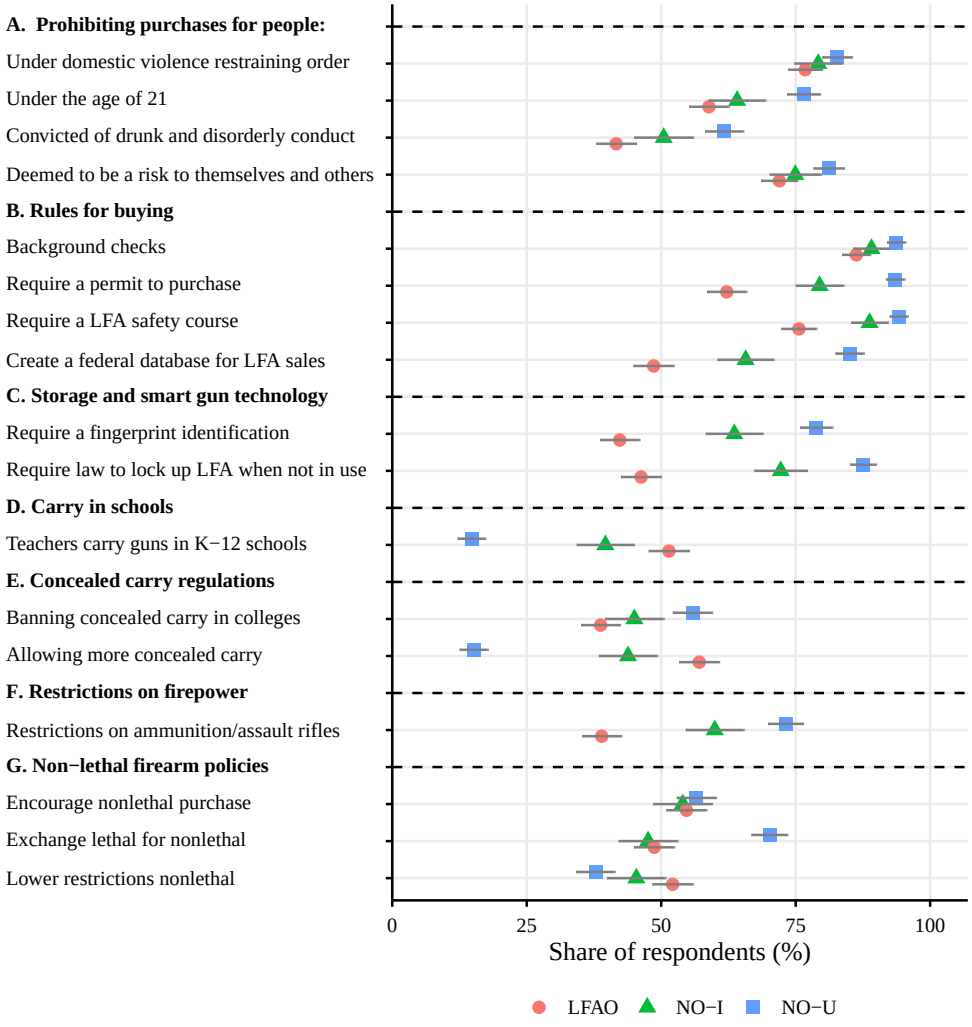


(b) Why do you consider nonlethal firearms like Byrna to be a bad replacement for LFAs?



Notes: This figure displays the distribution of topics in responses from LFAO to open-ended questions on why they viewed NLFAs like Byrna as a good (Panel A) or bad (Panel B) replacement for LFAs. Participants first answered a closed-ended question on whether Byrna was "a complete," "good," "decent," "not much of," or "not a replacement at all." Panel A covers reasons for viewing Byrna as a decent, good, or complete replacement. "Because it is good for self-defense" highlights perceptions that NLFAs can improve safety by deterring attackers and reducing fatalities. "Because it is suited for certain threats, though not all" reflects that they are effective in some contexts but not against armed or determined attackers. "Would consider but need to know more about product and its reliability" points to requests for more evidence, testing, and training. "Because it reduces mental toll of having/using lethal firearms" emphasizes reduced emotional burden compared to lethal weapons. "Because it is easier to access and require no permits" mentions affordability and accessibility. "Uncategorized" includes responses that do not fit other topics. Panel B covers reasons for viewing Byrna as not much or not a replacement. "Because they are ineffective in high-stakes situations" raises concerns about insufficient stopping power. "Because I prioritize safety and do not want to take risks with NLFAs" stresses a preference for lethal firearms to ensure protection. "Because I am unsure about NLFAs' effectiveness" shows skepticism about reliability. "Because I still need LFAs for hunting and recreation" refers to practical needs. "Because NLFAs are not reliable" mentions potential malfunctions. "Because NLFAs could escalate dangerous situations" conveys fears that non-lethal weapons might worsen violence. "Uncategorized" includes remaining responses. Restricted to control group participants.

Figure 15: Share of Respondents Who Support Specific Policies on Lethal and Non-Lethal Firearms



Notes: This figure illustrates respondents' views on policies related to lethal and non-lethal firearms, by firearm ownership status. Support for each policy was measured on a 5-point scale ranging from 1 ("Strongly oppose") to 5 ("Strongly support"). The figure displays the share of respondents who expressed "Somewhat support" and "Strongly support" to each policy. Restricted to control group participants.

4 Organizing Framework

The descriptive results suggest that LFAO and non-owners share a common demand for safety, but differ in their beliefs and preferences about the "safest ways to be safe." This section outlines a simple model of safety-driven lethal firearm demand and a framework for analyzing our experimental results in light of this finding. Our framework focuses on the objective of safety for why a person might own guns, since this is the most important reason expressed by LFAO (Figure 4). For many, though not all, LFAO and NO, this framework likely captures the first-order considerations.

4.1 Setup

A person i makes many firearm-related decisions: whether to have a firearm, what type(s) of firearm, if any, to get (lethal, non-lethal, etc.), how to store firearms she has (e.g., in a safe), whether to carry those firearms with her, etc. We summarize the set of options the person has available as belonging to set F and assume the person selects a single option f from this set, where each option is itself a bundle that summarizes the person's firearm-related decisions. For example, a person who buys a gun safe together with a pistol selects a different f from someone else who does not buy a gun safe with that pistol.

To start, consider the simplest case where F contains two options: the status quo of not having a firearm or having that firearm f. The person decides to purchase the firearm f only if she believes it produces sufficient net safety utility (protective benefits minus harms) to justify its pecuniary price:

$$\sum_{s} \underbrace{\hat{\pi}_{if}(s)}_{\text{prob. weight on situation } s} \times \underbrace{\left(w_{if} \cdot \hat{b}_{if}(s) - \hat{h}_{if}(s)\right)}_{\text{believed net safety benefits in situation } s} - P_f \geq 0. \tag{1}$$

$\hat{\cdot}$ represents subjective beliefs (which may or may not align with true or objective values). Benefits and harms are assessed relative to not purchasing the firearm (i.e., relative to the status quo), and:

- s indexes different situations the person can encounter.
- $\hat{\pi}_{if}(s)$ equals the probability weight person i attaches to situation s at the time she decides whether to add firearm f, which may differ from the objective probability weight $\pi_{if}(s) = \hat{\pi}_{if}(s) - \varepsilon^{\pi}_{if}(s)$;
- $w_{if} \geq 0$ equals the extent to which person i weighs the safety benefits of firearm f relative to its costs;[15]
- $\hat{b}_{if}(s)$ equals the protective benefit she assigns to having access to firearm f in situation s (relative to not having it), which may differ from the true benefit $b_{if}(s) = \hat{b}_{if}(s) - \varepsilon^{b}_{if}(s)$;
- $\hat{h}_{if}(s)$ equals the non-pecuniary and pecuniary harms/costs (private and internalized social) she assigns to having access to firearm f in situation s (relative to not having it), which may differ from the true harms $h_{if}(s) = \hat{h}_{if}(s) - \varepsilon^{h}_{if}(s)$;
- P_f equals the price of firearm f.

[15] As we explain below, these weights could be further decomposed into elements that reflect true preferences and salience weights (e.g., as in Bordalo et al. (2022)). We would expect true preferences to be stable within a person ($w_{if} = w_i$ for all i, f), while salience weights could be unstable within a person across firearms (e.g., because of marketing) and the moment of time (e.g., because of what is currently on top of the person's mind).

It is sometimes convenient to use more compact notation that aggregates across situations s and folds prices into pecuniary and non-pecuniary costs. Let $\hat{B}_{if} \equiv \sum_s \hat{\pi}_{if}(s) \times \hat{b}_{if}(s)$ and $\hat{H}_{if} \equiv \sum_s \hat{\pi}_{if}(s) \times \hat{h}_{if}(s) + P_f$. Given this notation, person i purchases firearm f only if

$$w_{if} \cdot \hat{B}_{if} - \hat{H}_{if} \geq 0.$$

Note that with fully accurate beliefs and perceptions (for person i, $\varepsilon^{\pi}_{if}(s) = \varepsilon^{b}_{if}(s) = \varepsilon^{h}_{if}(s) = 0$ for all s), the person would instead purchase firearm f only if $w_{if} \cdot B_{if} - H_{if} \geq 0$.[16]

Turning to the more general case of choice from a richer set of options F, important for our analysis is the person's beliefs about how to best be safe: the *perceived safety possibilities frontier*. Define this frontier in the following way: Say that f^e is *believed safety efficient* for person i if there does not exist another firearm-related decision $f \in F$ such that $\hat{B}_{if} \geq \hat{B}_{if^e}$ and $\hat{H}_{if} \leq \hat{H}_{if^e}$ with one inequality strict. The *perceived safety possibilities frontier* for person i traces out the set of believed safety efficient solutions in (H, B) space: The perceived safety possibilities frontier for person i equals

$$\widehat{SPF_i} = \left\{ (\hat{H}_{if}, \hat{B}_{if}) \text{ for believed safety efficient } f \right\}.$$

The true safety possibilities frontier for person i, SPF_i, instead equals their perceived SPF under accurate beliefs:

$$SPF_i = \left\{ (H_{if}, B_{if}) \text{ for safety efficient } f \right\}.$$

4.2 Where does heterogeneity in firearm choices come from?

A straightforward observation is that a person will choose an option only if it falls on their *perceived* safety possibilities frontier at a given moment of time. Given that there are potentially many options along this frontier, this still permits substantial heterogeneity in firearm-related decisions. To simplify the exposition of the following observation, suppose that a person's weight on benefits w_{if} is a stable preference weight, $w_{if} \equiv w_i$, that is constant across f.

Observation 1. *Suppose two people i and j make different choices, $f_i \neq f_j$, resulting in $(H_{f_i}, B_{f_i}) \neq (H_{f_j}, B_{f_j})$. If neither person is indifferent between f_i and f_j, then one of the following must be true: (i) they have different true safety possibilities frontiers ($SPF_i \neq SPF_j$), (ii) they have different preferences ($w_i \neq w_j$), or (iii) they have different perceived safety possibilities frontiers ($\widehat{SPF}_i \neq \widehat{SPF}_j$).*

Proof of Observation 1. If persons i and j have the same perceived and true SPF, denoting the common set by SPF, then person i solves $\max_{(H',B') \in SPF} w_i B' - H'$ and person j solves $\max_{(H',B') \in SPF} w_j B' - H'$. The set of solutions is different only if $w_i \neq w_j$. □

This observation implies that heterogeneity in firearm demand comes from three sources.

Heterogeneity in safety possibility frontiers. The first is heterogeneity in true SPFs. For example, some people may live in less safe neighborhoods than others (the distribution over situations for person i,

[16] As we saw in the descriptive analysis, the person may not be aware of all options that she would consider buying if made salient, such as non-lethal firearms. In our framework, the lack of awareness of an option f' is captured by setting $\hat{B}_{if'} = 0$ when $B_{if'} > 0$.

$\pi_i(s)$, differs from that distribution for person j, $\pi_j(s)$). Or some people may face different constraints than others, for example in their ability to carry firearms given local regulations. Or some people may have more skill than others in safely using firearms.

Heterogeneity in preferences. The second is heterogeneity in preferences. This source of heterogeneity in firearm demand is implicitly followed by many social science papers on gun demand, outlined in the related literature section above. This literature, for example, views different gun owners as falling into different preference "types" (hunters, instrumental owners, cultural owners, etc.). In such frameworks, demand reveals preferences, since people share the same beliefs and representations about guns (implicitly $\varepsilon^{\pi}_{if}(s) = \varepsilon^{b}_{if}(s) = \varepsilon^{h}_{if}(s) = 0$ for all s). People who share the same perceived safety possibilities frontier can still differ in which point along that frontier maximizes their preferences (Panel A of Figure 16 provides a simple example where choices reflect varying weights on protective benefits w_i). The extent to which a person focuses on safety benefits, w_i, versus safety harms can also vary for reasons that do not reflect stable preferences. For example, some people primarily feel safer and more confident carrying guns (high w_{if} for f denoting lethal firearms), while others primarily feel more nervous and threatened carrying guns (low w_{if}). This differential focus may hold across people who share the same underlying beliefs about guns, and whether a person focuses on benefits or harms may even be unstable within a person over time (Bordalo et al., 2023). Thus, the weights could be further decomposed into elements that reflect true preferences and salience weights (e.g., as in Bordalo et al. (2022)).

Heterogeneity in beliefs. The third source of heterogeneity in firearm demand is heterogeneity in *beliefs*, perceptions, or representations (focus on benefits or harms–as in, e.g., Gabaix (2014), Bordalo et al. (2025)) about guns, leading to different perceived SPFs even if true SPFs are the same (Panel B of Figure 16 provides a simple example where choices reflect varying views of the SPF for fixed weights on protective benefits).[17] Our descriptive analysis in fact showed that beliefs about guns and gun-related policies significantly differed by ownership status. What are the sources of heterogeneity in perceived SPFs?

First, the probability weights $\hat{\pi}_{if}(s)$ people assign to situation s can vary because of variation in $\varepsilon^{\pi}_{if}(s)$. For example, as the descriptive analysis shows, some people are more concerned about situations where a child or other family member might harm themselves with a gun than others (Figure 9). Again, such differential weights may reflect different probabilistic assessments, or differing degrees to which situations are top-of-mind.

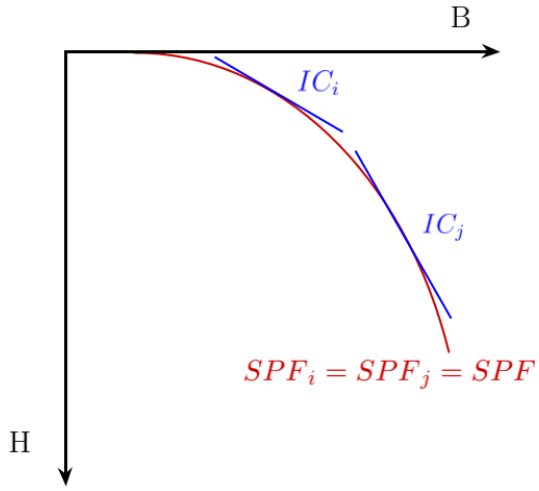
Second, the benefits $\hat{b}_{if}(s)$ people assign to having access to a firearm in a given situation can vary because of variation in $\varepsilon^{b}_{if}(s)$. For example, people differ in the degree to which they believe having a firearm (lethal or otherwise) reduces the chances of getting hurt if attacked (Figure 7). And, strikingly, uninterested non-owners feel similarly safe to gun owners (Figure 8).

Third, the harms $\hat{h}_{if}(s)$ people assign to having access to a firearm in a given situation can vary because of variation in $\varepsilon^{h}_{if}(s)$. For example, some people may anticipate a greater risk than others of being arrested or sued if someone took their gun and killed or hurt someone else, or of someone using their gun in this way (Figure 9). Even if people anticipate such harms, they may not be top-of-mind during purchase decisions–an idea that goes back at least to Spence (1977).

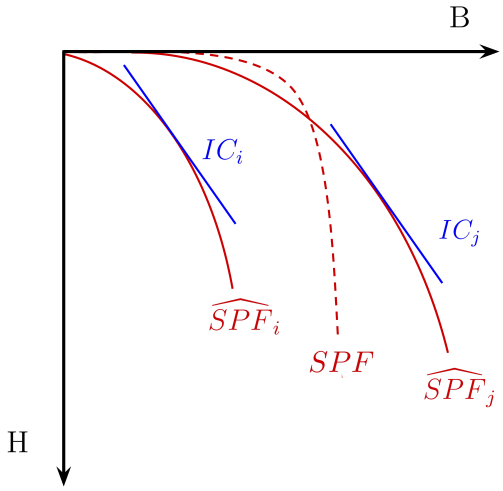
[17] Our framework connects to more general approaches to incorporating systematically biased beliefs and coarse representations in demand analyses (e.g., Mullainathan et al. (2012), Allcott and Taubinsky (2015), Handel and Schwartzstein (2018), Farhi and Gabaix (2020), and Bordalo et al. (2025)).

Figure 16: Demand for Safety: Model

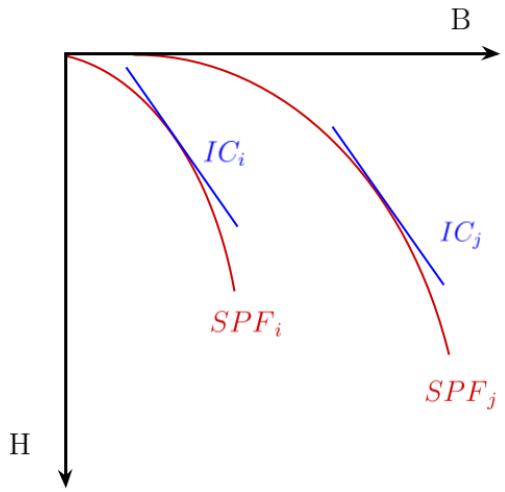
(a) Preference-driven Demand



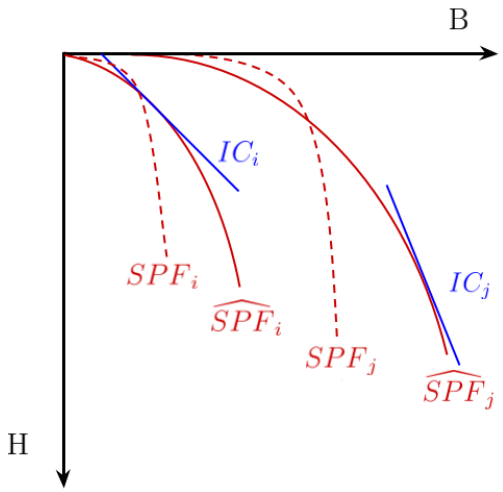
(b) Belief-driven Demand



(c) Heterogeneous SPFs



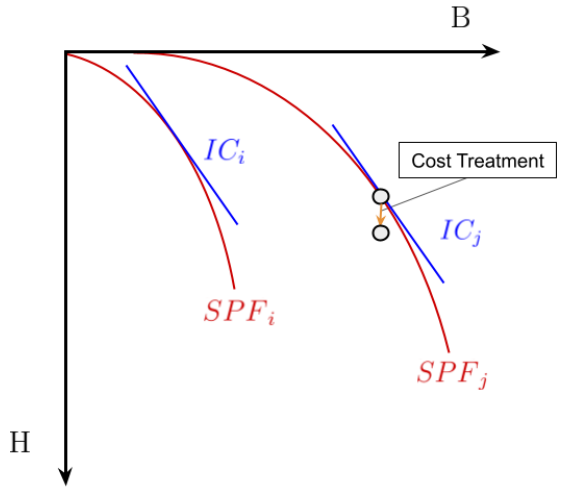
(d) Heterogeneous SPFs, Beliefs, and Preferences



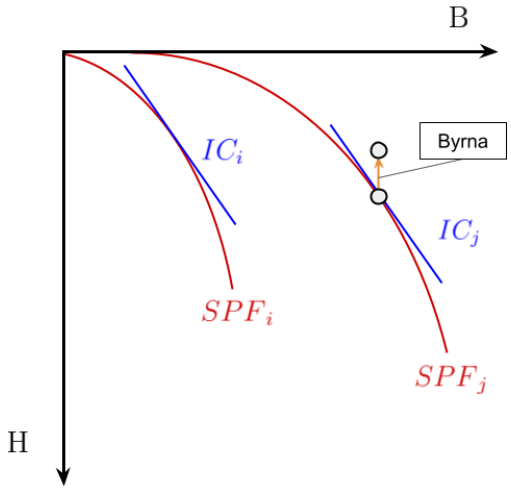
Notes: This figure illustrates ways that two people i and j may arrive at different firearm-related decisions. Panel A illustrates a situation where the two people share the same accurate beliefs about the safety possibilities frontier, but have different preferences: they are identical except for the weights they place on protective benefits, w_i and w_j. Panel B illustrates a situation where the two people share the same preferences, but have different beliefs about the safety possibilities frontier: they are identical, including in the weights they place on protective benefits, except for their views of the SPF, where neither is accurate (the dashed curve shows the accurate SPF). Panel C shows a case where two individuals i and j share the same preferences but face different safety possibilities frontiers. Panel D illustrates a case where two individuals i and j share different preferences, as well as inaccurate beliefs about their safety possibilities frontiers (the dashed curves show the accurate SPFs).

FIGURE 17: PREDICTED EFFECTS OF THE TREATMENTS

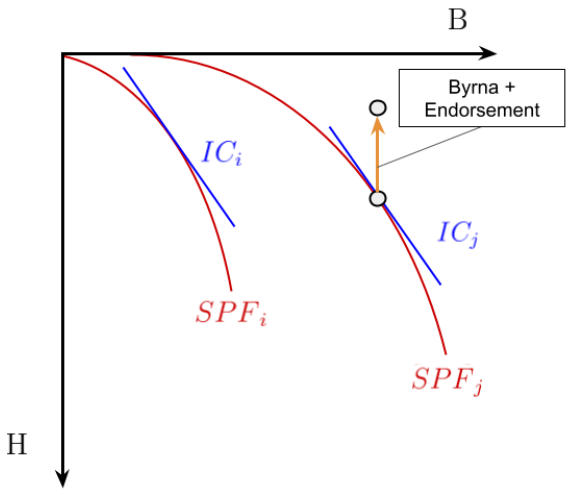
(A) PRIVATE COST OF LETHAL FIREARMS



(B) NLFA INFORMATION



(C) NLFA INFORMATION + ENDORSEMENT



Notes: This figure illustrates the effects of the treatments. Panel A highlights the impact of providing the costs of lethal firearms to the individual j. Panel B highlights the predicted impact of providing information about NLFA to individual j. Panel C highlights the predicted impact of providing providing information about NLFA with endorsement to individual j.

Fourth, and importantly, the extent to which a person considers available non-lethal firearm options may vary. In our framework, non-lethal firearms are differentiated from lethal firearms by delivering protective benefits $B > 0$ with reduced harms H relative to lethal firearms. Some people may neglect non-lethal firearm options entirely in making firearm-related decisions (Figure 13), while others may consider them as potential substitutes for lethal firearms. In our notation, neglect is captured by beliefs that act as if protective benefits

are near zero, $\hat{B}_{if} \approx 0$ when true $B_{if} > 0$, or equivalently for option $f = n$ as $\varepsilon^b_{in}(s) \ll 0$.

4.3 Treatment effects through the lens of our framework

While it would be difficult to bridge divides across gun-ownership status stemming from differences in true SPFs or preferences, our treatments target heterogeneity in such *perceptions* about SPFs. Given that our descriptive findings suggest there is in fact substantial heterogeneity in perceptions, we predict the following ways our treatments lead people to review the safety possibilities frontier, i.e., the safest ways to be safe:

1. *Impact of the Private Costs of Lethal Firearms treatment.* In our framework, this treatment alerts people and makes salient that lethal-firearm protective safety benefits are associated with harms that are weakly larger than $\hat{H}_{if}$–i.e., it reduces $|\varepsilon^h_{if}(s)|$ and $|\varepsilon^\pi_{if}(s)|$ for some s (see Panel A of Figure 17). In more detail, our framework predicts:

    - This treatment weakly raises beliefs about harms $\hat{h}_{if}(s')$ for some s' (e.g., alerting people to the possibility of being arrested or sued if their gun hurts someone) and weakly raises weight $\hat{\pi}_{if}(s')$ on such situations s'.
    - Under the interpretation that this treatment raises beliefs about harms by providing information about those harms, we predict it has the largest impact on people whose baseline beliefs about those harms are lowest.
    - If we consider a "safely stored firearm" to be a different firearm (represented in the harms-benefit space) from an unsafely stored firearm, then, by alerting people to harms in such a way, this treatment should weakly increase demand for safe storage (shift their choices towards a safely-stored firearm).

2. *Impact of the Non-Lethal Firearm Information Treatment.* In our framework, this treatment alerts people and makes salient that non-lethal firearms exist and are associated with protective safety benefits weakly larger than $\hat{B}_{in}$–i.e., it reduces $|\varepsilon^b_{in}(s)|$ and $|\varepsilon^\pi_{in}(s)|$ for some s (see Panel B of Figure 17). In more detail, our framework predicts:

    - This treatment weakly raises beliefs about protective safety benefits of non-lethal firearms $\hat{b}_{if}(s')$ for some s' (e.g., alerting people that options that are effective in some situations of interest exist) and weakly raises weight $\hat{\pi}_{if}(s')$ on such situations s'.
    - Under the interpretation that this treatment raises beliefs about benefits of NLFAs by providing information about those benefits, we predict it has the largest impact on gun owners with low baseline knowledge about NLFAs.
    - By raising such beliefs, this treatment should increase gun owners' willingness to pay for non-lethal firearms.[18]

[18] Even if gun owners' willingness to pay for non-lethal alternatives like Byrna increases — and even if they go on and purchase a non-lethal firearm — they may still see value to owning lethal firearms. In the framework, lethal firearm owners might envision and place weight on situations where lethal firearms are beneficial relative to non-lethal firearms, as well as other situations where non-lethal firearms are similarly beneficial with lower associated harms than lethal firearms. That is, non-lethal firearms and lethal firearms may be viewed by some lethal firearm owners (LFAO) as not fully substitutable, perhaps even as complementary.

3. *Impact of the Non-Lethal Firearm Information and Endorsement treatment.* In our framework, the impact of this treatment should be weakly larger than the information treatment because it further unpacks and makes salient situations where NLFAs could be beneficial (it arguably has a weakly higher dosage). See Panel C of Figure 17. Outside the framework, we conjectured it would also have weakly larger effect sizes for Republican gun owners, because Sean Hannity is a prominent and trusted conservative media personality.

Assuming that the treatments do not impact preferences or true SPFs, a corollary of Observation 1 is that impacts on beliefs or behaviors flow through impacts on perceived SPFs. Further assuming that impacts on perceptions are in the direction of making them more accurate, the treatment effects help calibrate the magnitude of baseline misperceptions. After presenting treatment effects, we will return to the implications of this point in Section 6.

5 Informing Respondents about the Cost of Lethal Firearms or Non-Lethal Alternatives: Experimental Effects

We now turn to our experimental findings through the lens of Section 4. We study two treatment types: a private-cost treatment shown to both LFAO and non-owners, and two NLFA treatments (information, with and without endorsement) shown only to LFAO. We first describe outcomes and specifications, then report treatment effects, and finally assess persistence. Appendix Tables A-8 and A-9 demonstrate that the sample is well-balanced across all treatment arms.

5.1 Outcomes and specifications

Empirical specifications. Our main specifications are regressions of the outcomes of interest (y_i) on indicators for treatment, with the following control variables (denoted $\mathbb{X}_i$): age, gender, political affiliation, income and race. Equation 2 estimates the effect of the *Private Costs of Lethal Firearms* treatment on all non-owner respondents. Equation 3 estimates the treatment effects on LFAO.

$$y_i = \alpha + \mu_1 \text{Private Costs of Lethal Firearms}_i + \gamma \mathbb{X}_i + \varepsilon_i \tag{2}$$

$$y_i = \alpha + \beta_1 \text{Private Costs of Lethal Firearms}_i + \beta_2 \text{Information on Non-Lethal Firearm}_i + \beta_3 \text{Endorsement and Information of Non-Lethal Firearm}_i + \gamma \mathbb{X}_i + \varepsilon_i \tag{3}$$

We also estimate core specifications on two subsamples: respondents with a "low-prior" and respondents with a "high-prior" along the dimension each treatment is intended to shift. Prior to the *Private Costs of Lethal Firearms* treatment, respondents were asked: "(If you owned a gun,) how worried would you be of being arrested or sued if someone took your gun and killed or hurt someone else?". This question is very similar but different from one used for the post-treatment outcome.[19] The low-prior group is composed of respondents who were not worried at all about being arrested if someone uses their firearm (28%); while the high-prior group are respondents who were already worried (72%). For the two treatment arms concerning NLFAs, the low-prior respondents are those who did not know about Byrna (80%) and the high-prior group

[19] The question used for the outcome is:"(If you owned a lethal firearm,) how worried would you be of being arrested or sued if someone took your lethal firearm and killed or hurt someone else?"

those who already knew about it (20%). We interact our treatment indicators with being low-prior and high-prior in a fully saturated model and report these treatment effects.

For robustness, we also present estimates (i) using the unweighted sample where all observations are treated equally (Appendix Tables A-35–A-38) and (ii) from the baseline specifications in Equations 2 and 3 excluding the controls (Appendix Tables A-30–A-34).

Outcomes. Our main results are summarized in two key tables (Tables 2 and 3), and we organize outcomes into four groups: beliefs/behaviors on LFAs (Panel A), beliefs/behaviors on NLFAs (Panel B), policy views on NLFAs (Panel C), and policy views on LFAs (Panel D).

Panel A focuses on beliefs and behaviors related to LFAs. It starts with two key costs of firearm ownership: whether the respondent is worried that they would be arrested or sued if someone used a lethal firearm they owned to hurt or kill another person, and whether they are worried that their children would use their LFA (both on a 1-to-4 scale, from "not worried at all" to "extremely worried"). It also includes whether ownership of an NLFA would lead to a reduction in the number of LFAs owned (5-point scale from "Not reduce at all" to "No longer hold any firearms"), whether the respondent would be more willing to keep lethal firearms locked if they had access to an NLFA (5-point scale from "Definitely not" to "Definitely yes"), an indicator for positive willingness to pay for a safe storage unit (as elicited in our MPL), willingness to purchase another lethal firearm (7-point scale from 1 = "willing" to 7 = "unwilling," with 4 = "indifferent"), and willingness to participate in a lethal firearm buyback (7-point scale from 1 = "unwilling" to 7 = "willing," with 4 = "indifferent").

Panel B reports beliefs and behaviors with respect to NLFAs that were explored in Section 3. These include whether they believe that an NLFA is a "good replacement" for an LFA, on a scale of 1 to 5, where 1 is "Not a replacement at all" and 5 is "A complete replacement", and whether the respondent would prefer a firearm that can incapacitate but not kill, on a scale of 1 to 5, where 1 is "strongly disagree" and 5 is "strongly agree". It also includes an indicator for a "Positive Willingness to Pay for NLFAs" (as elicited in our multiple price list experiment). Finally, they also include a question assessing to which extent the respondent is "Interested in purchasing an NLFA", by asking how willing they are to purchase a non-lethal firearm on a 7-point scale, ranging from 1 being "unwilling" to 7 being "willing", with 4 being "indifferent".

Panels C and D turn to policy views related to, respectively, non-lethal alternatives and lethal firearms, using standardized indices. These indices summarize policy views (by topic) following Kling et al. (2007). Each underlying variable is first standardized (turned into a z-score, subtracting the control group mean before dividing by the control group standard deviation). The index is then computed as the mean of these standardized components, separately for LFAO and NO. We then further standardize by the standard deviation of the corresponding control groups to obtain an index with standard deviation equal to one for LFAO and NO control group participants. In Panel C, *Support for NLFA Alternatives Index* includes answers to the three policy questions shown in Panel G of Figure 15 (encouraging non-lethal firearms, exchanging lethal firearms for non-lethal ones, and lowering restrictions for non-lethal firearms), oriented such that higher values indicate greater support for NLFA-friendly policies, while *Real-stakes NLFA Index* includes the answers to two petition questions. The first asks respondents whether they want to sign a petition urging the Federal Government to promote and prioritize the use of non-lethal self-defense tools; the second to implement and promote a lethal firearm swap program.

Panel D includes policy views on lethal firearms including the prohibiting purchases index, which encompasses questions on restricting purchasing along several margins (i.e., domestic violence, age under 21,

convicted of drunk and disorderly conduct, deemed to be a risk to themselves and others), a support for rules for buying index (e.g., background checks, permits, etc.), a support for storage and safety index (e.g., requiring fingerprint identification and locking up the lethal firearms when not in use), an opposition to carry-in-schools policy (e.g., arming teachers), a support for more concealed carry regulations index (e.g., banning concealed carry on campus and other places), and support for restrictions on high-capacity magazines. For comparison with the other policy view indices, *Opposition to Carry in Schools* and *Support for Restrictions on High-Capacity LFAs* are turned into z-scores and standardized.

The *Real-stakes Lethal Index* summarizes the responses to two real-stakes questions related to lethal firearms. The first is a donation question that informs respondents that they are automatically enrolled in a lottery to win $90 and asks them whether they would like to commit to donate part of their lottery earnings to either the *Everytown for Gun Safety Support Fund* (an organization supporting gun control and victims of shootings) or the *Second Amendment Advocacy Foundation*, which is dedicated to defending responsible gun ownership, safeguarding Second Amendment rights, and promoting lethal firearm safety. The second question asks respondents whether they would like to sign one or both of two petitions, one urging the Federal Government to limit and restrict lethal firearms ownership to protect the safety of all U.S. citizens; the other to encourage lethal firearms ownership to empower the safety of all U.S. citizens. The index is oriented towards support for more restrictive petitions and donating for gun safety.

5.2 Causal effects of informing respondents about the private costs of lethal firearms

Table 2 shows the results of the *Private Costs of Lethal Firearms* treatment on LFAO (column 1) and non-owners (column 5). The table also reports the treatment effects for low-prior and high-prior respondents and the average of the outcome in the control group for LFAO and non-owners separately (columns 4 and 8), which is useful for benchmarking the magnitudes of the effects.

Providing information on the private costs associated with firearm ownership significantly influenced the beliefs and behavioral intentions of both LFAO and non-owners.

Among LFAO who received the cost treatment, we observed a significant increase in concern regarding potential arrest if their firearm was used to hurt someone else, equivalent to 9% of the control group mean, which is driven by those with low prior concern. However, the treatment does not materially shift LFAO worries about children or family members using their firearm inappropriately, suggesting that this type of information was either already known or simply not convincing. It therefore seems to have mainly conveyed valuable information on legal risks, which people might not have known.

The treatment had some effects on behaviors related to LFAs as well, decreasing the willingness to purchase another LFA and increasing the willingness to keep LFAs locked in the hypothetical scenario in which the respondent had an NLFA (equivalent to almost 6% of the control group mean).

The treatment fostered greater support for policies aimed at encouraging safe storage and firearm safety, equivalent to around 0.13 standard deviations (SDs) of the control group. These shifts are confirmed by our real-stakes behavioral measures; on our index of pro-control actions, treated LFAO were more willing to sign a petition advocating for gun restrictions and to donate to a charity dedicated to combating gun violence, an effect equal to roughly 0.12 of the control group SDs.

The treatment also had significant effects on non-owners, increasing their concerns about the potential negative consequences of firearm ownership. Specifically, treated non-owners report being more worried

Table 2: Treatment Effects of the Private Costs of Lethal Firearms Treatment on All Respondents, by Prior

	Lethal firearm owners				Non-owners			
	All	Low Prior	High Prior	Control mean	All	Low Prior	High Prior	Control mean
Panel A. Beliefs and behaviors related to LFAs								
Worried about arrest	0.21***	0.38***	0.08	2.37	0.27***	0.59***	0.15***	2.76
	(0.06)	(0.08)	(0.06)		(0.04)	(0.10)	(0.04)	
Worried family use	0.04	0.10	-0.01	1.73	0.16***	0.26**	0.09**	2.89
	(0.05)	(0.07)	(0.07)		(0.05)	(0.11)	(0.05)	
Willing to reduce number of guns	0.04	0.07	0.01	1.46	-	-	-	-
	(0.05)	(0.07)	(0.07)		-	-	-	
Less willing to purchase another LFA	0.14	-0.06	0.24*	2.88	-0.00	-0.04	-0.05	5.10
	(0.11)	(0.17)	(0.14)		(0.09)	(0.23)	(0.09)	
Positive WTP for a Safe	0.02	-0.01	0.04	0.54	-	-	-	-
	(0.03)	(0.05)	(0.03)		-	-	-	
Willing to keep LFA locked if had NLFA	0.19**	0.22*	0.16*	3.26	-	-	-	-
	(0.07)	(0.13)	(0.09)		-	-	-	
Will. to participate in a gun buyback program	-0.19*	0.07	-0.35***	2.56	-	-	-	-
	(0.10)	(0.15)	(0.12)		-	-	-	
Panel B. Beliefs and behaviors related to NLFAs								
Believes it is a good replacement	0.04	0.15*	-0.04	2.39	-	-	-	-
	(0.06)	(0.09)	(0.07)		-	-	-	
Prefer to incapacitate, not kill	0.02	0.02	0.01	3.14	-	-	-	-
	(0.07)	(0.11)	(0.08)		-	-	-	
Interested in purchasing a NLFA	-0.09	0.10	-0.21	3.85	-	-	-	-
	(0.11)	(0.19)	(0.13)		-	-	-	
Positive WTP for NLFA	-0.02	-0.06	-0.01	0.79	-	-	-	-
	(0.02)	(0.04)	(0.03)		-	-	-	
Panel C. Policy views related to NLFAs								
Support for NLFA Alternatives Index	0.03	0.08	-0.00	0.00	0.15***	0.38***	0.10**	0.00
	(0.05)	(0.09)	(0.06)		(0.04)	(0.11)	(0.05)	
Real Stakes NLFA Index	0.01	0.16*	-0.09	0.00	0.07	0.25**	0.02	0.00
	(0.05)	(0.09)	(0.07)		(0.04)	(0.11)	(0.05)	
Panel D. Policy views related to LFAs								
Prohibiting Purchases Index	0.03	0.05	0.01	0.00	0.05	0.16	0.03	0.00
	(0.05)	(0.09)	(0.07)		(0.04)	(0.10)	(0.05)	
Support for Rules for Buying Index	0.02	0.13	-0.05	0.00	0.06	0.22	0.01	0.00
	(0.05)	(0.09)	(0.06)		(0.04)	(0.14)	(0.04)	
Support for Storage and Safety Index	0.13***	0.23***	0.07	0.00	0.09**	0.28**	0.03	0.00
	(0.05)	(0.09)	(0.06)		(0.04)	(0.13)	(0.04)	
Opposition to Carry in Schools	-0.02	-0.05	-0.01	0.00	-0.04	0.02	-0.06	0.00
	(0.05)	(0.08)	(0.06)		(0.04)	(0.11)	(0.04)	
Support for Concealed Carry Regulations Index	0.02	0.05	-0.01	0.00	0.05	0.04	0.04	0.00
	(0.05)	(0.09)	(0.06)		(0.04)	(0.11)	(0.04)	
Support for Restrictions on High-Capacity LF	-0.04	0.04	-0.08	0.00	0.02	0.09	-0.00	0.00
	(0.05)	(0.09)	(0.06)		(0.04)	(0.11)	(0.04)	
Real Stakes Lethal Index	0.12**	0.09	0.14**	0.00	0.04	0.06	0.02	0.00
	(0.05)	(0.09)	(0.07)		(0.04)	(0.10)	(0.04)	

Notes: This table presents the results of Equations 2 and 3 with the following control variables: age, gender, political affiliation, income and race. Each treatment group is reported under three cases: All data: Results based on responses from all participants of the main survey. Low prior: Subsample of respondents who were not worried at all about arrest (LFAO N = 1,096; NO N = 361). High prior: Subsample of respondents who were worried about arrest (LFAO N = 1,888; NO N = 1,854). Coefficients represent the estimated effects of the respective treatments on the specified outcomes. The following variables are standardized: Opposition to Carry in Schools and Support for Restrictions on High-Capacity LFAs. Positive Willingness to Pay for Byrna and Positive Willingness to Pay for a Safe are binary variables. Robust standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

about the risks of arrest, and the magnitude is very similar to the effect on LFAO. Unlike LFAO, they also grow (even) more concerned about family members misusing firearms, an effect size equivalent to 6% of the control group mean. These increased concerns translate into stronger support for NLFA-related policies. Treated non-owners show substantially more support for policies that favor non-lethal firearm alternatives, both in self-reported views and in the real-stakes petition question. They also became somewhat more supportive of policies that encourage safe storage. But, given their much higher baseline level of support for policies restricting LFA use, the treatment does not shift their views significantly.

In sum, the treatment conveyed new information on legal risks, with some corresponding increase in support for policies restricting lethal firearms among LFAO, more support for NLFAs among non-owners, and some more personal safety behaviors for LFAO.

5.3 Causal effects of providing information on and endorsement of non-lethal firearms

Table 3 presents the results of the *Non-Lethal Information and Endorsement* interventions relative to the control group. Recall that only LFAO saw these treatments for reasons described above.

Table 3: Treatment Effects of Providing Information on Non-Lethal Firearms on LFAO, With and Without Endorsement, by Prior

	NLFA Information			NLFA Information + Endorsement			Control mean
	All	Low prior	High prior	All	Low prior	High prior	
Panel A. Beliefs and behaviors related to LFAs							
Worried about arrest	-0.01	0.00	-0.02	-0.01	0.07	-0.31**	2.37
	(0.06)	(0.06)	(0.13)	(0.06)	(0.06)	(0.13)	
Worried family use	0.04	0.08	-0.09	0.10*	0.18***	-0.21*	1.73
	(0.05)	(0.06)	(0.13)	(0.05)	(0.06)	(0.13)	
Willing to reduce number of guns	-0.02	-0.03	0.02	-0.00	-0.00	-0.02	1.46
	(0.05)	(0.06)	(0.12)	(0.05)	(0.06)	(0.12)	
Less willing to purchase another LFA	0.15	0.21*	-0.09	0.05	0.13	-0.22	2.88
	(0.11)	(0.12)	(0.23)	(0.11)	(0.12)	(0.25)	
Positive WTP for a Safe	0.01	-0.02	0.12**	-0.01	-0.01	0.00	0.54
	(0.03)	(0.03)	(0.06)	(0.03)	(0.03)	(0.06)	
Willing to keep LFA locked if had NLFA	0.18**	0.21***	0.05	0.18**	0.27***	-0.13	3.26
	(0.07)	(0.08)	(0.17)	(0.07)	(0.08)	(0.17)	
Will. to participate in a gun buyback program	-0.25***	-0.26**	-0.24	-0.03	0.05	-0.35*	2.56
	(0.10)	(0.11)	(0.21)	(0.10)	(0.11)	(0.21)	
Panel B. Beliefs and behaviors related to NLFAs							
Believes it is a good replacement	0.27***	0.32***	0.07	0.31***	0.41***	-0.10	2.39
	(0.06)	(0.06)	(0.13)	(0.06)	(0.06)	(0.13)	
Prefer to incapacitate, not kill	0.24***	0.25***	0.22	0.30***	0.39***	-0.04	3.14
	(0.06)	(0.07)	(0.14)	(0.06)	(0.07)	(0.15)	
Interested in purchasing a NLFA	0.73***	0.77***	0.59**	0.93***	1.07***	0.36	3.85
	(0.11)	(0.12)	(0.25)	(0.11)	(0.12)	(0.26)	
Positive WTP for NLFA	0.04*	0.03	0.08	0.06***	0.07***	0.02	0.79
	(0.02)	(0.02)	(0.05)	(0.02)	(0.02)	(0.05)	
Panel C. Policy views related to NLFAs							
Support for NLFA Alternatives Index	0.16***	0.19***	0.05	0.23***	0.29***	0.01	0.00
	(0.05)	(0.06)	(0.11)	(0.05)	(0.06)	(0.12)	
Real Stakes NLFA Index	-0.00	0.03	-0.12	0.06	0.08	-0.02	0.00
	(0.05)	(0.06)	(0.11)	(0.05)	(0.06)	(0.12)	
Panel D. Policy views related to LFAs							
Prohibiting Purchases Index	0.00	0.01	-0.02	0.02	0.04	-0.03	0.00
	(0.05)	(0.06)	(0.13)	(0.05)	(0.06)	(0.13)	
Support for Rules for Buying Index	-0.04	0.01	-0.23*	0.08	0.14**	-0.14	0.00
	(0.05)	(0.06)	(0.12)	(0.05)	(0.06)	(0.12)	
Support for Storage and Safety Index	0.04	0.04	0.00	0.09*	0.13**	-0.04	0.00
	(0.05)	(0.06)	(0.11)	(0.05)	(0.06)	(0.11)	
Opposition to Carry in Schools	-0.04	-0.02	-0.13	0.05	0.09	-0.11	0.00
	(0.05)	(0.06)	(0.11)	(0.05)	(0.06)	(0.12)	
Support for Concealed Carry Regulations Index	-0.01	0.02	-0.10	0.00	0.05	-0.18	0.00
	(0.05)	(0.06)	(0.11)	(0.05)	(0.06)	(0.12)	
Support for Restrictions on High-Capacity LF	-0.05	-0.05	-0.03	-0.07	-0.05	-0.14	0.00
	(0.05)	(0.06)	(0.11)	(0.05)	(0.06)	(0.11)	
Real Stakes Lethal Index	-0.01	-0.01	-0.02	0.11**	0.10*	0.17*	0.00
	(0.05)	(0.06)	(0.11)	(0.05)	(0.06)	(0.10)	

Notes: This table presents the results of Equation 3, with the following control variables: age, gender, political affiliation, income and race. Each treatment group is reported under three cases: All data: Results based on responses from all participants of the main survey. Low prior: Subsample of respondents who have not heard of Byrna before the survey (LFAO N = 2,374). High prior: Subsample of respondents who have heard of Byrna before the survey (LFAO N = 610). Coefficients represent the estimated effects of the respective treatments on the specified outcomes. The following variables are standardized: Opposition to Carry in Schools and Support for Restrictions on High-Capacity LFAs. Positive Willingness to Pay for Byrna and Positive Willingness to Pay for a Safe are binary variables. Robust standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Beliefs and behaviors related to LFA. Both of these treatments positively affect the willingness to keep LFAs locked if respondents were to obtain an NLFA and the effects are up to 8% of the baseline control group mean for those who did not previously know about Byrna. While the *Non-Lethal Firearm Information* treatment alone does not change concerns about arrest or family use of LFAs, the *Non-Lethal Firearm Information and Endorsement* treatment significantly increases concern about family misuse. The information treatment significantly decreases respondents' willingness to purchase another LFA, with effects concentrated among low-prior respondents (the effect size is 7% of the control group baseline). However,

the treatments do not meaningfully reduce current LFA holdings (and only weakly affect planned future purchases), nor do they affect willingness to pay for a gun safe (perhaps because 72% of respondents already own safe storage devices, see Appendix Figure A-41). We come back to these effects below.

Beliefs and behaviors related to NLFA. Both treatments have strong positive effects on the array of outcomes related to their willingness to view NLFAs as an alternative to LFAs, but the *Non-Lethal Firearm Information and Endorsement* treatment has consistently larger effects. Thus, both treatments significantly increase the belief that NLFAs are good replacements for LFAs (with effect sizes around 12-13% of the control group mean). Both treatments also significantly increase the respondents' likelihood of saying that they prefer to incapacitate rather than kill (8-10% of the control group mean), to express interest in purchasing an NLFA (19-24% of the control group mean), and to have a higher positive WTP for an NLFA (5-7% of the control group mean, starting from a relatively high 79% positive willingness).

The treatment effects are consistently larger for low-prior respondents, who did not already know about Byrna.

Policy views on NLFAs. Both treatments significantly increase respondents' willingness to support policies that encourage the use of NLFAs over LFAs (Panel C). The treatment with endorsement is again stronger for policy views. Furthermore, the treatment effects seem concentrated on low-prior respondents. The treatments have positive but insignificant effects on the real-stakes policy questions.

Policy views related to LFAs. Interestingly, the *Non-Lethal Firearm Information and Endorsement* treatment also has significant "spillover" effects on policy views related to LFAs—both self-reported and real-stakes ones. For instance, it increases the support for more stringent rules for buying LFAs (0.08 control group SDs), support for policies enforcing safe storage and safety measures (0.09 control group SDs), and the Real Stakes Lethal Index — a standardized composite of petition signing and an incentivized donation choice supporting gun-safety advocacy on LFAs — by 0.11 control group SDs. The treatment effects are limited to those who did not already know about Byrna, suggesting that they are truly due to the content of the treatments rather than pure priming or experimenter demand effects. These results imply that, faced with a viable alternative, LFAO can also adjust their policy views related to gun control.

In sum, these findings suggest that providing information about an alternative that shifts LFAOs' safety possibilities frontier is a powerful method for changing views on firearm alternatives. Furthermore, the results clearly indicate that an endorsement from a relatable figure who is knowledgeable about firearms does not just amplify this effect but is critical for shifting beliefs towards broader gun safety measures and restrictive policies.

Mechanisms. We can also consider the treatment effects on the answers to the open-ended questions described in Section 3 that ask people why they do or do not consider NLFAs to be good substitutes for LFAs. This can shed light on the specific mechanisms of action of our treatments, i.e., on the perceptions and beliefs that were affected by it. Table 4 shows these results, with a similar format to the previous tables. Both NLFA treatments significantly increase the likelihood that respondents say they would consider Byrna but would want more information about the product and its reliability and that it is suited for certain threats, though not all. The treatments also raise the likelihood that respondents view the NLFA as suitable for self-defense, although this effect is not statistically significant in the endorsement treatment. The endorsement treatment additionally increases the probability that respondents say the NLFA reduces the mental toll of having lethal firearms. Finally, both treatments reduce the share of respondents who report being unsure

about NLFA effectiveness or who believe NLFAs are ineffective in high-stakes situations. The effects are, as expected, almost entirely concentrated among low-prior respondents.

Table 4: Effect of the NLFA Information and Endorsement Treatments on Open-ended Answers about NLFAs, by Prior

	NLFA Information			NLFA Information + Endorsement		
	All	Low Prior	High Prior	All	Low Prior	High Prior
Because it is easier to access and require no permits	0.01	0.01	0.01	0.01	0.01*	-0.01
	(0.01)	(0.00)	(0.02)	(0.00)	(0.01)	(0.01)
Would consider but need to know more about product and its reliability	0.02**	0.03**	-0.01	0.02**	0.03**	-0.01
	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.02)
Because it reduces mental toll of having/using lethal firearms	0.01	0.01	0.00	0.02**	0.03**	0.01
	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.02)
Because it is suited for certain threats, though not all	0.04**	0.04**	-0.01	0.08***	0.10***	0.03
	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)	(0.04)
Because it is good for self-defense	0.06**	0.05*	0.07	0.02	0.04	-0.03
	(0.03)	(0.03)	(0.06)	(0.02)	(0.03)	(0.05)
Because NLFAs could escalate dangerous situations	0.00	-0.00	0.00	-0.00	-0.00	-0.01
	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.02)
Because NLFAs are unreliable	0.01	0.01	0.01	-0.00	-0.01	0.02
	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.02)
Because I still need LFAs for hunting and recreation	-0.02	-0.02*	0.02	-0.02**	-0.03**	0.02
	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.02)
Because I am unsure about NLFAs' effectiveness	-0.03**	-0.03**	-0.01	-0.03**	-0.04***	0.00
	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.02)
Because I prioritize safety and do not want to take risks	-0.01	-0.02	0.02	-0.01	-0.02	0.02
	(0.02)	(0.02)	(0.04)	(0.02)	(0.02)	(0.04)
Because they are ineffective in high-stakes situations	-0.07***	-0.06**	-0.11**	-0.09***	-0.10***	-0.03
	(0.02)	(0.03)	(0.05)	(0.02)	(0.03)	(0.05)

Notes: This table presents the results of Equation 3 with the following control variables: age, gender, political affiliation, income and race. The outcome variables are binary indicators of the responses to the open-ended question about why respondents would or would not consider Byrna as a replacement (i.e., it is 1 if the LFAO's open-ended response includes the corresponding reason and 0 otherwise). Each row reports the estimated treatment effect of the *Non-Lethal Firearm Information* treatment and *Non-Lethal Firearm Information and Endorsement* treatment, with results presented under three cases: All data: Results based on responses from all participants of the main survey (LFAO N = 2,984). Low prior: Subsample of respondents who had no prior awareness of Byrna for the NLFA treatments (LFAO N = 2,374). High prior: Subsample of respondents who were already aware of Byrna (LFAO N = 610). Coefficients represent the estimated effects of the respective treatments on the specified outcomes. Robust standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

5.4 Persistence of the treatment effects

Table 5 reports persistence of the *Private Costs of Lethal Firearms* treatment. Columns 1 and 4 show main-survey estimates in the full sample, Columns 2 and 5 restrict the main survey to follow-up respondents, and Columns 3 and 6 report follow-up estimates. Comparing Columns 1 vs. 2 and 4 vs. 5 suggests limited attrition-driven differences in the immediate effects.

For this treatment, concerns about arrest remain positive and statistically significant at follow-up for both LFAO and non-owners, though smaller for non-owners. By contrast, non-owners' concerns about family misuse dissipate by follow-up. For LFAO, support for storage/safety policies and willingness to keep LFAs locked remain positive at follow-up but are attenuated and no longer statistically significant. Among non-owners, support for pro-NLFA policies remains positive and marginally significant, while support for storage restrictions remains positive but imprecisely estimated.

We now turn to persistence for the NLFA information treatments (Table 6).

The *Non-Lethal Firearm Information and Endorsement* treatment shows broader and stronger persistence than information alone, especially for NLFA-related beliefs and behaviors (replacement beliefs, incapacitate-not-kill preferences, purchase interest, and positive WTP). Policy support for NLFA alternatives remains positive in follow-up and is statistically stronger under endorsement. Appendix Table A-40 shows stronger persistence in the low-prior subgroup, consistent with larger first-stage effects in that group.

Table 5: Persistence of the Treatment Effects of the Private Costs of Lethal Firearms Treatment on All Respondents

	Lethal firearm owners			Non-owners		
	Main (all)	Main (FU only)	Follow-up (all)	Main (all)	Main (FU only)	Follow-up (all)
Panel A. Beliefs and behaviors related to LFAs						
Worried about arrest	0.21***	0.21***	0.15***	0.27***	0.25***	0.09**
	(0.06)	(0.06)	(0.06)	(0.04)	(0.05)	(0.05)
Worried family use	0.04	0.03	0.00	0.16***	0.14***	0.01
	(0.05)	(0.06)	(0.05)	(0.05)	(0.05)	(0.05)
Willing to reduce number of guns	0.04	0.04	-0.00	-	-	-
	(0.05)	(0.06)	(0.06)	-	-	-
Less willing to purchase another LFA	0.14	0.09	-0.08	-0.00	-0.04	-0.06
	(0.11)	(0.11)	(0.11)	(0.09)	(0.09)	(0.09)
Positive WTP for a Safe	0.02	0.04	-0.00	-	-	-
	(0.03)	(0.03)	(0.03)	-	-	-
Willing to keep LFA locked if had NLFA	0.19**	0.18**	0.05	-	-	-
	(0.07)	(0.08)	(0.08)	-	-	-
Will. to participate in a gun buyback program	-0.19*	-0.15	-0.22**	-	-	-
	(0.10)	(0.10)	(0.10)	-	-	-
Panel B. Beliefs and behaviors related to NLFA						
Believes it is a good replacement	0.04	0.03	-0.05	-	-	-
	(0.06)	(0.06)	(0.06)	-	-	-
Prefer to incapacitate, not kill	0.02	0.05	-0.05	-	-	-
	(0.07)	(0.07)	(0.07)	-	-	-
Interested in purchasing a NLFA	-0.09	-0.07	-0.08	-	-	-
	(0.11)	(0.12)	(0.11)	-	-	-
Positive WTP for NLFA	-0.02	-0.01	0.01	-	-	-
	(0.02)	(0.02)	(0.02)	-	-	-
Panel C. Policy views related to NLFAs						
Support for NLFA Alternatives Index	0.03	0.01	-0.05	0.15***	0.14***	0.08*
	(0.05)	(0.06)	(0.06)	(0.04)	(0.05)	(0.04)
Panel D. Policy views related to LFAs						
Prohibiting Purchases Index	0.03	0.03	-0.04	0.05	0.05	0.05
	(0.05)	(0.06)	(0.06)	(0.04)	(0.04)	(0.04)
Support for Rules for Buying Index	0.02	0.02	0.02	0.06	0.05	-0.00
	(0.05)	(0.06)	(0.06)	(0.04)	(0.04)	(0.04)
Support for Storage and Safety Index	0.13***	0.15***	0.08	0.09**	0.07*	0.07
	(0.05)	(0.05)	(0.05)	(0.04)	(0.04)	(0.04)
Opposition to Carry in Schools	-0.02	-0.05	-0.09	-0.04	-0.05	-0.06
	(0.05)	(0.06)	(0.05)	(0.04)	(0.04)	(0.04)
Support for Concealed Carry Regulations Index	0.02	0.06	0.02	0.05	0.04	0.01
	(0.05)	(0.06)	(0.06)	(0.04)	(0.04)	(0.04)
Support for Restrictions on High-Capacity LF	-0.04	0.01	0.03	0.02	0.02	0.01
	(0.05)	(0.06)	(0.06)	(0.04)	(0.04)	(0.04)

Notes: This table presents the results of Equations 2 and 3, with the following control variables: age, gender, political affiliation, income, race. Each treatment group is reported under three cases: Main: Results based on responses from all participants of the main survey (LFAO N = 2,984; NO N = 2,215). Main (FU only): Results based on main survey data using responses from participants who took the follow-up survey (LFAO N = 2,561; NO N = 1,974). Follow-up: Results based on responses from the follow-up survey (LFAO N = 2,561; NO N = 1,974). Coefficients represent the estimated effects of the respective treatments on the specified outcomes. The following variables are standardized: Opposition to Carry in Schools and Support for Restrictions on High-Capacity LFAs. Positive Willingness to Pay for Byrna and Positive Willingness to Pay for a Safe are binary variables. Robust standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Discussion. Given the fairly universal concern for safety among respondents, providing information about a non-lethal alternative seems to strike a chord.[20] Our descriptives in Section 3 suggest that many people lack knowledge of or otherwise neglect NLFAs and providing salient information on these alternatives might fill this gap. When layered with an endorsement by someone who shares concerns for safety and a professed love for LFAs (Sean Hannity), this information seems to be even more effective. Many gun owners appear open to safer ways of achieving safety.[21]

[20] We explored heterogeneity in multiple dimensions, across geography (rural vs. urban) across partisan leaning, across number of firearms and across media consumption. For the most part, effects were not significantly different across any of these splits.

[21] Consistent with this overall desire to be safe, none of the treatments generated backlash, even by political leaning. This can be better understood in light of the statistics mentioned in Section 2, namely that participants were not significantly more likely to perceive the survey as being biased as a function of the treatment arm they were randomized in.

Table 6: Persistence of the Treatment Effects of Providing Information on Non-Lethal Firearms on LFAO, With and Without Endorsement

	NLFA Information			NLFA Information + Endorsement		
	Main (all)	Main (FU only)	Follow-up (all)	Main (all)	Main (FU only)	Follow-up (all)
Panel A. Beliefs and behaviors related to LFAs						
Worried about arrest	-0.01	0.02	-0.01	-0.01	-0.00	0.00
	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)
Worried family use	0.04	0.04	-0.01	0.10*	0.12*	0.04
	(0.05)	(0.06)	(0.05)	(0.05)	(0.06)	(0.05)
Willing to reduce number of guns	-0.02	-0.03	0.02	-0.00	-0.01	0.02
	(0.05)	(0.06)	(0.06)	(0.05)	(0.05)	(0.05)
Less willing to purchase another LFA	0.15	0.11	0.06	0.05	0.01	0.01
	(0.11)	(0.12)	(0.11)	(0.11)	(0.12)	(0.11)
Positive WTP for a Safe	0.01	0.01	0.01	-0.01	0.00	0.01
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Willing to keep LFA locked if had NLFA	0.18**	0.16**	0.03	0.18**	0.19**	0.10
	(0.07)	(0.08)	(0.08)	(0.07)	(0.08)	(0.08)
Will. to participate in a gun buyback program	-0.25**	-0.23**	-0.24**	-0.03	0.01	-0.03
	(0.10)	(0.10)	(0.10)	(0.10)	(0.11)	(0.11)
Panel B. Beliefs and behaviors related to NLFAs						
Believes it is a good replacement	0.27***	0.27***	0.09	0.31***	0.31***	0.11*
	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)
Prefer to incapacitate, not kill	0.24***	0.24***	0.09	0.30***	0.31***	0.16**
	(0.06)	(0.07)	(0.07)	(0.06)	(0.07)	(0.07)
Interested in purchasing a NLFA	0.73***	0.77***	0.36***	0.93***	0.98***	0.52***
	(0.11)	(0.12)	(0.11)	(0.11)	(0.12)	(0.11)
Positive WTP for NLFA	0.04*	0.04*	0.03	0.06**	0.07***	0.05**
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Panel C. Policy views related to NLFAs						
Support for NLFA Alternatives Index	0.16***	0.16***	0.09	0.23***	0.24***	0.12**
	(0.05)	(0.06)	(0.05)	(0.05)	(0.06)	(0.05)
Panel D. Policy views related to LFAs						
Prohibiting Purchases Index	0.00	-0.00	-0.06	0.02	0.02	-0.02
	(0.05)	(0.06)	(0.06)	(0.05)	(0.06)	(0.06)
Support for Rules for Buying Index	-0.04	-0.04	-0.03	0.08	0.09	0.07
	(0.05)	(0.06)	(0.06)	(0.05)	(0.06)	(0.06)
Support for Storage and Safety Index	0.04	0.03	0.02	0.09*	0.09*	0.08
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)
Opposition to Carry in Schools	-0.04	-0.05	-0.11**	0.05	0.04	-0.01
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)
Support for Concealed Carry Regulations Index	-0.01	-0.00	-0.05	0.00	-0.00	0.01
	(0.05)	(0.06)	(0.06)	(0.05)	(0.06)	(0.06)
Support for Restrictions on High-Capacity LF	-0.05	-0.06	-0.06	-0.07	-0.05	0.02
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.06)

Notes: This table presents the results of Equation 3, with the following control variables: age, gender, political affiliation, income and race. Each treatment group is reported under three cases: Main: Results based on responses from all participants of the main survey (LFAO N = 2,984). Main (FU only): Results based on main survey data using responses from participants who took the follow-up survey (LFAO N = 2,561). Follow-up: Results based on responses from the follow-up survey (LFAO N = 2,561). Coefficients represent the estimated effects of the respective treatments on the specified outcomes. The following variables are standardized: Opposition to Carry in Schools and Support for Restrictions on High-Capacity LFAs. Positive Willingness to Pay for Byrna and Positive Willingness to Pay for a Safe are binary variables. Robust standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

6 Discussion of Potential Policy Implications

We discuss three channels through which NLFA-oriented policies may matter: unmet demand for safer alternatives, direct harm-reduction effects, and shifts in policy views among current owners.

An unmet demand for non-lethal alternatives? Taken together, our descriptive and experimental findings suggest that some gun owners might neglect the existence of safer firearms and, thus, have a miscalibrated view of the safety possibilities frontier. Indeed, we find substantial effects of the information treatments on LFAO preferring weapons that incapacitate but do not kill, which suggests they might not have carefully considered such technologies. This could mean that such owners make choices implying a

greater acceptance of harms (to meet demand for protection) than they truly hold, and, consequently, place less pressure on manufacturers to develop safer alternatives than they otherwise would (following the logic in, e.g., Spence (1977)). If manufacturers lack either the ability or the incentive to calibrate LFAOs' views of the SPF, this potential market failure suggests a role for firearm policy not only to counteract externalities, but also to help lethal firearm owners fulfill their *own* demand for safety.

A natural question is why there is neglect of NLFAs. Why do those seeking protection from a distance not already know about, demand, and use NLFAs? It is possible that the LFA industry and interest groups oppose safer versions of firearms, while advertising, media, and video games often promote LFA usage (Emond et al., 2024).

What could be the quantitative welfare impact of a policy affecting demand for NLFAs among LFAO? We provide a coarse back-of-the-envelope calibration of one component of the welfare impact of our most effective treatment: the harm-reduction impact of the *Non-Lethal Firearm Information and Endorsement Treatment*.

This exercise is conservative in that policy-makers have access to more powerful instruments than information treatments[22] and people care about more than harm reduction, but necessarily requires several assumptions to translate survey-reported beliefs and behaviors to real-world outcomes.

A first question is whether promoting the adoption of NLFAs among LFAO leads to safer outcomes. Focusing on mortality, which is a major policy concern, the harm-reduction effects of the NLFA product are indeed designed to reduce the risk of death: if LFAO reach for an NLFA instead of a lethal option, this would mechanically reduce deaths. In addition, if LFAO store their lethal firearms more often, this could lead to fewer accidental lethal firearm deaths and perhaps suicides.[23] On the other hand, if individuals compensate for this risk by carrying their NLFA more often, possibly escalating situations, or if the product induces non-users who were otherwise uninterested in firearms to purchase an NLFA, then the net effects are more ambiguous (see Appendix A-5 for a formalization of this intuition).

Our estimates are suggestive of harm-reduction benefits of encouraging NLFA adoption. In our design, we were unable to advertise the NLFA to non-owners, but a substantial fraction of non-owners were already interested in lethal firearms (one-third). Because their stated reasons center on insecurity, an NLFA could meet their needs with less lethality. Regarding the potential for LFAO to carry NLFAs more often than a lethal substitute, with potential unintended consequences, we note that, in our sample, 57.8% reported being able to access their firearm immediately or within seconds, and 94.6% within minutes, suggesting many already had an unsecured lethal firearm nearby at all times.[24] Last, and most importantly, we see robust experimental evidence that LFAO are more willing to securely store their LFAs if they had an NLFA available.

This last effect could have sizable harm-reduction gains, as detailed in Appendix A-5. We focus on estimates of the treatment-induced increase in safe storage (e.g., locked firearms) from our most effective treatment, the *Non-Lethal Firearm Information and Endorsement Treatment*, and consider two outcomes for which the positive consequences of safe storage are well established in the public-health literature: school

[22]For example, gun buyback programs are a frequently used instrument that typically exchange guns for rewards "made in cash" (or "gift cards") and destroy the firearms, unlike policies that promote substitution toward less-lethal technologies (e.g., Byrna). Recent evidence, however, finds limited measurable effects on gun crime and firearm deaths (Ferrazares et al., 2025).

[23]Shenassa et al. (2004) found that individuals in households where firearms were stored locked were approximately 61% less likely to die by firearm suicide compared with those in households where firearms were stored unlocked (Odds ratio equal to 0.39, with a 95% CI of 0.24–0.66).

[24]Recent work by Donohue et al. (2024) suggests deterrence with a lethal firearm leads to more violent crime.

shootings and youth suicides. Here, the treatment-induced increase refers to changes in reported storage intentions conditional on having an NLFA, rather than observed changes in current storage practices. Taken at face value to give a rough sense of magnitudes, our calculations in Appendix A-5 suggest that promoting NLFAs could prevent up to 8% of school shootings and 7% of child firearm-related suicides and accidental deaths; these figures come from applying those intention changes within a hypothetical policy scenario that expands NLFA ownership.

Impact through changing policy views on LFAs. Another channel operates through policy views: beyond direct firearm-safety effects and indirect effects on beliefs to incapacitate not kill, policies promoting NLFA adoption may shift current owners' support for restrictions on lethal firearm ownership. Table 3 shows that the *Non-Lethal Firearm Information and Endorsement Treatment* leads to a significant increase in support for the *Rules for Buying Index*, particularly among those without prior knowledge of Byrna. Decomposing the *Rules for Buying Index*, we find positive and significant treatment effects on support for *Universal Background Checks*, *Permit Requirements*, and a *Federal Database for LFAO*. Such shifts are consistent with LFAO revising their views on the necessity of lethal force to be and feel safe.[25]

Increasing support for these policies could have life-saving implications. Several studies indicate that universal background checks (UBC) and permit-to-purchase laws can substantially reduce the probability of homicides and mass shootings. For instance, recent estimates suggest that UBC are associated with 10–20% lower homicide rates in the U.S. (Fridel, 2021; Knopov et al., 2019; Siegel et al., 2019). However, the evidence on firearm-related homicides remains mixed: some studies report significant reductions following UBC laws, while others find no effect or even increases. Recent research highlights the effectiveness of permit-to-purchase laws in reducing mass shootings and related fatalities. In particular, Siegel et al. (2020) and Webster et al. (2020) estimate that such laws are associated with a 60% and 56% reduction in the probability of mass shootings, respectively.

7 Conclusion

Personal ownership of firearms that have the capacity to kill others is a hotly debated political issue. It can even be difficult for a person who would never consider personal ownership to understand the motivations and views of a person who owns several such weapons, and vice versa. In this project, we have tried to uncover the motivations and reasoning behind decisions to own and, importantly, not to own firearms. Our descriptive findings indicate a common objective – safety – but substantial differences in perceived private and social harms across owners and non-owners.

Our experimental findings, which randomize respondents into different information groups and provide them with information on the private costs of ownership or on non-lethal firearm alternatives, suggest that at least part of the documented divide is related to differences in beliefs, specifically, in the safety possibilities frontier (SPF). The private-cost treatment raises concerns about legal and safety risks, but its downstream effects are narrower and generally less persistent. By contrast, information on NLFAs, especially with endorsement, more strongly shifts NLFA-related beliefs and behaviors and some policy views. Beliefs about the SPF appear malleable to information since firearm owners are open to revising their choices to incorporate non-lethal alternatives. They are more willing to store their LFAs safely and less willing to

[25] Such effects, if anticipated, may shed light on why the firearm industry has historically opposed safer versions of firearms (Appendix A-10). See also Baldwin et al. (2025) on strategic political contributions by pro-gun PACs following mass shootings.

acquire additional guns after seeing these treatments. However, the information provided is not powerful enough to lead them to reduce current LFA holdings.

Taken together, these patterns suggest that NLFA-oriented policies may work more as harm-reduction complements than as direct substitutes for lethal ownership. Such policies may help people satisfy their own demand for safety in less harmful ways.

There are many open questions that would be valuable to answer in future research. One set concerns market structure and political economy: if gun owners care so much about safety, why do so few know about and demand options like Byrna, and why do gun manufacturers have weak incentives to create safer guns?

A second set concerns belief formation and causality: do beliefs about the SPF impact gun ownership, or is it the other way around? The fact that interested non-owners' beliefs are similar to owners' beliefs suggests the former channel may be relevant. More broadly, what factors influence different views of the SPF across gun owners and non-gun owners, and what role do emotions and narratives play? These are important avenues for subsequent work.

Overall, our evidence suggests that even with a shared demand for safety, disagreement over firearms can persist because people perceive the safety possibilities frontier differently. However, there is latent common ground: people appear open to revising their views to accommodate less-lethal tools to be and feel safe.

References

Alatas, V., A. G. Chandrasekhar, M. Mobius, B. A. Olken, and C. Paladines (2024). Do Celebrity Endorsements Matter? A Twitter Experiment Promoting Vaccination in Indonesia. *The Economic Journal 134*(659), 913–933.

Allcott, H. and D. Taubinsky (2015). Evaluating behaviorally motivated policy: Experimental evidence from the lightbulb market. *American Economic Review 105*(8), 2501–2538.

Armona, L. and A. M. Rosenberg (2024). Second-best amendment: Market power and tax design in the firearms industry. *Unpublished manuscript. Harvard Kennedy School and Stanford University*.

Ayoob, M. (2011). Concealed Carry: Should You Carry a Back-Up Gun? Part 1 - Gun Digest.

Baldwin, E. A., T. Iwasaki, and J. J. Donohue (2025). Financial Firepower: School Shootings and the Strategic Contributions of Pro-Gun PACs. NBER Working Paper 33900, National Bureau of Economic Research.

Berrigan, J., D. Azrael, and M. Miller (2022). The Number and Type of Private Firearms in the United States. *The ANNALS of the American Academy of Political and Social Science 704*(1), 70–90.

Boine, C., M. Siegel, and A. Maiga (2022). The effectiveness of value-based messages to engage gun owners on firearm policies: a three-stage nested study. *Injury Epidemiology 9*(30).

Bollman, K., B. Hansen, E. A. Rubin, and G. O. Stanford (2025). Gun policy and the steel paradox: Evidence from oregunians. Working Paper 33360, National Bureau of Economic Research.

Bordalo, P., J. J. Conlon, N. Gennaioli, S. Kwon, and A. Shleifer (2023). How people use statistics. Technical report, National Bureau of Economic Research.

Bordalo, P., N. Gennaioli, G. Lanzani, and A. Shleifer (2025). A cognitive theory of reasoning and choice. Technical report, National Bureau of Economic Research.

Bordalo, P., N. Gennaioli, and A. Shleifer (2022). Salience. *Annual Review of Economics 14*(1), 521–544.

Bureau of Alcohol, Tobacco, Firearms and Explosives (1976). ATF Rul. 76-6: Tasers as Firearms. Technical Report ATF Rul. 76-6, Bureau of Alcohol, Tobacco, Firearms and Explosives.

Burton, A. L., M. W. Logan, J. T. Pickett, F. T. Cullen, C. L. Jonson, and V. S. Burton Jr (2021). Gun owners and gun control: Shared status, divergent opinions. *Sociological inquiry 91*(2), 347–366.

Byrna Technologies Inc. (2019). Security Devices International Kicks off Byrna™ HD Sales with the Launch of New E-Commerce Store. Accessed December 3, 2025. Available at https://ir.byrna.com/news-events/press-releases/detail/74/security-devices-international-kicks-off-byrna-hd-sales.

Byrna Technologies Inc. (2020). Security Devices International Changes Name to Byrna Technologies Inc. Accessed December 3, 2025. Available at https://ir.byrna.com/news-events/press-releases/detail/79/security-devices-international-changes-name-to-byrna.

Byrna Technologies Inc. (2025a). Byrna Technologies Named in Forbes' America's Most Successful Small-Cap Companies List. Accessed November 19, 2025. Available at https://ir.byrna.com/news-events/press-releases/detail/232/byrna-technologies-named-in-forbes-americas-most.

Byrna Technologies Inc. (2025b). Byrna Technologies Partners with USCCA to Promote Less-Lethal Self-Defense Solutions. Accessed November 12, 2025. Available at https://ir.byrna.com/news-events/press-releases/detail/213/byrna-technologies-partners-with-uscca-to-promote.

Cavataro, B. L. (2024). Regulating guns as products. *Geo. Wash. L. Rev. 92*, 87. Publisher: HeinOnline.

Centers for Disease Control and Prevention, National Center for Health Statistics (2024). National Vital Statistics System, Mortality 2018–2023 on CDC WONDER Online Database. [Internet] Accessed Sep 23, 2025. Available from http://wonder.cdc.gov/mcd-icd10-expanded.html.

Civilian Tactical (2023). Why YOU Should Own DUPLICATE Handguns! (more logical than you think!) - YouTube. Accessed December 08, 2025. Available from https://www.youtube.com/shorts/a4S3YqpB9lE.

Cook, P. J., M. Jeuland, and J. Ludwig (2025). Valuing the benefits of reducing firearm violence in the united states. *Proceedings of the National Academy of Sciences 122*(4), e2419864122.

Cook, P. J. and J. Ludwig (1996). *Guns in America: Results of a Comprehensive National Survey on Firearms Ownership and Use*. Police Foundation Washington, DC.

Cook, P. J. and J. Ludwig (2006). The social costs of gun ownership. *Journal of Public Economics 90*(1), 379–391.

Craig, L. E. (2005). Protection of Lawful Commerce in Arms Act. Archive Location: 2005-02-16.

Creighton, K. (2023). An Official Journal Of The NRA | Get Back In The Action: The New York Reload. https://www.shootingillustrated.com/content/get-back-in-the-action-the-new-york-reload/.

Davison, N. (2009). The Early History of 'Non-Lethal' Weapons. In *'Non-Lethal' Weapons*, Global Issues Series, pp. 12–39. London: Palgrave Macmillan UK.

Dixon, G., K. Garrett, M. Susmann, and B. J. Bushman (2020). Public opinion perceptions, private support, and public actions of us adults regarding gun safety policy. *JAMA network open 3*(12), e2029571–e2029571.

Donohue, J. J., A. Oktay, A. L. Zhang, and M. Benavides (2024). Does Defensive Gun Use Deter Crime? Working Paper 32108, National Bureau of Economic Research.

Emond, J. A., J. Chester, J. Noel, J.-P. Allem, B. J. Bushman, B. Primack, and J. D. Sargent (2024). Alcohol, Tobacco, and Firearm Promotion in Digital Media: Corporate Influences on Adolescent Health. In *Handbook of Children and Screens: Digital Media, Development, and Well-Being from Birth Through Adolescence*, pp. 91–99. Springer Nature Switzerland Cham.

Everytown Research & Policy (2023). The Gun Industry's Power Broker: A Closer Look at the National Shooting Sports Foundation (NSSF), the Front Group for America's Gun Makers and Sellers. Technical report. Accessed December 4, 2025. Available at https://everytownresearch.org/report/the-gun-industrys-power-broker-nssf/.

Farhi, E. and X. Gabaix (2020). Optimal taxation with behavioral agents. *American Economic Review 110*(1), 298–336.

FBI (2025). NICS Firearm Background Checks: 1999-2025. Federal Bureau of Investigation. Available at https://www.fbi.gov/file-repository/cjis/nics_firearm_checks_-_month_year.pdf/view. Accessed: 2025-12-03.

Federal Bureau of Investigation (2025). Uniform Crime Reporting (UCR) Program. Available at: https://ucr.fbi.gov. U.S. Department of Justice. Accessed September 8, 2025.

Ferrazares, T., J. J. Sabia, and D. M. Anderson (2025). Have U.S. gun buyback programs misfired? *Journal of Policy Analysis and Management 44*(4), 1211–1249.

Fitzgerald, S. (2025). Law Enforcement Innovate to De-Escalate Act. Technical Report H. Rept. 118-917 (pt.1), U.S. Government Publishing Office. Archive Location: 2023/2024.

Fridel, E. E. (2021). The futility of shooting down strawmen: A response to Kleck (2020). *Justice quarterly 38*(5), 925–941.

Gabaix, X. (2014). A sparsity-based model of bounded rationality. *The Quarterly Journal of Economics 129*(4), 1661–1710.

Gallup (2025). Guns. *Gallup Historical Trends*. Accessed February 20, 2026. Available at: https://news.gallup.com/poll/1645/Guns.aspx.

Gerhart, A. and C. Alcantara (2018). How the NRA transformed from marksmen to lobbyists. *Washington Post*. Accessed November 19, 2025. Available at https://www.washingtonpost.com/graphics/2018/national/gun-control-1968/.

Goldschmidt, Debra, J. C. (2018). Is the return of federal gun research near? Accessed December 4, 2025. Available at https://www.cnn.com/2018/03/23/health/gun-research-cdc.

Gresham, M. and S. Demuth (2020). Who Owns a Handgun? An Analysis of the Correlates of Handgun Ownership in Young Adulthood. *66*(4), 541–571.

Grossman, D. C., B. A. Mueller, C. Riedy, M. D. Dowd, A. Villaveces, J. Prodzinski, J. Nakagawara, J. Howard, N. Thiersch, and R. Harruff (2005). Gun storage practices and risk of youth suicide and unintentional firearm injuries. *JAMA : the journal of the American Medical Association 293*(6), 707–714.

Handel, B. and J. Schwartzstein (2018). Frictions or mental gaps: What's behind the information we (don't) use and when do we care? *Journal of Economic Perspectives 32*(1), 155–178.

Ho, T. Q., Z. Nie, F. Alpizar, F. Carlsson, and P. K. Nam (2022). Celebrity endorsement in promoting pro-environmental behavior. *Journal of Economic Behavior & Organization 198*, 68–86.

Hoch, E., A. Nabel, A. R. Morral, T. L. Schell, and S. Smucker (2025). *Development of the RAND State Firearm Law Database and Supporting Materials*. Santa Monica, CA: RAND Corporation.

Horman, B. G. (2020). An Official Journal Of The NRA | The Back-Up Gun: 3 Reasons To Carry One. https://www.americanrifleman.org/content/the-back-up-gun-3-reasons-to-carry-one/.

Kelley, M. S. and C. G. Ellison (2021). Who Might Buy a Gun? Results from the Guns in American Life Survey. *Sociological Inquiry 91*(2), 455–482.

Kim, R., E. D. Wagner, P. S. Nestadt, N. Somayaji, J. Horwitz, and C. K. Crifasi (2025). Gun Violence in the United States 2023: Examining the Gun Suicide Epidemic. Johns Hopkins Center for Gun Violence Solutions, Johns Hopkins Center for Suicide Prevention. Johns Hopkins Bloomberg School of Public Health.

Kleck, G. and T. Kovandzic (2009). City-level characteristics and individual handgun ownership: Effects of collective security and homicide. *Journal of Contemporary Criminal Justice 25*(1), 45–66.

Kling, J. R., J. B. Liebman, and L. F. Katz (2007). Experimental analysis of neighborhood effects. *Econometrica 75*(1), 83–119.

Knight, B. (2013). State gun policy and cross-state externalities: Evidence from crime gun tracing. *American Economic Journal: Economic Policy 5*(4), 200–229.

Knopov, A., M. Siegel, Z. Xuan, E. F. Rothman, S. W. Cronin, and D. Hemenway (2019). The impact of state firearm laws on homicide rates among black and white populations in the united states, 1991–2016. *Health & Social Work 44*(4), 232–240.

Kopel, D. B. (2011). The Great Gun Control War of the Twentieth Century-and Its Lessons for Gun Laws Today. *Fordham Urb. LJ 39*, 1527. Publisher: HeinOnline.

Levin, S. (2016). Smart guns: could fingerprint technology solve America's shooting deaths? *The Guardian*. Accessed December 9, 2025. Available at https://www.theguardian.com/technology/2016/feb/24/personalized-smart-guns-biometric-access-fingerprints-gun-control.

Luca, M., D. Malhotra, and C. Poliquin (2020). The impact of mass shootings on gun policy. *Journal of Public Economics 181*, 104083.

MacBride, E. (2018). 5 Reasons Gun Companies Oppose Higher-Tech Guns. Accessed December 4, 2025. Available at https://www.forbes.com/sites/elizabethmacbride/2018/11/29/from-the-industry-perspective-5-reasons-to-oppose-higher-tech-guns/.

Mansnerus, L. (2002). 'Smart Gun' Measure Wins Approval in New Jersey Senate. *The New York Times*. Accessed November 12, 2025. Available at https://www.nytimes.com/2002/12/17/nyregion/smart-gun-measure-wins-approval-in-new-jersey-senate.html.

Metz, D. (2021). Brief History of the Evolutions of Counter-Personnel Non-Lethal Weapons. Accessed November 12, 2025. Available at https://dsiac.dtic.mil/articles/brief-history-of-the-evolutions-of-counter-personnel-non-lethal-weapons/.

Modan, N. and K. Arundel (2023). Another record high: Counting school shootings in 2023 | K-12 Dive. [Internet] Accessed September, 2025. Available from https://www.k12dive.com/news/2023-total-school-mass-shootings/703007/.

Moshary, S., B. T. Shapiro, and S. Drango (2025). Preferences for firearms. *American Economic Review: Insights (Forthcoming)*.

Mullainathan, S., J. Schwartzstein, and W. J. Congdon (2012). A reduced-form approach to behavioral public finance. *Annual Review of Economics 4*(1), 511–540.

New Jersey Legislature (2002). P.L. 2002, c.130.

Nielsen, E. (2004). Taser International X26. *Law and Order 52*(10), 118–120, 122, 124.

NORC (2024). General Social Survey Data Explorer (GSS 1972–2024). Accessed November, 2025. Available from https://gssdataexplorer.norc.org/.

NRA-PVF (2005, October). Historic Victory for NRA U.S. House of Representatives Passes the "Protection of Lawful Commerce in Arms Act". Accessed December 4, 2025. Available at https://www.nrapvf.org/articles/20051020/historic-victory-for-nra-us-house-of-representatives-passes-the-protection-of-lawful-commerce-in-arms-act.

Office of the United Nations High Commissioner for Human Rights (2020). Guidance on less-lethal weapons in law enforcement. Technical report, United Nations.

Peterson, J. (2021). A multi-level, multi-method investigation of the psycho-social life histories of mass shooters. *US Department of Justice, Office of Justice Programs*.

President's Commission on Law Enforcement and Administration of Justice (1967, August). The Challenge of Crime in a Free Society. Technical Report NCJ 42, U.S. Government Printing Office.

Rosenberg, A. (2024). Gun-use regulation and firearm mortality: Evidence from deer hunting season. *Unpublished manuscript. Stanford University*.

Rosenberg, A. M. (2025). Regulating firearm markets: Evidence from california. *Unpublished manuscript. Stanford University*.

Rostron, A. (2018). The Dickey Amendment on Federal Funding for Research on Gun Violence: A Legal Dissection. *American Journal of Public Health 108*(7), 865–867.

Schaeffer, K. (2024). Key facts about Americans and guns. Available from https://www.pewresearch.org/short-reads/2024/07/24/key-facts-about-americans-and-guns/.

Selk, A. (2018). A gunmaker once tried to reform itself. The NRA nearly destroyed it. *Washington Post*. Accessed November 19, 2025. Available at https://www.proquest.com/docview/2008755599?_oafollow=false&pq-origsite=primo&sourcetype=Blogs,%20Podcasts,%20&%20Websites.

Shavell, S. (1984). Liability for harm versus regulation of safety. *The Journal of Legal Studies 13*(2), 357–374.

Shenassa, E. D., M. L. Rogers, K. L. Spalding, and M. B. Roberts (2004). Safer storage of firearms at home and risk of suicide: a study of protective factors in a nationally representative sample. *Journal of Epidemiology & Community Health 58*(10), 841–848.

Siegel, M., M. Goder-Reiser, G. Duwe, M. Rocque, J. A. Fox, and E. E. Fridel (2020). The relation between state gun laws and the incidence and severity of mass public shootings in the united states, 1976–2018. *Law and human behavior 44*(5), 347.

Siegel, M., M. Pahn, Z. Xuan, E. Fleegler, and D. Hemenway (2019). The impact of state firearm laws on homicide and suicide deaths in the usa, 1991–2016: a panel study. *Journal of general internal medicine 34*(10), 2021–2028.

Sipos, C. C. (2002). The Disappearing Settlement: The Contractual Regulation of Smith & (and) Wesson Firearms. *Vand. L. Rev. 55*, 1297. Publisher: HeinOnline.

Smyth, F. (2020). *The NRA: The Unauthorized History*. Macmillan + ORM.

Spence, M. (1977). Consumer misperceptions, product failure and producer liability. *The Review of Economic Studies 44*(3), 561–572.

Susmann, M. W., G. N. Dixon, B. J. Bushman, and R. K. Garrett (2022). Correcting misperceptions of gun policy support can foster intergroup cooperation between gun owners and non-gun owners. *PLoS one 17*(6), e0268601.

U.S. Consumer Product Safety Commission (2011). Consumer Product Safety Act. Technical report.

U.S. Department of Agriculture, Economic Research Service (2025). 2020 Rural-Urban Commuting Area Codes. Accessed November, 2025. Available from https://www.ers.usda.gov/data-products/rural-urban-commuting-area-codes.

U.S. Department of Defense (2012). DoD Instruction 3200.19: Non-Lethal Weapons (NLW) Human Effects Characterization Incorporating Change 2, August 31, 2018. Technical Report DoD Instruction 3200.19.

Viscusi, W. K. (1983). *Risk by choice: Regulating health and safety in the workplace*. Harvard University Press.

Warner, T. D. and T. Steidley (2022). Some fear, more loathing? Threats and anxieties shaping protective gun ownership and gun carry in the U.S. *Journal of Crime and Justice 45*(4), 484–505.

Webster, D. W., A. D. McCourt, C. K. Crifasi, M. D. Booty, and E. A. Stuart (2020). Evidence concerning the regulation of firearms design, sale, and carrying on fatal mass shootings in the united states. *Criminology & Public Policy 19*(1), 171–212.

Williams, M. (2024). The Failed Promise of Gun Legislation: The Assault Weapons Ban and Sandy Hook. *Honor Scholar Theses*. 229, Scholarly and Creative Work from DePauw University.

Yamane, D. (2022). Gun culture 2.0: The evolution and contours of defensive gun ownership in america. *The ANNALS of the American Academy of Political and Social Science 704*(1), 20–43.

Yamane, D., S. L. Ivory, and P. Yamane (2018). The rise of self-defense in gun advertising: the american rifleman, 1918–2017. In *Gun Studies*, pp. 9–27. Routledge.

Online Appendix for

The Universal Pursuit of Safety and the Demand for (Lethal, Non-Lethal or No) Guns

by Marcella Alsan, Joshua Schwartzstein and Stefanie Stantcheva

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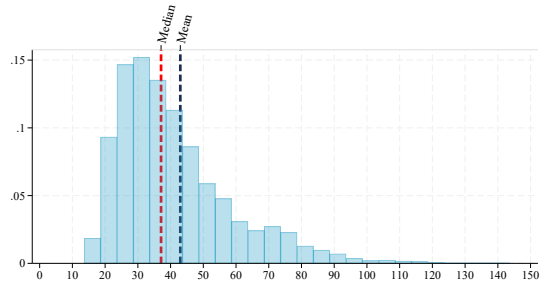
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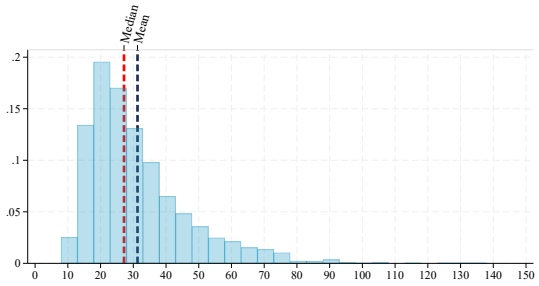
A-1 Survey and sample information

Figure A-1: Survey Duration in Minutes

(a) Survey Duration for Lethal firearm owners



(b) Survey Duration for Non-owners



Notes: Panel A displays the distribution of survey completion times among lethal firearm owners. The x-axis represents the survey duration in minutes, while the y-axis indicates the fraction of lethal firearm owners who completed the main survey within each time interval. The figure includes vertical dashed lines marking the median (red) and mean (blue) survey durations. Panel B presents the distribution of survey completion times for non-owners. The x-axis represents the survey duration in minutes, and the y-axis shows the fraction of non-owners who completed the main survey within each interval. As in Panel A, the mean and median survey durations are highlighted with blue and red dashed lines, respectively.

Table A-1: Survey Participants Attrition (I)

	Lethal firearm owners	Non-owners	Total
Participants who started survey	3,391	2,557	5,948
Don't agree to take firearm survey	0.35%	0.47%	0.40%
Failed either of two attention checks in firearm survey			
At start of survey	5.51%	7.55%	6.39%
After treatment	3.95%	3.83%	3.90%
Drop out voluntarily			
Before Treatment	1.65%	1.21%	1.46%
After Treatment	0.53%	0.31%	0.44%
Total Completion	88.00%	86.62%	87.41%

Notes: This table presents participant completion rates for lethal firearm owners and non-owners throughout the survey process. It details the number of participants who have started the survey (following the screener) and the different reasons for exclusion or dropout at various stages. It excludes those who were screened out due to reasons such as them not meeting the age requirements, having invalid prolific ids, duplicates, non-citizens. Don't agree to take firearm survey: Participants who did not provide consent at a later stage, where they are informed of the survey topic. Failed either of two attention checks: Participants removed due to failing either of the two attention checks in the survey. Drop out voluntarily: Before Treatment: Participants who left the survey voluntarily before receiving any treatment. After Treatment: Participants who dropped out voluntarily after being randomly assigned to a treatment arm. Total Completion: The percentage of participants who fully completed the survey after passing all checks. The difference of 164 observations between the total number of participants who started the survey and the sum of lethal firearm owners and non-owners is due to individuals who dropped out before answering any of the questions used to determine gun ownership status.

Table A-2: Survey Participants Attrition (II)

	Don't consent	Attention Check	Drop out voluntarily		Completes
			Before treat.	After treat.	
	(1)	(2)	(3)	(4)	(5)
Lethal firearm owner	-0.000	-0.013	0.006	0.002	0.005
	(0.002)	(0.009)	(0.004)	(0.002)	(0.010)
Male	0.003	0.013	-0.004	0.000	-0.012
	(0.002)	(0.008)	(0.003)	(0.002)	(0.009)
White	-0.001	-0.015	-0.003	-0.008**	0.027*
	(0.002)	(0.010)	(0.004)	(0.003)	(0.011)
Age 30-49	-0.004	-0.027*	-0.002	0.002	0.031*
	(0.003)	(0.011)	(0.004)	(0.002)	(0.012)
Age 50-64	-0.005	-0.043***	-0.003	0.002	0.048***
	(0.003)	(0.012)	(0.005)	(0.002)	(0.013)
Income 40,000 - 100,000	-0.002	-0.020	-0.003	0.001	0.023
	(0.002)	(0.011)	(0.004)	(0.002)	(0.012)
Income 100,000+	-0.000	-0.019	-0.001	0.001	0.020
	(0.002)	(0.011)	(0.004)	(0.002)	(0.012)
East/Northeast	0.001	0.010	0.003	0.003	-0.017
	(0.003)	(0.013)	(0.005)	(0.003)	(0.015)
South	-0.001	-0.006	-0.002	0.003	0.006
	(0.002)	(0.010)	(0.004)	(0.002)	(0.011)
West	0.001	-0.010	0.001	0.001	0.007
	(0.003)	(0.012)	(0.005)	(0.002)	(0.013)
Democrat	0.001	-0.021*	-0.005	-0.002	0.028*
	(0.002)	(0.010)	(0.004)	(0.002)	(0.011)
Independent	-0.000	-0.003	-0.004	-0.003	0.010
	(0.002)	(0.009)	(0.004)	(0.002)	(0.010)
Observations	5948	5948	5948	5948	5948

Notes: This table presents the results of a regression model analyzing the relationship between individual characteristics and survey dropout at different stages. The dependent variables include: Don't Consent (Column 1): Participants who did not provide consent at a later stage, where they are informed of the survey topic. Attention Check (Column 2): Indicator for participants who failed the attention check. Dropped out voluntarily before treatment (Column 3): Indicator for participants who dropped out before reaching the treatment stage. Dropped out voluntarily after treatment (Column 4): Indicator for participants who dropped out after being randomly assigned to a treatment. Completed Survey (Column 5): Indicator for participants who successfully completed the entire survey. Each column reports the coefficient estimates from separate regressions, where the dependent variable corresponds to each drop out stage, and the independent variables include demographic and socioeconomic characteristics, with the following categories: Race/Ethnicity: Non-white (baseline), White. Gender: Female (baseline), Male. Age Group: 18-29 (baseline), 30-49, 50-64. Household Income: Below $40,000 (baseline), $40,000–$100,000, Over $100,000. Region: Midwest (baseline), East/Northeast, South, West. Political Affiliation: Republican (baseline), Democrat, Independent. Personal Gun Ownership Status: Non-owner (baseline), Lethal firearm owner. Robust standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A-3: Follow-up Survey Participants Attrition

	Follow-up Complete
	(1)
Personal Cost Non-Owners	0.003
	(0.014)
Personal Cost Lethal Firearm Owners	-0.040*
	(0.020)
NLFA Information	0.004
	(0.018)
NLFA Information + Endorsement	0.001
	(0.018)
Lethal Firearm Owners	-0.026
	(0.017)
Male	-0.024*
	(0.010)
White	0.048***
	(0.013)
30-49 years old	0.051***
	(0.014)
50-64 years old	0.056***
	(0.015)
Income 40,000 - 100,000	0.020
	(0.012)
Income 100,000+	-0.022
	(0.013)
East/Northeast	0.016
	(0.016)
South	0.001
	(0.013)
West	0.015
	(0.015)
Democrat	0.021
	(0.013)
Independent	0.032**
	(0.012)
Other	-0.010
	(0.041)
Non-affiliated	0.024
	(0.027)
Observations	5199

Notes: This table presents the results of a regression model analyzing the relationship between individual characteristics and follow-up survey completion. The dependent variable is an indicator for participants who completed the follow-up survey. The independent variables include demographic, socioeconomic and experimental characteristics, with the following categories: Race/Ethnicity: Non-white (baseline), White. Gender: Female (baseline), Male. Age Group: 18-29 (baseline), 30-49, 50-64. Household Income: Below $40,000 (baseline), $40,000–$100,000, Over $100,000. Region: Midwest (baseline), East/Northeast, South, West. Political Affiliation: Republican (baseline), Democrat, Independent, Other, Non-affiliated. The model also controls for the experimental group assigned in the main survey. Robust standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A-4: Correlation between Self-Reported policy views and Real-stakes questions on Lethal Firearms

	Donations		Petitions	
	Gun Safety	2nd Amendment	Limit LF	Uphold LF right
Panel A: Lethal firearm owners	(1)	(2)	(3)	(4)
Prohibiting Purchases Index	0.699	-1.286	0.072***	-0.040**
	(0.633)	(0.808)	(0.018)	(0.018)
Support for Rules for Buying Index	3.315***	-1.239	0.178***	-0.077***
	(0.474)	(0.927)	(0.014)	(0.019)
Support for Storage and Safety Index	4.642***	0.736	0.212***	-0.051***
	(0.639)	(0.730)	(0.015)	(0.019)
Opposition to Carry in Schools	1.377**	-1.608**	0.138***	-0.097***
	(0.623)	(0.681)	(0.019)	(0.019)
Support for Concealed Carry Regulations Index	2.132***	-1.638**	0.161***	-0.129***
	(0.601)	(0.708)	(0.015)	(0.018)
Support for Restrictions on High-Capacity LF	2.892***	-0.201	0.185***	-0.087***
	(0.644)	(0.748)	(0.017)	(0.019)
Observations	744	742	744	744
Panel B: Non-owners				
Prohibiting Purchases Index	-0.919	-1.878***	0.057***	-0.021
	(0.671)	(0.479)	(0.015)	(0.015)
Support for Rules for Buying Index	1.324***	-2.106***	0.148***	-0.062***
	(0.496)	(0.632)	(0.013)	(0.017)
Support for Storage and Safety Index	1.086*	-1.093*	0.153***	-0.056***
	(0.609)	(0.569)	(0.014)	(0.016)
Opposition to Carry in Schools	1.399**	-1.674***	0.120***	-0.105***
	(0.632)	(0.489)	(0.015)	(0.015)
Support for Concealed Carry Regulations Index	1.066	-2.317***	0.143***	-0.135***
	(0.663)	(0.490)	(0.014)	(0.014)
Support for Restrictions on High-Capacity LF	1.338**	-2.431***	0.106***	-0.072***
	(0.567)	(0.496)	(0.015)	(0.015)
Observations	1085	1077	1085	1085

Notes: This table presents the correlations between participants' real-stakes behaviors (donations and petitions) and each policy views index on lethal firearms, estimated one at a time. Donations: Correlations with amounts allocated to Gun Safety and Second Amendment organizations. Petitions: Correlations with responses to petitions supporting limiting lethal firearms ownership (Limit LFA) and upholding firearms rights (Uphold LFA right). Regressions include controls for age, income, education, political affiliation, race, and gender. Estimates were obtained using a weighted sample to ensure a representative sample of the U.S. gun owner and non-gun owner populations. Robust standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A-5: Correlation between Self-Reported policy views and Real-stakes questions on Non-Lethal Firearms

	Petition promote NLF	Petition swap LF for NLF
Panel A: Lethal firearm owners		
Support for Non-Lethal Alternatives Index	0.254***	0.251***
	(0.013)	(0.014)
Observations	744	744
Panel B: Non-owners		
Support for Non-Lethal Alternatives Index	0.165***	0.158***
	(0.014)	(0.014)
Observations	1085	1085

Notes: This table reports the results of linear regressions estimating the correlation between the support for non-lethal firearm alternatives index and willingness to sign two real-stakes petitions to support NLFAs. Panel A presents results for lethal firearm owners and Panel B for non-owners. The first column "Petition promote NLFAs" measures support for a petition encouraging the promotion by the Federal Government of non-lethal self-defense tools. The second column "Petition swap LFAs for NLFAs" captures support for a petition to promote a swap program of lethal firearms for non-lethal alternatives. Petition responses are binary (1 = Yes, 0 = No). The Support for Non-Lethal Alternatives Index aggregates normalized responses to three policy questions on NLFA support. Regressions include controls for age, income, education, political affiliation, race, and gender. Estimates were obtained using a weighted sample to ensure a representative sample of the U.S. gun owner and non-gun owner populations. Robust standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A-6: Do you feel that this survey was biased?

	Control group	Cost info	Byrna info	Endorsement info
Not biased (%)	73	69	77	78
Left-wing biased (%)	24	29	21	18
Right-wing biased (%)	2	2	2	3
Observations	744	744	758	738

Notes: This table presents respondents' perceptions of the survey's political bias. Each column reports the percentage of participants with the treatment branch who viewed the survey as left-biased, right-biased, or not biased.

Table A-7: Sample composition of ownership groups

	NO	NO-U	NO-I	LFAO
Male	42%	42%	44%	68%
Female	56%	56%	54%	31%
White	67%	69%	62%	85%
African American/Black	17%	15%	20%	7%
Hispanic/Latino	6%	5%	8%	3%
Asian/Asian American	5%	5%	3%	1%
18-29 years old	29%	26%	34%	15%
30-49 years old	39%	39%	40%	50%
50-64 years old	32%	35%	26%	35%
Income 0-40,000	35%	33%	39%	13%
Income 40,000 - 100,000	31%	31%	33%	43%
Income 100,000+	33%	36%	28%	43%
Midwest	21%	20%	22%	24%
East/Northeast	20%	21%	16%	12%
South	36%	36%	35%	46%
West	24%	23%	26%	18%
Republican	19%	18%	21%	45%
Democrat	34%	39%	24%	20%
Independent	40%	36%	48%	32%
No child	71%	71%	70%	55%
1 or 2 children	26%	26%	25%	36%
3 or more children	4%	4%	4%	9%
State with minimum age restriction	46%	47%	45%	33%
State with stringent storage laws	68%	68%	66%	57%
State with stringent gun restrictions	51%	52%	49%	34%
Guardians regularly kept a firearm in the house	33%	30%	39%	67%
Owning guns very important in the family tradition	5%	4%	6%	20%
Urban area	89%	89%	90%	80%

Notes: This table presents the demographic composition of the different ownership groups in our sample. The percentages shown for each category are based on the unweighted shares in each respective ownership groups. The variable "State with minimum age restrictions" is a dummy indicating whether the state has minimum age restrictions to buy at least some types fo firearms. The variable "State with stringent storage law" is an indicator equal to 1 if the state's law is coded in the RAND State Firearm Law Database (Hoch et al., 2025) as "negligent storage" or "safe storage" law, and 0 otherwise (i.e., if only "intentional, reckless, or knowing provision" storage law is implemented or if no storage law is in effect). The variable "State with stringent gun restrictions" is a dummy equal to 1 if the state has a gun laws score greater than 30 in Everytown research ranking (https://everytownresearch.org/rankings/), and 0 otherwise. "Guardians regularly kept a firearm in the house" is an indicator for respondents who answered "regularly" to the question "Growing up, did any of your family members or guardians keep a gun in the house?". "Owning guns very important in the family tradition" is an indicator equal to 1 for respondents who answered "very" or "extremely" to the question "How important do you feel that owning guns is in your family tradition?". "Urban area" is a dummy defined at the ZIP code level, following the RUCA classification (U.S. Department of Agriculture, Economic Research Service, 2025), and is equal to 1 if their RUCA code is between 1 and 3, and 0 otherwise.

Table A-8: Balance Table LFAO

	Mean	Cost info	Byrna info	Endorsement	p-values		
	(1)	(2)	(3)	(4)	(2)-(3)	(2)-(4)	(3)-(4)
Male	0.735	0.001	-0.009	-0.026	0.667	0.249	0.466
		(0.023)	(0.023)	(0.023)			
Female	0.261	-0.004	0.008	0.025	0.609	0.210	0.454
		(0.022)	(0.022)	(0.023)			
White	0.879	-0.014	-0.003	-0.019	0.511	0.781	0.346
		(0.017)	(0.017)	(0.017)			
Non-white	0.121	0.014	0.003	0.019	0.511	0.781	0.346
		(0.017)	(0.017)	(0.017)			
18-29 years old	0.129	-0.001	0.001	0.009	0.915	0.574	0.648
		(0.017)	(0.017)	(0.017)			
30-49 years old	0.514	0.004	0.006	-0.006	0.935	0.696	0.635
		(0.027)	(0.027)	(0.027)			
50-64 years old	0.357	-0.003	-0.007	-0.002	0.876	0.975	0.851
		(0.026)	(0.026)	(0.026)			
Income 0-40,000	0.111	0.023	-0.012	-0.018	0.024	0.008	0.688
		(0.016)	(0.015)	(0.015)			
Income 40,000 - 100,000	0.357	0.025	0.022	0.028	0.904	0.901	0.805
		(0.025)	(0.025)	(0.025)			
Income 100,000+	0.532	-0.048	-0.010	-0.010	0.152	0.161	0.984
		(0.027)	(0.027)	(0.027)			
Midwest	0.299	-0.021	-0.038	-0.018	0.503	0.900	0.427
		(0.026)	(0.025)	(0.026)			
East/Northeast	0.076	0.016	-0.001	0.002	0.152	0.270	0.760
		(0.012)	(0.012)	(0.012)			
South	0.443	-0.001	0.031	-0.003	0.231	0.947	0.207
		(0.027)	(0.027)	(0.027)			
West	0.182	0.006	0.008	0.018	0.908	0.560	0.634
		(0.021)	(0.021)	(0.021)			
Republican	0.436	-0.046	-0.021	-0.044	0.324	0.925	0.373
		(0.026)	(0.026)	(0.026)			
Democrat	0.167	0.011	-0.001	0.008	0.527	0.874	0.636
		(0.019)	(0.019)	(0.019)			
Independent	0.363	0.035	0.012	0.047	0.392	0.682	0.205
		(0.027)	(0.027)	(0.027)			
Number of firearms	3.231	-0.058	0.046	0.081	0.198	0.090	0.678
		(0.078)	(0.081)	(0.082)			
Have safe/cabinet	0.733	-0.014	-0.028	-0.015	0.559	0.965	0.590
		(0.024)	(0.024)	(0.024)			
Knew Byrna	0.204	0.001	-0.006	0.002	0.757	0.939	0.700
		(0.022)	(0.022)	(0.022)			
Access immediately or in seconds	0.558	0.035	0.009	0.037	0.330	0.940	0.294
		(0.027)	(0.027)	(0.027)			
LFA family misuse concern	1.683	-0.025	0.014	0.048	0.468	0.192	0.548
		(0.054)	(0.054)	(0.056)			
LFA legal liability concern	2.208	0.088	0.052	-0.011	0.560	0.103	0.298
		(0.059)	(0.060)	(0.059)			
Not worried about legal concerns	0.374	-0.023	0.004	0.019	0.301	0.115	0.582
		(0.026)	(0.026)	(0.026)			

Notes: This table presents a balance check across demographic characteristics for lethal firearm owners, comparing the control and treatment groups (Cost information, yrna information, and Endorsement information). The demographic variables include: Gender: Male, Female. Race: White, Non-white. Age groups: 18-29, 30-49, 50-64. Income levels: Under $40,000, $40,000–$100,000, Over $100,000. Regions: Midwest, East/Northeast, South, West. Political affiliation: Republican, Democrat, Independent. Additionally, firearm-related characteristics include: Number of firearms owned, Ownership of a gun safe or cabinet, indicator for whether the respondent knew Byrna prior to the survey, whether they can access their lethal firearm in less than a few minutes, and their level of concern about family misuse or legal liability related to their lethal firearm. Column (1) reports the mean values for each characteristic within the LFAO control group, while Columns (2) - (4) display the coefficients from regressions of each characteristic on the treatment indicators. The final three columns present p-values for pairwise comparisons between treatment groups: Cost information vs. Byrna information, Cost information vs. Endorsement information, and Byrna information vs. Endorsement information. Robust standard errors are reported in parentheses below the coefficients.

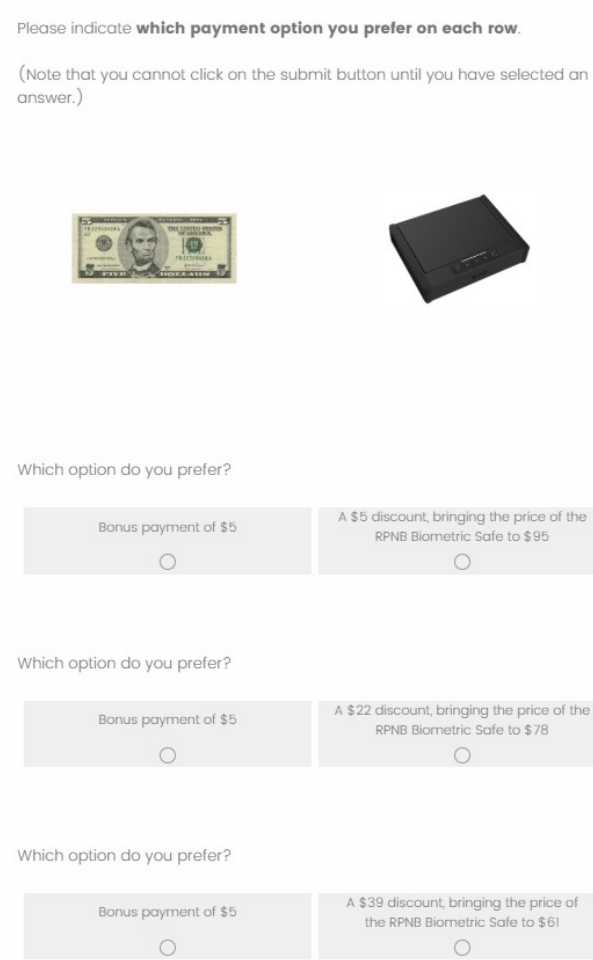
Table A-9: Balance Table Non-Owners

	Mean	Coefficient
Male	0.387	0.026
		(0.021)
Female	0.590	-0.028
		(0.021)
White	0.655	0.010
		(0.021)
Non-white	0.345	-0.010
		(0.021)
18-29 years old	0.339	0.002
		(0.021)
30-49 years old	0.394	-0.007
		(0.021)
50-64 years old	0.267	0.006
		(0.018)
Income 0-40,000	0.347	-0.014
		(0.020)
Income 40,000 - 100,000	0.281	0.037
		(0.020)
Income 100,000+	0.371	-0.023
		(0.021)
Midwest	0.190	0.024
		(0.017)
East/Northeast	0.197	-0.010
		(0.017)
South	0.334	0.018
		(0.020)
West	0.279	-0.031
		(0.020)
Republican	0.163	-0.017
		(0.014)
Democrat	0.295	0.007
		(0.019)
Independent	0.463	0.001
		(0.022)

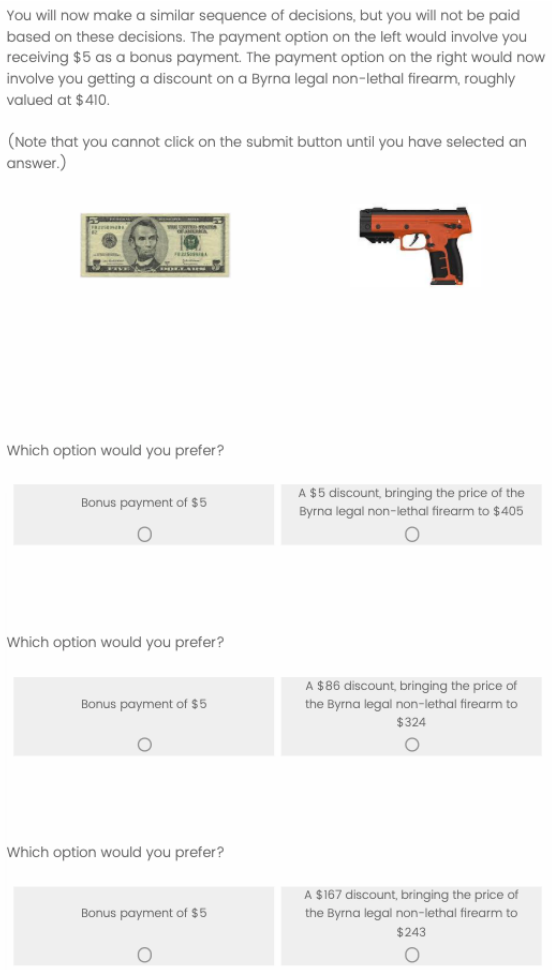
Notes: This table presents a balance check across demographic characteristics for non-owners, comparing the control (baseline) and the treatment group (Cost information). Demographic and regional variables include: Gender: Male, Female. Race: White, Non-white. Age groups: 18-29, 30-49, 50-64. Income levels: Under $40,000, $40,000–$100,000, Over $100,000. Regions: Midwest, East/Northeast, South, West. Political affiliation: Republican, Democrat, Independent. Column (1) reports the mean values for each characteristic within the non-owners control group, while Column (2) displays the coefficient from regressions of each characteristic on the cost treatment indicator. Robust standard errors are reported in parentheses.

Figure A-2: Screenshots of Multiple Price List Elicitation

(a) Gun Safe MPL



(b) Byrna MPL



Notes: The figure presents screenshots of the multiple price-list questions. Panel A shows the gun safe multiple price list, and Panel B shows the Byrna multiple price list.

Table A-10: Comprehension of the Multiple Price List Task

	Lethal firearm owners
Understanding question left correct	97%
Understanding question right correct	95%
Both understanding questions correct	94%
Observations	2984

Notes: This table reports the share of lethal firearm owners who correctly answered comprehension (understanding) questions related to the Multiple Price List (MPL) task. Participants were asked two comprehension questions designed to test their understanding of how the MPL operated. The "Understanding question left correct" refers to those who correctly identified that choosing the option on the left would result in receiving a cash bonus payment. The "Understanding question right correct" refers to the share of respondents who correctly identified that choosing the option on the right would result in receiving a discount. "Both understanding questions correct" indicates the proportion of respondents who answered both questions correctly.

A-2 Additional descriptive results

Table A-11: Reasons for owning a gun, by personal characteristics

	Gender		Political Affiliation		Age			Income			Race		
	Male	Female	Republican	Democrat	18–29	30–49	50–64	$< 40k$	40–100k	$> 100k$	White	Black	Other
To protect my family	65.3%	65.3%	68.3%	63.8%	64.3%	65.6%	64.5%	51.3%	60.7%	70.9%	64.3%	68.3%	72.0%
To protect myself	12.0%	17.5%	12.7%	15.2%	17.7%	13.3%	12.7%	21.7%	19.0%	8.4%	12.7%	26.6%	15.7%
For hunting	9.8%	5.1%	8.2%	9.9%	8.7%	9.5%	7.3%	10.5%	6.2%	9.8%	9.4%	2.0%	4.6%
To manage pests on my property	3.1%	1.7%	2.1%	3.6%	2.3%	2.3%	3.4%	2.5%	2.3%	3.0%	3.1%	0.0%	0.0%
To exercise my Constitutional rights	3.3%	1.4%	2.2%	1.5%	3.1%	2.1%	3.6%	6.4%	3.4%	1.6%	3.1%	1.7%	0.0%
Because it is a tradition in my family	1.2%	1.4%	1.2%	0.7%	1.5%	0.7%	2.0%	0.9%	0.7%	1.7%	1.4%	0.0%	0.0%
For sporting competitions	1.4%	0.0%	0.2%	1.0%	0.0%	0.8%	1.7%	0.0%	1.5%	0.9%	1.2%	0.0%	0.0%
For my job	0.5%	0.6%	0.6%	0.0%	0.8%	0.5%	0.5%	0.0%	0.3%	0.8%	0.2%	0.0%	5.4%
Because it makes me feel more powerful	0.0%	0.9%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.4%	0.3%	0.0%	0.0%
To maintain a firearm collection	0.2%	0.5%	0.6%	0.0%	1.1%	0.2%	0.0%	0.0%	0.3%	0.3%	0.3%	0.0%	0.0%
Other	3.2%	5.7%	3.9%	4.2%	0.7%	4.4%	4.3%	6.7%	5.5%	2.2%	4.2%	1.3%	2.2%

Notes: This table presents the share of LFAO who rated each reason as the most important for why they own a lethal firearm. Restricted to control group participants.

Table A-12: Reasons for acquiring a gun, by personal characteristics

	Gender		Political Affiliation		Age			Income			Race		
	Male	Female	Republican	Democrat	18–29	30–49	50–64	$< 40k$	40–100k	$> 100k$	White	Black	Other
To protect my family	63.6%	52.4%	63.2%	50.0%	49.5%	59.5%	60.9%	51.9%	56.0%	62.3%	59.5%	50.9%	52.0%
To protect myself	25.3%	39.8%	24.4%	43.5%	39.0%	32.6%	29.1%	38.9%	36.0%	25.9%	29.3%	43.8%	38.4%
For hunting	1.1%	2.7%	3.7%	1.1%	3.1%	1.5%	3.1%	4.5%	1.3%	0.8%	3.0%	0.0%	3.4%
To exercise my Constitutional rights	3.2%	0.0%	1.1%	1.1%	2.3%	0.6%	0.9%	1.6%	0.7%	1.4%	1.1%	3.2%	0.0%
To manage pests on my property	0.7%	1.0%	1.3%	1.3%	0.0%	0.7%	2.5%	0.0%	1.2%	1.7%	1.5%	0.0%	0.0%
To maintain a firearm collection	1.6%	0.0%	1.7%	0.0%	0.9%	0.8%	0.0%	0.8%	0.0%	1.1%	1.1%	0.0%	0.0%
To protect my community	0.0%	0.5%	0.0%	1.3%	0.0%	0.8%	1.2%	0.8%	0.0%	0.9%	1.0%	0.0%	0.0%
For sporting competitions	0.0%	0.5%	1.6%	0.0%	0.9%	0.0%	0.0%	0.0%	1.1%	0.0%	0.5%	0.0%	0.0%
Because it is a tradition in my family	1.1%	0.0%	0.0%	0.0%	1.2%	0.0%	0.0%	0.0%	1.5%	0.0%	0.0%	2.1%	0.0%
Other	3.3%	3.0%	2.9%	1.6%	3.1%	3.5%	2.3%	1.7%	2.2%	5.9%	3.1%	0.0%	6.1%

Notes: This table presents the share of NO-I who rated each reason as the most important for why they want to acquire a lethal firearm. Restricted to control group participants.

Table A-13: Situations in which a gun may be used by LFAO

Topic	Description	Share
Home Invasion Defense	This topic includes responses that describe using a gun to protect oneself and family during a break-in or home invasion scenario, emphasizing the need for personal safety against intruders.	31.0%
Self-Defense in Public	Responses under this topic refer to situations where individuals feel threatened or attacked in public spaces, such as during a robbery, assault, or violent confrontation, and the use of a gun as a means of protection.	23.9%
Target Practice and Recreational Shooting	Responses categorized here focus on using a gun for practice at shooting ranges or for recreational shooting activities, highlighting skill development and enjoyment.	12.9%
Emergency Situations	Responses in this category refer to using a gun in extreme scenarios, such as during civil unrest, natural disasters, or active shooter situations, where immediate action is required for safety.	10.1%
Hunting	This topic encompasses responses that mention using a gun for hunting purposes, whether for sport, food, or recreational activities in various environments.	9.3%
Animal Defense	This topic includes situations where individuals might use a gun to protect themselves from aggressive or dangerous animals, whether in urban or rural settings.	6.5%
Protection of Others	This topic captures responses that involve using a gun to defend or protect other individuals from harm, whether in public or private settings.	3.9%
Uncategorized	This category includes responses that do not fit into the above topics or are too vague to classify, such as general statements about gun ownership without specific scenarios.	2.5%

Notes: This table presents the share of LFAO responses falling into the different scenario categories in the Validation Survey. The original question that was asked is: "Please list three different situations in which you think your gun might be used. Think of things that could happen in everyday life, safety-related events, or even unusual or extreme scenarios.". The indicated shares combine all responses, and are computed as the ratio between the number of responses fitting into a category, and the total number of responses collected (including all three answers from an individual respondent).

Table A-14: Situations in which a gun may be used by NO, if they had one

Topic	Description	Share
Home Invasion Defense	This topic includes responses that describe using a gun to protect oneself and family during a break-in or home invasion scenario, emphasizing the need for personal safety against intruders.	28.7%
Self-Defense in Public	Responses under this topic refer to situations where individuals feel threatened or attacked in public spaces, such as during a robbery, assault, or violent confrontation, and the use of a gun as a means of protection.	28.4%
Emergency Situations	Responses in this category refer to using a gun in extreme scenarios, such as during civil unrest, natural disasters, or active shooter situations, where immediate action is required for safety.	9.5%
Animal Defense	This topic includes situations where individuals might use a gun to protect themselves from aggressive or dangerous animals, whether in urban or rural settings.	8.7%
Protection of Others	This topic captures responses that involve using a gun to defend or protect other individuals from harm, whether in public or private settings.	6.5%
Target Practice and Recreational Shooting	Responses categorized here focus on using a gun for practice at shooting ranges or for recreational shooting activities, highlighting skill development and enjoyment.	6.4%
Hunting	This topic encompasses responses that mention using a gun for hunting purposes, whether for sport, food, or recreational activities in various environments.	5.7%
Uncategorized	This category includes responses that do not fit into the above topics or are too vague to classify, such as general statements about gun ownership without specific scenarios.	6.1%

Notes: This table presents the share of NO responses falling into the different scenario categories in the Validation Survey. The original question that was asked is: "Please list three different situations in which you think your gun might be used if you had one. Think of things that could happen in everyday life, safety-related events, or even unusual or extreme scenarios.". The indicated shares combine all responses, and are computed as the ratio between the number of responses fitting into a category, and the total number of responses collected (including all three answers from an individual respondent).

Table A-15: How would you feel if your gun was taken away? [open-ended]

	Gender		Political Affiliation		Age			Income			Race		
	Male	Female	Republican	Democrat	18–29	30–49	50–64	$< 40k$	$40 - 100k$	$> 100k$	White	Black	Other
Feel Insecure And Vulnerable	23.9%	30.8%	28.6%	28.3%	27.7%	30.4%	18.2%	26.2%	23.4%	27.2%	23.9%	44%	34.7%
Feel Angry And Frustrated	30.1%	32.3%	33.9%	21.2%	20.3%	30.6%	34.6%	33.3%	32%	29.3%	32.4%	14.8%	21.5%
Feel That Rights Are Violated	19.5%	13%	18.6%	8.2%	28.6%	13.1%	20.8%	14.7%	20.1%	17%	18%	12.6%	20.5%
Feel Emotionally Distressed	11.2%	8%	7.9%	9.6%	7.6%	11.3%	9.9%	13.2%	8.7%	10.9%	10.1%	9.6%	13.8%
Feel Indifferent	6.5%	5.9%	1.6%	22.9%	7.2%	6%	6.5%	3.2%	6.9%	6.6%	6.7%	3.2%	4.4%
Feel Defenseless	5.5%	7.6%	6.5%	5.5%	7.2%	5.8%	5.9%	5.8%	6.2%	6%	6.1%	8.4%	2.6%
Uncategorized	2.7%	0.5%	2.5%	0.9%	0.5%	2.1%	2.7%	1.9%	1.9%	2.3%	2%	6%	1%
Feel Confused And Uncertain	0.6%	1.8%	0.5%	3.3%	0.8%	0.6%	1.4%	1.7%	0.8%	0.8%	0.9%	1.5%	1.5%

Notes: This table presents the share of response categories from LFAO to the open-ended question "In one or two words, how would you feel if your gun was taken away?". The topic category "Feel angry and frustrated" captures expressions of anger, rage, or frustration about the idea of losing one's gun."Feel insecure and vulnerable" refers to feelings of exposure or fear for one's safety without a firearm. "Feel that rights are violated" reflects perceptions that gun removal would infringe upon personal freedoms or constitutional rights. "Feel emotionally distressed" represents sadness, disappointment, or loneliness linked to the emotional value placed on gun ownership. "Feel indifferent" includes respondents expressing little concern or acceptance of the situation. "Feel defenseless" highlights respondents' sense of being unable to protect themselves without a gun. "Feel confused and uncertain" describes individuals unsure or unclear about how to react to such a situation. "Uncategorized" covers responses that do not fit into any of the other topics. Restricted to control group participants and those with blank responses were excluded.

Table A-16: What specific factors, if any, would prompt you to consider no longer owning guns? [open-ended]

	Gender		Political Affiliation		Age			Income			Race		
	Male	Female	Republican	Democrat	18–29	30–49	50–64	$< 40k$	$40 - 100k$	$> 100k$	White	Black	Other
Do Not See Any Reason To Give Up Guns	41.7%	44.1%	50.6%	22.7%	30.6%	40.5%	49.1%	42%	41.9%	42.6%	42.3%	45.1%	39.5%
If There Are Safety And Storage Concerns At Home	11.6%	14.9%	14%	16.1%	16.8%	13.2%	9.8%	13.2%	10.9%	13.3%	12.4%	13.1%	13%
If There Are Legal Restrictions	12.1%	10.7%	8.5%	22.6%	13%	12.2%	10.5%	8.6%	10%	13.4%	12.4%	7.8%	5.3%
If There Are Lower Crime Rates	6.3%	9.8%	6%	9.7%	14.6%	5.1%	7.4%	11.8%	9.2%	4.9%	6.3%	15.5%	12.1%
Blank Responses	7.9%	4.1%	2.7%	7.3%	6.3%	8.2%	5.4%	6.9%	7%	6.9%	7%	1.6%	10.2%
If There Are Financial Constraints Or Major Life Changes	2.7%	5.1%	3.1%	6%	4.8%	3.8%	2.1%	3.2%	6.3%	1.4%	2.9%	6.4%	6.4%
Uncategorized	4.7%	4%	3.1%	3.5%	2.6%	4.8%	4.9%	7%	3%	5%	5%	2.7%	0%
Would Want To Keep A Gun For Protection	3.6%	1.3%	4.2%	2.7%	7%	2.9%	1.6%	1.4%	3.1%	3.2%	2.5%	7.9%	5.1%
If Physically Or Mentally Unable To Handle A Gun	3.7%	2.7%	5%	2.2%	3.4%	2%	5.5%	3.4%	2.3%	4.2%	3.8%	0%	1.4%
Already Willing To Give Up Guns	2%	1.6%	0.5%	3.7%	0%	2.5%	1.7%	1.2%	1.7%	2.1%	2.1%	0%	0%
If I Had An Alternative	1%	0.7%	1.1%	0.6%	0.7%	0.9%	1%	0%	1.4%	0.8%	0.7%	0%	4.2%
If Pest Control Or Protection Against Animals Is Not Needed	0.7%	1.2%	0.2%	1.2%	0%	1.3%	0.5%	1.2%	1.1%	0.6%	0.8%	0%	2.7%
If I Stopped Hunting Or Participating In Gun-Related Recreation	1.2%	0%	0.7%	0%	0%	1.4%	0.4%	0%	1%	1%	1%	0%	0%
If People Around Me Were Not Comfortable With Guns	0.9%	0%	0.3%	1.8%	0%	1.2%	0%	0%	1.2%	0.4%	0.7%	0%	0%

Notes: This table presents the distribution of topics in responses from LFAO to the open-ended question: "What specific factors, if any, would prompt you to consider no longer owning guns?" "Do not see any reason to give up guns" represents those who say nothing would convince them to relinquish firearms; "Safety/storage concerns at home" represents those who would give up guns if household risks, such as children or mental health concerns; "Legal restrictions" represents those who would comply only if required by law; "Lower crime rates" represents those who might give up guns if crime declined and they felt safer; "Blank responses" represents those who provided no response; "Financial constraints or major life changes" represents those who might give up guns due to cost, relocation, or similar shifts; "Physically or mentally unable to handle a gun" represents those who would relinquish if age or impairment made handling unsafe; "Would want to keep a gun for protection" represents those who intend to retain firearms for self-defense; "Already willing to give up guns" represents those open to disposing of or selling firearms, e.g., at a fair price; "If I had an alternative" represents those who would forgo ownership if effective non-gun options existed; "If people around me were not comfortable with guns" represents those who would give up guns if a partner or family were uncomfortable; "If pest control or protection against animals is not needed" represents those who would not own guns absent pest or predator threats; "If I stopped hunting or participating in gun-related recreation" represents those who would give up guns if they no longer hunted or engaged in shooting sports; "Uncategorized" represents responses that did not fit other topics. Restricted to control group participants.

Table A-17: Can you think of any reason or situation for you to start owning a gun? [open-ended]

	Gender		Political Affiliation		Age			Income			Race		
	Male	Female	Republican	Democrat	18–29	30–49	50–64	$< 40k$	$40 - 100k$	$> 100k$	White	Black	Other
If Concerned About Self-Defense And Crime	58.3%	58.7%	67.5%	58.2%	62.7%	58.5%	53.4%	55.3%	62.8%	58.2%	54.5%	69%	63.4%
To Prepare For Emergencies And Societal Collapse	12%	16%	9.5%	14.4%	11%	16.8%	15.1%	16.6%	13.6%	13.1%	16.8%	8.4%	11.4%
No Reason To Own Guns	10.2%	10.9%	9%	13.6%	5.8%	8.7%	19.4%	10.6%	9.7%	11.4%	11.3%	10.7%	8.2%
If Had Gun-Related Recreational Activities	11.6%	5.2%	7.4%	6.8%	10%	7.7%	5%	7.7%	6%	9%	8.2%	4.6%	8.8%
Have Mixed Feelings About Gun Ownership	2.2%	3.4%	2%	1.9%	4.3%	1.9%	2.6%	4.3%	3.5%	1.2%	2.7%	3.6%	3.3%
If Concerned About Wildlife	1.8%	3%	1.4%	2.3%	1.9%	3.4%	2.2%	3.5%	2%	2.1%	3%	1.1%	2.3%
Uncategorized	3%	1.9%	1.8%	2.3%	3.3%	2.1%	1.4%	1.3%	1.8%	3.7%	2.6%	2.1%	1.4%
If Needed For My Work	0.8%	0.5%	0.6%	0.4%	1%	0.8%	0%	0.6%	0.4%	0.9%	0.7%	0%	1.1%
If Gun Ownership Were To Rise	0.1%	0.3%	0.8%	0%	0%	0%	0.9%	0.2%	0.2%	0.3%	0.2%	0.7%	0%

Notes: This table presents the distribution of topics in responses from non-owners to the open-ended question: "Can you think of any reason or situation for you to start owning a gun? Please list them here." The topic "If concerned about self-defense and crime" refers to motivations linked to personal protection against threats or crime. "To prepare for emergencies and societal collapse" captures answers about readiness for extreme events such as social unrest or societal breakdown. "No reason to own guns" reflects respondents who see no need for, or oppose, gun ownership. "If had gun-related recreational activities" relates to motivations involving leisure activities such as hunting or target shooting. "Have mixed feelings about gun ownership" represents ambivalent or uncertain attitudes toward owning a gun. "If concerned about wildlife" describes those mentioning protection from animals, often in rural contexts. "If needed for my work" refers to cases where gun ownership is seen as a professional requirement. "If gun ownership were to rise" includes respondents who might consider owning a gun if others around them did so. "Uncategorized" covers responses that do not fit any of the other topics. Restricted to control group participants and those with blank responses were excluded.

Table A-18: Shapley decomposition

Factor	Shapley estimate	Percent
Ownership status	0.01882	24.77%
Political affiliation	0.00459	6.04%
Gender	0.00690	9.08%
Income	0.01634	21.50%
Age	0.00423	5.57%
Race/Ethnicity	0.00513	6.76%
Children in the house	0.00035	0.46%
Crime rate	0.00424	5.58%
Poverty rate	0.00201	2.65%

Notes: This table presents the shares of explained variance attributable to different groups of variables, following a Shorrocks-Shapley decomposition of the R-squared of the regression specification presented in Appendix Figure A-9. This is a saturated fixed-effects regression of the "safety feeling" variable on a set of explanatory variables. These explanatory variables were then grouped by category/factor to perform the Shapley decomposition.

Table A-19: Correlation between possession of safety devices and multiple gun ownership

	Lethal firearm owners	
	2-3 firearms	>3 firearms
Tasers	0.027	0.049
	(0.052)	(0.064)
Pepper Spray	0.059	0.013
	(0.062)	(0.075)
Gun Safe or Gun Cabinet	0.058	0.320***
	(0.066)	(0.075)
Home Security System	-0.048	0.202***
	(0.065)	(0.074)
Safe	-0.050	0.159**
	(0.067)	(0.076)
Double-Lock or Multi-Lock Doors	0.055	0.289***
	(0.066)	(0.078)
Security Cameras	0.026	0.185**
	(0.063)	(0.072)
Guard Dogs	-0.008	-0.012
	(0.065)	(0.078)
Window Bars	-0.039	-0.046
	(0.046)	(0.050)
Safety Device Index	0.032	0.509***
	(0.131)	(0.133)

Notes: This table reports the results of linear regressions estimating the correlation between the possession of the respective safety device and multiple gun ownership (LFAO N = 297). The specification includes indicators for gun owners with 2–3 firearms and more than 3 firearms, with single-gun owners serving as the baseline. The Safety Device Index is constructed by averaging the z-scores of the safety devices and subsequently standardizing the resulting variable. Data comes from the validation survey. The regressions were weighted and controlled for age, income, education, political affiliation, race and gender. Robust standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A-20: Correlation between possession of safety devices and gun ownership for protection

	Lethal firearm owners
	Need gun to protect self or family
Home Security System	0.165***
	(0.047)
Safe	0.032
	(0.044)
Observations	692

Notes: This table reports the results of linear regressions estimating the correlation between the possession of the respective safety device and the likelihood that a gun owner stated that the most important reason for them to own guns is "to protect my family" or "to protect myself". Data comes from the main survey. The regressions were weighted and controlled for age, income, education, political affiliation, race and gender. Robust standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A-21: Perceived Private Costs by Personal Characteristics

	Gender		Political Affiliation		Age			Income			Race		
	Male	Female	Republican	Democrat	18−29	30−49	50−64	$< 40k$	$40-100k$	$> 100k$	White	Black	Other
Panel A: LFAO													
Shot and killed someone in self-defense	46.1%	65.2%	44.7%	58.9%	45.2%	50.5%	54.7%	56.2%	48.2%	52.3%	52.1%	37.6%	51.3%
Shot somebody unarmed but stealing from me	59.5%	73.8%	58.3%	74.5%	62.7%	64.1%	62.7%	58.4%	60.6%	66.3%	65.2%	50.7%	50.4%
Somebody used my gun to kill themselves	82.4%	90.6%	84.9%	92.5%	88.0%	82.6%	86.3%	85.7%	83.2%	85.3%	84.9%	85.4%	79.9%
Somebody used my gun to kill someone else	71.0%	79.7%	69.4%	81.7%	69.1%	73.8%	74.4%	78.9%	71.6%	73.4%	73.2%	69.7%	78.7%
My children may use my gun and hurt themselves/others	27.9%	25.1%	24.4%	42.3%	26.1%	33.1%	19.2%	17.5%	22.4%	32.4%	26.3%	49.8%	20.6%
Being arrested/sued if someone took my gun and caused harm	44.6%	43.1%	46.3%	52.0%	48.7%	42.1%	45.9%	47.1%	40.3%	46.4%	44.5%	50.5%	36.5%
Panel B: NO-U													
Shot and killed someone in self-defense	56.3%	66.2%	56.8%	65.9%	59.4%	62.2%	66.3%	61.0%	63.8%	62.5%	63.3%	56.8%	63.8%
Shot somebody unarmed but stealing from me	63.4%	72.8%	54.0%	73.6%	66.7%	68.9%	74.3%	70.1%	71.0%	68.4%	70.8%	63.2%	71.2%
Somebody used my gun to kill themselves	85.8%	92.4%	85.8%	93.4%	90.4%	88.9%	91.4%	91.0%	85.9%	92.3%	92.0%	87.2%	85.1%
Somebody used my gun to kill someone else	82.0%	90.7%	79.5%	92.1%	86.2%	88.5%	87.5%	84.9%	87.3%	89.5%	88.7%	83.1%	86.2%
My children may use my gun and hurt themselves/others	69.8%	71.6%	71.7%	72.4%	71.2%	71.4%	67.9%	67.1%	71.7%	72.0%	68.0%	77.9%	72.9%
Being arrested/sued if someone took my gun and caused harm	69.0%	63.1%	66.2%	66.7%	64.8%	67.0%	64.5%	67.3%	61.0%	67.6%	64.6%	70.7%	65.0%
Panel C: NO-I													
Shot and killed someone in self-defense	53.5%	62.7%	57.6%	58.5%	57.9%	57.0%	64.3%	61.2%	60.5%	54.8%	62.9%	54.9%	51.5%
Shot somebody unarmed but stealing from me	66.3%	63.8%	64.4%	66.7%	66.6%	60.9%	68.6%	60.5%	65.9%	69.7%	67.8%	63.0%	57.8%
Somebody used my gun to kill themselves	75.6%	85.7%	77.8%	83.7%	81.1%	83.2%	81.1%	88.0%	78.6%	76.6%	82.8%	79.3%	81.6%
Somebody used my gun to kill someone else	75.6%	85.1%	78.8%	87.4%	79.2%	81.0%	85.0%	81.2%	81.5%	81.1%	82.8%	79.7%	78.2%
My children may use my gun and hurt themselves/others	48.8%	52.1%	44.6%	67.5%	42.5%	56.4%	55.5%	45.7%	52.1%	57.3%	49.8%	56.5%	49.3%
Being arrested/sued if someone took my gun and caused harm	50.8%	57.7%	52.2%	52.0%	56.0%	53.2%	55.7%	62.9%	52.6%	45.8%	51.6%	58.2%	61.1%

Notes: This table presents the share of respondents who reported feeling very upset or extremely upset and very worried or extremely worried about various scenarios involving the private costs of firearms, by personal characteristics. Panel A shows these shares for LFAO. Panel B shows these shares for non-owners who say they are not interestd in acquiring an LFA, and Panel C shows these shares for non-owners interested in acquiring an LFA. Restricted to control group participants.

Table A-22: How Does Owning a Gun Make You Feel? By Personal Characteristics

	Gender		Political Affiliation		Age			Income			Race		
	Male	Female	Republican	Democrat	18−29	30−49	50−64	$< 40k$	$40-100k$	$> 100k$	White	Black	Other
Panel A: LFAO													
Safe	50.9%	60.3%	66.9%	32.6%	68.8%	52.2%	49.2%	48.2%	55.4%	52.9%	51.8%	60.6%	66.8%
Confident	21.1%	26.6%	31.8%	13.9%	27.4%	21.5%	22.0%	21.9%	23.5%	21.9%	20.3%	42.6%	33.7%
More valuable	15.6%	17.6%	21.6%	10.4%	19.5%	17.9%	12.2%	14.0%	17.4%	15.6%	15.3%	32.6%	12.8%
Patriotic	15.0%	13.3%	24.6%	6.3%	18.3%	13.1%	15.2%	11.1%	15.0%	14.9%	14.4%	15.5%	15.8%
Responsible	30.5%	32.4%	40.6%	21.5%	38.7%	28.0%	32.1%	28.3%	36.2%	27.8%	29.9%	35.9%	39.2%
In control	18.0%	27.8%	28.6%	14.9%	21.1%	21.9%	18.1%	17.3%	23.4%	19.2%	19.0%	31.2%	31.2%
Respected	7.1%	9.6%	12.3%	7.6%	10.2%	8.2%	6.1%	6.9%	7.3%	8.1%	6.7%	19.8%	11.2%
Empowered	12.6%	19.7%	17.8%	12.9%	13.1%	15.1%	14.0%	7.7%	16.2%	14.7%	12.9%	27.2%	24.4%
Unsafe	0.2%	1.0%	0.6%	0.0%	0.0%	0.8%	0.0%	1.5%	0.0%	0.5%	0.5%	0.0%	0.0%
Nervous	1.0%	2.0%	1.2%	2.1%	0.0%	1.8%	0.9%	1.5%	0.3%	1.8%	1.0%	6.2%	0.0%
Scared	0.1%	0.3%	0.0%	1.1%	0.0%	0.2%	0.2%	0.0%	0.2%	0.2%	0.2%	0.0%	0.0%
Irresponsible	0.4%	0.5%	0.5%	1.0%	0.0%	0.6%	0.3%	0.0%	0.0%	0.7%	0.1%	3.0%	1.5%
Less valuable	0.5%	0.0%	0.9%	0.0%	0.0%	0.6%	0.3%	0.0%	0.3%	0.5%	0.5%	0.0%	0.0%
Less in control	0.4%	0.4%	0.7%	0.9%	0.0%	0.2%	0.9%	0.0%	0.3%	0.6%	0.5%	0.0%	0.0%
Less respected	0.5%	0.8%	0.7%	1.0%	0.0%	0.7%	0.5%	0.0%	0.6%	0.7%	0.4%	3.0%	0.0%
Panel B: NO-U													
Safe	9.8%	7.9%	15.6%	8.0%	11.2%	8.0%	6.2%	6.8%	8.0%	10.2%	6.6%	17.2%	8.5%
Confident	4.9%	4.5%	10.3%	5.8%	7.4%	3.6%	3.1%	4.3%	4.5%	5.1%	3.3%	11.1%	4.5%
More valuable	3.0%	2.8%	7.1%	2.6%	4.8%	1.6%	2.7%	1.4%	3.8%	3.6%	2.2%	7.8%	1.6%
Patriotic	3.1%	1.4%	4.7%	2.2%	3.3%	1.5%	1.5%	1.9%	2.1%	2.3%	1.3%	5.5%	2.3%
Responsible	7.8%	6.2%	10.8%	4.9%	10.7%	5.0%	4.7%	7.6%	7.5%	5.7%	5.7%	10.4%	7.8%
In control	6.5%	6.2%	10.5%	5.7%	6.5%	6.5%	5.7%	6.5%	5.0%	7.1%	5.8%	11.6%	3.6%
Respected	4.0%	2.8%	11.0%	2.4%	4.9%	2.2%	2.9%	2.9%	4.0%	3.0%	3.0%	7.5%	0.7%
Empowered	6.8%	6.3%	16.7%	5.5%	9.4%	5.2%	4.6%	4.4%	7.0%	7.6%	5.7%	12.0%	4.3%
Unsafe	16.7%	26.9%	14.7%	29.2%	21.8%	22.7%	26.3%	23.1%	21.0%	25.4%	23.5%	20.0%	26.2%
Nervous	24.4%	41.7%	29.2%	42.8%	32.5%	35.0%	38.3%	35.6%	33.6%	35.8%	34.8%	39.5%	32.4%
Scared	12.9%	28.4%	16.3%	28.6%	20.6%	20.5%	27.2%	19.6%	20.7%	25.8%	22.0%	16.8%	28.8%
Irresponsible	8.7%	10.4%	7.5%	14.1%	7.7%	10.5%	12.6%	9.5%	8.7%	11.8%	10.5%	5.1%	13.4%
Less valuable	4.3%	2.8%	3.1%	3.8%	2.3%	3.6%	4.6%	3.9%	1.3%	4.7%	3.8%	1.8%	3.5%
Less in control	4.2%	4.9%	4.8%	4.8%	3.7%	5.0%	5.5%	6.1%	4.5%	3.7%	5.4%	2.6%	3.9%
Less respected	3.1%	3.9%	2.3%	5.4%	2.5%	3.9%	4.6%	3.2%	2.6%	4.8%	3.7%	1.9%	5.1%
Panel C: NO-I													
Safe	40.7%	56.1%	67.1%	52.8%	53.6%	46.5%	47.5%	48.7%	53.6%	46.5%	44.3%	56.9%	57.1%
Confident	20.4%	22.5%	25.2%	22.2%	21.6%	21.9%	19.2%	24.4%	21.0%	16.8%	17.7%	23.0%	29.5%
More valuable	12.4%	9.6%	12.7%	11.8%	15.8%	9.0%	6.2%	11.4%	10.6%	10.3%	9.2%	10.5%	16.0%
Patriotic	11.4%	5.5%	12.2%	12.2%	11.1%	5.1%	6.9%	7.9%	10.9%	4.7%	6.6%	9.7%	9.2%
Responsible	22.7%	23.9%	24.6%	23.4%	27.6%	26.6%	12.3%	29.6%	22.7%	16.2%	17.8%	37.4%	27.1%
In control	17.3%	23.2%	31.0%	22.4%	26.0%	21.1%	9.9%	25.1%	20.2%	14.0%	13.9%	31.7%	28.4%
Respected	8.3%	7.9%	10.0%	11.9%	11.0%	8.9%	2.7%	9.5%	6.9%	7.8%	3.2%	16.9%	14.8%
Empowered	13.0%	22.6%	20.5%	22.2%	24.6%	17.7%	12.4%	23.5%	19.5%	12.5%	14.2%	23.8%	28.6%
Unsafe	0.0%	1.5%	4.6%	0.0%	1.7%	0.6%	0.0%	0.5%	1.1%	1.1%	0.4%	3.2%	0.0%
Nervous	5.0%	9.0%	2.8%	10.8%	6.5%	6.2%	14.2%	8.2%	8.1%	8.3%	8.8%	7.5%	7.0%
Scared	3.1%	1.5%	1.2%	4.4%	4.8%	1.6%	2.0%	4.0%	0.8%	3.3%	2.4%	3.7%	3.5%
Irresponsible	0.0%	0.6%	0.0%	1.6%	0.9%	0.0%	0.0%	0.8%	0.0%	0.0%	0.0%	1.7%	0.0%
Less valuable	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Less in control	0.6%	0.0%	0.0%	1.2%	0.0%	0.6%	0.0%	0.0%	0.0%	0.8%	0.4%	0.0%	0.0%
Less respected	1.0%	1.1%	1.6%	1.6%	2.7%	0.0%	0.0%	0.8%	1.1%	1.3%	0.5%	3.7%	0.0%

Notes: This table presents the respondents' attitudes toward owning or potentially owning a lethal firearm, by respondents' personal characteristics, and ownership status. Panel A shows them for LFAO. Panel B shows them for non-owners who say they are not interestd in acquiring an LFA, and Panel C shows them for non-owners interested in acquiring an LFA. The survey question asked: "To what extent does/would owning a gun make you feel:" with response options: No extent, Some extent, A moderate extent, and A great extent. The table presents the share of respondents who answered "A great extent.". Restricted to control group participants.

Table A-23: Perceived Externalities by Personal Characteristics

	Gender		Political Affiliation		Age			Income			Race		
	Male	Female	Republican	Democrat	$18-29$	$30-49$	$50-64$	$<40k$	$40-100k$	$>100k$	White	Black	Other
Panel A: LFAO													
Firearm ownership encourages crime	27.8%	26.3%	23.5%	54.0%	25.6%	30.0%	24.4%	25.4%	23.4%	30.5%	25.8%	43.3%	36.0%
Firearm availability increases murders	54.7%	51.5%	41.7%	84.9%	48.9%	56.9%	51.8%	42.3%	50.5%	58.8%	53.2%	67.9%	53.2%
Firearm availability increases suicides	60.5%	55.8%	49.1%	81.8%	57.7%	62.3%	55.9%	55.5%	54.0%	63.9%	58.8%	58.5%	68.9%
More firearms increase school shootings	35.1%	34.5%	25.8%	67.9%	31.9%	37.6%	32.6%	31.8%	33.2%	37.0%	33.9%	52.8%	36.0%
Firearms accidents are a serious problem	54.6%	66.0%	54.9%	78.6%	66.5%	57.7%	54.6%	56.5%	57.0%	58.5%	57.2%	65.2%	59.4%
Panel B: NO-U													
Firearm ownership encourages crime	60.5%	72.5%	48.1%	79.8%	72.7%	69.4%	61.4%	68.9%	66.3%	69.1%	66.6%	68.7%	74.6%
Firearm availability increases murders	80.6%	85.4%	71.0%	90.6%	85.2%	84.3%	81.2%	88.3%	77.6%	84.6%	84.3%	84.3%	81.1%
Firearm availability increases suicides	81.6%	81.2%	70.7%	87.6%	82.2%	83.3%	77.9%	86.8%	75.8%	81.2%	82.9%	74.5%	81.6%
More firearms increase school shootings	72.9%	75.4%	61.6%	87.2%	81.8%	73.6%	68.5%	77.6%	70.8%	75.7%	74.4%	76.2%	75.4%
Firearms accidents are a serious problem	79.8%	87.8%	75.0%	91.9%	87.1%	82.4%	85.7%	86.6%	82.7%	85.0%	82.3%	91.0%	89.4%
Panel C: NO-I													
Firearm ownership encourages crime	36.8%	45.9%	29.2%	63.0%	48.7%	42.7%	34.9%	41.3%	45.6%	43.1%	36.9%	65.4%	39.6%
Firearm availability increases murders	65.7%	78.8%	62.2%	81.6%	81.8%	68.6%	70.6%	68.7%	75.8%	79.4%	73.5%	78.5%	70.9%
Firearm availability increases suicides	65.3%	73.2%	64.0%	79.8%	68.8%	68.8%	76.5%	63.5%	70.7%	80.0%	71.9%	68.9%	68.4%
More firearms increase school shootings	50.3%	56.3%	43.7%	81.1%	63.3%	50.1%	49.2%	49.8%	62.5%	54.7%	54.0%	65.1%	47.2%
Firearms accidents are a serious problem	60.3%	80.5%	62.3%	84.4%	71.1%	71.8%	77.2%	75.2%	66.5%	75.2%	70.4%	84.5%	68.5%

Notes: This table presents the share of respondents who hold specific perceptions on the items listed in the rows, by gender, political affiliation and firearm ownership status. Panel A shows these shares for LFAO. Panel B shows these shares for non-owners who say they are not interestd in acquiring an LFA, and Panel C shows these shares for non-owners interested in acquiring an LFA. *Firearm ownership encourages crime* is an indicator for respondents who believe that firearm ownership in the U.S. somewhat encourages crime or encourages crime a lot. *Firearm availability increases murders* is an indicator for respondents who believe that easy access to firearms somewhat increases the number of murders or increases the number of murders a lot. *Firearm availability increases suicides* is an indicator for respondents who believe that easy access to firearms somewhat increases the number of suicides or increases the number of suicides a lot. *More firearms increase school shootings* is an indicator for respondents who believe that if firearm ownership were to increase, school shootings would somewhat increase or increase a lot. *Firearms accidents are a serious problem* is an indicator for respondents who perceive accidents from owning a gun as a very serious or extremely serious problem. Restricted to control group participants.

Table A-24: Attitudes Towards NLFA by Personal Characteristics

	Gender		Political Affiliation		Age			Income			Race		
	Male	Female	Republican	Democrat	$18-29$	$30-49$	$50-64$	$<40k$	$40-100k$	$>100k$	White	Black	Other
Owns a NLFA	4.7%	3.7%	6.6%	6.0%	2.5%	3.8%	6.0%	1.6%	4.7%	4.9%	3.7%	15.4%	5.4%
Previously considered purchasing a NLFA	31.0%	23.8%	33.8%	29.2%	28.6%	27.8%	31.0%	27.0%	27.5%	30.4%	28.1%	43.3%	31.1%
Previously knew about Byrna	24.0%	10.6%	25.1%	14.4%	11.9%	17.8%	27.3%	11.5%	23.8%	20.0%	19.7%	27.7%	24.4%
Good replacement	13.4%	19.6%	14.5%	25.9%	13.0%	17.2%	13.1%	10.0%	13.5%	17.5%	14.7%	31.4%	9.4%
Incapacitate but not kill	39.7%	50.5%	37.5%	61.2%	35.3%	43.7%	43.7%	38.6%	37.9%	46.6%	42.1%	50.4%	43.7%
Interested in purchasing a NLFA	38.8%	48.2%	39.4%	44.9%	37.5%	41.6%	42.4%	36.7%	38.5%	44.3%	41.3%	49.1%	35.5%
Positive willingness to pay for NLFA	78.7%	78.8%	75.2%	81.9%	77.4%	79.3%	78.6%	76.3%	80.9%	78.0%	78.9%	76.7%	80.0%
Reduce number of LFA	21.2%	27.0%	25.4%	35.2%	22.6%	24.7%	19.8%	16.3%	18.7%	26.6%	20.8%	50.7%	23.4%
Willing to keep LFA locked if had NLFA	44.2%	55.3%	45.7%	60.0%	47.2%	48.6%	45.1%	47.5%	44.7%	48.8%	45.9%	54.4%	59.0%
Positive willingness to pay for a safe	54.8%	51.8%	53.8%	58.7%	62.7%	50.8%	55.5%	40.0%	53.4%	57.5%	54.0%	56.8%	52.9%

Notes: This table presents the distribution of LFAOs' responses to the items about non-lethal firearms listed in the rows, by personal characteristics. *Owns an NLFA* is an indicator for respondents who reported owning a Byrna or another NLFA. *Previously considered purchasing an NLFA* is an indicator for respondents without an NLFA who reported having briefly or seriously considered buying one in the past. *Previously knew about Byrna* is an indicator for respondents who reported having heard about Byrnan NLFA before the survey. *Good replacement* is an indicator for responders who consider an NLFA as a good or complete replacement for a standard, lethal firearm. *Incapacitate but not kill* is an indicator for respondents who agree or strongly agree that they prefer a firearm capable of temporarily incapacitating without killing. *Interested in purchasing an NLFA* is an indicator for respondents who showed high willingness to purchase an NLFA non-lethal firearm by selecting 5, 6 or 7 on a 1 to 7 scale. *Positive willingness to pay for NLFA* is a dummy variable. *Willing to reduce number of LFAs* is an indicator for respondents who reported that they would reduce slightly, reduce moderately, reduce substantially or no longer hold any firearms if they purchased the Byrna legal non-lethal firearm. *Willing to keep LFAs locked if had NLFA* is an indicator for respondents who would definitely or probably keep their lethal firearms locked if they had a Byrna non-lethal firearm. *Positive willingness to pay for a safe* is a dummy variable. Restricted to control group participants.

Table A-25: Attitudes Towards NLFA by type and stringency of gun restrictions

	Minimum age restrictions		Stringent storage laws		Stringency of gun laws	
	No	Yes	No	Yes	Low	High
Owns a NLFA	3.4%	6.4%	2.1%	6.1%	3.5%	6.2%
Previously considered purchasing a NLFA	27.1%	32.6%	27.2%	30.3%	27.4%	32.2%
Previously knew about Byrna	19.1%	22.7%	20.0%	20.7%	20.6%	20.0%
Good replacement	13.5%	18.2%	11.3%	18.0%	11.8%	21.8%
Incapacitate but not kill	41.5%	44.6%	38.7%	45.4%	40.5%	46.6%
Interested in purchasing a NLFA	38.7%	46.3%	40.4%	42.0%	40.7%	42.6%
Positive willingness to pay for NLFA	78.5%	79.5%	81.1%	77.2%	80.0%	76.6%
Reduce number of LFA	21.0%	25.6%	19.3%	25.0%	19.0%	29.5%
Willing to keep LFA locked if had NLFA	46.8%	47.8%	43.1%	50.1%	45.3%	50.7%
Positive willingness to pay for a safe	55.4%	51.6%	52.5%	55.2%	53.2%	55.7%

Notes: This table presents the distribution of LFAOs' responses to the items about non-lethal firearms listed in the rows, by type and stringency of firearm-related state restrictions evaluated based on RAND State Firearm Law Database and Everytown research ranking. *Owns an NLFA* is an indicator for respondents who reported owning a Byrna or another NLFA. *Previously considered purchasing an NLFA* is an indicator for respondents without an NLFA who reported having briefly or seriously considered buying one in the past. *Previously knew about Byrna* is an indicator for respondents who reported having heard about Byrnan NLFA before the survey. *Good replacement* is an indicator for responders who consider NLFA as a good or complete replacement for a standard, lethal firearm. *Incapacitate but not kill* is an indicator for respondents who agree or strongly agree that they prefer a firearm capable of temporarily incapacitating without killing. *Interested in purchasing an NLFA* is an indicator for respondents who showed high willingness to purchase an NLFA non-lethal firearm by selecting 5, 6 or 7 on a 1 to 7 scale. *Positive willingness to pay for NLFA* is a dummy variable. *Willing to reduce number of LFAs* is an indicator for respondents who reported that they would reduce slightly, reduce moderately, reduce substantially or no longer hold any firearms if they purchased the Byrna legal non-lethal firearm. *Willing to keep LFAs locked if had NLFA* is an indicator for respondents who would definitely or probably keep their lethal firearms locked if they had a Byrna non-lethal firearm. *Positive willingness to pay for a safe* is a dummy variable. Restricted to control group participants.

Table A-26: Why do you consider non-lethal firearms like Byrna to be a good replacement for LFAs? [open-ended]

	Gender		Political Affiliation		Age			Income			Race		
	Male	Female	Republican	Democrat	18–29	30–49	50–64	$< 40k$	$40 - 100k$	$> 100k$	White	Black	Other
Because It Is Good For Self-Defense	59.9%	69.2%	65.4%	65.2%	57.6%	63.7%	63.2%	49.5%	62.4%	65.3%	61.4%	81.8%	61.8%
Because It Is Suited For Certain Threats, Though Not All	21.1%	10.2%	17.3%	13.7%	23.9%	19.2%	13.9%	21.9%	19.5%	16%	18.4%	3.9%	23.4%
Because It Reduces Mental Toll Of Having/Using Lethal Firearms	6.3%	8.6%	7%	8.9%	6%	6.8%	7.7%	10.1%	7.1%	6.5%	6.9%	2.8%	14.8%
Would Consider But Need To Know More About Product And Its Reliability	7%	6.6%	4.1%	8.4%	7.4%	5.8%	8.1%	8.7%	7.7%	6%	7.8%	0%	0%
Uncategorized	5.1%	4.5%	5.4%	2.5%	5.2%	4.5%	5.5%	9.7%	3.4%	5%	4.7%	11.6%	0%
Because It Is Easier To Access And Require No Permits	0.5%	0.9%	0.9%	1.2%	0%	0%	1.7%	0%	0%	1.1%	0.7%	0%	0%

Notes: This table presents the distribution of topics in responses from LFAO to the follow-up open-ended question: "Why do you consider non-lethal firearms like Byrna to be a decent/good/complete replacement?" (The exact wording varied based on their response to the previous question.) Participants first answered a closed-ended question on whether they viewed Byrna as a replacement, selecting from five options: "A complete replacement," "A good replacement," "A decent replacement," "Not much of a replacement," and "Not a replacement at all." We then grouped those who selected "A complete replacement," "A good replacement," or "A decent replacement" and analyzed their open-ended explanations. The topic category "Because it is good for self-defense" highlights perceptions that NLFAs can improve safety by deterring attackers and reducing fatalities. "Because it is suited for certain threats, though not all" reflects that they are effective in some contexts but not against armed or determined attackers. "Would consider but need to know more about product and its reliability" points to requests for more evidence, testing, and training. "Because it reduces mental toll of having/using lethal firearms" emphasizes reduced emotional burden compared to lethal weapons. "Because it is easier to access and require no permits" mentions affordability and accessibility. "Uncategorized" includes responses that do not fit other topics. Restricted to control group participants.

Table A-27: Why do you consider non-lethal firearms like Byrna to be a bad replacement for LFAs? [open-ended]

	Gender		Political Affiliation		Age			Income			Race		
	Male	Female	Republican	Democrat	18–29	30–49	50–64	$< 40k$	$40 - 100k$	$> 100k$	White	Black	Other
Because They Are Ineffective In High-Stakes Situations	52.4%	45.4%	52.3%	52.2%	56.9%	50.5%	48.8%	49.7%	51.5%	50.6%	49.9%	59.4%	55.5%
Because I Prioritize Safety And Do Not Want To Take Risks With Nlfas	19.4%	23.1%	22.4%	12.8%	17.6%	23.1%	17.1%	18.7%	18.9%	21.6%	19.9%	25.6%	21.2%
Because I Am Unsure About Nlfas' Effectiveness	8.4%	17.9%	6.5%	11.3%	10.8%	8.7%	13.2%	7.7%	15.1%	7.8%	11.1%	11.8%	3.5%
Because I Still Need Lfas For Hunting And Recreation	9.7%	6.4%	6.2%	16.8%	7.8%	10.5%	7%	8.6%	6.3%	10.9%	9.2%	0%	11%
Because Nlfas Are Not Reliable	4.1%	4.9%	5.3%	4.2%	6.9%	3%	5.1%	5.8%	3.1%	4.7%	4.4%	0%	4.6%
Uncategorized	3.5%	0.8%	4.1%	1.6%	0%	2.8%	4.3%	5.4%	3.2%	2.2%	3%	0%	4.1%
Because Nlfas Could Escalate Dangerous Situations	2.5%	1.4%	3.2%	1.2%	0%	1.4%	4.4%	4%	1.8%	2.2%	2.4%	3.2%	0%

Notes: This table displays the distribution of topics in responses from LFAO to the follow-up open-ended question: "Why do you consider non-lethal firearms like Byrna to be not much of a replacement/not a replacement at all?" (The exact wording varied based on their response to the previous question.) Participants first answered a closed-ended question on whether they viewed Byrna as a replacement, selecting from five options: "A complete replacement," "A good replacement," "A decent replacement," "Not much of a replacement," and "Not a replacement at all." We then grouped those who selected "Not much of a replacement," and "Not a replacement at all" and analyzed their open-ended explanations. The topic category "Because they are ineffective in high-stakes situations" corresponds to respondents raising concerns about insufficient stopping power. "Because I prioritize safety and do not want to take risks with NLFAs" stresses a preference for lethal firearms to ensure protection. "Because I am unsure about NLFAs' effectiveness" shows skepticism about reliability. "Because I still need LFAs for hunting and recreation" refers to practical needs. "Because NLFAs are not reliable" mentions potential malfunctions. "Because NLFAs could escalate dangerous situations" conveys fears that non-lethal weapons might worsen violence. "Uncategorized" includes remaining responses. Restricted to control group participants.

Table A-28: Policy Views on Non-Lethal Firearms by Personal Characteristics

	Gender		Political Affiliation		Age			Income			Race		
	Male	Female	Republican	Democrat	$18 - 29$	$30 - 49$	$50 - 64$	$< 40k$	$40 - 100k$	$> 100k$	White	Black	Other
Panel A: LFAO													
Encourage nonlethal purchase	52.0%	62.2%	49.5%	70.8%	42.8%	56.0%	57.0%	54.5%	46.3%	60.4%	54.8%	56.7%	51.9%
Exchange lethal for nonlethal	47.6%	50.9%	37.5%	73.5%	37.3%	50.8%	49.8%	44.6%	46.7%	50.9%	49.7%	54.4%	30.8%
Lower restrictions nonlethal	53.1%	49.3%	53.4%	51.6%	50.3%	53.6%	50.7%	53.4%	46.6%	55.6%	51.1%	49.5%	67.8%
Panel B: NO-U													
Encourage nonlethal purchase	56.8%	55.4%	48.6%	61.4%	61.2%	55.4%	52.7%	57.2%	57.4%	55.4%	57.6%	54.9%	54.0%
Exchange lethal for nonlethal	67.2%	71.3%	56.6%	76.8%	70.3%	71.9%	67.5%	67.5%	70.5%	71.9%	72.9%	64.4%	64.3%
Lower restrictions nonlethal	45.2%	32.6%	42.3%	38.6%	38.6%	38.9%	35.2%	33.1%	36.4%	42.4%	39.0%	37.2%	33.6%
Panel C: NO-I													
Encourage nonlethal purchase	50.7%	55.2%	44.2%	62.5%	54.1%	54.6%	52.8%	53.0%	47.3%	61.4%	56.0%	47.6%	54.3%
Exchange lethal for nonlethal	42.0%	49.5%	33.9%	62.6%	47.7%	45.6%	50.6%	46.1%	46.1%	50.9%	50.0%	44.6%	43.1%
Lower restrictions nonlethal	47.9%	42.9%	52.3%	42.9%	42.7%	45.7%	49.1%	45.4%	45.6%	45.2%	49.6%	38.6%	39.3%

Notes: This table presents respondents views on policies related to non-lethal firearms, by personal characteristics. Panel A shows them for LFAO. Panel B shows them for non-owners who say they are not interestd in acquiring an LFA, and Panel C shows them for non-owners interested in acquiring an LFA.*Encourage non-lethal purchase* is an indicator for respondents who somewhat support or strongly support an information campaign encouraging the purchase of non-lethal firearms instead of lethal firearms. *Exchange lethal for non-lethal* is an indicator for respondents who somewhat support or strongly support a program that would allow LFAO to exchange their lethal firearms for non-lethal firearms. *Lower restrictions non-lethal* is an indicator for respondents who somewhat support or strongly support lower restrictions and fewer regulations on non-lethal firearms compared to lethal firearms. Restricted to control group participants.

Table A-29: Policy Views on Non-Lethal Firearms by type and stringency of gun restrictions

	Minimum age restrictions		Stringent storage laws		Stringency of gun laws	
	No	Yes	No	Yes	Low	High
Panel A: LFAO						
Encourage nonlethal purchase	53.6%	56.7%	52.4%	56.3%	54.1%	55.8%
Exchange lethal for nonlethal	45.8%	54.0%	44.3%	51.9%	46.4%	53.0%
Lower restrictions nonlethal	50.7%	54.6%	52.5%	51.8%	51.9%	52.5%
Panel B: NO-U						
Encourage nonlethal purchase	53.3%	60.0%	54.9%	57.3%	54.2%	58.5%
Exchange lethal for nonlethal	68.9%	71.5%	73.4%	68.5%	70.8%	69.6%
Lower restrictions nonlethal	34.4%	41.4%	33.3%	40.0%	34.8%	40.4%
Panel C: NO-I						
Encourage nonlethal purchase	50.5%	57.9%	48.3%	56.6%	57.1%	51.0%
Exchange lethal for nonlethal	47.5%	47.6%	45.1%	48.7%	50.2%	45.1%
Lower restrictions nonlethal	44.6%	46.3%	46.9%	44.7%	46.9%	43.9%

Notes: This table presents respondents views on policies related to non-lethal firearms, by type and stringency of gun laws and restrictions in place in the state in which they live. Panel A shows them for LFAO. Panel B shows them for non-owners who say they are not interestd in acquiring an LFA, and Panel C shows them for non-owners interested in acquiring an LFA. *Encourage non-lethal purchase* is an indicator for respondents who somewhat support or strongly support an information campaign encouraging the purchase of non-lethal firearms instead of lethal firearms. *Exchange lethal for non-lethal* is an indicator for respondents who somewhat support or strongly support a program that would allow LFAO to exchange their lethal firearms for non-lethal firearms. *Lower restrictions non-lethal* is an indicator for respondents who somewhat support or strongly support lower restrictions and fewer regulations on non-lethal firearms compared to lethal firearms. Restricted to control group participants.

A-3 Additional experimental results

Table A-30: Treatment Effects of the Private Costs of Lethal Firearms Treatment on All Respondents, by Prior - Without Controls

	Lethal firearm owners				Non-owners			
	All	Low Prior	High Prior	Control mean	All	Low Prior	High Prior	Control mean
Panel A. Beliefs and behaviors related to LFAs								
Worried about arrest	0.22***	0.36***	0.09	2.37	0.25***	0.54***	0.15***	2.76
	(0.06)	(0.08)	(0.06)		(0.04)	(0.10)	(0.04)	
Worried family use	0.05	0.10	-0.01	1.73	0.15***	0.19*	0.09**	2.89
	(0.05)	(0.06)	(0.07)		(0.05)	(0.11)	(0.05)	
Willing to reduce number of guns	0.05	0.08	0.02	1.46	-	-	-	-
	(0.05)	(0.07)	(0.07)		-	-	-	
Less willing to purchase another LFA	0.17	-0.03	0.27*	2.88	-0.01	-0.08	-0.05	5.10
	(0.11)	(0.17)	(0.14)		(0.09)	(0.24)	(0.09)	
Positive WTP for a Safe	0.02	-0.01	0.03	0.54	-	-	-	-
	(0.03)	(0.05)	(0.03)		-	-	-	
Willing to keep LFA locked if had NLFA	0.20***	0.22*	0.17*	3.26	-	-	-	-
	(0.07)	(0.13)	(0.09)		-	-	-	
Will. to participate in a gun buyback program	-0.14	0.11	-0.30**	2.56	-	-	-	-
	(0.10)	(0.15)	(0.13)		-	-	-	
Panel B. Beliefs and behaviors related to NLFAs								
Believes it is a good Replacement	0.06	0.17*	-0.01	2.39	-	-	-	-
	(0.06)	(0.09)	(0.07)		-	-	-	
Prefer to incapacitate, not kill	0.03	0.03	0.02	3.14	-	-	-	-
	(0.07)	(0.11)	(0.08)		-	-	-	
Interested in purchasing a NLFA	-0.06	0.10	-0.17	3.85	-	-	-	-
	(0.11)	(0.19)	(0.13)		-	-	-	
Positive WTP for NLFA	-0.02	-0.05	-0.01	0.79	-	-	-	-
	(0.02)	(0.04)	(0.03)		-	-	-	
Panel C. Policy views related to NLFAs								
Support for NLFA Alternatives Index	0.05	0.09	0.01	0.00	0.16***	0.38***	0.10**	0.00
	(0.05)	(0.09)	(0.06)		(0.04)	(0.11)	(0.05)	
Real Stakes NLFA Index	0.02	0.17*	-0.07	0.00	0.06	0.21*	0.01	0.00
	(0.05)	(0.09)	(0.07)		(0.04)	(0.11)	(0.05)	
Panel D. Policy views related to LFAs								
Prohibiting Purchases Index	0.04	0.05	0.02	0.00	0.05	0.16	0.03	0.00
	(0.05)	(0.09)	(0.07)		(0.04)	(0.10)	(0.05)	
Support for Rules for Buying Index	0.03	0.14	-0.04	0.00	0.06	0.19	0.02	0.00
	(0.05)	(0.09)	(0.07)		(0.04)	(0.14)	(0.04)	
Support for Storage and Safety Index	0.14***	0.23***	0.08	0.00	0.08*	0.22*	0.03	0.00
	(0.05)	(0.09)	(0.07)		(0.04)	(0.13)	(0.04)	
Opposition to Carry in Schools	0.01	-0.02	0.01	0.00	-0.03	0.02	-0.05	0.00
	(0.05)	(0.09)	(0.07)		(0.04)	(0.12)	(0.05)	
Support for Concealed Carry Regulations Index	0.04	0.07	0.01	0.00	0.05	0.04	0.04	0.00
	(0.05)	(0.09)	(0.07)		(0.04)	(0.11)	(0.05)	
Support for Restrictions on High-Capacity LF	-0.02	0.04	-0.06	0.00	0.02	0.08	0.00	0.00
	(0.05)	(0.09)	(0.07)		(0.04)	(0.12)	(0.05)	
Real Stakes Lethal Index	0.15***	0.11	0.16**	0.00	0.05	0.07	0.03	0.00
	(0.06)	(0.09)	(0.07)		(0.04)	(0.11)	(0.05)	

Notes: This table presents the results of Equations 2 and 3 with the following control variables: age, gender, political affiliation, income and race. Each treatment group is reported under three cases: All data: Results based on responses from all participants of the main survey. Low prior: Subsample of respondents who were not worried at all about arrest (LFAO N = 1,096; NO N = 361). High prior: Subsample of respondents who were worried about arrest (LFAO N = 1,888; NO N = 1,854). Coefficients represent the estimated effects of the respective treatments on the specified outcomes. The following variables are standardized: Opposition to Carry in Schools and Support for Restrictions on High-Capacity LFAs. Positive Willingness to Pay for Byrna and Positive Willingness to Pay for a Safe are binary variables. Robust standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A-31: Treatment Effects of Providing Information on Non-Lethal Firearms on LFAO, With and Without Endorsement, by Prior - Without Controls

	NLFA Information			NLFA Information + Endorsement			Control mean
	All	Low prior	High prior	All	Low prior	High prior	
Panel A. Beliefs and behaviors related to LFAs							
Worried about arrest	-0.00	0.00	-0.02	0.00	0.08	-0.32**	2.37
	(0.06)	(0.06)	(0.13)	(0.06)	(0.06)	(0.13)	
Worried family use	0.05	0.08	-0.06	0.11**	0.19***	-0.20	1.73
	(0.06)	(0.06)	(0.14)	(0.06)	(0.06)	(0.13)	
Willing to reduce number of guns	-0.02	-0.03	0.03	-0.00	0.00	-0.03	1.46
	(0.05)	(0.06)	(0.12)	(0.05)	(0.06)	(0.12)	
Less willing to purchase another LFA	0.17	0.21*	-0.03	0.09	0.17	-0.23	2.88
	(0.11)	(0.12)	(0.24)	(0.11)	(0.12)	(0.25)	
Positive WTP for a Safe	0.01	-0.02	0.10*	-0.01	-0.01	-0.01	0.54
	(0.03)	(0.03)	(0.06)	(0.03)	(0.03)	(0.06)	
Willing to keep LFA locked if had NLFA	0.20***	0.22***	0.11	0.20***	0.29***	-0.11	3.26
	(0.07)	(0.08)	(0.17)	(0.07)	(0.08)	(0.17)	
Will. to participate in a gun buyback program	-0.23**	-0.26**	-0.15	-0.01	0.07	-0.32	2.56
	(0.10)	(0.11)	(0.22)	(0.10)	(0.11)	(0.22)	
Panel B. Beliefs and behaviors related to NLFAs							
Believes it is a good Replacement	0.29***	0.33***	0.11	0.32***	0.43***	-0.10	2.39
	(0.06)	(0.07)	(0.13)	(0.06)	(0.06)	(0.13)	
Prefer to incapacitate, not kill	0.25***	0.25***	0.26*	0.32***	0.41***	-0.02	3.14
	(0.06)	(0.07)	(0.14)	(0.06)	(0.07)	(0.15)	
Interested in purchasing a NLFA	0.76***	0.81***	0.60**	0.97***	1.12***	0.36	3.85
	(0.11)	(0.12)	(0.25)	(0.11)	(0.12)	(0.26)	
Positive WTP for NLFA	0.04*	0.03	0.07	0.06***	0.07***	0.01	0.79
	(0.02)	(0.02)	(0.05)	(0.02)	(0.02)	(0.05)	
Panel C. Policy views related to NLFAs							
Support for NLFA Alternatives Index	0.17***	0.19***	0.08	0.24***	0.30***	0.02	0.00
	(0.05)	(0.06)	(0.12)	(0.05)	(0.06)	(0.12)	
Real Stakes NLFA Index	0.01	0.03	-0.09	0.08	0.11*	-0.04	0.00
	(0.05)	(0.06)	(0.12)	(0.05)	(0.06)	(0.12)	
Panel D. Policy views related to LFAs							
Prohibiting Purchases Index	0.01	0.01	0.01	0.04	0.06	-0.02	0.00
	(0.05)	(0.06)	(0.13)	(0.05)	(0.06)	(0.13)	
Support for Rules for Buying Index	-0.02	0.01	-0.17	0.11**	0.17***	-0.13	0.00
	(0.05)	(0.06)	(0.13)	(0.05)	(0.06)	(0.13)	
Support for Storage and Safety Index	0.05	0.05	0.03	0.11**	0.16***	-0.06	0.00
	(0.05)	(0.06)	(0.12)	(0.05)	(0.06)	(0.12)	
Opposition to Carry in Schools	-0.03	-0.03	-0.05	0.06	0.11*	-0.10	0.00
	(0.05)	(0.06)	(0.12)	(0.05)	(0.06)	(0.12)	
Support for Concealed Carry Regulations Index	0.01	0.02	-0.03	0.02	0.07	-0.17	0.00
	(0.05)	(0.06)	(0.12)	(0.05)	(0.06)	(0.12)	
Support for Restrictions on High-Capacity LF	-0.04	-0.05	0.02	-0.05	-0.02	-0.13	0.00
	(0.05)	(0.06)	(0.11)	(0.05)	(0.06)	(0.11)	
Real Stakes Lethal Index	0.01	-0.01	0.06	0.13**	0.12*	0.18*	0.00
	(0.06)	(0.06)	(0.12)	(0.05)	(0.06)	(0.11)	

Notes: This table presents the results of Equation 3. Each treatment group is reported under three cases: All data: Results based on responses from all participants of the main survey. Low prior: Subsample of respondents who had no prior awareness of Byrna for the NLFA treatments (LFAO N = 2,374). High prior: Subsample of respondents who were already aware of Byrna (LFAO N = 610). Coefficients represent the estimated effects of the respective treatments on the specified outcomes. The following variables are standardized: Opposition to Carry in Schools and Support for Restrictions on High-Capacity LF. Positive Willingness to Pay for Byrna and Positive Willingness to Pay for a Safe are binary variables. Robust standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A-32: Persistence of the Treatment Effects of the Private Costs of Lethal Firearms Treatment on All Respondents - Without Controls

	Lethal firearm owners				Non-owners			
	Main (all)	Main (FU only)	Follow-up (all)	Control Mean	Main (all)	Main (FU only)	Follow-up (all)	Control Mean
Panel A. Beliefs and behaviors related to LFAs								
Worried about arrest	0.22***	0.21***	0.16***	2.37	0.25***	0.24***	0.08*	2.76
	(0.06)	(0.06)	(0.06)		(0.04)	(0.05)	(0.05)	
Worried family use	0.05	0.04	0.01	1.73	0.15***	0.13**	-0.00	2.89
	(0.05)	(0.06)	(0.05)		(0.05)	(0.05)	(0.05)	
Willing to reduce number of guns	0.05	0.04	0.00	1.46	-	-	-	
	(0.05)	(0.06)	(0.06)		-	-	-	
Less willing to purchase another LFA	0.05	0.04	0.01	2.88	0.15	0.13	-0.00	5.10
	(0.05)	(0.06)	(0.05)		(0.05)	(0.05)	(0.05)	
Positive WTP for a Safe	0.02	0.04	-0.00	0.54	-	-	-	
	(0.03)	(0.03)	(0.03)		-	-	-	
Willing to keep LFA locked if had NLFA	0.20***	0.19**	0.06	3.26	-	-	-	
	(0.07)	(0.08)	(0.08)		-	-	-	
Will. to participate in a gun buyback program	-0.14	-0.11	-0.19*	2.56	-	-	-	
	(0.10)	(0.11)	(0.11)		-	-	-	
Panel B. Beliefs and behaviors related to NLFA								
Believes it is a good Replacement	0.06	0.06	-0.03	2.39	-	-	-	
	(0.06)	(0.06)	(0.06)		-	-	-	
Prefer to incapacitate, not kill	0.03	0.05	-0.04	3.14	-	-	-	
	(0.07)	(0.07)	(0.07)		-	-	-	
Interested in purchasing a NLFA	-0.06	-0.06	-0.07	3.85	-	-	-	
	(0.11)	(0.12)	(0.11)		-	-	-	
Positive WTP for NLFA	-0.02	-0.01	0.01	0.79	-	-	-	
	(0.02)	(0.02)	(0.02)		-	-	-	
Panel C. Policy views related to NLFAs								
Support for NLFA Alternatives Index	0.05	0.02	-0.04	0.00	0.16***	0.15***	0.10**	0.00
	(0.05)	(0.06)	(0.06)		(0.04)	(0.05)	(0.04)	
Panel D. Policy views related to LFAs								
Prohibiting Purchases Index	0.04	0.03	-0.04	0.00	0.05	0.05	0.06	0.00
	(0.05)	(0.06)	(0.06)		(0.04)	(0.05)	(0.04)	
Support for Rules for Buying Index	0.03	0.03	0.03	0.00	0.06	0.05	-0.00	0.00
	(0.05)	(0.06)	(0.06)		(0.04)	(0.04)	(0.04)	
Support for Storage and Safety Index	0.14***	0.16***	0.09	0.00	0.08*	0.06	0.06	0.00
	(0.05)	(0.06)	(0.06)		(0.04)	(0.04)	(0.04)	
Opposition to Carry in Schools	0.01	-0.02	-0.06	0.00	-0.03	-0.04	-0.05	0.00
	(0.05)	(0.06)	(0.06)		(0.04)	(0.05)	(0.05)	
Support for Concealed Carry Regulations Index	0.04	0.08	0.04	0.00	0.05	0.05	0.02	0.00
	(0.05)	(0.06)	(0.06)		(0.04)	(0.05)	(0.05)	
Support for Restrictions on High-Capacity LF	-0.02	0.02	0.04	0.00	0.02	0.03	0.01	0.00
	(0.05)	(0.06)	(0.06)		(0.04)	(0.05)	(0.05)	

Notes: This table presents the results of Equations 2 and 3. Each treatment group is reported under three cases: Main: Results based on responses from all participants of the main survey (LFAO N = 2,984; NO N = 2,215). Main (FU only): Results based on main survey data using responses from participants who took the follow-up survey (LFAO N = 2,561; NO N = 1,974). Follow-up: Results based on responses from the follow-up survey (LFAO N = 2,561; NO N = 1,974). Coefficients represent the estimated effects of the respective treatments on the specified outcomes. The following variables are standardized: Opposition to Carry in Schools and Support for Restrictions on High-Capacity LFAs. Positive Willingness to Pay for Byrna and Positive Willingness to Pay for a Safe are binary variables. Robust standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A-33: Persistence of the Treatment Effects of Providing Information on Non-Lethal Firearms on LFAO, With and Without Endorsement - Without Controls

	NLFA Information			NLFA Information + Endorsement			Control mean
	Main (all)	Main (FU only)	Follow-up (all)	Main (all)	Main (FU only)	Follow-up (all)	
Panel A. Beliefs and behaviors related to LFAs							
Worried about arrest	-0.00	0.02	-0.00	0.00	-0.00	0.01	2.37
	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	
Worried family use	0.05	0.05	-0.00	0.11*	0.12**	0.04	1.73
	(0.06)	(0.06)	(0.05)	(0.06)	(0.06)	(0.05)	
Willing to reduce number of guns	-0.02	-0.03	0.02	-0.00	-0.02	0.01	1.46
	(0.05)	(0.06)	(0.06)	(0.05)	(0.06)	(0.06)	
Less willing to purchase another LFA	0.17	0.12	0.08	0.09	0.03	0.04	2.88
	(0.11)	(0.12)	(0.11)	(0.11)	(0.12)	(0.11)	
Positive WTP for a Safe	0.01	0.01	0.01	-0.01	0.00	0.01	0.54
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	
Willing to keep LFA locked if had NLFA	0.20**	0.18**	0.05	0.20**	0.22**	0.13	3.26
	(0.07)	(0.08)	(0.08)	(0.07)	(0.08)	(0.08)	
Will. to participate in a gun buyback program	-0.23**	-0.21**	-0.22**	-0.01	0.02	-0.02	2.56
	(0.10)	(0.10)	(0.11)	(0.10)	(0.11)	(0.11)	
Panel B. Beliefs and behaviors related to NLFAs							
Believes it is a good replacement	0.29***	0.28***	0.10	0.32***	0.32***	0.12*	2.39
	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	
Prefer to incapacitate, not kill	0.25***	0.24***	0.08	0.32***	0.33***	0.18**	3.14
	(0.06)	(0.07)	(0.07)	(0.06)	(0.07)	(0.07)	
Interested in purchasing a NLFA	0.76***	0.79***	0.37***	0.97***	1.01***	0.53***	3.85
	(0.11)	(0.12)	(0.12)	(0.11)	(0.12)	(0.12)	
Positive WTP for NLFA	0.04*	0.05*	0.03	0.06**	0.07***	0.06**	0.79
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	
Panel C. Policy views related to NLFAs							
Support for NLFA Alternatives Index	0.17***	0.17***	0.09	0.24***	0.25***	0.14**	0.00
	(0.05)	(0.06)	(0.06)	(0.05)	(0.06)	(0.06)	
Panel D. Policy views related to LFAs							
Prohibiting Purchases Index	0.01	0.00	-0.06	0.04	0.05	-0.00	0.00
	(0.05)	(0.06)	(0.06)	(0.05)	(0.06)	(0.06)	
Support for Rules for Buying Index	-0.02	-0.02	-0.02	0.11*	0.11*	0.09	0.00
	(0.05)	(0.06)	(0.06)	(0.05)	(0.06)	(0.06)	
Support for Storage and Safety Index	0.05	0.05	0.03	0.11**	0.11*	0.09	0.00
	(0.05)	(0.06)	(0.06)	(0.05)	(0.06)	(0.06)	
Opposition to Carry in Schools	-0.03	-0.04	-0.10*	0.06	0.06	0.01	0.00
	(0.05)	(0.06)	(0.06)	(0.05)	(0.06)	(0.06)	
Support for Concealed Carry Regulations Index	0.01	0.01	-0.04	0.02	0.02	0.03	0.00
	(0.05)	(0.06)	(0.06)	(0.05)	(0.06)	(0.06)	
Support for Restrictions on High-Capacity LF	-0.04	-0.06	-0.06	-0.05	-0.03	0.04	0.00
	(0.05)	(0.06)	(0.06)	(0.05)	(0.06)	(0.06)	

Notes: This table presents the results of Equation 3. Each treatment group is reported under three cases: Main: Results based on responses from all participants of the main survey (LFAO N = 2,984). Main (FU only): Results based on main survey data using responses from participants who took the follow-up survey (LFAO N = 2,561). Follow-up: Results based on responses from the follow-up survey (LFAO N = 2,561). Coefficients represent the estimated effects of the respective treatments on the specified outcomes. The following variables are standardized: Opposition to Carry in Schools and Support for Restrictions on High-Capacity LFAs. Positive Willingness to Pay for Byrna and Positive Willingness to Pay for a Safe are binary variables. Robust standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A-34: Effect of the NLFA Information and Endorsement Treatments on Open-ended Answers about NLFAs, by Prior - Without Controls

	NLFA Information			NLFA Information + Endorsement		
	All	Low Prior	High Prior	All	Low Prior	High Prior
Because it is easier to access and require no permits	0.01	0.01	0.01	0.01	0.01**	-0.01
	(0.01)	(0.00)	(0.02)	(0.00)	(0.01)	(0.01)
Would consider but need to know more about product and its reliability	0.02**	0.03**	-0.00	0.02**	0.03**	-0.01
	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.02)
Because it reduces mental toll of having/using lethal firearms	0.01	0.01	0.00	0.03**	0.03**	0.02
	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.02)
Because it is suited for certain threats, though not all	0.03**	0.04**	-0.00	0.09***	0.10***	0.04
	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)	(0.04)
Because it is good for self-defense	0.06**	0.05*	0.07	0.03	0.04	-0.03
	(0.03)	(0.03)	(0.06)	(0.03)	(0.03)	(0.05)
Because NLFAs could escalate dangerous situations	-0.00	-0.00	0.00	-0.00	-0.00	-0.01
	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.02)
Because NLFAs are unreliable	0.01	0.00	0.01	-0.00	-0.01	0.02
	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.02)
Because I still need LFAs for hunting and recreation	-0.02	-0.03**	0.02	-0.02**	-0.03***	0.02
	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.02)
Because I am unsure about NLFAs' effectiveness	-0.03**	-0.03**	-0.01	-0.03**	-0.04***	-0.00
	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.02)
Because I prioritize safety and do not want to take risks	-0.02	-0.02	0.02	-0.01	-0.02	0.02
	(0.02)	(0.02)	(0.04)	(0.02)	(0.02)	(0.04)
Because they are ineffective in high-stakes situations	-0.07***	-0.06**	-0.12**	-0.09***	-0.10***	-0.03
	(0.02)	(0.03)	(0.05)	(0.02)	(0.03)	(0.05)

Notes: This table presents the results of Equation 3, analyzing responses to the open-ended question about why respondents would or would not consider Byrna as a replacement. The outcome variable is a binary indicator equal to 1 if the lethal firearm owner's open-ended response includes the corresponding reason and 0 otherwise. Each row reports the estimated treatment effect of the *Non-Lethal Firearm Information* treatment and *Non-Lethal Firearm Information and Endorsement* treatment, with results presented under three cases: All data: Results based on responses from all participants of the main survey (LFAO N = 2,984). Low prior: Subsample of respondents who had no prior awareness of Byrna for the NLFA treatments (LFAO N = 2,374). High prior: Subsample of respondents who were already aware of Byrna (LFAO N = 610). Coefficients represent the estimated effects of the respective treatments on the specified outcomes. Robust standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A-35: Persistence of Treatment Effects of the Private Cost of Lethal Firearm Ownership Treatment – Unweighted

	Lethal firearm owners			Non-owners		
	Main (all)	Main (FU only)	Follow-up (all)	Main (all)	Main (FU only)	Follow-up (all)
Panel A. Perceived private costs						
Worried about arrest	0.21***	0.21***	0.14**	0.26***	0.25***	0.09**
	(0.06)	(0.06)	(0.06)	(0.04)	(0.05)	(0.04)
Worried family use	0.04	0.03	-0.01	0.15***	0.13***	0.01
	(0.05)	(0.06)	(0.05)	(0.05)	(0.05)	(0.05)
Panel B. Attitudes and behaviors related to NLFA						
Good Replacement	0.03	0.02	-0.04	-	-	-
	(0.05)	(0.06)	(0.06)	-	-	-
Incapacitate but not kill	0.03	0.05	-0.05	-	-	-
	(0.06)	(0.07)	(0.07)	-	-	-
Interested in purchasing a NLFA	-0.06	-0.07	-0.08	-	-	-
	(0.11)	(0.12)	(0.11)	-	-	-
Positive Willingness to Pay for NLFA	-0.04	-0.02	-0.00	-	-	-
	(0.02)	(0.02)	(0.02)	-	-	-
Panel C. Private behaviors related to LFA						
Willing to keep LFA locked if had NLFA	0.16**	0.15*	0.01	-	-	-
	(0.07)	(0.08)	(0.07)	-	-	-
Positive Willingness to Pay for a Safe	0.01	0.03	-0.02	-	-	-
	(0.03)	(0.03)	(0.03)	-	-	-
Less willing to purchase another LFA	0.15	0.12	-0.07	0.00	-0.04	-0.06
	(0.11)	(0.11)	(0.11)	(0.08)	(0.09)	(0.09)
Willing to participate in a gun buyback program	-0.15	-0.12	-0.20**	-	-	-
	(0.09)	(0.10)	(0.10)	-	-	-
Willing to reduce number of guns	0.06	0.06	0.00	-	-	-
	(0.05)	(0.06)	(0.06)	-	-	-
Panel D. Policy views on non-lethal						
Support for NLFA Alternatives Index	0.05	0.03	-0.02	0.16***	0.15***	0.09**
	(0.05)	(0.05)	(0.05)	(0.04)	(0.05)	(0.04)
Panel E. Policy views on lethal						
Prohibiting Purchases Index	0.02	0.01	-0.06	0.05	0.05	0.04
	(0.05)	(0.06)	(0.06)	(0.04)	(0.04)	(0.04)
Support for Rules for Buying Index	0.00	0.01	0.01	0.06	0.04	-0.01
	(0.05)	(0.05)	(0.05)	(0.04)	(0.04)	(0.04)
Support for Storage and Safety Index	0.11**	0.13**	0.06	0.08**	0.06	0.06
	(0.05)	(0.05)	(0.05)	(0.04)	(0.04)	(0.04)
Opposition to Carry in Schools	-0.03	-0.06	-0.09*	-0.02	-0.03	-0.04
	(0.05)	(0.05)	(0.05)	(0.04)	(0.04)	(0.04)
Support for Concealed Carry Regulations Index	0.01	0.05	0.01	0.05	0.04	0.00
	(0.05)	(0.05)	(0.05)	(0.04)	(0.04)	(0.04)
Support for Restrictions on High-Capacity LF	-0.03	0.00	0.05	0.01	0.01	0.00
	(0.05)	(0.05)	(0.05)	(0.04)	(0.04)	(0.04)

Notes: This table presents the results of Equation 2 and 3, with the following control variables: age, gender, political affiliation, income and race. Each treatment group is reported under three cases: Main: Results based on responses from all participants of the main survey (LFAO N = 2,984; NO N = 2,215). Main (FU only): Results based on main survey data using responses from participants who took the follow-up survey (LFAO N = 2,561; NO N = 1,974). Follow-up: Results based on responses from the follow-up survey (LFAO N = 2,561; NO N = 1,974). Coefficients represent the estimated effects of the respective treatments on the specified outcomes. The following variables are standardized: Opposition to Carry in Schools, Support for Restrictions on High-Capacity LFAs, Less willing to purchase another LFA, and Willing to participate in a gun buyback program. Positive Willingness to Pay for Byrna and Positive Willingness to Pay for a Safe are binary variables. Robust standard errors are reported in parentheses. Estimates are based on unweighted data. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A-36: Treatment Effects of the Private Cost of Lethal Firearm Ownership Treatment, by prior – Unweighted

	Lethal firearm owners			Non-owners		
	All	Low Prior	High Prior	All	Low Prior	High Prior
Panel A. Perceived private costs						
Worried about arrest	0.21***	0.38***	0.08	0.26***	0.58***	0.15***
	(0.06)	(0.08)	(0.06)	(0.04)	(0.09)	(0.04)
Worried family use	0.04	0.11*	-0.01	0.15***	0.25**	0.08*
	(0.05)	(0.06)	(0.07)	(0.05)	(0.11)	(0.04)
Panel B. Attitudes and behaviors related to NLFA						
Good Replacement	0.03	0.11	-0.03	-	-	-
	(0.05)	(0.08)	(0.07)	-	-	-
Incapacitate but not kill	0.03	0.01	0.03	-	-	-
	(0.06)	(0.10)	(0.08)	-	-	-
Interested in purchasing a NLFA	-0.06	0.08	-0.16	-	-	-
	(0.11)	(0.18)	(0.13)	-	-	-
Positive Willingness to Pay for NLFA	-0.04	-0.06	-0.02	-	-	-
	(0.02)	(0.04)	(0.03)	-	-	-
Panel C. Private behaviors related to LFA						
Willing to keep LFA locked if had NLFA	0.16**	0.16	0.15*	-	-	-
	(0.07)	(0.12)	(0.09)	-	-	-
Positive Willingness to Pay for a Safe	0.01	-0.02	0.02	-	-	-
	(0.03)	(0.04)	(0.03)	-	-	-
Less willing to purchase another LFA	0.15	-0.02	0.23*	0.00	-0.06	-0.04
	(0.11)	(0.17)	(0.13)	(0.08)	(0.23)	(0.09)
Willing to participate in a gun buyback program	-0.15	0.06	-0.29**	-	-	-
	(0.09)	(0.14)	(0.12)	-	-	-
Willing to reduce number of guns	0.06	0.08	0.03	-	-	-
	(0.05)	(0.07)	(0.07)	-	-	-
Panel D. Policy views on non-lethal						
Support for NLFA Alternatives Index	0.05	0.09	0.03	0.16***	0.35***	0.11**
	(0.05)	(0.08)	(0.06)	(0.04)	(0.11)	(0.05)
Real Stakes NLFA Index	0.01	0.14*	-0.07	0.07	0.22**	0.03
	(0.05)	(0.08)	(0.06)	(0.04)	(0.11)	(0.04)
Panel E. Policy views on lethal						
Prohibiting Purchases Index	0.02	0.05	-0.00	0.05	0.12	0.03
	(0.05)	(0.08)	(0.06)	(0.04)	(0.10)	(0.05)
Support for Rules for Buying Index	0.00	0.09	-0.05	0.06	0.18	0.02
	(0.05)	(0.09)	(0.06)	(0.04)	(0.14)	(0.04)
Support for Storage and Safety Index	0.11**	0.19**	0.05	0.08**	0.26**	0.03
	(0.05)	(0.08)	(0.06)	(0.04)	(0.13)	(0.04)
Opposition to Carry in Schools	-0.03	-0.07	-0.01	-0.02	0.02	-0.04
	(0.05)	(0.08)	(0.06)	(0.04)	(0.11)	(0.04)
Support for Concealed Carry Regulations Index	0.01	0.05	-0.01	0.05	0.05	0.03
	(0.05)	(0.08)	(0.06)	(0.04)	(0.10)	(0.04)
Support for Restrictions on High-Capacity LF	-0.03	0.05	-0.09	0.01	0.05	-0.01
	(0.05)	(0.08)	(0.06)	(0.04)	(0.11)	(0.04)
Real Stakes Lethal Index	0.11**	0.04	0.14**	0.04	0.06	0.03
	(0.05)	(0.08)	(0.06)	(0.04)	(0.10)	(0.04)

Notes: This table presents the results of Equations 2 and 3, with the following control variables: age, gender, political affiliation, income and race. Each treatment group is reported under three cases: All data: Results based on responses from all participants of the main survey. Low prior: Subsample of respondents who were not worried at all about arrest (LFAO N = 1,888). High prior: Subsample of respondents who were worried about arrest (LFAO N = 1,096). Coefficients represent the estimated effects of the respective treatments on the specified outcomes. The following variables are standardized: Opposition to Carry in Schools, Support for Restrictions on High-Capacity LF, Less willing to purchase another LFA, and Willing to participate in a gun buyback program. Positive Willingness to Pay for Byrna and Positive Willingness to Pay for a Safe are binary variables. Robust standard errors are reported in parentheses. Estimates are based on unweighted data. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A-37: Persistence of the Treatment Effects of Providing Information on Non-Lethal Firearms on LFAO, With and Without Endorsement – Unweighted

	NLFA Information			NLFA Information + Endorsement		
	Main (all)	Main (FU only)	Follow-up (all)	Main (all)	Main (FU only)	Follow-up (all)
Panel A. Perceived private costs						
Worried about arrest	-0.03	-0.00	-0.01	-0.02	-0.02	-0.01
	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)
Worried family use	0.04	0.03	-0.03	0.10*	0.11*	0.03
	(0.05)	(0.06)	(0.05)	(0.05)	(0.06)	(0.05)
Panel B. Attitudes and behaviors related to NLFA						
Good Replacement	0.26***	0.26***	0.10*	0.30***	0.31***	0.11*
	(0.06)	(0.06)	(0.06)	(0.05)	(0.06)	(0.06)
Incapacitate but not kill	0.25***	0.26***	0.09	0.30***	0.32***	0.15**
	(0.06)	(0.07)	(0.07)	(0.06)	(0.07)	(0.07)
Interested in purchasing a NLFA	0.77***	0.81***	0.40***	0.94***	0.99***	0.52***
	(0.10)	(0.11)	(0.11)	(0.10)	(0.11)	(0.11)
Positive Willingness to Pay for NLFA	0.03	0.04	0.03	0.05**	0.06***	0.05**
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Panel C. Private behaviors related to LFA						
Willing to keep LFA locked if had NLFA	0.17**	0.16**	0.01	0.14**	0.16**	0.07
	(0.07)	(0.08)	(0.07)	(0.07)	(0.08)	(0.07)
Positive Willingness to Pay for a Safe	0.01	0.00	0.01	-0.02	-0.01	-0.00
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Less willing to purchase another LFA	0.13	0.10	0.06	0.03	-0.00	-0.01
	(0.10)	(0.11)	(0.11)	(0.11)	(0.11)	(0.11)
Willing to participate in a gun buyback program	-0.19**	-0.15	-0.13	-0.03	0.03	0.02
	(0.09)	(0.10)	(0.10)	(0.09)	(0.10)	(0.10)
Willing to reduce number of guns	-0.00	-0.01	0.02	-0.00	-0.00	0.01
	(0.05)	(0.06)	(0.06)	(0.05)	(0.05)	(0.06)
Panel D. Policy views on non-lethal						
Support for NLFA Alternatives Index	0.18***	0.19***	0.12**	0.23***	0.24***	0.15***
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)
Panel E. Policy views on lethal						
Prohibiting Purchases Index	-0.00	-0.01	-0.08	0.01	0.02	-0.05
	(0.05)	(0.05)	(0.05)	(0.05)	(0.06)	(0.06)
Support for Rules for Buying Index	-0.05	-0.05	-0.03	0.05	0.05	0.05
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)
Support for Storage and Safety Index	0.02	0.02	-0.00	0.07	0.07	0.05
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)
Opposition to Carry in Schools	-0.06	-0.06	-0.11**	0.03	0.02	-0.02
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)
Support for Concealed Carry Regulations Index	-0.02	-0.01	-0.07	-0.02	-0.02	-0.02
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)
Support for Restrictions on High-Capacity LF	-0.04	-0.05	-0.05	-0.08*	-0.06	0.01
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)

Notes: This table presents the results of Equation 3, with the following control variables: age, gender, political affiliation, income and race. Each treatment group is reported under three cases: Main: Results based on responses from all participants of the main survey (LFAO N = 2,984). Main (FU only): Results based on main survey data using responses from participants who took the follow-up survey (LFAO N = 2,561). Follow-up: Results based on responses from the follow-up survey (LFAO N = 2,561). Coefficients represent the estimated effects of the respective treatments on the specified outcomes. The following variables are normalized: Opposition to Carry in Schools, Support for Restrictions on High-Capacity LFAs, Willing to purchase another LFA, and Willing to participate in a gun buyback program. Positive Willingness to Pay for Byrna and Positive Willingness to Pay for a Safe are binary variables. Robust standard errors are reported in parentheses. Estimates are based on unweighted data. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A-38: Treatment Effects of Providing Information on Non-Lethal Firearms on LFAO, With and Without Endorsement, by prior – Unweighted

	NLFA Information			NLFA Information + Endorsement		
	All data	Low prior	High prior	All data	Low prior	High prior
Panel A. Perceived private costs						
Worried about arrest	-0.03	-0.02	-0.06	-0.02	0.07	-0.39***
	(0.06)	(0.06)	(0.12)	(0.06)	(0.06)	(0.13)
Worried family use	0.04	0.07	-0.10	0.10*	0.19***	-0.24*
	(0.05)	(0.06)	(0.13)	(0.05)	(0.06)	(0.12)
Panel B. Attitudes and behaviors related to NLFA						
Good Replacement	0.26***	0.31***	0.07	0.30***	0.40***	-0.08
	(0.06)	(0.06)	(0.13)	(0.05)	(0.06)	(0.13)
Incapacitate but not kill	0.25***	0.27***	0.20	0.30***	0.38***	-0.02
	(0.06)	(0.07)	(0.14)	(0.06)	(0.07)	(0.14)
Interested in purchasing a NLFA	0.77***	0.81***	0.60**	0.94***	1.09***	0.32
	(0.10)	(0.12)	(0.24)	(0.10)	(0.11)	(0.25)
Positive Willingness to Pay for NLFA	0.03	0.03	0.05	0.05**	0.06***	-0.00
	(0.02)	(0.02)	(0.05)	(0.02)	(0.02)	(0.05)
Panel C. Private behaviors related to LFA						
Willing to keep LFA locked if had NLFA	0.17**	0.19**	0.07	0.14**	0.21***	-0.11
	(0.07)	(0.08)	(0.16)	(0.07)	(0.08)	(0.16)
Positive Willingness to Pay for a Safe	0.01	-0.01	0.09	-0.02	-0.02	-0.03
	(0.03)	(0.03)	(0.06)	(0.03)	(0.03)	(0.06)
Less willing to purchase another LFA	0.13	0.17	-0.02	0.03	0.08	-0.20
	(0.10)	(0.12)	(0.23)	(0.11)	(0.12)	(0.24)
Willing to participate in a gun buyback program	-0.19**	-0.18*	-0.22	-0.03	0.05	-0.32
	(0.09)	(0.10)	(0.21)	(0.09)	(0.11)	(0.21)
Willing to reduce number of guns	-0.00	-0.02	0.05	-0.00	0.02	-0.09
	(0.05)	(0.06)	(0.12)	(0.05)	(0.06)	(0.12)
Panel D. Policy views on non-lethal						
Support for NLFA Alternatives Index	0.18***	0.22***	0.02	0.23***	0.28***	0.00
	(0.05)	(0.06)	(0.11)	(0.05)	(0.05)	(0.11)
Real Stakes NLFA Index	0.03	0.06	-0.09	0.06	0.08	-0.03
	(0.05)	(0.06)	(0.11)	(0.05)	(0.06)	(0.11)
Panel E. Policy views on lethal						
Prohibiting Purchases Index	-0.00	0.01	-0.04	0.01	0.03	-0.03
	(0.05)	(0.06)	(0.12)	(0.05)	(0.06)	(0.12)
Support for Rules for Buying Index	-0.05	-0.02	-0.18*	0.05	0.10*	-0.15
	(0.05)	(0.05)	(0.11)	(0.05)	(0.05)	(0.12)
Support for Storage and Safety Index	0.02	0.02	0.03	0.07	0.11**	-0.06
	(0.05)	(0.05)	(0.11)	(0.05)	(0.05)	(0.11)
Opposition to Carry in Schools	-0.06	-0.04	-0.12	0.03	0.07	-0.12
	(0.05)	(0.05)	(0.11)	(0.05)	(0.05)	(0.11)
Support for Concealed Carry Regulations Index	-0.02	-0.00	-0.09	-0.02	0.02	-0.17
	(0.05)	(0.05)	(0.10)	(0.05)	(0.05)	(0.11)
Support for Restrictions on High-Capacity LF	-0.04	-0.05	-0.01	-0.08*	-0.07	-0.15
	(0.05)	(0.05)	(0.10)	(0.05)	(0.05)	(0.10)
Real Stakes Lethal Index	-0.00	-0.01	0.02	0.09*	0.08	0.15
	(0.05)	(0.06)	(0.10)	(0.05)	(0.06)	(0.10)

Notes: This table presents the results of Equation 3, with the following control variables: age, gender, political affiliation, income and race. Main: Results based on responses from all participants of the main survey (LFAO N = 2,984). Main (FU only): Results based on main survey data using responses from participants who took the follow-up survey (LFAO N = 2,561). Follow-up: Results based on responses from the follow-up survey (LFAO N = 2,561). Coefficients represent the estimated effects of the respective treatments on the specified outcomes. The following variables are normalized: Opposition to Carry in Schools, Support for Restrictions on High-Capacity LFAs, Willing to purchase another LFA, and Willing to participate in a gun buyback program. Positive Willingness to Pay for Byrna and Positive Willingness to Pay for a Safe are binary variables. Robust standard errors are reported in parentheses. Estimates are based on unweighted data. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A-39: Treatment Effects of Providing Information on Private Costs of LFAO, by Rural/Urban

	Lethal firearm owners					Non-owners				
	Rural	Urban	P-value (Test of Difference: Columns (1)-(2))	Rural control mean	Urban control mean	Rural	Urban	P-value (Test of Difference: Columns (6)-(7))	Rural control mean	Urban control mean
Panel A. Beliefs and behaviors related to LFAs										
Worried about arrest	0.29**	0.20***	0.48	2.27	2.40	0.46***	0.24***	0.13	2.53	2.79
	(0.12)	(0.07)				(0.13)	(0.05)			
Worried family use	0.17	0.01	0.22	1.62	1.76	0.27*	0.15***	0.42	2.66	2.91
	(0.12)	(0.06)				(0.14)	(0.05)			
Willing to reduce number of guns	-0.07	0.06	0.30	1.36	1.49	-	-	-	-	-
	(0.10)	(0.06)								
Less willing to purchase another LFA	0.12	0.14	0.95	2.61	2.95	-0.28	0.04	0.26	5.13	5.09
	(0.22)	(0.12)				(0.27)	(0.09)			
Positive WTP for a Safe	-0.07	0.05	0.10	0.58	0.53	-	-	-	-	-
	(0.06)	(0.03)								
Willing to keep LFA locked if had NLFA	0.36**	0.14*	0.22	3.13	3.29	-	-	-	-	-
	(0.16)	(0.08)								
Will. to participate in a gun buyback program	0.15	-0.27**	0.09	2.33	2.62	-	-	-	-	-
	(0.22)	(0.11)								
Panel B. Beliefs and behaviors related to NLFAs										
Believes it is a good replacement	0.09	0.02	0.60	2.27	2.42	-	-	-	-	-
	(0.12)	(0.06)								
Prefer to incapacitate, not kill	0.21	-0.03	0.12	3.03	3.17	-	-	-	-	-
	(0.14)	(0.07)								
Interested in purchasing a NLFA	-0.04	-0.11	0.79	3.70	3.89	-	-	-	-	-
	(0.24)	(0.12)								
Positive WTP for NLFA	-0.13**	0.00	0.02	0.83	0.78	-	-	-	-	-
	(0.05)	(0.03)								
Panel C. Policy views related to NLFAs										
Support for NLFA Alternatives Index	0.03	0.03	0.99	0.00	-0.00	0.09	0.16***	0.60	-0.06	0.01
	(0.11)	(0.06)				(0.12)	(0.05)			
Real Stakes NLFA Index	0.08	-0.02	0.48	-0.15	0.04	0.17	0.05	0.37	-0.20	0.02
	(0.12)	(0.06)				(0.13)	(0.04)			
Panel D. Policy views related to LFAs										
Prohibiting Purchases Index	0.13	-0.00	0.32	-0.05	0.01	0.15	0.05	0.41	-0.05	0.00
	(0.11)	(0.06)				(0.12)	(0.05)			
Support for Rules for Buying Index	0.19*	-0.03	0.08	-0.18	0.05	0.10	0.06	0.81	-0.16	0.02
	(0.12)	(0.06)				(0.13)	(0.04)			
Support for Storage and Safety Index	0.19*	0.11**	0.55	-0.05	0.01	0.10	0.09**	0.94	-0.17	0.02
	(0.11)	(0.06)				(0.13)	(0.04)			
Opposition to Carry in Schools	-0.14	0.01	0.22	-0.09	0.02	-0.05	-0.03	0.92	-0.06	0.00
	(0.11)	(0.06)				(0.13)	(0.04)			
Support for Concealed Carry Regulations Index	-0.01	0.02	0.83	-0.15	0.04	-0.01	0.06	0.62	-0.01	-0.00
	(0.11)	(0.06)				(0.13)	(0.04)			
Support for Restrictions on High-Capacity LF	0.11	-0.07	0.15	-0.14	0.04	0.06	0.02	0.76	-0.13	0.01
	(0.12)	(0.06)				(0.12)	(0.04)			
Real Stakes Lethal Index	0.20*	0.10	0.44	-0.11	0.03	0.12	0.03	0.47	-0.10	0.01
	(0.11)	(0.06)				(0.11)	(0.04)			

Notes: This table presents the results of Equations 2 and 3, with the following control variables: age, gender, political affiliation, income and race. Results are split by residence: Urban (LFAO N=2,381; NO N=1,960) and Rural (LFAO N=589; NO N=244). The rural-urban classification was done based on USDA, Economic Research Service's (ERS) Rural-Urban Commuting Area (RUCA) codes. Coefficients represent the estimated effects of the respective treatments on the specified outcomes. The following variables are standardized: Opposition to Carry in Schools and Support for Restrictions on High-Capacity LFAs. Positive Willingness to Pay for Byrna and Positive Willingness to Pay for a Safe are binary variables. The third and ninth columns report p-values from Wald tests of equality of the urban and rural treatment-effect estimates. Robust standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A-40: Persistence of the Treatment Effects of Providing Information on Non-Lethal Firearms on LFAO, With and Without Endorsement - Amongst Low Prior

	NLFA Information			NLFA Information + Endorsement		
	Main (all)	Main (FU only)	Follow-up (all)	Main (all)	Main (FU only)	Follow-up (all)
Panel A. Beliefs and behaviors related to LFAs						
Worried about arrest	-0.00	0.03	-0.01	0.07	0.08	0.00
	(0.06)	(0.07)	(0.06)	(0.06)	(0.07)	(0.06)
Worried family use	0.08	0.09	-0.01	0.18***	0.20***	0.04
	(0.06)	(0.06)	(0.05)	(0.06)	(0.07)	(0.05)
Willing to reduce number of guns	-0.03	-0.01	0.02	0.00	0.01	0.02
	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.05)
Less willing to purchase another LFA	0.22*	0.20	0.06	0.13	0.09	0.01
	(0.12)	(0.13)	(0.11)	(0.12)	(0.13)	(0.11)
Positive WTP for a Safe	-0.02	-0.02	0.01	-0.01	0.00	0.01
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Willing to keep LFA locked if had NLFA	0.21**	0.20**	0.03	0.27***	0.27***	0.10
	(0.08)	(0.09)	(0.08)	(0.08)	(0.09)	(0.08)
Will. to participate in a gun buyback program	-0.26**	-0.22*	-0.24**	0.05	0.10	-0.03
	(0.11)	(0.12)	(0.10)	(0.11)	(0.12)	(0.11)
Panel B. Beliefs and behaviors related to NLFAs						
Believes it is a good replacement	0.32***	0.36***	0.09	0.41***	0.43***	0.11*
	(0.06)	(0.07)	(0.06)	(0.06)	(0.07)	(0.06)
Prefer to incapacitate, not kill	0.25***	0.24***	0.09	0.38***	0.39***	0.16**
	(0.07)	(0.08)	(0.07)	(0.07)	(0.07)	(0.07)
Interested in purchasing a NLFA	0.77***	0.86***	0.36***	1.07***	1.13***	0.52***
	(0.12)	(0.13)	(0.11)	(0.12)	(0.13)	(0.11)
Positive WTP for NLFA	0.03	0.04	0.03	0.06***	0.08***	0.05**
	(0.02)	(0.03)	(0.02)	(0.02)	(0.03)	(0.02)
Panel C. Policy views related to NLFAs						
Support for NLFA Alternatives Index	0.19***	0.21***	0.09	0.29***	0.29***	0.12**
	(0.06)	(0.06)	(0.05)	(0.06)	(0.06)	(0.05)
Panel D. Policy views related to LFAs						
Prohibiting Purchases Index	0.01	0.03	-0.06	0.03	0.05	-0.02
	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)
Support for Rules for Buying Index	0.01	0.03	-0.03	0.14**	0.15**	0.07
	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)
Support for Storage and Safety Index	0.04	0.05	0.02	0.13**	0.12**	0.08
	(0.06)	(0.06)	(0.05)	(0.06)	(0.06)	(0.05)
Opposition to Carry in Schools	-0.03	-0.03	-0.11**	0.09	0.09	-0.01
	(0.06)	(0.06)	(0.05)	(0.06)	(0.06)	(0.05)
Support for Concealed Carry Regulations Index	0.02	0.03	-0.05	0.05	0.05	0.01
	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)
Support for Restrictions on High-Capacity LF	-0.05	-0.05	-0.06	-0.05	-0.02	0.02
	(0.06)	(0.06)	(0.05)	(0.06)	(0.06)	(0.06)

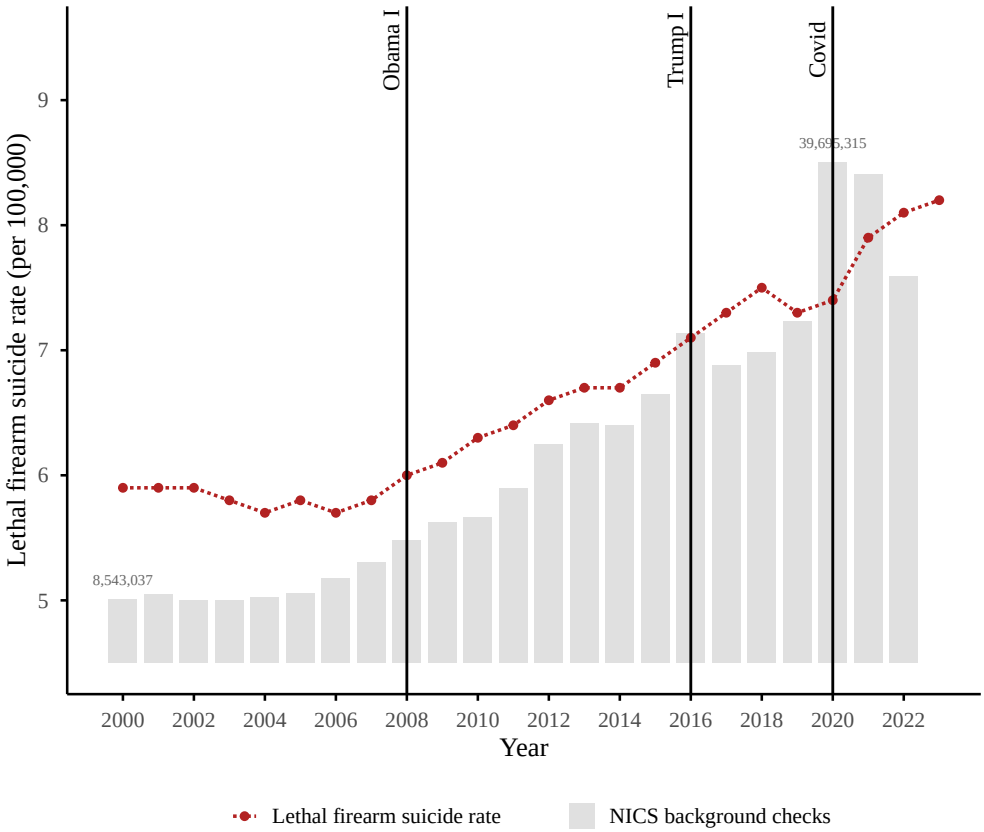
Notes: This table presents the results of Equation 3, with the following control variables: age, gender, political affiliation, income and race. Each treatment group is reported under three cases: Main: Results based on responses from all participants of the main survey (LFAO N = 3,116). Main (FU only): Results based on main survey data using responses from participants who took the follow-up survey (LFAO N = 2,672). Follow-up: Results based on responses from the follow-up survey (LFAO N = 2,672). Coefficients represent the estimated effects of the respective treatments on the specified outcomes. The following variables are standardized: Opposition to Carry in Schools and Support for Restrictions on High-Capacity LFAs. Positive Willingness to Pay for Byrna and Positive Willingness to Pay for a Safe are binary variables. Robust standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A-41: Share of LFAO and non-owners owning safe devices

	LFAO	Non-owner	Total
Panel A: Main Survey			
Own a safe storage device	71.9%	.	.
Panel B: Validation Survey			
Tasers	19.9%	10.2%	15.4%
Pepper Spray	35.4%	38.0%	36.6%
Gun safe or Gun cabinet	52.9%	1.2%	29.0%
Gun	94.3%	2.0%	51.6%
Home security system	54.2%	42.4%	48.7%
Safe	53.9%	22.7%	39.5%
Double-Lock or Multi-Lock Doors	45.8%	42.0%	44.0%
Security Cameras	67.3%	55.3%	61.8%
Guard Dogs	33.7%	29.8%	31.9%
Window Bars	14.1%	17.3%	15.6%
None of the above	0.7%	14.5%	7.1%

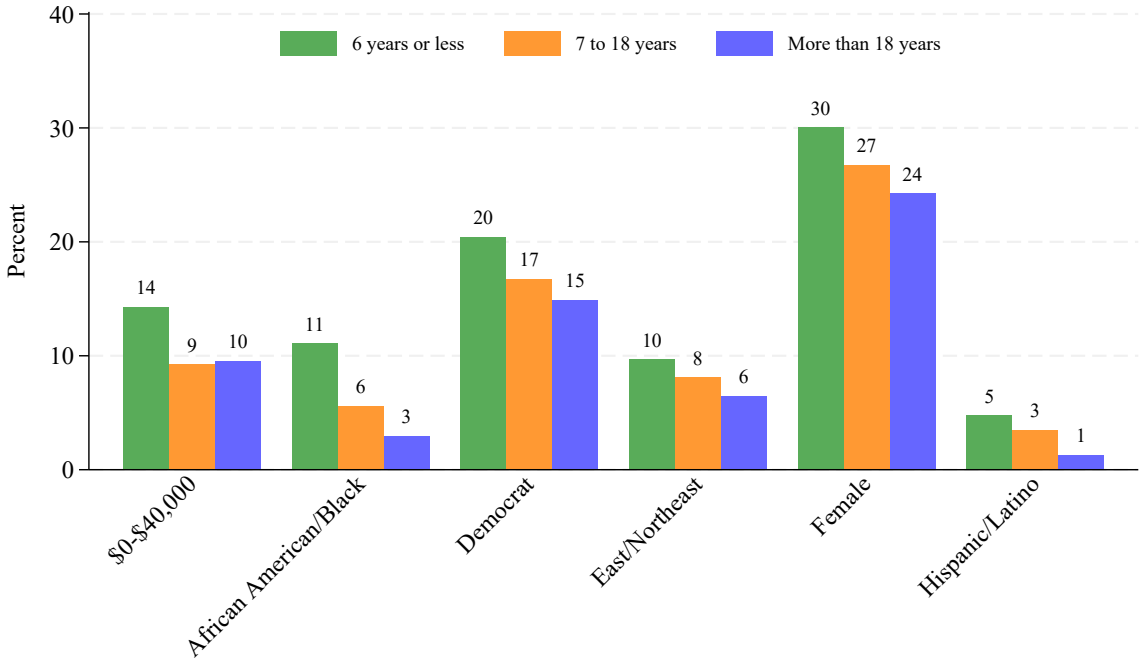
Notes: Panel A presents the share of Main Survey respondents answering "yes" to the question "Do you own a gun storage device such as a gun safe or gun cabinet?". Panel B presents the answers from validation survey participants to the question "Which of the following do you personally own to keep you safe? Select all that apply."

FIGURE A-3: LETHAL FIREARM SUICIDE RATE AND NICS BACKGROUND CHECKS (2000–PRESENT)



Notes: This figure shows the evolution of the lethal firearm suicide rate and of the number of NCIS background checks in the U.S., over the 2000-2023 period. The lethal firearm suicide rate for a given year is computed as the number of lethal firearm related suicides reported by the CDC (Centers for Disease Control and Prevention, National Center for Health Statistics, 2024) divided by the total U.S. population for that year. The CDC also shows that the total number of suicides has increased over time (from 10.4 to 14.1 suicides per 100,000 inhabitants, between 2000 and 2023). The number of background checks is computed using the FBI's NICS dataset, which compiles all background checks filed in the United States (FBI, 2025).

Figure A-4: Demographic composition of Gun Owners by Duration of Ownership (proxy for compositional changes over time)



Notes: This figure displays the demographic composition of each category of responses to the question "How long have you owned a gun? (in years)". Bars show the weighted share of each demographic group within three categories of gun-ownership duration (6 years or less, 7–18 years, and more than 18 years). Duration of ownership is used here as a proxy for potential compositional changes in the gunowners population over time.

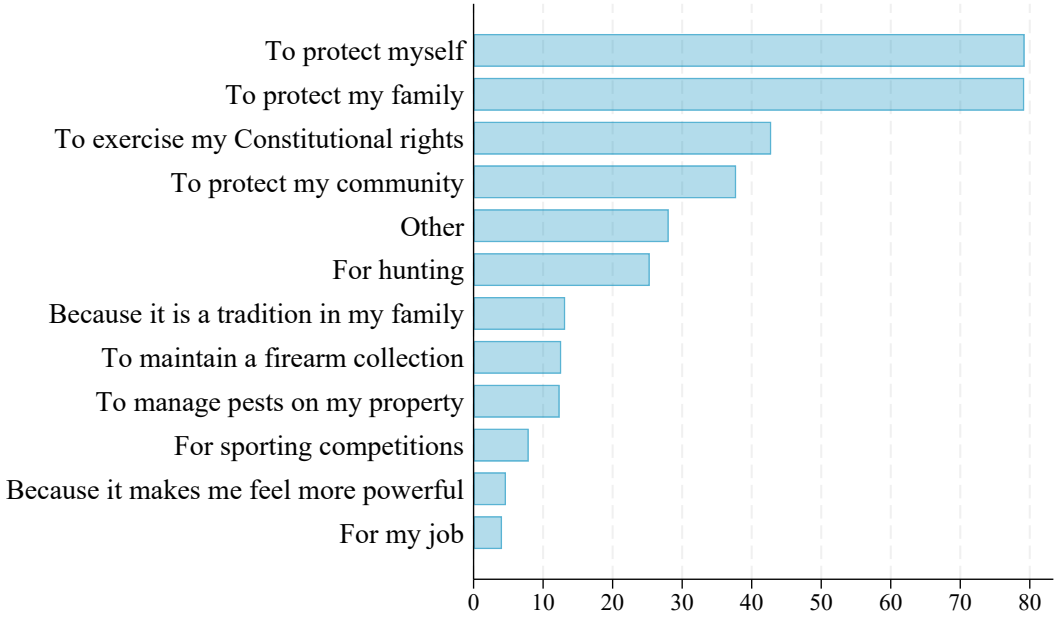
Figure A-5: What specific factors, if any, would prompt you to consider no longer owning guns? [Open ended]



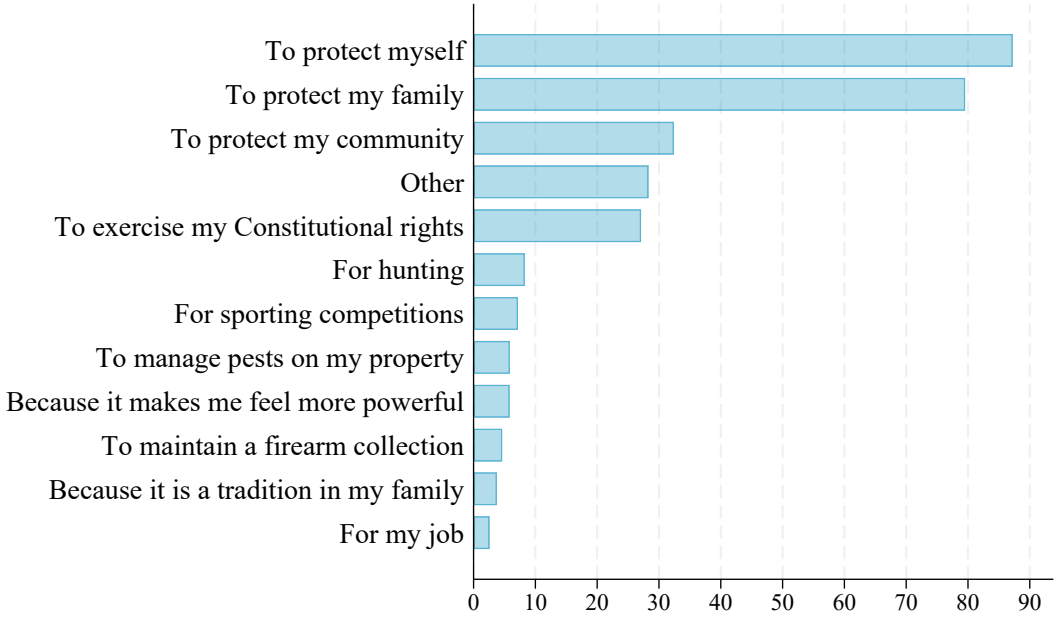
Notes: This figure displays the distribution of topics in responses from LFAO to the question: "What specific factors, if any, would prompt you to consider no longer owning guns?" "Do not see any reason to give up guns" represents those who say nothing would convince them to relinquish firearms; "Safety/storage concerns at home" represents those who would give up guns if household risks, such as children or mental health concerns; "Legal restrictions" represents those who would comply only if required by law; "Lower crime rates" represents those who might give up guns if crime declined and they felt safer; "Blank responses" represents those who provided no response; "Financial constraints or major life changes" represents those who might give up guns due to cost, relocation, or similar shifts; "Physically or mentally unable to handle a gun" represents those who would relinquish if age or impairment made handling unsafe; "Would want to keep a gun for protection" represents those who intend to retain firearms for self-defense; "Already willing to give up guns" represents those open to disposing of or selling firearms, e.g., at a fair price; "If I had an alternative" represents those who would forgo ownership if effective non-gun options existed; "If people around me were not comfortable with guns" represents those who would give up guns if a partner or family were uncomfortable; "If pest control or protection against animals is not needed" represents those who would not own guns absent pest or predator threats; "If I stopped hunting or participating in gun-related recreation" represents those who would give up guns if they no longer hunted or engaged in shooting sports; "Uncategorized" represents responses that did not fit other topics.

Figure A-6: Reasons for Owning or Acquiring a Lethal Firearm

(a) Why do you own a gun? (LFAO)

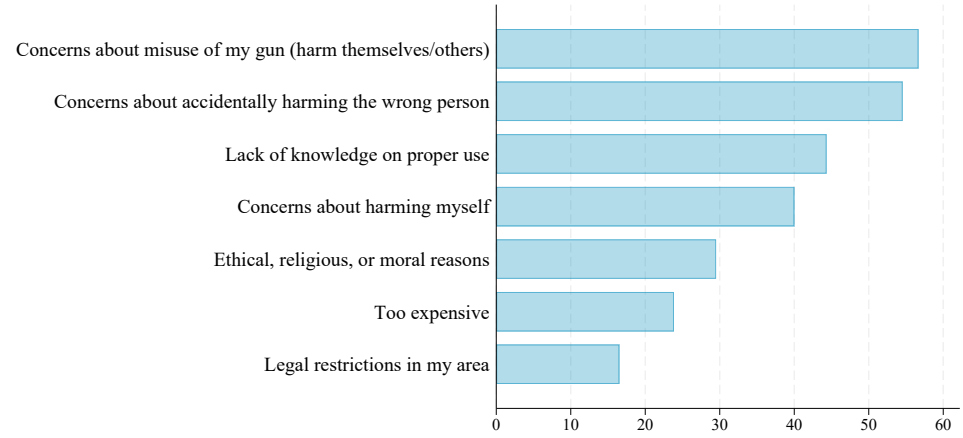


(b) Why would you acquire a gun? (NO-I)



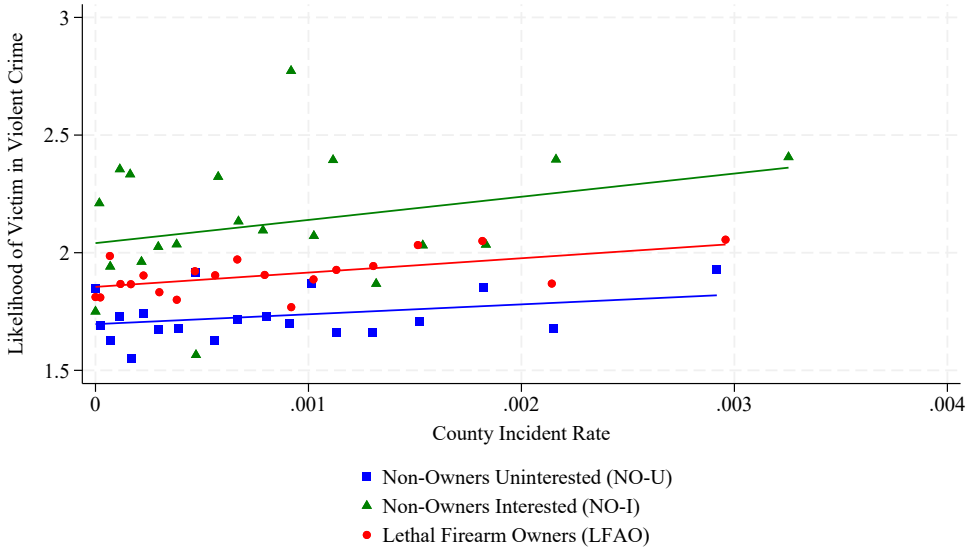
Notes: Panel A shows the share among gun owners who rated each reason as "very" or "extremely" important for owning a lethal firearm. Panel B shows the share among interested non-owners who rated each reason as "very" or "extremely" important for acquiring a lethal firearm. Restricted to control group participants.

Figure A-7: Reasons for Not Owning a Lethal Firearm Among Non-Owners



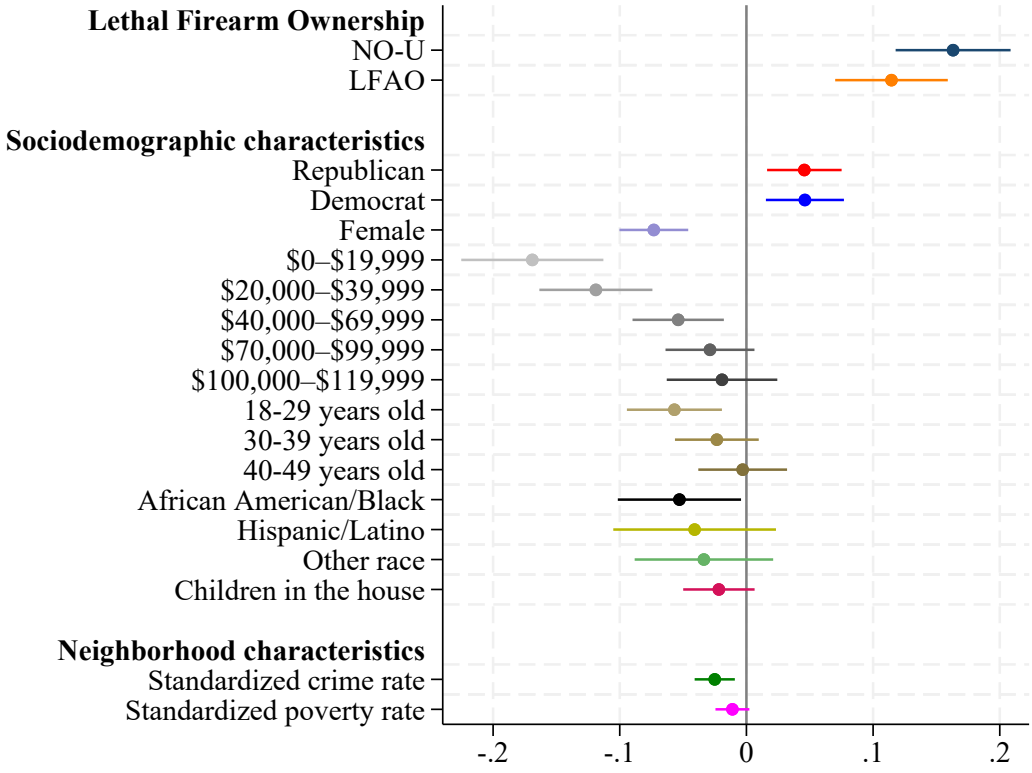
Notes: This figure shows the share among non-owners who rated each reason as "very" or "extremely" important for why they do not own a lethal firearm. Respondents were asked how important each of these eight potential reasons were for them not to own a gun. Restricted to control group participants

Figure A-8: Perceived risk of being a victim



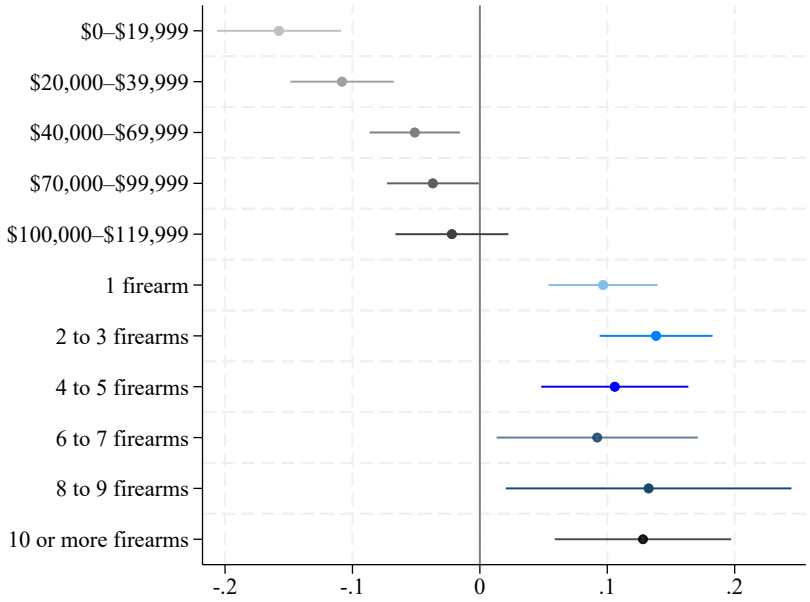
Notes: This is a binscatter plot of participants' perceived likelihood of being a victim (measured on a 5-point scale) plotted against county-level violent crime incidence. Violent crime incidence is calculated using data from the FBI's Uniform Crime Reporting (UCR) program. Specifically, the total number of violent crimes—comprising Murder and Non-Negligent Manslaughter, Forcible Rape, Robbery, and Aggravated Assault—is divided by the county's population to obtain the incidence rate. Counties are then grouped into equal-sized bins based on these rates, and each dot represents the average perceived risk within a bin. Blue squares represent the NO-U group, green triangles the NO-I group, and red dots the LFAO group.

FIGURE A-9: ESTIMATED REGRESSION COEFFICIENTS FOR SAFETY FEELING, WITH FIXED EFFECTS



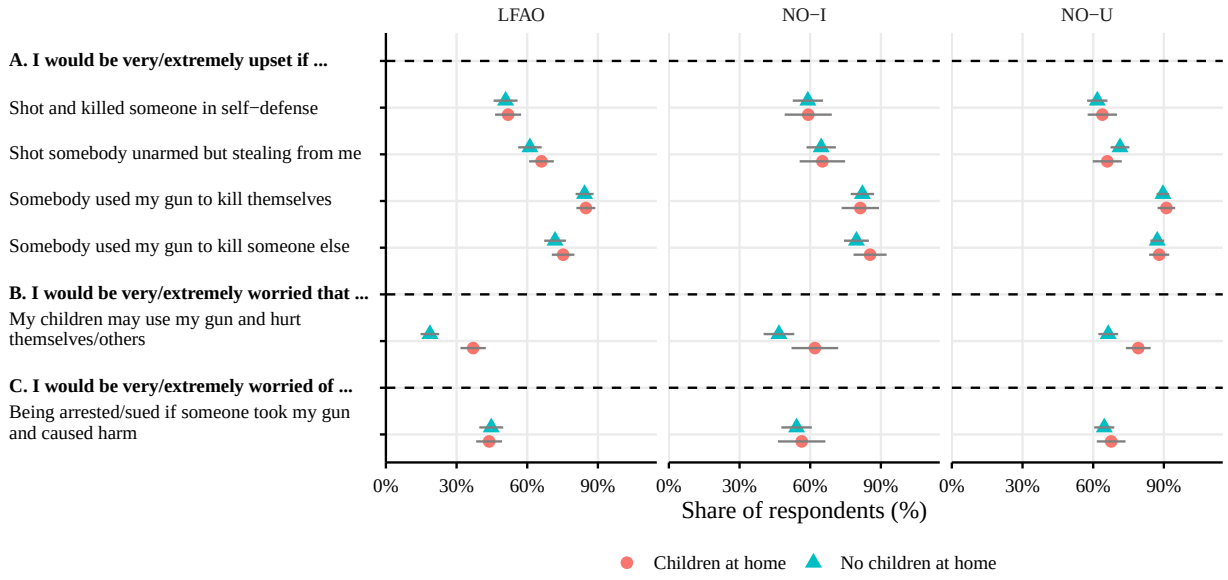
Notes: This figure plots the coefficients obtained from the OLS regression of the "Feel safe" variable, on a set of personal characteristics, and states fixed effects. This variable was constructed by dichotomizing respondents' answers to the 1-to-5 scale question "How safe or unsafe do you feel in daily life?", setting equal to 1 if the answer was "somewhat" or "very safe", and 0 otherwise. The coefficients by type of Lethal Firearm Ownership are relative to NO-I respondents. The reference category for political affiliation is "Independent/other/unaffiliated". The reference groups are "$> 120,000$$" for income, "50 years or older" for age, and "White" for the race variable. The bars represent 95% confidence intervals, using robust standard errors.

Figure A-10: Estimated regression coefficients for safety feeling (income and number of firearms)



Notes: This figure plots the coefficients obtained from the OLS regression of the "Feel safe" variable, on a set of personal characteristics, and states fixed effects. This variable was constructed by dichotomizing respondents' answers to the 1-to-5 scale question "How safe or unsafe do you feel in daily life?", setting equal to 1 if the answer was "somewhat" or "very safe", and 0 otherwise. The reference groups are "$> 120,000$$" for income, and "0 firearm" for the number of firearms currently owned by the respondent. The bars represent 95% confidence intervals, using robust standard errors.

Figure A-11: Perceived Private Costs Associated with Lethal Firearm Ownership Across Ownership status, with versus without child



Notes: This figure displays the share of respondents who reported feeling very upset or extremely upset and very worried or extremely worried about various scenarios involving the private costs of firearms, by number of children. Each scenario was rated on a 4-point scale, from 1 (Not upset at all/Not worried at all) to 4 (Extremely upset/Extremely worried). Panel A displays these shares among LFAO respondents, panel B displays them across NO-I respondents, and panel C among NO-U. Restricted to control group participants.

A-4 Validation survey

The survey was fielded in two waves, yielding 549 responses in total (294 gun owners and 255 non–gun owners). The first wave included 236 responses (124 gun owners; 112 non–gun owners).

In the second wave, there were 313 responses (170 gun owners; 143 non–gun owners). We also implemented two survey revisions. First, we modified the questions asking respondents to predict others' reasons for owning (or not owning) guns such that the shares allocated across reasons were required to sum to 100%. Second, to improve clarity for non–gun owners in the list experiment, we changed the phrasing from first person to third person. In particular, we replaced the statements "My number one reason for owning guns is safety" and "My number one reason for owning guns is because it gives me a feeling of power" with "The number one reason for gun owners to own guns is safety" and "The number one reason for gun owners to own guns is because it gives them a feeling of power," respectively.

For analysis, we pool responses across both waves for all questions which were unchanged. For those which were revised, we only use the data from the second wave.

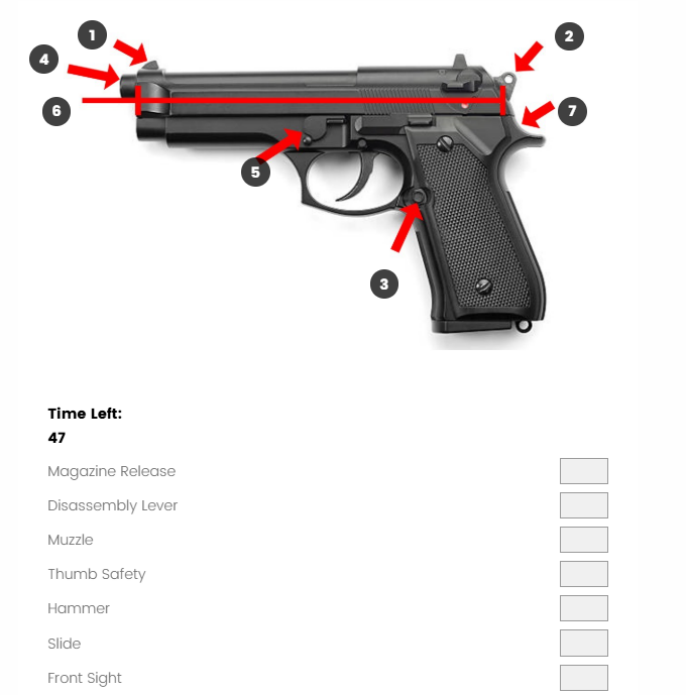
Table A-42: Sample Representativity Validation Survey

	LFAO		Non Owners	
	Survey	Quota	Survey	Quota
Male	68%	73%	40%	41%
Female	31%	27%	60%	59%
White	86%	87%	65%	66%
Non white	14%	13%	35%	34%
Age 18-29	14%	13.1%	33%	34%
Age 30-49	100%	51.5%	100%	39%
Age 50-64	100%	35.4%	100%	27%
Income 0-40,000	10%	10.9%	32%	34%
Income 40,000 - 100,000	41%	37.6%	31%	30%
Income 100,000+	49%	51.5%	37%	36%
Midwest	27%	28%	21%	20.2%
East/Northeast	9%	8%	20%	19.2%
South	42%	45%	35%	34.3%
West	22%	19%	24%	26.3%
Republican	48%	42.2%	16%	16.8%
Democrat	20%	17.8%	34%	32.6%
Independent	29%	40%	41%	50.5%

Notes: The table presents the demographic representativeness benchmark comparison between GSS 2022 data, and our sample for the validation survey, divided by gun ownership status. The percentages shown for each category are based on the respective groups of LFAO and non-owners.

To validate our obfuscated recruitment process, we included a firearm identification task, a module in which respondents were shown an image of a handgun with seven numbered parts and asked to match each number to its correct label in 60 seconds (see Figure A-12). Table A-43 reports the average number of correct responses by gun ownership status. As expected, lethal firearm owners performed significantly better on average than non–owners.

Figure A-12: Lethal Firearm Task Screenshot



Notes: Screenshot of the firearm identification task shown to participants in the validation survey. Respondents were given 60 seconds to match each of the seven numbered parts of the handgun to its correct label from a provided list. This task served as a measure of firearm familiarity.

Table A-43: Lethal Firearm Game Results

	LFAO	Non Owners	Total
Average Correct Answers	2.81/7	2.15/7	2.51/7
p-value (LFAO vs NO)		0.000	

Notes: The table reports the mean number of correctly placed labels (out of seven) for gun owners, non–gun owners, and the full sample in the firearm identification "game". Respondents were shown an image of a gun with seven numbered parts and asked to match each number to its correct label. Participants had 60 seconds to complete as many labels correctly as possible. The p-value shows the result of a two-sample t-test conducted to evaluate the null hypothesis $H_0 : \mu_{\text{NO}} - \mu_{\text{LFAO}} = 0$.

To assess potential social desirability bias in respondents' stated motivations for gun ownership, we implemented two list experiments in the validation survey. In each experiment, participants were randomly assigned to a control or treatment group. Control group respondents saw a list of four non-sensitive statements, while treated respondents saw the same list with an additional sensitive item.

In List Experiment 1, the sensitive item was "My number one reason for owning guns is safety" for LFAO, and "The number one reason for gun owners to own guns is safety" for non–owners. Respondents were asked to indicate how many of the statements they agreed with, without specifying which ones. Table A-44 presents the results separately by gun ownership status. For each group, we report the average number of statements endorsed and test for differences between treated and control groups using a two-sample t-test.

Table A-44: List experiment 1 - My number one reason for owning guns is safety

	LFAO		Non Owners	
	Control	Treated	Control	Treated
N of respondents	80	90	71	72
Mean N statements	3.60	4.27	3.77	4.36
p-value (diff.)	0.000		0.000	

Notes: This table presents the results of List Experiment 1 for both gun owners and non–gun owners. "Control" respondents saw only the list of non-sensitive items, while "Treated" respondents saw the same list plus the sensitive item "My number one reason for owning guns is safety." "N of respondents" indicates the sample size in each cell. "Mean N statements" shows the average number of items participants agree with in the list. A two-sample t-test was performed separately for each ownership status to evaluate $H_0 : \mu_{\text{Treated}} - \mu_{\text{Control}} = 0$,.

In List Experiment 2, the sensitive item was "My number one reason for owning guns is because it gives me a feeling of power" for LFAO, and "The number one reason for gun owners to own guns is because it gives them a feeling of power" for non–owners. Respondents were asked to indicate how many of the statements they agreed with, without specifying which ones. Table A-45 presents the results separately by gun ownership status.

Table A-45: List experiment 2 - My number one reason for owning guns is because it gives me a feeling of power

	LFAO		Non Owners	
	Control	Treated	Control	Treated
N of respondents	83	87	71	72
Mean N statements	3.59	3.64	3.82	3.94
p-value (diff.)	0.773		0.449	

Notes: This table presents the results of List Experiment 2 for both gun owners and non–gun owners. "Control" respondents saw only the list of non-sensitive items, while "Treated" respondents saw the same list plus the sensitive item "My number one reason for owning guns is because it gives me a feeling of power" "N of respondents" indicates the sample size in each cell. "Mean N statements" shows the average number of items participants agree with in the list. A two-sample t-test was performed separately for each ownership status to evaluate $H_0 : \mu_{\text{Treated}} - \mu_{\text{Control}} = 0$,.

To assess perceptions and potential misperceptions about firearm ownership motivations, we asked respondents to predict the percentage (0–100) of gun owners who would list each reason as their most important reason for owning or not owning a lethal firearm. Table A-46 reports the results. We compare these predictions to the actual shares observed in the main survey and present mean estimates separately for LFAO (LFAO Pred.) and non-owners (NO Pred.). For each group, we test whether the mean prediction differs significantly from the true value using one-sample t-tests.

Table A-46: Prediction reasons to own a lethal firearm

Reason	Actual	LFAO Pred.	Diff	NO Pred.	Diff
To manage pests on my property	2%	2.8%	0.001	2.7%	0.010
To protect my family	65%	29.0%	0.000	25.8%	0.000
To protect my community	0%	5.2%	0.000	5.6%	0.000
To protect myself	15%	23.1%	0.000	25.6%	0.000
To exercise my Constitutional rights	3%	9.5%	0.000	9.1%	0.000
To maintain a gun collection	1%	3.8%	0.000	4.5%	0.000
Because it's a tradition in my family	1%	4.0%	0.000	3.4%	0.000
For hunting	7%	11.5%	0.000	11.1%	0.000
For sporting competitions	1%	3.6%	0.000	3.7%	0.000
For my job	0%	4.1%	0.000	4.5%	0.000
Because it makes me feel more powerful	0%	3.3%	0.000	3.9%	0.000

Notes: Respondents were asked to predict the percentage (0–100) of lethal firearm owners who would list each reason as their most important reason for owning a gun. The *Actual* column reports the true share of gun owners who selected each reason in the main survey. *LFAO Pred.* and *NO Pred.* report the mean predictions made by gun owners and non–gun owners, respectively. The *Diff* columns display the p-values from tests of the difference between each group's mean prediction and the actual share. For each group, a one-sample t-test was conducted to evaluate $H_0: \mu_{\text{Pred}} - \text{Actual} = 0$,, where μ_{Pred} is the group's mean predicted share.

For non-owners, respondents were asked to estimate what percentage of non–owners would cite each reason as their primary motivation for not owning a lethal firearm. Results are shown in Table A-47. Again, we report average predictions by group and test whether the mean prediction differs significantly from the true value.

Table A-47: Prediction reasons not to own a gun

Reason	Actual	LFAO Pred.	Diff	NO Pred.	Diff
Concerns about accidentally harming the wrong person	21%	17.9%	0.002	18.9%	0.065
Concerns about harming myself	8%	12.9%	0.000	10.8%	0.001
Concerns about someone using my gun to harm themselves or other	26%	20.5%	0.000	23.2%	0.067
Too expensive	12%	8.9%	0.001	7.1%	0.000
Legal restrictions in my area	4%	10.2%	0.000	8.3%	0.000
Ethical, religious, or moral reasons	12%	16.7%	0.000	18.9%	0.000
Lack of knowledge on proper use	17%	12.9%	0.000	12.8%	0.000

Notes: Respondents were asked to predict the percentage (0–100) of non–gun owners who would list each reason as their most important reason for not owning a gun. The *Actual* column reports the true share of non–gun owners who selected each reason in the main survey. *GO Pred.* and *NGO Pred.* report the mean predictions made by gun owners and non–gun owners, respectively. The *Diff* columns display the p-values from tests of the difference between each group's mean prediction and the actual share. For each group, a one-sample t-test was conducted to evaluate $H_0: \mu_{\text{Pred}} - \text{Actual} = 0$,, where μ_{Pred} is the group's mean predicted share.

A-5 Back of the envelope analysis of gun-related harm reduction

A-5.1 Impact of the treatment on net safety.

This section sketches the safety impact of policies that increase demand for NLFAs, for example, policies that scale up our *Non-Lethal Firearm Information and Endorsement* treatment.

Expanding on our analysis in Section 4, define the net safety of person i who chooses firearm bundle $f(i)$ as

$$NS_i = \sum_s \pi_{if(i)}(s) \times \left(b_{if(i)}(s) - h_{if(i)}(s)\right).$$

The likelihood of gun-related scenarios, as well as benefits and harms in those scenarios, depends not only on person i's firearm-related choices, $f(i)$, but also the choices of others in the population. Let ϕ encode the choices of everyone in the population and write $NS_i = NS(i, f(i), \phi)$ to make explicit that person i's safety depends not only on their own choices but also others' choices. Aggregate net safety then equals $\mathbb{E}_i[NS(i, f(i), \phi)]$.

To evaluate the safety impact of a policy that stimulates NLFA demand, let $\tilde{f}(i)$ denote person i's firearm-related choices under the policy and $\tilde{\phi}$ encode everyone's choices. Aggregate net safety under the policy equals $\mathbb{E}_i[NS(i, \tilde{f}(i), \tilde{\phi})]$.

The overall safety impact of the policy equals:

$$\begin{aligned}\mathbb{E}_i\left[NS(i, \tilde{f}(i), \tilde{\phi}) - NS(i, f(i), \phi)\right] = &\underbrace{\mathbb{E}_i\left[NS(i, \tilde{f}(i), \phi) - NS(i, f(i), \phi)\right]}_{\text{direct effect}} \\ &+ \underbrace{\mathbb{E}_i\left[NS(i, \tilde{f}(i), \tilde{\phi}) - NS(i, \tilde{f}(i), \phi)\right]}_{\text{equilibrium effect}}.\end{aligned}$$

Qualifying and quantifying the equilibrium impact of the policy is beyond this section's scope—we have little to say, for example, about whether a person is more likely to grab for his NLFA over his LFA when he knows broader NLFA adoption has increased.

Focusing then on the direct effect, we can write it as

$$\begin{aligned}\mathbb{E}_i\left[NS(i, \tilde{f}(i), \phi) - NS(i, f(i), \phi)\right] &= \mathbb{E}_i\left[\sum_s \pi_{i\tilde{f}(i)}(s)\left(b_{i\tilde{f}(i)}(s) - h_{i\tilde{f}(i)}(s)\right) - \pi_{if(i)}(s)\left(b_{if(i)}(s) - h_{if(i)}(s)\right)\right] \\ &= \underbrace{\mathbb{E}_i\left[\sum_s \pi_{if(i)}(s)h_{if(i)}(s) - \pi_{i\tilde{f}(i)}(s)h_{i\tilde{f}(i)}(s)\right]}_{\text{harm reduction effect}} \\ &\quad + \underbrace{\mathbb{E}_i\left[\sum_s \pi_{i\tilde{f}(i)}(s)b_{i\tilde{f}(i)}(s) - \pi_{if(i)}(s)b_{if(i)}(s)\right]}_{\text{protective benefit effect}}.\end{aligned}$$

The harm-reduction and protective-benefit effects are theoretically ambiguous:

- Harm-reduction benefits: previous gun owners (i who went from $f(i)$ with only LFA to $\tilde{f}(i)$ with also NLFA) may be more likely to lock up their lethal firearms, which could lead to fewer accidents and

suicides (see the next section); previous gun owners may reach for an NLFA in situations where they would otherwise grab an LFA, which could avoid fatal harms; NO-I may purchase an NLFA instead of an LFA, which could lead to fewer accidents and suicides than if they purchased an LFA; etc.

- Harm-reduction costs: previous gun owners as well as non-owners who buy an NLFA may have access to NLFA in situations s where they would not have had access to an LFA, which could lead to accidental harms; people may reach for an NLFA in situations where they would not have reached for an LFA, which could lead to escalation, in particular if the NLFA is mistaken as an LFA; etc.
- Protective benefits: people may be able to protect themselves with an NLFA in situations where they would not or could not protect themselves with an LFA; etc.
- Protective costs: people may use an NLFA in situations where (i) they would otherwise use an LFA and (ii) the NLFA happens to be less effective than the LFA in those situations; etc.

Many of these effects are difficult to quantify; the next section attempts to quantify an important sliver of harm-reduction benefits.

A-5.2 Back of the envelope calculation of the impact of the treatment on firearm-related victimhood.

This section estimates the effect of the treatment on firearm-related victimhood, focusing on two main events: school shootings and youth suicides. Specifically, we study how the treatment potentially affects individuals' firearm storage behavior, in turn potentially reducing gun violence and accidents. Indeed, prior research shows that safe storage reduces youth suicide and school-shooting risks, which we build on below. Throughout this exercise, treatment-induced changes in storage refer to reported storage intentions conditional on having an NLFA, rather than observed changes in current storage practices.

We begin by providing a back-of-the-envelope estimate of the predicted treatment effect on safe lethal firearm storage. Storage can be expressed as a function of non-lethal firearm adoption (NLFA), and propensity to increase storage, which themselves may depend on treatment:

$$\Pr(Storage) = \Pr(Storage|NLFA) \times \Pr(NLFA) + \Pr(Storage|No\ NLFA) \times (1 - \Pr(NLFA))$$

This allows us to rewrite the overall treatment effect on gun storage in the following way, approximating by treating the treatment as continuous and differentiating:

$$\begin{aligned}\frac{\partial \Pr(Storage)}{\partial T} = [\Pr(Storage|NLFA) - \Pr(Storage|No\ NLFA)] \times \frac{\partial \Pr(NLFA)}{\partial T} + \frac{\partial \Pr(Storage|NLFA)}{\partial T} \times \Pr(NLFA) \\ + \frac{\partial \Pr(Storage|No\ NLFA)}{\partial T} \times (1 - \Pr(NLFA))\end{aligned}$$

This decomposition highlights two major channels of the treatment effect on gun storage (we assume the third is negligible). (i) *NLFA adoption channel:* treatment increases the probability of adopting an NLFA, which in turn raises the likelihood of locking a lethal firearm. (ii) *Transformation rate channel:* treatment

directly affects the probability of locking a lethal firearm conditional on NLFA ownership, making some existing NLFA and LFA holders more likely to store their firearms safely.

We dichotomize the relevant variables and estimate treatment effects as shown in Table A-48. Substituting into the decomposition yields:

$$\widehat{ATE}_{storage} = \frac{\partial \Pr(Storage)}{\partial T} = 0.472 \times 0.20 + 0.07 \times 0.05 = 0.098 \tag{4}$$

implying that the treatment increases safe storage by about 10 ppt.[26]

Table A-48: Control group mean and treatment effects for back of the envelope calculations

	Control mean	NLFA Info. + Endorsement
Interested in purchasing NLFA	41.4%	0.20
More willing to keep LFA locked if has NLFA	47.2%	0.07

Notes: This table reports the control mean and estimated coefficients from Equation 3 for the *Non-Lethal Firearm Endorsement and Information Treatment*, with the following control variables: age, gender, political affiliation, income and race. Each variable has been dichotomized, in the same way as in Figure 13, hence control group means are the same. *Interested in purchasing an NLFA* is an indicator for respondents who showed willingness to purchase an NLFA non-lethal firearm by selecting 5, 6 or 7 on a 1 to 7 scale. *More Willing to keep LFAs locked if had NLFA* is an indicator for respondents who would definitely or probably be more willing to keep their lethal firearms locked if they had a non-lethal firearm.

We next combine this estimate with external evidence on firearm-related victimization. According to Modan and Arundel (2023), there were 340 school shootings in 2023, resulting in 227 casualties. In the same year, 1,253 firearm suicides and 144 unintentional firearm deaths occurred among individuals aged 19 or younger, totaling 1,397 youth deaths (Centers for Disease Control and Prevention, National Center for Health Statistics, 2024).

Evidence suggests that "over 80% of school shooters stole their guns from family members because they were not old enough to purchase firearms" (Peterson, 2021). Thus, if firearms were locked, up to 272 school shootings (implying around 182 casualties) could have been prevented in 2023. In addition, Grossman et al. (2005) estimate that safe storage reduces child firearm suicides and accidental deaths by 73%, which implies 1,020 preventable cases in 2023.

Applying our estimated treatment effect, the overall effects on number of deaths/victims are then:

- School shootings: $ATE_{storage} \times 182 = 0.098 \times 182 \approx 18$ victims prevented.
- Youth suicides and accidents: $ATE_{storage} \times 1020 = 0.098 \times 1020 \approx 100$ deaths prevented.

In sum, these back-of-the-envelope calculations suggest that increasing interest in NLFA through campaigns like our treatment could have prevented around 27 school shootings ($\approx$ 18 victims) and about 100 youth firearm suicides or accidental deaths in 2023 alone. These estimates are scenario-based projections obtained by applying intention changes within a hypothetical policy scenario that expands NLFA ownership.

[26] This exercise makes the heroic assumption that the 20 percentage point increase in respondents interested in purchasing an NLFA translates into a similar increase in NLFA demand. However, the treatment effect on storage remains sizable even if we halve this number.

A-6 Robustness checks: alternative datasets

In this section, we reproduce the main figures and tables using two alternative versions of our survey dataset. The first one is the most restrictive version, with more stringent data cleaning. The second one is the most extensive version of the dataset, using a more lenient data cleaning approach.

A-6.1 Restrictive sample cleaning

In the restrictive sample, we apply the same data-cleaning steps as in the main sample which include dropping observations that failed any of the attention checks and those who attrited from the survey. In addition, we also exclude rushers from the sample. Rushers are defined as as those who complete the survey in less than 15 minutes for NO and 21 minutes for LFAO (these thresholds correspond to the fastest 5% completion times observed within each group)

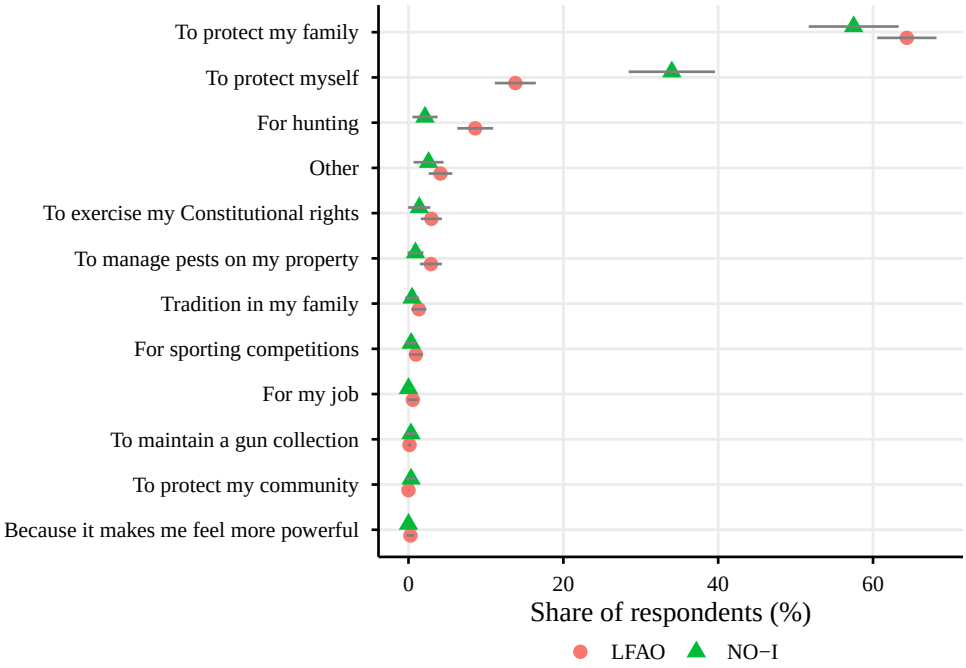
Below, Figures A-13 to A-24 and Tables A-49 to A-54 reproduce the main figures and tables using the restrictive specification of the dataset. The sample consists 2,849 LFAOs and 2,082 NOs.

Table A-49: Sample Representativity, Restrictive Version

	LFAO		Non-owners	
	Survey	Quota	Survey	Quota
Male	68%	73%	42%	41%
Female	32%	27%	56%	59%
White	85%	87%	66%	66%
Non-white	15%	13%	34%	34%
18-29 years old	14%	13.1%	28%	34%
30-49 years old	49%	51.5%	39%	39%
50-64 years old	37%	35.4%	33%	27%
Income 0-40,000	13%	10.9%	36%	34%
Income 40,000 - 100,000	43%	37.6%	31%	30%
Income 100,000+	43%	51.5%	33%	36%
Midwest	24%	28%	20%	20.2%
East/Northeast	12%	8%	19%	19.2%
South	46%	45%	36%	34.3%
West	18%	19%	24%	26.3%
Republican	45%	42.2%	19%	16.8%
Democrat	20%	17.8%	33%	32.6%
Independent	32%	40%	40%	50.5%

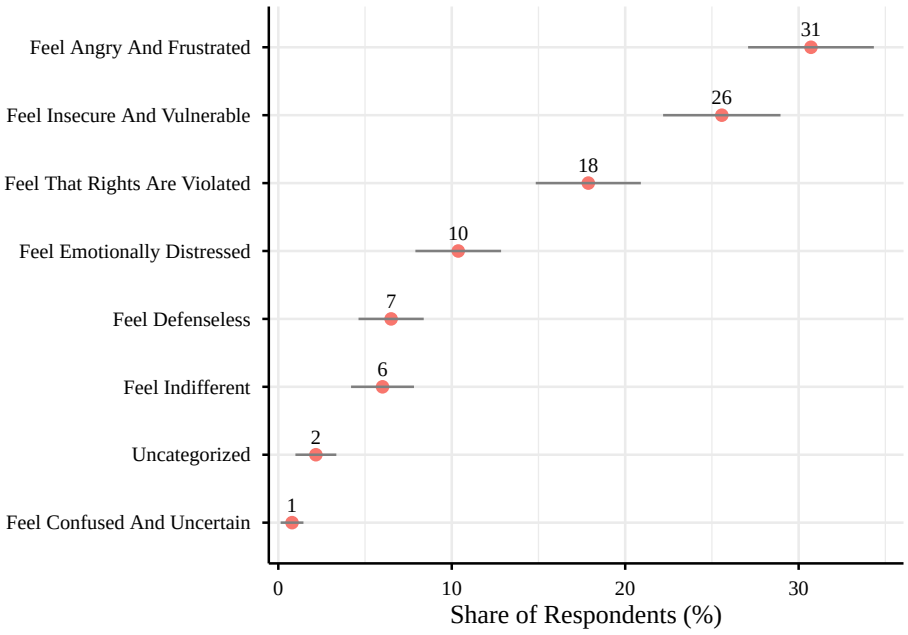
Notes: The table presents the demographic representativeness benchmark comparison between GSS 2022 data, and our restrictive sample (pre-reweight), divided by lethal firearm ownership status. The percentages shown for each category are based on the respective groups of LFAO and non-owners.

Figure A-13: Reasons for Owning or Acquiring a Lethal Firearm: The importance of safety



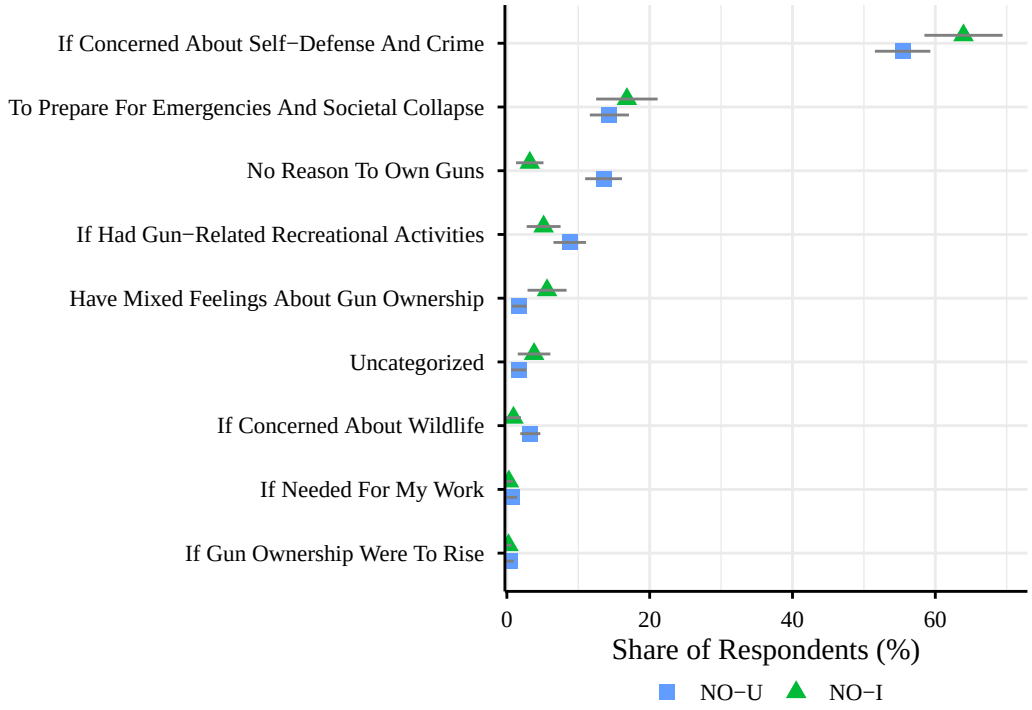
Notes: This figure shows the share of respondents who rated each reason as the "Most important" for owning (among LFAO) or acquiring (NO-I) a lethal firearm. Restricted to control group participants.

Figure A-14: In one or two words, how would you feel if your gun was taken away? [Open ended]



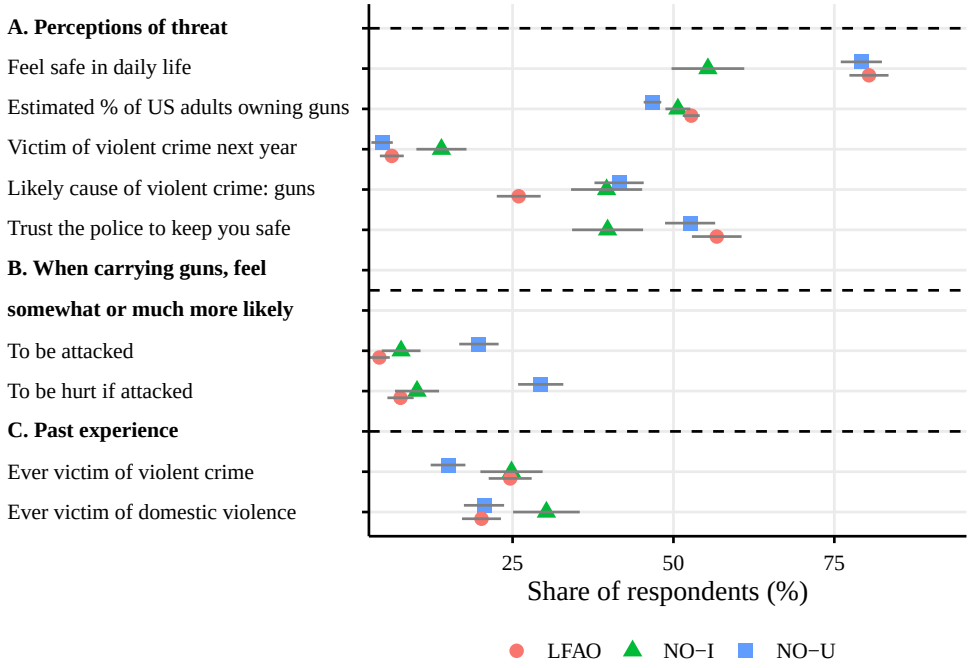
Notes: This figure displays the distribution of topics in responses from LFAO to the question: "In one or two words, how would you feel if your gun was taken away?" The topic category "Feel angry and frustrated" captures expressions of anger, rage, or frustration about the idea of losing one's gun. "Feel insecure and vulnerable" refers to feelings of exposure or fear for one's safety without a firearm. "Feel that rights are violated" reflects perceptions that gun removal would infringe upon personal freedoms or constitutional rights. "Feel emotionally distressed" represents sadness, disappointment, or loneliness linked to the emotional value placed on gun ownership. "Feel indifferent" includes respondents expressing little concern or acceptance of the situation. "Feel defenseless" highlights respondents' sense of being unable to protect themselves without a gun. "Feel confused and uncertain" describes individuals unsure or unclear about how to react to such a situation. "Uncategorized" covers responses that do not fit into any of the other topics. Restricted to control group participants and those with blank responses were excluded.

Figure A-15: Can you think of any reason or situation for you to start owning a gun? [Open ended]



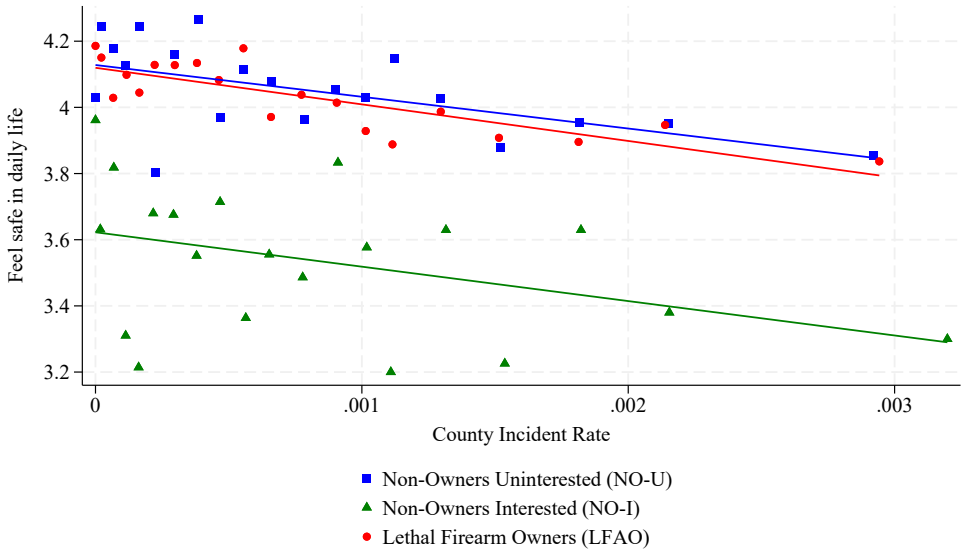
Notes: This figure displays the distribution of topics by types of non-owners responding to the question: "Can you think of any reason or situation for you to start owning a gun? Please list them here." The topic "If concerned about self-defense and crime" refers to motivations linked to personal protection against threats or crime. "To prepare for emergencies and societal collapse" captures answers about readiness for extreme events such as social unrest or societal breakdown. "No reason to own guns" reflects respondents who see no need for, or oppose, gun ownership. "If had gun-related recreational activities" relates to motivations involving leisure activities such as hunting or target shooting. "Have mixed feelings about gun ownership" represents ambivalent or uncertain attitudes toward owning a gun. "If concerned about wildlife" describes those mentioning protection from animals, often in rural contexts. "If needed for my work" refers to cases where gun ownership is seen as a professional requirement. "If gun ownership were to rise" includes respondents who might consider owning a gun if others around them did so. "Uncategorized" covers responses that do not fit any of the other topics. Restricted to control group participants and those with blank responses were excluded.

Figure A-16: Safety Perceptions and Experiences by Ownership Status



Notes: This figure shows the share of respondents who hold specific beliefs/perceptions or have past experiences related to the items listed in the rows, by firearm ownership status. *Estimated % of U.S. adults who own guns* is the average perceived percentage of U.S. adults who own a gun based on respondents' self-reported estimates. *Feel safe in daily life* is an indicator for respondents who feel somewhat safe or very safe in their daily life. *Victim of violent crime in the next year* is an indicator for respondents who believe they are somewhat or very likely to be a victim of violent crime within the next year. *Likelihood of violent crime caused by guns* is an indicator for respondents who believe a violent crime they may experience in the next year is somewhat or very likely to be caused by guns. *Trust the police to keep you safe* is an indicator for respondents who somewhat trust or completely trust the police to keep them safe. *Be the victim of crime* is an indicator for respondents who feel somewhat more likely or much more likely to be attacked or become a victim of crime when carrying a gun, or if they were to carry a gun. *Be hurt if attacked* is an indicator for respondents who feel somewhat more likely or much more likely to be hurt if attacked when carrying a gun, or if they were to carry a gun. *Ever victim of a violent crime* is an indicator for respondents who have ever been a victim of a violent crime. *Ever victim of domestic violence* is an indicator for respondents who have ever been a victim of domestic violence. Restricted to control group participants.

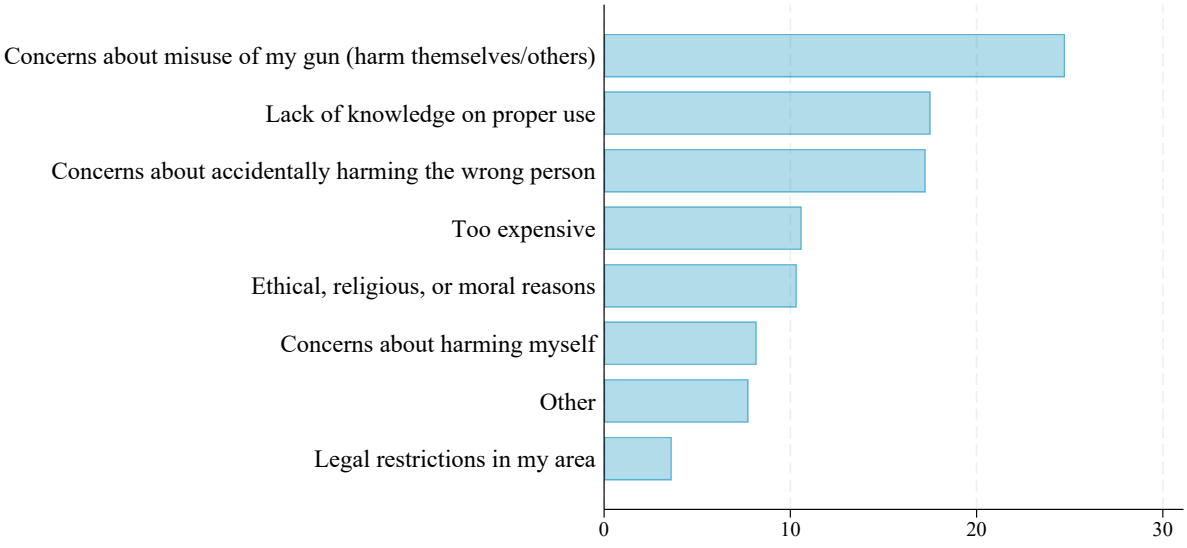
Figure A-17: Perceived vs. objective safety by lethal firearm ownership status



Notes: This is a binscatter plot of participants' perceived feelings of safety (measured on a 5-point scale) plotted against county-level violent crime incidence. Violent crime incidence is calculated using data from the FBI's Uniform Crime Reporting (UCR) program. Specifically, the total number of violent crimes—comprising Murder and Non-Negligent Manslaughter, Forcible Rape, Robbery, and Aggravated Assault—is divided by the county's population to obtain the incidence rate. Counties are then grouped into equal-sized bins based on these rates, and each dot represents the average perceived risk within a bin. Blue dots represent the NO-U group, green dots the NO-I group, and red dots the LFAO group.

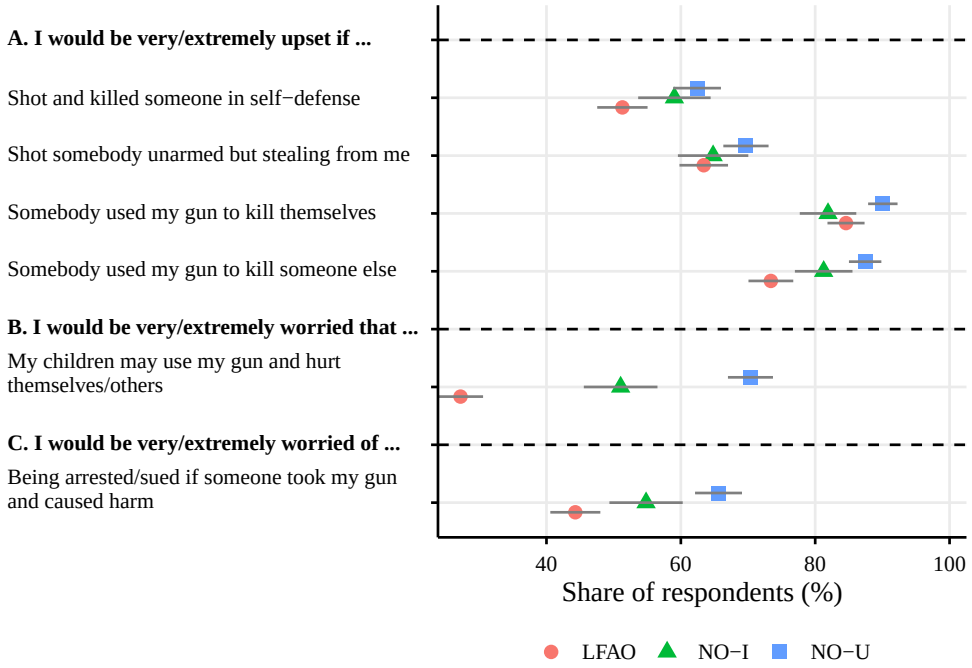
Figure A-18: Reasons for Not Owning a Lethal Firearm Among Non-Owners

Concerns about the harms of ownerships



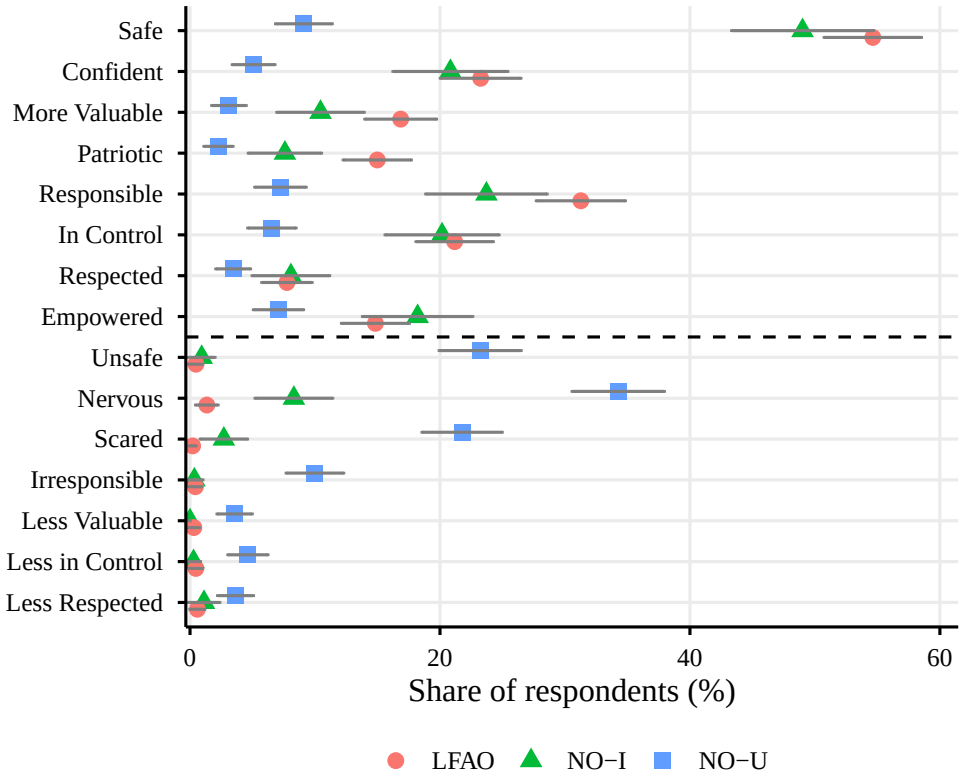
Notes: This figure shows the share among non-owners who rated each reason as the most important for why they do not own a lethal firearm. Respondents were first asked how important each of these eight potential reasons were for them not to own a gun. Restricting to the reasons they classified as "very" or "extremely" important, they were then asked "You said these are very or extremely important reasons for you not to own a gun. Which one is the most important?" Restricted to control group participants.

Figure A-19: Perceived Private Costs Associated with Lethal Firearm Ownership Across Ownership Types



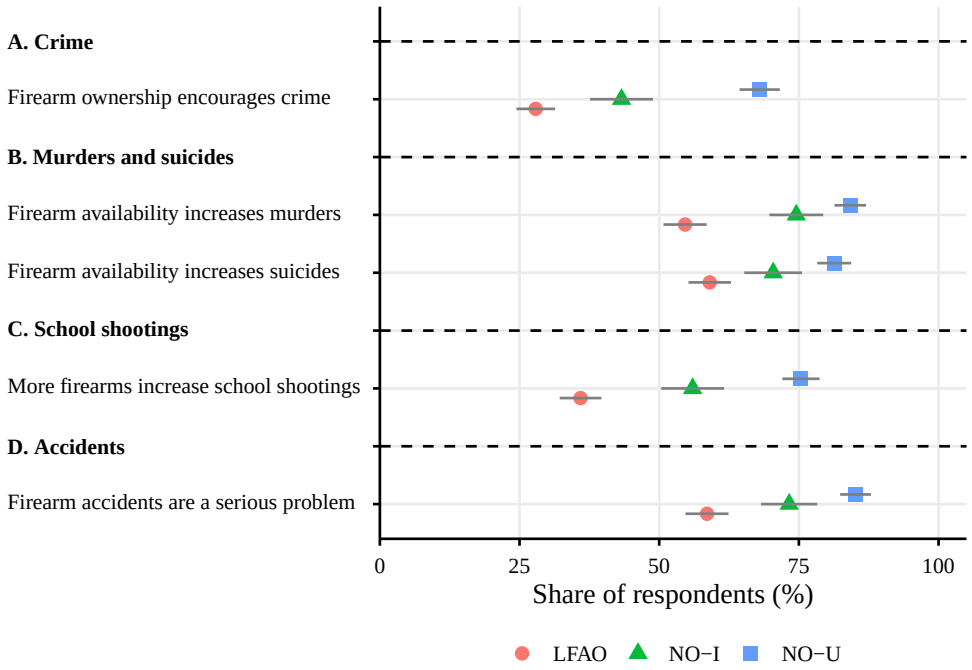
Notes: This figure displays the share of respondents who reported feeling very upset or extremely upset and very worried or extremely worried about various scenarios involving the private costs of firearms, by firearm ownership status. Each scenario was rated on a 4-point scale, from 1 (Not upset at all/Not worried at all) to 4 (Extremely upset/Extremely worried). Restricted to control group participants.

Figure A-20: How Does Or Would Owning A Gun Make You Feel?



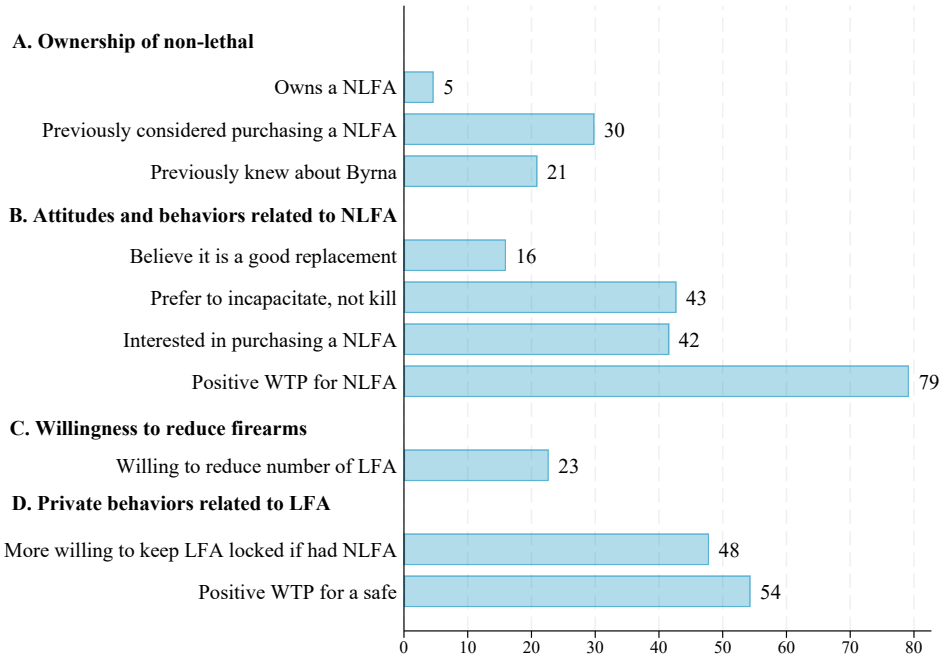
Notes: The figure illustrates respondents' perceptions about owning or potentially owning a lethal firearm, by firearm ownership status. 28.4% of respondents (1,396) are NO-U, 13.7% of them (676) are NO-I, and 57.9% (2,849) are LFAO. The survey question asked: "To what extent does/would owning a gun make you feel:" with response options: No extent, Some extent, A moderate extent, and A great extent. The figure presents the share of respondents who answered "A great extent." Restricted to control group participants.

Figure A-21: Perceived Social Costs Associated with Lethal Firearm Ownership Across Ownership Types
Owners perceive lower social harms



Notes: This figure displays the share of respondents who hold specific perceptions on the items listed in the rows, by firearm ownership status. *Firearm ownership encourages crime* is an indicator for respondents who believe that firearm ownership in the U.S. somewhat encourages crime or that it encourages crime a lot. *Firearm availability increases murders* is an indicator for respondents who believe that easy access to firearms somewhat increases the number of murders or that it increases the number of murders a lot. *Firearm availability increases suicides* is an indicator for respondents who believe that easy access to firearms somewhat increases the number of suicides or that it increases the number of suicides a lot. *More firearms increase school shootings* is an indicator for respondents who believe that if firearm ownership were to increase, school shootings would somewhat increase or increase a lot. *Firearms accidents are a serious problem* is an indicator for respondents who perceive accidents from owning a gun as a very serious or extremely serious problem. Restricted to control group participants.

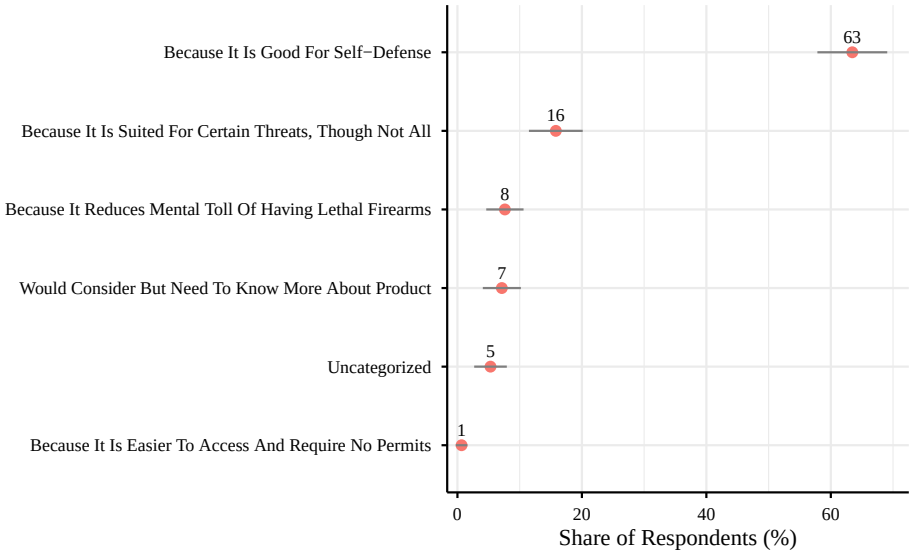
Figure A-22: Beliefs About NLFAs among Lethal Firearm Owners



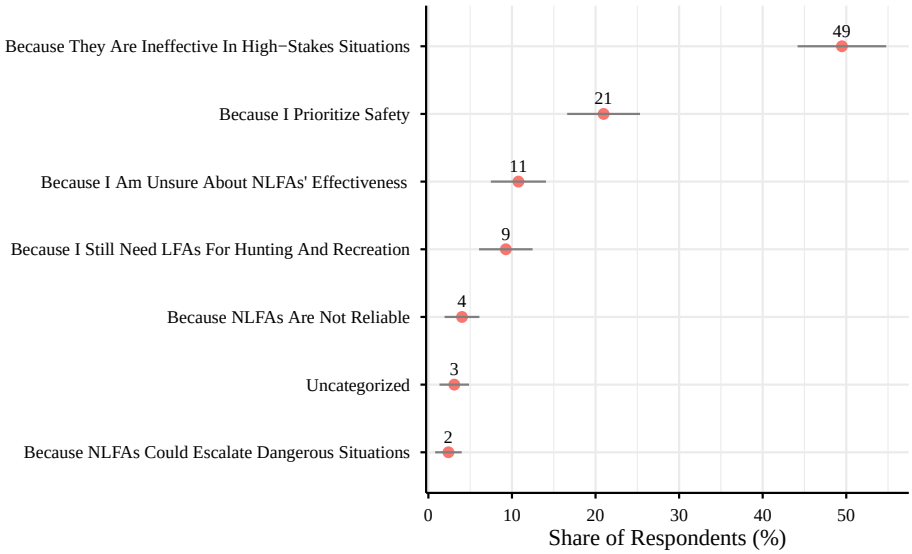
Notes: This figure displays the distribution of LFAOs' responses to the items listed in the rows. *Owns an NLFA* is an indicator for respondents who reported owning a Byrna or another NLFA. *Previously considered purchasing an NLFA* is an indicator for respondents without an NLFA who reported having briefly or seriously considered buying one in the past. *Previously knew about Byrna* is an indicator for respondents who reported having heard about Byrna NLFAs before the survey. *Good replacement* is an indicator for respondents who consider NLFAs as a good or complete replacement for a standard, lethal firearm. *Incapacitate but not kill* is an indicator for respondents who agree or strongly agree that they prefer a firearm capable of temporarily incapacitating without killing. *Interested in purchasing an NLFA* is an indicator for respondents who showed willingness to purchase an NLFA by selecting 5, 6 or 7 on a 1 to 7 scale. *Positive willingness to pay for NLFA* is a dummy variable. *Willing to reduce number of LFAs* is an indicator for respondents who reported that they would reduce slightly, reduce moderately, reduce substantially or no longer hold any firearms if they purchased the Byrna legal non-lethal firearm. *More willing to keep LFAs locked if had NLFA* is an indicator for respondents who would definitely or probably be more willing to keep their lethal firearms locked if they had a Byrna non-lethal firearm. *Positive willingness to pay for a safe* is a dummy variable. Restricted to control group participants.

Figure A-23: Why are NLFAs a good or bad replacement for LFAs, among Lethal Firearm Owners [Open ended]

(a) Why do you consider nonlethal firearms like Byrna to be a good replacement for LFAs?

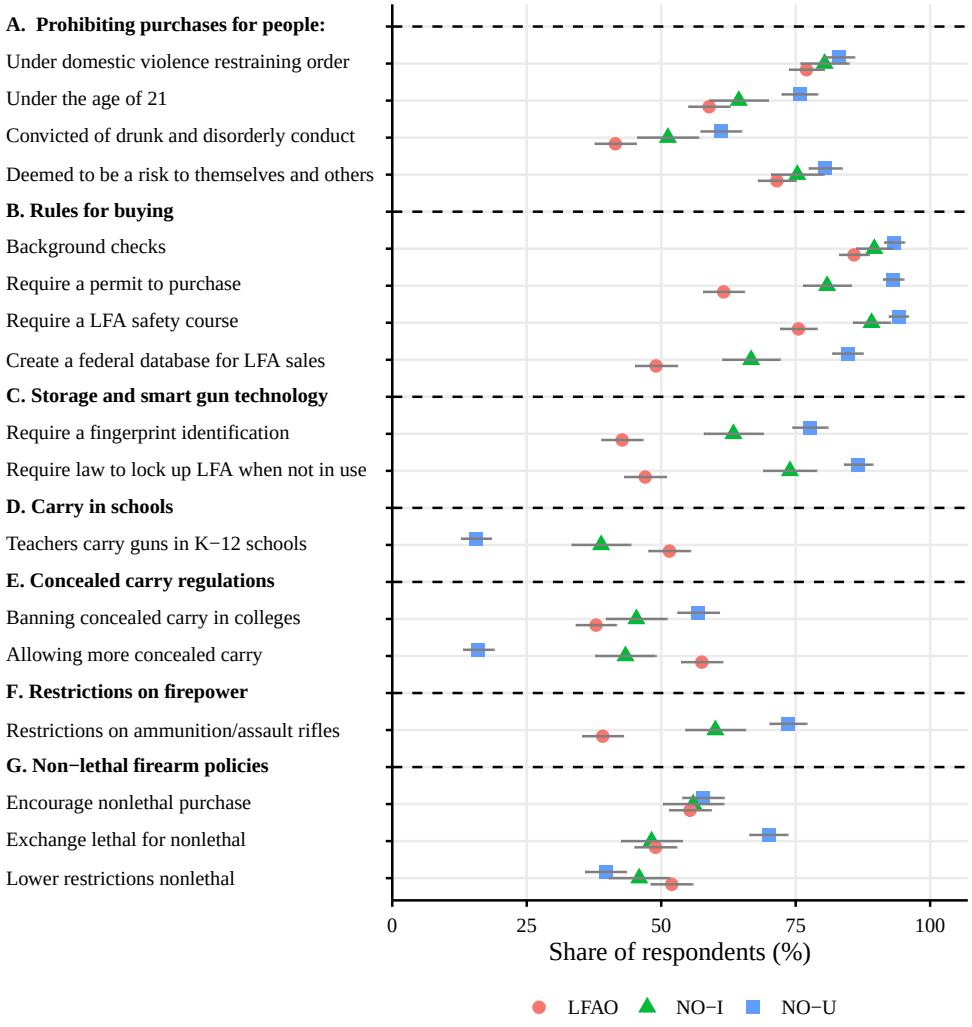


(b) Why do you consider nonlethal firearms like Byrna to be a bad replacement for LFAs?



Notes: This figure displays the distribution of topics in responses from LFAO to open-ended questions on why they viewed NLFAs like Byrna as a good (Panel A) or bad (Panel B) replacement for LFAs. Participants first answered a closed-ended question on whether Byrna was "a complete," "good," "decent," "not much of," or "not a replacement at all." Panel A covers reasons for viewing Byrna as a decent, good, or complete replacement. "Because it is good for self-defense" highlights perceptions that NLFAs can improve safety by deterring attackers and reducing fatalities. "Because it is suited for certain threats, though not all" reflects that they are effective in some contexts but not against armed or determined attackers. "Would consider but need to know more about product and its reliability" points to requests for more evidence, testing, and training. "Because it reduces mental toll of having/using lethal firearms" emphasizes reduced emotional burden compared to lethal weapons. "Because it is easier to access and require no permits" mentions affordability and accessibility. "Uncategorized" includes responses that do not fit other topics. Panel B covers reasons for viewing Byrna as not much or not a replacement. "Because they are ineffective in high-stakes situations" raises concerns about insufficient stopping power. "Because I prioritize safety and do not want to take risks with NLFAs" stresses a preference for lethal firearms to ensure protection. "Because I am unsure about NLFAs' effectiveness" shows skepticism about reliability. "Because I still need LFAs for hunting and recreation" refers to practical needs. "Because NLFAs are not reliable" mentions potential malfunctions. "Because NLFAs could escalate dangerous situations" conveys fears that non-lethal weapons might worsen violence. "Uncategorized" includes remaining responses. Restricted to control group participants.

Figure A-24: Share of Respondents Who Support Specific Policies on Lethal and Non-Lethal Firearms



Notes: This figure illustrates respondents' views on policies related to lethal and non-lethal firearms, by firearm ownership status. Support for each policy was measured on a 5-point scale ranging from 1 ("Strongly oppose") to 5 ("Strongly support"). The figure displays the share of respondents who expressed "Somewhat support" and "Strongly support" to each policy. Restricted to control group participants.

Table A-50: Treatment Effects of the Private Costs of Lethal Firearms Treatment on All Respondents, Restrictive Sample

	Lethal firearm owners				Non-owners			
	All	Low Prior	High Prior	Control mean	All	Low Prior	High Prior	Control mean
Panel A. Beliefs and behaviors related to LFAs								
Worried about arrest	0.20***	0.36***	0.06	2.40	0.26***	0.63***	0.15***	2.76
	(0.06)	(0.09)	(0.06)		(0.04)	(0.10)	(0.04)	
Worried family use	0.04	0.09	-0.02	1.74	0.16***	0.26**	0.10**	2.88
	(0.06)	(0.07)	(0.07)		(0.05)	(0.12)	(0.05)	
Willing to reduce number of guns	0.03	0.07	-0.00	1.48	-	-	-	-
	(0.06)	(0.07)	(0.07)		-	-	-	
Less willing to purchase another LFA	0.14	-0.02	0.21	2.87	0.04	0.15	-0.04	5.04
	(0.11)	(0.17)	(0.14)		(0.09)	(0.24)	(0.09)	
Positive WTP for a Safe	0.03	-0.01	0.04	0.54	-	-	-	-
	(0.03)	(0.05)	(0.03)		-	-	-	
Willing to keep LFA locked if had NLFA	0.19**	0.25*	0.14	3.26	-	-	-	-
	(0.08)	(0.13)	(0.09)		-	-	-	
Will. to participate in a gun buyback program	-0.17*	0.11	-0.35***	2.55	-	-	-	-
	(0.10)	(0.15)	(0.13)		-	-	-	
Panel B. Beliefs and behaviors related to NLFAs								
Believes it is a good replacement	0.03	0.18**	-0.06	2.40	-	-	-	-
	(0.06)	(0.09)	(0.07)		-	-	-	
Prefer to incapacitate, not kill	0.02	0.05	-0.01	3.14	-	-	-	-
	(0.07)	(0.11)	(0.08)		-	-	-	
Interested in purchasing a NLFA	-0.08	0.12	-0.22	3.85	-	-	-	-
	(0.11)	(0.20)	(0.14)		-	-	-	
Positive WTP for NLFA	-0.02	-0.04	-0.01	0.79	-	-	-	-
	(0.02)	(0.04)	(0.03)		-	-	-	
Panel C. Policy views related to NLFAs								
Support for NLFA Alternatives Index	0.04	0.11	-0.01	0.00	0.12***	0.35***	0.07	0.00
	(0.05)	(0.09)	(0.07)		(0.04)	(0.11)	(0.05)	
Real Stakes NLFA Index	0.01	0.19**	-0.11	0.00	0.05	0.26**	-0.01	0.00
	(0.05)	(0.09)	(0.07)		(0.04)	(0.11)	(0.05)	
Panel D. Policy views related to LFAs								
Prohibiting Purchases Index	0.02	0.06	-0.00	0.00	0.07	0.21**	0.04	0.00
	(0.05)	(0.09)	(0.07)		(0.04)	(0.10)	(0.05)	
Support for Rules for Buying Index	0.02	0.16*	-0.07	0.00	0.06	0.24*	0.01	0.00
	(0.05)	(0.10)	(0.06)		(0.04)	(0.14)	(0.04)	
Support for Storage and Safety Index	0.13**	0.25***	0.05	0.00	0.11***	0.30**	0.05	0.00
	(0.05)	(0.09)	(0.06)		(0.04)	(0.13)	(0.04)	
Opposition to Carry in Schools	-0.02	-0.04	-0.02	0.00	-0.03	0.02	-0.05	0.00
	(0.05)	(0.09)	(0.07)		(0.04)	(0.12)	(0.05)	
Support for Concealed Carry Regulations Index	0.03	0.08	-0.00	0.00	0.05	0.08	0.03	0.00
	(0.05)	(0.09)	(0.07)		(0.04)	(0.11)	(0.05)	
Support for Restrictions on High-Capacity LF	-0.05	0.04	-0.11*	0.00	0.01	0.12	-0.01	0.00
	(0.05)	(0.09)	(0.07)		(0.04)	(0.11)	(0.05)	
Real Stakes Lethal Index	0.11**	0.12	0.11	0.00	0.07	0.12	0.05	0.00
	(0.06)	(0.09)	(0.07)		(0.04)	(0.11)	(0.04)	

Notes: This table presents the results of Equations 2 and 3 with the following control variables: age, gender, political affiliation, income and race. Each treatment group is reported under three cases: All data: Results based on responses from all participants of the main survey. Low prior: Subsample of respondents who were not worried at all about arrest (LFAO N = 1,041; NO N = 339). High prior: Subsample of respondents who were worried about arrest (LFAO N = 1,808; NO N = 1,743). Coefficients represent the estimated effects of the respective treatments on the specified outcomes. The following variables are standardized: Opposition to Carry in Schools and Support for Restrictions on High-Capacity LFAs. Positive Willingness to Pay for Byrna and Positive Willingness to Pay for a Safe are binary variables. Robust standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A-51: Treatment Effects of Providing Information on Non-Lethal Firearms on LFAO, With and Without Endorsement, Restrictive Sample

	NLFA Information			NLFA Information + Endorsement			Control mean
	All	Low prior	High prior	All	Low prior	High prior	
Panel A. Beliefs and behaviors related to LFAs							
Worried about arrest	-0.03	-0.02	-0.05	-0.03	0.05	-0.33**	2.40
	(0.06)	(0.07)	(0.13)	(0.06)	(0.07)	(0.13)	
Worried family use	0.04	0.08	-0.08	0.09*	0.18***	-0.22*	1.74
	(0.06)	(0.06)	(0.13)	(0.06)	(0.06)	(0.13)	
Willing to reduce number of guns	-0.02	-0.02	0.00	-0.01	-0.00	-0.06	1.48
	(0.05)	(0.06)	(0.12)	(0.05)	(0.06)	(0.12)	
Less willing to purchase another LFA	0.16	0.22*	-0.09	0.05	0.13	-0.25	2.87
	(0.11)	(0.13)	(0.24)	(0.11)	(0.13)	(0.25)	
Positive WTP for a Safe	0.01	-0.01	0.10*	-0.01	-0.01	-0.01	0.54
	(0.03)	(0.03)	(0.06)	(0.03)	(0.03)	(0.06)	
Willing to keep LFA locked if had NLFA	0.16**	0.20**	0.01	0.15**	0.25***	-0.18	3.26
	(0.08)	(0.08)	(0.17)	(0.08)	(0.08)	(0.17)	
Will. to participate in a gun buyback program	-0.23**	-0.23**	-0.25	-0.03	0.07	-0.37*	2.55
	(0.10)	(0.11)	(0.22)	(0.10)	(0.11)	(0.21)	
Panel B. Beliefs and behaviors related to NLFAs							
Believes it is a good replacement	0.27***	0.33***	0.05	0.28***	0.40***	-0.14	2.40
	(0.06)	(0.07)	(0.13)	(0.06)	(0.06)	(0.13)	
Prefer to incapacitate, not kill	0.23***	0.25***	0.19	0.27***	0.37***	-0.10	3.14
	(0.07)	(0.07)	(0.15)	(0.07)	(0.07)	(0.15)	
Interested in purchasing a NLFA	0.74***	0.80***	0.54**	0.94***	1.10***	0.30	3.85
	(0.11)	(0.13)	(0.25)	(0.11)	(0.12)	(0.26)	
Positive WTP for NLFA	0.03	0.03	0.05	0.05**	0.07***	-0.01	0.79
	(0.02)	(0.03)	(0.05)	(0.02)	(0.02)	(0.05)	
Panel C. Policy views related to NLFAs							
Support for NLFA Alternatives Index	0.16***	0.20***	0.02	0.22***	0.29***	-0.01	0.00
	(0.05)	(0.06)	(0.12)	(0.05)	(0.06)	(0.12)	
Real Stakes NLFA Index	-0.01	0.03	-0.15	0.05	0.08	-0.06	0.00
	(0.05)	(0.06)	(0.12)	(0.05)	(0.06)	(0.12)	
Panel D. Policy views related to LFAs							
Prohibiting Purchases Index	-0.00	0.00	-0.02	0.00	0.02	-0.04	0.00
	(0.05)	(0.06)	(0.13)	(0.06)	(0.06)	(0.13)	
Support for Rules for Buying Index	-0.04	0.01	-0.25**	0.07	0.13**	-0.16	0.00
	(0.05)	(0.06)	(0.12)	(0.05)	(0.06)	(0.12)	
Support for Storage and Safety Index	0.03	0.04	-0.01	0.07	0.11*	-0.06	0.00
	(0.05)	(0.06)	(0.11)	(0.05)	(0.06)	(0.11)	
Opposition to Carry in Schools	-0.04	-0.01	-0.16	0.05	0.09	-0.13	0.00
	(0.05)	(0.06)	(0.12)	(0.05)	(0.06)	(0.12)	
Support for Concealed Carry Regulations Index	0.02	0.05	-0.10	0.01	0.06	-0.18	0.00
	(0.05)	(0.06)	(0.12)	(0.05)	(0.06)	(0.12)	
Support for Restrictions on High-Capacity LF	-0.05	-0.06	-0.03	-0.08	-0.06	-0.14	0.00
	(0.05)	(0.06)	(0.11)	(0.05)	(0.06)	(0.11)	
Real Stakes Lethal Index	0.00	0.01	-0.03	0.10*	0.09	0.14	0.00
	(0.05)	(0.06)	(0.11)	(0.05)	(0.06)	(0.10)	

Notes: This table presents the results of Equation 3, with the following control variables: age, gender, political affiliation, income and race. Each treatment group is reported under three cases: All data: Results based on responses from all participants of the main survey. Low prior: Subsample of respondents who have not heard of Byrna before the survey (LFAO N = 2,254). High prior: Subsample of respondents who have heard of Byrna before the survey (LFAO N = 595). Coefficients represent the estimated effects of the respective treatments on the specified outcomes. The following variables are standardized: Opposition to Carry in Schools and Support for Restrictions on High-Capacity LFAs. Positive Willingness to Pay for Byrna and Positive Willingness to Pay for a Safe are binary variables. Robust standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A-52: Effect of the NLFA Information and Endorsement Treatments on Open-ended Answers about NLFAs, Restrictive Sample

	NLFA Information			NLFA Information + Endorsement		
	All	Low Prior	High Prior	All	Low Prior	High Prior
Because it is easier to access and require no permits	0.01**	0.01*	0.03*	0.01**	0.01**	-0.00
	(0.01)	(0.00)	(0.02)	(0.01)	(0.01)	(0.01)
Would consider but need to know more about product and its reliability	0.01	0.01	0.00	0.01	0.02	-0.00
	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.02)
Because it reduces mental toll of having/using lethal firearms	0.00	0.01	-0.01	0.00	0.01	-0.01
	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.02)
Because it is suited for certain threats, though not all	0.04**	0.04**	0.02	0.08***	0.10***	0.03
	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)	(0.04)
Because it is good for self-defense	0.07**	0.09***	0.00	0.06**	0.08**	-0.02
	(0.03)	(0.03)	(0.06)	(0.03)	(0.03)	(0.06)
Because NLFAs could escalate dangerous situations	-0.00	-0.00	-0.00	-0.01	-0.01	0.00
	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.02)
Because NLFAs are unreliable	-0.01	-0.01*	0.03	-0.01	-0.01	0.00
	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.02)
Because I still need LFAs for hunting and recreation	-0.02**	-0.02	-0.03	-0.03**	-0.03**	-0.02
	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.02)
Because I am unsure about NLFAs' effectiveness	-0.02	-0.02	0.00	-0.03**	-0.04***	0.02
	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.03)
Because I prioritize safety and do not want to take risks	-0.01	-0.01	-0.00	-0.01	-0.02	0.02
	(0.02)	(0.02)	(0.04)	(0.02)	(0.02)	(0.04)
Because they are ineffective in high-stakes situations	-0.07***	-0.07**	-0.04	-0.08***	-0.10***	0.01
	(0.02)	(0.03)	(0.05)	(0.02)	(0.03)	(0.05)

Notes: This table presents the results of Equation 3 with the following control variables: age, gender, political affiliation, income and race. The outcome variables are binary indicators of the responses to the open-ended question about why respondents would or would not consider Byrna as a replacement (i.e., it is 1 if the LFAO's open-ended response includes the corresponding reason and 0 otherwise). Each row reports the estimated treatment effect of the *Non-Lethal Firearm Information* treatment and *Non-Lethal Firearm Information and Endorsement* treatment, with results presented under three cases: All data: Results based on responses from all participants of the main survey (LFAO N = 2,849). Low prior: Subsample of respondents who had no prior awareness of Byrna for the NLFA treatments (LFAO N = 2,254). High prior: Subsample of respondents who were already aware of Byrna (LFAO N = 595). Coefficients represent the estimated effects of the respective treatments on the specified outcomes. Robust standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A-53: Persistence of the Treatment Effects of the Private Costs of Lethal Firearms Treatment, Restrictive Sample

	Lethal firearm owners			Non-owners		
	Main (all)	Main (FU only)	Follow-up (all)	Main (all)	Main (FU only)	Follow-up (all)
Panel A. Beliefs and behaviors related to LFAs						
Worried about arrest	0.20***	0.18***	0.15**	0.26***	0.25***	0.09*
	(0.06)	(0.06)	(0.06)	(0.04)	(0.05)	(0.05)
Worried family use	0.04	0.02	-0.02	0.16***	0.13***	0.01
	(0.06)	(0.06)	(0.06)	(0.05)	(0.05)	(0.05)
Willing to reduce number of guns	0.03	0.02	0.01	-	-	-
	(0.06)	(0.06)	(0.06)	-	-	-
Less willing to purchase another LFA	0.04	0.02	-0.02	0.16	0.13	0.01
	(0.06)	(0.06)	(0.06)	(0.05)	(0.05)	(0.05)
Positive WTP for a Safe	0.03	0.04	0.01	-	-	-
	(0.03)	(0.03)	(0.03)	-	-	-
Willing to keep LFA locked if had NLFA	0.19**	0.18**	0.04	-	-	-
	(0.08)	(0.08)	(0.08)	-	-	-
Will. to participate in a gun buyback program	-0.17*	-0.12	-0.19*	-	-	-
	(0.10)	(0.11)	(0.11)	-	-	-
Panel B. Beliefs and behaviors related to NLFA						
Believes it is a good replacement	0.03	0.03	-0.04	-	-	-
	(0.06)	(0.06)	(0.06)	-	-	-
Prefer to incapacitate, not kill	0.02	0.05	-0.05	-	-	-
	(0.07)	(0.07)	(0.07)	-	-	-
Interested in purchasing a NLFA	-0.08	-0.07	-0.05	-	-	-
	(0.11)	(0.12)	(0.12)	-	-	-
Positive WTP for NLFA	-0.02	-0.00	0.01	-	-	-
	(0.02)	(0.03)	(0.02)	-	-	-
Panel C. Policy views related to NLFAs						
Support for NLFA Alternatives Index	0.04	0.01	-0.04	0.12***	0.11**	0.07
	(0.05)	(0.06)	(0.06)	(0.04)	(0.05)	(0.05)
Panel D. Policy views related to LFAs						
Prohibiting Purchases Index	0.02	0.03	-0.04	0.07	0.06	0.07
	(0.05)	(0.06)	(0.06)	(0.04)	(0.05)	(0.05)
Support for Rules for Buying Index	0.02	0.02	0.02	0.06	0.05	-0.00
	(0.05)	(0.06)	(0.06)	(0.04)	(0.04)	(0.04)
Support for Storage and Safety Index	0.13**	0.15**	0.07	0.11***	0.09**	0.09*
	(0.05)	(0.06)	(0.06)	(0.04)	(0.04)	(0.04)
Opposition to Carry in Schools	-0.02	-0.06	-0.08	-0.03	-0.04	-0.06
	(0.05)	(0.06)	(0.06)	(0.04)	(0.05)	(0.05)
Support for Concealed Carry Regulations Index	0.03	0.08	0.04	0.05	0.04	0.01
	(0.05)	(0.06)	(0.06)	(0.04)	(0.05)	(0.05)
Support for Restrictions on High-Capacity LF	-0.05	-0.01	0.01	0.01	0.02	0.00
	(0.05)	(0.06)	(0.06)	(0.04)	(0.05)	(0.05)

Notes: This table presents the results of Equations 2 and 3, with the following control variables: age, gender, political affiliation, income, race. Each treatment group is reported under three cases: Main: Results based on responses from all participants of the main survey (LFAO N = 2,849; NO N = 2,082). Main (FU only): Results based on main survey data using responses from participants who took the follow-up survey (LFAO N = 2,561; NO N = 1,974). Follow-up: Results based on responses from the follow-up survey (LFAO N = 2,561; NO N = 1,974). Coefficients represent the estimated effects of the respective treatments on the specified outcomes. The following variables are standardized: Opposition to Carry in Schools and Support for Restrictions on High-Capacity LFAs. Positive Willingness to Pay for Byrna and Positive Willingness to Pay for a Safe are binary variables. Robust standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A-54: Persistence of the Treatment Effects of Providing Information on Non-Lethal Firearms on LFAO, With and Without Endorsement, Restrictive Sample

	NLFA Information			NLFA Information + Endorsement		
	Main (all)	Main (FU only)	Follow-up (all)	Main (all)	Main (FU only)	Follow-up (all)
Panel A. Beliefs and behaviors related to LFAs						
Worried about arrest	-0.03	-0.01	-0.02	-0.03	-0.04	-0.00
	(0.06)	(0.07)	(0.06)	(0.06)	(0.06)	(0.06)
Worried family use	0.04	0.04	-0.01	0.09	0.11*	0.03
	(0.06)	(0.06)	(0.05)	(0.06)	(0.06)	(0.05)
Willing to reduce number of guns	-0.02	-0.03	0.03	-0.01	-0.02	0.03
	(0.05)	(0.06)	(0.06)	(0.05)	(0.06)	(0.06)
Less willing to purchase another LFA	0.16	0.12	0.05	0.05	0.00	0.00
	(0.11)	(0.12)	(0.11)	(0.11)	(0.12)	(0.11)
Positive WTP for a Safe	0.01	0.01	0.01	-0.01	-0.00	0.01
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Willing to keep LFA locked if had NLFA	0.16**	0.15*	0.01	0.15**	0.17**	0.06
	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)
Will. to participate in a gun buyback program	-0.23**	-0.19*	-0.23**	-0.03	0.02	-0.02
	(0.10)	(0.11)	(0.11)	(0.10)	(0.11)	(0.11)
Panel B. Beliefs and behaviors related to NLFAs						
Believes it is a good replacement	0.27***	0.27***	0.10	0.28***	0.29***	0.11*
	(0.06)	(0.07)	(0.06)	(0.06)	(0.06)	(0.06)
Prefer to incapacitate, not kill	0.23***	0.23***	0.07	0.27***	0.29***	0.15**
	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)
Interested in purchasing a NLFA	0.74***	0.79***	0.39***	0.94***	0.99***	0.52***
	(0.11)	(0.12)	(0.12)	(0.11)	(0.12)	(0.12)
Positive WTP for NLFA	0.03	0.04*	0.03	0.05**	0.07***	0.05**
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Panel C. Policy views related to NLFAs						
Support for NLFA Alternatives Index	0.16***	0.16**	0.09	0.22***	0.23***	0.12**
	(0.05)	(0.06)	(0.06)	(0.05)	(0.06)	(0.06)
Panel D. Policy views related to LFAs						
Prohibiting Purchases Index	-0.00	-0.00	-0.05	0.00	0.01	-0.03
	(0.05)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)
Support for Rules for Buying Index	-0.04	-0.04	-0.03	0.07	0.08	0.06
	(0.05)	(0.06)	(0.06)	(0.05)	(0.06)	(0.06)
Support for Storage and Safety Index	0.03	0.02	0.01	0.07	0.07	0.06
	(0.05)	(0.06)	(0.06)	(0.05)	(0.06)	(0.06)
Opposition to Carry in Schools	-0.04	-0.06	-0.10*	0.05	0.03	-0.00
	(0.05)	(0.05)	(0.06)	(0.05)	(0.06)	(0.06)
Support for Concealed Carry Regulations Index	0.02	0.02	-0.04	0.01	0.01	0.02
	(0.05)	(0.06)	(0.06)	(0.05)	(0.06)	(0.06)
Support for Restrictions on High-Capacity LF	-0.05	-0.07	-0.07	-0.08	-0.06	-0.00
	(0.05)	(0.06)	(0.06)	(0.05)	(0.06)	(0.06)

Notes: This table presents the results of Equation 3, with the following control variables: age, gender, political affiliation, income and race. Each treatment group is reported under three cases: Main: Results based on responses from all participants of the main survey (LFAO N = 2,849). Main (FU only): Results based on main survey data using responses from participants who took the follow-up survey (LFAO N = 2,561). Follow-up: Results based on responses from the follow-up survey (LFAO N = 2,561). Coefficients represent the estimated effects of the respective treatments on the specified outcomes. The following variables are standardized: Opposition to Carry in Schools and Support for Restrictions on High-Capacity LFAs. Positive Willingness to Pay for Byrna and Positive Willingness to Pay for a Safe are binary variables. Robust standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

A-6.2 Extensive sample cleaning

In the extensive sample, we keep respondents who failed any attention check, those who dropped out before the end of the survey, and the first response of those who entered the survey more than once (duplicates). This corresponds to the "Attention check" and "Drop out voluntarily" lines in table A-1, to which we add the first response of those who entered the survey more than once and were excluded from the benchmark sample for robustness.

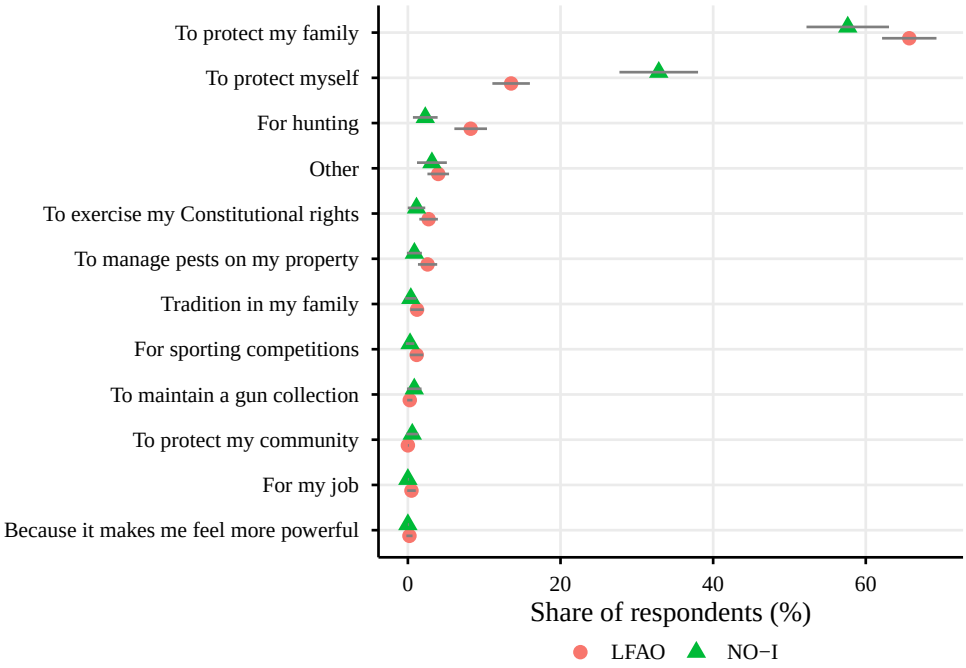
Below, Figures A-25 to A-36 and Tables A-55 to A-60 reproduce the main figures and tables using the extensive specification of the dataset. The number of LFAOs increases to 3,470 while the number of NO reaches 2,669.

Table A-55: Sample Representativity, Extensive Version

	LFAO		Non-owners	
	Survey	Quota	Survey	Quota
Male	68%	73%	43%	41%
Female	32%	27%	55%	59%
White	84%	87%	65%	66%
Non-white	16%	13%	35%	34%
18-29 years old	15%	13.1%	30%	34%
30-49 years old	50%	51.5%	39%	39%
50-64 years old	34%	35.4%	31%	27%
Income 0-40,000	14%	10.9%	36%	34%
Income 40,000 - 100,000	43%	37.6%	31%	30%
Income 100,000+	43%	51.5%	33%	36%
Midwest	24%	28%	20%	20.2%
East/Northeast	12%	8%	20%	19.2%
South	46%	45%	36%	34.3%
West	18%	19%	23%	26.3%
Republican	45%	42.2%	20%	16.8%
Democrat	20%	17.8%	33%	32.6%
Independent	32%	40%	40%	50.5%

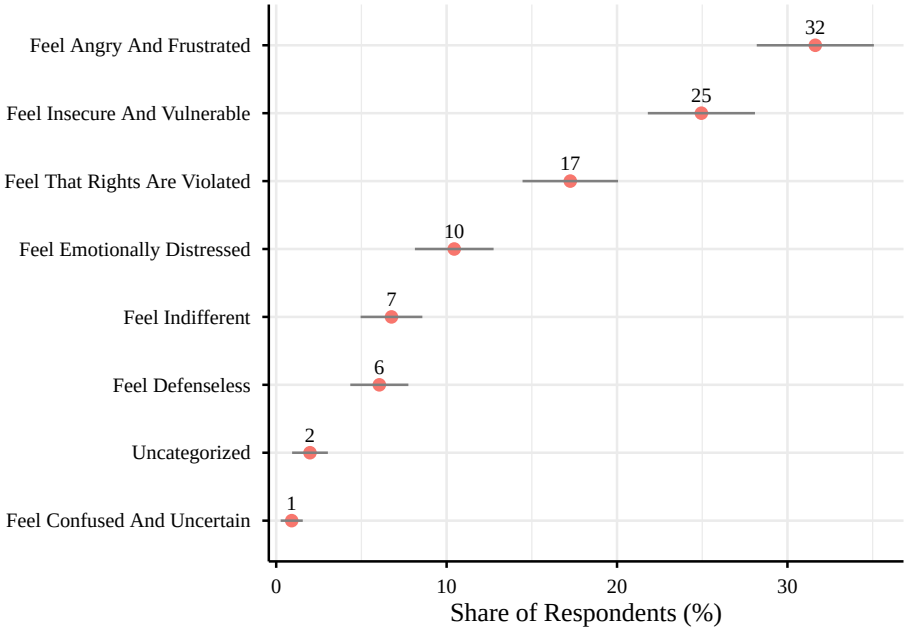
Notes: The table presents the demographic representativeness benchmark comparison between GSS 2022 data, and our extensive sample (pre-reweight), divided by lethal firearm ownership status. The percentages shown for each category are based on the respective groups of LFAO and non-owners.

Figure A-25: Reasons for Owning or Acquiring a Lethal Firearm



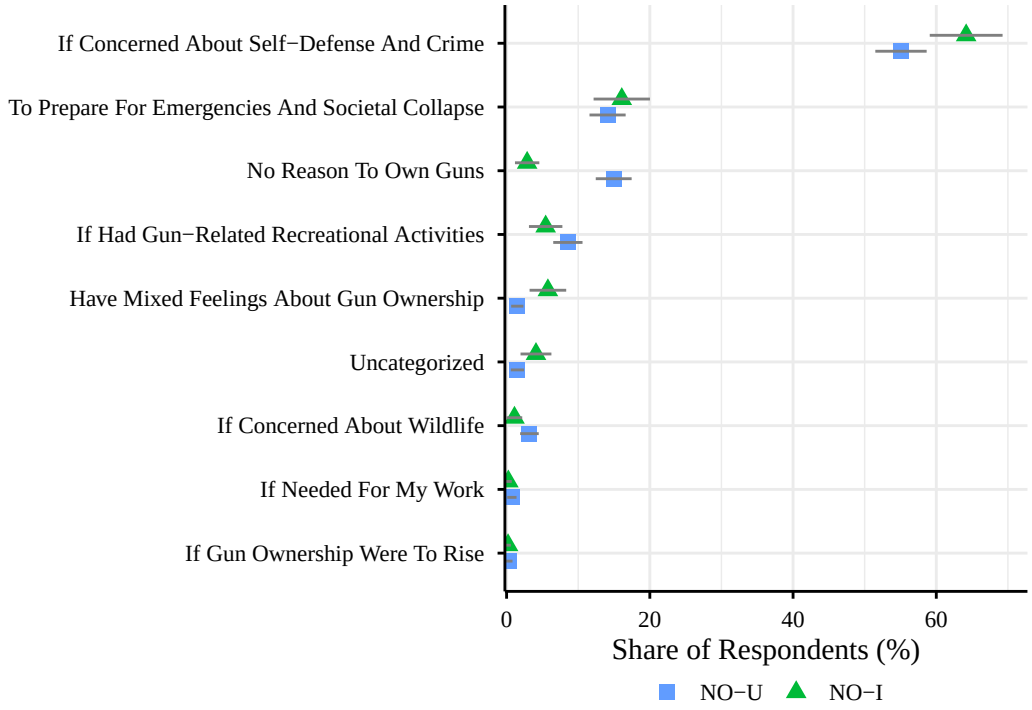
Notes: This figure shows the share of respondents who rated each reason as the "Most important" for owning (among LFAO) or acquiring (NO-I) a lethal firearm. Restricted to control group participants.

Figure A-26: In one or two words, how would you feel if your gun was taken away? [Open ended]



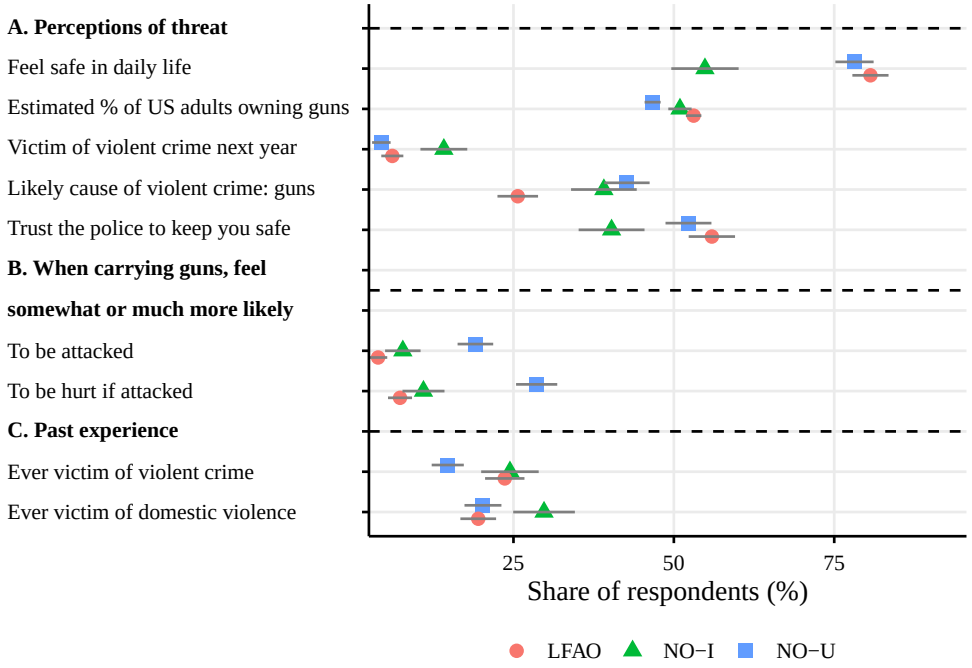
Notes: This figure displays the distribution of topics in responses from LFAO to the question: "In one or two words, how would you feel if your gun was taken away?" The topic category "Feel angry and frustrated" captures expressions of anger, rage, or frustration about the idea of losing one's gun. "Feel insecure and vulnerable" refers to feelings of exposure or fear for one's safety without a firearm. "Feel that rights are violated" reflects perceptions that gun removal would infringe upon personal freedoms or constitutional rights. "Feel emotionally distressed" represents sadness, disappointment, or loneliness linked to the emotional value placed on gun ownership. "Feel indifferent" includes respondents expressing little concern or acceptance of the situation. "Feel defenseless" highlights respondents' sense of being unable to protect themselves without a gun. "Feel confused and uncertain" describes individuals unsure or unclear about how to react to such a situation. "Uncategorized" covers responses that do not fit into any of the other topics. Restricted to control group participants and those with blank responses were excluded.

Figure A-27: Can you think of any reason or situation for you to start owning a gun? [Open ended]



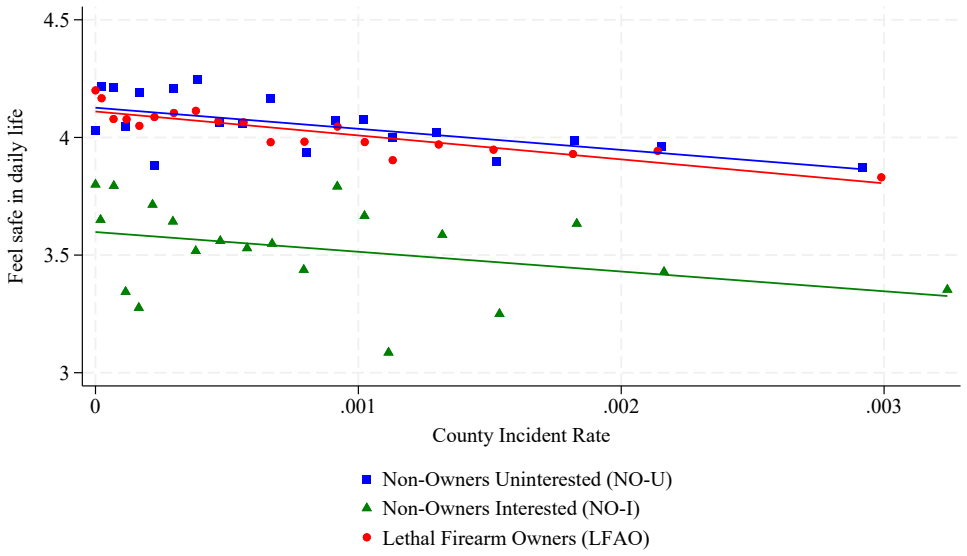
Notes: This figure displays the distribution of topics by types of non-owners responding to the question: "Can you think of any reason or situation for you to start owning a gun? Please list them here." The topic "If concerned about self-defense and crime" refers to motivations linked to personal protection against threats or crime. "To prepare for emergencies and societal collapse" captures answers about readiness for extreme events such as social unrest or societal breakdown. "No reason to own guns" reflects respondents who see no need for, or oppose, gun ownership. "If had gun-related recreational activities" relates to motivations involving leisure activities such as hunting or target shooting. "Have mixed feelings about gun ownership" represents ambivalent or uncertain attitudes toward owning a gun. "If concerned about wildlife" describes those mentioning protection from animals, often in rural contexts. "If needed for my work" refers to cases where gun ownership is seen as a professional requirement. "If gun ownership were to rise" includes respondents who might consider owning a gun if others around them did so. "Uncategorized" covers responses that do not fit any of the other topics. Restricted to control group participants and those with blank responses were excluded.

Figure A-28: Safety Perceptions and Experiences by Ownership Status



Notes: This figure shows the share of respondents who hold specific beliefs/perceptions or have past experiences related to the items listed in the rows, by firearm ownership status. *Estimated % of U.S. adults who own guns* is the average perceived percentage of U.S. adults who own a gun based on respondents' self-reported estimates. *Feel safe in daily life* is an indicator for respondents who feel somewhat safe or very safe in their daily life. *Victim of violent crime in the next year* is an indicator for respondents who believe they are somewhat or very likely to be a victim of violent crime within the next year. *Likelihood of violent crime caused by guns* is an indicator for respondents who believe a violent crime they may experience in the next year is somewhat or very likely to be caused by guns. *Trust the police to keep you safe* is an indicator for respondents who somewhat trust or completely trust the police to keep them safe. *Be the victim of crime* is an indicator for respondents who feel somewhat more likely or much more likely to be attacked or become a victim of crime when carrying a gun, or if they were to carry a gun. *Be hurt if attacked* is an indicator for respondents who feel somewhat more likely or much more likely to be hurt if attacked when carrying a gun, or if they were to carry a gun. *Ever victim of a violent crime* is an indicator for respondents who have ever been a victim of a violent crime. *Ever victim of domestic violence* is an indicator for respondents who have ever been a victim of domestic violence. Restricted to control group participants.

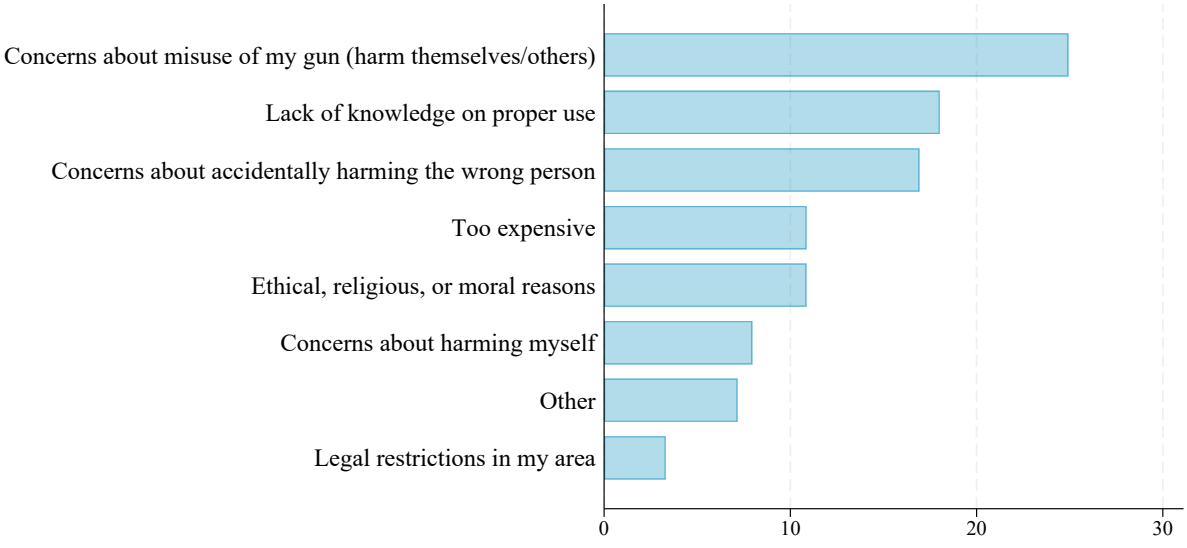
Figure A-29: Perceived vs. objective safety by lethal firearm ownership status



Notes: This is a binscatter plot of participants' perceived feelings of safety (measured on a 5-point scale) plotted against county-level violent crime incidence. Violent crime incidence is calculated using data from the FBI's Uniform Crime Reporting (UCR) program. Specifically, the total number of violent crimes—comprising Murder and Non-Negligent Manslaughter, Forcible Rape, Robbery, and Aggravated Assault—is divided by the county's population to obtain the incidence rate. Counties are then grouped into equal-sized bins based on these rates, and each dot represents the average perceived risk within a bin. Blue dots represent the NO-U group, green dots the NO-I group, and red dots the LFAO group.

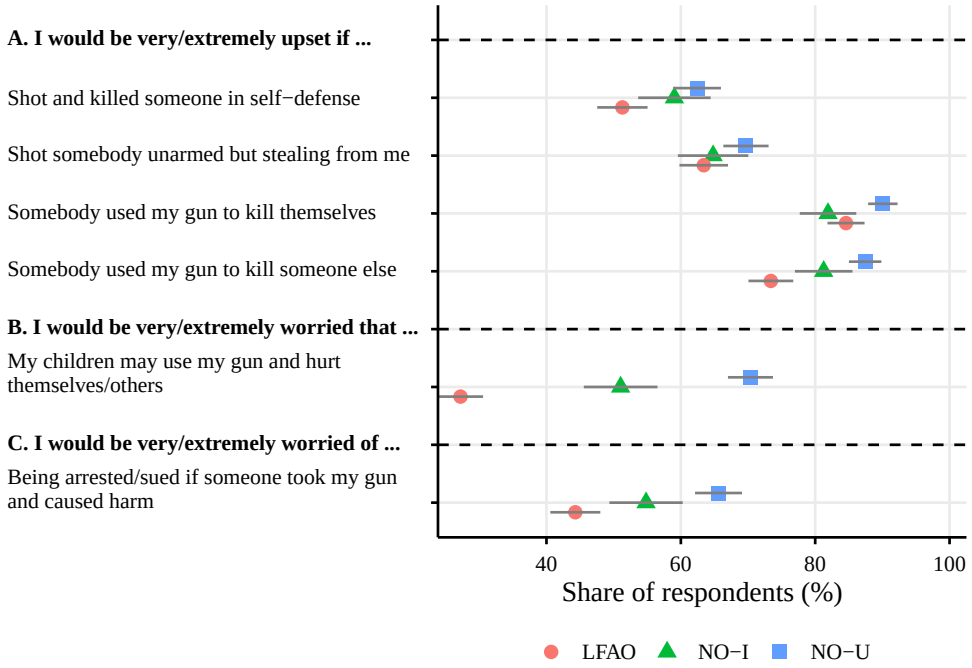
Figure A-30: Reasons for Not Owning a Lethal Firearm Among Non-Owners

Concerns about the harms of ownerships



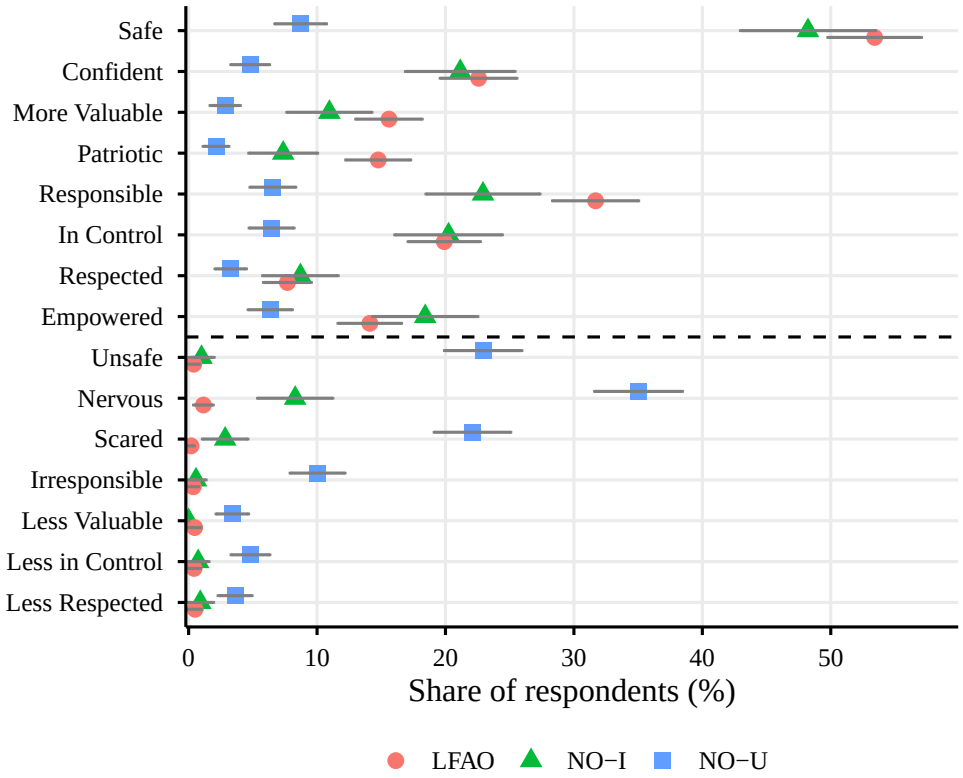
Notes: This figure shows the share among non-owners who rated each reason as the most important for why they do not own a lethal firearm. Respondents were first asked how important each of these eight potential reasons were for them not to own a gun. Restricting to the reasons they classified as "very" or "extremely" important, they were then asked "You said these are very or extremely important reasons for you not to own a gun. Which one is the most important?" Restricted to control group participants.

Figure A-31: Perceived Private Costs Associated with Lethal Firearm Ownership Across Ownership Types



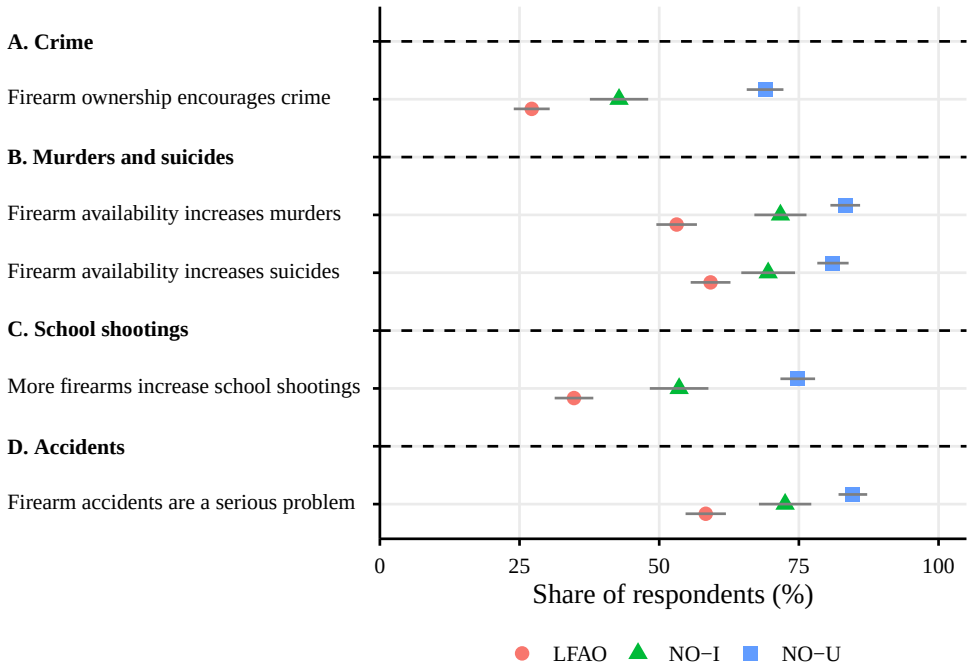
Notes: This figure displays the share of respondents who reported feeling very upset or extremely upset and very worried or extremely worried about various scenarios involving the private costs of firearms, by firearm ownership status. Each scenario was rated on a 4-point scale, from 1 (Not upset at all/Not worried at all) to 4 (Extremely upset/Extremely worried). Restricted to control group participants.

FIGURE A-32: HOW DOES OR WOULD OWNING A GUN MAKE YOU FEEL?



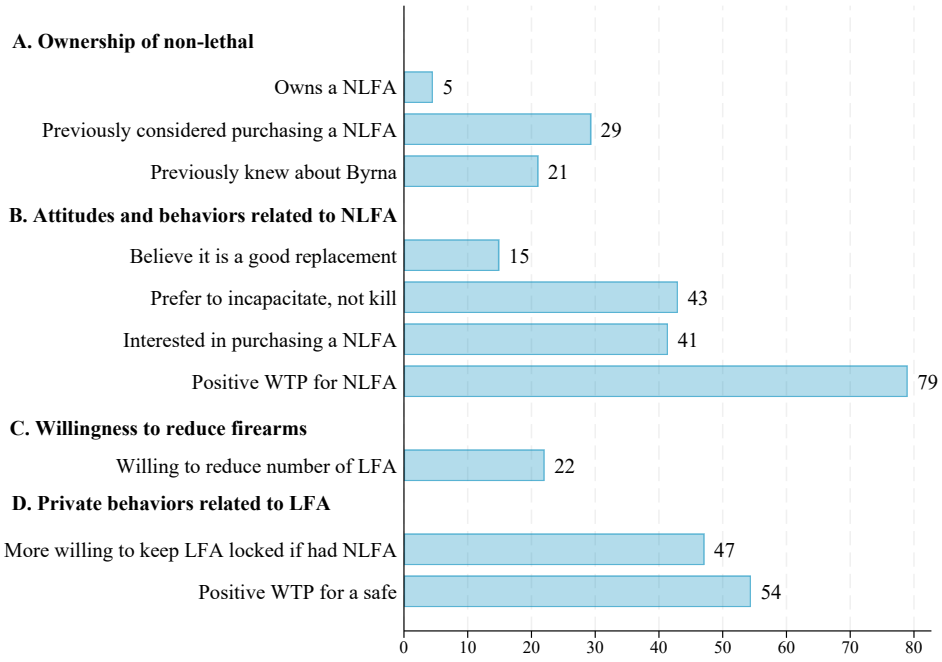
Notes: The figure illustrates respondents' perceptions about owning or potentially owning a lethal firearm, by firearm ownership status. 28.5% of respondents (1,713) are NO-U, 13.7% of them (820) are NO-I, and 57.8% (3,470) are LFAO. The survey question asked: "To what extent does/would owning a gun make you feel:" with response options: No extent, Some extent, A moderate extent, and A great extent. The figure presents the share of respondents who answered "A great extent." Restricted to control group participants.

Figure A-33: Perceived Social Costs Associated with Lethal Firearm Ownership Across Ownership Types
Owners perceive lower social harms



Notes: This figure displays the share of respondents who hold specific perceptions on the items listed in the rows, by firearm ownership status. *Firearm ownership encourages crime* is an indicator for respondents who believe that firearm ownership in the U.S. somewhat encourages crime or that it encourages crime a lot. *Firearm availability increases murders* is an indicator for respondents who believe that easy access to firearms somewhat increases the number of murders or that it increases the number of murders a lot. *Firearm availability increases suicides* is an indicator for respondents who believe that easy access to firearms somewhat increases the number of suicides or that it increases the number of suicides a lot. *More firearms increase school shootings* is an indicator for respondents who believe that if firearm ownership were to increase, school shootings would somewhat increase or increase a lot. *Firearms accidents are a serious problem* is an indicator for respondents who perceive accidents from owning a gun as a very serious or extremely serious problem. Restricted to control group participants.

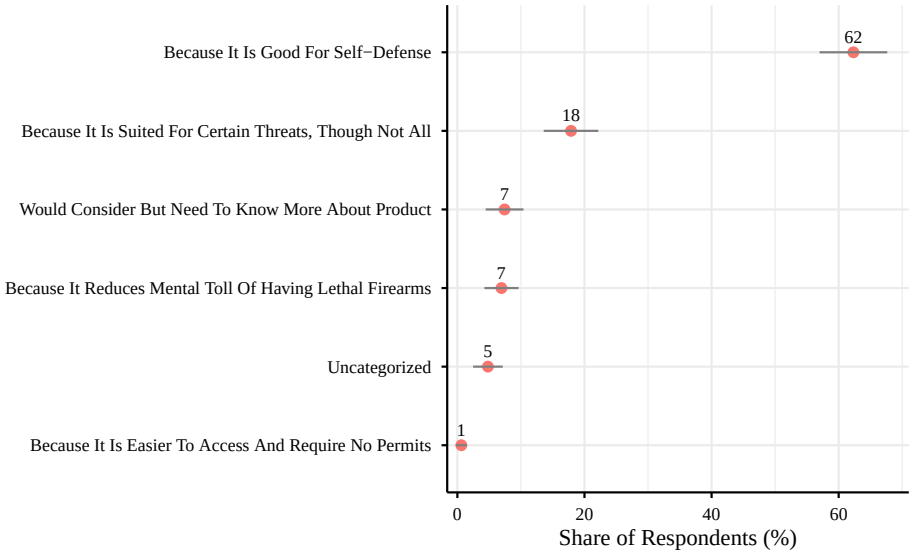
Figure A-34: Beliefs About NLFAs among Lethal Firearm Owners



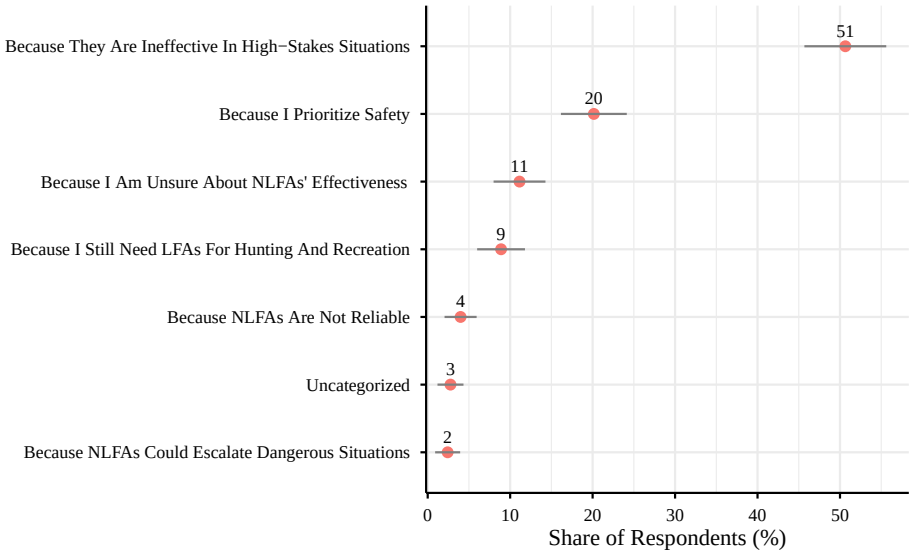
Notes: This figure displays the distribution of LFAOs' responses to the items listed in the rows. *Owns an NLFA* is an indicator for respondents who reported owning a Byrna or another NLFA. *Previously considered purchasing an NLFA* is an indicator for respondents without an NLFA who reported having briefly or seriously considered buying one in the past. *Previously knew about Byrna* is an indicator for respondents who reported having heard about Byrna NLFAs before the survey. *Good replacement* is an indicator for respondents who consider NLFAs as a good or complete replacement for a standard, lethal firearm. *Incapacitate but not kill* is an indicator for respondents who agree or strongly agree that they prefer a firearm capable of temporarily incapacitating without killing. *Interested in purchasing an NLFA* is an indicator for respondents who showed willingness to purchase an NLFA by selecting 5, 6 or 7 on a 1 to 7 scale. *Positive willingness to pay for NLFA* is a dummy variable. *Willing to reduce number of LFAs* is an indicator for respondents who reported that they would reduce slightly, reduce moderately, reduce substantially or no longer hold any firearms if they purchased the Byrna legal non-lethal firearm. *More willing to keep LFAs locked if had NLFA* is an indicator for respondents who would definitely or probably be more willing to keep their lethal firearms locked if they had a Byrna non-lethal firearm. *Positive willingness to pay for a safe* is a dummy variable. Restricted to control group participants.

Figure A-35: Why are NLFAs a good or bad replacement for LFAs, among Lethal Firearm Owners [Open ended]

(a) Why do you consider nonlethal firearms like Byrna to be a good replacement for LFAs?

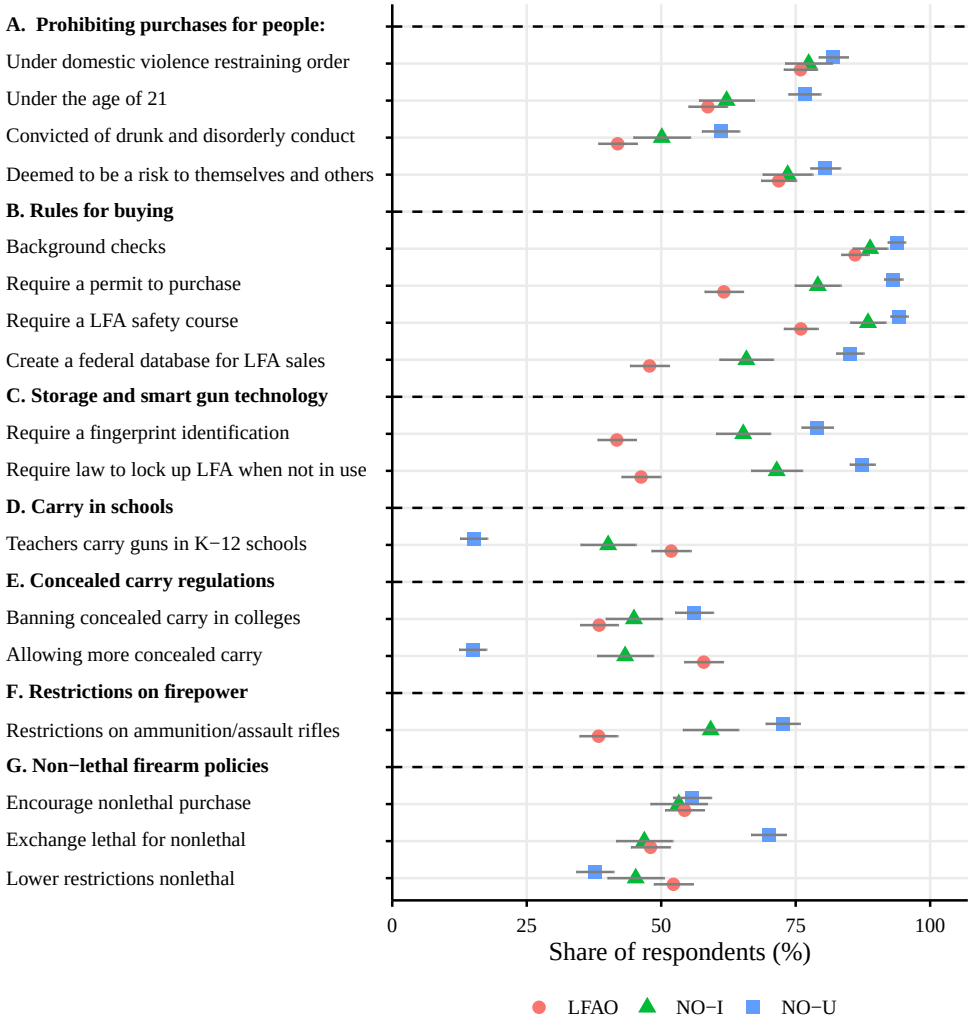


(b) Why do you consider nonlethal firearms like Byrna to be a bad replacement for LFAs?



Notes: This figure displays the distribution of topics in responses from LFAO to open-ended questions on why they viewed NLFAs like Byrna as a good (Panel A) or bad (Panel B) replacement for LFAs. Participants first answered a closed-ended question on whether Byrna was "a complete," "good," "decent," "not much of," or "not a replacement at all." Panel A covers reasons for viewing Byrna as a decent, good, or complete replacement. "Because it is good for self-defense" highlights perceptions that NLFAs can improve safety by deterring attackers and reducing fatalities. "Because it is suited for certain threats, though not all" reflects that they are effective in some contexts but not against armed or determined attackers. "Would consider but need to know more about product and its reliability" points to requests for more evidence, testing, and training. "Because it reduces mental toll of having/using lethal firearms" emphasizes reduced emotional burden compared to lethal weapons. "Because it is easier to access and require no permits" mentions affordability and accessibility. "Uncategorized" includes responses that do not fit other topics. Panel B covers reasons for viewing Byrna as not much or not a replacement. "Because they are ineffective in high-stakes situations" raises concerns about insufficient stopping power. "Because I prioritize safety and do not want to take risks with NLFAs" stresses a preference for lethal firearms to ensure protection. "Because I am unsure about NLFAs' effectiveness" shows skepticism about reliability. "Because I still need LFAs for hunting and recreation" refers to practical needs. "Because NLFAs are not reliable" mentions potential malfunctions. "Because NLFAs could escalate dangerous situations" conveys fears that non-lethal weapons might worsen violence. "Uncategorized" includes remaining responses. Restricted to control group participants.

Figure A-36: Share of Respondents Who Support Specific Policies on Lethal and Non-Lethal Firearms



Notes: This figure illustrates respondents' views on policies related to lethal and non-lethal firearms, by firearm ownership status. Support for each policy was measured on a 5-point scale ranging from 1 ("Strongly oppose") to 5 ("Strongly support"). The figure displays the share of respondents who expressed "Somewhat support" and "Strongly support" to each policy. Restricted to control group participants.

Table A-56: Treatment Effects of the Private Costs of Lethal Firearms Treatment on All Respondents, Extensive Sample

	Lethal firearm owners				Non-owners			
	All	Low Prior	High Prior	Control mean	All	Low Prior	High Prior	Control mean
Panel A. Beliefs and behaviors related to LFAs								
Worried about arrest	0.22***	0.39***	0.09	2.37	0.26***	0.62***	0.14***	2.77
	(0.06)	(0.08)	(0.06)		(0.04)	(0.09)	(0.04)	
Worried family use	0.05	0.12*	-0.01	1.73	0.16***	0.26**	0.09**	2.90
	(0.05)	(0.07)	(0.07)		(0.05)	(0.11)	(0.04)	
Willing to reduce number of guns	0.05	0.06	0.04	1.45	-	-	-	-
	(0.05)	(0.07)	(0.07)		-	-	-	
Less willing to purchase another LFA	0.20*	-0.01	0.29**	2.85	0.01	-0.07	-0.03	5.11
	(0.10)	(0.16)	(0.13)		(0.08)	(0.23)	(0.08)	
Positive WTP for a Safe	0.03	-0.00	-0.14***	0.54	-	-	-	-
	(0.03)	(0.04)	(0.03)		-	-	-	
Willing to keep LFA locked if had NLFA	0.18***	0.23*	0.15*	3.27	-	-	-	-
	(0.07)	(0.12)	(0.09)		-	-	-	
Will. to participate in a gun buyback program	-0.15	0.06	-0.30**	2.55	-	-	-	-
	(0.09)	(0.14)	(0.12)		-	-	-	
Panel B. Beliefs and behaviors related to NLFAs								
Believes it is a good replacement	0.06	0.18**	-0.01	2.38	-	-	-	-
	(0.05)	(0.09)	(0.07)		-	-	-	
Prefer to incapacitate, not kill	0.02	0.02	0.01	3.15	-	-	-	-
	(0.06)	(0.11)	(0.08)		-	-	-	
Interested in purchasing a NLFA	-0.09	0.07	-0.20	3.85	-	-	-	-
	(0.11)	(0.18)	(0.13)		-	-	-	
Positive WTP for NLFA	-0.02	-0.06	-0.08***	0.79	-	-	-	-
	(0.02)	(0.04)	(0.02)		-	-	-	
Panel C. Policy views related to NLFAs								
Support for NLFA Alternatives Index	0.04	0.08	-0.00	0.00	0.16***	0.36***	0.11**	0.00
	(0.05)	(0.08)	(0.06)		(0.04)	(0.10)	(0.04)	
Real Stakes NLFA Index	0.00	0.14	-0.08	0.00	0.08**	0.25**	0.04	0.00
	(0.05)	(0.08)	(0.06)		(0.04)	(0.11)	(0.04)	
Panel D. Policy views related to LFAs								
Prohibiting Purchases Index	0.04	0.08	0.02	0.00	0.06	0.15	0.04	0.00
	(0.05)	(0.08)	(0.06)		(0.04)	(0.10)	(0.05)	
Support for Rules for Buying Index	0.04	0.14	-0.03	0.00	0.07*	0.21	0.02	0.00
	(0.05)	(0.09)	(0.06)		(0.04)	(0.13)	(0.04)	
Support for Storage and Safety Index	0.14***	0.21**	0.09	0.00	0.09**	0.25**	0.04	0.00
	(0.05)	(0.08)	(0.06)		(0.04)	(0.12)	(0.04)	
Opposition to Carry in Schools	-0.01	-0.01	-0.01	0.00	-0.01	0.06	-0.04	0.00
	(0.05)	(0.08)	(0.06)		(0.04)	(0.11)	(0.04)	
Support for Concealed Carry Regulations Index	0.03	0.09	-0.01	0.00	0.04	0.06	0.03	0.00
	(0.05)	(0.08)	(0.06)		(0.04)	(0.10)	(0.04)	
Support for Restrictions on High-Capacity LF	-0.03	0.05	-0.08	0.00	0.02	0.07	0.00	0.00
	(0.05)	(0.08)	(0.06)		(0.04)	(0.11)	(0.04)	
Real Stakes Lethal Index	0.13**	0.10	0.15**	0.00	0.03	0.08	0.01	0.00
	(0.05)	(0.08)	(0.07)		(0.04)	(0.10)	(0.04)	

Notes: This table presents the results of Equations 2 and 3 with the following control variables: age, gender, political affiliation, income and race. Each treatment group is reported under three cases: All data: Results based on responses from all participants of the main survey. Low prior: Subsample of respondents who were not worried at all about arrest (LFAO N = 1,155; NO N = 376). High prior: Subsample of respondents who were worried about arrest (LFAO N = 2,315; NO N = 2,293). Coefficients represent the estimated effects of the respective treatments on the specified outcomes. The following variables are standardized: Opposition to Carry in Schools and Support for Restrictions on High-Capacity LFAs. Positive Willingness to Pay for Byrna and Positive Willingness to Pay for a Safe are binary variables. Robust standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A-57: Treatment Effects of Providing Information on Non-Lethal Firearms on LFAO, With and Without Endorsement, Extensive Sample

	NLFA Information			NLFA Information + Endorsement			Control mean
	All	Low prior	High prior	All	Low prior	High prior	
Panel A. Beliefs and behaviors related to LFAs							
Worried about arrest	-0.00	0.01	-0.03	-0.01	0.07	-0.30**	2.37
	(0.06)	(0.06)	(0.12)	(0.06)	(0.06)	(0.13)	
Worried family use	0.05	0.09	-0.08	0.11**	0.18***	-0.17	1.73
	(0.05)	(0.06)	(0.12)	(0.05)	(0.06)	(0.12)	
Willing to reduce number of guns	0.01	-0.00	0.06	0.01	0.01	0.02	1.45
	(0.05)	(0.06)	(0.11)	(0.05)	(0.06)	(0.12)	
Less willing to purchase another LFA	0.20*	0.26**	-0.03	0.07	0.12	-0.14	2.85
	(0.11)	(0.12)	(0.22)	(0.11)	(0.12)	(0.24)	
Positive WTP for a Safe	0.00	-0.02	0.09	-0.02	-0.01	-0.02	0.54
	(0.03)	(0.03)	(0.06)	(0.03)	(0.03)	(0.06)	
Willing to keep LFA locked if had NLFA	0.16**	0.21***	-0.02	0.18**	0.27***	-0.16	3.27
	(0.07)	(0.08)	(0.16)	(0.07)	(0.08)	(0.17)	
Will. to participate in a gun buyback program	-0.23**	-0.24**	-0.18	-0.03	0.04	-0.28	2.55
	(0.09)	(0.10)	(0.20)	(0.10)	(0.11)	(0.20)	
Panel B. Beliefs and behaviors related to NLFAs							
Believes it is a good replacement	0.29***	0.34***	0.06	0.31***	0.41***	-0.10	2.38
	(0.06)	(0.06)	(0.12)	(0.05)	(0.06)	(0.12)	
Prefer to incapacitate, not kill	0.23***	0.25***	0.16	0.29***	0.38***	-0.05	3.15
	(0.06)	(0.07)	(0.14)	(0.06)	(0.07)	(0.14)	
Interested in purchasing a NLFA	0.72***	0.75***	0.60**	0.93***	1.05***	0.47*	3.85
	(0.11)	(0.12)	(0.24)	(0.11)	(0.12)	(0.25)	
Positive WTP for NLFA	0.03*	0.03	0.07*	0.05**	0.06**	0.01	0.79
	(0.02)	(0.02)	(0.04)	(0.02)	(0.02)	(0.05)	
Panel C. Policy views related to NLFAs							
Support for NLFA Alternatives Index	0.14***	0.18***	0.01	0.23***	0.28***	0.02	0.00
	(0.05)	(0.06)	(0.11)	(0.05)	(0.05)	(0.11)	
Real Stakes NLFA Index	0.01	0.04	-0.11	0.05	0.08	-0.05	0.00
	(0.05)	(0.06)	(0.11)	(0.05)	(0.06)	(0.11)	
Panel D. Policy views related to LFAs							
Prohibiting Purchases Index	0.01	0.01	-0.03	0.03	0.04	0.02	0.00
	(0.05)	(0.06)	(0.12)	(0.05)	(0.06)	(0.12)	
Support for Rules for Buying Index	-0.02	0.02	-0.22*	0.09*	0.14***	-0.10	0.00
	(0.05)	(0.06)	(0.12)	(0.05)	(0.05)	(0.12)	
Support for Storage and Safety Index	0.04	0.05	0.00	0.09*	0.12**	-0.01	0.00
	(0.05)	(0.05)	(0.11)	(0.05)	(0.05)	(0.11)	
Opposition to Carry in Schools	-0.03	-0.01	-0.12	0.04	0.10*	-0.13	0.00
	(0.05)	(0.05)	(0.11)	(0.05)	(0.06)	(0.11)	
Support for Concealed Carry Regulations Index	-0.01	0.03	-0.14	0.00	0.06	-0.20*	0.00
	(0.05)	(0.06)	(0.11)	(0.05)	(0.06)	(0.11)	
Support for Restrictions on High-Capacity LF	-0.04	-0.05	-0.03	-0.07	-0.05	-0.13	0.00
	(0.05)	(0.06)	(0.10)	(0.05)	(0.06)	(0.10)	
Real Stakes Lethal Index	-0.01	0.00	-0.05	0.11**	0.10*	0.14	0.00
	(0.05)	(0.06)	(0.11)	(0.05)	(0.06)	(0.10)	

Notes: This table presents the results of Equation 3, with the following control variables: age, gender, political affiliation, income and race. Each treatment group is reported under three cases: All data: Results based on responses from all participants of the main survey. Low prior: Subsample of respondents who have not heard of Byrna before the survey (LFAO N = 2,469). High prior: Subsample of respondents who have heard of Byrna before the survey (LFAO N = 653). Coefficients represent the estimated effects of the respective treatments on the specified outcomes. The following variables are standardized: Opposition to Carry in Schools and Support for Restrictions on High-Capacity LFAs. Positive Willingness to Pay for Byrna and Positive Willingness to Pay for a Safe are binary variables. Robust standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A-58: Effect of the NLFA Information and Endorsement Treatments on Open-ended Answers about NLFAs, Extensive Sample

	NLFA Information			NLFA Information + Endorsement		
	All	Low Prior	High Prior	All	Low Prior	High Prior
Because it is easier to access and require no permits	0.01**	0.01*	0.03*	0.01**	0.02**	0.00
	(0.01)	(0.00)	(0.02)	(0.01)	(0.01)	(0.01)
Would consider but need to know more about product and its reliability	0.01	0.01	-0.01	0.01	0.02	0.00
	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.02)
Because it reduces mental toll of having/using lethal firearms	0.01	0.01	-0.01	0.01	0.01	-0.00
	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.02)
Because it is suited for certain threats, though not all	0.03*	0.03*	0.02	0.07***	0.08***	0.02
	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)	(0.03)
Because it is good for self-defense	0.07***	0.09***	0.00	0.06**	0.08***	-0.01
	(0.02)	(0.03)	(0.05)	(0.02)	(0.03)	(0.05)
Because NLFAs could escalate dangerous situations	0.00	0.00	0.00	-0.01	-0.01	-0.01
	(0.01)	(0.01)	(0.02)	(0.01)	(0.00)	(0.02)
Because NLFAs are unreliable	-0.00	-0.01	0.03	-0.01	-0.01	0.00
	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.02)
Because I still need LFAs for hunting and recreation	-0.02**	-0.02*	-0.02	-0.02**	-0.03**	-0.02
	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.02)
Because I am unsure about NLFAs' effectiveness	-0.02*	-0.03*	0.01	-0.03**	-0.04***	0.02
	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.02)
Because I prioritize safety and do not want to take risks	-0.01	-0.02	-0.00	-0.00	-0.01	0.03
	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)	(0.04)
Because they are ineffective in high-stakes situations	-0.07***	-0.07***	-0.04	-0.09***	-0.11***	-0.01
	(0.02)	(0.03)	(0.05)	(0.02)	(0.02)	(0.05)

Notes: This table presents the results of Equation 3 with the following control variables: age, gender, political affiliation, income and race. The outcome variables are binary indicators of the responses to the open-ended question about why respondents would or would not consider Byrna as a replacement (i.e., it is 1 if the LFAO's open-ended response includes the corresponding reason and 0 otherwise). Each row reports the estimated treatment effect of the *Non-Lethal Firearm Information* treatment and *Non-Lethal Firearm Information and Endorsement* treatment, with results presented under three cases: All data: Results based on responses from all participants of the main survey (LFAO N = 3,470). Low prior: Subsample of respondents who had no prior awareness of Byrna for the NLFA treatments (LFAO N = 2,469). High prior: Subsample of respondents who were already aware of Byrna (LFAO N = 653). Coefficients represent the estimated effects of the respective treatments on the specified outcomes. Robust standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A-59: Persistence of the Treatment Effects of the Private Costs of Lethal Firearms Treatment, Extensive Sample

	Lethal firearm owners			Non-owners		
	Main (all)	Main (FU only)	Follow-up (all)	Main (all)	Main (FU only)	Follow-up (all)
Panel A. Beliefs and behaviors related to LFAs						
Worried about arrest	0.22***	0.21***	0.15***	0.26***	0.25***	0.09**
	(0.06)	(0.06)	(0.06)	(0.04)	(0.05)	(0.05)
Worried family use	0.05	0.03	0.00	0.16***	0.13***	0.01
	(0.05)	(0.06)	(0.05)	(0.05)	(0.05)	(0.05)
Willing to reduce number of guns	0.05	0.03	-0.00	-	-	-
	(0.05)	(0.06)	(0.06)	-	-	-
Less willing to purchase another LFA	0.05*	0.03	0.00	0.16	0.13	0.01
	(0.05)	(0.06)	(0.05)	(0.05)	(0.05)	(0.05)
Positive WTP for a Safe	0.03	0.04	0.00	-	-	-
	(0.03)	(0.03)	(0.03)	-	-	-
Willing to keep LFA locked if had NLFA	0.18***	0.18**	0.06	-	-	-
	(0.07)	(0.08)	(0.08)	-	-	-
Will. to participate in a gun buyback program	-0.15	-0.15	-0.22**	-	-	-
	(0.09)	(0.10)	(0.10)	-	-	-
Panel B. Beliefs and behaviors related to NLFA						
Believes it is a good replacement	0.06	0.03	-0.05	-	-	-
	(0.05)	(0.06)	(0.06)	-	-	-
Prefer to incapacitate, not kill	0.02	0.04	-0.05	-	-	-
	(0.06)	(0.07)	(0.07)	-	-	-
Interested in purchasing a NLFA	-0.09	-0.07	-0.09	-	-	-
	(0.11)	(0.12)	(0.11)	-	-	-
Positive WTP for NLFA	-0.02	-0.00	0.01	-	-	-
	(0.02)	(0.02)	(0.02)	-	-	-
Panel C. Policy views related to NLFAs						
Support for NLFA Alternatives Index	0.04	0.01	-0.05	0.16***	0.15***	0.09**
	(0.05)	(0.06)	(0.05)	(0.04)	(0.04)	(0.04)
Panel D. Policy views related to LFAs						
Prohibiting Purchases Index	0.04	0.03	-0.04	0.06	0.05	0.05
	(0.05)	(0.06)	(0.05)	(0.04)	(0.04)	(0.04)
Support for Rules for Buying Index	0.04	0.02	0.02	0.07*	0.05	-0.01
	(0.05)	(0.06)	(0.05)	(0.04)	(0.04)	(0.04)
Support for Storage and Safety Index	0.14***	0.15***	0.09*	0.09**	0.07	0.07*
	(0.05)	(0.05)	(0.05)	(0.04)	(0.04)	(0.04)
Opposition to Carry in Schools	-0.01	-0.06	-0.09*	-0.01	-0.05	-0.06
	(0.05)	(0.06)	(0.05)	(0.04)	(0.04)	(0.04)
Support for Concealed Carry Regulations Index	0.03	0.06	0.03	0.04	0.04	0.01
	(0.05)	(0.06)	(0.05)	(0.04)	(0.04)	(0.04)
Support for Restrictions on High-Capacity LF	-0.03	0.01	0.03	0.02	0.02	0.01
	(0.05)	(0.06)	(0.05)	(0.04)	(0.04)	(0.04)

Notes: This table presents the results of Equations 2 and 3, with the following control variables: age, gender, political affiliation, income, race. Each treatment group is reported under three cases: Main: Results based on responses from all participants of the main survey (LFAO N = 3,470; NO N = 2,669). Main (FU only): Results based on main survey data using responses from participants who took the follow-up survey (LFAO N = 2,965; NO N = 2,189). Follow-up: Results based on responses from the follow-up survey (LFAO N = 2,965; NO N = 2,189). Coefficients represent the estimated effects of the respective treatments on the specified outcomes. The following variables are standardized: Opposition to Carry in Schools and Support for Restrictions on High-Capacity LFAs. Positive Willingness to Pay for Byrna and Positive Willingness to Pay for a Safe are binary variables. Robust standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A-60: Persistence of the Treatment Effects of Providing Information on Non-Lethal Firearms on LFAO, With and Without Endorsement, Extensive Sample

	NLFA Information			NLFA Information + Endorsement		
	Main (all)	Main (FU only)	Follow-up (all)	Main (all)	Main (FU only)	Follow-up (all)
Panel A. Beliefs and behaviors related to LFAs						
Worried about arrest	-0.00	0.02	-0.01	-0.01	-0.00	-0.00
	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)
Worried family use	0.05	0.04	-0.01	0.11**	0.12**	0.04
	(0.05)	(0.06)	(0.05)	(0.05)	(0.06)	(0.05)
Willing to reduce number of guns	0.01	-0.03	0.02	0.01	-0.01	0.02
	(0.05)	(0.06)	(0.06)	(0.05)	(0.05)	(0.05)
Less willing to purchase another LFA	0.20*	0.12	0.07	0.07	0.01	0.02
	(0.11)	(0.12)	(0.11)	(0.11)	(0.12)	(0.11)
Positive WTP for a Safe	0.00	0.01	0.01	-0.02	0.00	0.01
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Willing to keep LFA locked if had NLFA	0.16**	0.16**	0.03	0.18**	0.20**	0.10
	(0.07)	(0.08)	(0.08)	(0.07)	(0.08)	(0.08)
Will. to participate in a gun buyback program	-0.23**	-0.22**	-0.23**	-0.03	0.01	-0.02
	(0.09)	(0.10)	(0.10)	(0.10)	(0.11)	(0.11)
Panel B. Beliefs and behaviors related to NLFAs						
Believes it is a good replacement	0.29***	0.27***	0.09	0.31***	0.31***	0.11*
	(0.06)	(0.06)	(0.06)	(0.05)	(0.06)	(0.06)
Prefer to incapacitate, not kill	0.23***	0.24***	0.09	0.29***	0.31***	0.16**
	(0.06)	(0.07)	(0.07)	(0.06)	(0.07)	(0.07)
Interested in purchasing a NLFA	0.72***	0.77***	0.37***	0.93***	0.97***	0.53***
	(0.11)	(0.12)	(0.11)	(0.11)	(0.12)	(0.11)
Positive WTP for NLFA	0.03*	0.04*	0.03	0.05**	0.07***	0.05**
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Panel C. Policy views related to NLFAs						
Support for NLFA Alternatives Index	0.14***	0.17***	0.09*	0.23***	0.24***	0.14**
	(0.05)	(0.06)	(0.05)	(0.05)	(0.06)	(0.05)
Panel D. Policy views related to LFAs						
Prohibiting Purchases Index	0.01	-0.00	-0.07	0.03	0.02	-0.01
	(0.05)	(0.06)	(0.05)	(0.05)	(0.06)	(0.05)
Support for Rules for Buying Index	-0.02	-0.03	-0.03	0.09*	0.09	0.07
	(0.05)	(0.06)	(0.05)	(0.05)	(0.06)	(0.05)
Support for Storage and Safety Index	0.04	0.03	0.02	0.09*	0.09	0.08
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)
Opposition to Carry in Schools	-0.03	-0.05	-0.11**	0.04	0.04	-0.01
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)
Support for Concealed Carry Regulations Index	-0.01	-0.00	-0.05	0.00	-0.00	0.01
	(0.05)	(0.06)	(0.05)	(0.05)	(0.06)	(0.05)
Support for Restrictions on High-Capacity LF	-0.04	-0.06	-0.06	-0.07	-0.05	0.02
	(0.05)	(0.05)	(0.05)	(0.05)	(0.06)	(0.05)

Notes: This table presents the results of Equation 3, with the following control variables: age, gender, political affiliation, income and race. Each treatment group is reported under three cases: Main: Results based on responses from all participants of the main survey (LFAO N = 3,470). Main (FU only): Results based on main survey data using responses from participants who took the follow-up survey (LFAO N = 2,965). Follow-up: Results based on responses from the follow-up survey (LFAO N = 2,965). Coefficients represent the estimated effects of the respective treatments on the specified outcomes. The following variables are standardized: Opposition to Carry in Schools and Support for Restrictions on High-Capacity LFAs. Positive Willingness to Pay for Byrna and Positive Willingness to Pay for a Safe are binary variables. Robust standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

A-7 Main survey questionnaire

Part 1:

A-7.1 Pre-Screener Consent

A-7.2 Prolific-ID

1. What is your Prolific ID?
   Please note that this response should auto-fill with the correct ID
   [Text box]

A-7.3 Screening

1. {*citizenship*} Are you a U.S. citizen?
   [Yes; No] → Disqualified if not a U.S. citizen (cannot pay them survey money)

2. {*gender_question*} What is your **gender**?
   [Male; Female; Other (please specify)]

3. {*age*} What is your **age**?
   [Text box] → Disqualified if under 18

4. {*income_bracket*} What was your **total household income** from all sources in **2023, before taxes and other deductions**?
   Total household income is defined as the sum of: wages, salary and tips, business / self-employment / farm income and loss, taxable interest and dividends, taxable social security benefits, alimony payments you receive, capital gains and losses, rental / schedule K1 income and losses, unemployment compensation, taxable amount from pensions and individual retirement arrangements, taxable state refunds, other income not exempted from the income tax.
   [15 non-overlapping brackets from $0-$9,999; $10,000-$19,999; $20,000-$29,000; $30,000-$39,999; $40,000-$49,999; $50,000-$59,999; $60,000-$69,999; $70,000-$79,999; $80,000-$89,999; $90,000-$99,999; $100,000-$119,999; $120,000-$139,999; $140,000-$159,999; $160,000-$179,999; $180,000-$199,999; $200,000+]

5. {*race*} How would you describe your **ethnicity/race**?
   [Non-Hispanic White; Non-Hispanic African American/Black; Hispanic/Latino; Asian/Asian American; Mixed race; Other (please specify)]

6. {*pol_aff*} What do you consider to be your **political affiliation**, as of today?
   [Republican; Democrat; Independent; Other (please specify); Non-affiliated]

7. {*ZIP_code_current*} Which **ZIP code** do you currently live in?
   [Text box]

8. {*region*} What is your region?
   [Midwest, East/Northeast, South, West]

9. {*tick_pers_ownership*} Which of the following de you personally own? Select all that apply.
   Please select **all options** that apply to you:

[Car, Motorcycle, Electric scooter, Bicycle, ATV, RV, Motorboat, Sailboat, Gun, Jet, Home security system, Safe, None of the above]

A-7.4 Background

1. {*marital_status*} Please indicate your **marital status**.
   [Single; Married; Legally separated or divorced; Widowed]

2. {*live_people*} How many people do you **live with**?
   [Dropbox: 0-More than 10]

3. {*live_detail*} If >0 List **all** the people you live with. (If you are currently living with more than 10 people, please list 10 youngest people.)
   [Table with 4 columns: Person (N); Relationship; Age; Gender. The number of rows is conditional on the answer given above]

4. {*educ*} Which category best describes your **highest level of education**?
   [No High School; Some High School; High School degree/GED; Some College; 2-year College Degree; 4-year College Degree; Master's Degree; Doctoral Degree; Professional Degree (JD, MD, MBA)]

5. {*emp_status*} What is your **current employment status**?
   [Full-time employee; Part-time employee; Self-employed or business owner; Unemployed and looking for work; Student; Not working and not looking for a job; Retiree]

6. {*emp_occupation*} [(If "Full-time employee", "Part-time employee", or "Self-employed or business owner" to employment_status)] Which category best describes your **main occupation**? *[Text Box]*

7. {*unemp_occupation*} [If "Unemployed and looking for work" to employment_status] Even if you are not currently working, which category best describes your most recent main occupation?
   [Text Box]

8. {*veteran*} Are you a veteran?
   [Yes; No]

9. {*media*} We're interested in where you might have heard **news about the economy in the past week**. Have you seen or heard news about the economy on the **following outlets** in the past week? *Please select all that apply.*
   [Social media; CNN; MSNBC; Fox News; Network News; Local TV; NPR; AM talk radio station; The New York Times; The Wall Street Journal; Local Newspapers; Other (please specify); None of the above]

10. {*religion*} What is your **current religion**?
    [Protestant; Catholic; Jewish; Muslim; Hindu, Buddhist, Other Christian; Other Non-Christian; None]

A-7.5 Attention check 1

1. {*att_check_0*} Please click to verify that you are a human
   [Captcha]

2. {*att_check_1*} This is a question to check whether you are still paying attention and reading the questions carefully. Please select the first two options starting from the bottom.
[Strongly disagree; Disagree; Neither disagree nor agree; Agree; Strongly agree] → Disqualified if 'Agree' and 'Strongly agree' not selected.

A-7.6 Firearm Ownership [Implied Lethal] (I)

Please note that all your responses are anonymous and will not be tracked.

1. {*number_firearms*} How many guns do you currently own?
[0; 1; 2 to 3; 4 to 5; 6 to 7; 8 to 9; 10 or more]

Part 2:

A-7.7 Post-Screener Consent

A-7.8 Firearm Ownership [Implied Lethal] (II)

If {*number_firearms*} > 0

1. {*howlong_gunown*} How long have you owned a gun? (in years)
[Numeric entry]

A-7.9 Models of Guns

If {*number_firearms*} > 0

1. {*type_firearms*} What is your main type of gun?
[Pistol; Rifle; Shotgun; Revolver; Other: please specify]

If {type_firearms} = type

2. {*brand_type*} What brand is this gun?

If {brand_pistol} = brand

3. {*model_brand*} What model is this brand gun?

A-7.10 Firearm Ownership - Reasons to Own/Not to Own

If {*number_firearms*} > 0

1. {*why_own_open*} What is the **main reason** you currently own a gun?
[Open ended]

2. {*why_own_closed_1*} To what extent is each of the following an **important reason** for you to own a gun?
   [To manage pests on my property; To protect my family; To protect my community; To protect myself; To exercise my Constitutional rights; To maintain a gun collection; Because it's a tradition in my family; For hunting; For sporting competitions; For my job; Because it makes me feel more powerful; Other (please specify)]
   [For each of the reasons, participants can click: Not important at all; Slightly important; Moderately important; Very important; Extremely Important]

3. {*why_own_closed_2*} If selected more than one as 'extremely or very important' You said these are very or extremely important reasons for you to own a gun. Which one is the **most important**?
   [List options they said were very important or extremely important]

4. {*interest_own_another*} Are you interested in **acquiring another gun**?
   [Yes; No]

5. {*why_own_another_open*} If yes **Why** are you interested in **acquiring another gun**?
   [Open-ended]

6. {*why_own_another_closed_1*} If yes To what extent is each of the following an **important reason** for you to acquire another gun?
   [Table question. Statement: To manage pests on my property; To protect my family; To protect my community; To protect myself; To exercise my Constitutional rights; To maintain a gun collection; Because it's a tradition in my family; For hunting; For sporting competitions; For my job; Because it makes me feel more powerful; Other (please specify)]
   [Answers: Not important at all; Slightly important; Moderately important; Very important; Extremely Important]

7. {*why_own_another_closed_2*} If selected more than one as extremely or very important You said these are very or extremely important reasons for you to acquire another gun. Which one is the **most important**?
   [List options they said were very important or extremely important]

8. {*why_not_own_anymore*} What specific things, if any, would prompt you to consider not owning guns anymore?
   [*Textbox*]

   If {*number_firearms*} = 0

9. {*why_not_own_open*} What is the **main reason** you currently do not own a gun?
   [open ended]

10. {*why_not_own_closed_1*} To what extent is each of the following an **important reason** for you not to own a gun?
    [Table question. Statements: Concerns about accidentally harming the wrong person; Concerns about harming myself; Concerns about someone using my gun to harm themselves or others; Too expensive; Legal restrictions in my area; Ethical, religious, or moral reasons; Lack of knowledge on proper use;

Other (please specify)]
[Answers: Not important at all; Slightly important; Moderately important; Very important; Extremely Important]

11. {*why_not_own_closed_2*} If selected more than one as very or extremely important You said these are very or extremely important reasons for you not to own a gun. Which one is the **most important**?
[List options they said were very important or extremely important]

12. {*interest_own_new*} Are you interested in **acquiring a gun**?
[Yes;No]

13. {*why_own_new_open*} If yes **Why** are you interested in **acquiring a gun**?
[open-ended]

14. {*why_own_new_closed_1*} If yes To what extent is each of the following an **important reason** for you to acquire a gun?
[Table question. Statements: To manage pests on my property; To protect my family; To protect my community; To protect myself; To exercise my Constitutional rights; To maintain a gun collection; Because it's a tradition in my family; For hunting; For sporting competitions; For my job; Because it makes me feel more powerful; Other]
[Answers: Not important at all; Slightly important; Moderately important; Very important; Extremely important

15. {*why_own_new_closed_2*} If selected several as very or extremely important ask You said these are very or extremely important reasons for you to acquire a gun. Which one is the **most important**?
[List options they said were very important or extremely important]

16. {*why_own*} Can you think of any reason or situation for you to **start owning a gun**? *Please list them here.*
[Textbox]

A-7.11 Attention check 2

1. {*att_check_2*} We are interested in whether you are paying attention to the survey. To show that you are reading the full set of instructions, just go ahead and select both strongly disagree and strongly agree among the alternatives below, no matter what your opinion is. **Please tell us whether you agree with the following statement**: "It is easy to find accurate and reliable information in the media these days".
[Strongly disagree; Disagree; Neither disagree nor agree; Agree; Strongly agree] → Disqualified if 'Strongly disagree' and 'Strongly agree' not selected.

A-7.12 Storage of Weapons

If {*number_firearms*} > 0

1. {*access_gun_closed*} How quickly can you access your gun if needed?
[I keep it with me; Within seconds; Within a few minutes; More than 10 minutes; I do not have immediate access to my gun]

2. {*storage_devices*} Do you own a gun storage device such as a gun safe or gun cabinet?
[Yes; No]

A-7.13 Gun Behaviors

Use of a firearm

If {*number_firearms*} > 0

1. {*frequency_carrying*} How often do you **carry a gun**, either openly or concealed?
[Never; A few times but less than once per month; Once per month; A few times per month, but less than once per week; About every week or more]

2. {*frequency_shooting*} How often do you **shoot a gun**?
[Never; A few times but less than once per month; Once per month; A few times per month, but less than once per week; About every week or more]

Hunting

3. {*hunting*} How often do you **hunt** during the season?
[Never; A few times but less than once per month; Once per month; A few times per month, but less than once per week; About every week or more]

Collecting

4. {*gun_collection*} Do you **collect** guns?
[Yes; No]

Gun rights activism and NRA support

5. {*polactivity_gunsupport*} How often do you take part in a **political activity to support gun rights** (for example, writing a note to your representative, calling them, taking part in a rally, etc.)
[Never; A few times but less than once per month; Once per month; A few times per month, but less than once per week; About every week or more]

6. {*donate_gunsupport*} How often do you **donate money to support gun rights**?
[Never; A few times but less than once per month; Once per month; A few times per month, but less than once per week; About every week or more]

7. {*progun_membership*} Are you a member of any **pro-gun organization**? *[Please select all that apply]*
[National Rifle Association (NRA); Second Amendment Foundation (SAF); Firearms Policy Coalition (FPC); Gun Owners of America (GOA); National Association for Gun Rights (NAGR); Other (please specify); None of the above]

Participating online and media

8. {*gun_onlineforums*} How often do you **participate in online forums** related to guns?
[Never; A few times but less than once per month; Once per month; A few times per month, but less than once per week; About every week or more]

9. {*subscriptions_magazines*} Do you have a subscription to the following magazines? *[Please select all that apply]*
   [Options are: Guns and Ammo, American Rifleman; American Hunter; America's 1st Freedom; Shooting Illustrated; Military Times; Military Officers; Shooting Times; None of the above]

Sports Shooting and Tactical

10. {*sports_shooting*} How often do you engage in the following activities?
    [Go to the shooting range; Participate in shooting competitions; Buy tactical gear; Participate in gun-related training; Attend gun shows; Purchase ammunition]
    [Never; A few times but less than once per month; Once per month; A few times per month, but less than once per week; About every week or more]

A-7.14 Identity: Network

Factual questions

1. {*gun_passed_family*} If own a gun Are any of your guns **passed down** from your parents or other relatives?
   [Yes;No]

2. {*childhood_gun_socialization*} Growing up, did any of your family members or guardians:
   [Keep a gun in the house; Teach you how to shoot a gun; Take you hunting]
   [Never, A few times, Regularly]

3. {*gun_family_tradition*} How important do you feel that owning guns is **in your family tradition**?
   [Not important at all; Slightly important; Moderately important; Very important; Extremely important]

4. {*boy_scouts*} If Male Were you ever part of the Boy Scouts of America?
   [Yes; No]

5. {*farmers_america*} Were you ever part of the Future Farmers of America?
   [Yes; No]

6. {*partner_guns*} If married Does your partner or spouse own a gun?
   [Yes; No]

7. {*acquaintance_gun_owner*} Among the people you know, how many of them do you think **own a gun**?
   [None; Very few; Some; Many; Most]

Direct Assessment

If owns a gun

1. {*gun_community*} To what extent do you disagree or agree with the following statement:
   [Table Question. Statements: Owning guns makes me part of a community; My friends would think less of me if I did not own a gun; When talking about gun owners, I usually refer to them as "we" instead of "they"]
   [Strongly disagree; Disagree; Neither disagree nor agree; Agree; Strongly agree]

If does not own gun

2. {*nogun_community*} To what extent do you disagree or agree with the following statement:
[Table Question. Statements: Not owning a gun makes me part of a community; My friends would think less of me if I owned a gun]
[Strongly disagree; Disagree; Neither disagree nor agree; Agree; Strongly agree]

A-7.15 Self-View, Feelings, Emotions

If owns gun

1. {*gun_owning_feeling*} In one or two words, how does owning a gun **make you feel**?
[Textbox]

2. {*gun_noowning_feeling*} In one or two words, how would you feel if your **gun was taken away**?
[Textbox]

3. {*gun_ownfeeling*} To what extent does **owning** a gun **make you feel**:
[Table question, options are: To no extent; To a little extent; To a moderate extent; To a great extent. Questions are: Safe; Confident; More valuable to my family; Patriotic; Responsible; In control; Respected; Empowered, Unsafe; Nervous; Scared; Irresponsible; Less valuable to my family; Less in control; Less respected.]

4. {*gun_notownfeeling*} To what extent would **NOT being able to own a gun make you feel**:
[Table question, options are: To no extent; To a little extent; To a moderate extent; To a great extent. Questions are: Safe; Confident; More valuable to my family; Patriotic; Responsible; In control; Respected; Empowered, Unsafe; Nervous; Scared; Irresponsible; Less valuable to my family; Less in control; Less respected.]

If does not own a gun

5. {*nogun_owning_feeling*} In one or two words, how would owning a gun **make you feel**?
[Textbox]

6. {*nogun_noowning_feeling*} In one or two words, how does **not owning a gun make you feel**?
[Textbox]

7. {*nogun_ownfeeling*} To what extent would **owning** a gun **make you feel**:
[Table question, options are: To no extent; To a little extent; To a moderate extent; To a great extent. Questions are: Safe; Confident; More valuable to my family; Patriotic; Responsible; In control; Respected; Empowered, Unsafe; Nervous; Scared; Irresponsible; Less valuable to my family; Less in control; Less respected.]

8. {*nogun_ownfeeling*} To what extent does **not owning** a gun **make you feel**:
[Table question, options are: To no extent; To a little extent; To a moderate extent; To a great extent. Questions are: Safe; Confident; More valuable to my family; Patriotic; Responsible; In control; Respected; Empowered, Unsafe; Nervous; Scared; Irresponsible; Less valuable to my family; Less in control; Less respected.]

A-7.16 Self-Defense and Safety

Perceptions of threat

1. {*percent_usadults_withguns*} What **percent** of U.S. adults do you think **own guns**?
   [Slider from 0 to 100]

2. {*safety_general*} How **unsafe or safe** do you feel in your daily life?
   [Very unsafe; Somewhat unsafe; Neither safe nor unsafe, Somewhat safe; Very safe]

3. {*likely_victim*} How unlikely or likely do you think it is that you will be a **victim of a violent crime** in the next year?
   [Very unlikely; Somewhat unlikely; Neither likely nor unlikely; Somewhat likely; Very likely]

4. {*cause_victim*} How unlikely or likely do you think it is that such a violent crime is **caused by guns**?
   [Very unlikely; Somewhat unlikely; Neither likely nor unlikely; Somewhat likely; Very likely]

5. {*police_trust*} Do you **distrust or trust the police** to keep you safe?
   [Completely distrust; Somewhat distrust; Neither trust nor distrust; Somewhat trust; Completely trust]

   Direct Assessment

   If owns a gun

   When you carry a gun, do you feel more or less likely to be

6. {*gun_attacked_likely*} attacked or be the victim of a crime?
   [Much less likely; Somewhat less likely; Neither less nor more likely; Somewhat more likely; Much more likely]

7. {*gun_hurt_likely*} hurt if attacked?
   [Much less likely; Somewhat less likely; Neither less nor more likely; Somewhat more likely; Much more likely]

   If does not own a gun

   If you carried a gun, would you feel more or less likely to be

8. {*nogun_attacked_likely*} attacked or be the victim of a crime?
   [Much less likely; Somewhat less likely; Neither less nor more likely; Somewhat more likely; Much more likely]

9. {*nogun_hurt_likely*} hurt if attacked?
   [Much less likely; Somewhat less likely; Neither less nor more likely; Somewhat more likely; Much more likely]

10. {*victim_violence*} Have you ever been the **victim of a violent crime**?
    [Yes; No]

11. {*victim_domesticviolence*} Have you ever been the **victim of domestic violence**?
    [Yes; No]

A-7.17 Personal Rights and Freedoms

1. {*personal_rights_freedom*} To what extent do you disagree or agree with the following statements:
   [Table Question. Statements: I should be able to get a gun if I want one; Any limitation on gun ownerships is a violation of the U.S. constitution; Owning a gun is an important part of being an American; Owning a gun is a Godgiven right]
   [Options include: Strongly disagree; Disagree; Neither disagree or agree; Agree; Strongly agree]

A-7.18 Community Defense

If owns gun

1. {*member_defendcommnity*} Are you part of an **organized group for community defense**?
   [Yes;No]

A-7.19 Private costs of firearms

Emotional

If owns a gun

1. {*emo_shootsd*} How upset would you feel if you **shot and killed someone in self-defense**?
   [Not upset at all; Somewhat upset; Very upset; Extremely upset]

2. {*emo_shootsteal*} How upset would you feel if you **shot someone who is unarmed but stealing from you**?
   [Not upset at all; Somewhat upset; Very upset; Extremely upset]

3. {*emo_suicide*} How upset would you feel if someone **used your gun to shoot and kill themselves**?
   [Not upset at all; Somewhat upset; Very upset; Extremely upset]

4. {*emo_hurtothers*} How upset would you feel if someone **used your gun to shoot and kill another person**?
   [Not upset at all; Somewhat upset; Very upset; Extremely upset]

If does not own a gun

If you owned a gun:

5. {*nogun_emo_shootsd*} How upset would you feel if you **shot and killed someone in self-defense**?
   [Not upset at all; Somewhat upset; Very upset; Extremely upset]

6. {*nogun_emo_shootsteal*} How upset would you feel if you **shot someone who is unarmed but stealing from you**?
   [Not upset at all; Somewhat upset; Very upset; Extremely upset]

7. {*nogun_emo_suicide*} How upset would you feel if someone **used your gun to shoot and kill themselves**?
   [Not upset at all; Somewhat upset; Very upset; Extremely upset]

8. {*nogun_emo_hurtothers*} How upset would you feel if someone **used your gun to shoot and kill another person**?
   [Not upset at all; Somewhat upset; Very upset; Extremely upset]

Children

If owns a gun

9. {*gun_children_family*} How worried are you that your **children or other family members** may **use your gun and hurt themselves or hurt others**?
   [Not worried at all; Somewhat worried; Very worried; Extremely worried]

If does not own a gun

10. {*nogun_children_family*} If you owned a gun, how worried would you be that your **children or other family members** may **use your gun and hurt themselves or hurt others**?
    [Not worried at all; Somewhat worried; Very worried; Extremely worried]

Legal/liability

If owns a gun

11. {*gun_legal_kill*} How worried would you be of being **arrested or sued** if someone took your gun and killed or hurt someone else?
    [Not worried at all; Somewhat worried; Very worried; Extremely worried]

If does not own a gun

12. {*nogun_legal_kill*} If you owned a gun, how worried would you be of being **arrested or sued** if someone took your gun and killed or hurt someone else?
    [Not worried at all; Somewhat worried; Very worried; Extremely worried]

A-7.20 Externalities

Accidents

1. {*ext_accidents_guns*} In your opinion, how serious of a problem are accidents from owning guns? For instance, imagine children accidentally accessing a gun at home and hurting themselves or another person.
   [Not serious at all; Slightly serious; Moderately serious; Very serious; Extremely serious]

Crime

2. {*ext_crime_causes*} In general, **what** do you think **causes violent crimes**?
   [Text box]

3. {*ext_guns_crime*} On average, do you think that **gun ownership** in the US **discourages or encourages crime**?
   [Discourages a lot; Somewhat discourages; Has no impact; Somewhat encourages; Encourages a lot]

   Murder/Killings/Suicide

4. {*ext_gun_killing_suicides*} Overall, do you think that **easy access to guns** decreases or increases:
   [Table question. Statement: homicides and murders; suicides. Answers: Decreases a lot; Somewhat decreases; Neither decreases nor increases; Somewhat increases; Increases a lot]

   School shootings

5. {*ext_schoolshooting_guns*} In your opinion, if **gun ownership were to increase**, would **school shootings** decrease or increase?
   [Decrease a lot; Somewhat decrease; Neither increase nor decrease; Somewhat increase; Increase a lot]

A-7.21 Sound check

Please make sure your sound is on.

A-7.22 Treatments

Video Treatments:

- Cost Information: https://vimeo.com/987381143/cd1d2ae354?share=copy
- NLFA Information: https://vimeo.com/987381123/65831a8dba?share=copy
- NLFA Information with Endorsement: https://vimeo.com/987381189/e89dc6f001?share=copy

Private Cost of Lethal Firearm Ownership Treatment If assigned to watch cost information video
Please watch the 1:30 min video below.
[Private Cost of Lethal Firearm Ownership Treatment Video]

1. {*relevant_info_cost*} How **relevant** is this information to you?
   [Very relevant; Relevant; Some relevant; Not relevant]

2. {*att_check_video_sentence*} What is the **maximum prison sentence** that Jennifer and James Crumbley received?
   [Up to 5 years; Up to 10 years; Up to 15 years; Up to 20 years; They will not be sentenced]

Information on Non-Lethal Firearms on LFAO Without Endorsement Treatment If assigned to watch Byrna without endorsement video (gun owners only)
Please watch the 1:20 min video below.
[Information on Non-Lethal Firearms on LFAO Without Endorsement Treatment Video]

1. {*relevant_info_byrna*} How **relevant** is this information to you?
   [Very relevant; Relevant; Some relevant; Not relevant]

2. {*att_check_byrna_2*} What is **required to purchase** a Byrna?
   [A firearm permit; A background check; Being over the age of 21; Membership in a shooting club; None of the above]

Information on Non-Lethal Firearms on LFAO With Endorsement Treatment If assigned to watch Byrna with endorsement video (gun owners only)
Please watch the 2:00 min video below.
[Information on Non-Lethal Firearms on LFAO With Endorsement Treatment Video]

1. {*relevant_info_byrnaend*} How **relevant** is this information to you?
   [Very relevant; Relevant; Some relevant; Not relevant]

2. {*att_check_byrnaend_2*} What is **required to purchase** a Byrna?
   [A firearm permit; A background check; Being over the age of 21; Membership in a shooting club; None of the above]

A-7.23 Attention Check 3

1. {*att_check_3*} When deciding where to dine out, people often check online reviews to make an informed choice. We want to know which restaurant review websites are most trusted. We also want to know if people are paying attention to the question. To show that you've read this much, please ignore the question and select Yelp and Zagat as your two answers.
   When choosing a restaurant, which is the one review website you would visit first?
   [OpenTable; TripAdvisor; Google Reviews; Zagat; Uber Eats; Yelp; Chowhound; Grubhub; The Infatuation]

A-7.24 Outcomes on Private Cost of Lethal Firearm Ownership

If owns a gun

1. {*gun_first_stage_legal_kill*} How worried would you be of being **arrested or sued** if someone took your lethal firearm and killed or hurt someone else?
   [Not worried at all; Somewhat worried; Very worried; Extremely worried]

If does not own a gun

2. {*nogun_first_stage_legal_kill*} If you owned a lethal firearm, how worried would you be of being **arrested or sued** if someone took your lethal firearm and killed or hurt someone else?
   [Not worried at all; Somewhat worried; Very worried; Extremely worried]

If owns a gun

3. {*gun_first_stage_child_fam*} How worried are you that your children or other family members may use your lethal firearm and hurt themselves or hurt others?
   [Not worried at all; Somewhat worried; Very worried; Extremely worried]

   If does not own a gun

4. {*nogun_first_stage_child_fam*} If you owned a lethal firearm, how worried would you be that your children or other family members may use your lethal firearm and hurt themselves or hurt others?
   [Not worried at all; Somewhat worried; Very worried; Extremely worried]

A-7.25 Outcomes on Non-Lethal Firearms as Alternatives

If owns a gun

Non-lethal firearms have been developed to shoot but not kill a person. They provide self-protection and cost less than an average handgun. The leading maker of legal non-lethal firearms is **Byrna**.
[Byrna Picture]

1. {*have_nonlethal*} Do you have a Byrna or another type of non-lethal firearm?
   [Yes, I have a Byrna; Yes, I have other non-lethal firearm; No]

2. If 'No' is selected. {*purchasing_nonlethal*} Have you previously ever considered **purchasing a non-lethal firearm**?
   [Yes, seriously considered; Yes, briefly considered; No, never considered]

3. {*nonlethal_replacement*} Do you consider non-lethal firearms such as the Byrna to be a **replacement** for a standard, lethal firearm?
   [A complete replacement; A good replacement; A decent replacement; Not much of a replacement; Not a replacement at all]

4. If 'A complete replacement' is selected {*nonlethal_rep_why1*} Why do you consider non-lethal firearms like Byrna to be a complete replacement?
   [Text box]

5. If 'A good replacement' is selected {*nonlethal_rep_why2*} Why do you consider non-lethal firearms like Byrna to be a good replacement?
   [Text box]

6. If 'A decent replacement' is selected {*nonlethal_rep_why3*} Why do you consider non-lethal firearms like Byrna to be a decent replacement?
   [Text box]

7. If 'Not much of a replacement' is selected {*nonlethal_rep_why4*} Why do you consider non-lethal firearms like Byrna not much of a replacement?
   [Text box]

8. If 'Not a replacement at all' is selected {*nonlethal_rep_why5*} Why do you not consider non-lethal firearms like Byrna to be a replacement?
   [Text box]

9. {*purchase_nonlethal*} From the scale of 1-7, how willing are you to purchase a non-lethal firearm? (1-unwilling, 4-undecided, 7-willing)
   [Willingness to purchase a non-lethal firearm: Slider 1-7]

10. {*byrna_reduces_firearms*} If you decided to purchase the Byrna legal non-lethal firearm, would you **reduce the number of lethal firearms** you currently own?
    [No longer hold any firearms; Reduce substantially; Reduce moderately; Reduce slightly; Not reduce at all]

11. {*firearm_incapacitate_kill*} To what extent do you disagree or agree with the following statement: I prefer a firearm that is able to incapacitate someone temporarily but not kill them
    [Strongly disagree; Disagree; Neither disagree nor agree; Agree; Strongly agree]

A-7.26 Locking of Arms

If owns a gun

1. {*byrna_firearms_locked*} Some people feel better about safely locking away their lethal firearms after learning about effective non-lethal firearms. Others might still be reluctant to lock up their lethal firearms. Would you be more willing to **keep your lethal firearms locked** if you have a Byrna legal non-lethal firearm?
   [Definitely yes; Probably yes; Might or might not; Probably not; Definitely not]

A-7.27 MPL Gun Safe

Refer to Section A-7.34 for screenshots of MPL.

If owns a gun

Instructions

You will have to make several decisions by completing one list. Each row of the list will present two payment options:

The payment option **on the left** will involve you receiving **$5 as a bonus payment**, which you'll get if you select this option. [dollar image]

The payment option **on the right** will always involve getting a **discount on a RPNB Biometric Safe**. [RPNB Biometric Safe image]
The amount of the discount will increase from $5 to $90 as you proceed down the rows of the list. In the first row, you'd be able to purchase the RPNB Biometric Safe at a $5 discount (bringing the total price to roughly $100- $5 = $95) and in the last row you'd be able to purchase a RPNB Biomertric Safe at a $90

discount (bringing the total price to roughly $100- $90 = $10).

Your task is to decide which payment option you prefer on each row.

By participating in this survey, you are automatically entered into a lottery. If you win the lottery, one row from this list will be randomly selected. The payment option you select on that row would then be distributed to you free of charge.

Practice (Skittles Example) Practice
As a **practice example** to show you how this works, consider the following two options:

- Option 1: A chocolate bar [picture]
- Option 2: Skittles [picture]

Option 2 changes in each row below. In particular, as you go down the list, the number of Skittles increases by ten all the way to 70 Skittles.

If you choose Option 2 over Option 1 at any point in the list, the rest of the Option 2 choices will be automatically filled. For example, if you choose a chocolate bar over 10 Skittles, but you choose 20 Skittles over a chocolate bar, the 30 to 70 Skittles option will be autofilled in the next row on the list. This is because, if you chose 20 Skittles over a chocolate bar, having 30 Skittles over a chocolate bar is an even better choice.

If you decide to change your mind and, for example, you would rather choose a chocolate bar over 20 Skittles, just change your response for that part of the list and the choice of 30 Skittles will not be autofilled.

Practice indicating which option you like best.

- Which option do you prefer? *[A chocolate bar; 10 Skittles]*
- Which option do you prefer? *[A chocolate bar; 20 Skittles]*
- Which option do you prefer? *[A chocolate bar; 30 Skittles]*
- Which option do you prefer? *[A chocolate bar; 40 Skittles]*
- Which option do you prefer? *[A chocolate bar; 50 Skittles]*
- Which option do you prefer? *[A chocolate bar; 60 Skittles]*
- Which option do you prefer? *[A chocolate bar; 70 Skittles]*

Thank you for practicing! Given your practice choices – you preferred a Chocolate Bar more than XX Skittles but preferred XX Skittles to a Chocolate Bar.

Let's run the randomizer, and see what you "win"!

Since you selected [skittles/a chocolate bar] on row X, congratulations! You hypothetically won [XX skittles/a chocolate bar]!

Now you will move onto the actual task.

Refresher of the Instructions
Here is a quick summary of the previous instructions:

You will have to make several decisions by completing one list. Each row of the list will present two payment options.

The payment option **on the left** will involve you receiving **$5 as a bonus payment**, which you'll get if you select this option. [dollar image]

The payment option **on the right** will always involve getting a **discount on a RPNB Biometric Safe**. [RPNB Biometric Safe image]

The amount of the discount will increase from $5 to $90 as you proceed down the rows of the list. **Your task is to decide which payment option you prefer on each row.**

By participating in this survey, you are automatically entered into a lottery. If you win the lottery, one row from this list will be randomly selected. The payment option you select on that row would then be distributed to you free of charge.

Below are two quick questions to check your understanding:

- {*understanding_question_left*} If you chose the option **on the left** in the randomly selected row, what would happen?
  [I would get a discount on a RPNB Biometric Safe.; I would receive some amount of money as a bonus payment.]
- {*understanding_question_right*} If you chose the option **on the right** in the randomly selected row, what would happen?
  [I would get a discount on a RPNB Biometric Safe.; I would receive some amount of money as a bonus payment.]

If failed the understanding questions **Here are the correct responses:**

If you chose the option **on the left** in the randomly selected row, you would **receive some amount of money** as a bonus payment.

If you chose the option **on the right** in the random selected row, you would **get a discount on a RPNB Biometric Safe**.

Actual MPL Please indicate **which payment option you prefer on each row.**
(Note that you cannot click on the submit button until you have selected an answer.)

- Which option do you prefer? *[Bonus payment of $5; A $5 discount, bringing the price of the RPNB Biometric Safe to $95]*
- Which option do you prefer? *[Bonus payment of $5; A $22 discount, bringing the price of the RPNB Biometric Safe to $78]*
- Which option do you prefer? *[Bonus payment of $5; A $39 discount, bringing the price of the RPNB Biometric Safe to $61]*
- Which option do you prefer? *[Bonus payment of $5; A $56 discount, bringing the price of the RPNB Biometric Safe to $44]*
- Which option do you prefer? *[Bonus payment of $5; A $73 discount, bringing the price of the RPNB Biometric Safe to $27]*
- Which option do you prefer? *[Bonus payment of $5; A $90 discount, bringing the price of the RPNB Biometric Safe to $10]*

A-7.28 MPL Byrna

If owns a gun
You will now make a similar sequence of decisions, but you will not be paid based on these decisions. The payment option on the left would involve you receiving $5 as a bonus payment. The payment option on the right would now involve you getting a discount on a Byrna legal non-lethal firearm, roughly valued at $410.

(Note that you cannot click on the submit button until you have selected an answer.)

[dollar image] [Byrna image]

- Which option would you prefer? *[Bonus payment of $5; A $5 discount, bringing the price of the Byrna legal non-lethal firearm to $405]*
- Which option would you prefer? *[Bonus payment of $5; A $86 discount, bringing the price of the Byrna legal non-lethal firearm to $324]*
- Which option would you prefer? *[Bonus payment of $5; A $167 discount, bringing the price of the Byrna legal non-lethal firearm to $243]*
- Which option would you prefer? *[Bonus payment of $5; A $248 discount, bringing the price of the Byrna legal non-lethal firearm to $162]*

- Which option would you prefer? *[Bonus payment of $5; A $329 discount, bringing the price of the Byrna legal non-lethal firearm to $81]*
- Which option would you prefer? *[Bonus payment of $5; A $410 discount, bringing the price of the Byrna legal non-lethal firearm to $0]*

A-7.29 Non Lethal: Policy Views and Real-Stakes Questions

Policy Questions Non-Lethal

1. {*NRA_encouragenonlethal*} Do you oppose or support an **information campaign encouraging the purchase of non-lethal firearms** instead of lethal firearms?
   [Strongly oppose; Somewhat oppose; Neither oppose nor support; Somewhat support; Strongly support]
2. {*free_tradein*} Do you oppose or support a program that would allow gun owners to **exchange their lethal firearms for non-lethal firearms**?
   [Strongly oppose; Somewhat oppose; Neither oppose nor support; Somewhat support; Strongly support]
3. {*encourage*} Do you oppose or support **lower restrictions and fewer regulations** on non-lethal firearms than on lethal firearms?
   [Strongly oppose; Somewhat oppose; Neither oppose nor support; Somewhat support; Strongly support]

Real Stakes Non-Lethal: Petitions Now, we would like to ask you about two **petitions** that we will send to the federal government. When the survey is complete, we will send the results to **Congress**, informing them what **share** of people who took this survey were willing to support each petition. You will not be asked to provide your name and your answer will remain anonymous.

1. {*pet_advertise_nonlethal*} Would you like to sign the following petition?

   We, the undersigned, urge the Federal Government to promote and prioritize the use of **non-lethal self-defense tools** to protect the safety of all U.S. citizens. We believe that encouraging the adoption of non-lethal firearms is crucial to **reducing violent incidents and preventing unnecessary fatalities**. By doing so, we can ensure a safer and brighter future for our children.
   [Yes;No]

2. {*pet_encourage_swap*} Would you like to sign the following petition?

   We, the undersigned, urge the Federal Government to implement and promote a **lethal firearms swap program** to protect the safety of all U.S. citizens. We believe that encouraging citizens to exchange lethal firearms for non-lethal self-defense firearms is crucial to **reducing violent crimes and preventing accidental deaths**. By doing so, we can ensure a safer and brighter future for our children.
   [Yes;No]

A-7.30 Lethal: Policy Views and Real-Stakes Questions

Policy Questions Lethal Firearms

Do you oppose or support **prohibiting lethal firearm purchases** by the following groups of people:

1. {*proh_domestic_violence*} people subject to temporary **domestic violence** restraining order (for the duration of the order)
   [Strongly oppose; Somewhat oppose; Neither oppose nor support; Somewhat support; Strongly support]

2. {*proh_under_21*} people under the age of 21
   [Strongly oppose; Somewhat oppose; Neither oppose nor support; Somewhat support; Strongly support]

3. {*proh_drunk*} people **convicted of drunk** and disorderly conduct for ten years immediately after conviction
   [Strongly oppose; Somewhat oppose; Neither oppose nor support; Somewhat support; Strongly support]

4. {*proh_risk_people*} people deemed to **be a risk** to themselves and others.
   [Strongly oppose; Somewhat oppose; Neither oppose nor support; Somewhat support; Strongly support]

Do you oppose or support the following **rules for anyone buying a lethal firearm**:

5. {*supp_background_checks*} Universal background checks
   [Strongly oppose; Somewhat oppose; Neither oppose nor support; Somewhat support; Strongly support]

6. {*supp_permit_req*} Requiring a **permit** to purchase a lethal firearm
   [Strongly oppose; Somewhat oppose; Neither oppose nor support; Somewhat support; Strongly support]

7. {*supp_safety_course_req*} Requiring a **lethal firearm safety course** before the purchase of a lethal firearm
   [Strongly oppose; Somewhat oppose; Neither oppose nor support; Somewhat support; Strongly support]

8. {*supp_fingerprint*} Requiring **fingerprint identification before triggering** a lethal firearm
   [Strongly oppose; Somewhat oppose; Neither oppose nor support; Somewhat support; Strongly support]

9. {*supp_teachers_carry_guns*} Do you oppose or support allowing **teachers** and officials to **carry lethal firearms** in K-12 schools?
   [Strongly oppose; Somewhat oppose; Neither oppose nor support; Somewhat support; Strongly support]

10. {*supp_college_conccarry*} Do you oppose or support banning the carrying of concealed lethal firearms in **colleges and universities**?
    [Strongly oppose; Somewhat oppose; Neither oppose nor support; Somewhat support; Strongly support]

11. {*supp_concealed_carry*} Do you oppose or support allowing **concealed carry** in more places?
    [Strongly oppose; Somewhat oppose; Neither oppose nor support; Somewhat support; Strongly support]

12. {*supp_highcapmag_ban*} Do you oppose or support **banning high-capacity magazines** for lethal firearms (with 10 or more rounds) and military-style **semi-automatic assault weapons**?
    [Strongly oppose; Somewhat oppose; Neither oppose nor support; Somewhat support; Strongly support]

13. {*supp_law_lockup*} Do you oppose or support requiring **by law** that a person **lock up** the lethal firearms in their homes when not in use?
    [Strongly oppose; Somewhat oppose; Neither oppose nor support; Somewhat support; Strongly support]

14. {*supp_federal_database*} Do you oppose or support creating a **federal database** to track lethal firearm sales?
[Strongly oppose; Somewhat oppose; Neither oppose nor support; Somewhat support; Strongly support]

Real Stakes Lethal Firearms

1. {*donation_charity*} By taking this survey, you are automatically entered into a **lottery** to win 90 dollars. In a few days, you will know whether you have been selected in the lottery. The payment will be made to you in the same way as your compensation for this survey, so no further action is required on your part. Should you be selected in the lottery, you can **donate a part of this additional compensation to one or both of the following charities**:

   Everytown for Gun Safety Support Fund, which has a proven track record in advocating for responsible gun ownership and community safety. It works towards reducing the impact of gun violence and supporting victims.

   Second Amendment Advocacy Foundation, which is dedicated to defending responsible gun ownership, safeguarding Second Amendment rights, and promoting lethal firearm safety.

   Should you win the lottery, please enter your donation amount using the slider below.
   [Everytown for Gun Safety Support Fund: Slider 0-90]
   [Second Amendment Advocacy Foundation: Slider 0-90]

   Now, we would like to ask you about two **petitions** that we will send to the federal government. When the survey is complete, we will send the results to **Congress**, informing them what **share** of people who took this survey were willing to support each petition. You will not be asked to provide your name and your answer will remain anonymous.

2. {*realstakes_restrict*} Would you like to sign the following petition?

   We, the undersigned, urge the Federal Government to **limit and restrict lethal firearms ownership to protect the safety of all U.S. citizens**. We believe that restricting the circulation of lethal firearms is **crucial to fight violent crimes and avoid accidental deaths**. By doing so, we can ensure a safer and brighter future for our children.
   [Yes;No]

3. {*realstakes_uphold*} Would you like to sign the following petition?

   We, the undersigned, urge the Federal Government to **preserve and uphold the right to lethal firearms ownership to empower the safety of all U.S. citizens**. We believe that maintaining the accessibility of lethal firearms is **crucial to preserve individual freedoms and promote self-defense**. By doing so, we can ensure a society where citizens can protect themselves and their families.
   [Yes;No]

4. If owns a gun {*wtp_another_lethal_go*} From the scale of 1-7, how willing are you to purchase another lethal firearm? (1-unwilling, 4-undecided, 7-willing)
   [Willingness to purchase another lethal firearm: Slider 1-7]

5. If does not own a gun {*wtp_another_lethal_ngo*} From the scale of 1-7, how willing are you to purchase a lethal firearm? (1-unwilling, 4-undecided, 7-willing)
   [Willingness to purchase a lethal firearm: Slider 1-7]

6. If owns a gun {*realstakes_buyback*} From the scale of 1-7, how willing are you to participate in a lethal firearm buyback? (1-unwilling, 4-undecided, 7-willing)
   [Willingness to participate in lethal firearm buyback: Slider 1-7]

Second Amendment Question

1. {*second_amendment*} In your view, which of the following types of arms are American civilians **guaranteed to personally own** under the **Second Amendment** of the U.S. Constitution? *Please check all that apply.*

   - None, it does not guarantee a right of individual civilians to personally own arms
   - Non-lethal firearms
   - Handguns
   - Pistols
   - Semi-automatic rifles
   - Automatic rifles
   - Machine guns
   - Grenades
   - Missiles
   - Small arms drones
   - Tanks
   - Nuclear weapons

2. If None is selected {*second_amdt_explain*} You said that the Second Amendment does not guarantee a right of individual civilians to personally own arms. *Please explain.*
   [Text box]

A-7.31 Additional Demographics

1. {*vote_2024*} Did you vote in the **2024 presidential election**?
   [Yes;No]

2. {*vote_who*} If Yes In the **2024 presidential election**, who did you vote for?
   [Donald Trump; Kamala Harris; Cornel West; Jill Stein; Other]

3. {*novote_who*} If No Even if you **did NOT vote**, please indicate the **candidate** that you would have voted for or who represented your views most closely.
   [Donald Trump; Kamala Harris; Cornel West; Jill Stein; Other]

A-7.32 Feedback

If owns a gun

1. {*knew_byrna*} Have you heard about Byrna legal non-lethal firearms before the survey?
   [Yes; No]

Shown to all

2. {*open_feedback*} Please provide us with any feedback on the survey
   [Text box]

3. {*survey_purpose*} Please provide us your impression of the survey's purpose
   [Text box]

4. {*left_right_bias*} Do you feel that this survey was biased?
   [Not biased; Yes, left-wing biased; Yes, right-wing biased]

A-7.33 More Information About Byrna

If owns a gun

{*link_clicked*} For those of you who want more information, here is Byrna's official website.
`https://byrna.com/`

Please do not forget to click on the next button to submit your answers.

A-7.34 Screenshots of MPL

Figure A-37: Screenshot of Instructions for Gun Safe MPL

Instructions

You will have to make several decisions by completing one list. Each row of the list will present two payment options:

The payment option **on the left** will involve you receiving **$5 as a bonus payment**, which you'll get if you select this option.

The payment option **on the right** will always involve getting a **discount on a RPNB Biometric Safe**.





The amount of the discount will increase from $5 to $90 as you proceed down the rows of the list. In the first row, you'd be able to purchase the RPNB Biometric Safe at a $5 discount (bringing the total price to roughly $100- $5 = $95) and in the last row you'd be able to purchase a RPNB Biomertric Safe at a $90 discount (bringing the total price to roughly $100- $90 = $10).

Your task is to decide which payment option you prefer on each row.

By participating in this survey, you are automatically entered into a lottery. If you win the lottery, one row from this list will be randomly selected. The payment option you select on that row would then be distributed to you free of charge.

Figure A-38: Screenshot of Skittles Example

Practice

As a **practice example** to show you how this works, consider the following two options:

Option 1: A chocolate bar



Option 2: Skittles



Option 2 changes in each row below. In particular, as you go down the list, the number of Skittles increases by ten all the way to 70 Skittles.

If you choose Option 2 over Option 1 at any point in the list, the rest of the Option 2 choices will be automatically filled. For example, if you choose a chocolate bar over 10 Skittles, but you choose 20 Skittles over a chocolate bar, the 30 to 70 Skittles option will be autofilled in the next row on the list. This is because, if you chose 20 Skittles over a chocolate bar, having 30 Skittles over a chocolate bar is an even better choice.

If you decide to change your mind and, for example, you would rather choose a chocolate bar over 20 Skittles, just change your response for that part of the list and the choice of 30 Skittles will not be autofilled.

Practice indicating which option you like best.

Which option do you prefer?

A chocolate bar	10 Skittles
○	○

Which option do you prefer?

A chocolate bar	20 Skittles

FIGURE A-39: SCREENSHOT OF UNDERSTANDING QUESTION

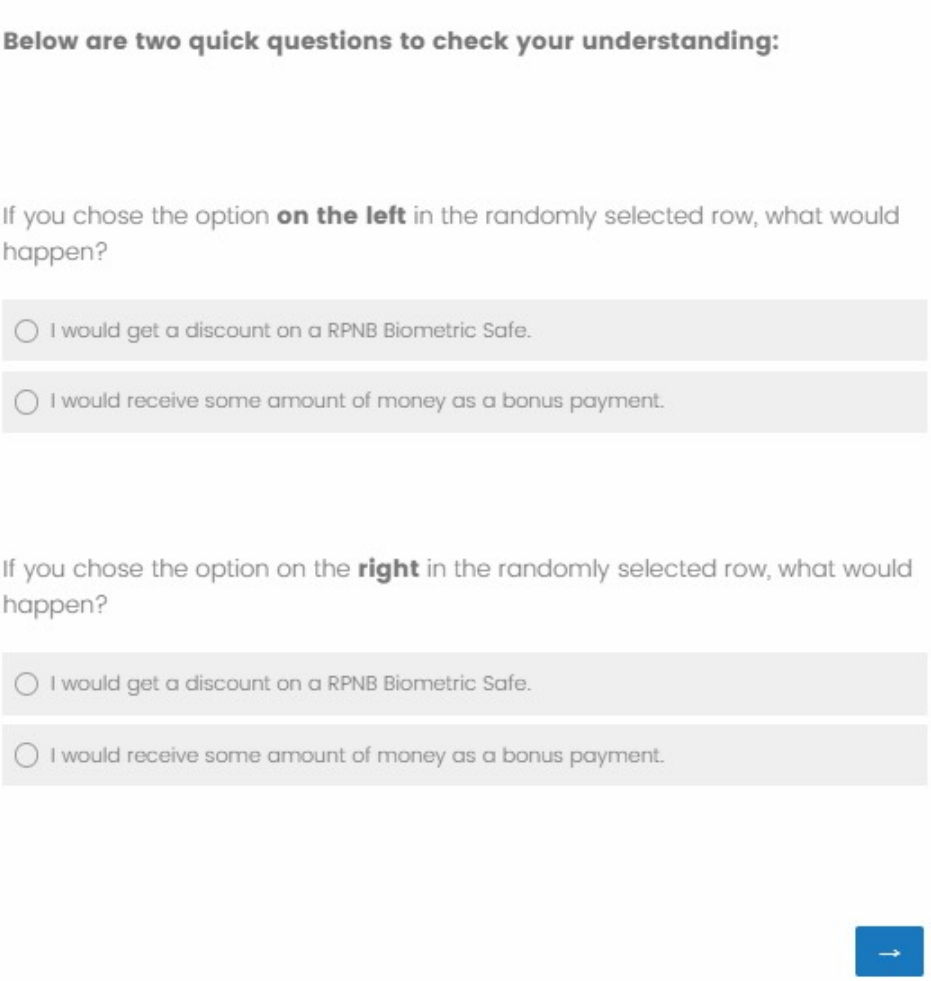


FIGURE A-40: SCREENSHOT OF GUN SAFE MPL

Please indicate **which payment option you prefer on each row**.

(Note that you cannot click on the submit button until you have selected an answer.)





Which option do you prefer?

Bonus payment of $5	A $5 discount, bringing the price of the RPNB Biometric Safe to $95
○	○

Which option do you prefer?

Bonus payment of $5	A $22 discount, bringing the price of the RPNB Biometric Safe to $78
○	○

Which option do you prefer?

Bonus payment of $5	A $39 discount, bringing the price of the RPNB Biometric Safe to $61
○	○

Figure A-41: Screenshot of Byrna MPL

You will now make a similar sequence of decisions, but you will not be paid based on these decisions. The payment option on the left would involve you receiving $5 as a bonus payment. The payment option on the right would now involve you getting a discount on a Byrna legal non-lethal firearm, roughly valued at $410.

(Note that you cannot click on the submit button until you have selected an answer.)





Which option would you prefer?

Bonus payment of $5	A $5 discount, bringing the price of the Byrna legal non-lethal firearm to $405
○	○

Which option would you prefer?

Bonus payment of $5	A $86 discount, bringing the price of the Byrna legal non-lethal firearm to $324
○	○

Which option would you prefer?

Bonus payment of $5	A $167 discount, bringing the price of the Byrna legal non-lethal firearm to $243
○	○

A-8 Validation survey questionnaire

A-8.1 Pre-Screener Consent

A-8.2 Screening

1. {*citizenship*} Are you a U.S. citizen?
   [Yes; No] → Disqualified if not a U.S. citizen (cannot pay them survey money)

2. {*gender_question*} What is your **gender**?
   [Male; Female; Other (please specify)]

3. {*age*} What is your **age**?
   [Text box] → Disqualified if under 18

4. {*income_bracket*} What was your **total household income** from all sources in **2023, before taxes and other deductions**?
   Total household income is defined as the sum of: wages, salary and tips, business / self-employment / farm income and loss, taxable interest and dividends, taxable social security benefits, alimony payments you receive, capital gains and losses, rental / schedule K1 income and losses, unemployment compensation, taxable amount from pensions and individual retirement arrangements, taxable state refunds, other income not exempted from the income tax.
   [15 non-overlapping brackets from $0-$9,999; $10,000-$19,999; $20,000-$29,000; $30,000-$39,999; $40,000-$49,999; $50,000-$59,999; $60,000-$69,999; $70,000-$79,999; $80,000-$89,999; $90,000-$99,999; $100,000-$119,999; $120,000-$139,999; $140,000-$159,999; $160,000-$179,999; $180,000-$199,999; $200,000+]

5. {*race*} How would you describe your **ethnicity/race**?
   [Non-Hispanic White; Non-Hispanic African American/Black; Hispanic/Latino; Asian/Asian American; Mixed race; Other (please specify)]

6. {*pol_aff*} What do you consider to be your **political affiliation**, as of today?
   [Republican; Democrat; Independent; Other (please specify); Non-affiliated]

7. {*ZIP_code_current*} Which **ZIP code** do you currently live in?
   [Text box]

8. {*region*} What is your region?
   [Midwest, East/Northeast, South, West]

9. {*tick_pers_ownership*} Which of the following de you personally own? Select all that apply.
   Please select **all options** that apply to you:
   [Car, Motorcycle, Electric scooter, Bicycle, ATV, RV, Motorboat, Sailboat, Gun, Jet, Home security system, Safe, None of the above]

A-8.3 Background

1. {*marital_status*} Please indicate your **marital status**.
   [Single; Married; Legally separated or divorced; Widowed]

2. {*live_people*} How many people do you **live with**?
   [Dropbox: 0-More than 10]

3. {*live_detail*} If >0 List **all** the people you live with. (If you are currently living with more than 10 people, please list 10 youngest people.)
   [Table with 4 columns: Person (N); Relationship; Age; Gender. The number of rows is conditional on the answer given above]

4. {*educ*} Which category best describes your **highest level of education**?
   [No High School; Some High School; High School degree/GED; Some College; 2-year College Degree; 4-year College Degree; Master's Degree; Doctoral Degree; Professional Degree (JD, MD, MBA)]

5. {*emp_status*} What is your **current employment status**?
   [Full-time employee; Part-time employee; Self-employed or business owner; Unemployed and looking for work; Student; Not working and not looking for a job; Retiree]

6. {*emp_occupation*} [(If "Full-time employee", "Part-time employee", or "Self-employed or business owner" to employment_status)] Which category best describes your **main occupation**? *[Text Box]*

7. {*unemp_occupation*} [If "Unemployed and looking for work" to employment_status] Even if you are not currently working, which category best describes your most recent main occupation?

   [Text Box]

8. {*veteran*} Are you a veteran?
   [Yes; No]

9. {*media*} We're interested in where you might have heard **news about the economy in the past week**. Have you seen or heard news about the economy on the **following outlets** in the past week? *Please select all that apply.*
   [Social media; CNN; MSNBC; Fox News; Network News; Local TV; NPR; AM talk radio station; The New York Times; The Wall Street Journal; Local Newspapers; Other (please specify); None of the above]

10. {*religion*} What is your **current religion**?
    [Protestant; Catholic; Jewish; Muslim; Hindu, Buddhist, Other Christian; Other Non-Christian; None]

A-8.4 Attention check 1

1. {*att_check_0*} Please click to verify that you are a human
   [Captcha]

2. {*att_check_1*} This is a question to check whether you are still paying attention and reading the questions carefully. Please select the first two options starting from the bottom.
   [Strongly disagree; Disagree; Neither disagree nor agree; Agree; Strongly agree] → Disqualified if 'Agree' and 'Strongly agree' not selected.

A-8.5 Firearm Ownership [Implied Lethal] (I)

Please note that all your responses are anonymous and will not be tracked.

1. {*number_firearms*} How many guns do you currently own?
   [0; 1; 2 to 3; 4 to 5; 6 to 7; 8 to 9; 10 or more]

Part 2:

A-8.6 Post-Screener Consent

A-8.7 Gun Game

The first part of our survey is a game to identify parts of an object.

- Parts of the object will be indicated with numbers.
- There are labels underneath the object.
- Drag and drop the numbers corresponding to the correct label in the box provided.
- You have 60 seconds to label 7 parts of the object. Your time starts when you click "Start Game".

  [Photo of a gun with seven numbered arrows; participants are required to identify the following parts: Muzzle, Slide, Magazine Release, Hammer, Front Sight, Thumb Safety, and Disassembly Lever]

A-8.8 Firearm Ownership [Implied Lethal] (II)

Shown to all

1. {*nguns_past*} How many lethal firearms **have you ever owned**, currently or in the past?
   [0; 1; 2 to 3; 4 to 5; 6 to 7; 8 to 9; 10 or more]

   If {*number_firearms*} > 0

1. {*howlong_gunown*} How long have you owned a gun? (in years)
   [Numeric entry]

A-8.9 Models of Guns

If {*number_firearms*} > 0

1. {*type_firearms*} What is your main type of gun?
   [Pistol; Rifle; Shotgun; Revolver; Other: please specify]

If {type_firearms} = type

2. {*brand_type*} What brand is this gun?

If {brand_pistol} = brand

3. {*model_brand*} What model is this brand of gun ?

A-8.10 Firearm Ownership - Reasons to Own/Not to Own

If {*number_firearms*} > 0

1. {*interest_own_another*} Are you interested in **acquiring another gun**?
   [Yes; No]

If {*number_firearms*} = 0

2. {*interest_own_new*} Are you interested in acquiring a gun?
   [Yes;No]

A-8.11 Attention check 2

1. {*att_check_2*} We are interested in whether you are paying attention to the survey. To show that you are reading the full set of instructions, just go ahead and select both strongly disagree and strongly agree among the alternatives below, no matter what your opinion is. **Please tell us whether you agree with the following statement**: "It is easy to find accurate and reliable information in the media these days".
   [Strongly disagree; Disagree; Neither disagree nor agree; Agree; Strongly agree] → Disqualified if 'Strongly disagree' and 'Strongly agree' not selected.

A-8.12 Additional Questions

If {*number_firearms*} > 0

1. {*scenarios_open_go*} In the boxes below, please list **three** different **situations in which you think your gun might be used**. Think of things that could happen in everyday life, safety-related events, or even unusual or extreme scenarios.
[Text entry 1] [Text entry 2] [Text entry 3]

If {*number_firearms*} = 0

2. {*scenarios_open_ngo*} In the boxes below, please list **three** different **situations in which you think your gun might be used if you had one**. Think of things that could happen in everyday life, safety-related events, or even unusual or extreme scenarios.
[Text entry 1] [Text entry 2] [Text entry 3]

Randomization Control and Treatment Group

If Control

3. {*list_experiment1_c*} Of the following 5 statements, could you tell us how many of them you agree with? We do not want to know which ones, just how many:

   [I think that climate change is an important issue; Inflation has been significantly higher in the last year than before; I believe that healthcare should be accessible to everyone; The legal drinking age should be lowered to 18; I think the government should do more to address homelessness]
   [Numeric entry 0-5]

If Treated

4. {*list_experiment1_t*} Of the following 6 statements, could you tell us how many of them you agree with? We do not want to know which ones, just how many:

   [I think that climate change is an important issue; Inflation has been significantly higher in the last year than before; I believe that healthcare should be accessible to everyone; The legal drinking age should be lowered to 18; My number one reason for owning guns is safety; I think the government should do more to address homelessness]
   [Numeric entry 0-6]

A-8.13 Prediction Questions

Shown to all

5. {*prediction_go*} For each statement below, **predict what percent (0–100) of gun owners you think gave it as the most important reason for them to own a gun**. You will earn a bonus payment based on how close your guesses are to the true number. You will earn $20 in addition to the survey payment for every answer that is correct.

   Share (0–100) of gun owners who listed this as the most important reason for owning a gun:

[To manage pests on my property; To protect my family; To protect my community; To protect myself; To exercise my Constitutional rights; To maintain a gun collection; Because it's a tradition in my family; For hunting; For sporting competitions; For my job; Because it makes me feel more powerful]
[Numeric entry 0-100]

6. {*prediction_most_go*} Which one of the following do you think is **the most important reason for gun owners to own a gun**?

   [To manage pests on my property; To protect my family; To protect my community; To protect myself; To exercise my Constitutional rights; To maintain a gun collection; Because it's a tradition in my family; For hunting; For sporting competitions; For my job; Because it makes me feel more powerful]

7. {*prediction_ngo*} For each statement below, **predict what percent (0–100) of non-gun owners you think gave it as the most important reason for them *not* to own a gun**. You will earn a bonus payment based on how close your guesses are to the true number. You will earn $20 in addition to the survey payment for every answer that is correct.

   Share (0–100) of non-gun owners who listed this as the most important reason for *not* owning a gun:

   [Concerns about accidentally harming the wrong person; Concerns about harming myself; Concerns about someone using my gun to harm themselves or others; Too expensive; Legal restrictions in my area; Ethical, religious, or moral reasons; Lack of knowledge on proper use]
   [Numeric entry 0-100]

8. {*prediction_most_ngo*} Which one of the following do you think is **the most important reason for *non* gun owners *not* to own a gun**?

   [Concerns about accidentally harming the wrong person; Concerns about harming myself; Concerns about someone using my gun to harm themselves or others; Too expensive; Legal restrictions in my area; Ethical, religious, or moral reasons; Lack of knowledge on proper use]

A-8.14 Additional Questions (II)

9. {*tick_persown_safe*} Which of the following do you **personally own to keep you safe**? Select all that apply.
   Please select **all options** that apply to you:
   [Tasers, Pepper Spray, Gun safe or Gun cabinet, Gun, Home security system, Safe, Double-Lock or Multi-Lock Doors, Security Cameras, Guard Dogs, Window Bars, None of the above]

   Randomization Control and Treatment Group

   If Control

10. {*list_experiment2_c*} Of the following 5 statements, could you tell us how many of them you agree with? We do not want to know which ones, just how many:

    [I believe public transportation fares should be reduced; My primary concern about public Wi-Fi is the reliability of the connection; I think mental health support is vital in our communities; Education programs on financial literacy are essential; Bike lanes improve urban mobility]
    [Numeric entry 0-5]

If Treated

11. {*list_experiment2_t*} Of the following 6 statements, could you tell us how many of them you agree with? We do not want to know which ones, just how many:

    [I believe public transportation fares should be reduced; My primary concern about public Wi-Fi is the reliability of the connection; My number one reason for owning guns is because it gives me a feeling of power; I think mental health support is vital in our communities; Education programs on financial literacy are essential; Bike lanes improve urban mobility]
    [Numeric entry 0-6]

Shown to all

A-8.15 Second Amendment Question

1. {*second_amendment*} In your view, which of the following types of arms are American civilians **guaranteed to personally own** under the **Second Amendment** of the U.S. Constitution? *Please check all that apply.*

    - None, it does not guarantee a right of individual civilians to personally own arms
    - Legal non-lethal firearms
    - Handguns
    - Pistols
    - Semi-automatic rifles
    - Automatic rifles
    - Machine guns
    - Grenades
    - Missiles
    - Small arms drones
    - Tanks
    - Nuclear weapons

2. If None is selected {*second_amdt_explain*} You said that the Second Amendment does not guarantee a right of individual civilians to personally own arms. *Please explain.*
    [Text box]

A-8.16 Additional Demographic Questions

1. {*vote_2024*} Did you vote in the **2024 presidential election**?
    [Yes;No]

2. {*vote_who*} If Yes In the **2024 presidential election**, who did you vote for?
    [Donald Trump; Kamala Harris; Cornel West; Jill Stein; Other]

3. {*novote_who*} If No Even if you **did NOT vote**, please indicate the **candidate** that you would have voted for or who represented your views most closely.
    [Donald Trump; Kamala Harris; Cornel West; Jill Stein; Other]

A-8.17 Feedback

If owns a gun

1. {*knew_byrna*} Have you heard about Byrna?
   [Yes; No]

2. {*knew_byrna2*} Can you define what Byrna is?
   [Text box]

Shown to all

3. {*open_feedback*} Please provide us with any feedback on the survey
   [Text box]

4. {*survey_purpose*} Please provide us your impression of the survey's purpose
   [Text box]

5. {*left_right_bias*} Do you feel that this survey was biased?
   [Not biased; Yes, left-wing biased; Yes, right-wing biased]

A-9 Evidence on multiple firearms and safety

Survey data indicate that owning multiple firearms is widespread among U.S. gun owners. The 2017 Pew survey on "America's Complex Relationship With Guns" reports that 66% of gun owners have more than one firearm and 29% own five or more. The 2015 National Firearms Survey (Azrael et al.) similarly finds that roughly 3% of adults ("super-owners") possess about half of all civilian firearms, with an average of 17 guns each. Industry and media outlets routinely frame multiple firearm ownership as practical and desirable: guides such as The Magshack's (2025) "How Many Guns Should You Own?" and The Armory Life's (2024) "Do You Own Too Many Guns?" recommend distinct firearms for different roles. NRA publications likewise promote multi-gun ownership through product reviews, collector-oriented content, and explicit opposition to limits on firearm purchases, including NRA-ILA's 2019 campaign against proposed one-gun-a-month legislation in Virginia. Although federal law imposes no numerical limit on firearm ownership, some states restrict magazine capacity or purchase frequency. Overall, the evidence suggests that owning multiple firearms is common and supported by both cultural and institutional messaging, with safety typically framed in terms of selecting appropriate firearms (having the "right gun") for each context rather than limiting total ownership.

A-10 Important milestones in the failed development of safer lethal firearms and the uneven development of non-lethal firearms

Table A-61 reviews important milestones in the development of both safer lethal firearms (LFAs) and non-lethal firearms (NLFAs), illustrating the firearm industry's resistance to safety-oriented innovations and the factors that hindered the emergence of a viable market for non-lethal alternatives over many decades.

The period from the late 1960s through the 1970s reveals how—despite growing interest in NLFAs from federal agencies—early regulatory choices placed disproportionate burdens on non-lethal technologies, limiting their commercialization while exempting lethal firearms from scrutiny. The modern pursuit of individual-use NLFAs began in 1967, when the President's Commission on Law Enforcement and Administration of Justice—established under Lyndon B. Johnson—issued "The Challenge of Crime in a Free Society," and called for research into non-lethal weapon technologies that could replace the handgun. These technologies were intended to enable officers to defend themselves in life-threatening situations without risking the lives of suspects as well as bystanders. In 1972, the National Science Foundation similarly called for federally funded testing and evaluation of NLFAs. Its report pointed out limited safety and effectiveness data and noted that exaggerated claims about the effectiveness of NLFAs by manufacturers hindered their adoption. That same year, the NRA supported an exemption that excluded firearms from the Consumer Product Safety Act, limiting federal authority to regulate firearm design. Although the 1970s saw the introduction of the first non-lethal weapon for individual use—the TASER—widespread commercialization remained limited. Both the Consumer Product Safety Commission and the Bureau of Alcohol, Tobacco, Firearms and Explosives took regulatory actions affecting TASER commercialization, with the former halting sales to investigate safety concerns and the latter classifying the TASER as a Title II firearm.

Throughout the decades after 1980, opposition to safer LFAs remained strong, while expanding federal initiatives continued to advance research on NLFAs for law-enforcement applications. Federal initiatives in 1986 and 1996 highlighted the operational need for close-proximity NLFAs and provided funding to support their research and development. Meanwhile, the NRA and NSSF lobbied against several safety-oriented

firearm regulations. They supported restrictions on federal gun-violence research in 1996, and opposed a 2000 federal agreement that would have required Smith & Wesson—the largest gun manufacturer in the U.S.—to implement safety enhancements following the school shooting at Columbine. Moreover, they opposed mandates for smart guns, such as the one introduced in New Jersey in 2002, supported statutory immunity for firearm manufacturers from liability suits, written into law with the Protection of Lawful Commerce in Arms Act in 2005, and lobbied against the renewal of the federal Assault Weapons Ban in 2013.

Widespread commercialization of NLFAs emerged only in the 2010s, a development that—next to the historical focus on law-enforcement applications—appears partly attributable to regulatory constraints and uncertainty. Among these were the prohibition on permissible adverse-effect risks for NLFAs, which was not lifted until 2012—and the inclusion of NLFA projectile devices within the statutory definition of firearms. This designation remains under legal challenge as of 2025. Moreover, international guidance on the use of NLFAs was introduced only in 2020 by the United Nations, which for the first time articulated comprehensive international standards governing the design, testing, procurement, deployment, and accountability mechanisms associated with less-lethal weapons. In 2019, the Byrna entered the market as the second major non-lethal firearm developed for civilian use. Its recent expansion—including partnerships with organizations such as the United States Concealed Carry Association and recognition in Forbes' small-cap rankings—suggests a new phase in the commercialization and public visibility of NLFA technologies.

Table A-61: Timeline

Year	Political Constraints on Safer Lethal Firearms	Uneven Development of Non-Lethal Firearms
1967		Presidential commission calls for research on non-lethal technologies to develop a suitable replacement for the handgun.[1]
1972	Lethal firearms (LFA), which the National Rifle Association (NRA) supported exempting, are not covered under the Consumer Product Safety Act.[2]	National Science Foundation report urges federally funded testing/evaluation of non-lethal firearms (NLFAs) due to limited safety/effectiveness data.[3]
1974		First-generation TASER introduced to law enforcement.[4]
1975		The Consumer Product Safety Commission (CPSC) halts TASER sales; finds device non-lethal for healthy individuals and lifts ban.[5]
1976		The Bureau of Alcohol, Tobacco, Firearms and Explosives classifies TASERs as Title II firearms.[6]
1985		Supreme Court decision, Tennessee v. Garner, increases interest in NLFAs by limiting police lethal force.[7]
1986		National Institute of Justice (NIJ) conference highlights need for NLFAs; NIJ creates Less-than-Lethal Technology Program.[8]
1994		AIR TASER obtains non-firearm classification.[9]
1996	The Dickey Amendment, supported by the NRA, restricts Centers for Disease Control and Prevention (CDC) gun-violence research.[10]	Department of Defense (DoD) establishes Non-Lethal Weapons Program.[11]
2000	Smith & Wesson agrees to federal safety settlement after the Columbine shooting; the proposed reforms are not implemented, with the NRA and the National Shooting Sports Foundation (NSSF) voicing opposition.[12]	
2002	New Jersey passes smart-gun mandate law; no viable models exist by 2025; NRA and NSSF oppose such laws.[13]	
2005	Endorsed by the NRA and the NSSF, the Protection of Lawful Commerce in Arms Act grants broad immunity from liability lawsuits to gun manufacturers.[14]	
2012		DoD Instruction 3200.19 sets NLFA development policy, allowing some adverse-effect risk.[15]
2013	Reinstatement of the Assault Weapons Ban fails despite post-Sandy Hook support; NRA campaigns against it.[16]	
2019		Security Devices International launches Byrna, a non-lethal personal security device.[17]
2020		The United Nations publishes NLFA guidance; Security Devices International, founded in 2005, rebrands as Byrna Technologies.[18]
2025		Byrna partners with United States Concealed Carry Association; bill introduced to exclude NLFA projectile devices from firearm definition; Byrna ranked in Forbes small-cap list.[19]

[1] The report is issued by the President's Commission on Law Enforcement and Administration of Justice and titled "The Challenge of Crime in a Free Society." It points out that no technology is available that could incapacitate the suspect as fast as a handgun with little risk of permanent injury (Davison (2009); President's Commission on Law Enforcement and Administration of Justice (1967)). [2] The exemption applies specifically to handguns and rifles. Its adoption effectively blocks an amendment that would have granted the CPSC authority to ban firearms (U.S. Consumer Product Safety Commission (2011); Kopel (2011); Cavataro (2024)). [3] The report maintains that exaggerated claims by manufacturers and insufficient testing hindered adoption of NLFAs, and it recommends a government-funded program for systematic evaluation (Davison (2009); Metz (2021)). [4] Nielsen (2004). [5] Davison (2009). [6] Davison (2009); Bureau of Alcohol, Tobacco, Firearms and Explosives (1976). [7] Davison (2009). [8] The NIJ's final report emphasizes the need for weapons suitable for close-proximity encounters (Davison (2009); Metz (2021)). [9] Nielsen (2004). [10] The amendment also barres CDC from treating gun violence as an epidemic (Smyth (2020); Rostron (2018); Goldschmidt (2018)). [11] Metz (2021). [12] Smith & Wesson—the largest gun maker in the country—agrees to historic settlement with Clinton Administration following 1999 Columbine school shooting. NRA and NSSF organize boycotts against the company and dealers return its products, leading to declining sales and deterring other manufacturers from signing similar agreements. The company undergoes leadership changes, and its ownership is transferred at a reduced valuation (Selk (2018); Sipos (2002); Everytown Research & Policy (2023)). [13] This is the first U.S. statute mandating childproof smart handguns once commercially viable (Mansnerus (2002); Levin (2016); New Jersey Legislature (2002); MacBride (2018)). [14] Gerhart and Alcantara (2018); Craig (2005); NRA-PVF (2005); Everytown Research & Policy (2023). [15] DoDI 3200.19 assigns formal responsibilities and outlines a human-effects characterization process for NLFAs (U.S. Department of Defense (2012)). [16] NRA launches its campaign before the bill was introduced; at a time when the majority of Americans favors stricter gun-control measures (Gerhart and Alcantara (2018); Williams (2024)). [17] Byrna Technologies Inc. (2019). [18] Office of the United Nations High Commissioner for Human Rights (2020); Byrna Technologies Inc. (2020). [19] The partnership aims to position Byrna as a firearm alternative and promote self-defense training (Byrna Technologies Inc. (2025b); Fitzgerald (2025); Byrna Technologies Inc. (2025a)).