

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF COLORADO**

**Civil Action No. 22-cv-2680-NYW-SKC**

ROCKY MOUNTAIN GUN OWNERS,  
NATIONAL ASSOCIATION FOR GUN RIGHTS,  
CHARLES BRADLEY WALKER,  
BRYAN LAFONTE,  
CRAIG WRIGHT,  
GORDON MADONNA,  
JAMES MICHAEL JONES, and  
MARTIN CARTER KEHOE,

Plaintiffs,

v.

THE TOWN OF SUPERIOR,  
CITY OF LOUISVILLE, COLORADO,  
CITY OF BOULDER, COLORADO, and  
BOARD OF COUNTY COMMISSIONERS OF BOULDER COUNTY,

Defendants.

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**DEFENDANTS' MOTION TO PARTIALLY STRIKE EXPERT REPORTS  
AND PARTIALLY EXCLUDE TESTIMONY OF MARK PASSAMANECK**

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On April 12, 2023, Plaintiffs disclosed an initial expert report authored by Mr. Mark Passamaneck (the “Initial Report”). Ex. A. On July 20, 2023, well after the June 8, 2023 deadline for rebuttal reports, Plaintiffs disclosed an expert reply report (the “Reply Report”), also authored by Mr. Passamaneck, elaborating on certain items from the Initial Report. Ex. B., *see also* Scheduling Order (ECF 49).<sup>1</sup> In these reports, Mr. Passamaneck, a mechanical engineer and

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<sup>1</sup> Although titled a “Supplemental Report,” the Reply Report is—by Mr. Passamaneck’s own admission—a response to an expert report of Louis Klarevas submitted by Defendants, which was itself responding to Passamaneck’s Initial Report. Ex. C (Passamaneck Deposition

competitive shooter, opines on two topics: (1) the number of AR-15 style semi-automatic rifles and large capacity magazines (“LCMs”)<sup>2</sup> in the United States (the “Numerical Estimates”), and (2) the operation and durability of firearm magazines. As the sections of the reports discussing the first topic<sup>3</sup> contain numerous deficiencies in both form and substance and bear none of the required indicia of expertise, they should be struck pursuant to Federal Rule of Evidence 702 and Mr. Passamaneck’s testimony as to that topic should be excluded from trial of this matter.<sup>4</sup>

First, Mr. Passamaneck is wholly unqualified to opine on the Numerical Estimates. His deposition testimony reflects a complete lack of the experience and training necessary to perform statistical research or to interpret statistical studies done by others. It is clear from the record that Mr. Passamaneck is merely parroting the results of studies he does not understand—an utterly inappropriate basis for testimony under Rule 702 under established Tenth Circuit case law.

Second, Mr. Passamaneck employs unreliable principles and methods. He claims to be able to verify the statistics he cites by virtue of his expertise in *firearms*—not any *statistical* expertise—and by conversations with untested third parties. He also makes numerous methodological errors attempting to synthesize these sources and derive new numbers. The result is that Mr. Passamaneck’s estimates of the number of assault weapons and LCMs owned

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Transcript) at 15:8–16 (“There were several things that I read in [Klarevas]’s report and some other things that I felt were worthy of clarification”). As the Reply Report was untimely under the Court’s Scheduling Order, it should be struck on this basis alone.

<sup>2</sup>Note generally that Mr. Passamaneck’s discussion of LCMs appears to incorrectly assume a cutoff of 15 rounds, while the ordinances at issue in this case use a 10 round cutoff. *See infra* Section II.

<sup>3</sup>This includes the entirety of the Reply Report.

<sup>4</sup>The Initial Report is identical to one disclosed in another case in this District, in which Mr. Passamaneck’s testimony is also being challenged under Rule 702. *See* Mot. to Partially Strike Expert Report and Partially Exclude Testimony of Mr. Mark Passamaneck under Fed. R. Evid. 702, *Gates v. Polis*, 22-cv-01866 (D. Colo. 2022) (ECF 56).

by private individuals are unreliable and substantially inflated even based on his own purported sources. Regardless of whether the true figures would be useful in determining whether these weapons and magazines are “in common use” for self-defense (the Defendants would argue they largely would not), Mr. Passamaneck’s unreliable estimates are certainly not useful for that purpose.

### **CERTIFICATE OF CONFERRAL**

Defendant’s counsel conferred with counsel for the Plaintiffs by telephone on September 13, 2023. Plaintiffs’ counsel indicated that Plaintiffs oppose the relief requested.

### **LEGAL STANDARD**

“In determining whether expert testimony is admissible, the district court generally must first determine whether the expert is qualified ‘by knowledge, skill, experience, training, or education’ to render an opinion.” *United States v. Nacchio*, 555 F.3d 1234, 1241 (10th Cir. 2009) (en banc) (quoting Fed. R. Evid. 702). “[A]ppropriate qualifications are a threshold requirement which, if not met, requires exclusion of expert opinions.” *Basanti v. Metcalf*, 35 F. Supp. 3d 1337, 1343 (D. Colo. 2014). “Second, if the expert is sufficiently qualified, the court must determine whether the expert’s opinion is reliable by assessing the underlying reasoning and methodology, as set forth in [*Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993)].” *Nacchio*, 555 F.3d at 1241. “The proponent of the expert testimony bears the burden of proving the foundational requirements of Rule 702 by a preponderance of the evidence.” *United States v. Crabbe*, 556 F. Supp. 2d 1217, 1220 (D. Colo. 2008).

## ARGUMENT

### **I. Mr. Passamaneck lacks the expertise on statistical analysis or surveying methods needed to opine on the Numerical Estimates.**

By his own admission, Mr. Passamaneck is not an expert on statistical analysis. Ex. C at 37:7–10. Nonetheless, Mr. Passamaneck opines on the number of certain Assault Weapons (“AWs”) and LCMs in the United States largely by “reviewing” the results of three surveys and reports and relying on several biased and unreliable hearsay statements. Ex. C at 92:5–7. While Mr. Passamaneck certainly has experience building and shooting firearms and has numerous acquaintances involved in the firearm and magazine manufacturing industry, he lacks any of the requisite “knowledge, skill, experience, training, or education” in statistical analysis or surveying methodology that would enable him to assess or synthesize these scattered sources into expert testimony on the total number of AWs and LCMs owned by private individuals in the United States. *See* Fed. R. Evid. 702. The pertinent inquiry is “not the reasonableness *in general* of” an individual’s expertise but whether the individual can “draw a conclusion regarding *the particular matter to which the expert testimony was directly relevant.*” *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137, 153–54 (1999) (emphasis in original).

#### **A. Mr. Passamaneck lacks training, education, skill, or experience in statistical analysis.**

To qualify as an expert on the Numerical Estimates topic, Mr. Passamaneck would have to demonstrate sufficient statistical analysis or surveying experience. Mr. Passamaneck lacks any formal training or education in these areas. Ex. F at 33:12–17. He is a Professional Engineer who lists his practices areas as “mechanical, plumbing, and automotive” on his

resume.<sup>5</sup> Ex. C at 42:16. His resumes also list a number of firearms-related experiences that do not bear on the question at hand: “extensive knowledge related to firearms, cartridge reloading, and shooting incidents,” which is restricted to: “training, shooting, testing and reconstruction”; manufacturing firearm magazines, base pads, and other accessories for shooting competitions; participating in such competitions; and visiting trade shows. Ex. B at 6; Ex. C at 32:9–13; 33:10–13. Notably, none of Mr. Passamaneck’s varied “little piecemeal portions” of experience (his own words) include anything remotely related to statistical analysis or survey methodology. Ex. C at 33:14–16.

By his own admission, Mr. Passamaneck’s professional experience evaluating the quality of surveys is limited to talking to people at the National Shooting Sports Foundation (“NSSF”) about certain of the data he uses in his reports:

Q. Do you have any professional experience estimating the number of firearms or magazines within the United States?

A. No, I’m not a statistician, and I don’t conduct surveys. I review data.

Q. Do you have any professional experience evaluating the quality of surveys?

A. I didn’t hear the last word.

Q. Surveys.

A. To -- to some extent, yes. I mean, I understand the National Shooting Sport Foundation. I’ve talked to them at length, both prior to and during this case, as to where that data comes from. And the fact that that data comes from manufacturers and ATF forms is relevant.

I mean, they establish the base numbers for what the various numbers relate to, whether it’s magazines or different types of firearms.

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<sup>5</sup> Mr. Passamaneck has two resumes, neither of which were produced with the Initial Report. The first concerns general (non-firearm) experience. Ex. E. The second is a supplement that contains his firearm-related experience. Ex. B at 6.

Q. So you've spoken to the people who conducted that particular study.  
Do you have any other professional experience doing similar work?

A. No.

Q. So what exactly are your qualifications to hold yourself out as an expert on reviewing surveys and studies such as this?

A. My experience in the industry.

Ex. C at 34:4–21.

Importantly, “[n]othing in the record provides the necessary connection” between Mr. Passamaneck’s firearms experience and the ability to evaluate the Report Sources. *United States v. Medina-Copete*, 757 F.3d 1092, 1104 (10th Cir. 2014). Experts “must explain how his or her experience leads to the conclusion reached [and] why that experience is a sufficient basis for the opinion.” *United States v. Nacchio*, 555 F.3d 1234, 1258 (10th Cir. 2009) (en banc) (internal quotation marks omitted).

Finally, all of Mr. Passamaneck’s prior testimony and expert reports have focused exclusively on his engineering knowledge. The only exception, where he opined on the same Numerical Estimates in an identical report, has similarly been challenged under Rule 702. Ex. C at 27:8–25; 26:23–25; *Gates*, 22-cv-1866 (ECF 56) (pending motion to exclude testimony).

**B. Mr. Passamaneck lacks the necessary knowledge to evaluate the accuracy of surveys conducted by others.**

Not only is Mr. Passamaneck not an expert on statistical analysis, he also lacks the necessary training, skill, or experience to evaluate the accuracy of surveys conducted by others. Tenth Circuit courts have routinely rejected experts who simply parrot survey results without possessing the necessary knowledge to evaluate their accuracy. In *Fish v. Kobach*, it was “clear that [the defendant’s proffered expert was] not qualified to testify as an expert about [a] survey” because the defendant had “not demonstrated that [the proffered expert] possess[ed] any special skill or experience required to testify about the survey results; indeed, all but one paragraph

simply recite[d] the survey’s findings, rather than any opinion.” 304 F. Supp. 3d 1027, 1038 (D. Kan. 2018). Mr. Passamaneck likewise offers no special skill or experience in his Initial Report when he merely recites survey findings from the NSSF and Georgetown University Professor William English without any opinions beyond classifying them as “[c]onservative estimates.” Ex. A at 1–2.

Neither can Mr. Passamaneck “invoke vague allusions to his ‘experience’” to lay a foundation for his opinions. *Ramos v. Banner Health*, 1 F.4th 769, 780 (10th Cir. 2021). But this is exactly what he attempts when he claims to “review data” based on his “education and experience in the firearms industry.” Ex. C at 33:4–5, 34:22–25. This experience amounts to attending “trade shows” and “shooting competitions” and frequently “talk[ing] to these guys [manufacturers].” Ex. C at 60: 17–18. Throughout his reports and depositions, Mr. Passamaneck repeatedly attempts to compensate for his own inability to evaluate the quality of these surveys by turning to hearsay from people who are not involved in this case, but who he views as more qualified than himself to speak on the topic. Most egregiously, Mr. Passamaneck repeatedly stated in his deposition that he considers a brief Facebook Messenger conversation with a magazine manufacturer to be the best available estimate of the number of LCMs. Ex. C at 182:2; *id* at 182:7–10; *id* at 246:2–5; *see also* Ex. D (the conversation in its entirety).

Mr. Passamaneck’s inability to evaluate the accuracy of surveys is similarly reflected by his deposition in the *Gates* case, where he was unable to answer basic questions about the methodology used in one of his cited surveys. *See* Ex. F at 92:21–93:9. When asked his opinion about the “raked weighting” in one survey he cited, Mr. Passamaneck replied that he did not “have one” and admitted that he did not know what raked weighting meant. *Id.*

**C. Mr. Passamaneck’s report contains no explanation of how his experience enables him to accurately make the Numerical Estimates.**

Nothing in Mr. Passamaneck’s “experience in the industry” bears any relation to the particular topic he opines on, namely, “assessing numbers of firearms and magazines of certain capacities that are in possession of American citizens.” Ex. C at 32:1–3. When asked in his deposition about his purported expertise, Mr. Passamaneck responded, “I mean, I have been a sponsored shooter, I’ve worked for manufacturers, I manufacture a barrel, you know, there’s a lot of – there’s a lot of little piecemeal portions that are professional experience in that – in that area.” Ex. C at 33:10–16.

Where an expert witness’s testimony relies solely on experience, “the witness must explain how that experience leads to the conclusion reached, why that experience is a sufficient basis for the opinion, and how that experience is reliably applied to the facts.” *Nacchio*, 555 F.3d at 1258 (internal quotation marks omitted). In a recent challenge to a similar Oregon law restricting LCMs, the district court excluded a firearms expert’s statistical analysis opinion on Rule 702 grounds. *Or. Firearms Fed’n v. Koteck*, No. 2:22-CV-01815-IM, 2023 WL 4698752, at \*2 (D. Or. May 31, 2023). There, the plaintiffs’ expert “ha[d] practical experience with firearms that render[ed] him sufficiently knowledgeable about how LCMs might be useful in self-defense situations,” but the court declared that he could “not testify about quantifiable data on the frequency with which any particular number of rounds are fired in self-defense situation” because the expert did “not have relevant experience with statistical analyses or data.” *Id.* The same is true here. Mr. Passamaneck’s hands-on manufacturing, training, and shooting experience with firearms does not give him “relevant experience with statistical analyses or data.” *Id.* When given the opportunity to expand on any experiences that might qualify him to evaluate surveys, Mr. Passamaneck responded, “I talk to these guys [manufacturers] all the



time,” and, failing to apply any critical analysis, said he simply “take[s] them at their word.” Ex. C at 60:16–18; 61:3–8. This simply does not satisfy the Plaintiff’s burden to show that Mr. Passamaneck is qualified to make his Numerical Estimates.

**II. Mr. Passamaneck employs neither reliable methodology nor supports his opinion with sufficient data or facts when making his Numerical Estimates.**

Even if the Court finds that Mr. Passamaneck is qualified, the Numerical Estimates testimony should be excluded under Rule 702(b)–(d) because Mr. Passamaneck failed to rely on sufficient or reliable facts or data, failed to use reliable principles and methods, and failed to reliably apply those principles and methods to the facts of this case. Each of these failures is sufficient to disqualify him on its own.

**A. Mr. Passamaneck fails to provide adequate foundation for and validation of the facts and data behind his Numerical Estimates.**

Under Rule 702(b), “expert testimony [must] be based on sufficient facts or data” and be “supported by ‘appropriate validation—i.e., “good grounds.”” *Cruz v. City & Cnty. Of Denver, Colo.*, No. 21-cv-03388-KLM, 2023 WL 4073195, at \*5 (D. Colo. June 20, 2023) (quoting *Daubert*, 509 U.S. at 590) (some citations omitted). Further, “[a] failure to validate data by itself can constitute grounds for excluding an expert report.” *Forte v. Liquidnet Holdings, Inc.*, 675 F. App’x 21, 24 (2d Cir. 2017). Falling far short of this standard, Mr. Passamaneck’s basis for the Numerical Estimates consists entirely of (1) parroted surveys and reports by the *Washington Post*, the NSSF, and a survey conducted by Professor William English; (2) unverifiable information relayed to him in a Facebook message exchange;<sup>6</sup> and (3) unrepresentative and biased personal observations. Ex. A at 1–2; Ex. B at 1; Ex. C at 92:5–7; Ex. D at 1.

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<sup>6</sup>In the Initial Report, Mr. Passamaneck’s assertion that “Mag-Pul, the largest manufacturer of AR15 magazines (and who also produces Glock and AR10 magazines) estimates the total number of magazines of 15+ rounds at 350 million” is stated without citation. Ex. A at 2. In deposition, Mr. Passamaneck revealed that the source for this figure is a very brief Facebook

**1. Mr. Passamaneck parroted the results of the surveys and reports cited in his report without performing appropriate validation.**

Throughout Mr. Passamaneck’s deposition, he admitted that he did not review the methodology for most of his sources. He said that he reviewed “some” of the *Washington Post* survey methodology, but immediately hedged that he is not a statistician. Ex. C at 138:24–139:3.<sup>7</sup> He stated that he was comfortable with the methodology of the English survey because “[English] explained what he did and how,” but did not opine on the methodology itself. *Id.* at 144:1–6. And his “review” of the NSSF survey methodology and verification of the accuracy of the numbers compiled by NSSF consisted of phone conversations with Salam Fatohi—an NSSF employee who himself was “very confident that those numbers...can be verified”—during which Mr. Passamaneck did not take notes.<sup>8,9</sup> *Id.* at 34:8–18, 80:1–5, 107:8–24, 122:2–123:11, 126:3–18, 131:20–25, 158:4–9, 173:7–10. When an expert “call[s]” another individual, “who provide[s an] assurance” that the underlying data is accurate, a “district court

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Messenger conversation between Mr. Passamaneck and Duane Liptak, Executive Vice President of Magpul, which is attached here as Exhibit D. Ex. C at 150:25–151:4, 178:8–22. Mr. Liptak provided no source for this figure; Mr. Passamaneck did not solicit one. Ex. C at 181:11–17; Ex. C at 185:7–9.

<sup>7</sup> Strangely, Mr. Passamaneck also indicated that this survey relies on unreliable methodology. Ex. C at 139:11–22.

<sup>8</sup> These conversations appear to have occurred *after* Mr. Passamaneck submitted his report, and after he was challenged on this methodology in his deposition in the *Gates* case. Ex. C at 30:23.

<sup>9</sup> In another Second Amendment case, Fatohi testified that he was not personally involved in creation of 2018 chart and a court noted that “in assessing the weight and credibility to give Mr. Fatohi’s testimony, this Court notes that the NSSF is a plaintiff in this case and has been a plaintiff in several Second Amendment challenges to firearms regulations. The NSSF is a firearm and industry trade association which advocates for the firearm and ammunition industry. NSSF members have a significant financial interest in the outcome of this case.” *Oregon Firearms Fed’n v. Kotek Oregon All. for Gun Safety*, No. 2:22-CV-01815-IM, 2023 WL 4541027, at \*23 n.18 (D. Or. July 14, 2023) .

[can] consider this assurance an inadequate safeguard of reliability.” *Hall v. Conoco, Inc.*, 886 F.3d 1308, 1313 (10th Cir. 2018).

In possibly the most troubling example of his unwillingness to verify the survey results he cites, Mr. Passamaneck admitted that the only source for his claim that NSSF President and CEO Joseph Bartozzi stated that 20 million Americans own AR-15 rifles<sup>10</sup> was an article on the NSSF website that *no longer exists* and is supported only by his own recollection. Ex. C at 90:2–23, 92:2–4.

**2. Mr. Passamaneck provided little or no foundation for many of the facts and data on which he bases his testimony, instead relying on his preconceived notions of scale and vague memories.**

Many of the numbers relating to assault weapon ownership described in Mr. Passamaneck’s report are wholly unsourced. For example, he writes without any citation that “it is estimated that about 8 to 9 million AR-15 style rifles were owned by US citizens prior to 1990.” Ex. A at 1; *see also* Ex. B. at 2. When asked in his deposition, Mr. Passamaneck explained that he used a multiple of the 2 million AR-15s manufactured by Colt between 1975 and 1980. Ex. C at 104:17–24. To justify this apparently arbitrary multiple, Mr. Passamaneck alludes to references to other firearm manufacturers he found on “various forums and websites,” none of which he identified. Ex. C at 98:3–4.

But more generally, Mr. Passamaneck’s methodology for assessing the reliability of the numbers contained in his report was to compare them to his own preconceived notions of their

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<sup>10</sup> Mr. Passamaneck also appears confused about whether this 20 million figure represented the number of AR-15 style rifles in circulation at the time, or the number of Americans who owned such rifles, a key distinction in understanding any of these numbers. Ex. C at 141:21–25.

scale, a method he tries to pass off as “experience.”<sup>11</sup> *See, e.g.*, Ex. A at 2 (“The estimate of 8 to 9 million AR15 style rifles in the US prior to 1990 is based on this author’s experience and participation in the firearms industry and competition with the AR15 style of rifles.”); *see also* Ex. B at 2 (“[T]he estimates related to standard capacity magazines over 15 rounds presented in the initial expert report are *valid based on the author’s knowledge and experience*” (emphasis added)). Those preconceived notions are based not on familiarity of the overall size of these totals, but on small and non-random sampling from conversations with gun owners and users who are not representative of the overall population. Ex. C at 114:23–116:7, 153:3–8, 169:22–170:6, 193:3–22, 194:1–195:4.

Further, Mr. Passamaneck cannot “invoke vague allusions to his ‘experience’” to lay a foundation for his opinions. *Ramos v. Banner Health*, 1 F.4th 769, 780 (10th Cir. 2021). In lieu of verifying the accuracy of data upon which he relied, and despite acknowledging that in many cases “the source data doesn’t exist” and manufacturer estimates are “not verifiable numbers,” Mr. Passamaneck claims to be able to form reliable Numerical Estimates because he “goes to competitions” and “talk[s] to the manufacturers.” Ex. C at 103:3–9, 104:25–105:23. Mr. Passamaneck repeatedly and unreliably extrapolates numerical data from his “experience” being in and around the gun industry, which according to him includes participating in firearm competitions, talking to firearm owners and manufacturers, and watching a television show produced by the NRA. Ex. C at 95:18–24, 96:18–97:11, 114:23–116:7, 153:3–8, 169:22–170:6, 193:3–22, 194:1–195:4.

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<sup>11</sup> As his reports severely lack methodology descriptions, Defendants only learned of Mr. Passamaneck’s unorthodox methods after walking through his reports line-by-line in an almost seven-hour deposition.

**B. Mr. Passamaneck employs unreliable methodology and made numerous errors concerning citing information, terminology, and arithmetic.**

Mr. Passamaneck also made numerous errors, demonstrating that his application of his own principles and methods to this case is unreliable. These errors include (1) imprecise use of terminology; (2) mistakes in reading the plain-language descriptions of his figures, resulting in incorrect calculations; and (3) logical errors.

*First*, Mr. Passamaneck’s inconsistent, imprecise, and often conflicting use of terminology makes it almost impossible to discern the meaning of his statements and dramatically changes the data pulled from his sources. For example, Mr. Passamaneck proffered conclusions about “AR15 style rifles,” despite his data source cataloguing data on “modern sporting rifles”—which include both “AR- and AK-platform firearms.” Ex. G at 5, Ex. A at 1–2, *see* Ex. C at 79:10–80:24. In his deposition, Mr. Passamaneck brushed off the discrepancy, claiming that “modern sporting rifle” is a “political term.” *Id.* at 79:19.<sup>12</sup> In another example (occurring in multiple places in his reports), Mr. Passamaneck interchanges the already vague term “Americans” with “U.S. citizens,” even where the one or the other term is wrong in the context of the studies he is referring to. *See* Ex. C at 76:17–22, Ex. F at 1286:16–129:19. *Cf. Moussouris v. Microsoft Corp.*, 311 F. Supp. 3d 1223, 1241 (W.D. Wash. 2018) (disqualifying an expert because, in part, the “terms are extremely general” in the expert report).

*Second*, Mr. Passamaneck made basic reading-comprehension errors. For example, in concluding that there are “approximately 250 million rifle magazines *over 15 rounds*,” he subtracted his approximation of “100 million handgun magazines in the US that are *over 15*

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<sup>12</sup> Mr. Passamaneck also rejects the use of the terms “assault weapon” (or “AW”) and “large capacity magazine” as political, despite the terms being defined in the ordinances at issue, and despite the resulting misfit of all of his opinions to the case at hand. Ex. C at 71:20, 79:19.

*rounds*” from Magpul’s estimate of 350 million “magazines of 15+ rounds.”<sup>13</sup> Ex. A at 2 (emphases added). But Magpul’s estimate included magazines containing exactly 15 rounds, which Mr. Passamaneck explained are one of the most common magazines used in handguns. *Id.* As a result, the 250 million *rifle magazines* number includes an apparently large number of exactly-15-round *handgun magazines*.<sup>14</sup>

*Third*, Mr. Passamaneck makes basic logical errors. For example, Mr. Passamaneck notes that the number of gun owners is not significantly lower than the number of guns, while concurrently acknowledging that “most of the people [he] personally know[s] ... have multiples,” including Mr. Passamaneck himself.<sup>15</sup> *See* Ex. C at 142:9–11, Ex. A at 142:4–6, 212:5–6. Mr. Passamaneck also incorrectly deduced that the NSSF’s count of “rifles produced minus exports,” which includes firearms sitting unsold at retailers and wholesalers, is equivalent to the number “sold in the US.” *See* Ex. A at 1; *see also* Ex. G at 6.

## CONCLUSION

For the reasons set forth above, Defendants respectfully requests that this Court grant this motion to strike the Numerical Estimates portion of Mr. Passamaneck’s Initial Report and the

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<sup>13</sup> There are also deeper issues with this calculation, as the 350 million and 100 million numbers stemmed from entirely different methodologies, had entirely different error rates, and the former represented a best guess, whereas the latter was “conservative.” Basic logic demonstrates that subtracting a conservative estimate of the size of a sub-population from a best guess estimate of the larger population will not give a reasonable estimate of the size of the remaining population—it will definitionally give an overestimate.

<sup>14</sup> Further note that the ordinances at issue in this litigation define LCMs as having more than 10 rounds, unlike the state statute, which uses 15. Nevertheless, Passamaneck’s report focuses on LCMs with a capacity of more than 15 rounds. Doubtless this is an artifact of the reuse of Mr. Passamaneck’s report, but it also adds to the impression that Mr. Passamaneck has little interest in what the challenged ordinances say. Ex. C at 192:7–11; *see also* Ex. C at 19:6–14.

<sup>15</sup> That many of the guns in circulation are concentrated in the hands of owners of a relatively small number of gun owners is consistent with the testimony offered by other experts in this case, and with sources cited by Mr. Passamaneck himself. *See* Ex. I (English Report) at 17.

entirety of his Reply Report, and to exclude his testimony on that topic.<sup>16</sup>

Dated: September 15, 2023

Respectfully submitted,

By: /s/ Hendrik van Hemmen

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<sup>16</sup> Defendants believe that the Court can decide this matter without a hearing, but are available at the Court's convenience for a hearing if it would assist the Court. *See Wildearth Guardians v. Pub. Serv. Co. of Colo.*, 853 F. Supp. 2d 1086, 1090 (D. Colo. 2012).

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### CERTIFICATE OF SERVICE

I hereby certify that on September 15, 2023, I served a true and complete copy of the foregoing **DEFENDANT'S MOTION TO PARTIALLY STRIKE EXPERT REPORT AND PARTIALLY EXCLUDE TESTIMONY OF MARK PASSAMANECK**, upon all parties herein by e-filing with the CM/ECF system maintained by the court and/or email, addressed as follows:

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Dated: September 15, 2023

Respectfully submitted,

By: /s/ Hendrik van Hemmen

Hendrik van Hemmen  
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*Counsel for All Defendants*

# EXHIBIT A

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF COLORADO**

**Civil Action No. 22-cv-2680**

ROCKY MOUNTAIN GUN OWNERS,  
NATIONAL ASSOCIATION FOR GUN RIGHTS,  
CHARLES BRADLEY WALKER,  
BRYAN LAFONTE,  
CRAIG WRIGHT,  
GORDON MADONNA,  
JAMES MICHAEL JONES, and  
MARTIN CARTER KEHOE,

Plaintiffs,

v.

THE TOWN OF SUPERIOR,  
CITY OF LOUISVILLE, COLORADO,  
CITY OF BOULDER, COLORADO, and  
BOARD OF COUNTY COMMISSIONERS OF BOULDER COUNTY,

Defendants.

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**EXPERT DISCLOSURES**

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Plaintiffs submit the attached expert disclosures.

*/s/ Barry K. Arrington*

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*Attorneys for Plaintiffs*

### **CERTIFICATE OF SERVICE**

I hereby certify that on May 5, 2023, I emailed the foregoing to:

[Careydunne1@gmail.com](mailto:Careydunne1@gmail.com)  
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*/s/ Barry K. Arrington*

---

Barry K. Arrington



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April 12, 2023

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### **Expert Report**

RE: Client: National Foundation for Gun Rights  
EEC Project: 2402 Colorado Magazine Limits

Dear Mr. Arrington,

At your request, Entropy Engineering Corp (Entropy) has evaluated portions of the case referenced above. The purpose of this report is to provide expert opinions on matters for which the author is qualified and has extensive knowledge.

#### **Discussion**

Standard capacity magazines, as originally designed, manufactured and sold within the State of Colorado are commonly possessed and used for lawful purposes. Millions of Americans own and use AR15 style rifles. A Washington Post survey in 2022 numbers the owners of AR15s at 16 million while the 2020 number was almost 20 million according to NSSF President and CEO Joseph Bartozzi, who called the AR-15 the "most popular rifle sold in America" and a "commonly owned firearm." A 2021 survey conducted by Georgetown University Professor William English in 2021 of 16,000-gun owners revealed that of those, 30% owned AR15 style rifles. Further, the NSSF 2020 Industry Intelligence report has the number of AR15 rifles produced minus exports (so sold in the US) at just under 20 million from 1990 through 2018. It is estimated that about 8 to 9 million AR15s were owned by US citizens prior to 1990 and the

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total number of semi-automatic rifles owned in the US (2018) at just over 43 million. From 2019 through 2022, another 3 to 4 million have been sold. So, conservatively, there are at least 34 million AR15s owned by US citizens, and the vast majority of those rifles were sold with at least one 20 or 30 round (30 round standard being most common) magazines. As magazines are a commodity that is sold without serialization or tracking, the total number of magazines that are above 15 rounds is difficult to measure. However, the 2018 NSSF Magazine Chart estimates 71 million handgun magazines of 11+ rounds, 9.4 million rifle magazines from 11-29 rounds (20 being the most common and 15 being the second most common) and 79 million rifles magazines of 30+ rounds. Mag-Pul, the largest manufacturer of AR15 magazines (and who also produces Glock and AR10 magazines) estimates the total number of magazines of 15+ rounds at 350 million. The 2018 NSSF estimate of Semi-Automatic handguns is 89 million, with about 40% being 9mm, which are commonly 15 or 17 rounds depending on the frame size. The Glock 17 is the most prolific handgun in the US with 60 to 70 percent of LEOs utilizing them and at least 30% of target and sport shooters using them. They also have an edge for use as a home, or self-defense firearm. They are sold with 2 or 3 standard capacity 17 round magazines. Conservative estimates are that, conservative, and there certainly close to 100 million handgun magazines in the US that are over 15 rounds. That leaves approximately 250 million rifle magazines over 15 rounds. From one third to one half of all US gun owners surely own a magazine that is over 15 rounds.

Detachable magazines are necessary to make semi-automatic firearms, designed to receive such magazines, operate effectively. Without such magazines, semi-automatic firearms are inoperable. The feed angle, magazine spring pressure, and feed ramps are all design features coupled between the magazine (when inserted into the magwell) and the firearm to ensure function as intended. Magazines, by nature and with use, are wear items that must be periodically replaced. The largest percentage of semi-automatic firearms failures are due to damage, or wear, of the magazines. When citizens are not allowed to purchase magazines for their firearms, they will eventually become useless. Some of the most common polymer magazines will wear out and become inoperable in as little as 500 rounds. Very few can pass 2000 rounds without replacement. That is significantly less than the 50K to 100K rounds to wear out a firearm.

Magazines are not merely a box in which ammunition is stored, rather, cartridges are held in the magazine under spring tension. When a semi-automatic firearm is fired, the spring pushes another cartridge up for the bolt to push it into the chamber so that it can be fired with the next pull of the trigger. If there is no magazine pushing cartridges up into the action, one by one, there is no ability to fire a subsequent cartridge due to a subsequent pull of the trigger, which is

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the defining characteristic of a semi-automatic weapon. Thus, without magazines as a designed component of semi-automatic firearms they would not exist. In other words, magazines are a necessary and integral part of the operation of a semi-automatic firearm.

In addition, for at least the last 40 years, magazines, as an integral commodity product that allow the semi-automatic firearm to function, have been designed with basepads that specially allow them to be changed with different pads allowing for variable capacities.

**Report Limitation**

Entropy has been retained to provide advice relative to referenced matter. The findings and conclusions contained herein are derived from numerous sources and believed to be correct. This report is subject to change in the event that additional information or findings are provided to Entropy. Neither this report, nor any of the professional opinions contained herein (or the bases for those opinions) shall be used, relied upon, or otherwise disclosed to anyone other than the parties involved in this matter without Entropy’s express written consent.

**Qualifications**

Mr. Passamaneck has extensive knowledge of firearms desing, manufacture and use. He has designed magazines, barrels, muzzle devices, gas blocks and complete firearms for manufacturers. Mr. Passamaneck has extensively tested firearms, ammunition and accessories. He has conducted shooting reconstructions related to both intentional and unintentional firing of firearms. Mr. Passamaneck has been admitted in courts as a firearms expert and as a ballistics expert. He holds several training certifications and has trained and coached shooting in a wide array of disciplines.

Mr. Passamaneck charges \$250/hour for consulting services, including producing work product, testimony and travel. His testimony for the last 4 years is as follows:

Project	Date	Arb, Depo, Trial, Hearing, Mediation	Case Number	Court	Case Name	Client
2280	05.03.19	D	Case#201 8CV03095 4	Office of Franz Hardy Gordon Rees Scully Mansukhani,LLP	Martha Munoz V Public Service DBA X-Cel Energy	John Sheppard

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2251	07.07.20	T	Workers Comp. No. 5-123-298	Call In Zoom Call	Cassandra Newell V O'Reilly Auto Parts	Brad Miller
2356	9/16/20	T	Workers Comp. No. 5-119-454	Office of Administrative Courts, Denver, CO	Larry Pfannenstiel V O'Reilly Auto Parts	Brad Miller
2356	10.01.20	D	Workers Comp. No. 5-119-454	Office of Administrative Courts, Denver, CO	Larry Pfannenstiel V O'Reilly Auto Parts	Brad Miller
2252	06.10.21	D	Case#201 8CV31645	District Court Adams County	Steven-Roberts Originals, LLC V Rocky Mountain Mechanical Systems	Brian Suth
2340	08.19.21	T	Case#17C V6	District Court Eagle County, Colorado	Tania Bricel v Wyndham Worldwide	James Bailey
2373	4.21.22	D	Case#202 1CV30152	Boulder County,	Pipe X v Park North	Brad Shefrin
2392	12.13.22	D	2022CV30 439	District Court, Denver County, Colorado	Moutain States Plumbing v. Winter Park Land Co. LLC	Kirsten Kube

Thank you for using Entropy in this matter. Please contact this writer if you have any questions or if we may be of further assistance.

Sincerely,

**Entropy Engineering Corp**


Mark W. Passamaneck, PE  
President, Principal Engineer



# EXHIBIT B



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July 20, 2023

Barry K. Arrington  
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*[Barry@arringtonpc.com](mailto:Barry@arringtonpc.com)*

### **Supplemental Report**

RE: Client: National Foundation for Gun Rights  
EEC Project: 2402 Colorado Municipal Magazine Limits

Dear Mr. Arrington,

At your request, Entropy Engineering Corp (Entropy) has continued to evaluate portions of the case referenced above. The purpose of this supplemental report is to update some estimates relative to this case.

#### **Discussion**

Since the original report was issued, the updated NSSF Industry Intelligence report has been reviewed. It was provided to this author by Salam Fatohi, the Director of Research for the NSSF. The "IIR\_2022\_Firearms\_Production\_22.pdf" (NIIR2022) is attached. This is the same report referred to in the defendant expert Klarevas report.

Reliable data prior to 1990 related to the ownership of AR15 style rifles is difficult to determine. However, the NIIR2022 estimated the number of "Modern Sporting Rifles" produced from 1990 through 2020 to be approximately 24.4 million. The term Modern Sporting Rifles encompasses AR15 style rifles made by various companies with differing model names and accessories. Colt manufactured the AR15 (several models) in numbers of approximately 2M from 1967 to 1986

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based on serial numbers. However, from 1977 through 1990, there were well over 100 producers of AR-15 style rifles, several of which are no longer in business, and none of which reported their production numbers to NSSF during that time frame. Likewise, there is no governmental agency that recorded the production numbers during that time. Based on the prevalence of other manufacturers' rifles procured by law enforcement agencies in that time frame, which predominantly purchase the civilian semi-automatic versions as opposed to the military select fire versions, and as represented in use by competitors in competition, it is apparent that Colt produced far less than half of the AR15 style rifles between 1977 and 1990. The estimate of 8 to 9 million AR15 style rifles in the US prior to 1990 is based on this author's experience and participation in the firearms industry and competition with the AR15 style of rifles. Regardless, it is obvious that from 1990 until the current day, the AR15 style of rifle has become more popular among US citizens for recreational purposes, hunting and self-defense than it was prior to 1990. Since all manufacturers do not report to NSSF and estimating the number of AR15 style rifles prior to 1990 is difficult, the number of AR15 style rifles that actually exists is certainly higher than those in the NSSF estimates.

While the estimates related to standard capacity magazines over 15 rounds presented in the initial expert report are valid based on the author's knowledge and experience, the fact remains that verification of those numbers is difficult. The NSSF Magazine Chart on page 7 of the NIIR2022 Estimates 304 million detachable Pistol and Rifle Magazines in US Consumer Possession from 1990-2018. It does not speak to the number of magazines predating 1990. The number of rifle and pistol magazines that are 11+ rounds is estimated to be 159.8M. This is surely a number that is well below reality. However, it is a number that can be substantiated based on the NSSF data, which is conservative. The NSSF data is a lower bound which is based on industry reporting which is considered to be the most reliable source of data for the lower bound of magazines. Since all manufacturers do not report to NSSF and estimating the number of magazines prior to 1990 is difficult, the number of magazines that actually exists is certainly higher than those in the NSSF Magazine Chart.

### **Report Limitation**

Entropy has been retained to provide advice relative to referenced matter. The findings and conclusions contained herein are derived from numerous sources and believed to be correct. This report is subject to change in the event that additional information or findings are provided to Entropy. Neither this report, nor any of the professional opinions contained herein (or the bases for those opinions) shall be used, relied upon, or otherwise disclosed to anyone other than the parties involved in this matter without Entropy's express written consent.

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### **Qualifications**

Mr. Passamaneck has extensive knowledge of firearms design, manufacture and use. He has designed magazines, barrels, muzzle devices, gas blocks and complete firearms for manufacturers. Mr. Passamaneck has extensively tested firearms, ammunition and accessories. He has conducted shooting reconstructions related to both intentional and unintentional firing of firearms. Mr. Passamaneck has been admitted in courts as a firearms expert and as a ballistics expert. He holds several training certifications and has trained and coached shooting in a wide array of disciplines.

Mr. Passamaneck charges \$250/hour for consulting services, including producing work product, testimony and travel. His testimony for the last 4 years is attached.

Thank you for using Entropy in this matter. Please contact this writer if you have any questions or if we may be of further assistance.

Sincerely,  
**Entropy Engineering Corp**



Mark W. Passamaneck, PE  
President, Principal Engineer



**Testimony Record of Mark W. Passamaneck, PE**

Four Year  
Testimony  
Record

Project	Date	Arb, Depo, Trial, Hearing, Mediation	Case Number	Court	Case Name	Client	PL/DEF	Description
2280	05.03.19	D	Case#2018C V030954	Office of Franz Hardy Gorden Rees Scully Mansukhani,LLP	Martha Munoz V Public Service DBA X-Cel Energy	John Sheppard		Explosion
2251	07.07.20	T	Workers Comp. No. 5-123-298	Call In Zoom Call	Cassandra Newell V O'Reilly Auto Parts	Brad Miller		VAR
2356	9/16/20	T	Workers Comp. No. 5-119-454	Office of Administrative Courts, Denver, CO	Larry Pfannenstiel V O'Reilly Auto Parts	Brad Miller		VAR
2356	10.01.20	D	Workers Comp. No. 5-119-454	Office of Administrative Courts, Denver, CO	Larry Pfannenstiel V O'Reilly Auto Parts	Brad Miller		VAR
2252	06.10.21	D	Case#2018C V31645	District Court Adams County	Steven-Roberts Originals, LLC V Rocky Mountain Mechanical Systems	Brian Suth		Explosion
2336	07.28.21	D	Case#2019C V30109	Hall & Evans 1001 17th St. Suite 300 Denver 80202	Welch v Dutton	Murray Ogburn		CO
2340	08.19.21	T	Case#17CV 6	District Court Eagle County, Colorado	Tania Brice v Wyndham Worldwide	James Bailey	PL	CO
2309	11.10.21	D	Case#3..19-CV-44-REP	Regus ToU Broadway, Suite 1600 Denver, CO 80202	Alves v Army Corp	Joseph Wager		PI
2336	11.12.21	D	Case#2019C V30109	1700 Lincoln St. Ste. 2700 Denver, CO 80203	Welch v. Dutton	Murray Ogburn		CO
2373	4.21.22	D	Case#2021C V30152	Boulder County,	Pipe X v Park North	Brad Shefrin	Def.	Plumbing



**Testimony Record of Mark W. Passamaneck, PE**

*Four Year  
Testimony  
Record*

Project	Date	Arb, Depo, Trial, Hearing, Mediation	Case Number	Court	Case Name	Client	PL/DEF	Description
2392	12.13.22	D	2022CV3043 9	District Court, Denver County, Colorado	Moutain States Plumbing v. Winter Park Land Co. LLC	Kirsten Kube	Def.	Plumbing
2402	05.31.23	D	Civil Action#22-cv- 1866-NYW- SKC	Colorado Department of Law	National Foundation for Gun Rights, Inc. v Polis	Barry Arrington	PL	Firearms



***Firearms/Shooting Resume supplement for: MARK W. PASSAMANECK***

Mr. Passamaneck is a mechanical engineer who works for a consulting/forensic engineering firm in Denver. He is also an owner of Carbon Arms Corp, a firearms products manufacturing and design company. He has been shooting since he was a child and has been involved in several forms of competitive shooting for most of his adult life. Mr. Passamaneck takes his engineering and shooting experience and combines them into an analytical approach to training, shooting, testing and reconstruction.

**CERTIFICATIONS**

Mr. Passamaneck has trained thousands of individuals in the safe and legal use of firearms including civilians and Law Enforcement personnel. He founded and owned a firearms training company for approximately six years for which he wrote several acclaimed texts. Mr. Passamaneck has attended and successively obtained certificates of completion for several seminars and courses presented by some of the top firearms instructors in the country. Mr. Passamaneck also holds classifications in several shooting sports. Mr. Passamaneck earned the following safety and instructional certifications:

<i>National Range Officers Institute (USPSA)</i>	Chief Range Officer
<i>International Defensive Pistol Association</i>	Safety Officer
<i>Rocky Mountain 3 Gun Championship</i>	Range Master
<i>National Rifle Association Instructor</i>	Multiple Certifications

Mr. Passamaneck holds, or has held, the following memberships and or offices:

*Life Member of the National Rifle Association, Life Member of the Colorado State Shooting Association, Action Pistol Executive of the Colorado State Shooting Association, Member of the International Defensive Pistol Association, Vice-President of Front Range IDPA, Member of the Glock Sport Shooting Foundation, Member of the United States Practical Shooting Association*  
*Member of several gun ranges*

**Incident Evaluations**

Mr. Passamaneck is a very accomplished shooter and hunter familiar with a wide array of topics related to shooting and firearms. He has an in depth understand of manufacturing processes related to the manufacture of ammunition and firearms. His mechanical and materials engineering training complement his firearms knowledge. Mr. Passamaneck is a skilled reloader of metallic and shotgun cartridges having reloaded several hundred thousand rounds of ammunition. He has conducted ballistic testing (trajectory and terminal) and failure testing on a variety of firearms and topics. He has harvested well over one hundred head of big game, as well as hundreds of other species. This has allowed him to personally examine over a thousand wound channels and collect projectiles fired from handguns, shotguns and rifles. He is experienced in the investigation of shooting and firearms incidents and follows the ASTM E-30 Committee standards related to such investigations. He has investigated numerous cases involving personal injuries and death arising from firearms. These have included component failures, human factors and improper use. His strong background in materials, testing and modeling aids in the evaluation of firearms cases.



## INDUSTRY INTELLIGENCE REPORTS<sup>SM</sup>

HELPING OUR MEMBERS MAKE INFORMED DECISIONS

# FIREARM PRODUCTION IN THE UNITED STATES WITH FIREARM IMPORT AND EXPORT DATA

**P**roviding a comprehensive overview of firearm production trends spanning a period of 31 years, this report is based primarily on the data sourced from the Bureau of Alcohol, Tobacco, Firearms and Explosives' (ATF's) Annual Firearms Manufacturing and Export Reports (AFMER). Every effort has been made to provide accurate and updated information so the reader may keep this edition as a reliable resource for trend information. Production data is a leading indicator of industry performance; this is especially true when combined with other valuable sources of information.

This edition includes manufacturing trends for ammunition as sourced from Census Bureau's Annual Survey of Manufacturers (ASM) used for all years that fall between the fifth-year economic census reports. Import and export statistics for firearms compiled from the U.S. International Trade Commission (USITC) are presented in conjunction with the AFMER numbers to provide a more accurate picture of the historical production that has been made available to the U.S. market. These data sources, when used collectively, help to provide an overview of the firearm and ammunition manufacturing industries.

Information on production, imports, exports and other manufacturing variables are only a piece of a more complex puzzle of the firearm industry. Other factors outside of the manufacturing sector, such as the retail sector, the economy and frequently the political climate, must all be taken into consideration. The limitation of the AFMER data is that it reflects historic trends; however, using the data in combination with other reports does provide a more complete picture of the industry. Firearm and ammunition production provide a very significant contribution to the national economy in terms of jobs, wages and benefits. In addition, capital expenditures on materials (energy, equipment, fuels) help boost local economies.

### KEY FINDINGS

- The average annual production of firearms in the U.S. was 5,453,909 for the last 30 years.
  - Total firearm production reported in the 2020 AFMER was 9,740,240 – an increase of 57.9% over 2019 reported figures.
  - Long guns totaled 3,237,979 and accounted for 33.2% of total 2020 U.S. firearm production. Of that, rifles totaled 2,761,297 (85.3% of long gun production) and shotguns totaled 476,682 (14.7%).
- \* See back page for all Key Findings



**INDUSTRY INTELLIGENCE REPORTS**

**U.S. Firearm Production (1990 – 2020)**

Year	Pistols	Revolvers	Total Handguns	Rifles	Shotguns	Total Long Guns	Production Total (a)	% Change in Total Production Year over Year
1990	1,371,427	470,495	1,841,922	1,211,664	855,970	2,067,634	3,909,556	-10.6%
1991	1,378,252	456,966	1,835,218	883,482	828,426	1,711,908	3,547,126	-9.3%
1992	1,669,537	469,413	2,138,950	1,001,833	1,018,204	2,020,037	4,158,987	17.2%
1993	2,093,362	562,292	2,655,654	1,173,694	1,148,939	2,322,633	4,978,287	19.7%
1994	2,004,298	586,450	2,590,748	1,316,607	1,254,924	2,571,531	5,162,279	3.7%
1995	1,195,284	527,664	1,722,948	1,441,120	1,176,958	2,618,078	4,341,026	-15.9%
1996	987,528	498,944	1,486,472	1,424,315	925,732	2,350,047	3,836,519	-11.6%
1997	1,036,077	370,428	1,406,505	1,251,341	915,978	2,167,319	3,573,824	-6.8%
1998	960,365	324,390	1,284,755	1,345,899	1,036,520	2,382,419	3,667,174	2.6%
1999	995,446	335,784	1,331,230	1,569,685	1,106,995	2,676,680	4,007,910	9.3%
2000	962,901	318,960	1,281,861	1,583,042	898,442	2,481,484	3,763,345	-6.1%
2001	626,836	320,143	946,979	1,284,554	679,813	1,964,367	2,911,346	-22.6%
2002	741,514	347,070	1,088,584	1,515,286	741,325	2,256,611	3,345,195	14.9%
2003	811,660	309,364	1,121,024	1,430,324	726,078	2,156,402	3,277,426	-2.0%
2004	728,511	294,099	1,022,610	1,325,138	731,769	2,056,907	3,079,517	-6.0%
2005	803,425	274,205	1,077,630	1,431,372	709,313	2,140,685	3,218,315	4.5%
2006	1,021,260	382,069	1,403,329	1,496,505	714,618	2,211,123	3,614,452	12.3%
2007	1,219,664	391,334	1,610,998	1,610,923	645,231	2,256,154	3,867,152	7.0%
2008	1,387,271	431,753	1,819,024	1,746,139	630,710	2,376,849	4,195,873	8.5%
2009	1,868,268	547,547	2,415,815	2,253,103	752,699	3,005,802	5,421,617	29.2%
2010	2,087,577	558,927	2,646,504	1,830,556	743,378	2,573,934	5,220,438	-3.7%
2011	2,464,255	572,857	3,037,112	2,305,854	862,401	3,168,255	6,205,367	18.9%
2012	3,311,081	667,357	3,978,438	3,109,940	949,010	4,058,950	8,037,388	29.5%
2013	4,314,550	725,282	5,039,832	3,996,673	1,203,072	5,199,745	10,239,577	27.4%
2014	3,602,577	744,047	4,346,624	3,379,009	935,411	4,314,420	8,661,044	-15.4%
2015	3,553,035	884,578	4,437,613	3,701,443	777,273	4,478,716	8,916,329	2.9%
2016	4,705,930	856,288	5,562,218	4,198,692	848,615	5,047,307	10,609,525	19.0%
2017	3,691,006	720,917	4,411,923	2,821,945	667,350	3,489,295	7,901,218	-25.5%
2018	3,842,344	664,832	4,507,176	2,905,178	536,119	3,441,297	7,948,473	0.6%
2019	3,046,009	580,601	3,626,610	2,062,966	480,735	2,543,701	6,170,311	-22.4%
2020	5,509,183	993,078	6,502,261	2,761,297	476,682	3,237,979	9,740,240	57.9%
<b>TOTALS (1990–2020)</b>	<b>63,990,433</b>	<b>16,188,134</b>	<b>80,178,567</b>	<b>61,369,579</b>	<b>25,978,690</b>	<b>87,348,269</b>	<b>167,526,836</b>	

Source: Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) Annual Firearms Manufacturing and Export Report (AFMER).

(a) Does not include AFMER MISC firearms category which includes items such as: pen guns and starter guns. Also adjusted to exclude/include, as noted.

From 2011 – 2020 several adjustments were made to the data in this chart due to omissions in the AFMER report (i.e.: figures for long guns manufactured by Savage Arms were omitted from the 2017 AFMER), duplication of production due to parts manufactured by machine shops (i.e.: parts reported by machine shop in addition to being reported by the firearm manufacturer resulting in double-counting) and adjustments to the miscellaneous category (i.e.: Aero Precision).



## U.S. Firearm Production (1990 – 2020)

### ANNUAL AVERAGES

Years	Pistols	Revolvers	Total Handguns	Rifles	Shotguns	Total Long Guns	Production Total
30 Years (1991 to 2020)	2,087,300	523,921	<b>2,611,222</b>	2,005,264	837,424	<b>2,842,688</b>	<b>5,453,909</b>
25 Years (1996 to 2020)	2,171,131	524,594	<b>2,695,725</b>	2,173,647	787,811	<b>2,961,458</b>	<b>5,657,183</b>
20 Years (2001 to 2020)	2,466,798	563,317	<b>3,030,115</b>	2,358,345	740,580	<b>3,098,925</b>	<b>6,129,040</b>
15 Years (2006 to 2020)	3,041,601	648,098	<b>3,689,698</b>	2,678,682	748,220	<b>3,426,902</b>	<b>7,116,600</b>
10 Years (2011 to 2020)	3,803,997	740,984	<b>4,544,981</b>	3,124,300	773,667	<b>3,897,967</b>	<b>8,442,947</b>
5 Years (2016 to 2020)	4,158,894	763,143	<b>4,922,038</b>	2,950,016	601,900	<b>3,551,916</b>	<b>8,473,953</b>

Source: Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) Annual Firearms Manufacturing and Export Report (AFMER). Data is in total units and represents the number of firearms "manufactured and disposed of in commerce during the calendar year." Totals include firearms sold for export and law enforcement, but not military sales.

2021 Interim data prepared July 18, 2022. The interim report indicates preliminary data for which the following number of units were reported as manufactured by the manufacturer. This interim AFMER report represents firearms (including separate frames or receivers, actions or barreled actions) manufactured and disposed of in commerce during the calendar year.

Year	Pistols	Revolvers	Total Handguns	Rifles	Shotguns	Total Long-Guns	Production Total
<b>MANUFACTURED</b>							
2021 Interim	6,751,742	1,159,916	<b>7,911,658</b>	3,933,398	675,450	<b>4,608,848</b>	<b>12,520,506</b>

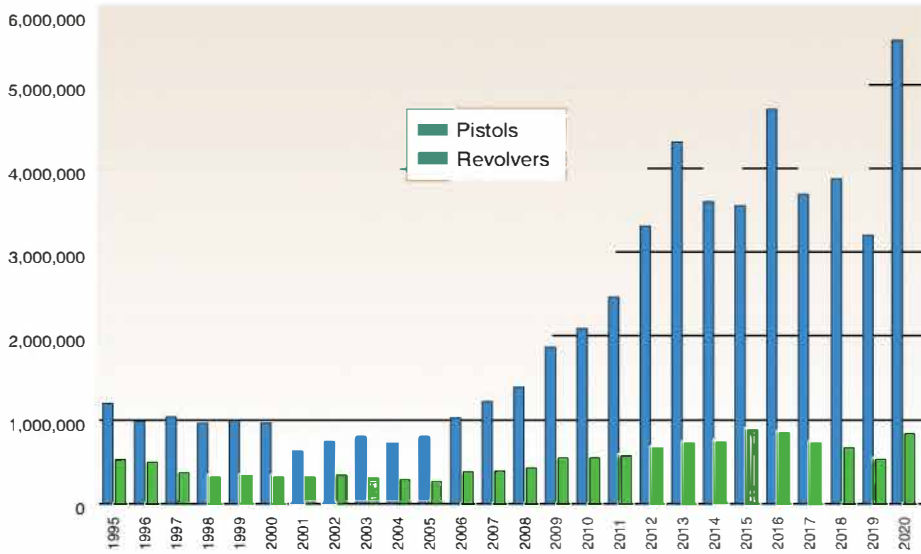
The full 2021 report is expected to be available approximately February 2022. Look for it at [www.atf.gov](http://www.atf.gov).



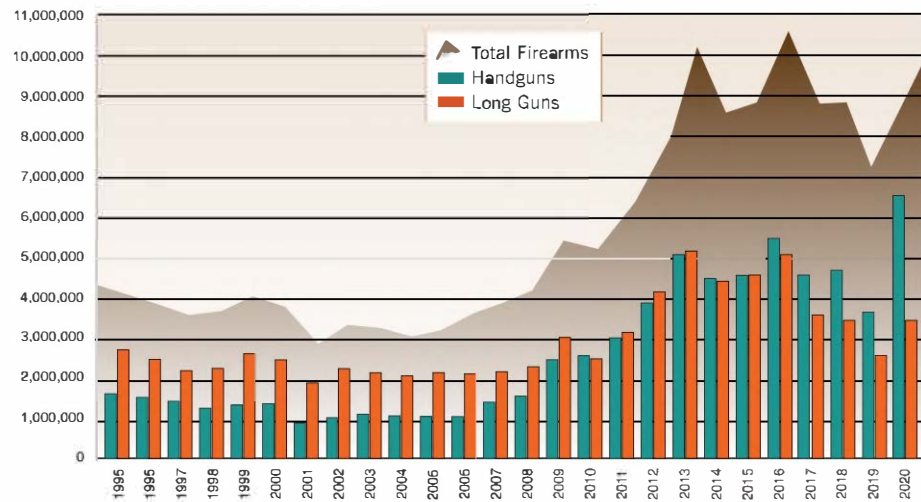
**INDUSTRY INTELLIGENCE REPORTS**

**U.S. Firearm Production (1995 – 2020)**

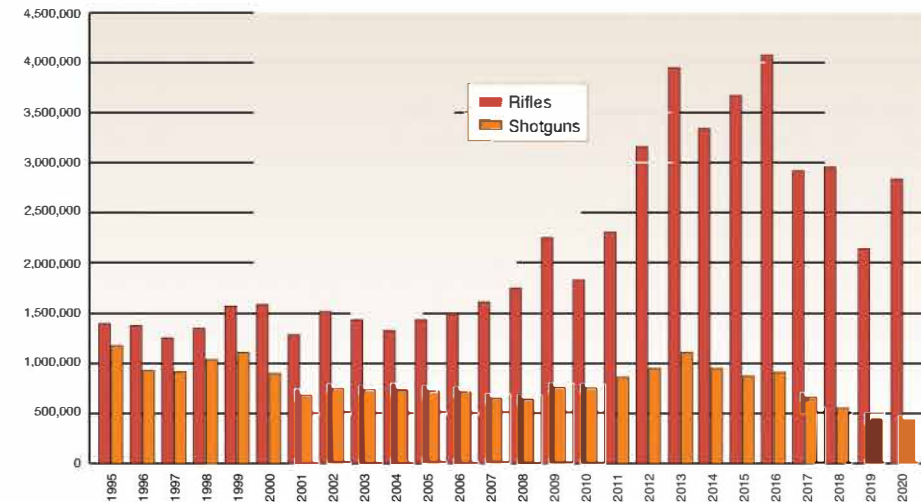
**Handguns**



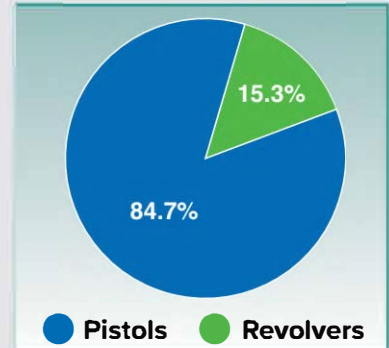
**Total Production**



**Long Guns**



**2020 Production At A Glance**



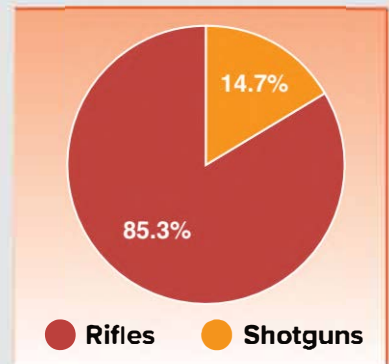
**Pistols by Caliber**

To .22	678,967	12.3%
To .25	195,992	3.6%
To .32	56,887	1.0%
To .380	659,899	12.0%
To 9mm	3,211,775	58.3%
To .50	705,663	12.8%
<b>Total</b>	<b>5,509,183</b>	<b>100.0%</b>

**Revolver by Caliber**

To .22	597,015	60.1%
To .32	4,124	0.4%
To .357 M	181,585	18.3%
To .38 Sp	152,921	15.4%
To .44 M	27,151	2.7%
To .50	30,282	3.0%
<b>Total</b>	<b>993,078</b>	<b>100.0%</b>

NOTE: Caliber designations as reported in ATF reports are preceded by the word "to." This represents a range of calibers in a category. For example, the pistol "To .50" category includes .40 and .45-caliber models among others that are larger than 9mm.

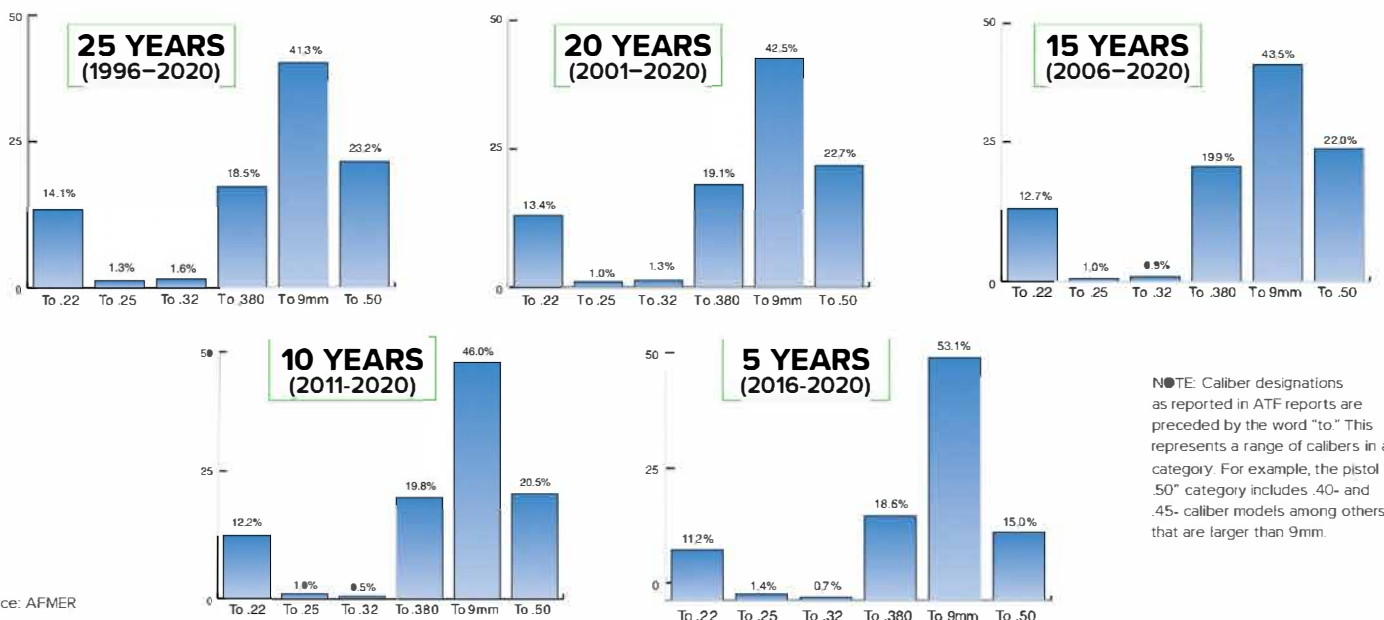


Source: AFMER

## U.S. Pistol Production by Caliber (1990 – 2020)

Year	To .22	To .25	To .32	To .380	To 9mm	To .50	TOTALS
1990	351,456	239,345	56,297	172,051	348,679	203,599	1,371,427
1991	306,088	252,370	55,007	215,595	358,228	190,964	1,378,252
1992	352,621	253,955	50,916	371,095	468,182	172,768	1,669,537
1993	452,509	277,306	52,268	508,469	586,039	216,771	2,093,362
1994	449,495	119,769	25,972	313,915	750,693	344,454	2,004,298
1995	260,059	51,025	19,220	182,801	398,472	283,707	1,195,284
1996	206,485	41,156	20,709	166,089	319,696	233,393	987,528
1997	250,983	43,103	43,623	154,046	303,212	241,110	1,036,077
1998	184,836	50,936	62,338	98,266	284,374	279,615	960,365
1999	229,852	24,393	52,632	81,881	270,298	336,390	995,446
2000	184,577	23,198	60,527	108,523	277,176	308,900	962,901
2001	123,374	5,697	57,823	41,634	213,378	184,930	626,836
2002	144,722	10,009	53,999	59,476	205,197	268,111	741,514
2003	189,785	10,987	43,471	79,788	219,668	267,961	811,660
2004	211,473	10,140	32,435	68,291	182,493	223,679	728,511
2005	139,178	10,455	29,024	107,386	299,681	217,701	803,425
2006	141,651	9,625	39,197	126,939	352,383	351,465	1,021,260
2007	180,419	11,361	43,914	138,484	391,312	454,174	1,219,664
2008	195,633	14,586	40,485	278,945	421,746	435,876	1,387,271
2009	320,697	15,053	47,396	390,897	586,364	507,861	1,868,268
2010	320,237	21,722	39,792	615,630	591,876	498,320	2,087,577
2011	357,884	19,182	13,890	537,063	838,957	697,279	2,464,255
2012	586,625	9,853	11,248	582,645	1,175,564	945,146	3,311,081
2013	554,431	18,578	6,591	852,663	1,653,900	1,228,387	4,314,550
2014	410,747	19,097	10,494	873,087	1,254,582	1,034,570	3,602,577
2015	410,041	11,567	14,763	819,103	1,531,033	766,528	3,553,035
2016	439,628	13,174	10,269	1,129,761	2,275,660	837,438	4,705,930
2017	408,705	11,135	8,152	848,425	1,756,618	657,971	3,691,006
2018	417,805	25,370	30,306	760,044	2,062,010	546,809	3,842,344
2019	382,168	53,402	44,923	470,857	1,729,833	364,826	3,046,009
2020	678,967	195,992	56,887	659,899	3,211,775	705,663	5,509,183
<b>TOTALS</b>	<b>9,843,131</b>	<b>1,873,541</b>	<b>1,134,568</b>	<b>11,813,748</b>	<b>25,319,079</b>	<b>14,006,366</b>	<b>63,990,433</b>

### Percentage of Pistols produced in the U.S. by caliber



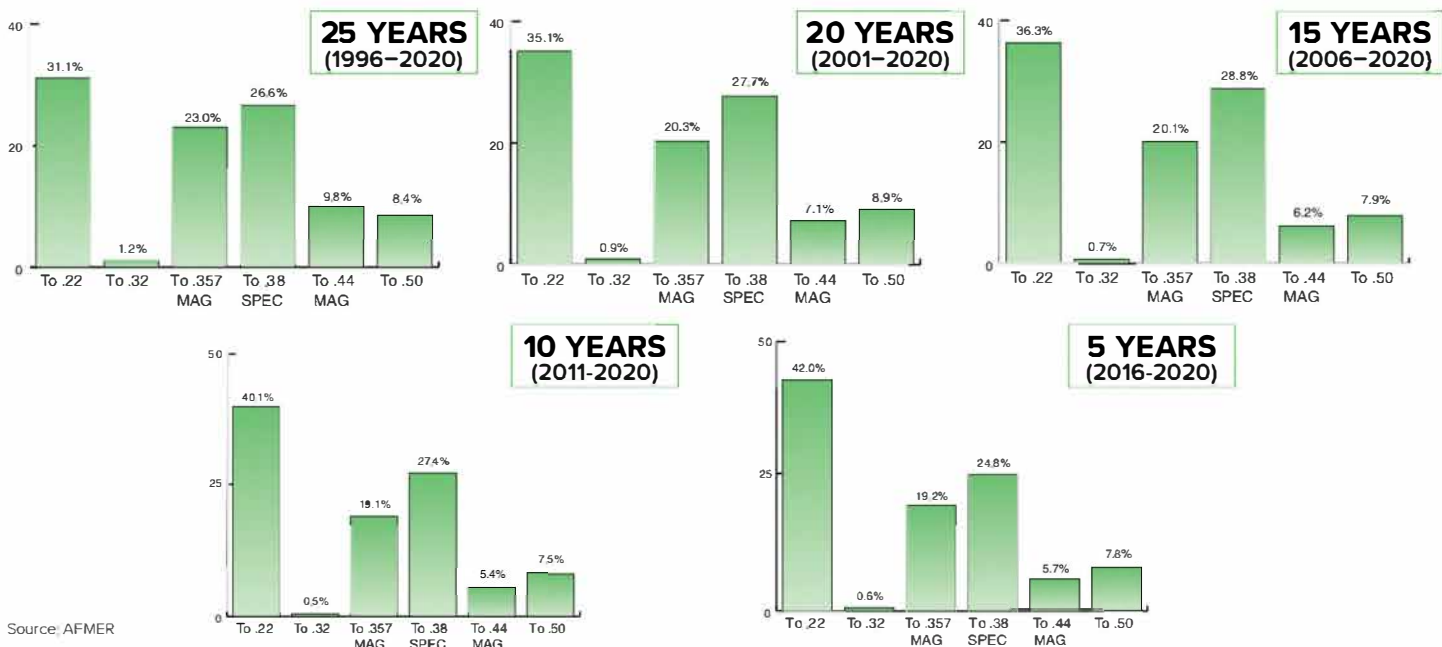
Source: AFMER

**INDUSTRY INTELLIGENCE REPORTS**

**U.S. Revolver Production by Caliber (1990 – 2020)**

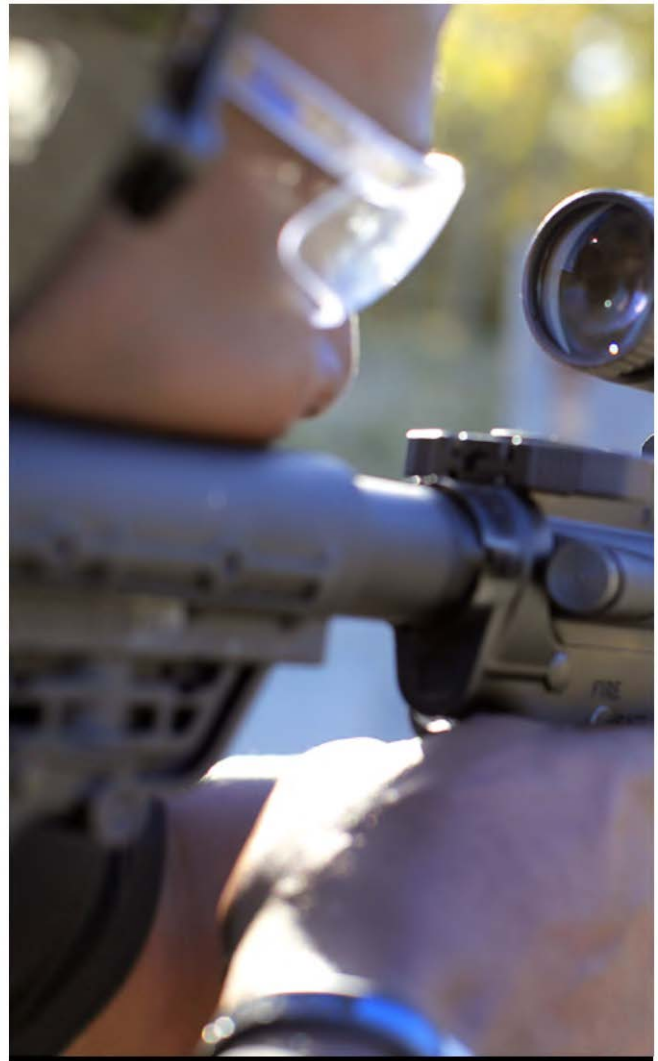
Year	To .22	To .25	To .32	To .380	To 9mm	To .50	TOTALS
1990	97,728	24,049	127,095	136,733	65,311	19,579	470,495
1991	79,676	10,957	155,237	121,387	76,582	13,127	456,966
1992	74,408	10,243	168,720	120,721	80,705	14,616	469,413
1993	122,614	10,421	183,328	146,767	70,381	28,781	562,292
1994	133,990	9,160	170,856	146,630	89,713	36,101	586,450
1995	99,578	4,381	210,379	92,913	90,144	30,269	527,664
1996	127,119	3,083	134,910	115,432	80,456	37,944	498,944
1997	109,296	3,876	70,792	85,935	61,324	39,205	370,428
1998	68,108	2,602	73,905	77,289	64,236	38,250	324,390
1999	80,140	5,844	68,174	86,356	55,957	39,313	335,784
2000	79,472	1,598	81,017	59,339	46,931	50,603	318,960
2001	77,433	5,003	50,120	85,628	39,515	62,444	320,143
2002	86,806	17,599	95,570	51,472	46,080	49,543	347,070
2003	108,518	3,928	59,591	57,078	46,533	33,716	309,364
2004	88,570	3,446	62,640	54,842	35,097	49,504	294,099
2005	63,333	2,297	68,476	68,785	25,802	45,512	274,205
2006	84,452	2,242	99,562	85,321	54,308	56,184	382,069
2007	91,963	3,509	93,320	104,498	46,719	51,325	391,334
2008	115,511	6,681	105,944	133,621	31,135	38,861	431,753
2009	141,840	7,590	107,834	232,339	29,967	27,977	547,547
2010	131,543	8,605	126,525	210,762	45,361	36,131	558,927
2011	153,749	5,182	125,237	206,191	35,791	46,707	572,857
2012	234,164	1,717	126,594	203,005	36,116	65,761	667,357
2013	226,749	1,914	149,730	238,384	46,466	62,039	725,282
2014	200,739	5,260	151,635	283,990	41,640	60,783	744,047
2015	278,784	9,413	185,976	225,782	48,170	136,453	884,578
2016	320,773	7,851	182,564	248,143	51,451	45,506	856,288
2017	319,364	1,715	134,053	177,956	42,062	45,767	720,917
2018	271,553	1,100	113,394	199,028	42,434	37,323	664,832
2019	365,440	1,674	95,094	67,821	26,507	24,065	580,601
2020	597,015	4,124	152,921	181,585	27,151	30,282	993,078
<b>TOTALS</b>	<b>5,030,428</b>	<b>187,064</b>	<b>3,731,193</b>	<b>4,305,733</b>	<b>1,580,045</b>	<b>1,353,671</b>	<b>16,188,134</b>

**Percentage of Revolvers produced in the U.S. by caliber**



## Estimated Modern Sporting Rifles in the United States 1990 – 2020

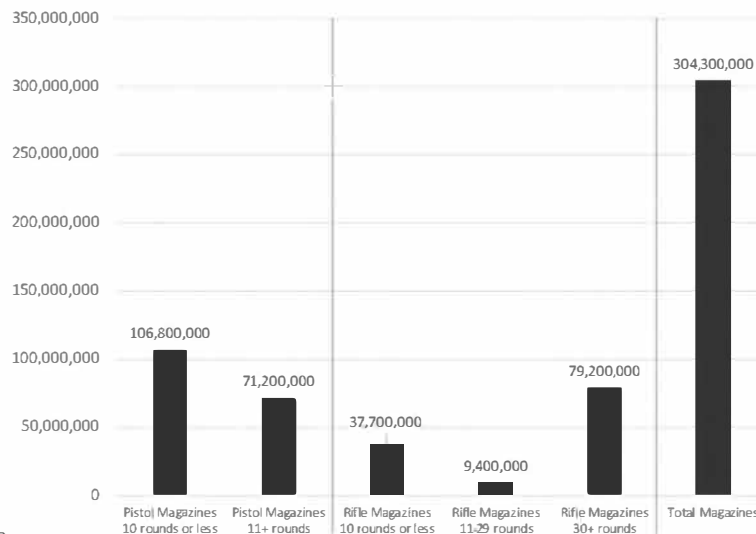
Year	US Production less exports of MSR/AR platform	US Import less exports of MSR/AR, AK platform	ANNUAL TOTAL
1990	43,000	31,000	74,000
1991	46,000	69,000	115,000
1992	33,000	72,000	105,000
1993	62,000	226,000	288,000
1994	103,000	171,000	274,000
1995	54,000	77,000	131,000
1996	27,000	43,000	70,000
1997	44,000	81,000	125,000
1998	70,000	75,000	145,000
1999	113,000	119,000	232,000
2000	86,000	130,000	216,000
2001	60,000	119,000	179,000
2002	97,000	145,000	242,000
2003	118,000	262,000	380,000
2004	107,000	207,000	314,000
2005	141,000	170,000	311,000
2006	196,000	202,000	398,000
2007	269,000	229,000	498,000
2008	444,000	189,000	633,000
2009	692,000	314,000	1,006,000
2010	444,000	140,000	584,000
2011	653,000	163,000	816,000
2012	1,308,000	322,000	1,630,000
2013	1,882,000	393,000	2,275,000
2014	950,000	237,000	1,187,000
2015	1,360,000	245,000	1,605,000
2016	2,217,000	230,000	2,447,000
2017	1,406,000	158,000	1,564,000
2018	1,731,000	225,000	1,956,000
2019	1,679,000	169,000	1,848,000
2020	2,466,000	332,000	2,798,000
TOTALS	18,901,000	5,545,000	24,446,000



Source: ATF AFMER, US ITC, Industry estimates

## NSSF® Magazine Chart

Estimated 304 Million Detachable Pistol and Rifle Magazines in U.S. Consumer Possession 1990 – 2018



Source: ATF AFMER, US ITC, Industry estimates  
 Note: Magazine update is not available at this time

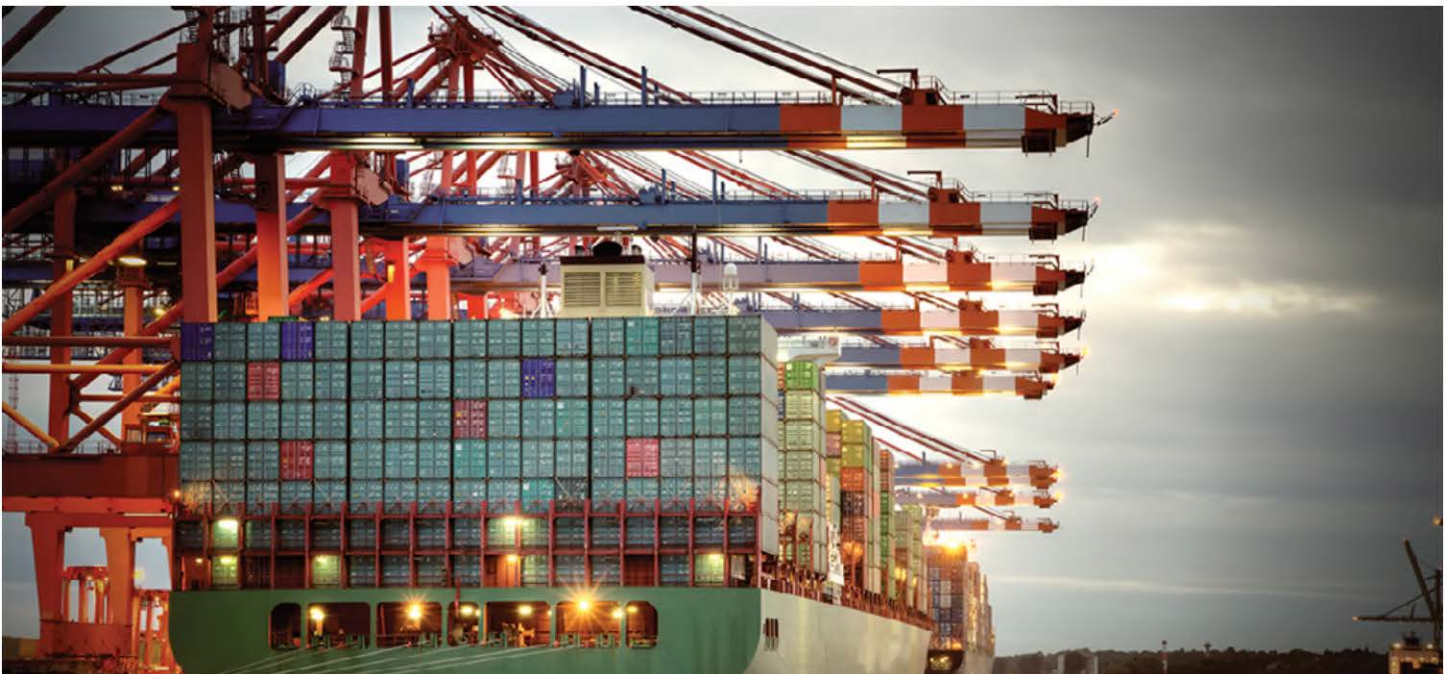


## U.S. Manufacturers Direct Exports at a Glance (2020)

PISTOL MANUFACTURER	EXPORTS
SIG SAUER INC	252,601
GLOCK INC	74,299
SMITH & WESSON SALES COMPANY / SMITH & WESSON INC.	25,303
STURM, RUGER & COMPANY, INC	8,887
TAURUS INTERNATIONAL MANUFACTURING, INC	5,010
BERETTA USA CORP	3,335
BROWNING ARMS COMPANY	2,622
COLT'S MANUFACTURING COMPANY LLC	963
KIMBER MFG INC	952
ZEV TECHNOLOGIES INC	808
GUNFIGHTER TACTICAL, LLC	765
KEL TEC CNC INDUSTRIES INC	626
STI FIREARMS, LLC	599
RAINIER ARMS LLC	552
MAGNUM RESEARCH INC	456
TEXAS ARMAMENT & TECHNOLOGY LLC	414
SPRINGFIELD INC	409
KRISS USA, INC	384
DIAMONDBACK FIREARMS LLC	360
HENRY RAC HOLDING CORP	326
ANGSTADT ARMS LLC	321
STRAYER-VOIGT LLC	287
MAVERICK ARMS, INC	271
CENTRE FIREARMS CO INC	245
LES BAER CUSTOM INC	229
FMK FIREARMS INCORPORATED	190
SAEILO, INC	134
POLYMER80 INC	133
DANIEL DEFENSE LLC	114
WILSONS GUN SHOP INC	110
TIPPMANN ARMS COMPANY LLC	101
<b>PISTOL TOTAL</b>	<b>382,758</b>
REVOLVER MANUFACTURER	EXPORTS
SMITH & WESSON SALES COMPANY / SMITH & WESSON INC.	9,335
STURM, RUGER & COMPANY, INC	7,415
COLT'S MANUFACTURING COMPANY LLC	1,501
CHARCO 2000 INC	373
NORTH AMERICAN ARMS INC	273
KIMBER MFG INC	166
HERITAGE MANUFACTURING, INC	137
<b>REVOLVER TOTAL</b>	<b>19,264</b>
SHOTGUN MANUFACTURER	EXPORTS
MAVERICK ARMS, INC	16,401
BERETTA USA CORP	671
KEL TEC CNC INDUSTRIES INC	388
HENRY RAC HOLDING CORP	215
<b>SHOTGUN TOTAL</b>	<b>17,675</b>

RIFLE MANUFACTURER	EXPORTS
STURM, RUGER & COMPANY, INC	46,993
BEAR CREEK ARSENAL LLC	10,000
HENRY RAC HOLDING CORP	5,158
MAVERICK ARMS, INC	5,132
SMITH & WESSON SALES COMPANY / SMITH & WESSON INC.	4,698
LEGACY SPORTS INTERNATIONAL INC	3,408
KEL TEC CNC INDUSTRIES INC	2,718
BP FIREARMS COMPANY LLC	2,626
DIAMONDBACK FIREARMS LLC	1,685
COLT'S MANUFACTURING COMPANY LLC	1,516
SIG SAUER INC	1,418
KRISS USA, INC	1,413
TIPPMANN ARMS COMPANY LLC	1,341
TEXAS ARMAMENT & TECHNOLOGY LLC	1,245
TDJ BUYER, LLC	831
FREEDOM ORDNANCE MANUFACTURING INC	775
JUST RIGHT CARBINES INC	659
BARRETT FIREARMS MFG INC	653
TNW FIREARMS INC	615
M+MINC	576
DANIEL DEFENSE LLC	558
TROY INDUSTRIES INC	539
WEATHERBY INC	513
STRATEGIC ARMORY CORPS LLC	389
DESERT TECH LLC	376
SPRINGFIELD INC	215
WINDHAM WEAPONRY INC	213
BROWNING ARMS COMPANY	206
RAINIER ARMS LLC	153
PNEU DART INC	153
FEDERAL ARMAMENT LLC	150
AERO PRECISION LLC	137
MAX LLC	136
MASTERPIECE ARMS HOLDING COMPANY	136
LEWIS MACHINE & TOOL CO	129
CGS SUPPRESSORS LLC	110
SAEILO, INC	107
<b>RIFLE TOTAL</b>	<b>99,454</b>

Source: Annual Firearms Manufacturing and Export Report (AFMER) 2020  
 NOTE: A manufacturer that reported exporting less than 100 units does not appear in the tables above. TOTAL includes all reported exports.



Source: AFMER



**INDUSTRY INTELLIGENCE REPORTS**

**Industry Statistics (current Snapshot)**

The data listed on this page is sourced from the most current Census Bureau report. At this time it is the 2020 Annual Survey of Manufacturers. NAICS (North American Industry Classification System) code 332992 represents “Small-Arms Ammunition,” and NAICS code 332 represents “Fabricated-Metal-Product Manufacturing.”

**DEFINITION OF TERMS**

**Employees:** includes all full-time and part-time employees on the payroll of operating manufacturing establishments.

**Production workers:** includes workers (up through the line-supervisor level) actively engaged in the manufacturing process.

**Payroll:** includes the gross earnings of all employees paid in a calendar year.

**Value added:** measure of manufacturing activity derived by subtracting the cost of materials and supplies from the value of shipments (finished products and services rendered).

**Capital expenditures:** represents the total new and used expenditures reported by establishments in operation and any known plants under construction.

**Inventories:** includes products and materials held outside of the establishment, such as in warehouses (private or public).



**\*\*NOTE:** The fabricated metal product manufacturing (NAICS code 332) subsector consists of all of these industry groups. Forging and Stamping: NAICS 3321; Cutlery and Handtool Manufacturing: NAICS 3322; Architectural and Structural Metals Manufacturing: NAICS 3323; Boiler, Tank, and Shipping Container Manufacturing: NAICS 3324; Hardware Manufacturing: NAICS 3325; Spring and Wire Product Manufacturing: NAICS 3326; Machine Shops, Turned Product, and Screw, Nut, and Bolt Manufacturing: NAICS 3327; Coating, Engraving, Heat Treating, and Allied Activities: NAICS 3328. Other Fabricated Metal Product Manufacturing: NAICS 3329.

INDUSTRY STATISTIC	(332) Fabricated Metal Product Manufacturing (2020)	(332992) Firearms Ammunition Manufacturing (2020)	Ammunition Manufacturing as Percent of Total Fabricated Metal Product Manufacturing
<b>Employment &amp; Labor Costs</b>			
Total number of employees	1,343,492	10,977	0.8%
Number of production workers	1,011,030	9,426	0.9%
Production workers annual hours worked	1,887,939,000	19,831,000	1.1%
Production workers annual wages	\$47,933,026,000	\$519,570,000	1.1%
Total annual payroll	\$75,469,174,000	\$643,155,000	0.9%
Total fringe benefits	\$20,380,892,000	\$233,587,000	1.1%
<b>Total annual compensation</b>	<b>\$95,850,066,000</b>	<b>\$876,742,000</b>	<b>0.9%</b>
<b>Purchased Fuels and Electric Energy Used for Heat and Power</b>			
Electric energy purchased (kWh)	37,932,679,000	411,526,000	1.1%
Cost of electric energy	\$3,252,674,000	\$33,983,000	1.0%
Cost of purchased fuels	\$1,109,860,000	\$16,244,000	1.5%
<b>Total cost of fuels and electric energy</b>	<b>\$4,362,534,000</b>	<b>\$50,227,000</b>	<b>1.2%</b>
<b>Capital Expenditures for Plant and Equipment</b>			
Capital expenditures for buildings and other structures	\$2,309,378,000	\$8,403,000	0.4%
Rental or lease payments (buildings and equipment)	\$5,055,694,000	\$27,162,000	0.5%
Capital expenditures for machinery and equipment	\$8,820,818,000	\$49,746,000	0.6%
All other operating expenses	\$27,992,353,000	\$334,686,000	1.2%
<b>Total capital expenditures for plant and equipment</b>	<b>\$44,178,243,000</b>	<b>\$419,997,000</b>	<b>1.0%</b>
<b>Value of Manufacturers' Inventories by Stage of Fabrication</b>			
<b>Beginning of Year</b>			
Finished products	\$19,237,446,000	\$319,370,000	1.7%
Work-in-process	\$13,509,587,000	\$190,649,000	1.4%
Materials and supplies inventories	\$20,004,732,000	\$211,271,000	1.1%
<b>Total</b>	<b>\$52,751,765,000</b>	<b>\$721,290,000</b>	<b>1.4%</b>
<b>End of Year</b>			
Finished products	\$18,222,956,000	\$279,561,000	1.5%
Work-in-process	\$12,616,987,000	\$208,664,000	1.5%
Materials and supplies inventories	\$19,275,587,000	\$242,536,000	1.1%
<b>Total</b>	<b>\$50,115,530,000</b>	<b>\$730,761,000</b>	<b>1.5%</b>
<b>Manufacturing Activity</b>			
<b>Total value of shipments</b>	<b>\$347,335,687,000</b>	<b>\$4,847,392,000</b>	<b>1.4%</b>
<b>Total cost of materials</b>	<b>\$155,012,288,000</b>	<b>\$2,199,271,000</b>	<b>1.4%</b>
<b>Value added</b>	<b>\$190,416,311,000</b>	<b>\$2,626,326,000</b>	<b>1.4%</b>

Source: 2020 Annual Survey of Manufacturers (ASM)

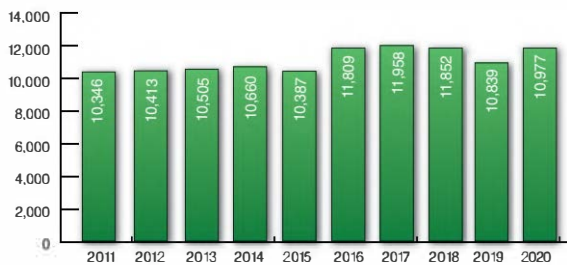
## Manufacturing Trends

Small Arms Ammunition (NAICS 332992)

### ALL EMPLOYEES (NUMBER)

#### 10-Year Average

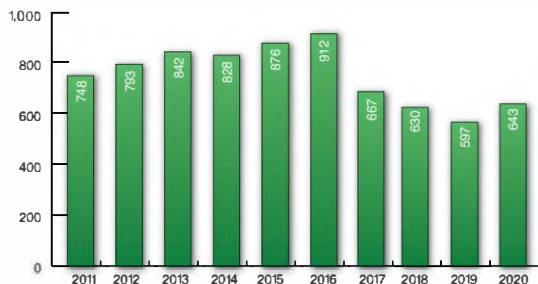
Small Arms Ammunition: **10,975**



### PAYROLL (\$ IN MILLIONS)

#### 10-Year Average

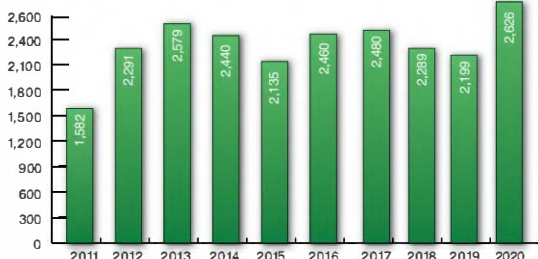
Small Arms Ammunition: **\$754M**



### VALUE ADDED (\$ IN MILLIONS)

#### 10-Year Average

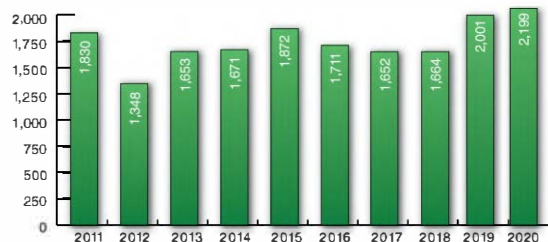
Small Arms Ammunition: **\$2,308M**



### COST OF MATERIALS (\$ IN MILLIONS)

#### 10-Year Average

Small Arms Ammunition: **\$1,760M**



Source: U.S. Census Bureau Annual Survey of Manufacturers (ASM) and Economic Census reports

### U.S. Ammunition Consumer Market Unit Estimate

Category	2012	2015	2018
Shotshell	1.4 billion	1.4 billion	1.0 billion
Rimfire	4.5 billion	5.4 billion	4.1 billion
Centerfire	3.6 billion	3.7 billion	3.6 billion
<b>TOTALS</b>	<b>9.5 billion</b>	<b>10.5 billion</b>	<b>8.7 billion</b>

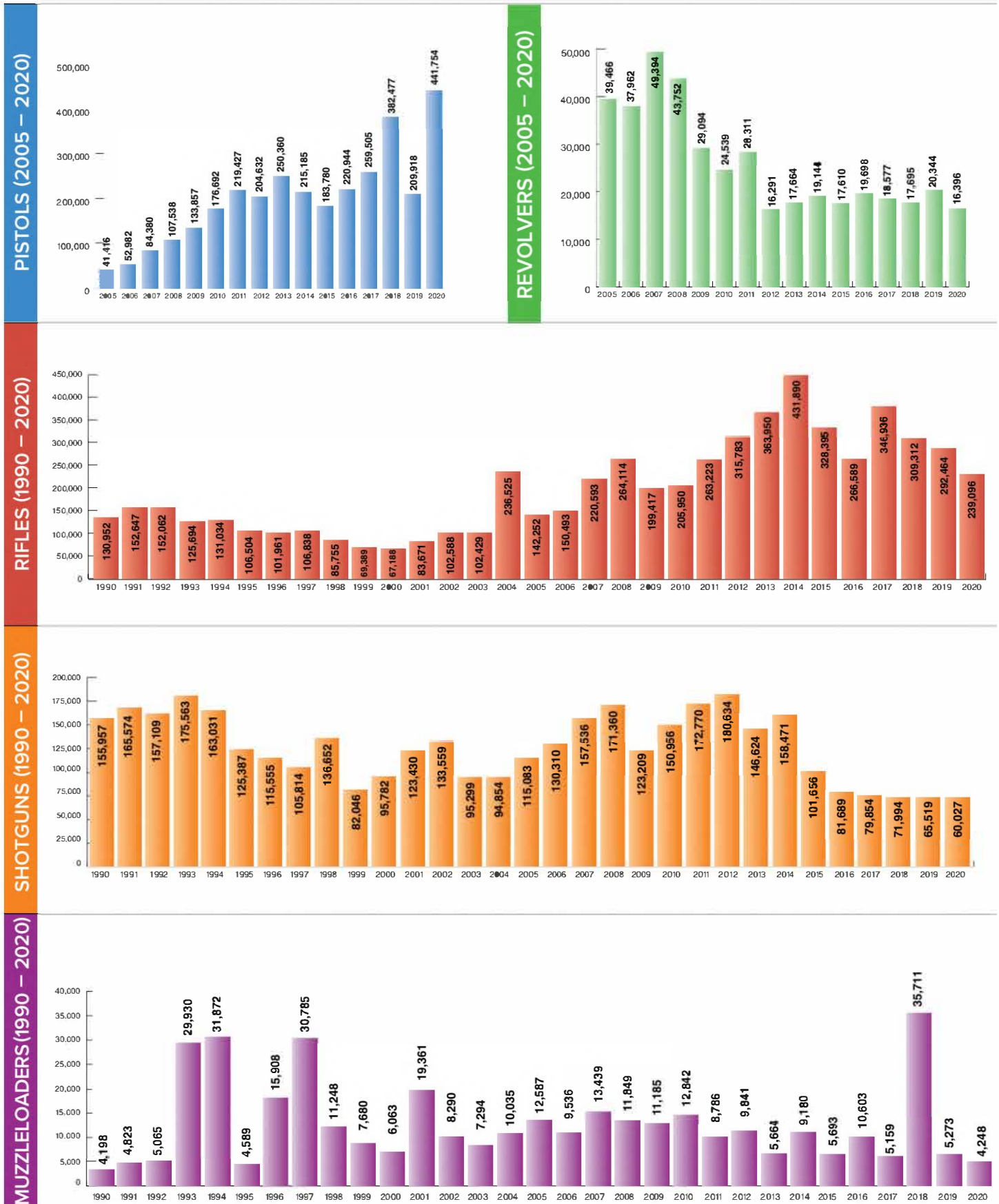
Source: USITC and NSSF Estimates  
Note: Update is not available







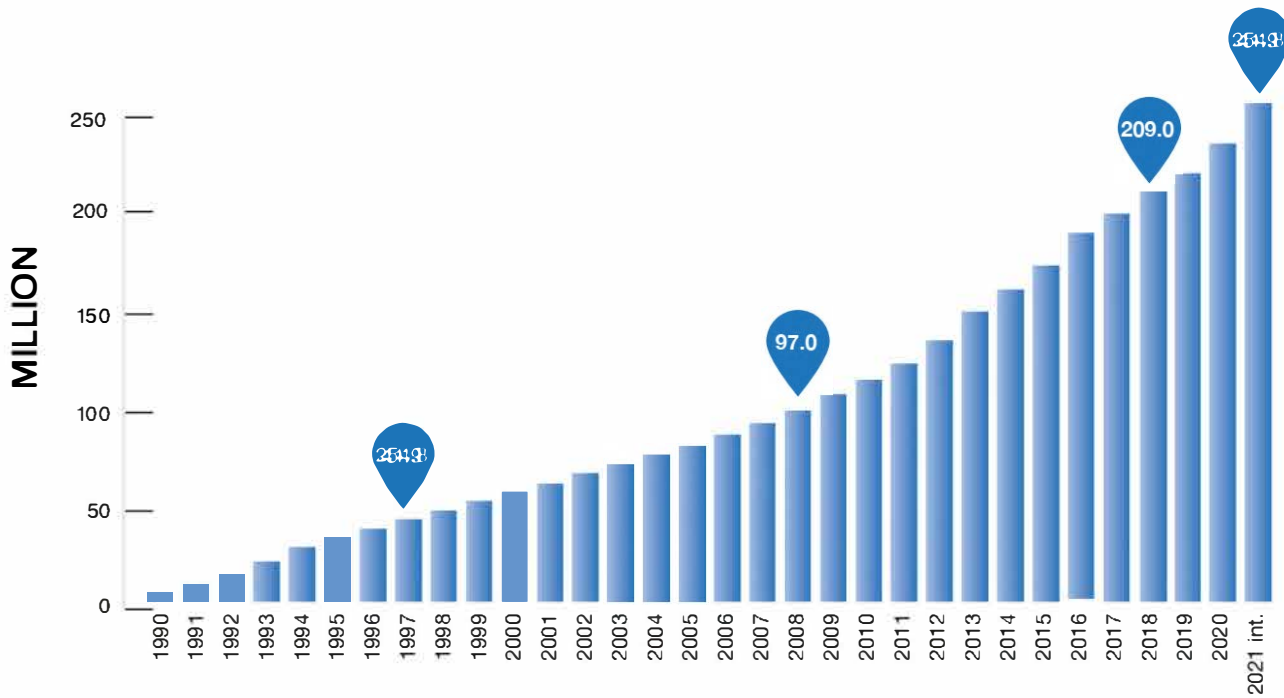
## U.S. Firearms Total Exports (1990 – 2020) (in actual units of quantity)



Source: U.S. International Trade Commission (USITC)



## Firearms to U.S. Market (1990 – 2021 Interim)



CUMULATIVE ANNUAL FIREARM PRODUCTION PLUS (+) IMPORTS LESS (-) EXPORTS

Source: AFMER and U.S. International Trade Commission (USITC)

FACT

From 1990 to 2020, more than 254.8 million firearms have been made available to the U.S. market.

Estimated Number of Semi-Automatic Firearms for U.S. Market 1990 - 2020	
Estimated Semi-Automatic Handguns	100,000,000
Estimated Semi-Automatic Shotguns	13,000,000
Estimated Semi-Automatic Rifles	44,500,000
<b>ESTIMATED TOTAL SEMI-AUTOMATIC FIREARMS 1990 - 2020</b>	<b>157,500,000</b>
Sources: USITC, ATF AFMER & NSSF estimates	

During the 31-year period covered in this report (1990 – 2020),

**the violent crime rate has decreased by →**

**and unintentional firearm-related fatalities have declined by →**

29.8

percent

66.2

percent

Sources: 2020 FBI Uniform Crime Reports and National Safety Council Injury Facts (online, for 2020 data)



## INDUSTRY INTELLIGENCE REPORTS

### KEY FINDINGS

- The latest figures show that 71.1% of U.S. pistol production fell into either the “up to” 9mm calibers (58.3%) or the “up to”.50 calibers (12.8%).
- The 2020 top-25 U.S. firearm manufacturers accounted for 88.0% of the U.S. production total for the year.
- Smith & Wesson Inc. topped the list in 2020 accounting for 23.8% of total firearm production in the U.S. reported, followed by Sturm, Ruger & Company, Inc. 17.0%; Sig Sauer Inc. 11.1%; Glock Inc. 4.6%; Springfield Inc. 4.0%; and Maverick Arms, Inc. 3.5%.
- Firearm-ammunition manufacturing accounted for nearly 11,000 employees producing over \$4.8 billion in goods shipped in 2020.
- In 2020, the greatest number of imported pistols came from Austria (1,278,624) representing 32.6% of all imported pistols. Austria was followed by Brazil with 849,207 or 21.6%, Croatia 13.3% with 521,932 units, and 8.8% were imported from Turkey (344,782).
- Brazil was the source of the greatest number of revolvers imported in 2020 (186,796), followed by Italy with 44,796, Philippines 23,120, and 19,234 imported from Germany .
- The greatest number of shotguns imported in 2020 came from Turkey (1,045,615), China (205,462) and Italy (175,756); and for rifles, Canada (212,218), Brazil (120,864) and Japan (78,239). Spain (118,475) was the source of the highest of number of muzzleloaders imported, followed by Italy (35,942).
- According to USITC data, the U.S. exported 761,521 total firearms in 2020 as compared with 593,618 in 2019 — an increase of 28.3 percent.
- According to data in reports such as ATF Firearms Commerce in the United States, ATF Annual Firearms Manufacturing and Exportation Reports and Congressional Research Service, the estimated total number of overall firearms in civilian possession is 473.7 million.

### SOURCES

<p><b>Total Production</b></p>	<p>Detail data source: The 2020 Annual Firearms Manufacturing and Export Report (AFMER). This annual report is prepared by the office of Firearms and Explosives Services Division (FESD), Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF), Washington D.C. (Historical analysis conducted by NSSF.) For purposes of this report only, “Production” is defined as firearms, including separate frames, receivers, actions or barreled actions, manufactured and disposed of in commerce during each calendar year. The ATF’s latest full AFMER is for calendar year 2020, since the agency embargoes the data for a period of one year. Production totals data source: The AFMER 2020 as reported through March 10, 2021 -- reviewed/adjusted by NSSF (adjustments are noted on page 2).  <b>For more information visit <a href="https://atf.gov/content/about/statistics">atf.gov/content/about/statistics</a></b></p>
<p><b>Manufacturing Trends</b></p>	<p>U.S. Census Bureau: Economic Census, 2020 Annual Survey of Manufactures: Tables.                  The 2020 data is available through the U.S. Census Bureau website:  <a href="https://www.census.gov/programs-surveys/asm/data/tables.html">https://www.census.gov/programs-surveys/asm/data/tables.html</a>                  Historical analysis conducted by NSSF.</p>
<p><b>Firearm Imports for Consumption / Total Exports</b></p>	<p>U.S. Department of Commerce and the U.S. International Trade Commission (USITC) - Interactive Tariff and Trade DataWeb: <a href="https://dataweb.usitc.gov">dataweb.usitc.gov</a>                  U.S. Census Bureau for corrections to import/export data prior to year 2010 may be found at <a href="https://census.gov/foreign-trade/statistics/corrections/index.html">census.gov/foreign-trade/statistics/corrections/index.html</a></p>
<p><b>Manufacturers Export</b></p>	<p>The 2020 Annual Firearms Manufacturing and Export Report (AFMER) <a href="https://atf.gov/content/about/statistics">atf.gov/content/about/statistics</a></p>



Report provided by NSSF. For additional research materials, please visit [nssf.org/research](https://nssf.org/research)

# EXHIBIT C

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IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF COLORADO

Civil Action No. 22-cv-2680

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ROCKY MOUNTAIN GUN OWNERS, NATIONAL ASSOCIATION FOR  
GUN RIGHTS, CHARLES BRADLEY WALKER, BRYAN LAFONTE,  
CRAIG WRIGHT, and GORDON MADONNA, JAMES MICHAEL  
JONES, and MARTIN CARTER KEHOE,  
Plaintiffs,

V.

THE TOWN OF SUPERIOR, CITY OF LOUISVILLE, COLORADO,  
CITY OF BOULDER, COLORADO, and BOARD OF COUNTY  
COMMISSIONERS OF BOULDER COUNTY,  
Defendants.

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REMOTE VIDEO-RECORDED DEPOSITION  
OF  
MARK WILLIAM PASSAMANECK  
FRIDAY, JULY 28, 2023

<p style="text-align: right;">Page 2</p> <p>1 APPEARANCES</p> <p>2</p> <p>3</p> <p>4 For Plaintiffs: ARRINGTON LAW FIRM</p> <p>5 By: Barry Arrington, Esq.</p> <p>6 3801 East Florida Avenue</p> <p>7 Suite 830</p> <p>8 Denver, CO 80210</p> <p>9 (303) 205-7870</p> <p>10 barry@arringtonpc.com</p> <p>11</p> <p>12 For Defendants DAVIS POLK &amp; WARDWELL, LLP</p> <p>13 Superior, By: Hendrik van Hemmen, Esq.</p> <p>14 et al.: Matthew Hanner, Esq.</p> <p>15 450 Lexington Avenue</p> <p>16 11th Floor</p> <p>17 New York, NY 10017</p> <p>18 (212) 450-3391</p> <p>19 hendrik.vanhemmen@davispolk.com</p> <p>20 matthew.haner@davispolk.com</p> <p>21</p> <p>22 For Defendants VAUGHAN &amp; DEMUIRO</p> <p>23 Superior &amp; By: Gordon Vaughan, Esq.</p> <p>24 Louisville: 111 S Tejon Street</p> <p>25 Colorado Springs, CO 80903</p> <p>(719) 578-5500</p> <p>gvaughan@vaughandemuro.com</p> <p>Also Present: Jerry DeBoer, Videographer</p>	<p style="text-align: right;">Page 4</p> <p>1 Exhibit 11 Mark Passamaneck Curriculum Vitae 39</p> <p>2</p> <p>3 Exhibit 12 Staff Summary of Meeting of the Senate Committee on the Judiciary 62</p> <p>4</p> <p>5 Exhibit 13 NSSF Report Copyright 2020 86</p> <p>6</p> <p>7 Exhibit 14 2022 Washington Post Survey 88</p> <p>8</p> <p>9 Exhibit 15 2021 National Firearms Survey 89</p> <p>10</p> <p>11 Exhibit 16 Estimating AR15 Production, 1964-2017 102</p> <p>12</p> <p>13 Exhibit 17 Screenshots from Facebook Messenger between Mark Passamaneck and Duane Liptak 180</p> <p>14</p> <p>15 Exhibit 18 Congressional Research Service 228</p> <p>16</p> <p>17 Exhibit 19 Expert Report of Louis Klarevas 229</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p>
<p style="text-align: right;">Page 3</p> <p>1 INDEX</p> <p>2</p> <p>3 EXAMINATIONS: PAGE</p> <p>4 MARK WILLIAM PASSAMANECK</p> <p>5 Examination By Mr. van Hemmen 8</p> <p>6 Examination By Mr. Arrington 218</p> <p>7 Examination By Mr. van Hemmen 249</p> <p>8</p> <p>9 EXHIBITS</p> <p>10</p> <p>11 No. Description Identified</p> <p>12 Exhibit 1 Mark Passamaneck Initial Report 10</p> <p>13</p> <p>14 Exhibit 2 Supplemental Report of Mark Passamaneck 13</p> <p>15</p> <p>16 Exhibit 3 Rebuttal Report of Louis Klarevas 16</p> <p>17</p> <p>18 Exhibit 4 Expert rebuttal report of James Yurgealitis 17</p> <p>19</p> <p>20 Exhibit 5 Initial report of James Yurgealitis 17</p> <p>21</p> <p>22 Exhibit 6 Town of Superior Ordinance 19</p> <p>23</p> <p>24 Exhibit 7 City of Boulder Ordinance 20</p> <p>25</p> <p>26 Exhibit 8 Boulder County Ordinance 20</p> <p>27</p> <p>28 Exhibit 9 City of Louisville Ordinance 20</p> <p>29</p> <p>30 Exhibit 10 Transcript of Deposition Testimony of Mark Passamaneck dated May 31, 2023 29</p>	<p style="text-align: right;">Page 5</p> <p>1 PURSUANT TO WRITTEN NOTICE and the</p> <p>2 appropriate rules of civil procedure, the</p> <p>3 Remote Video-Recorded Deposition of MARK WILLIAM</p> <p>4 PASSAMANECK, called for examination by the Defendant,</p> <p>5 was taken via Zoom, commencing at 9:06 on Friday,</p> <p>6 July 28, 2023, before Jennifer L. Smith, California</p> <p>7 CSR No. 10358, Washington CCR No. 3101, RMR, CRR,</p> <p>8 CRC, and Notary Public in and for the State of</p> <p>9 Colorado.</p> <p>10</p> <p>11</p> <p>12</p> <p>13</p> <p>14</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p>

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1 PROCEEDINGS

2

3 THE VIDEOGRAPHER: Good morning. We are

4 going on the record at 9:06 AM Mountain Time on

5 July 28, 2023.

6 Please note that this deposition is being

7 conducted virtually. Quality of recording depends on

8 the quality of camera, microphone, and Internet

9 connection of participants. What is seen from the

10 witness and heard on the screen is what will be

11 recorded. Audio and video recording will continue to

12 take place unless all parties agree to go off the

13 record.

14 This is Media Unit 1 of the video-recorded

15 deposition of Mark Passamaneck, taken by counsel for

16 the defendants in the matter of Rocky Mountain Gun

17 Owners, et al., versus the Town of Superior, et al.,

18 filed in the United States District Court for the

19 District of Colorado, Case Number 22-cv-2680.

20 This deposition is being held remotely via

21 Zoom. My name is Jerry DeBoer, representing Veritext

22 Legal Solutions, and I'm the videographer. The court

23 reporter is Jennifer Smith, for the firm of Veritext

24 Legal Solutions.

25 I am not related to any party in this

Page 7

1 action, nor am I financially interested in the

2 outcome.

3 Counsel and everyone attending remotely will

4 now state their appearances and affiliations for the

5 record. If there are any objections to proceeding,

6 please state them at the time of your appearance,

7 beginning with the noticing attorney.

8 MR. VAN HEMMEN: This is Hendrik van Hemmen.

9 I am representing the defendants, Superior, et al.

10 MR. ARRINGTON: Barry Arrington for the

11 plaintiffs.

12 MR. VAUGHAN: Gordon Vaughn for Superior and

13 also for -- lost my mind.

14 MR. ARRINGTON: Louisville, I think, Gordon.

15 MR. VAUGHAN: Thank you. Louisville.

16 MR. HANNER: Matthew Hanner with the

17 defense.

18 MR. ARRINGTON: Jennifer, you don't play a

19 major role in terms of speaking, but to the extent

20 you do, I can barely hear you.

21 THE COURT REPORTER: Is that better?

22 MR. ARRINGTON: Much better. Thank you.

23 THE VIDEOGRAPHER: All right. Thank you,

24 Counsel. You may proceed.

25 ///

Page 8

1 MARK WILLIAM PASSAMANECK,

2 having been first duly sworn,

3 was examined and testified as follows:

4

5 EXAMINATION

6 BY MR. VAN HEMMEN:

7 Q. All right. Can you please state your name

8 for the record.

9 A. Mark William Passamaneck.

10 Q. Have you ever been deposed before,

11 Mr. Passamaneck?

12 A. Yes.

13 Q. So I'm sure that none of this is going to be

14 new to you, but I just want to cover a few ground

15 rules before we get started.

16 For the benefit of the court reporter, I

17 will try to avoid speaking over you, and I ask that

18 you avoid speaking over me.

19 In other words, wait for me to finish before

20 you begin speaking, and I'll do the same. Okay?

21 A. Okay.

22 Q. Please also be sure to answer questions

23 verbally. Please don't nod your head or say uh-huh,

24 because it's difficult for the court reporter to get

25 that. All right?

Page 9

1 A. All right.

2 Q. Your attorney may object to certain

3 questions I have, but unless he instructs you not to

4 answer the question, you should still answer my

5 question.

6 Do you understand?

7 A. I do.

8 Q. If you need to take a break at any point,

9 just ask, and we can take a break. I only ask that

10 you answer whatever question I've already asked

11 before we do that.

12 Sound good?

13 A. Correct.

14 Q. All right. And if there's any question that

15 I ask that you don't understand, please just ask me

16 to clarify, and I'll be happy to do that. If you

17 don't understand the question, it's just not helpful

18 to make something up.

19 Does sound good?

20 A. Yes.

21 Q. All right. You're under oath.

22 Do you understand that?

23 A. I do.

24 Q. Is there any reason you can't testify

25 truthfully today?

Page 10

1 A. There is not.  
 2 Q. Have you consumed any alcohol, medication,  
 3 or drugs that would affect your ability to testify  
 4 today?  
 5 A. No.  
 6 Q. Have you consumed anything that affects your  
 7 memory, as you sit here today?  
 8 A. No.  
 9 Q. Great.  
 10 I want to start by introducing a few  
 11 documents that we're going to be using a lot in the  
 12 course of the day of the deposition, starting with --  
 13 Matt, what is labeled as Tab 1 on our list.  
 14 Just let me know when -- okay. It looks  
 15 like it's up in the marked exhibits.  
 16 (Exhibit 1 was identified.)  
 17 BY MR. VAN HEMMEN:  
 18 Q. Are you able to view that?  
 19 A. Do -- I don't have anything yet. It  
 20 actually says I don't have permission.  
 21 Q. Okay.  
 22 MR. ARRINGTON: Go off the record.  
 23 THE VIDEOGRAPHER: Counsel, you agree to go  
 24 off the record?  
 25 MR. ARRINGTON: Hendrik?

Page 11

1 MR. VAN HEMMEN: Yes. Yes. Sorry.  
 2 MR. ARRINGTON: You agree to go off the  
 3 record?  
 4 MR. VAN HEMMEN: Agree to go off the record.  
 5 THE VIDEOGRAPHER: Going off the record.  
 6 The time is 9:11.  
 7 (Recess taken.)  
 8 THE VIDEOGRAPHER: We're back on the record.  
 9 The time is 9:14.  
 10 BY MR. VAN HEMMEN:  
 11 Q. All right. This is a copy of your initial  
 12 report, marked as Exhibit 1.  
 13 Is this the initial report that you  
 14 submitted in this case?  
 15 A. It is.  
 16 Q. Does it contain your opinions?  
 17 A. It does.  
 18 Q. If you go -- scroll down to Page 4, it's the  
 19 last page, actually, because it has the cover page.  
 20 Is that your signature at the bottom?  
 21 A. It is.  
 22 Q. All right. At the top of your report, which  
 23 is Page 3 in this actual file, the date at the top  
 24 says April 12, 2023.  
 25 Is this the date you submitted the report?

Page 12

1 A. Yes.  
 2 Q. We received this report without any  
 3 attachments. So I just want to confirm that that was  
 4 right.  
 5 Are there any missing attachments here?  
 6 A. There should have been two attachments. One  
 7 would be the NSSF 2020 industry report, and the other  
 8 one would be the -- which is referenced in the  
 9 report -- let me find it. The 2021 survey by William  
 10 English.  
 11 Q. All right.  
 12 Barry, I don't think we got those. I think  
 13 we probably have those from other sources, but if you  
 14 could just send along the original version, when you  
 15 get a chance, that would be helpful.  
 16 MR. ARRINGTON: Okay. You were able to find  
 17 those. Obviously, you're --  
 18 MR. VAN HEMMEN: Yeah.  
 19 MR. ARRINGTON: -- your rebuttal experts  
 20 referenced them; so I expect you got them.  
 21 MR. VAN HEMMEN: Yeah, yeah. I think we  
 22 have them.  
 23 All right. Thank you.  
 24 BY MR. VAN HEMMEN:  
 25 Q. You didn't include a CV or a resume with

Page 13

1 this report; is that correct?  
 2 A. That is correct.  
 3 Q. And you didn't include a list of  
 4 publications?  
 5 A. Correct.  
 6 Q. And you didn't include a bibliography or a  
 7 list of work cited; is that correct?  
 8 A. Correct.  
 9 Q. Okay. That sounds good.  
 10 Matt, let's go to the next exhibit.  
 11 (Exhibit 2 was identified.)  
 12 BY MR. VAN HEMMEN:  
 13 Q. It should be Tab 2. It's probably just  
 14 taking a minute for Matt to put it across. All  
 15 right. Try clicking again on marked exhibits. It  
 16 looks like it's there. I just needed to click the  
 17 folder again. And this will be Exhibit 2.  
 18 A. Okay.  
 19 Q. Is this the supplemental report that you  
 20 submitted in this case?  
 21 A. It's still opening.  
 22 Q. Oh, all right.  
 23 A. I have it open now.  
 24 Q. All right. Is this the supplemental report  
 25 that you submitted?

Page 14

1 A. It is.  
 2 Q. And if you scroll down to Page 3, is that  
 3 your signature?  
 4 A. It is.  
 5 Q. The date at the top of the report is  
 6 July 20, 2023.  
 7 Is this the date that you submitted this  
 8 report?  
 9 A. Yes.  
 10 Q. Does this rebuttal report contain your  
 11 opinions?  
 12 A. It does.  
 13 Q. There appear to be three attachments here,  
 14 record of prior testimony, a firearms/shooting resume  
 15 supplement, and a copy of the 2022 NSSF report; is  
 16 that correct?  
 17 A. Yes.  
 18 Q. Are there any missing attachments?  
 19 A. I do not believe so.  
 20 Q. Did you draft these attachments?  
 21 A. I'm not sure what your question means.  
 22 Q. No problem. I guess it might be easier to  
 23 just take them one at a time.  
 24 Did you draft this list of prior testimony?  
 25 A. No.

Page 15

1 Q. Who drafted this?  
 2 A. My assistant.  
 3 Q. Did you review it and confirm its accuracy?  
 4 A. I did.  
 5 Q. Did you draft the firearms/shooting resume  
 6 supplement?  
 7 A. I did.  
 8 Q. All right. Why did submit this supplemental  
 9 report?  
 10 A. There were several things that I read in  
 11 your expert's report and some other things that I  
 12 felt were worthy of clarification.  
 13 Q. And the report by our witness, defenses'  
 14 witness, that you're referencing, that is the  
 15 Klarevas rebuttal report?  
 16 A. Yes.  
 17 Q. Okay. You wrote your initial report without  
 18 having seen any of the reports of the defense  
 19 experts; is that correct?  
 20 A. That is correct.  
 21 Q. Have you now read those reports?  
 22 A. Yes.  
 23 Q. Which ones?  
 24 A. I would have to go back and look at my  
 25 files. I read Klarevas -- I hope that's right

Page 16

1 Klarevas, and there was another one I'd have to look  
 2 in my email to see which ones they were.  
 3 Q. No problem.  
 4 Did you -- so you reviewed Klarevas's  
 5 rebuttal report?  
 6 A. I did.  
 7 Q. Did you review Klarevas's initial report?  
 8 A. I don't know. Again, I'd have to go back  
 9 and look at which actual reports Mr. Arrington sent  
 10 to me via email.  
 11 Q. Okay.  
 12 Matt, can you please mark what is Tab 5 for  
 13 us.  
 14 Okay. Can you open Exhibit 3, please.  
 15 (Exhibit 3 was identified.)  
 16 BY MR. VAN HEMMEN:  
 17 Q. Just let me know when have you that.  
 18 A. Okay. It's opened now, 30 pages.  
 19 Q. Yes, that looks correct. It says, "Rebuttal  
 20 Report of Louis Klarevas"; is that correct?  
 21 A. Yes.  
 22 Q. Have you reviewed this report?  
 23 A. I believe that is the one that I looked at,  
 24 yes.  
 25 Q. Great.

Page 17

1 Matt, Tab 3 now, please. All right. It  
 2 looks likes it's there. This will be Exhibit  
 3 Number 4.  
 4 (Exhibit 4 was identified.)  
 5 THE WITNESS: That has opened now. It's got  
 6 eight pages.  
 7 BY MR. VAN HEMMEN:  
 8 Q. Have you reviewed this report?  
 9 A. I believe that I have.  
 10 Q. This is the expert rebuttal report of James  
 11 Yurgealitis.  
 12 All right. The next one, which will be  
 13 Exhibit 5, I believe.  
 14 (Exhibit 5 was identified.)  
 15 BY MR. VAN HEMMEN:  
 16 Q. This is the initial report of James  
 17 Yurgealitis.  
 18 Just let me know when you see it.  
 19 A. Okay. It's opened. There are 57 pages.  
 20 Q. Okay. Have you previously reviewed this  
 21 report?  
 22 A. I do not know. I would have to go back and  
 23 look.  
 24 Q. Okay. Did you review any reports from the  
 25 defenses' experts before -- scratch that. Never

Page 18

1 mind.  
2 All right. Let's just -- all right. Let's  
3 do it this way: How many expert reports from the  
4 defense did you review?  
5 A. Two.  
6 Q. Two. Okay.  
7 So it -- it would have then been those two  
8 rebuttal reports that we opened?  
9 A. I believe that is accurate.  
10 Q. Okay.  
11 A. If you want me to look at -- if you want to  
12 take a break and have me look at my email, I can  
13 confirm that for you, but I can't confirm that for  
14 you without looking at my notes.  
15 Q. Understood.  
16 Have you -- okay. But I think that that  
17 basically answers the question, and we can come back  
18 later.  
19 Have you changed any of the opinions  
20 expressed in either of your reports based on the  
21 reports of the defenses' experts?  
22 A. No.  
23 Q. Have you changed any of your opinions in  
24 your two reports for any other reason since writing  
25 them?

Page 19

1 A. No.  
2 Q. Are you familiar with the ordinances being  
3 challenged in this case?  
4 A. I am familiar with them. I could not quote  
5 them for you.  
6 Q. Have you reviewed the ordinances?  
7 A. I have briefly read them, but, no, I have --  
8 I have not reviewed them in depth.  
9 Q. Are you familiar with the relevant  
10 definitions contained within those ordinances?  
11 A. I think you'd have to tell me what  
12 definitions you're talking about. If they're legal  
13 definitions, I would probably have to have you  
14 clarify them for me.  
15 Q. Understood. We'll come back to that later.  
16 For now, Matt, can you please just mark  
17 Tabs, I think it's, 15 through 18.  
18 All right. Exhibit 6.  
19 (Exhibit 6 was identified.)  
20 THE WITNESS: I don't know how many pages  
21 this is, but it's opened up as Exhibit 6, Tab 15. It  
22 says Exhibit A.  
23 BY MR. VAN HEMMEN:  
24 Q. All right. This is the ordinance in the  
25 Town of Superior Ordinance Number 09 Series 2022.

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1 If I refer to the Superior ordinance, which  
2 it's unlikely that's what I'm talking about --  
3 Matt, can you put up the next one, please.  
4 They're all there.  
5 All right. Exhibit Number 7. It should  
6 come up as Exhibit B. Let me know when you see it.  
7 (Exhibit 7 was identified.)  
8 THE WITNESS: Is that City of Boulder?  
9 BY MR. VAN HEMMEN:  
10 Q. This is City of Boulder. That's correct.  
11 All right. Exhibit 8.  
12 (Exhibit 8 was identified.)  
13 BY MR. VAN HEMMEN:  
14 Q. This is Boulder County.  
15 A. Did you ask me a question?  
16 Q. Sorry. Did you have it up?  
17 A. I did open Exhibit 7, and then I did open  
18 Exhibit 8.  
19 Q. You did open Exhibit 8. Okay.  
20 Exhibit 8 is Boulder County.  
21 And Exhibit 9 will be City of Louisville.  
22 (Exhibit 9 was identified.)  
23 THE WITNESS: Yes.  
24 BY MR. VAN HEMMEN:  
25 Q. All right. Will you understand if I use the

Page 21

1 expression "the challenged ordinances," that I'm  
2 referring to these four ordinances?  
3 A. That's acceptable.  
4 Q. And is it your understanding that these four  
5 ordinances define assault weapons and large capacity  
6 magazines for short LCMs for purposes of their laws,  
7 their ordinances?  
8 A. I understand that that text is within some  
9 of them, yes.  
10 Q. All right. Are you familiar enough with  
11 these ordinances to recognize that those definitions  
12 are substantially the same across the four  
13 ordinances?  
14 A. Yes.  
15 Q. Okay. Thanks.  
16 All right. Can you please tell me what you  
17 did to prepare for this deposition?  
18 A. I read through my expert report and  
19 supplemental report, and then I spent some time  
20 making sure that I could get online.  
21 Q. All right. Did you meet with anybody?  
22 A. I did not.  
23 Q. Did you review any other documents in  
24 preparation for this deposition?  
25 A. I did go through the 2022 NSSF industry



Page 22

1 report briefly again.  
 2 Q. And did you review the ordinances, the  
 3 challenged ordinances?  
 4 A. I did not.  
 5 Q. Did you review any of defense experts'  
 6 reports in preparation for this deposition?  
 7 A. I did not.  
 8 Q. Do you have any documents with you today?  
 9 A. I have my two reports in front of me.  
 10 That's it.  
 11 Q. All right. Apart from reading his reports  
 12 in this case, are -- I guess just the one report --  
 13 are you familiar with James Yurgealitis?  
 14 A. Not until I read his report.  
 15 Q. Have you considered his qualifications to  
 16 offer his opinions in this report?  
 17 A. I read what was in his rebuttal report, but,  
 18 no, I've not really evaluated his qualifications.  
 19 Q. All right. I understand that you may --  
 20 might disagree with some of his opinions, and we'll  
 21 discuss the differences between yours and his. But  
 22 as a preliminary matter, do you believe he is  
 23 qualified to offer those opinions?  
 24 A. I do not know.  
 25 Q. Do you have any doubts about his educational

Page 23

1 qualifications?  
 2 A. I do not know. It's not something I was  
 3 asked to review.  
 4 Q. Is there -- okay. So you have no basis,  
 5 then, to believe he is not qualified?  
 6 A. I have no opinion one way or the other.  
 7 Q. Apart from reading his reports in this case,  
 8 are you familiar with Lou Klarevas?  
 9 A. No.  
 10 Q. Have you considered his qualifications to  
 11 offer his opinions in this report?  
 12 A. No.  
 13 Q. Again, I understand that you might disagree  
 14 with his opinions, which we'll discuss, but, again,  
 15 as a preliminary matter, do you believe that he is  
 16 qualified to offer those opinions?  
 17 A. I do not know.  
 18 Q. Do you have any reason to believe he is not  
 19 qualified?  
 20 A. I don't know.  
 21 Q. You don't know if you have any reason to  
 22 believe he's not qualified?  
 23 A. I -- if I'm not evaluating it, I can't tell  
 24 you yes or no.  
 25 Q. Okay. So -- okay.

Page 24

1 How many times have you been deposed before?  
 2 A. Close to 100.  
 3 Q. Have your previous depositions been in  
 4 connection with your work as an expert witness?  
 5 A. Yes.  
 6 Q. In how many matters have you testified as an  
 7 expert witness?  
 8 A. Less than 100. It's probably in the realm  
 9 of 50 or so.  
 10 Q. And how many matters --  
 11 A. I'm not including depositions. I'm just  
 12 including trial or some kind of court.  
 13 Q. Okay. If you include depositions, it would  
 14 be over 100, you're saying?  
 15 A. Yes.  
 16 Q. In how many matters have you written an  
 17 expert report?  
 18 A. Thousands.  
 19 Q. All right. You provided lists of testimony  
 20 with both your initial and supplemental reports.  
 21 If you could go to Exhibit 2. That's your  
 22 supplemental report. On page -- it's Page 4 of the  
 23 document. This is the list of testimony.  
 24 Is this a complete list of all the testimony  
 25 you've provided in the past four years?

Page 25

1 A. It is.  
 2 Q. Does this list differ from the list that you  
 3 included with your initial report?  
 4 A. It does.  
 5 Q. How so?  
 6 A. There was a case that was missing, and I  
 7 believe that is 2309, Alves versus the Army Corp.  
 8 Q. Were you disqualified in that case?  
 9 A. I was not aware that I was disqualified in  
 10 the case, but I understand from a prior deposition  
 11 that my testimony was restricted.  
 12 Q. Have you been disqualified as an expert  
 13 witness in any other case?  
 14 A. Not that I'm aware of.  
 15 Q. The last item on this list, the National  
 16 Foundation For Gun Rights versus Polis, is that one  
 17 also new?  
 18 A. Well, it's new as if -- because it's after  
 19 the initial date of my first report.  
 20 Q. Understood.  
 21 Have you offered expert opinions in the form  
 22 of either reports or depositions in gun cases  
 23 previously?  
 24 A. I have.  
 25 Q. On how many occasions?

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1 A. I don't know the exact number. I don't  
 2 believe that there's any trial testimony or  
 3 deposition. It's all been reports. It's probably in  
 4 the neighborhood of 30 or so.  
 5 Q. Okay. In which cases?  
 6 A. I could not tell you all of them off the top  
 7 of my head.  
 8 Q. All right.  
 9 MR. ARRINGTON: Counsel, when you say "gun  
 10 cases," do you mean Second Amendment or engineering  
 11 cases? Because I think he's focusing only on  
 12 engineering cases.  
 13 MR. VAN HEMMEN: All right. Let's pose that  
 14 as two separate questions, then. Thanks, Barry.  
 15 MR. ARRINGTON: Okay.  
 16 BY MR. VAN HEMMEN:  
 17 Q. We'll start with Second Amendment cases.  
 18 How many occasions have you previously  
 19 offered expert opinions in Second Amendment cases?  
 20 A. This case would be the third. There are two  
 21 prior.  
 22 Q. And what are the two cases?  
 23 A. One of the National Foundation For Gun  
 24 Rights versus Polis, and then a prior one was Rocky  
 25 Mountain Gun Owners versus Hickenlooper.

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1 Q. I didn't catch that name. Can you spell  
 2 that?  
 3 A. Rocky Mountain Gun Owners versus  
 4 Hickenlooper.  
 5 Q. Hickenlooper. Thank you.  
 6 And what was your area of expertise in these  
 7 cases?  
 8 A. They were all relatively the same.  
 9 Q. As in this case?  
 10 A. As in this case, yes.  
 11 Q. All right. And to separate it out, as Barry  
 12 pointed out, on how many occasions have you offered  
 13 expert testimony in non-Second Amendment gun cases?  
 14 A. It would be 25 to 30 cases.  
 15 Q. And what was your area of expertise in those  
 16 cases?  
 17 A. They varied from shooting reconstruction to  
 18 proper use of force to actual failures of firearms.  
 19 MR. ARRINGTON: So, counsel, just for the  
 20 record, if you'll check your email, the -- I have  
 21 sent to you the 2020 NSS survey and English report,  
 22 which I believe you indicated you already had, but I  
 23 went ahead and forwarded those anyway.  
 24 Also, Mr. Passamaneck has a -- a CV that you  
 25 might want to look at that was also perhaps

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1 inadvertently left off because of his initial report.  
 2 MR. VAN HEMMEN: Thank you, Barry.  
 3 BY MR. VAN HEMMEN:  
 4 Q. What do you mean by providing an area of  
 5 expertise as to use of force?  
 6 A. I was asked to provide opinions as to  
 7 whether the use of lethal force was proper or not.  
 8 Q. And what was the basis for your expertise?  
 9 A. My experience and education.  
 10 Q. As you noted, you submitted a report in the  
 11 National Foundation For Gun Rights versus Polis case,  
 12 which will be that last item on your list of  
 13 testimony.  
 14 I'll refer to that as the State case.  
 15 Will you understand what I mean if I say  
 16 that?  
 17 A. I'm sorry. I didn't hear the first word.  
 18 As the what case?  
 19 Q. State case.  
 20 A. State case.  
 21 That's -- yes, that's fine.  
 22 Q. Is the report that you submitted in that  
 23 case exactly identical to the initial report that you  
 24 submitted in this case?  
 25 A. I believe Mr. Arrington submitted the same

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1 report for both, yes.  
 2 Q. At the time that you wrote your report in  
 3 the State case, did you understand that it would be  
 4 used in both cases?  
 5 A. I did not.  
 6 Q. Did you do any additional review or work on  
 7 these cases between submitting your report in the  
 8 State case and submitting your report in this case?  
 9 A. No.  
 10 Q. Were you deposed in the State case?  
 11 A. Yes.  
 12 Q. All right.  
 13 Matt, could you please mark Tab 7. This  
 14 will be Exhibit 10, I believe.  
 15 (Exhibit 10 was identified.)  
 16 BY MR. VAN HEMMEN:  
 17 Q. Let me know when you can see it.  
 18 A. I see it. Do you want me to open it?  
 19 Q. Oh, yes, please.  
 20 MR. ARRINGTON: Is there a question pending?  
 21 MR. VAN HEMMEN: I was waiting for it to  
 22 open.  
 23 BY MR. VAN HEMMEN:  
 24 Q. Are you able to view it?  
 25 A. Not yet.

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1 Q. Okay.

2 A. So it says Exhibit B, and there are

3 50 pages.

4 Q. All right. The main thing when looking at

5 these, you'll see there's a yellow box. It says

6 Exhibit MP 10. That's your initials and 10. That's

7 the key thing to make sure we're all looking at the

8 same thing.

9 If you go down to the second page, you'll

10 see your name at the top. This is a transcript of

11 the deposition. Is this your deposition in the State

12 case?

13 A. It is.

14 Q. Dated May 31, 2023; correct?

15 A. Correct.

16 Q. Did you do any additional review or work in

17 this case or the State case between the time of this

18 deposition -- meaning the State deposition -- and

19 today?

20 A. Yes.

21 Q. What did you do?

22 A. Well, I wrote the supplemental report and --

23 in part of that, I actually talked to Salam Fatohi,

24 who the director of research for NSSF via email and a

25 phone call.

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1 Q. Thank you.

2 Is there anything that you have said in this

3 deposition that you have since learned is incorrect?

4 A. Other than the issue with the testimony that

5 was missing, which was corrected within the -- the

6 deposition, I don't believe so.

7 Q. Okay. You are charging \$250 an hour for

8 your work in this action; is that correct?

9 A. That is correct.

10 Q. Have you been paid yet for your work to

11 date?

12 A. I couldn't tell you if I've been paid up

13 till current, but when we have submitted invoices, we

14 have been paid promptly, yes.

15 Q. Does your compensation depend in any way on

16 the outcome of this litigation?

17 A. No.

18 Q. Given that the same report was filed in this

19 case and the State case, did you receive any

20 additional compensation for your initial report in

21 this case?

22 A. No.

23 Q. What topic or topics are you holding

24 yourself out as an expert on in this case?

25 A. Well, in -- in general, the firearms and

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1 their function, and my assessment of the numbers of

2 firearms and magazines of certain capacities that are

3 in possession of American citizens -- or in

4 possession of Americans.

5 Q. All right. Taking those one at a time,

6 starting with the magazines and their function, what

7 are your qualifications to offer an expert opinion on

8 that topic?

9 A. Well, as an engineer and through my company,

10 I have designed, manufactured, and produced magazines

11 of various capacities for both pistols and shotguns.

12 I use them. I've consulted directly with

13 manufacturers as well.

14 Q. Have you published anything on this topic?

15 A. No.

16 Q. Do you have any professional experience

17 related to that topic?

18 A. Yes. As I said, I have consulted for

19 firearms manufacturers and magazine manufacturers on

20 this subject.

21 Q. Okay. Moving on to the second one. Sorry

22 if I summarize this different. Correct me if I get

23 it wrong. But what are your qualifications to offer

24 an expert opinion on the number of firearms and/or

25 magazines that are owned by Americans? Is that how

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1 you phrased it?

2 A. Yes.

3 Q. What are your qualifications on that topic?

4 A. My -- my education and experience in the

5 firearms industry for over 30 years.

6 Q. Have you published anything on that topic?

7 A. No.

8 Q. Do you have any professional experience

9 related to that topic?

10 A. I guess -- I guess you'd have to say what

11 is -- what do you mean by "professional experience"?

12 I mean, I have been a sponsored shooter, I've worked

13 for manufacturers, I manufacture a barrel, you know,

14 there's a lot of -- there's a lot of little piecemeal

15 portions that are professional experience in that --

16 in that area.

17 Q. You have any professional --

18 MR. ARRINGTON: Did you say you manufacture

19 a barrel or a magazine?

20 THE WITNESS: Barrel.

21 MR. ARRINGTON: Barrel. Okay. Sorry. Go

22 ahead.

23 BY MR. VAN HEMMEN:

24 Q. Do you have any professional experience

25 estimating the number of firearms or magazines within

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1 the United States?  
 2 A. No, I'm not a statistician, and I don't  
 3 conduct surveys. I review data.  
 4 Q. Do you have any professional experience  
 5 evaluating the quality of surveys?  
 6 A. I didn't hear the last word.  
 7 Q. Surveys.  
 8 A. To -- to some extent, yes. I mean, I  
 9 understand the National Shooting Sport Foundation.  
 10 I've talked to them at length, both prior to and  
 11 during this case, as to where that data comes from.  
 12 And the fact that that data comes from manufacturers  
 13 and ATF forms is relevant.  
 14 I mean, they establish the base numbers for  
 15 what the various numbers relate to, whether it's  
 16 magazines or different types of firearms.  
 17 Q. So you've spoken to the people who conducted  
 18 that particular study.  
 19 Do you have any other professional  
 20 experience doing similar work?  
 21 A. No.  
 22 Q. So what exactly are your qualifications to  
 23 hold yourself out as an expert on reviewing surveys  
 24 and studies such as this?  
 25 A. My experience in the industry.

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1 Q. Are you holding yourself out as an expert on  
 2 any other topics in this case?  
 3 A. Other than what's in my report, no.  
 4 Q. Are you holding yourself out as an expert on  
 5 firearm and/or magazine engineering?  
 6 A. I am. And there is -- there are sections of  
 7 my report that actually do talk about the design and  
 8 function of magazines.  
 9 Q. Do you have academic training in that field?  
 10 A. I'm licensed as a mechanical engineer, and  
 11 they're mechanical devices. So several of my -- of  
 12 my courses and my engineering work and work that I've  
 13 done as a professional relate directly to that, yes.  
 14 MR. ARRINGTON: Hendrik, this is Barry. I  
 15 presume that since you saw his previous deposition in  
 16 the State case, you also saw his expanded CV that was  
 17 marked as an exhibit in that case; is that correct?  
 18 MR. VAN HEMMEN: That's correct. I also saw  
 19 it in the supplemental report. It was attached as an  
 20 exhibit.  
 21 MR. ARRINGTON: Okay. And there was --  
 22 well, and there was an original CV, talking about his  
 23 academic background that was marked an exhibit in  
 24 that case. I presume that you saw that as well?  
 25 MR. VAN HEMMEN: I did.

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1 MR. ARRINGTON: Yeah. And --  
 2 MR. VAN HEMMEN: Is that also the CV that  
 3 you forwarded to us?  
 4 MR. ARRINGTON: Yes. So, I mean, if --  
 5 obviously, if you want to inquire about that, that  
 6 contains an expanded version of his academic record.  
 7 MR. VAN HEMMEN: Thanks, yes.  
 8 MR. ARRINGTON: Sure.  
 9 MR. VAN HEMMEN: We'll take a look at that.  
 10 BY MR. VAN HEMMEN:  
 11 Q. Has any of your -- have you taken any  
 12 courses within your academic training, relating  
 13 specifically to firearms and/or magazines?  
 14 A. In my engineering degree? No.  
 15 Q. Have you taken courses as a part of your  
 16 academic training relating to guns and/or magazines  
 17 not related to your engineering course work?  
 18 A. My engineering course work is the sum total.  
 19 I mean, I am not going to tell you I haven't taken  
 20 classes that involve firearms, but they -- they're  
 21 not -- they were not engineering courses through an  
 22 accredited college.  
 23 Q. Were there non-engineering courses through  
 24 an credited college?  
 25 A. No.

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1 Q. Have you published in the field of firearm  
 2 and/or magazine engineering?  
 3 A. No.  
 4 Q. Okay. Are you holding yourself out as an  
 5 expert on the -- on firearm and/or magazine markets?  
 6 A. No.  
 7 Q. Are you holding yourself out as an expert on  
 8 statistical analysis?  
 9 A. Not specifically, no. I mean, I reviewed  
 10 data, but I'm not a statistician.  
 11 Q. Are you holding yourself out in this case as  
 12 an expert on ballistic testing?  
 13 A. No.  
 14 Q. Are you holding yourself as an expert in  
 15 this case on failure testing?  
 16 A. No.  
 17 Q. Are you holding --  
 18 A. Actually, let me back that up.  
 19 I actually do talk about some elements of  
 20 failure of magazines in my report.  
 21 So I -- yes. I'm sorry.  
 22 Q. You have academic training in that field,  
 23 apart from what we already discussed?  
 24 A. Failure analysis?  
 25 Q. Uh-huh.

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1 A. I do.  
2 Q. Have you published in that field?  
3 A. In failure analysis?  
4 Q. Yes.  
5 A. Multiple times, yes.  
6 Q. What is -- were any of these publications  
7 peer reviewed?  
8 A. Some were; some were not.  
9 Q. Are you holding yourself out in this case as  
10 an expert on hunting?  
11 A. Not in this case, no.  
12 Q. Are you holding yourself out in this case as  
13 an expert on gunshot wounds?  
14 A. Not in this case, no.  
15 Q. Have you ever been an expert witness on the  
16 subject of gunshot wounds?  
17 A. Yes.  
18 Q. Which cases?  
19 A. I would have to go back and look.  
20 Q. Would any of these cases be on your list of  
21 prior testimony?  
22 A. No.  
23 Q. Have you offered testimony in the past four  
24 years on that subject?  
25 A. No.

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1 Q. Okay. What is the highest level of  
2 education you've received?  
3 A. Bachelor's degree.  
4 MR. VAN HEMMEN: Okay. Matt, can we go to  
5 Tab 8. I believe by my count that should be Exhibit  
6 11.  
7 (Exhibit 11 was identified.)  
8 BY MR. VAN HEMMEN:  
9 Q. All right. Let me know when you have that  
10 open.  
11 A. It's open now.  
12 Q. We pulled this from the Entropy Engineering  
13 website.  
14 Is this your CV?  
15 A. Yes.  
16 Q. In combination with the resume supplement  
17 that you provided with your supplemental report, does  
18 this make up your full and accurate CV, your resume?  
19 A. Yes.  
20 Q. Why do you have two separate resumes?  
21 A. Because the firearms is more specific, and  
22 also I have found that when I put significant amounts  
23 of the firearms-related topics into my CV, one, it  
24 became too long; and, two, there are several  
25 attorneys that will not hire somebody who does

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1 firearms cases.  
2 Q. I notice that there are several references  
3 to firearms within this CV that we're looking at.  
4 Has that cost you any work, that you're  
5 aware of?  
6 A. I am aware of at least one case, yes.  
7 Q. Is this CV up to date?  
8 A. I believe so.  
9 Q. Taking a look at the list of publications,  
10 the last date I see is 2010.  
11 Have you published anything since then?  
12 A. No.  
13 Q. Is there any reason that you stopped  
14 publishing in 2010?  
15 A. Just busy.  
16 Q. Which firearms-related periodicals have you  
17 published articles in?  
18 A. There are a couple that are listed -- at  
19 least one that's listed there, "The Canadian  
20 Marksman"; I've been published in the USPSA magazine,  
21 which is a -- I think they send it out monthly; and  
22 I've been published in "Recoil," which is also a  
23 magazine.  
24 I think as far as published magazines or  
25 periodicals, that -- that's it.

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1 Q. What were the subjects of those articles?  
2 A. The one in "Recoil" was specifically related  
3 to AR15 failures. I tested a couple firearms to  
4 failure and basically posted on or wrote about why  
5 they failed and what the pressures were.  
6 The one that was in USPSA, I know one of  
7 them is related to lead bullets in Glocks, but I  
8 couldn't tell you what the other -- what the other  
9 ones were. They were a long time ago.  
10 Q. Is there any reason you don't list those  
11 articles?  
12 A. I don't know where they are.  
13 Q. I notice you have here "The Glock In  
14 Competition."  
15 Is that a book?  
16 A. It is.  
17 Q. Did you write this book?  
18 A. I did not.  
19 Q. Did you write a chapter --  
20 A. I --  
21 Q. I'm sorry. You can finish.  
22 A. I wrote a chapter of that book.  
23 Q. What was the subject of that chapter?  
24 A. It was related to failures of Glocks  
25 shooting lead bullets.

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1 Q. And what was the conclusion?  
 2 A. That if you shoot too many bullets that are  
 3 lead based through a polygonal rifle barrel, the  
 4 pressure goes up, and you can cause a failure of the  
 5 pistol.  
 6 Q. Is that relevant to this case?  
 7 A. Not specifically, no.  
 8 Q. At the top of your CV, there are three  
 9 practice areas listed.  
 10 Can you read them, please.  
 11 A. I'm not sure where you're looking at.  
 12 Q. You'll see there's a yellow box at the top  
 13 of your CV that says Exhibit MP0011.  
 14 A. Yes.  
 15 Q. Just to the right of that.  
 16 A. Oh, mechanical, plumbing, and automotive.  
 17 Q. And do all of the cases you previously  
 18 testified in involve those three practice areas?  
 19 A. Yes -- yes, generally, they do. There are a  
 20 few cases that I've worked on just -- just to be  
 21 transparent -- that are building envelope issues,  
 22 more related to water intrusion, and those are not  
 23 specifically educational areas that I have education  
 24 in, but they're areas that I worked on in one of my  
 25 prior companies that I have a lot of experience on.

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1 I have a couple of clients that have continued to use  
 2 me in that area.  
 3 Q. And would you see your testimony in this  
 4 case as falling into one of those areas?  
 5 A. Yes.  
 6 Q. Which would that be?  
 7 A. Mechanical.  
 8 Q. And how would that relate to the two areas  
 9 of expertise that you have identified as being  
 10 relevant in this case?  
 11 A. Well, firearms are a mechanical system, just  
 12 like an engine is a mechanical system.  
 13 Q. Does that relate to the estimates of the  
 14 number of firearms within the country?  
 15 A. No.  
 16 Q. All right. Let's move down to the  
 17 automotive and mechanical systems section.  
 18 It says here you're a nationally recognized  
 19 expert in plumbing systems and component failures; is  
 20 that correct?  
 21 A. Yes.  
 22 Q. And how much -- what percentage of your work  
 23 would you say that accounts for?  
 24 A. Today, maybe 20 percent.  
 25 Q. All right. And it says that you investigate

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1 failures and performance problems on HVAC systems?  
 2 A. Correct.  
 3 Q. And roughly what percentage of your work  
 4 would you say that accounts for?  
 5 A. I mean, I guess I would fold into that the  
 6 next line, which is also carbon monoxide. And if you  
 7 look at HVAC and carbon monoxide, it's maybe 20, 25  
 8 percent.  
 9 Q. And it says you have designed, built, and  
 10 driven race cars in competition?  
 11 A. Yes.  
 12 Q. That sounds pretty cool. What -- does that  
 13 account for any of your current work?  
 14 A. I'm sorry. Can you say that again?  
 15 Q. Sorry.  
 16 What percentage of your work would you say  
 17 that accounts for?  
 18 A. I mean, today it -- it's sporadic. I mean,  
 19 I've been asked to do reconstructions at race tracks  
 20 and on race cars, but there's not -- I would not say  
 21 it's a large percentage of my work.  
 22 Q. Okay. Did you do the SAE competition in  
 23 college?  
 24 A. I did.  
 25 Q. Very cool. I always sort of regret not

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1 having done that when I was in engineering school.  
 2 All right. The last sentence of this  
 3 section says you have extensive knowledge related to  
 4 firearms, cartridge reloading, and shooting  
 5 incidents?  
 6 A. Yes.  
 7 Q. What is the nature of this experience?  
 8 A. Well, I -- I have been shooting and hunting  
 9 since I was a small -- small person. I thoroughly  
 10 enjoy firearms, and I shoot them and use them and  
 11 train with them in a variety of aspects. I've loaded  
 12 over a million cartridges, I've shot over a million  
 13 rounds, and I both consult for law enforcement and do  
 14 shooting reconstructions as we prior -- talked about  
 15 prior.  
 16 Q. Okay. Does anything else in this resume  
 17 relate to firearms? I think I hit everything.  
 18 A. No.  
 19 Q. Sorry. No, nothing else relates to  
 20 firearms?  
 21 A. No.  
 22 Q. All right. Under Work History, the first  
 23 item says that you've been president of Carbon Arms  
 24 Corp from 2011 to present; is that correct?  
 25 A. Correct.

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1 Q. What is Carbon Arms Corp?  
 2 A. Within Carbon Arms Corp, I design and  
 3 manufacture specific accessories for shooting  
 4 competition and some -- some for hunting.  
 5 Q. What particular items does Carbon Arms  
 6 design, manufacture, and/or sell?  
 7 A. So shotgun shell loading, magazine tubes, I  
 8 have some compensators, I have a couple of parts that  
 9 actually go on an AR15, as far as the forward assist  
 10 elite. And then I have a d/b/a, which is STRETCH  
 11 Precision, and I -- through STRETCH Precision, I  
 12 manufacture AR15 barrels.  
 13 Q. Stretch Precision is a d/b/a. So it's not a  
 14 separate company?  
 15 A. It is -- it is complicated. STRETCH  
 16 Precision is actually owned by a guy named Lou  
 17 Graves, and he stopped running it and basically just  
 18 gave me the company to run, and I pay him a  
 19 commission per barrel sold.  
 20 Q. And to be clear, d/b/a is doing business as;  
 21 correct?  
 22 A. Yes.  
 23 Q. And for purposes of this conversation, I'll  
 24 refer to both of them together, but do either of  
 25 these companies design, manufacture, and/or sell

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1 complete guns?  
 2 A. No.  
 3 Q. Magazines?  
 4 A. Up until 2013, yes.  
 5 Q. And what happened in 2013?  
 6 A. There was a law passed in Colorado,  
 7 restricting the manufacture, sale, and possession of  
 8 magazines over 15 rounds.  
 9 Q. And all of the magazines that you produced  
 10 within these two companies were over 15 rounds?  
 11 A. No. I had -- I had variable capacities.  
 12 Q. So why did you stop producing less than  
 13 15-round magazines?  
 14 A. The majority of the magazines that I sold  
 15 were over 15 rounds, and it -- it was just -- became  
 16 a pain in the butt to do it; so I stopped.  
 17 Q. Okay. Do either of these two companies  
 18 design and manufacture and/or sell ammunition?  
 19 A. No.  
 20 Q. So other than the parts, the magazines,  
 21 which you no longer produce, and the accessories, is  
 22 there anything else that Carbon Arms does?  
 23 A. Well, I do my training through Carbon Arms  
 24 Corp, yes.  
 25 Q. Your training is also through Carbon Arms.

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1 Okay.  
 2 When you stopped producing magazines, how  
 3 much revenue did that account for?  
 4 A. I don't know. It was not a large component  
 5 of my total income, but I couldn't tell you a number.  
 6 Q. Was it a large portion of your Carbon Arms's  
 7 revenue?  
 8 A. At the time, no. It was -- it was a smaller  
 9 portion.  
 10 Q. Have you made any adjustments to what you  
 11 produce as a response to the ordinances being  
 12 challenged in this case?  
 13 A. No.  
 14 Q. Do you have an ownership stake in Carbon  
 15 Arms?  
 16 A. I own Carbon Arms, yes.  
 17 Q. And I believe, from what you said before,  
 18 you also own STRETCH Precision; is that correct?  
 19 A. It -- it's -- I run STRETCH Precision as a  
 20 d/b/a, but the actual ownership of the name belongs  
 21 to Lou Graves.  
 22 Q. So just to be clear, do you -- you license  
 23 the name, or you -- how does that relationship work?  
 24 A. I run the company -- I actually run the  
 25 company. So all the income, you know, the checking

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1 account, all that information is through the Carbon  
 2 Arms EIN, and I literally just pay him a per-barrel  
 3 royalty for each barrel, because he has a patent on  
 4 the barrel, and it's just simpler -- it was just  
 5 simpler for him to retain the ownership of the name  
 6 and the patent than to try to change all that.  
 7 Q. Okay. Understood.  
 8 Okay. Do any of the other items under your  
 9 work history on your CV relate to firearms?  
 10 A. No.  
 11 Q. Under licensure and education, I see a line  
 12 that says, "master's level course work."  
 13 Do you have a master's degree?  
 14 A. I do not.  
 15 Q. So this is essentially that you started a  
 16 master's degree and didn't complete it?  
 17 A. I did all the course work for a master's  
 18 degree and did not write a thesis.  
 19 Q. Okay. In addition to the two lines of  
 20 college experience listed on your CV, the B.S. in  
 21 mechanical engineering from University of Colorado,  
 22 Denver, and the master's level course work at the  
 23 University of Colorado, do you have any other college  
 24 experience?  
 25 A. Yes, I did take two classes at Arapahoe

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1 Community College, and I couldn't tell you how many  
 2 classes, but I did take some classes at Metro at --  
 3 all at the same time.  
 4 Q. Did you go to Colorado School of Mines?  
 5 A. I did.  
 6 Q. When was that?  
 7 A. That was from 1985 until '88.  
 8 Q. Did you earn a degree?  
 9 A. I did not.  
 10 Q. What did you study?  
 11 A. Mechanical engineering.  
 12 Q. And why did you end your course work there?  
 13 A. Some of it was financial; some of it was  
 14 personal.  
 15 Q. Okay. And why do you not list this on your  
 16 CV?  
 17 A. Because I didn't get a degree.  
 18 Q. Okay. All right. Let's turn to the  
 19 firearms supplement. So that's going to be in  
 20 Exhibit 2, your supplemental report. And I believe  
 21 it's Page 6.  
 22 A. Okay.  
 23 Q. Is this supplement up to date?  
 24 A. I believe so.  
 25 Q. In sort of the middle of the page, you have

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1 a section that lists gun-related memberships and  
 2 offices.  
 3 Is this an up to date list?  
 4 A. No. So, I mean, it does say,  
 5 "Mr. Passamaneck holds or has held the following  
 6 memberships and/or offices." I'm not the Action  
 7 Pistol Executive of the CSSA any more.  
 8 Q. Okay.  
 9 A. I'm no longer a member of IDPA, nor am I the  
 10 VP of Front Range IDPA.  
 11 Q. Okay. And with the possible exception of  
 12 the NRA, these are all organizations primarily  
 13 devoted to shooting; is that correct?  
 14 A. Yes.  
 15 Q. Am I correct that these are not professional  
 16 organizations?  
 17 A. Correct.  
 18 Q. And they're not scientific or engineering  
 19 organizations; correct?  
 20 A. Correct.  
 21 Q. And none of these organizations are  
 22 dedicated to studying the prevalence and/or role of  
 23 guns in society; is that correct?  
 24 A. I don't know. I haven't looked at anything  
 25 from the NRA in a long time. They might do that. I

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1 don't know.  
 2 Q. So are any of these organizations directly  
 3 related to the two topics of expertise that you're  
 4 providing in this case?  
 5 A. The NRA, like I said, may have some  
 6 information or data. It's not something I reviewed,  
 7 though. But I'm not going to say that they don't  
 8 have any relevance.  
 9 Q. All right. Have you ever served in the  
 10 military?  
 11 A. No.  
 12 Q. Have you ever served in the National Guard?  
 13 A. No.  
 14 Q. Have you ever worked in law enforcement?  
 15 A. No.  
 16 Q. How many guns do you own?  
 17 A. I'm not going to answer that.  
 18 MR. VAN HEMMEN: Barry, is there any basis  
 19 to not answer this, that you're aware of?  
 20 MR. ARRINGTON: Yes. Under Rule 26, the  
 21 scope of discovery is information that is relevant to  
 22 the claims or defenses in the case.  
 23 How many firearms an expert witness  
 24 personally owns, I don't see how that can be remotely  
 25 relevant to the -- to the claims and defenses in this

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1 case.  
 2 MR. VAN HEMMEN: Well, he claims --  
 3 MR. ARRINGTON: Furthermore, there --  
 4 it's -- there's an expectation of privacy and his  
 5 personal property, especially his security  
 6 arrangements and his own firearms, and to the extent  
 7 that you're trying to embarrass him, that would be  
 8 improper.  
 9 So I don't know why you would -- frankly,  
 10 I'm stunned that you would ask a question like that.  
 11 MR. VAN HEMMEN: Well, I don't -- it has  
 12 nothing to do with embarrassment, but Mr. Passamaneck  
 13 is holding himself as having expertise in --  
 14 particularly in the areas of the overall prevalence  
 15 of guns in the country.  
 16 And, furthermore, it appears that most of  
 17 his supposed qualifications in that area have to do  
 18 with just being around guns, being around people that  
 19 have guns, and, I think that the -- his personal  
 20 ownership of guns is highly relevant to answering  
 21 that question.  
 22 MR. ARRINGTON: Well, let's go off the  
 23 record. I can consult with Mr. Passamaneck, and  
 24 we'll see what position he wants to take on that.  
 25 MR. VAN HEMMEN: All right. That works for



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1 me.  
 2 THE VIDEOGRAPHER: This is the end of Media  
 3 Number 1. Going off the record. The time is 10:21.  
 4 (Recess taken.)  
 5 THE VIDEOGRAPHER: We are back on the  
 6 record. The time is 10:27. This is the beginning of  
 7 Media Number 2.  
 8 MR. ARRINGTON: Okay. So I've spoken with  
 9 Mr. Passamaneck, and I will just renew the objection  
 10 that I articulated earlier, plus there's nothing in  
 11 his report that remotely indicates that his personal  
 12 firearm ownership at the moment is -- forms any sort  
 13 of the basis of his opinions; and, therefore, I don't  
 14 see how you can get into his personal affairs in this  
 15 deposition.  
 16 So I object to the questions. I don't  
 17 represent Mr. Passamaneck. He's a retained expert,  
 18 and he'll have to make his own decision about whether  
 19 to answer that question, but I do object to the  
 20 question.  
 21 MR. VAN HEMMEN: All right. Well, we -- we  
 22 are certainly of the opinion that there is no basis  
 23 to not answer this question. Again, for the same  
 24 reason --  
 25 MR. ARRINGTON: Do you have any authority

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1 for the proposition that you can inquire into a  
 2 retained expert's personal affairs in a deposition?  
 3 MR. VAN HEMMEN: I'm inquiring into his  
 4 qualifications. His qualifications to talk about the  
 5 prevalence of weapons appear largely to be based on  
 6 the fact that he considers himself a gun guy and is  
 7 within the gun-owning community. And for that  
 8 reason, I believe this is highly relevant.  
 9 MR. ARRINGTON: Well, so, one, he -- he is  
 10 familiar with the magazine market, having been a  
 11 producer of magazines. And so I wouldn't just say  
 12 that his opinion is based strictly on the fact that  
 13 he's a gun guy.  
 14 But, you know what? The number -- the  
 15 number and type of weapons that he personally owns  
 16 is -- is not a factor in developing opinions about  
 17 the prevalence of guns widely in society. I mean,  
 18 that's -- that's -- I don't even see how that --  
 19 that's simply a non sequitur.  
 20 But, go ahead. Make your record.  
 21 MR. VAN HEMMEN: All right.  
 22 BY MR. VAN HEMMEN:  
 23 Q. I believe this next question might provoke  
 24 the same response.  
 25 How many magazines do you own?

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1 A. I -- again, I'm not going to answer that,  
 2 but I couldn't tell you. I have no idea.  
 3 Q. Okay.  
 4 MR. ARRINGTON: And I think that is an  
 5 answer. I mean, do you have --  
 6 Is the answer you don't know how many  
 7 personal magazines you have?  
 8 THE WITNESS: I -- I don't know. I know  
 9 it's a lot, but I don't know the number.  
 10 MR. ARRINGTON: Okay.  
 11 BY MR. VAN HEMMEN:  
 12 Q. Okay. Would I be safe to assume that the  
 13 number of guns you own would be a similarly high  
 14 number?  
 15 A. It -- it is likely over the average.  
 16 That's -- that's as far as I'll go.  
 17 Q. Have you ever used a gun in self-defense?  
 18 A. Have I ever fired a gun or used a gun?  
 19 Because there's a difference.  
 20 Q. Okay. Let's go with both questions.  
 21 A. I have never fired a gun in self-defense.  
 22 Q. In what respect have you used a gun in  
 23 self-defense?  
 24 A. I have -- I have had a couple of occurrences  
 25 to have a firearm in my hand when I believed that my

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1 life was in jeopardy.  
 2 Q. What were those circumstances in which you  
 3 believed your life was in jeopardy?  
 4 MR. ARRINGTON: So can we stop right here?  
 5 How is this related to his opinions in this  
 6 case? I mean, you've got some leeway, but he's not  
 7 offering opinions upon -- about self-defense. He's  
 8 not offering opinions about the use of these  
 9 weapons -- these magazines or weapons. He's offering  
 10 opinions about how many there are.  
 11 Why are you inquiring into his personal  
 12 affairs, Mr. Hemmen?  
 13 MR. VAN HEMMEN: Again, Mr. Arrington, this  
 14 has to do with the fact that a lot of his  
 15 qualifications for the statistical portion of his  
 16 report seem to be based on language such as -- as  
 17 represented in use by competitors in competition or  
 18 through my participation in the firearms industry in  
 19 competition.  
 20 These are questions -- these are purported  
 21 qualifications that depend on his actual use and  
 22 experience with firearms.  
 23 MR. ARRINGTON: So the record will reflect  
 24 that Mr. Hemmen was giggling as he said that,  
 25 obviously, trying to embarrass Mr. Passamaneck.

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1 Highly improper, highly unprofessional. If you keep  
 2 up trying to embarrass him, Mr. Hemmen, we'll go to  
 3 Court. Maintain your decorum.

4 MR. VAN HEMMEN: I don't think that I --

5 MR. ARRINGTON: You don't think giggling at  
 6 a deposition is unprofessional? Well, let me tell  
 7 you, son, it is.

8 MR. VAN HEMMEN: All right. Thank you,  
 9 Mr. Arrington. We'll move on.

10 BY MR. VAN HEMMEN:

11 Q. Other than your work at Entropy Engineering  
 12 and at Carbon Arms/STRETCH Precision, do you have any  
 13 other sources of income?

14 A. Yes.

15 Q. What are the sources of income?

16 A. I have actually been employed by National  
 17 Shooting Sports Foundation, and I will again at SHOT  
 18 Show. I am part of management at SHOT Show.

19 I do photography for a local school, and  
 20 I -- again, through Carbon Arms, I'm not sure how you  
 21 phrased it, but through Carbon Arms, I do actually  
 22 firearms training.

23 Q. And --

24 A. Let me -- let me -- I am a head coach of  
 25 a -- of a high school shooting team, and I've done

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1 that volunteer. But as of this year, there's going  
 2 to be a contract. They've -- they said they're going  
 3 to pay me for it. I haven't been paid before, but I  
 4 don't know where that -- I don't know how that falls  
 5 in your question. I just want to be transparent  
 6 there.

7 Q. Understood.

8 You might potentially in the future be paid  
 9 for coaching a shooting team; is that correct?

10 A. Possibly, yes.

11 Q. And the other item that you mentioned  
 12 before, that's related to you running shooting  
 13 competitions; is that correct?

14 A. No. I'm actually in -- I have, and I have  
 15 run shooting competitions for income, for pay. I do  
 16 not do that any more.

17 When I said, "National Shooting Sports  
 18 Foundation," they have an industry event called the  
 19 national -- called the SHOT Show, and I actually run  
 20 the live fire ranges at SHOT Show.

21 You may not agree, but I'm uniquely  
 22 qualified, based on my experience, to actually run  
 23 and manage a live shoot -- the shoot houses at SHOT  
 24 Show, and I operate and run the entire live shoot  
 25 area.

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1 So I have police officers that work for me,  
 2 as well as people who do breathalyzers and range  
 3 officers. I manage the whole thing.

4 Q. I -- to be entirely clear, I'm very  
 5 impressed with that work. I think that it is work  
 6 that would qualify you for a lot of things. My  
 7 overall sense is that it doesn't qualify you for  
 8 coming up with an estimate of the number of firearms  
 9 in the country.

10 Do you believe that that is related to your  
 11 ability to estimate the number of firearms in the  
 12 country that fit these definitions?

13 A. Well, I have six manufacturers who  
 14 manufacture firearms and magazines, and I talk to  
 15 them on a regular basis.

16 So, you know, say what you want, but, you  
 17 know, my experience as -- being involved in the  
 18 firearms industry, I talk to these guys all the time.  
 19 You can discount it, but --

20 Q. Do your --

21 A. -- it still -- it still happens.

22 Q. So the nature -- the nature of this  
 23 qualification is that you have communications with  
 24 people who would have information relevant to this  
 25 question?

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1 A. Yes, and I -- and we chat about it all the  
 2 time.

3 Q. Do you have any qualifications to evaluate  
 4 that information?

5 A. I mean, are you asking me if I -- if I ask  
 6 the people if they're telling me the truth? No, I  
 7 don't ask them that. I take their -- I take them at  
 8 their word.

9 Q. Do you ask questions that would allow you to  
 10 evaluate how reliable their numbers are?

11 A. I mean, it's a conversation. I -- I don't  
 12 even know what you're trying to get at.

13 Q. All right. Do you have any sponsorships  
 14 related to your competitive shooting?

15 A. I do.

16 Q. And -- okay.

17 And what sponsorships would those be?

18 A. Are you asking current or how many total, or  
 19 what are you asking? Numbers?

20 Q. Sure. Current numbers. How many?

21 A. Currently I'm sponsored by two -- two  
 22 companies.

23 Q. And which companies are those?

24 A. Burris is a primary sponsor of mine, and  
 25 I've been sponsored by Burris for many, many years.

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1 Q. Okay. And the other?  
 2 A. Lucas Oil.  
 3 Q. Okay.  
 4 A. I don't -- I don't know that they're going  
 5 to -- I don't know if I'm going to be sponsored by  
 6 them in the future, but I have been for the last  
 7 eight, nine years.  
 8 Q. Have you ever participated in a competition  
 9 within Boulder County?  
 10 A. Yes.  
 11 Q. Would you expect there to be an effect on  
 12 your competitions if these challenged ordinances go  
 13 into effect?  
 14 A. I don't know.  
 15 Q. As the State -- the law in the State case  
 16 that we discussed earlier, has that had an effect on  
 17 your competitions?  
 18 A. Yes.  
 19 Q. What is that effect?  
 20 A. Several regional and national-level matches  
 21 have been cancelled in the State of Colorado as a  
 22 direct result of the state magazine ban.  
 23 Q. All right.  
 24 Matt, can you pull up Tab 14, please.  
 25 (Exhibit 12 was identified.)

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1 BY MR. VAN HEMMEN:  
 2 Q. While that's loading, have you ever  
 3 testified in a State Senate committee meeting in  
 4 support of a gun bill?  
 5 A. In support of? I think I testified in  
 6 opposition to.  
 7 Q. Okay. Exhibit 12, when it comes up. Let me  
 8 know when you have it open.  
 9 A. It's open.  
 10 Q. All right. Do you see that it says, "Staff  
 11 Summary of Meeting of the Senate Committee on the  
 12 Judiciary"?  
 13 A. I do.  
 14 Q. Dated March 9, 2015?  
 15 A. Yes.  
 16 Q. And if you scroll down to the second page at  
 17 2:07 PM, it says, "Mr. Mark Passamaneck, representing  
 18 himself, testified in support of the bill.  
 19 Mr. Passamaneck discussed firearms competitions that  
 20 he runs. He stated he has had to hold some  
 21 competitions out of Colorado due to the ban on  
 22 certain ammunitions magazines in Colorado.  
 23 Mr. Passamaneck also discussed the effect of the law  
 24 on the operability of magazines."  
 25 A. I see that.

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1 Q. Is that -- that Mr. Passamaneck is you? Is  
 2 that -- that's referring to you?  
 3 A. Yes, I believe it is.  
 4 Q. Okay. And is that an accurate description  
 5 of what you represented?  
 6 A. I believe so. This -- this is the repeal of  
 7 the bill. Is that -- give me a second, and let me  
 8 look at it.  
 9 Q. In terms of supporting the bill, is that --  
 10 A. Yeah.  
 11 Q. -- what --  
 12 A. This is a -- this is a bill that was  
 13 repealing -- or sought to repeal the magazine ban.  
 14 Q. That's right.  
 15 A. Yes.  
 16 Q. Were -- were you looking at something to  
 17 confirm that?  
 18 A. I looked up at the very top when it  
 19 said, "Cosponsors or coprime sponsors presenting the  
 20 Bill 15175 for certain repealing certain provisions."  
 21 Q. Okay.  
 22 A. I did testify in 2013 as well.  
 23 Q. All right. When it says representing  
 24 yourself, that means that you reached out to the  
 25 committee to testify on this?

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1 A. No. Somebody called and asked -- I don't  
 2 know if it was someone from the NRA or somebody from  
 3 one of the Senator's office, but they actually called  
 4 me and asked me if I would testify.  
 5 Q. All right. Thank you.  
 6 Would you expect that the challenged  
 7 ordinances in this case would have a similar effect  
 8 to that that you mentioned in this testimony?  
 9 A. Yes.  
 10 Q. Okay. Are you a member of Rocky Mountain  
 11 Gun Owners?  
 12 A. I am not.  
 13 Q. Have you ever been a member of Rocky  
 14 Mountain Gun Owners?  
 15 A. No.  
 16 Q. Do you know anyone in the leadership of  
 17 Rocky Mountain Gun Owners?  
 18 A. I do.  
 19 Q. Who is that?  
 20 A. I know Mr. Brown.  
 21 Q. How long have you known him?  
 22 A. I don't know. I've known of him for a long  
 23 time. Personally met him? I'm not sure that it  
 24 wasn't initially in the -- the law challenging Rocky  
 25 Mountain Gun Owners versus Hickenlooper. That's

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1 probably the first time I met him in person.  
 2 Q. And what is the nature of your relationship?  
 3 A. I'm an acquaintance of his. I -- he's an  
 4 acquaintance of mine. I know who he is. We don't  
 5 hang out together. I just know who he is.  
 6 Q. Have you worked together?  
 7 A. Rocky Mountain Gun Owners did pay -- did pay  
 8 me for my work, yes.  
 9 Q. Okay. Are you a member of the National  
 10 Association For Gun Rights?  
 11 A. I am not.  
 12 Q. Have you ever been a member of the National  
 13 Association For Gun Rights?  
 14 A. No.  
 15 Q. Do you know anyone in the leadership of the  
 16 National Association For Gun Rights?  
 17 A. Unless it's also Dudley Brown, no.  
 18 Q. All right. Let's turn to the substance of  
 19 your reports now.  
 20 If you could go to Tab 1 -- or sorry,  
 21 Exhibit 1, which is also Tab 1.  
 22 A. I have it open.  
 23 Q. Okay. At the start of your report itself,  
 24 which is on Page 3, the first sentence says, "At your  
 25 request, Entropy Engineering Corporation has

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1 evaluated portions of the case referenced above"; is  
 2 that correct?  
 3 A. It is.  
 4 Q. And were you hired through Entropy  
 5 Engineering Corporation or in your personal capacity?  
 6 A. Through Entropy.  
 7 Q. The next sentence says, "The purpose of this  
 8 report is to provide expert opinions on matters for  
 9 which the author is qualified and has extensive  
 10 knowledge."  
 11 Does the report aim to answer any particular  
 12 questions?  
 13 A. Well, they are questions related to the  
 14 ownership, which is in the first portion, and then  
 15 questions related to magazines, which are the last  
 16 couple of paragraphs.  
 17 Q. Are you offering an opinion as to the answer  
 18 to any particular question, or are you just generally  
 19 putting out knowledge on certain topics?  
 20 A. It's knowledge that is relevant to the case,  
 21 and we already established that I wrote this report  
 22 related to the State case, and it was filed in the  
 23 municipal cases. So that is part of the reason why I  
 24 wrote the supplemental report.  
 25 Q. All right. So are there any -- what

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1 particular expert opinions or conclusions do you  
 2 reach within this report?  
 3 A. Are you asking me to read my report to you  
 4 or -- I mean --  
 5 Q. I'm saying so, as opposed to stating your  
 6 reasoning or support for your conclusions, are there  
 7 any particular conclusions that you reached in this  
 8 report?  
 9 A. Yes. I mean, I'll go through and read it  
 10 for you, if you'd like me to. But, I mean, they're  
 11 all -- they're all established in the discussion  
 12 section.  
 13 Q. Okay. You have any other expert opinions  
 14 related to this case that are not contained within  
 15 either of these reports?  
 16 A. No.  
 17 Q. Okay. The first sentence of the discussion  
 18 section says, "Standard capacity magazines, as  
 19 originally designed, manufactured, and sold within  
 20 the State of Colorado are commonly possessed and used  
 21 for lawful purposes."  
 22 So we're all on the same page, I just want  
 23 to clarify what you mean here with certain terms.  
 24 First of all, how do you define "standard  
 25 capacity magazines"?

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1 A. They are the original design capacity that  
 2 the manufacturer intended. So it's variable.  
 3 Q. How would -- how would you determine whether  
 4 a magazine is standard capacity or not?  
 5 A. It depends on the design of the firearm and  
 6 how -- what the manufacturer designed.  
 7 Q. I mean, I'm not -- I'm not asking for a  
 8 particular number of rounds. I'm saying, if you were  
 9 to look at a magazine, how would you determine  
 10 what -- whether it's standard capacity or not?  
 11 A. You're -- there's different answers based on  
 12 the type of firearm.  
 13 Q. So for any particular magazine, there is no  
 14 answer -- tentative answer as to whether or not it is  
 15 a standard capacity magazine?  
 16 A. I mean, I -- I'm not trying to be obtuse,  
 17 but you're not asking the right questions. If you  
 18 ask the right questions, I'll give you an answer.  
 19 But you're asking a general question that cannot be  
 20 answered.  
 21 Q. Okay. So how about a hypothetical? If I  
 22 were to put a magazine in front of you, say on the  
 23 table, and say, "Is this a standard-capacity  
 24 magazine?" would you be able to answer that question?  
 25 A. Most likely, yes.

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1 Q. How would you answer that question?  
 2 A. It would depend on the type of firearm it  
 3 went in and what the actual capacity is.  
 4 Q. What would your methodology for determining  
 5 whether that is a standard-capacity magazine be?  
 6 A. Visual observations and whether or not there  
 7 are blocks in it or other means to limit the  
 8 capacity.  
 9 Q. And once you visually looked at it and saw  
 10 whether there are blocks in it or not, how would you  
 11 then know whether or not it is a standard-capacity  
 12 magazine?  
 13 A. I would know what the round count is, and I  
 14 would be able to understand what firearm it came  
 15 from, and what the capacity was.  
 16 Q. Are you saying for any particular firearm,  
 17 there is -- I suppose with a detachable magazine,  
 18 there is one standard capacity associated with that  
 19 firearm?  
 20 A. Typically, yes.  
 21 Q. And if a firearm is offered with multiple  
 22 different types of magazines of different capacities,  
 23 would each of those be a standard-capacity magazine?  
 24 A. Not necessarily, no.  
 25 Q. And in what situation would it not be?

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1 A. Well, there are -- there are -- because of  
 2 the magazine capacity laws that have been passed,  
 3 manufacturers have started to limit capacity within  
 4 the normal size of the magazine body itself.  
 5 So just because -- just because a round --  
 6 or a magazine is offered with a certain number of  
 7 rounds below the maximum capacity of the magazine  
 8 body itself does not mean that that's standard. That  
 9 means that an after -- it's not an after market, but  
 10 that is something that was designed after the  
 11 original design of the firearm.  
 12 Q. You used this term as equivalent to  
 13 large-capacity magazines?  
 14 A. Standard could -- standard could be large.  
 15 It could be small. It depends on the firearm.  
 16 Q. Do you -- how would you define  
 17 large-capacity magazines?  
 18 A. I -- there's not a definition, other than  
 19 what has been politicized. I'm sorry. It's a  
 20 political term, saying, "large capacity magazine."  
 21 Who defines what large is? It's -- it's not a --  
 22 it's not engineering term. It's not a firearms  
 23 industry term. It is -- it's another term.  
 24 So unless you can show me a legal definition  
 25 of it, I don't know what it -- what it means.

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1 Q. Are you familiar with the ordinances at the  
 2 center of this case?  
 3 A. Familiar? Yes.  
 4 Q. Have you reviewed them enough to know what  
 5 their definition of a large capacity magazine is?  
 6 A. No. I mean, I generally can answer it, but,  
 7 no, I would have to go back and actually look at it  
 8 and make sure I understood exactly what their  
 9 specification was.  
 10 Q. Do you know the number of rounds that these  
 11 ordinances define as large-capacity magazine?  
 12 A. I think generally the ordinances, from what  
 13 I recall in the state, is 15 or -- or is over 15, and  
 14 in the municipal cases, it's over 10.  
 15 Q. Thank you.  
 16 And so would you consider that a legal  
 17 definition of large-capacity magazines?  
 18 A. No.  
 19 Q. Why would you not?  
 20 A. Because it's ambiguous.  
 21 Q. Can you please elaborate on that?  
 22 A. It's a number that somebody decided that's  
 23 the number. I mean, there's no basis in engineering  
 24 or mechanics that says, "Large is over ten, and small  
 25 is under ten." It's a -- it's a made-up term.

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1 Q. Are you disputing that -- are you disputing  
 2 that within these towns, magazines larger than ten  
 3 rounds are considered large capacity magazines?  
 4 MR. ARRINGTON: I'm going to object to the  
 5 form of the question, and in particular the form of  
 6 the question that includes the giggles, again.  
 7 Counsel, stop giggling at the witness. If  
 8 you -- if you can't refrain from giggling at the  
 9 witness and trying to embarrass him, we're going to  
 10 go to the Court, and we're going to have a protective  
 11 order. And if the protective order needs to  
 12 say, "Lawyers shouldn't giggle at witnesses," that's  
 13 what it's going to say.  
 14 MR. VAN HEMMEN: Thank you, Barry.  
 15 THE WITNESS: You asked a question. My  
 16 answer is that they have defined -- or within  
 17 ordinances, they have defined that number. It's  
 18 irrelevant to me. It's -- it's an ambiguous  
 19 definition.  
 20 BY MR. VAN HEMMEN:  
 21 Q. Is it relevant to this report?  
 22 A. It -- the number is relevant, yes. But  
 23 the -- I mean, there are standard-capacity magazines  
 24 that are six, eight, ten, twelve, thirteen. I mean,  
 25 I don't see anywhere -- I've never seen anywhere that

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1 defines, once you go over a certain number, it's  
 2 large until this whole thing became a political  
 3 issue, in terms of magazine capacity restrictions.  
 4 So you can define it. I mean, I'm willing  
 5 to say that, yes, the ordinances say that over ten,  
 6 they define as large capacity. I just don't think  
 7 it's a relevant. It's not a real term.  
 8 Q. Is whether a magazine is standard capacity  
 9 relevant to this report?  
 10 A. Yes.  
 11 Q. How so?  
 12 A. Standard is as its originally designed and  
 13 manufactured. That's what the report says. It's  
 14 what I answered.  
 15 Q. Is that relevant to your opinions in this  
 16 report?  
 17 A. In some cases, yes. In some cases, no.  
 18 Q. Okay. What do you mean in this sentence  
 19 that we were starting on the first sentence of the  
 20 discussion, by "As originally designed, manufactured,  
 21 and sold within the state of Colorado"?  
 22 A. Exactly what it means. Those words -- I  
 23 mean, you can look up the definitions, but the words  
 24 are what they are. I don't mean anything other than  
 25 exactly what I said.

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1 Q. Sure.  
 2 Is this being -- is this phrase defining  
 3 standard-capacity magazines?  
 4 A. No.  
 5 Q. What is this phrase modifying in this  
 6 sentence?  
 7 A. What do you mean what is it modifying? It's  
 8 not modifying anything.  
 9 Q. Is this saying that -- okay. So this  
 10 sentence is saying, "Standard capacity magazines are  
 11 commonly possessed and used for lawful purposes." Is  
 12 that middle part of the sentence conveying additional  
 13 information?  
 14 A. Yes.  
 15 Q. And what is the middle part of that sentence  
 16 changing about, as opposed to just saying,  
 17 "Standard-capacity magazines are commonly possessed  
 18 and used for lawful purposes"?  
 19 A. Because it's how they're designed and  
 20 manufactured and then sold.  
 21 Q. Okay. What do you mean by "commonly  
 22 possessed and used for lawful purposes"?  
 23 A. Exactly what the words mean. They're  
 24 possessed by people in the state of Colorado, and  
 25 they're lawfully used on a regular basis.

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1 Q. Are "possessed" and "used" two different  
 2 things?  
 3 A. Yes, they are.  
 4 Q. And am I correct that the number of firearms  
 5 possessed would be different than the number of  
 6 firearms used?  
 7 A. I thought we were talking about magazines.  
 8 Q. Sure.  
 9 Would the number of magazines possessed be  
 10 different from the number of magazines used?  
 11 A. Sure. Yes.  
 12 Q. All right. The next sentence in your report  
 13 says, "Millions of Americans own and use AR15-style  
 14 rifles."  
 15 Again, I want to start by talking about some  
 16 terms.  
 17 What do you mean by "Americans"?  
 18 A. People that are in America.  
 19 Q. Okay. In other places in your report, you  
 20 use the term "U.S. citizens."  
 21 Are you using these as equivalents?  
 22 A. Yes.  
 23 Q. Are you including law enforcement officers  
 24 within "Americans"?  
 25 A. Absolutely.

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1 Q. Are you including retailers and/or  
 2 wholesalers within Americans?  
 3 A. Yes.  
 4 Q. Are you including people who cannot legally  
 5 own firearms? For example, felons?  
 6 A. No. I mean, I'm sure they own them, but I'm  
 7 not -- that has nothing to do with my initial  
 8 sentence that says, "Commonly possessed and used for  
 9 lawful purposes."  
 10 I'm not trying to say that felons don't own  
 11 them.  
 12 Q. Are you -- when -- when within your report  
 13 you say, "X number of Americans own Y," within that  
 14 number, do you adjust for people who cannot legally  
 15 own firearms?  
 16 A. No.  
 17 Q. Do you adjust for retailers and wholesalers?  
 18 A. No.  
 19 Q. Do you adjust for whether those -- some  
 20 subset of those people are law enforcement officers?  
 21 A. No.  
 22 Q. Okay. Is the "own" in this sentence used  
 23 differently than the "possessed" used in the previous  
 24 sentence?  
 25 A. No.

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1 Q. So you use "own" and "possess" as  
 2 equivalents throughout your report?  
 3 A. Yes.  
 4 Q. How do you define "AR15-style rifles"?  
 5 A. They are a rifle that is generally based on  
 6 the original design by Eugene Stoner.  
 7 Q. When -- you occasionally, within your two  
 8 reports, use the term "AR15 or AR15s," and other time  
 9 you use "AR15-style rifles."  
 10 Are these equivalent terms to you?  
 11 A. Yes.  
 12 Q. Does your definition of the term "AR15-style  
 13 rifles" match the definitions of assault weapons used  
 14 in the ordinances relevant to this case?  
 15 A. Likely they do.  
 16 Q. Are the weapons covered by your definition  
 17 of AR15-style rifles a subset of the term "assault  
 18 weapons" covered by the ordinances?  
 19 A. Yes.  
 20 Q. Are there AR15-style rifles that would not  
 21 fall under the scope of the ordinances?  
 22 A. I don't know.  
 23 Q. That's because you haven't compared the  
 24 definition within the ordinances to your definition  
 25 of AR15-style rifles?

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1 A. No, because there's some -- there's  
 2 ambiguity. We know that when certain laws are  
 3 passed, that there are manufacturers that will change  
 4 the features in order to bypass whatever laws or  
 5 ordinances are written so that their firearms can  
 6 still be sold. They're still an AR15-style rifle,  
 7 even if the features have been changed.  
 8 So it's -- again, it's an ambiguous  
 9 question.  
 10 Q. In your supplemental report, you also use  
 11 the term "modern sporting rifle" or MSR.  
 12 How does that definition relate to the  
 13 definitions of AR15-style rifle?  
 14 A. Generally both the NRA and National Shooting  
 15 Sports Foundation sought to get away from the term or  
 16 not use the term "assault rifles," and so  
 17 politically, they started using the term "modern  
 18 sporting rifle."  
 19 Again, it's a political term. The -- the  
 20 MSR is probably a larger umbrella to firearms that  
 21 fall under general terms, which -- within the  
 22 ordinances would be listed as assault rifles, and not  
 23 specifically just AR15s. But if you look at their  
 24 publications, the AR15, every time they talk about  
 25 the MSR, it is the AR15.

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1 And when I spoke to Mr. Fatohi directly, I  
 2 said, "Can you give me a number, can you give me some  
 3 term, where I can separate AR15 style from MSR?"  
 4 He said, "No, we don't have any way to do  
 5 that specifically."  
 6 But most of the -- most of the firearms that  
 7 they have under the term "modern sporting rifle," the  
 8 vast, vast majority of them are AR15-style rifles.  
 9 Q. Would all AR15-style rifles be considered  
 10 modern sporting rifles?  
 11 A. Maybe. I mean, again, there's manufacturers  
 12 that are coming out with all kinds of odd things all  
 13 the time. I mean, there -- there is an AR15-style  
 14 rifle that uses a conventional buttstock and  
 15 eliminates the gas tube. It's still an AR15-style  
 16 rifle, but it would not be under several of the  
 17 ordinances or laws that have been passed banning,  
 18 quote, "assault rifles."  
 19 Q. So assault -- "assault weapons" as defined  
 20 within these ordinances are likely a subset of modern  
 21 sporting rifles?  
 22 Is that what you're saying?  
 23 A. That's probably the same -- probably the  
 24 same.  
 25 Q. So would you consider -- okay. I think that

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1 answers it.  
 2 All right. One more question, I guess:  
 3 Would rifles based on the AK standard be considered  
 4 modern sporting rifles?  
 5 A. Are you talking AK-47s and AK-74s?  
 6 Q. Yes.  
 7 A. Most likely, yes.  
 8 Q. Okay. So it is a more inclusive category  
 9 than AR15-style rifle; is that correct?  
 10 A. Yes.  
 11 Q. So between your initial and supplemental  
 12 reports, you appear to cite five studies and other  
 13 materials in your calculations of, A, the number of  
 14 AR15-style rifles in the United States; and, B, the  
 15 number of owners of AR15-style rifles in the United  
 16 States.  
 17 Did you review any studies for other  
 18 materials considering the number of users of  
 19 AR15-style rifles in the United States?  
 20 A. No, not specifically. There are some police  
 21 officers who use AR15-style rifles that are issued to  
 22 them by the department so they do not own them, but  
 23 that is a fairly small subset.  
 24 Q. But there would -- would there be owners of  
 25 AR15-style rifles who don't use AR15-style rifles?

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1 A. Sure.

2 Q. And you didn't review any studies or other

3 materials, considering the number of users of

4 AR15-style rifles in the United States?

5 A. No.

6 Q. Is that correct?

7 What is your basis for stating, then, that

8 millions of Americans use AR15-style rifles?

9 A. Because they do. I mean, there's -- if you

10 look at the various types of competition, as well

11 as -- as law enforcement, there's millions of

12 Americans that use them in those ways on a regular

13 basis. Some additionally use them for home defense.

14 So "use" does not necessarily mean that they

15 fire them, but they have them as defensive weapons,

16 or they use them in competition, or they use them for

17 self-defense. Some also use them for hunting.

18 Q. And do you have a basis for stating that

19 those categories of people combined would be in the

20 millions?

21 A. Well, yes. I mean, that's using the NSSF

22 and the English report to some degree, and then also

23 knowing personally and understanding how many people

24 actually compete and hunt and use those types of

25 firearms for self-defense.

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1 Q. Do you know whether the challenged

2 ordinances exclude police officers from the

3 restrictions on assault weapons?

4 A. I -- I don't -- I couldn't tell you exactly

5 what it says. I think there's some exclusions for

6 law enforcement and military.

7 Q. Are you offering any opinion in this case on

8 the prevalence of use of assault weapons as would be

9 affected by the ordinances relevant to this case?

10 A. I'm -- can you restate that?

11 Q. Sure.

12 Are you offering an opinion in this case as

13 to the prevalence of use of the weapons defined in

14 this case as assault weapons?

15 A. I mean, there's several -- there's several

16 components to that. I mean, one is that, yes, there

17 are some people that are not going to use them as a

18 result of this law or ordinance or not buy them.

19 There's other people that are going to use

20 them regardless. So, as you just said, I mean, I

21 don't think that the -- I'm not seeing anything that

22 the police in these cities are going to give up their

23 AR15s, and there's likely civilians that will not as

24 well. That may make them run afoul of the law, but

25 I'm -- I'm not going to -- I'm not going to sit here

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1 and tell you that I can psychoanalyze all the

2 different groups of people and tell you who's going

3 to comply, and who's not going to comply, and who's

4 going to get rid of their guns, and who's going to

5 keep them. I have no idea.

6 Q. Are you -- is the fact that police officers

7 and departments own and use AR15-style rifles a

8 significant piece of getting comfortable with the

9 idea that millions of Americans use AR15-style

10 rifles?

11 A. Well, they -- they are -- they are

12 Americans. I mean, for the most part, I mean, yeah,

13 there's probably some jurisdiction that allow people

14 who are not Americans to be police officers, but I'm

15 not aware of those in Colorado.

16 So, I mean, yes, they are a subset of

17 Americans.

18 Q. Are you -- what is your impression of the

19 portion of these millions of Americans that use

20 AR15-style rifles that consists of law enforcement

21 officers?

22 A. I'm not even sure what you're asking.

23 Q. How many law enforcement officers do you

24 believe in this country use AR15-style rifles?

25 A. I don't know.

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1 MR. ARRINGTON: Counsel, is this a good time

2 to take a break? We've been going for two hours and

3 15 minutes.

4 MR. VAN HEMMEN: Yeah, I think it's a good

5 time.

6 THE VIDEOGRAPHER: This is the end of Media

7 Number 2. Going off the record. The time is 11:15.

8 (Lunch recess taken.)

9 THE VIDEOGRAPHER: We are back on the

10 record. The time is 11:49. This is the beginning of

11 Media Number 3.

12 MR. VAN HEMMEN: Thank you.

13 BY MR. VAN HEMMEN:

14 Q. So before the break, we were discussing the

15 use of AR15-style rifles.

16 Regarding the ownership of AR15-style

17 rifles, from your two reports, you appear to rely on

18 five sources. And I'm just going to go through them

19 and make sure that I -- I have them right.

20 For the total number of guns in circulation,

21 I believe you cite the NSSF 2022 industry report,

22 which is attached to your supplemental report, and

23 then also the NSSF 2020 industry report, which -- it

24 sounds like you intended to attach to your initial

25 report, but we just pulled it from the website,



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1 because we didn't have it.  
 2 And then Matt should be marking that now as  
 3 Exhibit 13, I believe.  
 4 (Exhibit 13 was identified.)  
 5 BY MR. VAN HEMMEN:  
 6 Q. There it is. If you could just open it and  
 7 confirm that this is the correct report.  
 8 MR. ARRINGTON: What is it? Is there an  
 9 exhibit number?  
 10 MR. VAN HEMMEN: Sorry. I thought I said  
 11 it. Exhibit 13.  
 12 THE WITNESS: Yes, I have that open,  
 13 18 pages, and it's marked MP0013.  
 14 BY MR. VAN HEMMEN:  
 15 Q. Yes.  
 16 And so they unfortunately don't put the year  
 17 at the top of the report, but you can see in -- at  
 18 the very bottom of the report, you can see it appears  
 19 to be copyrighted in 2020. This is the --  
 20 MR. ARRINGTON: If we could go off the  
 21 record for a moment. Gordon is having difficulties.  
 22 MR. VAN HEMMEN: Yeah.  
 23 THE VIDEOGRAPHER: Going off the record.  
 24 The time is 11:53.  
 25 (Recess taken.)

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1 THE VIDEOGRAPHER: We are back on the  
 2 record. The time is 11:56.  
 3 BY MR. VAN HEMMEN:  
 4 Q. We were looking at Exhibit 13, and at the  
 5 bottom, I just asked you to confirm that it says  
 6 "Copyright 2020, National Shooting Sports Foundation,  
 7 Incorporated."  
 8 A. It does.  
 9 Q. Okay. This is the NSSF report that you  
 10 referred to in your initial report?  
 11 A. Yes.  
 12 Q. This and the other 2020 industry report, you  
 13 both use for number of guns and number of magazines;  
 14 is that correct?  
 15 A. It's not the other 2020 report. It --  
 16 Q. I'm sorry.  
 17 A. The one that we have open in Exhibit 13 is  
 18 1991 to 2018, and it's titled "The 2020 report." The  
 19 second one is the 2022 report that includes up  
 20 through up through 2020, as far as numbers.  
 21 Q. Thank you. I misspoke. I appreciate the  
 22 correction.  
 23 But these are the -- these are your two  
 24 sources for the number of guns or magazines as  
 25 opposed to numbers of owners; is that correct?

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1 A. Yes.  
 2 Q. All right. For number of owners, I count  
 3 three sources. The first is a 2022 Washington Post  
 4 survey, which Matt, I believe, will be marking now as  
 5 Exhibit 14.  
 6 (Exhibit 14 was identified.)  
 7 BY MR. VAN HEMMEN:  
 8 Q. And I just want you to take a look and  
 9 confirm that this is the one you were using because  
 10 there wasn't a full citation. So this just appears  
 11 to be a Washington Post article in 2022 on this  
 12 topic.  
 13 And it should be there now, Exhibit 14.  
 14 A. Yes. Give me one second.  
 15 I think that's -- I think that's correct.  
 16 Q. Okay. Thank you.  
 17 A. The format looks different -- the format  
 18 looks different, but --  
 19 Q. Yeah, I think it's got --  
 20 A. -- it's got the numbers in there, but there  
 21 is something different about the formatting.  
 22 Q. Yeah. I think what happens is some of these  
 23 websites for these news organizations use weird  
 24 formatting that doesn't print well.  
 25 A. Yeah. And if you look at -- give me a

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1 second.  
 2 If you look at Page 1, it says, "The survey  
 3 found," and so I think this is a summary of their  
 4 survey, because it's definitely a different format.  
 5 Q. Okay. So you believe that your source was  
 6 the survey that is linked to at the top of, I think  
 7 it's Page 2?  
 8 A. Well, yeah. I can't click it. It's a .pdf.  
 9 Q. I understand. I understand.  
 10 A. But I believe so.  
 11 Q. Okay. Thank you.  
 12 And now Matt should be putting up Exhibit  
 13 Number 14 -- or 15. And this, I believe, is the same  
 14 as -- is the same report that you noted -- that you  
 15 attached that didn't come through to us with your  
 16 initial report and that Barry sent to us. It should  
 17 be Exhibit 15, and when it comes up, it should say at  
 18 the top "2021 National Firearms Survey."  
 19 (Exhibit 15 was identified.)  
 20 THE WITNESS: Yes, that is correct. I think  
 21 that is the right one.  
 22 BY MR. VAN HEMMEN:  
 23 Q. All right. And both this and the Washington  
 24 Post survey concerned number of owners, as opposed to  
 25 number of units, guns, or magazines?

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1 A. Correct.

2 Q. Is that correct?

3 The last source that I see in your report is

4 a 2020 statement by NSSF president and CEO Joseph

5 Bartozzi. I'm not quite sure what this was.

6 Was this in a speech of some sort?

7 A. My -- give me one second.

8 My understanding, from talking to Salam

9 Fatohi, was that that was in an article that they

10 have since pulled, and he did not have access to it

11 when I talked to him.

12 And I had looked at it, I had bookmarked it,

13 but I went to open the bookmark, and it -- it's

14 not -- it wasn't there. It was a bad link.

15 So he's not sure why they pulled it exactly,

16 but I can't verify that document at this time.

17 Q. Okay. Is there -- do you have any

18 information that would allow us to identify this?

19 A. Only that it was in an article that the NSSF

20 had on their website.

21 Q. And, to your knowledge, there's no longer a

22 copy of this?

23 A. That's correct.

24 Q. Okay. All right.

25 And this statement also applied to the

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1 number of owners of weapons as opposed to the number

2 of individual --

3 A. Can you refer me to -- are you --

4 Q. Sure.

5 A. -- talking about my report now?

6 Q. Yeah. Let's go back to your report. This

7 will be Tab -- or Exhibit 1.

8 A. Okay.

9 Q. And if we go down to the discussion section

10 after the sentence starting, "A Washington Post

11 survey."

12 A. Yes.

13 Q. It says, "A Washington Post survey in 2022,

14 numbers the owners of AR15s at 16 million, while the

15 2020 number was almost 20 million, according to NSSF

16 president and CEO Joseph Bartozzi."

17 A. Yes.

18 Q. So that -- it says, "While the 2020 number,"

19 which seems to point back to numbers the owners of

20 AR15s.

21 A. Correct.

22 Q. So this is -- okay. So to go back to the

23 original question, this statement by Joseph Bartozzi

24 that there are 20 million refers to owners as opposed

25 of AR15s?

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1 A. I believe so, yes.

2 Q. And that's your recollection because you no

3 longer have the copy of the source?

4 A. Unfortunately, that's correct.

5 Q. Okay. Did I miss any other sources

6 regarding your count of AR15s?

7 A. No.

8 MR. ARRINGTON: Well, you did refer to

9 the -- his conversation with Mr. Bartozzi where he

10 did confirm making the statement. Are you not

11 counting that as a source?

12 MR. VAN HEMMEN: No.

13 MR. ARRINGTON: Okay. Well, never mind.

14 MR. VAN HEMMEN: Okay.

15 BY MR. VAN HEMMEN:

16 Q. Why would you not count that as a source?

17 A. I did not talk to Mr. Bartozzi directly. I

18 talked to Mr. Fatohi, who is not Mr. Bartozzi.

19 Q. Thank you.

20 There is also a mention of a 2018 NSSF

21 estimate of the number of semiautomatic handguns. I

22 believe that's just referring to the 2020 report,

23 because the dataset for the 2020 report ends in 2018.

24 Is that your recollection as well?

25 A. Where are you in my report?

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1 Q. Sure.

2 This is on Page 2 in sort of the middle of

3 that top portion of a paragraph that says, "The

4 2018 NSSF estimate of semiautomatic handguns is

5 89 million."

6 A. Yes. That would -- that would refer to the

7 2020 report.

8 Q. Excellent. Okay.

9 Other than the five sources we just went

10 over, did anything else go into your opinion as to

11 the number of AR15-style rifles or owners in the

12 United States?

13 A. Not a -- not a reference or a source, no.

14 Q. All right. We'll come back to those named

15 sources as we go on. But your reports also make a

16 number of statements where the sources are included.

17 So I'd just like to run through them and tie them to

18 the appropriate source.

19 So in your initial report, at the bottom of

20 the first page, you write, "It is estimated that

21 8 to 9 million AR15s were owned by U.S. citizens

22 prior to 1990, and the total number of semiautomatic

23 rifles owned in the U.S. 2018 had just over 43

24 million."

25 Is there a source for that in your initial

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1 report?  
 2 A. The 2018 number is from the NSSF report.  
 3 The 8 to 9 million is -- is an estimate that I have  
 4 come up with based on various pieces of information  
 5 that I understand and know, such as talked about in  
 6 the supplemental report, whereas Colt prior to that  
 7 time had manufactured about 2 million rifles -- or,  
 8 I'm sorry, 2 million AR15s.  
 9 Q. All right. If we go to Exhibit 2, which is  
 10 your supplemental report.  
 11 A. Okay.  
 12 Q. You state at -- let me find the right spot.  
 13 On Page 2, halfway down the first section of  
 14 paragraph, it says, "The estimate of 8 to  
 15 9 million AR15-style rifles in the U.S. prior to 1990  
 16 is based on this author's experience and  
 17 participation in the firearms industry and  
 18 competition with the AR15 style of rifles."  
 19 Is that the same 8 to 9 million as in your  
 20 initial report?  
 21 A. Yes.  
 22 Q. And how -- how do you get to 8 and 9 million  
 23 through experience and participation in the firearms  
 24 industry and competition with the AR15 style of  
 25 rifles?

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1 A. Well, there's a couple of things: One, the  
 2 Colt number prior to that is around 2 million.  
 3 There are various sources where you can go and look  
 4 up and -- for serial number research projects.  
 5 For instance, if you go to Glock Talk, which  
 6 is an online forum, you can look through Glock Talk,  
 7 and you can look at serial numbers, and you can start  
 8 to add up how many firearms are owned.  
 9 Colt and Bushmaster, there are several of  
 10 these forums out there where you can look at serial  
 11 numbers and start to add up numbers, based on the  
 12 serial numbers manufactured and the methods that the  
 13 manufacturers use to mark those.  
 14 In addition, there are numerous  
 15 manufacturers that are no longer in business. For  
 16 instance, Del-Ton is no longer in business. They  
 17 manufactured firearms in that time frame. We don't  
 18 know what the numbers were. But when you go to  
 19 high-power competition, and you go to three-gun  
 20 competitions, and you look at the firearms that are  
 21 represented, it's -- there is some data there to be  
 22 looked at and said, "Okay. If these firearms are  
 23 showing up in the hands of competitors, they're  
 24 obviously manufactured and are available."  
 25 Q. Do you consider the set of firearms used in

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1 competitions to be representative of the total  
 2 population of AR15s?  
 3 A. No.  
 4 Q. Is that because it would be more likely at  
 5 competitions that there would be rare or specialized  
 6 rifles?  
 7 A. Not necessarily rare or specialized.  
 8 Configured differently, but, I mean, a standard  
 9 16-inch AR15 is a very common rifle to be used in  
 10 three-gun competition or even high-power competition.  
 11 You know, people accessorize them, but you  
 12 also have a couple other factors that are ignored in  
 13 all of the data from NSSF, and that is that lower  
 14 receivers and upper receivers can be bought  
 15 independently, and those are not classified as rifles  
 16 when they're sold. And so that data is basically  
 17 camouflaged from direct analysis.  
 18 Q. Have you -- have you seen at competitions  
 19 millions of AR15-style rifles?  
 20 A. No.  
 21 Q. Have you seen hundreds of thousands of  
 22 AR15-style rifles?  
 23 A. Probably not even that high.  
 24 Q. Have you seen thousands of AR15-style rifles  
 25 that were manufactured between 1967 and 1968 by

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1 manufacturers other than Colt?  
 2 A. Over the course of 30 years? Probably, yes.  
 3 Q. And from that, you extrapolate that there  
 4 must be millions of such rifles?  
 5 A. That and other information, yes.  
 6 Q. What's the other information?  
 7 A. I have -- I've told you that. There are  
 8 several manufacturers that no longer make AR15  
 9 rifles. They're even out of business, even prior to  
 10 the NSSF collecting data. There are numerous that  
 11 went out of business.  
 12 Q. You're saying there are over 100 producers,  
 13 such producers?  
 14 A. There have been well over 100 producers,  
 15 yes.  
 16 Q. Within the 1977 through 1990 period?  
 17 A. That -- that number may -- it's hard to  
 18 define, but there are likely close to 100 in that  
 19 time frame, yes.  
 20 Q. Would you be able to -- would you be able to  
 21 name ten such producers?  
 22 A. Not without doing some research, no.  
 23 Q. Okay.  
 24 A. I mean, I know Del-Ton is not in existence  
 25 and Bushmaster is not in existence, and, you know,

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1 there are others that have gone out. They're not  
 2 ones that I personally owned or used. So it's  
 3 literally looking at various websites and forums to  
 4 look at and see what manufacturers were there.  
 5 I mean, you can look at those numbers and  
 6 say, "Wow, there's a lot of them," and I have  
 7 actually counted them on various websites before.  
 8 Q. You've counted producers?  
 9 A. Manufacturers -- so brand names or  
 10 manufacturers of AR15s, yes.  
 11 Q. And your count was close to 100? Over 100?  
 12 A. Well over 100 currently. I obviously did  
 13 not count them in the time frame of 1990 because I  
 14 wasn't working on this case.  
 15 Q. All right. Would you agree that for this  
 16 pre-1990 calculation, the relevant subset of  
 17 producers would be those pre-1990?  
 18 A. Can you say that again?  
 19 Q. I mean, you said you didn't count in 1990  
 20 because you weren't on this case. But would you  
 21 agree that producers that existed in 1990 or prior to  
 22 1990 is the correct group of producers that you would  
 23 need to count in order to make such a statement?  
 24 A. To make what statement?  
 25 Q. Maybe I'm misunderstanding what you just

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1 said.  
 2 A. Can you direct me back to my report, what  
 3 you're -- what you're asking?  
 4 Q. So for your calculation of 8 or 9 million  
 5 AR15s owned prior to 1990.  
 6 MR. ARRINGTON: Is there a question pending?  
 7 BY MR. VAN HEMMEN:  
 8 Q. Yeah. The question is did you -- have you  
 9 counted producers prior to 1990 -- have you counted  
 10 producers who produced AR15-style rifles prior to  
 11 1990?  
 12 A. I have made that attempt, yes.  
 13 Q. And what number did you come up with?  
 14 A. It's -- it's more than 100 --  
 15 Q. Okay.  
 16 A. -- that were producing AR15s prior to 1990.  
 17 Q. Okay. You appear to disagree with  
 18 Mr. Klarevas on this point.  
 19 If we could go to -- let's see. It's Tab --  
 20 Exhibit 3 is the rebuttal report from Mr. Klarevas.  
 21 A. I have it open.  
 22 Q. In Paragraph 13, Mr. Klarevas discusses this  
 23 issue, specifically your claim that about 8 to 9  
 24 million AR15 were owned by U.S. citizens prior to  
 25 1990.

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1 Did you review the sources cited by  
 2 Mr. Klarevas?  
 3 A. Yes.  
 4 Q. Do you disagree with their methodology?  
 5 A. I -- give me a second.  
 6 I mean, that's -- that's his opinion. And  
 7 he has a citation, but I don't think that they are  
 8 collecting all of the -- all of the data that was  
 9 available.  
 10 Q. Okay.  
 11 A. And even prior to 1977, that's actually not  
 12 true. Colt did actually -- I mean, his one statement  
 13 is absolutely false. It says, "From 1963 through  
 14 1977 when the patent for the AR15 expire." Colt was  
 15 the only firearms manufacturer producing AR15 rifles  
 16 for sale to civilians. That's not true. Colt did  
 17 license that to other companies, and there were other  
 18 companies that produced them in very small numbers  
 19 prior to '77.  
 20 Q. What -- you say "very small numbers." What  
 21 was the scale?  
 22 A. I don't know.  
 23 Q. Is it thousands?  
 24 A. It -- there are some -- there are some  
 25 references that are available, that, yes, would

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1 probably place it in that realm. So very small  
 2 numbers.  
 3 Q. The --  
 4 A. And then he also says -- I'm sorry. I was  
 5 still going.  
 6 This says, "Between 1963 and 1979 Colt only  
 7 manufactured a total of 96,401 AR15 Mark Sporter  
 8 rifles.  
 9 Colt made more than just Sporter rifles.  
 10 Sporter is specific type of rifle. They actually  
 11 also made the Dissipators and the HBARs.  
 12 So he's only looking at a small subset of  
 13 what Colt actually manufactured.  
 14 Q. Okay. And then the number you cite for what  
 15 Colt manufactured was 2 million?  
 16 A. Correct.  
 17 Q. It looks like that's a slightly different  
 18 date range also. But for -- you cite 2 million  
 19 through 1986.  
 20 A. Yes.  
 21 Q. All right. For the serial number counts,  
 22 Mr. Klarevas cited an article that showed -- I don't  
 23 think it's in this. So we'll mark that as well.  
 24 Matt, could you mark Tab 23. This will be  
 25 Exhibit Number 16.

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1 (Exhibit 16 was identified.)  
 2 BY MR. VAN HEMMEN:  
 3 Q. It's showing up for me.  
 4 A. Yeah, it's opening. It's open now.  
 5 Q. Did you review this source?  
 6 A. No.  
 7 Q. Okay. All right. Let's go back to your  
 8 supplemental report. It's Exhibit Number 2.  
 9 When -- on the top of Page 2 we already  
 10 discussed this sentence, but you noted that several  
 11 of the producers are no longer in business.  
 12 Is the significance of that statement that  
 13 you are no longer able to get counts of what they  
 14 produced?  
 15 A. Yes.  
 16 Q. And are you -- do you believe that those  
 17 producers produced a large number of AR15 rifles?  
 18 A. I -- I don't know. I mean, part -- part of  
 19 the -- that becomes part of the issue. Like, for  
 20 instance, Eagle Arms was a very cheap manufacturer of  
 21 AR15s, and I've searched, and I can't find any data  
 22 anywhere.  
 23 But cheaper samples typically sell in higher  
 24 volume than more expensive samples. So if you look  
 25 at JP Rifles versus Daniel Defense Rifles versus, you

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1 know, PSA Rifles, the volume of those rifles that are  
 2 less expensive definitely sell in higher numbers.  
 3 So it's very difficult to come up with  
 4 actual numbers. It's really just looking at -- I  
 5 guess, it's a combination of looking at the numbers,  
 6 looking at what Colt produced, and trying to come up  
 7 with some estimate. There is no way anybody is going  
 8 to come up with an actual, verifiable number because  
 9 the source data doesn't exist.  
 10 Q. All right. So given that, how were you  
 11 able to arrive at -- if you're saying Colt produced  
 12 2 million in the relevant range before 1990 and  
 13 you're saying that 8 to 9 million existed before, is  
 14 my math right that that would be 6 or 7 million from  
 15 these other producers?  
 16 A. Yes.  
 17 Q. And how are you able to go from there were  
 18 100 producers to those producers produced 6 to 7  
 19 million rifles?  
 20 A. It's -- it's an estimate. Like I've told  
 21 you before, it's looking at the data, looking at how  
 22 many companies there are, looking at the -- the  
 23 existence of firearms from manufacturers that are  
 24 defunct in competition through the years. It's an  
 25 estimate.

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1 Q. But what is -- what math did you do in order  
 2 to arrive at that estimate?  
 3 A. It's looking at what Colt produced and what  
 4 Colt produced even between '77 and, say, 1980, in  
 5 that time frame versus what other companies are  
 6 producing, and seeing that they were ramping up  
 7 production and then backing off from those companies,  
 8 say, okay, it would have been that lower tier, those  
 9 companies that are no longer in production, and  
 10 multiplying that number by those companies. It's an  
 11 estimate. I can't tell you the --  
 12 Q. What number --  
 13 A. -- that it's an actual number.  
 14 Q. Apologies for speaking over you there.  
 15 What -- what number did you use to multiply  
 16 by -- by those producers?  
 17 A. There are some reports out there that talk  
 18 about the production of Colts, and I don't remember  
 19 if it's Klarevas, if it's one of -- one of the  
 20 articles he cited or it's a different one. But they  
 21 compare Colt, Bushmaster, and other manufacturers  
 22 through this time frame of 19 -- I think it's 1975  
 23 through 1980, in that time frame. And it look --  
 24 just looking at their numbers.  
 25 Q. And you didn't -- you didn't cite to any of

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1 these sources?  
 2 A. They're not verifiable numbers. I mean,  
 3 it's an estimate. That's what I say in my report  
 4 that it is an estimate. It's based on my experience  
 5 and knowledge and looking at what kind of numbers are  
 6 actually out there. And not to belabor the point,  
 7 but, you know, I'm going to rely on the NSF numbers  
 8 that only go from, you know, those small brackets  
 9 from 1990 to 2018. That's -- that's your bottom  
 10 number.  
 11 Some number over that? Yeah, it's -- it's a  
 12 number over that. Can I verify it? No. So I'm  
 13 going to rely on the NSSF numbers that are verifiable  
 14 as the low -- the low-end, conservative estimate.  
 15 Q. All right. So you're saying that you are  
 16 offering an opinion on the since-1990 numbers, and  
 17 that you offer the pre-1990 number as just a guess?  
 18 Is that what you're saying?  
 19 A. No, it's an estimate. That's what my report  
 20 says. That's what I say. It's an estimate.  
 21 Q. So would I be correct to say your  
 22 methodology, as you look at each producer that you  
 23 have identified before 1990 and then estimate how  
 24 many weapons they produced and add them up?  
 25 A. Generally, yes. And, like, again, there are

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1 other sources too. I mean, I did say, and remember  
 2 this, that not all AR15 frames or lowers are sold as  
 3 complete rifles. In fact, people who are in  
 4 competition typically do not buy complete rifles,  
 5 they buy lowers. Those aren't included in any of the  
 6 numbers we're talking about, because they weren't  
 7 complete rifles; therefore, there's no tax. So, you  
 8 know, the 11 percent excise tax is on complete  
 9 rifles, not lowers.  
 10 And hundreds and hundreds of thousands of  
 11 lowers have been sold as a serialized part. Even  
 12 though they were on 4473s, there's no tracking of  
 13 them anyway, other than the 4473.  
 14 Q. So what qualifies you to do this type of  
 15 analysis with vary -- varying levels of trustworthy  
 16 versus untrustworthy sources that you compile into a  
 17 total estimate?  
 18 A. Again, like I told you, I'm at -- I go to  
 19 competitions. I talk to the manufacturers. I mean,  
 20 Tactical Machining is a manufacturer in Florida. I  
 21 mean, over the course of their history, their claim  
 22 is that more than half of the AR15 lowers that they  
 23 produced were sold as lowers, not rifles.  
 24 And so whatever their number is that they  
 25 report to NSSF, it's -- the number of lowers that

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1 have likely been turned into AR15s doubles their  
 2 number, and they're just one manufacturer.  
 3 Q. Going back to the first full sentence on  
 4 Page 2 of Exhibit 2, you say that "These 100  
 5 producers of AR15-style rifles, several which are no  
 6 longer in business and none of which reported their  
 7 production numbers to NSSF during that time frame."  
 8 How do you know that none of them reported  
 9 their numbers to the NSSF?  
 10 A. Because I asked NSSF. Their data starts in  
 11 1990.  
 12 Q. Okay. Who at NSSF told you that?  
 13 A. Mr. -- I'll have to read his name again.  
 14 Mr. Fatohi, Salam Fatohi. And I actually asked  
 15 him, "Do you have a way to determine the number prior  
 16 to 1990?"  
 17 And he said, "No, none exists that I know  
 18 of."  
 19 So we had a long conversation about this  
 20 8 to 9 million number, and he agreed there were a lot  
 21 of producers, that there were a lot of lowers that  
 22 were made that were not serialized firearms,  
 23 and -- but he says, "We don't have any data because  
 24 we didn't start collecting that data until 1990."  
 25 Q. All right. Next you state that, "Likewise,

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1 there is no governmental agency that reported the  
 2 production numbers during that time."  
 3 First of all, what is your source for this?  
 4 A. Are you asking me to prove a negative?  
 5 Because I can't do that.  
 6 Q. Okay. Is it even correct?  
 7 A. As far as I know, yes.  
 8 Q. All right. Do you know what an AFMER report  
 9 is?  
 10 A. I do.  
 11 Q. Is it your understanding that they did not  
 12 exist in this time frame?  
 13 A. I don't know exactly when they started, but,  
 14 again, their collection methodology is flawed in that  
 15 they use pistols and rifles and not specifically  
 16 AR15s.  
 17 So there is no way for us to know what of  
 18 that subset was AR15s.  
 19 Q. Okay. So you're saying that the AFMER  
 20 reports in general are not reliable because they  
 21 don't contain breakouts of AR15s; correct?  
 22 A. Correct.  
 23 Q. Okay.  
 24 A. I mean, even as it sits today, their reports  
 25 are inaccurate because the industry estimates that

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1 there are several million -- and I don't know the  
 2 number -- but there are several million AR15 pistols.  
 3 So those would be classified in the ATF  
 4 forms as pistols, not rifles. And, again, those  
 5 receivers that are not classified as rifles or  
 6 pistols are not counted, because they're not full  
 7 firearms.  
 8 Q. Okay. Thank you.  
 9 Next you state, "Based on the prevalence of  
 10 other manufacturers' rifles procured by law  
 11 enforcement agencies in that time frame, which  
 12 predominantly purchased the civilian semiautomatic  
 13 versions as opposed to the military select fire  
 14 versions and as represented and used by competitors  
 15 in competition, it is apparent that Colt produced far  
 16 less than half of the AR15-style rifles between 1977  
 17 and 1990."  
 18 There's a lot going on in the sentence, but  
 19 it appears you're basing the statement that Colt  
 20 produced far less than the AR15-style rifles between  
 21 1977 and 1990 on two main sources or categories of  
 22 sources. One is law enforcement purchases and the  
 23 other is their prevalence in competition.  
 24 Do I have that right?  
 25 A. Yes.

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1 Q. Is there anything else you're basing the  
 2 less-than-half figure on?  
 3 A. No.  
 4 Q. As to law enforcement purchasing, where are  
 5 you getting this information?  
 6 A. Asking friends of mine who are in law  
 7 enforcement, as well as going to the competitions  
 8 that are -- at that time were predominantly law  
 9 enforcement only.  
 10 And so there are some competitions that were  
 11 law enforcement only, and looking at the firearms  
 12 that they are using in those -- in those  
 13 competitions.  
 14 For instance, there is -- there is an  
 15 article from Soldier of Fortune in Boulder that  
 16 actually talks about the Soldier of Fortune match,  
 17 and in 1980 and 1981 literally lists the firearms of  
 18 the top ten competitors in each of those years. And  
 19 virtually none of them were manufactured by Colt.  
 20 The majority of those people were also in law  
 21 enforcement.  
 22 Q. But they were manufactured within that  
 23 relevant date range, between 1977 and 1990?  
 24 A. Yes. Because they -- these -- this was  
 25 competitions that occurred in 1980 and 1981.

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1 Q. Okay. And would you say that those -- those  
 2 winning competition rifles are a representative  
 3 sample of the population of AR15s?  
 4 A. Not necessarily. But when USPSA and SOF and  
 5 3-Gun Nation and all those various entities publish  
 6 the list of firearms used by top competitors, similar  
 7 to NASCAR, if you win on Sunday, you sell on Monday.  
 8 And so if you look at the sales figures from  
 9 some of these companies, when they had enough  
 10 sponsored shooters that won matches, their sales went  
 11 up drastically in that time frame.  
 12 Q. So you're saying that rifles that perform  
 13 better in competitions have higher sales numbers?  
 14 A. No. I'm saying that people that use rifles  
 15 that compete well in competition, those rifles get  
 16 sold at a higher rate. It doesn't mean the rifles  
 17 are necessarily better. It's just what they used.  
 18 Q. Okay. You also noted that rifles that are  
 19 cheaper tend to have better sales figures.  
 20 A. That's correct.  
 21 Q. Do you see any tension between those two  
 22 statements?  
 23 A. Sure.  
 24 Q. Have you reviewed any law enforcement  
 25 procurement records?

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1 A. Not directly, no.  
 2 Q. Have you reviewed a compilation?  
 3 A. I just asked people that I know who are in  
 4 the firearms community. So friends of mine who  
 5 either work for manufacturers or are in procurement  
 6 or sales. I mean, at one point I went and ran the FN  
 7 match, and FN -- I don't know if you know this, but  
 8 FN manufactured a lot of rifles for Colt under  
 9 their -- under the Colt licensure as supplied to the  
 10 military and then sold to civilians.  
 11 I'm good friends with the director of law  
 12 enforcement sales, and so I've talked to him. I've  
 13 talked to Ruger. I've -- I mean, I don't know how --  
 14 what you want me to do. These are things that are in  
 15 my head that I know over the course of many years  
 16 being in the firearms industry, competing, and  
 17 talking.  
 18 I like -- I like the information. I like  
 19 firearms. I like understanding why -- what makes  
 20 what work. And I ask these questions, and so that's  
 21 where that information comes from.  
 22 Q. Would you agree that the sample of  
 23 information that you've collected through  
 24 competitions and talking to people at competitions is  
 25 not representative of the entire population?

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1 A. Not the way you stated it. No, I wouldn't.  
 2 Q. Okay. So the bases that I've -- I've heard  
 3 you describe give you a sense that a large proportion  
 4 of law enforcement purchases are made up of these --  
 5 these rifles from -- from other producers.  
 6 Do you have a sense of the overall size of  
 7 the law enforcement procurement sales or numbers at  
 8 this time period?  
 9 MR. ARRINGTON: Object to form.  
 10 MR. VAN HEMMEN: Yeah, sorry. It was not a  
 11 very clear sentence.  
 12 BY MR. VAN HEMMEN:  
 13 Q. So do you have a sense of how many  
 14 AR15-style rifles were purchased in this period by  
 15 law enforcement?  
 16 A. It was hundreds of thousands, and it --  
 17 there's a lot of factors go into it. I mean, if you  
 18 look at -- for instance, you can go look at law  
 19 enforcement guns that have been turned back in to  
 20 manufacturers that are now for sale.  
 21 And over the course of years, I've seen  
 22 several that were marked by a variety of departments,  
 23 whether it be Glock pistols or AR15s. And they are  
 24 marked as firearms that came from various  
 25 departments.

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1 At one point in the -- in the 1990s, that  
 2 almost virtually stopped, as it relates to AR15s.  
 3 And so that data is not being replicated from 1990  
 4 moving forward as it was prior to 1990.  
 5 Q. But hundreds of thousands is not close to  
 6 half of 8 to 9 million.  
 7 A. No. I don't think I ever -- I don't think  
 8 anywhere in my report did I say that the half of the  
 9 8 to 9 million were bought by law enforcement. Not  
 10 even close.  
 11 Q. Okay. So what -- do you have a sense of  
 12 what percentage that would be? It sounds now like  
 13 that was a relatively small percentage of that  
 14 8 to 9 million number?  
 15 A. Yeah, it's going to be a subset. And, no, I  
 16 don't know exactly what that number would be.  
 17 Q. Okay. So the -- would the majority of that  
 18 8 to 9 million then be coming from your personal  
 19 sample of information and information that you've  
 20 looked up as you've described based on competitors in  
 21 competitions?  
 22 A. No.  
 23 Q. Okay. Moving on to the next sentence of  
 24 your supplemental report, you say, "Regardless, it is  
 25 obvious that from 1990 until the current day, the

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1 AR15 style of rifle has become more popular among  
 2 U.S. citizens for recreational purposes, hunting, and  
 3 self-defense than it was prior to 1990."  
 4 What is this observation based on?  
 5 A. Well, it's based on the NSF numbers and the  
 6 proliferation of the use of the AR15 in competition,  
 7 hunting, and self-defense.  
 8 Q. Okay.  
 9 A. I mean, if you go -- if you go, like, prior  
 10 to 1990, and were you to go ask an average homeowner  
 11 what kind of firearm did they have -- and I'm talking  
 12 firearms owners, what kind of firearm did they have  
 13 in their home for self-protection, it was a variety  
 14 of things, revolvers, shotguns, you know, some  
 15 semiautomatic pistols.  
 16 If you do the same thing today, there's a  
 17 very dominant answer that is AR15s.  
 18 Q. Have you reviewed any studies breaking out  
 19 the use of AR15-style rifles by recreational  
 20 purposes, hunting, and self-defense?  
 21 A. Only the data -- the only data that I have  
 22 seen that I know is there was a -- there was a TV  
 23 show literally called The Modern Sporting Rifle, and  
 24 I think it was produced by the NRA, and there was  
 25 some data in that that talked about -- I don't

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1 remember if it ran for one season or two seasons, but  
 2 they actually talked about the proliferation of the  
 3 AR15 as used for defense, competition, and hunting.  
 4 And there were some numbers in there. I  
 5 can't quote exactly what they were, but it is a TV  
 6 show that used data that the NRA collected when they  
 7 produced that show.  
 8 Q. Did you review the data, the underlying  
 9 data, that was collected?  
 10 A. I have in the past, yes. I mean, that's  
 11 part of -- that's part of my rationale for why I say  
 12 that the AR15 is more popular today than it was then.  
 13 I mean, if you're saying that my number of  
 14 8.9 million -- or 8 to 9 million prior to 1990 is,  
 15 you know -- is too high, the lower you make that  
 16 number, the more true it makes my statement that it's  
 17 a much more popular firearm today than it was in  
 18 1990.  
 19 So go one way or the other, I mean, it's  
 20 just getting more and more popular as time goes on.  
 21 Q. So I understand that. I'm not really sure  
 22 what your point is there, though.  
 23 Turning to the last sentence of the  
 24 paragraph, you state, "Since all manufacturers do not  
 25 report to NSSF, estimating the number of AR15-style

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1 rifles prior to 1990 is difficult. The number of  
 2 AR15-style rifles that actually exist is certainly  
 3 higher than those in the NSSF estimates."  
 4 And I just want to make sure I understand  
 5 here.  
 6 First of all, the NSSF estimates that you  
 7 referred to are the 2020 and 2022 NSSF industry  
 8 intelligence reports that we previously marked; is  
 9 that right?  
 10 A. Correct. Correct.  
 11 Q. Okay. So is your point here simply stating  
 12 that the NSSF numbers don't include pre-1990 numbers,  
 13 and some of the pre-1990 AR15-style rifles presumably  
 14 still exist; therefore, the NSSF estimates are lower  
 15 than the number of existing AR15-style rifles?  
 16 A. There -- not completely, no.  
 17 Q. Okay. Can you elaborate, then?  
 18 A. Sure.  
 19 So the NSSF says through 2020, from -- so  
 20 from 1990 to 2020, they estimate the number at 24.4  
 21 million. That does not include anything prior to  
 22 1990.  
 23 So whatever -- whatever AR15 existed prior  
 24 to 1990 would then have to be added to that number.  
 25 If you're looking at rifles, all of those



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1 produced as pistols would also have to be added to  
 2 that number. If you're looking at AR15s that exist  
 3 that were put together by people at home from AR15  
 4 lowers, that, again, adds to that number.  
 5 Then if you add the number of companies that  
 6 are not members of NSSF, therefore, do not report to  
 7 NSSF, that adds to that number again. And then you  
 8 have self-manufactured AR15s, which, again, adds to  
 9 that number.  
 10 So there are -- there are several areas of  
 11 that 24.4 million does not include. So that number  
 12 of 24.4 million, that is the bottom number. It's at  
 13 least that many, and it -- we know it's more.  
 14 Q. Do the NSSF estimates account for rifles  
 15 that have worn out or otherwise broken or been  
 16 destroyed?  
 17 A. They do.  
 18 Q. They remove those numbers from their counts?  
 19 A. No, no. That's not what I said. I guess  
 20 ask your question again, and I'll answer it. But  
 21 maybe I misunderstood your question.  
 22 Q. Do all of the -- does the count for NSSF  
 23 estimates -- is that limited to rifles that currently  
 24 exist?  
 25 A. No. That is the total number of rifles

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1 produced from 1990 to 2022 -- to 2020.  
 2 Q. Okay. So when you say that the number of  
 3 AR15-style rifles that actually exists, you're not  
 4 talking about actually exists currently. You're  
 5 saying that have been produced?  
 6 A. If you -- if you want to argue about how  
 7 long it takes for an AR15 rifle to wear out and be,  
 8 you know, dysfunctional, we can do that. But it's a  
 9 very, very small number, that 24.4, that would have  
 10 been taken out of service due to malfunction or  
 11 damage. Theft, that's probably a small portion as  
 12 well.  
 13 Q. What about illegal trafficking to Mexico,  
 14 for example?  
 15 A. I -- I mean, are you talking about, like,  
 16 what the ATF did moving guns to Mexico, or are you --  
 17 I mean, I don't know exactly what you're asking.  
 18 I mean, there's not a whole lot of AR15s  
 19 that end up going to that realm. But the majority of  
 20 those are other firearms that were made in other  
 21 countries that come in. But that data is -- if you  
 22 can show me some data, I'd be happy to look at it,  
 23 but from my -- what my understanding is, that's a  
 24 pretty low number as well.  
 25 Q. Have you reviewed any data that gives you a

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1 sense of the scale of it?  
 2 A. I've read some ATF reports.  
 3 Q. Have you reviewed any data on illegal trade  
 4 in AR15-style rifles in your preparation of this  
 5 report?  
 6 A. No.  
 7 Q. Does your estimate of the pre-1990 rifles  
 8 account for exports?  
 9 A. No.  
 10 Q. And this actually-exist calculation includes  
 11 rifles that are owned by law enforcement?  
 12 A. Yes.  
 13 Q. And it includes rifles that are owned by  
 14 retailers and/or wholesalers that have not passed on  
 15 to the ultimate consumer; correct?  
 16 A. Correct.  
 17 Q. All right. So going back to the top of your  
 18 supplemental report discussion section --  
 19 MR. ARRINGTON: Sounds like you're at a  
 20 breakpoint.  
 21 MR. VAN HEMMEN: Sure. We can take a break.  
 22 MR. ARRINGTON: Five minutes?  
 23 MR. VAN HEMMEN: Sure.  
 24 THE VIDEOGRAPHER: This is the end of Media  
 25 Number 3. Going off the record. The time is 12:50.

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1 (Recess taken.)  
 2 THE VIDEOGRAPHER: We are back on the  
 3 record. The time is 12:59. This is the beginning of  
 4 Media Number 4.  
 5 BY MR. VAN HEMMEN:  
 6 Q. All right. We're still looking at  
 7 Exhibit 2, your supplemental report. At the start of  
 8 the discussion section on Page 1 of the report, it  
 9 says, "Since the original report was issued, the  
 10 updated NSSF industry intelligence report has been  
 11 reviewed. It was provided to this author by  
 12 Mr. Fatohi, the director of research for the NSSF."  
 13 Did Mr. Fatohi reach out to you?  
 14 A. No.  
 15 Q. Did you reach out to Mr. Fatohi for the  
 16 updated report?  
 17 A. I did.  
 18 Q. Did you reach out before the updated report  
 19 was published?  
 20 A. No.  
 21 Q. Is there a reason you didn't just go get the  
 22 published report?  
 23 A. Well, when I was talking to them, he emailed  
 24 it to me, and my understanding was what was online  
 25 had a few changes to the most current version, which

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1 is what he emailed to me.  
 2 Q. Okay. From our earlier discussion, I  
 3 understand that you discussed the contents of the  
 4 report with Mr. Fatohi.  
 5 Did you discuss this case with him?  
 6 A. Absolutely.  
 7 Q. What did you discuss?  
 8 A. The numbers in the NSSF industry report. I  
 9 wanted more information. Some of the -- some of the  
 10 references appeared to me to be indistinct, and so I  
 11 wanted more verification from -- from Salam as to  
 12 what some of the references in the footnotes actually  
 13 meant. You know, there are some -- there are some  
 14 portions in the report. For instance, on Page 7 --  
 15 and I'm going go to it directly so I don't say  
 16 something wrong. Let's see --  
 17 Q. Sure.  
 18 A. So on Page 7, the NSSF magazine chart on the  
 19 bottom it says, "Source: ATF AFMER," and I said, "So  
 20 is the NSSF magazine chart that's on Page 7, is it  
 21 based on ATF AFMERs?"  
 22 He said, "No."  
 23 I said, "Is it based on U.S. ITC?"  
 24 He said, "No."  
 25 I said, "Is it based on industry estimates?"

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1 He said, "Yes, that is all that is based on  
 2 is the industry estimates."  
 3 And so some of the citations are not  
 4 specific because if you look up to the next one up,  
 5 where it says estimated modern sporting rifles, that  
 6 says the source is the ATF AFMER and industry  
 7 estimates. It is the same one as is related to  
 8 Page 7.  
 9 And so, in fact, the ATF AFMERs are not  
 10 related to the NSSF magazine chart. Those are some  
 11 of the questions I wanted to ask him, and I did ask.  
 12 Q. Okay. Is it your understanding that  
 13 Mr. Fatohi is in charge of putting this report  
 14 together?  
 15 A. He is the director of research. So he has  
 16 several people who work for him on this, but  
 17 ultimately, he's the one responsible for the  
 18 production of this report at this time. Honestly, I  
 19 don't know if he was the one responsible for  
 20 producing the prior one. I didn't ask him that. I  
 21 don't know.  
 22 Q. Okay. Did you have discussions concerning  
 23 the prior report with anyone at NSSF?  
 24 A. Yes, I did talk to that -- on that report, I  
 25 did talk to Zach Snow at SHOT prior to the issuance

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1 of my report, and it's just general, like, "Where  
 2 does this information come from?"  
 3 And so I had a general understanding from  
 4 Mr. Snow as to where this information was coming  
 5 from, but I was not aware of Mr. Fatohi at that time.  
 6 Q. And what was Mr. Snow's information?  
 7 A. Well, it was -- I asked him, "Where does  
 8 this information come from?"  
 9 MR. ARRINGTON: You mean his position at  
 10 NSSF, or his position --  
 11 MR. VAN HEMMEN: Yes. Sorry, Barry. Thank  
 12 you for that clarification.  
 13 BY MR. VAN HEMMEN:  
 14 Q. I mean, what is his role with --  
 15 A. Oh, I think he's the director or the -- I  
 16 think he's the director of developmental --  
 17 development of ranges and clubs.  
 18 Q. Is it your understanding that he has a role  
 19 in producing this report?  
 20 A. No, it's not.  
 21 Q. Okay. Did -- okay.  
 22 So for the modern sporting rifles chart,  
 23 what did Mr. Fatohi tell you about the methodology  
 24 for putting together this chart?  
 25 A. So that is a combination of data that they

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1 have from those actual three sources that are below:  
 2 ATF, AFMER, whatever the US ITC stands for. I can't  
 3 remember exactly what that stands for. But that  
 4 number includes, or that is related to the  
 5 information in the green column, which is the import  
 6 and export number, which they alter.  
 7 And then the industry estimates are -- is  
 8 actual reporting back from the industry.  
 9 And so what he told me is they attempt to  
 10 take the industry estimates, look at the number of  
 11 ATF AFMER, and there is never a number that they  
 12 produce that is over or an extrapolation to those  
 13 companies that are not members of NSSF.  
 14 So they either get the numbers from the  
 15 industry report or they get them from the AFMERs, and  
 16 so they look at those two numbers, and obviously they  
 17 can't add both of them together. So they have to  
 18 exclude the information from one of those two groups  
 19 before they add them together.  
 20 Q. So is it -- it's your understanding that  
 21 they, for each manufacturer, use either the ATF AFMER  
 22 numbers, or if they do get a report from the  
 23 manufacturer, they use manufacturer's number?  
 24 A. Correct.  
 25 Q. So the ATF AFMER numbers, I believe you

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1 previously noted that they just say "rifles." They  
 2 don't separate out modern sporting rifles.  
 3 How do they get from that full number rifles  
 4 to the MSR number?  
 5 A. You'd have to ask them. We talked about it,  
 6 but I did not take notes on our conversation. So I  
 7 could not tell you.  
 8 Q. Okay. So you're unaware of how they do it,  
 9 but your understanding is that they don't use the  
 10 full ATF AFMER number?  
 11 A. That is my understanding, when they have a  
 12 better number from their members, yes.  
 13 Q. Would it -- would it surprise you if they  
 14 inferred a percentage for those producers from the  
 15 industry estimates that they get from the other  
 16 manufacturers?  
 17 A. I don't think that they do that, based on my  
 18 conversation with Mr. Fatohi.  
 19 Q. So what -- do you have any idea what  
 20 information they would use to create those  
 21 percentages?  
 22 A. I don't see a percentage anywhere in the --  
 23 in their number -- in their chart.  
 24 What percentage are you asking about?  
 25 Q. The percentage of rifles as reported in the

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1 AFMERs that would qualify as modern sporting rifles.  
 2 A. I don't -- it's not in the chart. I don't  
 3 see it.  
 4 Q. Okay. So is it your understanding that  
 5 there must be an additional source besides those  
 6 three sources listed under the chart?  
 7 A. I -- not that I know of.  
 8 Q. Okay. What leads you, then, to believe that  
 9 the ATF AFMER reporting manufacturers that do not  
 10 provide estimates in NSSF -- the numbers used by the  
 11 NSSF are lower than the actual numbers?  
 12 MR. ARRINGTON: Wait. Wait.  
 13 MR. VAN HEMMEN: I can rephrase.  
 14 MR. ARRINGTON: Okay.  
 15 BY MR. VAN HEMMEN:  
 16 Q. For the producers that do not provide NSSF  
 17 reports, how can you be confident that the numbers  
 18 that are added into this chart are below the actual  
 19 number of modern sporting rifles produced by those  
 20 producers?  
 21 A. I didn't say they were.  
 22 Q. Okay. So it's possible that those numbers  
 23 are overestimated?  
 24 A. I don't believe so, no.  
 25 Q. You are saying you don't believe so, but you

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1 don't have a high confidence that that's correct?  
 2 A. I have --  
 3 MR. ARRINGTON: Wait. Wait. I will object  
 4 to the form of that question. I don't know what the  
 5 antecedent of it is.  
 6 But go ahead -- if you understand it, go  
 7 ahead and answer it.  
 8 THE WITNESS: The 24,446,000 number, that is  
 9 the low estimate. There are certainly more than that  
 10 number. There are some that were not collected and  
 11 counted. So I don't know what you're asking, but  
 12 that 24.4 million, that is the bottom number.  
 13 BY MR. VAN HEMMEN:  
 14 Q. Would you agree that there are two types of  
 15 numbers going into this chart, and we'll set aside  
 16 for now the green column, but in the -- in the blue  
 17 column of just U.S. production, that there are either  
 18 producers that provide an industry estimate to NSSF  
 19 or producers that do not?  
 20 A. I think you're mixing two things together.  
 21 Q. Sure. Is it your understanding --  
 22 MR. ARRINGTON: Can you remind me which  
 23 chart we're talking about now?  
 24 MR. VAN HEMMEN: We're talking about the MSR  
 25 chart on the top of Page 7 of the 2022 industry

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1 intelligence report. I believe it's Page 13 of  
 2 Exhibit 2.  
 3 MR. ARRINGTON: Okay.  
 4 BY MR. VAN HEMMEN:  
 5 Q. So through your conversation with  
 6 Mr. Fatohi, it's your understanding that they  
 7 cataloged the producers of MSRs and for each of them,  
 8 comes up with an estimate of the number that were  
 9 produced, and then adds them together; is that  
 10 correct?  
 11 A. No. They --  
 12 Q. Okay.  
 13 A. For -- for those manufacturers, who are NSSF  
 14 members who report their production numbers to NSSF,  
 15 that -- that is a number that they use.  
 16 For those members that are not NSSF members,  
 17 who do not report to NSSF, they use the AT -- the ATF  
 18 AFMER.  
 19 So there's two separate sources of data  
 20 based on their association with NSSF.  
 21 Q. And you are -- you're confident -- are you  
 22 confident that the producers that -- the number for  
 23 the producers that use the AFMER in this report, that  
 24 those numbers are low?  
 25 A. Yes. Yeah. Absolutely they're low.

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1 Q. How can you be confident of that?  
 2 A. Because their -- I explained to you before.  
 3 There is a -- there is an excise tax. Once you  
 4 produce a certain number of rifles, you have to pay  
 5 the excise tax, and you have to report to ATF those  
 6 firearms that you sell, and you have to pay the  
 7 excise tax.  
 8 There's a lot of manufacturers out there  
 9 that stay below that threshold. Granted, they're  
 10 small numbers, but they are staying below that  
 11 threshold because they literally do not want to  
 12 report to the ATF, and they do not want to increase  
 13 the price of their products that 11 percent.  
 14 So they --  
 15 Q. You have --  
 16 A. So they are meeting the law, but they are  
 17 not going to report because they are not over the  
 18 excise tax limit number.  
 19 Q. Do you have a sense of the overall size of  
 20 that population of rifles?  
 21 A. I don't.  
 22 Q. Do you have an order of magnitude?  
 23 A. It's a small number in relation to the  
 24 24.4 million.  
 25 Q. Okay. Counting just rifles that are

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1 produced as rifles that would go into this chart, are  
 2 you confident that that number is above the number  
 3 that is used in this chart simply from the ATF AFMER?  
 4 A. I mean, if -- are you asking me to verify  
 5 the veracity of the ATF reporting? Because I can't  
 6 do that. I have no idea.  
 7 Q. Okay.  
 8 A. I'm going to rely on the ATF's numbers of  
 9 reporting that they know what they're doing in terms  
 10 of taking boxes and doing data entry and counting it  
 11 up.  
 12 I'm sure there are people who don't report  
 13 who are supposed to. But I'm sure that's a fairly  
 14 small number, all things considered.  
 15 Q. Would you be surprised if you found out that  
 16 this chart was calculated, using the ATF AFMER  
 17 numbers as a baseline and then adjusting based on the  
 18 industry estimates of the proportion of rifles that  
 19 were modern sporting rifles?  
 20 A. I -- I don't know that I can answer that one  
 21 way or the other.  
 22 I mean, in talking to -- in talking to  
 23 Salam, he's very confident that those numbers are  
 24 accurate numbers that can be verified, and so I'm  
 25 going to rely on that. I mean, it -- these are the

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1 same numbers that have been reported to the  
 2 congressional research office and, you know, that  
 3 have been used in these kinds of cases all over the  
 4 country.  
 5 So I -- unless you can show me a flaw, I'm  
 6 going to rely on those numbers as being valid.  
 7 Q. Would it be accurate to say that your  
 8 confidence in these numbers comes from your  
 9 estimation of the credibility of Mr. Fatohi?  
 10 A. No, it comes from the -- it comes from the  
 11 credibility of ATF to be able to count things and the  
 12 NSSF industry companies to report their numbers.  
 13 Q. All right. Other than the new numbers for  
 14 2019 and 2020 and resulting cumulative totals across  
 15 this report, are you aware of any changes between the  
 16 2020 and 2022 reports?  
 17 A. Mr. Fatohi told me that there were some. I  
 18 did not go and investigate specifically what they  
 19 were. He said there were a couple small things that  
 20 were -- that were changed in formatting and  
 21 reporting, but I couldn't tell you what they are.  
 22 Q. Are you aware of any changes to the  
 23 methodology?  
 24 A. No.  
 25 Q. Okay. So just to save talking about these

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1 reports individually, would I be correct to say that  
 2 the strengths and weaknesses of the 2020 and 2022  
 3 surveys -- or studies would be the same?  
 4 A. I don't know. You'd have to ask Mr. Fatohi  
 5 that question.  
 6 Q. Okay. All right.  
 7 Going back to -- I guess it's the same  
 8 exhibit, but at the top, right after you say that you  
 9 got this from Mr. Fatohi and --  
 10 A. Excuse me. I'm on Exhibit 2. You want me  
 11 to go to another exhibit?  
 12 Q. Top of Exhibit 2.  
 13 A. Okay. I'm at the top.  
 14 Q. This is your supplemental report. We were  
 15 looking at the attachment.  
 16 A. Understood.  
 17 Q. After you note that you got the report from  
 18 Mr. Fatohi and the file name, you say, "This is the  
 19 same report referred to in the defendant expert  
 20 Klarevas report."  
 21 A. Yes.  
 22 Q. I just want to clarify, you mean this is the  
 23 later version of the same report; is that correct?  
 24 A. Yes. I mean, it's from the same source. I  
 25 guess I should have said it's from the same source.

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1 Q. Okay. Just wanted to make sure that you  
2 weren't under the impression that Klarevas was using  
3 the 2022 report.  
4 All right. Would it be fair to say that  
5 after that first discussion paragraph --  
6 MR. ARRINGTON: Can we go off the record for  
7 just a moment?  
8 MR. VAN HEMMEN: Sure.  
9 MR. ARRINGTON: Okay.  
10 THE VIDEOGRAPHER: This is the end of Media  
11 Number 4. Going off the record. The time is 1:19.  
12 (Recess taken.)  
13 THE VIDEOGRAPHER: We are back on the  
14 record. The time is 1:21. This is the beginning of  
15 Media Number 5.  
16 BY MR. VAN HEMMEN:  
17 Q. All right. We just went off the record so  
18 that Mr. Arrington could point us to a reference from  
19 Mr. Klarevas's report to the NSSF 2022 report.  
20 Mr. Passamaneck, did you review  
21 Mr. Klarevas's initial report?  
22 A. Not before I wrote the supplemental, no.  
23 Q. And you, since then, have reviewed  
24 Mr. Klarevas's initial report?  
25 A. I have seen it, yes. I have not reviewed it

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1 in depth.  
2 Q. Okay. Mr. Passamaneck, did Mr. Arrington  
3 ask you to include this sentence, saying that this is  
4 the same report referred to in the defendant Klarevas  
5 report?  
6 A. No.  
7 Q. All right. When you say that you have seen  
8 Mr. Klarevas's initial report, do you mean that it  
9 has been provided to you?  
10 A. I don't know if it's been provided to me or  
11 not. I would have to go and look. I know that I've  
12 now seen it in this, but I'm not sure if  
13 Mr. Arrington provided it to me as an email  
14 attachment or not.  
15 Q. Okay.  
16 A. I would have to look.  
17 Q. So you're saying that when you -- when  
18 you're saying you saw it since the supplemental  
19 report, you mean when we were marking the exhibits  
20 earlier today?  
21 A. I have seen it then, yes. That's correct.  
22 Q. Okay. And you don't know if you'd seen it  
23 prior?  
24 A. I don't know.  
25 Q. Okay. But the only reports that you have

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1 actually reviewed are the supplemental -- or the  
2 rebuttal reports of Mr. Klarevas and Mr. Yurgealitis?  
3 A. I believe that's correct.  
4 Q. Okay. Thank you.  
5 Okay. In case you moved away from it since  
6 then, let's go back to the 2022 report -- or, sorry,  
7 the supplemental report, which is Exhibit 2.  
8 A. I'm sorry. Tab what?  
9 Q. It will be Exhibit 2.  
10 A. Oh, okay. Back to where we were.  
11 Q. To your supplemental report.  
12 Yeah, I think it's where we were, but just  
13 because of the other discussions, I wanted to make  
14 sure.  
15 I noticed you typing just there. Can I ask  
16 what you were typing?  
17 A. Yeah, I looked in my email to see if I had  
18 actually received the Klarevas original report from  
19 Mr. Arrington as an attachment, and I don't see it.  
20 All I see is the rebuttal.  
21 Q. Thank you.  
22 For -- okay. Let's see.  
23 After the first discussion paragraph, where  
24 you cite the NSSF industry intelligence report and  
25 the sentence or two after that describing that 2022

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1 report, is it fair to say that the rest of this  
2 supplemental report is a response to the Klarevas  
3 rebuttal report?  
4 A. Generally, yes.  
5 Q. Okay. Let's go back to your initial report,  
6 which is Exhibit 1.  
7 A. Okay.  
8 Q. Near the beginning of this report you state,  
9 "A Washington Post survey in 2022, numbers the owners  
10 of AR15 at 16 million," and then the statement by  
11 NSSF president.  
12 Per the Washington Post study, this is the  
13 exhibit that we previously marked as 14 for the  
14 record, but I'm going to stay on 1 for a moment.  
15 Defense expert Louis Klarevas attempted to  
16 recreate your work here, in terms of this Washington  
17 Post statement of 16 million?  
18 MR. ARRINGTON: Where are we now?  
19 MR. VAN HEMMEN: We're still on the -- the  
20 initial report, the sentence that says "Washington  
21 Post survey" --  
22 MR. ARRINGTON: Okay.  
23 MR. VAN HEMMEN: -- "estimated the number of  
24 AR15 owners at 16 million."  
25 MR. ARRINGTON: Okay.

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1 BY MR. VAN HEMMEN:  
2 Q. So defense expert Klarevas attempted to  
3 recreate your work here in his rebuttal report. And  
4 that would be, if we go to Exhibit 3, Paragraph 8.  
5 My understanding is that you've already  
6 reviewed this report.  
7 Do you recall reviewing this paragraph?  
8 A. Yes.  
9 Q. And is this an accurate description of how  
10 you arrived at the 16 million number?  
11 A. Give me a second. I don't know what IPSOS  
12 is.  
13 Q. Okay. Noted.  
14 A. Yes, that's generally the same.  
15 Q. Okay. Do you disagree with anything in the  
16 paragraph?  
17 A. Not really, no.  
18 Q. Okay. Do you consider this Washington Post  
19 surveys to be a trustworthy source?  
20 A. In so much as their survey was appropriate,  
21 yes. I mean, they -- they were doing a survey. And  
22 so, yes, I think it's generally accurate, based on  
23 the constraints within the report or their survey.  
24 Q. Okay. Have you reviewed the methodology for  
25 the Washington Post survey?

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1 A. I did read through some of it, but I -- I  
2 cannot quote it to you, and I don't -- I'm not a  
3 statistician.  
4 Q. Okay. Can you please go to Exhibit 10,  
5 Page 21.  
6 A. 21, as numbered or as page?  
7 Q. Yeah, 21 as the pages within the document  
8 viewer. It you're looking at the corners of that  
9 grid that they put transcripts in, it's Page 79.  
10 A. Okay. I'm looking at Page 79.  
11 Q. This is the transcript of your deposition in  
12 the State case. And if you look at the first  
13 question on that Page, 79, it says:  
14 "You don't think the Washington Post survey  
15 figure is accurate?  
16 "I don't.  
17 "So you don't think it is a trustworthy  
18 source?  
19 "I don't."  
20 Do you -- have you had any change in view on  
21 this survey since you took the other deposition?  
22 A. No.  
23 Q. Okay. Going back to Exhibit 1, and back  
24 down to the first page of your actual report, which  
25 is Page 3 in the document viewer, the rest of the

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1 sentence that you start off with the Washington Post  
2 survey, we discussed a bit earlier, "While the 2020  
3 number was almost 20 million," do you have any  
4 insight into the methodology behind that statement of  
5 20 million?  
6 A. I don't.  
7 Q. Okay. The sentence says, "The Washington  
8 Post survey in 2022 numbers found 16 million, while  
9 the 2020 number was almost 20 million."  
10 Are you saying that the number of rifles  
11 went down over that period?  
12 A. No.  
13 Q. You're just saying that there are error --  
14 there's like an inherent error range in these  
15 numbers, and this falls within that?  
16 A. Well, there are two estimates. One is from  
17 the Washington Post, and one's from NSSF. And we've  
18 already talked about that there are errors in some of  
19 those numbers.  
20 Q. Okay.  
21 A. I mean, is it 16 million? Is it 17 million?  
22 Is it 22 million? It's a big number. I'm going to  
23 rely on those sources as being at least a band.  
24 Q. My understanding is that you've never spoken  
25 to Mr. Bartozzi; is that correct?

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1 A. That's correct.  
2 Q. Is it possible that this 20 million number  
3 is the same as the 20 million number from the NSSF  
4 industry report?  
5 A. It is possible.  
6 Q. And would you agree that the NSSF industry  
7 report counts number of guns, while you previously  
8 stated that this 20 million number is number of  
9 owners?  
10 MR. ARRINGTON: Object to form.  
11 THE WITNESS: Yes, there is --  
12 MR. ARRINGTON: Wait. Which sentence are we  
13 talking about here? The one that begins, "A  
14 Washington Post survey"?  
15 MR. VAN HEMMEN: Yes.  
16 THE WITNESS: Can you ask your question  
17 again, please.  
18 BY MR. VAN HEMMEN:  
19 Q. Sure. Let me look at that so I can ask it  
20 the same way.  
21 Would you agree that the NSSF industry  
22 report counts number of guns, while you previously  
23 stated that this 20 million number in this sentence  
24 is number of owners?  
25 A. Yes.

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1 Q. Would you agree that the number of owners is  
2 definitionally lower than the number of weapons?  
3 A. Yes.  
4 Q. Would you agree that it's likely to be  
5 significantly lower?  
6 A. No, I wouldn't.  
7 Q. How many weapons do you think the average  
8 owner owns? Let me specify, AR15 weapons.  
9 A. Most the people I personally know have --  
10 have one, unless they're competitors, and then they  
11 have multiples. And competitors are a small subset.  
12 So I don't know that I can give you a direct  
13 answer, but I don't think that it is a significantly  
14 different number.  
15 Q. So you don't -- you don't see an issue with  
16 two statements from the same year, showing the same  
17 number both from sources at the NSSF -- you don't --  
18 that sentence -- the way I started it, it wasn't  
19 going to finish.  
20 But you don't see attention between the  
21 20 million owners and 20 million guns statements from  
22 the same year both from the NSSF?  
23 A. Yes, there may be -- there may be an error  
24 there.  
25 Q. Would you agree that this statement says

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1 "AR15s," whereas the NSSF report says "modern  
2 sporting rifles"?  
3 A. I do agree to that, yes.  
4 Q. And would you agree that the NSSF report,  
5 when we looked at the headings, stated that it  
6 included both AR15s and AK-47 style weapons?  
7 A. Yes.  
8 Q. All right. Let's move to -- let's see, the  
9 English report, which I believe is Exhibit 15. Or  
10 actually -- yeah, let's just -- let's just stay on  
11 the initial report, and within the discussion  
12 section, after the sentence that we were just  
13 discussing, it says, "A 2021 survey conducted by  
14 Georgetown University Professor William English in  
15 2021 of 16,000 gun owners revealed that of those,  
16 30 percent owned AR15-style rifles."  
17 This is the same report that we previously  
18 marked; correct?  
19 A. Yes.  
20 Q. Do you consider this survey to be a  
21 trustworthy source?  
22 A. Yes.  
23 Q. Have you reviewed the methodology of the  
24 survey?  
25 A. To some degree, I did.

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1 Q. Okay. Please explain why you're comfortable  
2 with the methodology of this survey?  
3 A. Because within his report, he explained what  
4 he did and how, and I'm relying on his numbers, and  
5 they are consistent with the NSSF numbers to some  
6 degree.  
7 And so there is some synergy between  
8 Mr. English's numbers and the NSSF numbers.  
9 Q. Based on the methodology within that survey,  
10 do you believe that you would -- you or someone else  
11 would be able to recreate that study and reproduce  
12 the results?  
13 A. I don't know that I would be able to do  
14 that. I don't do surveys of 16,000 people. But I  
15 think another person that -- that did these types of  
16 surveys would be able to reproduce those numbers  
17 substantially close to the same numbers that  
18 Mr. English got.  
19 Q. Do you recall discussing this survey during  
20 your deposition in the State case?  
21 A. I do.  
22 Q. Since that time, have you done any further  
23 review of the methodology of this survey?  
24 A. I read through it again, but nothing really  
25 has changed.

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1 Q. You haven't changed any of your opinions  
2 regarding the English survey since your deposition in  
3 the State case?  
4 A. No.  
5 Q. Let's go back to Mr. Klarevas's rebuttal  
6 report, which is Exhibit 3. And let's go down to  
7 Paragraph 11.  
8 I don't think you'll disagree with anything  
9 in this paragraph, but please go ahead and read it  
10 and let me know if you do.  
11 A. Okay.  
12 Q. Do you disagree with anything in that  
13 paragraph?  
14 A. I don't.  
15 Q. Okay. Can you now please read Paragraph 12  
16 and let me know if you disagree with anything there.  
17 A. I don't agree that I just glossed over it.  
18 There are -- and I've explained to you why there are  
19 issues with the NSSF numbers being low, in that  
20 they're not collecting all forms of data.  
21 So I understand what he's saying. I don't  
22 agree with all of it, but I understand what he's  
23 saying.  
24 Q. Okay. Other than the characterization in  
25 the first sentence, do you agree with the rest of the

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1 paragraph which discusses the concentration of AR15s  
 2 amongst owners?  
 3 A. Yeah, I don't -- I don't know if -- if all  
 4 of that is able to be extrapolated. You know,  
 5 it's -- if 11 million people own them, okay. I mean,  
 6 if 16 million people own them, okay.  
 7 I mean, the fact is we don't know who owns  
 8 them. We only know what the NSSF number says is  
 9 produced. And that number, at least from 1990 to  
 10 2020, is 24.4 million. That's -- to me, that's the  
 11 only number that anybody can say with any absolute  
 12 certainty is a base number, and it -- that -- by  
 13 "base number," I mean that number is going to be  
 14 higher.  
 15 The rest of it is based on assumptions and  
 16 estimates and crunching numbers, and as the number  
 17 gets smaller and smaller, I mean, he -- English  
 18 basically interviewed 16,000 people, and now Klarevas  
 19 is saying that 74,000 people own, you know, half of  
 20 the AR15s in America? That's an extrapolation  
 21 that -- it's just math, but that's an extrapolation.  
 22 Q. What is your understanding of how English  
 23 came up with his 44 million number from the sample of  
 24 16,000?  
 25 A. I'm sorry. You said 44 million? I don't

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1 know where you're at.  
 2 Q. Yeah. Sorry. Okay. Sorry. That wasn't  
 3 what you cited the English survey for.  
 4 What is your understanding -- so you state  
 5 that the English report found that 30 percent of  
 6 those 16,000 gun owners owned AR15-style rifles.  
 7 A. Yes.  
 8 Q. My understanding of the purpose of that  
 9 sentence was so that you could extrapolate from some  
 10 total number of guns how many AR15-style rifles  
 11 exist.  
 12 Was that the purpose of your sentence?  
 13 A. Correct.  
 14 Q. Do you, anywhere in this report, cite a  
 15 total number of U.S. gun owners?  
 16 A. I don't believe that I do.  
 17 Q. Okay. So your -- is it your opinion that a  
 18 count of rifles, such as the NSSF produced, is  
 19 inherently more reliable than an extrapolated sample?  
 20 A. Yes.  
 21 Q. Okay. Thank you. All right. Just to  
 22 summarize this discussion, I think we've gone over  
 23 most of your discussion from your two reports,  
 24 concerning your count of AR15-style rifles.  
 25 Other than what we discussed, did you rely

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1 on anything else in forming your opinions concerning  
 2 the prevalence of AR15-style rifles?  
 3 A. No.  
 4 Q. Before we move on to the magazines, I just  
 5 want to confirm that I'm correctly understanding the  
 6 scope of your opinions on the topic of AR15-style  
 7 rifle ownership.  
 8 To that extent, your opinions do fall into  
 9 two categories; right? Either the number of owners  
 10 of these guns or to the number of guns owned; is that  
 11 correct?  
 12 A. Correct.  
 13 Q. And you -- you haven't offered any numerical  
 14 estimate of the numbers of AR15-style rifles used for  
 15 any particular purpose; is that correct?  
 16 A. Correct.  
 17 Q. And you're not offering an opinion as to the  
 18 number of assault weapons, as that term is defined in  
 19 the relevant ordinances or the number of owners of  
 20 such weapons; correct?  
 21 A. Correct.  
 22 Q. And you're not offering an opinion as to the  
 23 number of non-AR15-style assault weapons as defined  
 24 in the relevant ordinances; is that correct?  
 25 A. Correct.

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1 Q. And you're not offering any opinion as to  
 2 the number of handguns falling under the ordinance's  
 3 definition of assault weapons; is that correct?  
 4 A. Correct.  
 5 Q. And you're not offering any opinion as to  
 6 the number of shotguns falling under the ordinance's  
 7 definition of assault weapons; is that correct?  
 8 A. That's correct.  
 9 Q. And you do not offer any opinion as to the  
 10 use of assault weapons, as defined in the relevant  
 11 statutes, in self-defense; is that correct?  
 12 A. Correct.  
 13 Q. All right. So far we've mostly talked about  
 14 your methods in counting the number of AR15-style  
 15 rifles in the United States.  
 16 I understand that that wasn't a main issue  
 17 in the State case where your initial report was  
 18 originally filed, and I now want to turn to your  
 19 calculation of the number of magazines, which I think  
 20 is the focus of your report.  
 21 From reviewing your reports, I think that  
 22 you used three different methods to calculate  
 23 magazine ownership in the United States, and I want  
 24 you to just listen to these categories and tell me if  
 25 you agree that these are the three methods you used:



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1 One is by multiplying the number of guns sold by the  
 2 number of magazines sold with those particular guns;  
 3 is that correct? Is that one of your methods?  
 4 A. Yes. I mean, some come with two, some come  
 5 with three. But that is a data point, yes.  
 6 Q. Okay. Two is by relying on the magazine  
 7 charts contained in the NSSF industry intelligence  
 8 reports that we previously marked?  
 9 A. Correct.  
 10 Q. And the third is relying on a conversation  
 11 with the representative of Magpul; is that correct?  
 12 THE COURT REPORTER: I'm sorry. The  
 13 representative of?  
 14 (Simultaneous cross-talk.)  
 15 THE COURT REPORTER: I'm sorry. You were  
 16 both talking over each other, and I didn't hear what  
 17 you said.  
 18 MR. VAN HEMMEN: I'm sorry. I'll spell it  
 19 since it was my question. M-a-g-p-u-l.  
 20 THE WITNESS: Do you want me to answer that  
 21 question, or am I still waiting?  
 22 MR. ARRINGTON: No, what is the -- what is  
 23 the question that's pending? I'm sorry.  
 24 BY MR. VAN HEMMEN:  
 25 Q. That the third method for calculations of

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1 magazine ownership in the United States are based on  
 2 a conversation with a representative of Magpul; is  
 3 that correct?  
 4 A. That is correct.  
 5 Q. Did I miss any other methods?  
 6 A. Let me look real quick.  
 7 Q. Sure.  
 8 A. I think that covers it.  
 9 Q. Okay. So I'm going to go through each of  
 10 those methods.  
 11 First, regarding the numbers derived from  
 12 the gun ownership numbers. So near the top of your  
 13 initial report -- I think we're still on Exhibit 1.  
 14 If not, can you please go there.  
 15 A. I'm there.  
 16 Q. Near the top of Page 2 of the report itself,  
 17 I believe it's Page 4 of the document in the viewer,  
 18 it says, "So conservatively, there are at least  
 19 34 million AR15s owned by U.S. citizens, and the vast  
 20 majority of those rifles were sold with at least one  
 21 20-, or 30-round, 30-round standard being the most  
 22 common magazines."  
 23 Is this meant to imply that there are at  
 24 least 34 million, 20- or 30-round magazines that fit  
 25 in AR15s?

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1 A. Yes.  
 2 Q. How do you know that the vast majority of  
 3 those rifles were sold with at least one 20- or  
 4 30-round magazine?  
 5 A. Because that's what they're sold with.  
 6 Q. How do you know that the vast majority of  
 7 them are sold with that?  
 8 A. Because that's what they were sold with. I  
 9 mean, I -- there's no other way to answer it. That's  
 10 what they were sold with.  
 11 Q. Did you review any studies that say this?  
 12 A. There are no studies such as that. You  
 13 would have to know firearms. Go into a gun store and  
 14 look at the websites of the manufacturers of AR15s,  
 15 and they all say, if they are -- if they are AR10 or  
 16 large-frame platforms, they almost always say  
 17 20-round magazine, and if they are AR15 or small  
 18 frame, they almost all say 30-round magazine.  
 19 I mean, it's like asking are cars normally  
 20 sold with three or four tires? Well, they're  
 21 normally sold with four tires. It's the way it is.  
 22 Q. Can you buy an AR15 with a magazine of less  
 23 than 20 or 30 rounds?  
 24 A. You can.  
 25 Q. Are there some states where you can only buy

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1 an AR15 with magazines of less than 20 or 30 rounds?  
 2 A. Yes, there are.  
 3 Q. So how can you be confident that the vast  
 4 majority of sales of AR15s -- excuse me, were sold  
 5 were at least one 20- or 30-round magazine?  
 6 A. Because that's what they're sold with.  
 7 I mean, even today if you go look, I mean,  
 8 the majority of AR15s that are sold are sold in  
 9 states that don't have a magazine restriction. And  
 10 even magazines say, like people from Colorado that go  
 11 to Wyoming that buy magazines and/or rifles and bring  
 12 them to Colorado.  
 13 So even Colorado residents are buying AR15s  
 14 in adjoining states with 20- and 30-round magazines.  
 15 Q. How do you know that that accounts for a  
 16 vast majority?  
 17 A. Because they do. You can go look at the  
 18 manufacturers' websites. This is not rocket science.  
 19 This is very simple. The manufacturers manufacture  
 20 their rifles and they provide them with  
 21 standard-capacity magazines which, again, are either  
 22 20- or 30-round magazines.  
 23 Most of those manufacturers, as they sell  
 24 them, even if they sell them in the restrict states,  
 25 leave it up to the distributors or the actual

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1 firearms retailer to make sure that those magazines  
 2 are compliant.  
 3 Do those retailers do that? Some do. Some  
 4 don't. Some literally take the magazines out, resell  
 5 them, and put low-capacity magazines in that are  
 6 after market, but they're still shipping with those  
 7 magazines that are full capacity.  
 8 Q. All right. I think I see the disconnect  
 9 here.  
 10 Is it correct that when you say the vast  
 11 majority of those rifles, you are not talking about  
 12 the vast majority of the individual rifles in the  
 13 hands of consumers that were purchased, but rather  
 14 the vast majority of types of rifles?  
 15 A. No. I'm saying that, whether you call them  
 16 AR15s or AR15s and AKs or MSR, semiautomatic rifles  
 17 with detachable magazines are predominantly sold --  
 18 the majority are sold with 20- or 30-round magazines.  
 19 That's across the United States.  
 20 And as the laws have prevented those from  
 21 being sold, there are less of them sold. This  
 22 doesn't mean it's still not the majority.  
 23 Q. Do the websites of the manufacturers say how  
 24 many rifles they've sold with different size  
 25 magazines?

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1 A. No, they generally don't.  
 2 Q. Have you -- okay.  
 3 So your basis for the statement, the vast  
 4 majority of those rifles were sold with at least one  
 5 20- or 30-round magazine is simply that in your  
 6 observations of -- through your experience being in  
 7 and around the gun industry, that is correct?  
 8 A. That is correct.  
 9 Q. You've done no outside research to  
 10 corroborate that statement; correct?  
 11 A. There -- there's none needed. It's -- I  
 12 mean, if you can't figure that out, I'm sorry.  
 13 That's plain as day. I hate to be dismissive, but  
 14 it's obvious if you go and talk to the manufacturers,  
 15 that's what they do. That's what they sell. Go into  
 16 distributors or actual FFLs, you know, yes, there are  
 17 modifications that get made.  
 18 But, you know, you talk to Ruger, talk to  
 19 Daniel Defense, talk to Smith & Wesson, they all  
 20 produce their box with a 30-round magazine and an  
 21 AR15 in it. That's what they ship.  
 22 Q. Okay. So moving on towards the middle of  
 23 the first paragraph on Page 2. You say the  
 24 "2018 NSSF estimate of semiautomatic handguns is  
 25 89 million, excuse me, with about 40 percent being

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1 9 millimeter, which are commonly 15 or 17 rounds  
 2 depending on frame size."  
 3 I -- am I correct, from our previous  
 4 discussion, that this is referring to the 2020 NSSF  
 5 estimate?  
 6 A. So, no. It's the 2018 NSSF estimate that is  
 7 contained in the 2020 industry report.  
 8 If you look at the 2020 industry report, it  
 9 stops at 18. The '22 report stops at 20.  
 10 So, no, that is an accurate statement.  
 11 Q. I wasn't challenging the accuracy. I was  
 12 just confirming that it is the -- what we have been  
 13 referring as the 2022 report, which I -- it sounds  
 14 like you're saying is correct.  
 15 A. Well, this is from the 2020 report.  
 16 Q. Excuse me. Now I misspoke.  
 17 In any case, can we go to Exhibit 13.  
 18 A. Okay.  
 19 Q. And am I correct that this is the report?  
 20 A. Yes.  
 21 Q. If you go to Page 17 of this report, am I  
 22 correct that the 89 million number came from the  
 23 chart on the bottom left there?  
 24 A. Yes. And you said Page 17. That is the  
 25 actual Page 17 of the report.

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1 Q. I think it's both.  
 2 MR. ARRINGTON: I don't know where we are.  
 3 What's the -- what does it say at the very top of the  
 4 page?  
 5 MR. VAN HEMMEN: It's Exhibit 13, Page 17.  
 6 And I think in this document, the page numbers line  
 7 up between the viewer and the number on the bottom of  
 8 the page.  
 9 MR. ARRINGTON: So does it say "Firearms to  
 10 U.S. Market (1991-2019 Interim)"?  
 11 THE WITNESS: Yes.  
 12 MR. VAN HEMMEN: Yes, that's the title of  
 13 the chart at the top.  
 14 MR. ARRINGTON: All right.  
 15 BY MR. VAN HEMMEN:  
 16 Q. And I believe you already answered this, the  
 17 chart on the bottom left is where the 89 million  
 18 number came from; correct?  
 19 A. Correct.  
 20 Q. Are you familiar with the methodology used  
 21 to come up with the numbers in this chart?  
 22 A. Other than what we've already talked about,  
 23 it's the same -- same numbers. They're right at the  
 24 bottom.  
 25 Q. From that, you mean that it's the same

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1 sources?  
2 A. Same sources, yes. I'm sorry. Same  
3 sources.  
4 Q. All right. And other than the fact that  
5 it's the same sources, you don't have any other  
6 knowledge of the methodology used to come up with  
7 these numbers?  
8 A. Other than my discussions with Mr. Fatohi,  
9 no.  
10 Q. Did you specifically discuss this chart?  
11 A. Yes, we talked about this chart. We talked  
12 about the chart on Page 7.  
13 Q. Okay. I would note that the charts on  
14 Page 7 say AFMER, US ITC, and industry estimates --  
15 A. It does.  
16 Q. -- whereas this chart says US ITC, ATF  
17 AFMER, and NSSF estimates.  
18 A. Exact --  
19 Q. And then you cite to the difference between  
20 industry estimates and NSSF estimates?  
21 A. Exactly the same thing.  
22 Q. Mr. Fatohi told you that these are exactly  
23 the same thing?  
24 A. They are exactly the same thing, yes.  
25 Q. He told you that?

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1 A. He told me that. They are exactly the same  
2 thing.  
3 Q. Okay. All right. Going back to your  
4 initial report, Exhibit 1, the same sentence we were  
5 previously looking at, beginning with, however, the  
6 2018 NSSF magazine chart, where did you get the  
7 40 percent of semiautomatics are 9 millimeter number?  
8 That was also from the NSSF report?  
9 A. It was.  
10 Q. And I'm sorry for going back and forth. I'm  
11 not sure there's a better way to do this.  
12 Unfortunately we can't look at two exhibits side by  
13 side here, but if we could go back to Exhibit 13,  
14 could you show me where that 40 percent number came  
15 from?  
16 A. Just a second.  
17 So if you look on Page 5, you will see that  
18 there are several numbers, and they bridge. So over  
19 the course of 25 years, 1994 to 2018, the percentage  
20 was 38.1, and 1999 to 2018, which is, again, it's  
21 bridged, it jumps to 38.7 percent.  
22 If you then go to 15 years, it's at  
23 39 percent; 10 year, 41 percent; and 5 years,  
24 45 percent.  
25 And so that number is in the course of the

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1 time frame of the report, it's about 40 percent.  
2 Q. Okay. Thank you.  
3 Within that same sentence in your report --  
4 and we can go back there, if helpful, you say that,  
5 "Of 9 millimeter, semiautomatic handguns," you then  
6 say, "which are commonly 15 or 17 rounds, depending  
7 on frame size."  
8 Is it correct that you're saying that  
9 9 millimeters are commonly 15 or 17 rounds depending  
10 on frame size?  
11 A. That's what I said.  
12 Q. Okay. Wouldn't this depend on the magazine,  
13 rather than the firearm?  
14 A. No.  
15 Q. So you're saying that the firearm itself has  
16 an inherent number of rounds?  
17 A. Well, based on the frame size, yes. You can  
18 only fit a certain number of rounds inside a grip of  
19 a common 9 millimeter semiautomatic firearm.  
20 And in the time frame that this report was  
21 written up through 2018, the significant overload of  
22 9 millimeter handguns were either compact or full  
23 size, which is 15 and 17 rounds.  
24 Today that number has shifted. I mean, in  
25 the last five or six years, we've seen a lot more

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1 smaller firearms that are under -- under 15 rounds.  
2 13, 10, 8, those types of numbers.  
3 Q. Is it true that the semiautomatic firearms  
4 would be purchased with smaller magazines?  
5 A. They can be.  
6 Q. And this would be the same gun, only the  
7 magazine would be spaced, essentially, to contain  
8 fewer rounds; is that correct?  
9 A. Well, usually it's the same magazine -- it's  
10 usually the same exact parts of the magazine. The  
11 only thing they change is either they add a block or  
12 they alter the spring.  
13 Q. Okay. And other than the number of rounds  
14 it can hold, the function does not change?  
15 A. That's not entirely true, actually.  
16 Q. Okay. What -- what changes in the function?  
17 A. Well, depending on how they have altered the  
18 magazine to have fewer rounds, like, for instance,  
19 the Glock 17 with 10-round magazines is known to be  
20 less reliable than the Glock 17 with 17-round mags.  
21 The ten round magazines just aren't as reliable.  
22 I mean, there are reasons, and some of it  
23 has to do with the function of the firearm, as well  
24 as the springs and spring rate and how the blocks  
25 actually interact with the springs and the

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1 cartridges.

2 And some gun designs, doesn't really matter.

3 In others, it significantly matters.

4 Q. And this is because the -- would you say

5 that this is because the smaller magazines were

6 poorly designed?

7 A. They're not really -- they're not really

8 designed at all. I mean, they're modified to fit a

9 law in most cases. They're not -- they don't go back

10 and redesign them because it's not worth the time and

11 the effort to do it. So they just make a

12 modification.

13 Q. Your report makes no statement as to the

14 size of magazines that come with semiautomatic

15 handguns that are not 9 millimeter; is that correct?

16 A. That's correct.

17 Q. All right. If we go back to your initial

18 report, following along with where we were on Page 2

19 of your report, 4 of the old document, continuing on

20 from where we were reading, sort of middle of that

21 top paragraph, it says, "The Glock 17 is the most

22 prolific handgun in the U.S., with 60 to 70 percent

23 of LEOs utilizing them, and at least 30 percent of

24 targeted sports shooters using them."

25 First of all, what is your source for the

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1 Glock 17 being the most prolific handgun in the U.S.?

2 A. Numbers sold.

3 Q. Okay. Have you reviewed sales numbers for

4 individual models of handguns?

5 A. No.

6 Q. Okay. My -- my question, then, is how do

7 you -- what do you base your statement on, then?

8 A. I mean, there's production numbers, and that

9 comes from the -- I mean, the ATF -- the ATF

10 reporting forms and NSSF have data, and Glock does

11 report to NSSF, and Glock does, at times, produce

12 their times. And you can compare them to Smith &

13 Wesson, which is -- typically has been in second

14 place, and compare them to Ruger, which is further --

15 much further down the chain as far as total numbers

16 sold. I mean, it's not that complicated to do.

17 I mean, if you look at law enforcement

18 agencies, that's what they buy. You know, you look

19 at academies, all police academies pretty much focus

20 on you need to have a Glock 17 or something that

21 functions or operates substantially similar to a

22 Glock 17 just to go to the academy.

23 Once they're -- once they're on the street,

24 they can choose other firearms. But the Glock 17 is

25 what they use for training for the vast majority of

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1 police officers in the U.S. That number is

2 declining. I mean, Glock does not hold the -- they

3 do not hold the same level of acceptance or

4 utilization that they used to. SIG is taking away

5 significant market share, as is Smith & Wesson.

6 Smith & Wesson was the first one to start taking away

7 significant market share from the Glock.

8 Q. Okay. You state that, "60 to 70 percent of

9 LEOs utilize them."

10 First of all, I think I know the answer, but

11 LEO is law enforcement officer; correct?

12 A. Correct.

13 Q. And what is your source for this 60 to 70

14 percent?

15 A. Law enforcement agencies report on this, and

16 so does the FBI. It's -- it's not -- it's -- I would

17 almost say it's common knowledge in the firearms

18 industry that it's 60 to 70 percent.

19 Q. Okay.

20 A. There are -- there are groups that have gone

21 through and tried to tabulate the number. You're not

22 going to find a direct number, but, you know, Glock

23 actually puts out, I guess you call them, press

24 releases or brag papers, whatever you want to call

25 it, as to what percentage of firearms that they're

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1 supplying to LEO departments. And so the ones that

2 are actually supplied by departments, that's --

3 that's the number.

4 Q. All right. And what is the relevance of law

5 enforcement officers' use of the Glock 17 to this

6 case?

7 A. It's just a number. It's just a data point.

8 Q. Okay. What is your source for at least

9 30 percent of targeted sports shooters use the

10 Glock 17?

11 A. So as I told you before, when you look at

12 competitions -- so USPSA and IDPA, those are the

13 largest two action shooting groups, they typically

14 produce reports after their events, and they say what

15 kind of powder, what kind of firearm, you know, what

16 kind of bullet is used. All that information, and

17 that information is typically right around 30 percent

18 between IDPA and USPSA of the numbers who -- from the

19 members who compete in those competitions.

20 Q. What percentage of gun owners in the United

21 States participate in competitive shooting?

22 A. That's hard to say. And are you -- if

23 you're talking pistols versus all competitive

24 shooting, it's a different number. So I guess I'd

25 like you to be more specific.

<p style="text-align: right;">Page 166</p> <p>1 Q. Sure.</p> <p>2 Let's start with pistols.</p> <p>3 A. The current number is estimated somewhere</p> <p>4 around 100,000, and that comes from the number of</p> <p>5 people who belong to IDPA, USPSA, and also compete</p> <p>6 who are not members. That number is probably</p> <p>7 conservative, because there are a lot of private</p> <p>8 ranges who have competitions that are not sanctioned.</p> <p>9 In fact, almost every range that I've ever</p> <p>10 belonged to and have attended, they have private --</p> <p>11 or not private, but non-sanctioned competition.</p> <p>12 And by "non-sanctioned," I'm not meaning</p> <p>13 it's illegal or anything. It's just not sanctioned</p> <p>14 by a national body.</p> <p>15 Q. All right. But in any case, would you --</p> <p>16 you would expect it to be in the single percent of</p> <p>17 gun owners?</p> <p>18 A. I would. You know, as a -- you haven't</p> <p>19 asked this question, but as far as when I train</p> <p>20 people, I try to get them to compete, because there's</p> <p>21 a benefit to maintaining your skills in competition.</p> <p>22 It's almost disappointing how many few --</p> <p>23 how few people are -- will go to a competition and</p> <p>24 compete. Law enforcement officers are almost even</p> <p>25 worse.</p>	<p style="text-align: right;">Page 168</p> <p>1 came with two or three magazines, yes, they usually</p> <p>2 keep those, and most people will go and buy one or</p> <p>3 two more.</p> <p>4 Q. Okay. All right.</p> <p>5 Moving back up a little bit on the page, I</p> <p>6 think it's the sixth line down or so, on Page 2 of</p> <p>7 your initial report, it says, "However, the 2018 NSSF</p> <p>8 magazine chart estimates 71 million handgun magazines</p> <p>9 of 11-plus rounds, 9.4 million rifle magazines from</p> <p>10 11 to 29 rounds, 20 being the most common and 15</p> <p>11 being the second most common, and 79 million rifle</p> <p>12 magazines of 30-plus rounds."</p> <p>13 Is the magazine chart you referred to here,</p> <p>14 the one that we previously discussed in the 2020 NSSF</p> <p>15 industry report?</p> <p>16 A. Yes.</p> <p>17 Q. Okay. And you agree that the magazine chart</p> <p>18 in the 2020 and the 2022 NSSF reports are identical?</p> <p>19 A. Yes.</p> <p>20 Q. I'm just trying to figure out how to do this</p> <p>21 with the fewest number of times that we flip back and</p> <p>22 forth between these exhibits.</p> <p>23 All right. Let's go to your supplemental</p> <p>24 report. That's Exhibit 2. And if we go to Page 2,</p> <p>25 the first full paragraph -- or the second paragraph</p>
<p style="text-align: right;">Page 167</p> <p>1 Q. I would agree with you, by the way, that is</p> <p>2 a shame.</p> <p>3 All right. Your report then states, "They,"</p> <p>4 Glock 17s, "also have an edge for use as a home or</p> <p>5 self-defense firearm."</p> <p>6 What do you mean here by "have an edge"?</p> <p>7 A. So they are very -- they're very easy to</p> <p>8 use. They -- they're rudimentary, in terms of form</p> <p>9 and function. So they're not expensive, as related</p> <p>10 to other firearms. They are easy to shoot fast, and</p> <p>11 they are extremely reliable as a platform.</p> <p>12 Q. Okay. So you're saying that they are well</p> <p>13 suited to home or self-defense firearm?</p> <p>14 A. I don't want you to put those words in my</p> <p>15 mouth. I'm just saying they have an edge, as the</p> <p>16 public perceives them. And so they are bought more</p> <p>17 prolifically than other firearms. I'm not going to</p> <p>18 assert that they are superior.</p> <p>19 Q. Would you -- what would you recommend --</p> <p>20 never mind. It's not important.</p> <p>21 You state that the Glock 17 is sold with two</p> <p>22 or three standard capacity 17-round magazines.</p> <p>23 Would you expect those magazines to be owned</p> <p>24 by a single owner?</p> <p>25 A. I mean, if they bought the firearm, and they</p>	<p style="text-align: right;">Page 169</p> <p>1 on that report, the paragraph about halfway down;</p> <p>2 starting with, "While the estimates related to</p> <p>3 standard capacity magazines."</p> <p>4 I believe all of the numbers in this</p> <p>5 paragraph come from that 2022 industry intelligence</p> <p>6 report. You can correct me if we find something</p> <p>7 other than that, but is that your general</p> <p>8 understanding?</p> <p>9 A. Yes.</p> <p>10 Q. So in the first paragraph -- or the first</p> <p>11 sentence, you say, "While the estimates related to</p> <p>12 standard capacity magazines over 15 rounds presented</p> <p>13 in the initial report are valid, based on the</p> <p>14 author's knowledge and experience, the fact remains</p> <p>15 that verification of those numbers is difficult."</p> <p>16 So from -- based on the author's knowledge</p> <p>17 and experience, are you basically referring to your</p> <p>18 gut impression?</p> <p>19 A. My what?</p> <p>20 Q. Your gut impression.</p> <p>21 A. No.</p> <p>22 Q. Okay. What did you mean specifically</p> <p>23 about "based on the author's knowledge and</p> <p>24 experience"?</p> <p>25 A. Well, again, it's my experience, having been</p>

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1 in the gun industry for 30 years and competing, and,  
 2 you know, even some of those numbers that we talked  
 3 about above related to the 9 millimeter magazines.  
 4 It's not -- it's not just a gut feeling. It is based  
 5 on evaluation of factors that I can see that are  
 6 related to these numbers.  
 7 I mean, I even say that it's difficult to --  
 8 to determine exactly how many. So there are some  
 9 bottom numbers that I think are valid, but, you know,  
 10 that -- that high number, nobody is going to be able  
 11 to come up with that exact high number. It's just  
 12 not possible.  
 13 And so those baseline numbers from NSSF are  
 14 what I rely on as to be the baseline numbers. It's  
 15 that or more.  
 16 Q. Okay. About halfway down this paragraph you  
 17 say, "The number of rifle and pistol magazines that  
 18 are 11-plus rounds is estimated to be 159.8 million.  
 19 This is surely a number that is well below reality.  
 20 However, it is a number that can be substantiated  
 21 based on the NSSF data, which is conservative."  
 22 I think a lot of that is related to what you  
 23 just said, but how -- why do you say that the number  
 24 is -- of 19.8 million is surely well below reality?  
 25 A. Because there are magazines that are

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1 produced by a variety of means and methods that are  
 2 not in the NSSF report.  
 3 Q. Okay. And what do you mean when you say,  
 4 "The 159.8 million number can be substantiated based  
 5 on the NSSF data"?  
 6 A. Well, if you do the math in the -- on that  
 7 chart, on Page 7, you can come up with 159.8 that are  
 8 11-plus -- 11-plus rounds.  
 9 Q. So the NSSF data that you're referring to is  
 10 the data displayed in the table?  
 11 A. The data displayed what?  
 12 Q. The NSSF data that you referred to in this  
 13 sentence is the data that's displayed in the table of  
 14 the NSSF report?  
 15 A. On Page 7, yes.  
 16 Q. And you get that 159.8 number from the NSSF  
 17 table?  
 18 A. Yes.  
 19 Q. So are you saying that the table  
 20 substantiates itself?  
 21 A. No. I'm saying that that table is from  
 22 NSSF, and that that table is -- from their data is  
 23 the bottom number. I'm not saying it substantiates  
 24 itself. That would kind of be silly.  
 25 The data that they've collected shows that

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1 number of the 159.8.  
 2 Q. And when you say that the NSSF data is  
 3 conservative, by that you mean that, as you've said  
 4 in your impression, it is a floor?  
 5 A. It is what?  
 6 Q. A floor.  
 7 A. It is. Yes, I do consider that a floor or a  
 8 lower bound, absolutely.  
 9 Q. The next sentence in your report says the  
 10 NSSF data is a lower bound, which is based on  
 11 industry reporting, which is considered to be the  
 12 most reliable source of data for the lower bound of  
 13 magazines.  
 14 Just to parse this sentence a bit, are you  
 15 saying that industry reporting is considered to be  
 16 the most reliable source of data for the lower band  
 17 of magazines, or that the NSSF data is considered to  
 18 be the most reliable source?  
 19 A. It's the same thing, yes.  
 20 Q. Okay. When you say, "is considered to be  
 21 the most reliable source," who is it that considers  
 22 this to be the most reliable source?  
 23 A. The Congressional Research Office considers  
 24 the NSSF data to be reliable, and that's what they  
 25 use. The industry -- so the manufacturers consider

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1 the NSSF data to be reliable as well, and it's  
 2 because they report to it. And I'm pretty sure your  
 3 expert uses the same -- the same data.  
 4 Q. Sure.  
 5 I'm not saying you're wrong. I'm just  
 6 asking for the bases.  
 7 Are you familiar with the methodology used  
 8 to generate the NSSF magazine chart?  
 9 A. Yes. That is something that I already said  
 10 that I talked to Salam about when I spoke with him.  
 11 Q. Okay. I mean, previously we spoke about the  
 12 MSR chart. So I'm just making sure. And we  
 13 discussed already the three sources listed under that  
 14 chart.  
 15 What's your impression of how those three  
 16 sources of data are combined to arrive at this number  
 17 for the magazines?  
 18 A. Well, I already said that I don't believe  
 19 that the ATF and the ITSC are significant  
 20 contributors to that. So the ATF definitely is not.  
 21 Firearms parts that are exported have to be reported  
 22 through the Secretary of State, and I'm not talking  
 23 about Colorado. I'm talking about on the federal  
 24 level.  
 25 So there may be some from the ITSC, but the

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1 primary source of that data is from industry  
 2 reporting to NSSF.  
 3 Q. Would you be surprised if you were to learn  
 4 that the numbers in this chart reflect a count of  
 5 guns manufactured imported and exported based on  
 6 government data, which is then adjusted based on  
 7 industry responses, estimating the number of  
 8 magazines sold in a box with each gun?  
 9 A. I wouldn't be surprised, no.  
 10 Q. And in the description that I just gave, why  
 11 would you characterize the ATF MER reports as not  
 12 being an important component of that calculation?  
 13 A. Because that number does not specifically  
 14 report the magazines themselves. It reports guns.  
 15 Q. If -- if the calculation done by NSSF is  
 16 number of guns sold times magazines sold per gun,  
 17 you're saying the number of guns sold is not an  
 18 important contributor to the chart?  
 19 A. No, that's not what I'm saying.  
 20 What I'm saying is that NSSF, through its  
 21 members, is going to understand how many magazines  
 22 are sold with specific firearms, and that -- that's  
 23 from their reporting.  
 24 If they've got reporting from nonmembers,  
 25 and they have firearms manufacturing, according to

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1 Salam, those are numbers they can't count because  
 2 they've got no way to verify them.  
 3 So, yes, the industry reporting is the main  
 4 staple of the chart on Page 7.  
 5 Q. I'm trying to understand.  
 6 You're saying that there are two numbers  
 7 that are multiplied by each other to reach the  
 8 ultimate number, and you're saying one of those two  
 9 numbers is the most important?  
 10 A. Yes, because the NSSF, their members report  
 11 to them, not just firearms manufactured, but also  
 12 magazines. And so that number is a better number for  
 13 them to come up with their estimate than estimating  
 14 how many magazines are sold with firearms from  
 15 nonmembers.  
 16 And so there is some component of that, but  
 17 it's the industry -- it's the industry reporting  
 18 that's going to make up the bulk of that number,  
 19 which is the most reliable component as well.  
 20 MR. ARRINGTON: Counsel, is this a good time  
 21 for a break?  
 22 MR. VAN HEMMEN: Yeah. Can I ask one  
 23 follow-up question just to finish out this line of  
 24 questioning?  
 25 MR. ARRINGTON: All right.

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1 BY MR. VAN HEMMEN:  
 2 Q. So you're saying that, of those two numbers  
 3 multiplied together, the magazines sold per box is  
 4 more reliable than the number from the government of  
 5 boxes sold?  
 6 A. That is my opinion, yes.  
 7 MR. VAN HEMMEN: Okay. All right. We can  
 8 take a break, Barry.  
 9 THE VIDEOGRAPHER: This is the end of Media  
 10 Number 5. Going off the record. The time is 2:33.  
 11 (Recess taken.)  
 12 THE VIDEOGRAPHER: We are back on the  
 13 record. The time is 2:53. This is the beginning of  
 14 Media Number 6.  
 15 BY MR. VAN HEMMEN:  
 16 Q. All right. Before the break, we were  
 17 discussing the NSSF magazine charts. I don't think  
 18 we need to be looking at them for this last line of  
 19 questioning on them, but we can always pull it up if  
 20 you need; so just let me know.  
 21 Do the NSSF magazine charts account for  
 22 worn, broken, or otherwise unusable magazines?  
 23 A. No.  
 24 Q. Later in your report, you note many  
 25 magazines wear out and become inoperable after as few

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1 as 500 rounds; is that correct?  
 2 A. Yes.  
 3 Q. So presumably many of the magazines counted  
 4 in this chart are no longer in use; is that correct?  
 5 A. Correct.  
 6 Q. Do NSSF magazine charts account for  
 7 magazines that have been illegally trafficked out of  
 8 the United States?  
 9 A. I would assume that they are in their  
 10 numbers, yes.  
 11 Q. Okay. They're not adjusted to remove that  
 12 number?  
 13 A. I would not believe so, no.  
 14 Q. Do the NSSF magazine counts include  
 15 magazines that are currently possessed by retailers  
 16 and/or wholesalers who haven't made it to the final  
 17 consumer?  
 18 A. Most likely, yes.  
 19 Q. Do the NSSF magazine chart counts include  
 20 magazines that are possessed by people who cannot  
 21 legally possess firearms, for example, felons?  
 22 A. I assume there are some, yes.  
 23 Q. Do the NSSF magazine chart counts include  
 24 magazines that are possessed by law enforcement?  
 25 A. They would, yes.

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1 Q. Okay. Turning back to your initial report.  
 2 Oh, geez, one second. I just realized that  
 3 when I came back from break, I forgot to shut my  
 4 door.  
 5 All right. Turning down to Page 2 of your  
 6 initial report, which is Page 4 in the document  
 7 viewer, about halfway down the first paragraph, you  
 8 state, "Magpul, the largest manufacturer of AR15  
 9 magazines, and who also produces Glock and AR10  
 10 magazines, estimates the total number of magazines at  
 11 15-plus rounds at 350 million."  
 12 Where did you get this information?  
 13 A. From Duane Liptak.  
 14 Q. Okay. And why would he know the answer to  
 15 this question?  
 16 A. Because he is a VP at Magpul.  
 17 Q. And what was the form of this conversation?  
 18 A. I literally asked him if he had any way of  
 19 knowing what the total number of magazines at 15-plus  
 20 rounds in the U.S. were.  
 21 Q. Was this in a phone call?  
 22 A. No. It was -- I used Facebook Messenger.  
 23 Q. Did you retain a copy of that Facebook  
 24 Messenger conversation?  
 25 A. It's still in my -- it's still in Messenger,

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1 and it's in my file, yes.  
 2 Q. Can you provide us with the copy of that  
 3 conversation?  
 4 A. Yeah, I guess I can. Do you want me to do  
 5 it now, or do you want me to do afterwards?  
 6 MR. ARRINGTON: Actually, I think that's a  
 7 good -- I did not realize that this was Facebook  
 8 Messenger. Can you print that out and send it to --  
 9 we'll just take a five-minute break? Is that all  
 10 right, Hendrik?  
 11 MR. VAN HEMMEN: Yeah.  
 12 MR. ARRINGTON: Thank you.  
 13 THE VIDEOGRAPHER: Going off the record.  
 14 The time is 2:57.  
 15 (Recess taken.)  
 16 THE VIDEOGRAPHER: We are back on the  
 17 record. The time is 3:05.  
 18 BY MR. VAN HEMMEN:  
 19 Q. All right. Before we went off, I think the  
 20 last thing was I asked whether you could send us the  
 21 Facebook Messenger conversation with Dave Liptak?  
 22 A. Which we did.  
 23 Q. Oh, sorry. I didn't look at my email during  
 24 the break. I appreciate that. I will pull that up  
 25 now.

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1 Actually, can we go off the record again for  
 2 a minute? I want to --  
 3 MR. ARRINGTON: All right.  
 4 THE VIDEOGRAPHER: Going off the record.  
 5 The time is 3:06.  
 6 (Recess taken.)  
 7 THE VIDEOGRAPHER: We are back on the  
 8 record. The time is 3:08.  
 9 BY MR. VAN HEMMEN:  
 10 Q. All right. I have the document, and it  
 11 should be being marked right about now.  
 12 (Exhibit 17 was identified.)  
 13 BY MR. VAN HEMMEN:  
 14 Q. All right. What you sent us is now  
 15 Exhibit 17. If you could open that, please.  
 16 Just let me know when you have it.  
 17 A. Okay.  
 18 Q. All right. Is this the full conversation?  
 19 A. It is.  
 20 Q. Were there any subsequent conversations on  
 21 this topic?  
 22 A. That's the full conversation. There is  
 23 absolutely nothing else.  
 24 Q. Okay. Thank you.  
 25 All right. You note here that in the first

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1 message, that "Colorado has a 15-round limit, but the  
 2 data I have is under over 10 rounds."  
 3 Is it -- am I correct that you reached  
 4 out to Mr. Liptak because the Colorado limit was  
 5 15 rounds and after, whatever calculations you did  
 6 beforehand, you wanted to see whether you needed to  
 7 adjust for the actual requirement?  
 8 A. Well, I mean, I wrote what I wrote. I  
 9 wanted to know if he had a reference, and that's what  
 10 I was looking for.  
 11 Q. Okay. Did he give you a reference?  
 12 A. Well, no, he did not. He -- he gave me a  
 13 number.  
 14 Q. And as this is the extent of the  
 15 conversation, you never followed up with him on where  
 16 that number came from?  
 17 A. I did not.  
 18 Q. Okay. I think that's all I have to say on  
 19 that.  
 20 All right. Do you -- do you have any reason  
 21 to -- okay. Never mind.  
 22 I prepared questions, not expecting that I  
 23 would see the actual conversation. So I am crossing  
 24 a lot of these out.  
 25 Okay. Do you consider this estimate to be



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1 trustworthy?

2 A. I do.

3 Q. Do you have any basis to evaluate this

4 estimate?

5 A. I did not, other than my knowledge of

6 Mr. Liptak.

7 Q. Okay. So your basis for evaluating the

8 number is just that you believe Mr. Liptak is

9 qualified to produce this number?

10 A. Correct.

11 Q. Do you consider this number to be, as you

12 put it, a floor, a ceiling, or a most likely number

13 for the actual number?

14 A. Well, I mean, he -- he said we use 300 -- we

15 used over 350 million as a conservative number. It

16 seems reasonable to me that that's a conservative

17 number.

18 Q. Okay.

19 A. And I'm going to take away from that,

20 though. I mean, I still say that the NSSF numbers

21 are the floor, and this number is, obviously, higher

22 than that.

23 And so it's a number, but it's -- it's

24 harder to verify that number than the NSSF numbers.

25 Q. Okay. You state that Magpul is the largest

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1 manufacturer of AR15 magazines.

2 How do you know this?

3 A. Because they make more than anybody else.

4 Q. Okay. Are there published production

5 numbers for manufacturers of magazines?

6 A. There are. There are some out there. You

7 know, Magpul, up until they left Colorado, I had

8 frequent interactions with not just Magpul, but

9 Magpul official as well as Magpul testing personnel.

10 In fact, one of my friends was one of the

11 people who was actually testing Magpul magazines, and

12 so I had access to employees of Magpul, as far as

13 their numbers for both military and civilian

14 production, and I can't take it out of my head. It's

15 in my head.

16 But, you know, there's -- there's not

17 anybody else who ever has had production numbers that

18 are as high as Magpul's for magazines, or AR15s.

19 Q. If these production numbers exist, what was

20 your basis for not using those production numbers to

21 calculate this?

22 A. Well, Magpul has production numbers for

23 their protection, but they don't have production

24 numbers for other manufacturers. They have -- they

25 have estimates, and that's what that number is an

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1 estimate of their manufacturer. I mean, it's a

2 combined number. I mean, that's what his answer was.

3 It's a combined number.

4 Q. And -- and do you know if they're the

5 largest manufacturer of AR15 magazines for the

6 civilian market?

7 A. Yes, they are.

8 Q. Do they sell magazines to law enforcement?

9 A. They do.

10 Q. Do they sell magazines to the military?

11 A. They do.

12 Q. Do you know whether either of those groups

13 are included in the 350 million?

14 A. I asked him "owned by Americans." And so

15 ownership does not include the government, and the

16 government would be the military, not police

17 officers, but the military.

18 Q. Okay. Is that a standard use of the

19 word "owned" in this context?

20 A. In the firearms industry? Yes, it is.

21 Q. Okay. All right. So we went over three

22 methods for estimating the number of 15-plus round

23 magazines, one being this conversation with

24 Mr. Liptak, one being the NSSF magazine chart, and

25 one being your estimate of various types of firearms

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1 and the magazines that they're sold with.

2 Of those three methods, which do you

3 consider the most reliable?

4 A. I don't know that any of them is going to be

5 the most reliable, because you're asking me to

6 substantiate something that we can't say.

7 We know that the NSSF number is the most

8 conservative of those three numbers and that

9 Mr. Liptak's number is the highest, but if I don't

10 have data to prove it, it's just an estimate.

11 So I'm not going to tell you that one is

12 more reliable than the other. One may be more

13 verifiable than the other, which is the NSSF. But

14 just because it's more verifiable does not mean it's

15 more accurate either.

16 Q. Are you saying that you are not qualified to

17 evaluate these different methods for their

18 reliability or accuracy?

19 A. Not at all.

20 Q. All right. Going back to your initial

21 report, Tab 1. And this will be down near the bottom

22 of the first paragraph on Page 2. It says,

23 "Conservative estimates are just that, conservative,

24 and there are certainly close to 100 million handgun

25 magazines in the U.S. that are over 15 rounds. That

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1 leaves approximately 250 million rifle magazines over  
 2 15 rounds."  
 3 My guess is here what you're doing is taking  
 4 this 350 million 15-plus round magazines from your  
 5 conversation with Mr. Liptak and subtracting your  
 6 estimate of 100 million 15-plus round handgun  
 7 magazines to arrive at 250 15-plus rifle magazines;  
 8 is that correct?  
 9 A. That's correct.  
 10 Q. Does "certainly close to 100 million" mean  
 11 100 million plus or minus some margin of error?  
 12 A. Sure.  
 13 Q. What would you put the margin of error on  
 14 that as?  
 15 A. I don't know. I mean, if we go back to  
 16 the -- to the chart from NSSF, and we add up the  
 17 number, we come to -- give me a second. The number  
 18 of rifle and pistol magazines that are 11-plus rounds  
 19 estimated to be just about 160 million.  
 20 So that's the -- that's a lower floor, and  
 21 so are there more than that? Yes. How much more?  
 22 Maybe it's 350 million. I don't know. But there's  
 23 definitely more than 160 million.  
 24 Q. You're saying based on the NSSF, there are  
 25 definitely more than 160 15-plus round magazines?

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1 A. 11-plus round mags.  
 2 Q. 11-plus. Thanks.  
 3 Where, then, did this 100 million number  
 4 come from?  
 5 A. That is the estimate of semiautomatic  
 6 handguns, 89 million, and looking at the fact that  
 7 most of them come with two or three rounds. So I'm  
 8 saying it's at least 100 million.  
 9 Q. Okay. And you say certainly close to  
 10 100 million, and you mean at least 100 million?  
 11 A. Well, it says, "conservative estimates are  
 12 that, conservative," and there are certainly close to  
 13 100 million handgun magazines in the U.S. that are  
 14 over 15 rounds. It's -- it's going to be over --  
 15 it's some number over that.  
 16 You know, if you take 89 million handguns,  
 17 and you back out how many of them are 9 millimeters,  
 18 then you can do a calculation that comes up with --  
 19 give me a second. It would be somewhere in the range  
 20 of 80 million 9 millimeter handguns -- I'm sorry.  
 21 9 millimeter magazines that are over 15 rounds.  
 22 Again, it's estimates based on the  
 23 information that's available.  
 24 Q. Okay. And why did you calculate handgun  
 25 magazines this way, but not rifle magazines this way?

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1 A. Because it's really hard to -- it's really  
 2 hard to look at handgun magazines and rifle magazines  
 3 in the same manner.  
 4 Most people who own a handgun, they will go  
 5 and buy, you know, one or two magazines after they  
 6 initially buy a handgun.  
 7 People who buy rifle magazines, that number  
 8 is -- is higher. There's not a way to directly  
 9 correlate the number of rifles sold to the number of  
 10 magazines that are supplied with them.  
 11 So typically they come with one, but I can  
 12 tell you that I don't know anybody who owns an AR15  
 13 that doesn't have at least five or six magazines for  
 14 their AR15.  
 15 So that -- that upper bound is just much  
 16 more difficult to determine. It's easier to  
 17 determine with a handgun.  
 18 Q. All right. Why -- okay. All right.  
 19 So I wish I knew the data science term for  
 20 this concept, but does it strike you as problematic  
 21 that you have a number that represents a total  
 22 population, 350 million for Magpul, that was  
 23 determined through one methodology, and you subtract  
 24 a subset of that population in order to estimate the  
 25 remaining population, where the subset was calculated

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1 through a different methodology?  
 2 A. Sure.  
 3 They're estimates. I've never said anything  
 4 other than they were estimates.  
 5 Q. If one of those numbers is further off from  
 6 the true number than the other, what would that do to  
 7 the error on the derived number?  
 8 A. Well, the derived number of 250 million?  
 9 Q. Yeah.  
 10 A. It would lower it. If there's more handgun  
 11 magazines than 100 million, then it would lower it.  
 12 If there's less, then it would raise it.  
 13 Q. If, hypothetically, we ask someone how  
 14 many handguns are in this room in -- or, let's say,  
 15 in New York City, and we had a number. Say that  
 16 number ended up being a million. I have no idea  
 17 whether that's anywhere near plausible.  
 18 And say we then went out and counted the  
 19 number of semiautomatic handguns that we see and came  
 20 up with 100,000.  
 21 Would we then be safe to say -- or would it  
 22 even make sense to say that we estimate that the  
 23 number of revolvers in New York City are that million  
 24 minus the number of semiautomatics?  
 25 A. No.

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1 Q. Isn't that analogous to what we're doing  
 2 here?  
 3 A. Not really.  
 4 Q. Why is that?  
 5 A. Because it's a different population, and you  
 6 don't know how many guns are in New York. And the  
 7 other point is that the people who own firearms in  
 8 New York are going to be less likely to tell you that  
 9 they own them than people who live in areas where  
 10 firearms have few or no restrictions.  
 11 Q. All right. But just from taking that,  
 12 saying that we know that the number we counted is  
 13 going to be an underestimate, and saying that we know  
 14 that the total number is likely to be a  
 15 underestimate, can we really say anything about the  
 16 number of revolvers?  
 17 A. I mean, it depends on a lot of factors.  
 18 It's a different -- it's a different set of things  
 19 that you're looking at.  
 20 With firearms, we have serial numbers in  
 21 most cases, and we can look at the data and compile  
 22 them.  
 23 Magpul has made a few firearms. They are  
 24 primarily a magazine and accessories manufacturer,  
 25 and so their magazines are not counted by

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1 manufacturers, as well as place -- companies like  
 2 Mec-Gar and Lancer. I mean, Lancer does make some  
 3 rifles. But most of these companies who make AR15  
 4 magazines, that is primarily what they make, and they  
 5 turn out thousands and thousands of them every week.  
 6 So it's a different accounting method. You  
 7 don't have reporting to the ATF to be able to go back  
 8 and look at them. So it's very different.  
 9 Q. Let me make a much simpler example.  
 10 If I were to have a jar filled with red and  
 11 blue marbles, and you were to estimate the number of  
 12 marbles within that jar, and then you were going to  
 13 count the number of visible red marbles within that  
 14 jar, would it be reasonable to subtract the number of  
 15 red marbles from the overall estimate of marbles in  
 16 the jar to arrive at the blue marbles?  
 17 A. Sure.  
 18 Q. Even though you know there are likely red  
 19 marbles that are not visible?  
 20 A. Yeah, you're looking at a population.  
 21 Q. Okay. The last sentence of that paragraph  
 22 we've been looking at -- and this is Exhibit 1,  
 23 Page 2, first full paragraph -- or first paragraph  
 24 says, "From one third to one half of all U.S. gun  
 25 owners surely own a magazine that is over 15 rounds."

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1 Other than the summary sentence that starts  
 2 the whole discussion section, this appears to be the  
 3 only sentence in your initial report that deals with  
 4 the number of owners of large-capacity magazines as  
 5 opposed to the number of magazines; is that correct?  
 6 A. That is correct.  
 7 Q. And unlike the ten-round cutoff from the  
 8 ordinances in this case and from several places you  
 9 estimated elsewhere, here you use a 15-round cutoff;  
 10 is that correct?  
 11 A. That is correct.  
 12 Q. Okay. What's your basis for the one-third  
 13 to one-half estimate?  
 14 A. Looking at the firearms sold, the English  
 15 report, the NSSF data, looking at all of it, when you  
 16 look at the firearms that are sold and the magazines  
 17 that would be 15 or over, that's what the numbers  
 18 sell -- tell you.  
 19 Q. So the NSSF reports are number of magazines  
 20 as opposed to number of owners; correct?  
 21 A. They are.  
 22 Q. Would -- are you making an assumption here  
 23 that the distribution of magazines is even -- like  
 24 types of magazines is even across owners?  
 25 A. I'm sorry. I didn't hear one of those

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1 words.  
 2 Q. Sorry.  
 3 Are you saying that the distribution of  
 4 different size magazines across the population of  
 5 magazines is the same or reasonably the same as the  
 6 distribution of different size magazines across  
 7 firearm owners?  
 8 A. Generally, yes. I mean, that goes to make  
 9 sense. I mean, in the people that I've trained over  
 10 the years, this is very consistent. I mean,  
 11 everybody that I train is a gun owner, and so I've  
 12 got a dataset of 7,000 people that I can look at and  
 13 say, "What -- what firearms do you own, and what do  
 14 you have?"  
 15 And over the, you know, 20-plus years that  
 16 I've been training, the vast majority of people that  
 17 come to my classes have firearms that have a round --  
 18 a round count over 15.  
 19 And so I still think that's a conservative  
 20 estimate. Sure, there are some that have some that  
 21 are over and some that are under, but I think that is  
 22 an absolutely accurate statement.  
 23 Q. Do they have -- do you think that that  
 24 population has a higher number per person of  
 25 higher-capacity magazines?

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1 A. No. People that I compete with probably  
 2 does, but the average -- the average person on the  
 3 street that comes to one of my basic classes, no.  
 4 They -- they are typical of the general gun owner and  
 5 what I see as far as firearms ownership on the  
 6 various forums and various surveys.  
 7 Q. Okay. And is that the entire basis of the  
 8 one-third to one-half estimate?  
 9 A. Everything -- everything that's in my report  
 10 and that's in my head says that is a legitimate  
 11 number.  
 12 Q. Okay. You didn't review any studies,  
 13 reports, or other materials that specifically address  
 14 this number?  
 15 A. I mean, I did look at the English report,  
 16 obviously, and I've looked at the Washington Post  
 17 report, and, you know, there is data in there.  
 18 So, yes, I've looked at that data, and, yes,  
 19 inquiries and questions to manufacturers and of my  
 20 own students, yes.  
 21 Q. Okay.  
 22 A. That's all that combined.  
 23 Q. But those aren't cited in the report. You  
 24 only cite the Washington Post and the English report  
 25 for number of AR15s; is that correct?

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1 A. Well, my education and experience is  
 2 something that I can rely on, and that's what that  
 3 report -- or that's what that sentence has a  
 4 component of. Absolutely.  
 5 Q. Okay. Would you be comfortable using this  
 6 number to extrapolate -- to determine the number of  
 7 owners of 15-plus round magazines in the United  
 8 States?  
 9 A. I think so, yes. I think that's a  
 10 legitimate number.  
 11 Q. How many gun owners do you think there are  
 12 in the United States?  
 13 A. It depends on who you believe. 15 million  
 14 to 25 million, depending on who you listen to and who  
 15 you believe. Some groups put that number much, much  
 16 higher. I don't know.  
 17 Q. You don't have an opinion on the number of  
 18 gun owners in the United States?  
 19 A. Well, English has a number, and, you know, I  
 20 can't remember exactly what he says the number is,  
 21 but, you know, 30 percent, you know, of homes have a  
 22 firearm is a number that I've seen.  
 23 I mean, if you want to go back and look at  
 24 the English report, we can go back and look at it.  
 25 But, you have a number of U.S. citizens, a number of

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1 adults, you also have a higher number of people  
 2 living in the United States that are above that  
 3 number, because we're not counting -- in some of  
 4 those census numbers, they're not counting people who  
 5 are undocumented, whatever the proper term is today  
 6 for that. I think that's the right term.  
 7 But, you know, some of those people  
 8 obviously are going to own firearms. Whether they're  
 9 prohibited or not, that's a legal matter. But that  
 10 number is, by all the indications that I've seen,  
 11 that one third to one half is an appropriate  
 12 statement.  
 13 Q. Other than those that we -- sorry. One more  
 14 question there.  
 15 Did the English report discuss a -- discuss  
 16 large capacity magazines or higher capacity  
 17 magazines, whatever term you want to use?  
 18 A. I mean, I would have to go look at it. I  
 19 mean, I reference the English report in some portions  
 20 of my report, but I would have to go look at it  
 21 specifically to tell you exactly what it says,  
 22 regarding large-capacity magazines.  
 23 Q. Okay. All right. Other than those that  
 24 we've already discussed, did you rely on any other  
 25 sources in forming your opinions concerning the

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1 prevalence of magazines?  
 2 A. No.  
 3 Q. You're not offering any opinions on the  
 4 number of magazines that have been discarded or  
 5 destroyed; is that correct?  
 6 A. Correct.  
 7 Q. You're not offering any opinions on the  
 8 total number of individuals who own large capacity  
 9 magazines; correct?  
 10 A. Other than what's referenced in my report,  
 11 no.  
 12 Q. And you're not offering any opinions on the  
 13 use of large capacity magazines for any purpose;  
 14 correct?  
 15 A. I'm not sure what you -- I mean, I've got it  
 16 in my report; so how would you say that I'm not?  
 17 It's in my report.  
 18 Q. You're not offering any opinions on, for  
 19 example, the use of large-capacity magazines in  
 20 self-defense?  
 21 A. That's in my report.  
 22 Q. Can you show me where in your report it is?  
 23 A. I mean, in my -- in my initial report, it  
 24 says, "manufactured and sold within the State of  
 25 Colorado or commonly possessed and used for lawful

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1 purposes."

2 I mean, you can use a firearm in

3 self-defense. You can use a firearm for hunting.

4 You can use a firearm for competition. And, yes,

5 those are used. I mean, I don't know how you can say

6 I'm not saying anything about it when it's right in

7 the report.

8 Q. Okay. Are you offering any opinion on the

9 prevalence of use of large-capacity magazines in, for

10 example, self-defense?

11 A. No, I don't have that data.

12 Q. Okay. And you don't have that data for use

13 of large-capacity magazines for any other purpose

14 either; correct?

15 A. Well, I mean, I could give you an estimate

16 how many people shoot three gun and high power and

17 those kind of things in Colorado. It's a pretty

18 significant number.

19 Most the people in Colorado, who do predator

20 hunting, use the AR15 with high-capacity magazines.

21 I don't know what to tell you.

22 I mean, you're trying to restrict what my

23 opinion is when I have not restricted my own opinion.

24 Q. I'm just trying to understand the scope of

25 your opinion here. That's all.

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1 A. Well, the scope is what's in my report. I

2 mean, after my deposition, if we go to trial, I'm not

3 allowed to say anything that's not in my deposition

4 or my report. So my report is the scope of what I'm

5 talking about.

6 Q. All right.

7 Jennifer, can you give us a time estimate

8 here?

9 THE COURT REPORTER: Five hours, six

10 minutes.

11 MR. VAN HEMMEN: All right. Thank you.

12 BY MR. VAN HEMMEN:

13 Q. All right. You stated earlier that you

14 reviewed the Yurgealitis rebuttal report, which is

15 Exhibit 4.

16 Can you please go to Exhibit 4.

17 A. Okay.

18 Q. Do you agree with the opinions contained in

19 this report?

20 A. No.

21 Q. Did you respond to anything in this report

22 in your supplemental report?

23 A. Not -- I don't think so specifically. I

24 mean, I did read it, but I responded to basically the

25 things that were germane to my original report and

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1 clarification of the numbers specifically. I did not

2 see anything else that was worth responding to.

3 Q. Okay. Do you agree with the factual

4 descriptions contained in this report?

5 A. Nope.

6 Q. Do you agree with -- do you disagree with

7 any of the methodology contained in this report?

8 A. I probably do. I would have to read through

9 it again to tell you specifically.

10 Q. Okay. All right. If you go down to

11 Paragraph 7.

12 A. Seven?

13 Q. Yes.

14 A. Okay.

15 Q. Do you disagree with anything in this

16 paragraph?

17 MR. ARRINGTON: My paragraph says -- oh, as

18 discussed in this report? Are you talking about that

19 one?

20 MR. VAN HEMMEN: The paragraph is Number 7.

21 It says -- it's on, let's see, Page 3 of this exhibit

22 and is the second paragraph there, "As I explained in

23 my initial report (see Paragraphs 29, 35, 49, 119,

24 and 121)."

25 MR. ARRINGTON: I don't think that I am on

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1 the right exhibit. You're on Exhibit 5?

2 MR. VAN HEMMEN: Four.

3 MR. ARRINGTON: Four. Oh, okay. That makes

4 a difference. Okay. All right.

5 BY MR. VAN HEMMEN:

6 Q. Have you read the paragraph,

7 Mr. Passamaneck?

8 A. Yes.

9 Q. Do you disagree with anything in that

10 paragraph?

11 A. Yes.

12 Q. All right. Can you please describe what you

13 disagree with?

14 A. Well, it's misleading. It says that

15 numerous semiautomatic firearms -- the ones that he

16 lists are very small subset, and, in fact, the

17 Browning BAR does have a detachable magazine. SKSs

18 can also have detachable magazines.

19 Q. Okay. Going to Paragraph 8, the next

20 sentence, do you agree with this paragraph?

21 A. No.

22 Q. Okay. And how so?

23 A. Because it wouldn't be a semiautomatic

24 firearm if it didn't have a magazine. It would be a

25 single-shot firearm.

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1 Q. Okay. Is it possible to discharge a firearm  
 2 without a magazine?  
 3 A. One time.  
 4 Q. Okay.  
 5 A. That's why I said it would be a single shot.  
 6 Q. Going down to Paragraph 18, do you take  
 7 issue with anything in this paragraph? And take a  
 8 minute to read it.  
 9 A. Yeah, I mean, his -- his -- Paragraph 18 is  
 10 anecdotal information about his 26 years. So, I  
 11 mean, I guess my anecdotal information that I've had  
 12 dozens of magazines fail is irrelevant because he was  
 13 a cop, and I'm not. It's anecdotal. It doesn't --  
 14 and it does not mesh with reality.  
 15 Q. Okay. If we go down to Paragraph 20, which  
 16 is a short one, do you agree with that statement?  
 17 A. No.  
 18 Q. What about that statement do you disagree  
 19 with?  
 20 A. Well, he says, "Traditional steel, hyphen,  
 21 or aluminum." Well, the traditional magazines for  
 22 AR15s are actually aluminum, not steel. And it's  
 23 unclear what he's talking about specifically, but  
 24 magazines can be a combination of -- they actually  
 25 are a combination of more than one material. They're

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1 usually either polymer, steel, or aluminum body.  
 2 Aluminum magazines are not extremely durable. In  
 3 fact, if you step on one, it's usually going to be a  
 4 problem. And they are sensitive. In fact, they make  
 5 little tools to correct and repair feed lips for AR15  
 6 magazines.  
 7 Q. All right. And going down to the last  
 8 paragraph, Paragraph 23. Can you please read that  
 9 paragraph and let me know if you disagree with  
 10 anything in it.  
 11 A. Yeah, it -- it's, again, it's very  
 12 misleading, because it says that, "In government  
 13 administered tests, the PMAG, reportedly cycled  
 14 20,400 rounds of M855A1 ammo without any  
 15 magazine-related stoppages." That was not just a  
 16 magazine. That was a group of magazines. And, like  
 17 I said, I mean, I was friends with one of the guys  
 18 who was testing magazines for Magpul, and this just  
 19 is not true.  
 20 Q. Okay. All right. Let's turn back to  
 21 your -- sorry. My note -- I just put your report --  
 22 just give me a second to realize which one it is.  
 23 Probably the first one.  
 24 So Exhibit 1, your initial report.  
 25 A. Okay.

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1 Q. And if we scroll down to Page 2, the second  
 2 paragraph begins, "Detachable magazines are necessary  
 3 to make semiautomatic firearms designed to receive  
 4 such magazines operate effectively. Without such  
 5 magazines semiautomatic firearms are inoperable."  
 6 What is your reason for including this  
 7 statement in your report?  
 8 A. Because it's true. I mean, I'm confused why  
 9 you're even asking. I already explained it to you  
 10 when we were going through the prior report. If you  
 11 don't have a magazine there to feed rounds in the  
 12 magazine, it's a single shot. It's not a  
 13 semiautomatic. So they are absolutely necessary. I  
 14 mean, were -- the point is --  
 15 Q. Is this --  
 16 A. -- some people say that that's not true does  
 17 not make it untrue, and the fact is that they are  
 18 designed specifically to feed mag -- to feed  
 19 ammunition into semiautomatic firearms. And so if  
 20 you don't have them, they don't work.  
 21 Q. I think I'm trying to understand why this is  
 22 even something that we're discussing.  
 23 A. Well, your expert said I was wrong on that  
 24 topic. So obviously it's worth discussing if your --  
 25 if your expert has one opinion, I've got a completely

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1 opposite opinion, it's worth discussing.  
 2 Q. Okay. I think from our earlier discussion I  
 3 now understand what you mean here, but let me ask it.  
 4 Is the purpose of this paragraph as a whole  
 5 to say that firearms will not function correctly with  
 6 magazines with ten rounds or less because most  
 7 firearms were designed to be used with magazines that  
 8 hold more rounds?  
 9 A. No. That's -- that's not what that  
 10 paragraph's about.  
 11 Q. Okay. Can you explain to me what this  
 12 paragraph is about?  
 13 A. I -- I don't know what to tell you. It's  
 14 very clear.  
 15 MR. ARRINGTON: Wait. Wait. Just so I'm  
 16 clear, which paragraph are we on again? The one that  
 17 begins, "Detachable magazines are necessary"?  
 18 MR. VAN HEMMEN: Yeah. That's correct.  
 19 MR. ARRINGTON: Okay. Thanks. Go ahead.  
 20 THE WITNESS: It's clear. If you don't  
 21 have -- if you don't have magazines as they're  
 22 originally designed, if they wear out and fail, then  
 23 that firearm becomes worthless.  
 24 If -- if the magazine is not allowed to  
 25 cycle ammunition into the firearm, it's no longer a

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1 semiautomatic firearm, and it's no longer operating  
 2 as it was originally designed and intended to do so.  
 3 And magazines are absolutely wear items.  
 4 They absolutely do wear out. I mean, if you don't  
 5 have them, if you can't replace them, your firearm  
 6 that you bought at some point becomes worthless to  
 7 you.  
 8 BY MR. VAN HEMMEN:  
 9 Q. If you were -- in general, if you have a  
 10 magazine that wears out, do you buy a new magazine?  
 11 A. I used to. I used to throw Magpul magazines  
 12 and aluminum AR15 magazines in the trash. But now I  
 13 do my best to rebuild them.  
 14 Q. Are you able to buy ten round or fewer  
 15 magazines that fit those guns?  
 16 A. In some cases, yes. In other cases, no.  
 17 Q. What is an example of a gun that will not  
 18 function with a sub ten -- ten round or fewer  
 19 magazine?  
 20 A. It's not necessarily that they won't  
 21 function. It's that they're not available. And even  
 22 the Glock 17, when you buy ten-round magazines from  
 23 Glock, they're not reliable. They just don't  
 24 function at the same reliability rate that the  
 25 standard capacity magazines function.

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1 Even -- even in competition where the round  
 2 count is limited to ten rounds, you will find  
 3 virtually everyone using standard-capacity magazines  
 4 downloaded, because the ten-round magazines from the  
 5 manufacturers are not reliable.  
 6 Q. All right. I think what's missing for me  
 7 here is that -- because I don't believe this ever  
 8 states that magazines with ten rounds or less will  
 9 wear out faster.  
 10 A. I don't say they'll wear out faster. I said  
 11 they just aren't as reliable.  
 12 Q. Okay. Or aren't as reliable. I mean, it  
 13 doesn't say that in this paragraph; right?  
 14 A. No.  
 15 Q. Okay. All right.  
 16 Moving on to the next paragraph beginning  
 17 with, "Magazines are not merely a box in which  
 18 ammunition is stored. Rather, cartridges are held in  
 19 the magazine under spring tension."  
 20 First of all, is the last word of this  
 21 sentence a typo?  
 22 A. "Tension"?  
 23 Q. Yeah.  
 24 A. No.  
 25 Q. Should it be "compression"?

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1 A. No.  
 2 Q. Okay. In that case, maybe I'm not really  
 3 understanding how this works.  
 4 If we could go back to Exhibit 4 and down to  
 5 Page, I believe it's 3, of the report. There is a  
 6 picture there.  
 7 A. Okay.  
 8 Q. So my understanding is that that spring is  
 9 compressed into the tube, and the rounds that are  
 10 added into the magazine, further compress the spring,  
 11 and as you fire the gun, the spring pushes the  
 12 magazines up into the mechanism of the gun; is that  
 13 correct?  
 14 A. Correct.  
 15 Q. And so where is the tension in that process?  
 16 A. It's on the feed lips. Without the feed  
 17 lips, a compression of the spring would go away. So  
 18 it's held in tension. The compression of the spring  
 19 holds the cartridge against the feed lips, which is  
 20 the tension.  
 21 Q. All right. Thanks for clearing that up.  
 22 A. Uh-huh.  
 23 Q. All right. Next, what is the significance  
 24 of this sentence? I'm not quite seeing how it fits  
 25 into the rest of the paragraph.

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1 MR. ARRINGTON: Who -- I don't know which  
 2 sentence we're talking about now.  
 3 MR. VAN HEMMEN: This is the first sentence  
 4 of the last paragraph on Page 2. It says, "Magazines  
 5 are not merely a box in which ammunition is stored,  
 6 rather cartridges are held in the magazine under  
 7 spring tension."  
 8 MR. ARRINGTON: Okay. Great. Thanks.  
 9 And you're asking him for the meaning of  
 10 that sentence, the first sentence?  
 11 MR. VAN HEMMEN: Yeah.  
 12 MR. ARRINGTON: Okay. Great.  
 13 THE WITNESS: It is the whole design of the  
 14 firearm along with the magazine. They are held there  
 15 in order to feed into the chamber when a prior round  
 16 is fired. Everything else is explained in the first  
 17 sentence.  
 18 BY MR. VAN HEMMEN:  
 19 Q. Okay. Is this -- is the -- this mechanism  
 20 different in a magazine that is designed for greater  
 21 than or fewer than ten rounds?  
 22 A. Not necessarily, no.  
 23 Q. All right. Let's go to the last discussion  
 24 paragraph of the record. It says, "In addition, for  
 25 at least the last 40 years, magazines, as an integral

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1 commodity product that allow the semiautomatic  
 2 firearm to function, have been designed with basepads  
 3 that specifically allow them to be" -- I believe it  
 4 actually said, "specially allow them to be changed  
 5 with different pads, allowing for variable  
 6 capacities."  
 7 What's the significance of this?  
 8 THE WITNESS: So in relation to the Colorado  
 9 magazine ban, there was language in the bill that  
 10 said "readily convertible," and my opinion is that if  
 11 readily convertible is part of the law, then all  
 12 magazines are basically outlawed. That was clarified  
 13 from a legal perspective, but not an engineering  
 14 perspective, and so this is still relevant. If you  
 15 give me a ten-round magazine and a pop off the  
 16 basepad and I pop off the basepad, and I put a  
 17 plus-five basepad on it, now I have a 15-round mag.  
 18 That's the way firearms magazines have been designed  
 19 for, again, the last 40 years.  
 20 So in the '80s, that's when firearm  
 21 magazines started to have base pads that were easy to  
 22 remove.  
 23 Prior, you know, either metal steel or metal  
 24 aluminum magazines for AR15s and even magazines for,  
 25 say, you know, Ruger and Smith & Wesson, they -- they

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1 were clamped or somehow affixed to the bottom of the  
 2 magazine base so they could not be removed. Now  
 3 they're simple to remove. I can take a magazine  
 4 basepad off, rebuild the magazine, and change it from  
 5 15 rounds to 25 rounds in, you know, just a matter of  
 6 a few seconds.  
 7 BY MR. VAN HEMMEN:  
 8 Q. All right. Thank you.  
 9 MR. ARRINGTON: Jennifer, where are we on  
 10 time?  
 11 THE COURT REPORTER: Five hours, 28 minutes.  
 12 MR. VAN HEMMEN: I'm just about done here.  
 13 The only thing I want to do now is go back to those  
 14 couple unanswered questions at the beginning and just  
 15 put on the record that these are not being answered.  
 16 BY MR. VAN HEMMEN:  
 17 Q. All right. Mr. Passamanek, how many guns  
 18 do you own?  
 19 A. I'm not going to answer that question.  
 20 Q. What is your basis for not answering the  
 21 question?  
 22 A. It's irrelevant.  
 23 Q. Irrelevance is not a basis for a grounds to  
 24 not answer within a deposition.  
 25 Are you aware of that?

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1 A. It's -- it's -- these are my personally  
 2 owned firearms, and I'm not going to tell you how  
 3 many I own. I don't think you have any right to ask  
 4 me that question.  
 5 Q. All right. What types of guns do you own?  
 6 A. I own rifles, pistols, and shotguns.  
 7 Q. Do you own any weapons that would be defined  
 8 as assault weapons under the definition of the  
 9 challenged ordinances?  
 10 A. Most likely I do.  
 11 Q. How many?  
 12 A. I don't know.  
 13 Q. Is it more than ten?  
 14 A. I don't know.  
 15 Q. Is it more than 100?  
 16 A. If I don't know 10, I'm not going to know  
 17 100.  
 18 Q. All right. How many magazines do you own?  
 19 A. I'm not -- I honestly cannot tell you how  
 20 many I own. It's -- it's a lot, but I could not tell  
 21 you the actual number.  
 22 Q. Is there -- is it more than 100?  
 23 A. I'm not going to answer any further than  
 24 that.  
 25 Q. What is your basis for not answering?

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1 A. I just told you I don't know how many I own.  
 2 Q. Is it more than 50?  
 3 A. I -- probably. I don't know exactly what  
 4 the number is. I've never really sat down and  
 5 counted them.  
 6 Q. Is it more than 20?  
 7 A. Probably.  
 8 Q. All right. What proportion of the magazines  
 9 do you own hold more than ten rounds?  
 10 A. I don't know.  
 11 Q. Do you own more than ten magazines that hold  
 12 more than ten rounds?  
 13 A. Probably.  
 14 Q. Do you own more than twenty?  
 15 A. I -- I'm not going any further down this  
 16 path. I mean, what I personally own is not -- is not  
 17 something I'm going to answer.  
 18 Q. And what is your basis for not answering?  
 19 A. This is my personal property. I've not  
 20 talked about it in my report. I've not used that --  
 21 how many magazines or guns that I own is not part of  
 22 my report or my expertise.  
 23 Q. And is that the same basis for not answering  
 24 the questions on numbers of assault weapons --  
 25 A. Yes.



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1 Q. -- as defined by the ordinances?  
 2 A. Correct.  
 3 Q. All right. I've asked this before, but have  
 4 you ever used a gun in self-defense?  
 5 MR. ARRINGTON: Objection. Asked and  
 6 answered.  
 7 BY MR. VAN HEMMEN:  
 8 Q. You can answer.  
 9 MR. ARRINGTON: You can answer,  
 10 Mr. Passamanek.  
 11 THE WITNESS: I have not fired a gun in  
 12 self-defense. I have used a firearm in self-defense,  
 13 yes.  
 14 BY MR. VAN HEMMEN:  
 15 Q. You've brandished a gun in self-defense?  
 16 A. I did not. That would be illegal.  
 17 Q. It would be illegal to brandish a gun in  
 18 self-defense?  
 19 A. Absolutely. Brandishing is a legal term.  
 20 You guys can figure that out. But, no, I did not  
 21 brandish a firearm.  
 22 Q. Have you ever aimed a firearm at a person in  
 23 self-defense?  
 24 A. I have.  
 25 Q. How many times has this happened?

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1 A. I'm -- it's happened more than once.  
 2 Q. Do you know how many times it's happened?  
 3 A. I do.  
 4 Q. How many times?  
 5 A. I guess I would ask why -- why does that  
 6 matter?  
 7 Q. So, again, relevance is not a grounds to not  
 8 answer a question in a deposition.  
 9 A. But my expert opinion limits what I'm going  
 10 to talk about in court or in trial. And so my -- I  
 11 am paid as an expert witness to talk about what is in  
 12 my report, and that is it. So if I add something to  
 13 my deposition, then that can be used in trial, and  
 14 it's not in my report.  
 15 So, again, I'm not sure why it's relevant.  
 16 I'm not sure why you should be able to ask me  
 17 anything you want about any part of my life. I just  
 18 don't think it's relevant.  
 19 Q. But to be clear, you are not answering the  
 20 question because you believe it is irrelevant?  
 21 A. I don't believe you have the right to ask  
 22 that type of question, based on my expert report and  
 23 what I was retained to do in this case.  
 24 Q. All right. What type of guns do you use in  
 25 these situations?

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1 A. I'm not going to answer any more questions  
 2 related to this line of questioning. It's just --  
 3 I'm not going to do it.  
 4 Q. All right. Just to be clear, I have to ask  
 5 this line of questions, even if it seems repetitive,  
 6 just to build the record.  
 7 So you can keep saying the same thing,  
 8 that's fine, but I'm going to keep asking the  
 9 questions.  
 10 MR. ARRINGTON: Actually, you're not. At  
 11 some point, you're harassing this witness. And we're  
 12 going to put a stop to it and call the Court.  
 13 MR. VAN HEMMEN: All right. I have two more  
 14 questions.  
 15 MR. ARRINGTON: All right.  
 16 BY MR. VAN HEMMEN:  
 17 Q. What type of magazines did you use in these  
 18 incidents?  
 19 A. The magazines that went to the firearms.  
 20 Q. Were these magazines of a capacity greater  
 21 than ten?  
 22 A. In -- in a case, yes, they probably were.  
 23 Q. All right. All right.  
 24 Barry, to be clear -- be clear, we have to  
 25 keep the deposition open in light of the refusals to

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1 answer these questions and the earlier question.  
 2 Yeah, I just want to note that before we go on to  
 3 your cross.  
 4 MR. ARRINGTON: These questions and the  
 5 earlier question?  
 6 MR. VAN HEMMEN: Yeah.  
 7 MR. ARRINGTON: I hear you saying that he  
 8 didn't answer questions about the number and type of  
 9 guns he has, the number and type of mags he has, and  
 10 his self-defense experience. Was there a fourth area  
 11 that you're talking about?  
 12 MR. VAN HEMMEN: Yes, there was, and just  
 13 give me a minute to find it. I thought that I wrote  
 14 it down right here, but I must have wrote it down  
 15 somewhere else.  
 16 Matt, do you happen to have that at your  
 17 fingertips?  
 18 MR. HANNER: I don't, no.  
 19 MR. VAN HEMMEN: Sorry. I'm waiting for the  
 20 realtime text player to load. It seems to have  
 21 reset.  
 22 So I am -- can we go off the record for a  
 23 second? I think I'm having technical difficulties.  
 24 MR. ARRINGTON: Okay.  
 25 THE VIDEOGRAPHER: This is the end of Media

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1 Number 6. Going off the record. The time is 4:14.  
 2 (Recess taken.)  
 3 THE VIDEOGRAPHER: We are back on the  
 4 record. The time is 4:17. This is the beginning of  
 5 Media Number 7.  
 6  
 7 EXAMINATION  
 8 BY MR. ARRINGTON:  
 9 Q. Okay. We'll start with where we left off.  
 10 Mr. Passamaneck, you were retained as a  
 11 retained expert in this case; is that correct?  
 12 A. Yes.  
 13 Q. And you've prepared an opinion for this  
 14 case?  
 15 A. Yes.  
 16 Q. And your opinions are reflected in the  
 17 reports that you've issued here?  
 18 A. Two reports, yes.  
 19 Q. And do -- do your opinions, in any way, even  
 20 tangentially turn on your personal ownership of guns?  
 21 A. No.  
 22 Q. Do they even in any way tangentially turn on  
 23 your personal magazines?  
 24 A. No.  
 25 Q. Do they in any way tangentially -- even

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1 tangentially relate to your experience of  
 2 self-defense using firearms?  
 3 MR. VAN HEMMEN: I'm going to object to  
 4 these leading questions.  
 5 MR. ARRINGTON: It's cross examination,  
 6 Counsel.  
 7 MR. VAN HEMMEN: It's your own witness,  
 8 Counsel.  
 9 MR. ARRINGTON: It's cross examination.  
 10 That's what you get when you take a witness on  
 11 direct. But you can object.  
 12 BY MR. ARRINGTON:  
 13 Q. Go ahead and answer.  
 14 A. No.  
 15 Q. Okay. Do you consider Mr. van Hemmen's  
 16 questions about your personal firearm, magazine, and  
 17 self-defense experience to be offensive?  
 18 A. I do.  
 19 Q. Do they --  
 20 MR. VAN HEMMEN: Object to form.  
 21 BY MR. ARRINGTON:  
 22 Q. Do you consider them to be an invasion of  
 23 your privacy?  
 24 A. Yes.  
 25 Q. Do you consider them to be an attempt to

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1 intimidate you?  
 2 A. No.  
 3 MR. VAN HEMMEN: Object to the form.  
 4 BY MR. ARRINGTON:  
 5 Q. Do you consider them to be an attempt to  
 6 embarrass you?  
 7 A. I don't know. Maybe they are. I can't tell  
 8 you what his intentions are.  
 9 Q. Do you -- do you consider that your guns,  
 10 magazine, and self-defense history is a private,  
 11 personal matter?  
 12 A. I do.  
 13 Q. Okay.  
 14 So we need to call the Court and get a  
 15 ruling on this. I will start that process. I'm  
 16 going to call Magistrate Cruz, if I can get ahold of  
 17 him.  
 18 THE VIDEOGRAPHER: Counsel, are you wanting  
 19 to stay on the record for this?  
 20 MR. ARRINGTON: No.  
 21 THE VIDEOGRAPHER: You all would like to go  
 22 off?  
 23 MR. ARRINGTON: Yes, please.  
 24 THE VIDEOGRAPHER: Going off the record.  
 25 The time is 4:20.

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1 (Recess taken.)  
 2 THE VIDEOGRAPHER: We're back on the record.  
 3 The time is 4:25.  
 4 MR. VAN HEMMEN: All right, Barry. I'm done  
 5 with my direct.  
 6 MR. ARRINGTON: Okay. Thank you. Oh, I  
 7 thought I was already on my cross.  
 8 MR. VAN HEMMEN: Oh, sure.  
 9 MR. ARRINGTON: Did you put his CV in that  
 10 has his firearms experience?  
 11 MR. VAN HEMMEN: Yes. It's part of  
 12 supplemental report.  
 13 MR. ARRINGTON: Oh, there you go.  
 14 MR. VAN HEMMEN: It's Exhibit 2.  
 15 BY MR. ARRINGTON:  
 16 Q. Mr. Passamaneck, how long have you been  
 17 involved in the firearms industry?  
 18 A. For over 30 years.  
 19 Q. Are you a -- have you -- are you part -- so  
 20 you indicated you're part owner of Carbon Arms  
 21 Corporation; is that correct?  
 22 A. Correct.  
 23 Q. As part of Carbon Arms Corporation, did you  
 24 design magazines?  
 25 A. I did, yes.

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1 Q. And magazine --

2 MR. VAN HEMMEN: Object to form.

3 MR. ARRINGTON: What's wrong with the form

4 of that question?

5 MR. VAN HEMMEN: Leading.

6 MR. ARRINGTON: Did you design magazines is

7 leading?

8 MR. VAN HEMMEN: I think I misheard you,

9 then. I'm sorry.

10 BY MR. ARRINGTON:

11 Q. Did you design magazines as part of your

12 work with Carbon Arms?

13 A. Yes.

14 Q. Okay. Did you sell magazines through Carbon

15 Arms?

16 A. Yes.

17 Q. So did you participate in the magazine --

18 the market for magazines, in other words?

19 A. Yes.

20 Q. Are you familiar with the market for

21 magazines?

22 A. I am.

23 MR. VAN HEMMEN: Object to form.

24 MR. ARRINGTON: What is wrong with the form

25 of that question, Counsel?

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1 MR. VAN HEMMEN: You're asking a series of

2 leading questions.

3 MR. ARRINGTON: "Are you familiar with the

4 market for magazine?" How is that leading? How does

5 that suggest his answer?

6 MR. VAN HEMMEN: Keep going.

7 MR. ARRINGTON: All right. If you are just

8 going to throw in frivolous objections to disrupt the

9 deposition, we'll stop the deposition, and I'll move

10 for sanctions.

11 MR. VAN HEMMEN: All right.

12 MR. ARRINGTON: Okay.

13 BY MR. ARRINGTON:

14 Q. And you -- do you have --

15 MR. VAUGHAN: Barry, it's Gordon. Can we go

16 off the record for about five minutes and go into

17 a -- can we go into a -- a separate room for a

18 minute?

19 MR. ARRINGTON: Yes, sir.

20 MR. VAUGHAN: Thank you.

21 THE VIDEOGRAPHER: Going off the record.

22 The time is 4:28.

23 (Recess taken.)

24 THE VIDEOGRAPHER: We are back on the

25 record. The time is 4:31.

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1 BY MR. ARRINGTON:

2 Q. Thank you, Mr. Passamaneck.

3 Did you have a training company?

4 A. Yes.

5 Q. And how many individuals do you believe

6 that -- estimate that you have trained over the

7 years?

8 A. Approximately 7,000.

9 Q. And what aspects did you train them?

10 A. The majority of that was either tactical

11 pistol or introduction to practical pistol. Most of

12 the people were looking at getting a CCW permit or

13 least the training for such. That is the largest

14 component of the students that I've had.

15 Q. Okay. And you have -- do you have

16 certificates from various associations related to

17 your training work?

18 A. You mean my personal training?

19 Q. Yes.

20 A. Yes, I do.

21 Q. And they're reflected here in Exhibit 2,

22 your CV?

23 A. Yes.

24 Q. Okay. Have you -- have you been to trade

25 shows with respect to firearms?

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1 A. Yes.

2 Q. How many do you think that you've been to?

3 A. Fifteen or so.

4 Q. Have you been to -- have you talked to

5 firearms and magazine manufacturers?

6 A. Yes.

7 Q. How many firearm and magazine -- well, let's

8 take them one at a time.

9 How many firearm -- well, firearm

10 manufacturers, do you believe that you've spoken to

11 over the years with respect to various issues?

12 A. Oh, I don't know what the number is. 50,

13 60, 70, maybe somewhere in that range.

14 Q. What about magazines? How many

15 manufacturers of magazines representatives have you

16 discussed various matters with over the years?

17 A. It's probably in the -- generally the same

18 number, and I'll qualify that in that some firearms

19 manufacturers buy their magazines from third parties,

20 which I've talked to. So it's probably in the

21 neighborhood of, you know, 50 as well.

22 Q. Okay. Did you discuss sales figures with

23 those sales representatives from the various

24 manufacturers?

25 A. At times, yes.

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1 Q. Okay. You mentioned SHOT Show.  
 2 Can you tell us what that is?  
 3 A. SHOT Show is the Shooting, Hunting, and  
 4 Outdoor Trade Show that is put on by National  
 5 Shooting Sports Foundation.  
 6 Q. And is it a small show? a large show?  
 7 What's the scale of the show?  
 8 A. It is the largest industry-to-industry show  
 9 in the -- at least in the United States. It might be  
 10 in the world. But it has between -- or for over the  
 11 years, 60- to 80,000 people. It's not a consumer  
 12 show. It's for literally people that are in the  
 13 industry.  
 14 Q. And you said that you played a role in that  
 15 this year?  
 16 A. So last year and this year I was asked to be  
 17 part of management to run the live fire portion of  
 18 SHOT Show.  
 19 Q. You were part of management at SHOT Show?  
 20 A. Correct.  
 21 Q. The largest industry gathering on the  
 22 planet?  
 23 A. Yes.  
 24 Q. Okay. How many articles about various  
 25 firearms talks do you believe -- can you estimate

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1 that you've read over the last 30 years?  
 2 A. That I've read?  
 3 Q. Yeah.  
 4 A. Holy cow.  
 5 Q. Hundreds? Thousands?  
 6 A. Oh, easily over 10,000. I mean, I consume  
 7 data. I mean, when -- literally when I look up at  
 8 my -- at my bookshelf, I've got, you know,  
 9 20-some-odd books that are just firearms-related  
 10 books, mixed in with my engineering books. I -- I  
 11 enjoy reading.  
 12 Q. Hold on just a second.  
 13 You indicated in your direct examination  
 14 that you were aware that Congressional Research  
 15 Office has relied upon the NSSF reports in providing  
 16 information to congress?  
 17 A. Correct.  
 18 Q. What is that awareness based upon?  
 19 A. You read several of those actually in my  
 20 last deposition.  
 21 Q. Okay. So you're familiar with -- from the  
 22 information. Was there a particular document?  
 23 A. I don't know. I would have to go back and  
 24 look at my exhibits from my deposition.  
 25 Q. This is not giving me an opportunity to

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1 upload documents. I guess I'm not understanding  
 2 that.  
 3 Why is that? Let's go off the record.  
 4 THE VIDEOGRAPHER: Going off the record.  
 5 The time is 4:39.  
 6 (Recess taken.)  
 7 THE VIDEOGRAPHER: We're back on the record.  
 8 The time is 4:45.  
 9 BY MR. ARRINGTON:  
 10 Q. Let's go back to exhibit -- let's go to  
 11 Exhibit 18, Mr. Passamaneck.  
 12 (Exhibit 18 was identified.)  
 13 BY MR. ARRINGTON:  
 14 Q. Go to the second page. There's a paragraph  
 15 that has a heading "AR- and AK-Type Rifles in  
 16 Circulation."  
 17 A. Okay. I have it.  
 18 Q. Okay. Does this refresh your recollection  
 19 about how you know if Congressional Research Service  
 20 uses the NSSF data to inform congress about the  
 21 number of ARs and AKs in circulation?  
 22 A. Yes.  
 23 Q. So what is your -- what is that  
 24 recollection?  
 25 A. I mean, in that paragraph -- and so we're

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1 talking about the first full paragraph on the right  
 2 side of Page 2 of 3, it literally quotes the NSSF  
 3 data from 1990 through 2020, which would be the same  
 4 2022 industry report, having a number at 24.5 million  
 5 AR and AK type rifles. And that is the MSR number  
 6 from the NSSF report.  
 7 Q. So do you -- do you think it's reasonable  
 8 for Congressional Research Office to inform congress  
 9 about the number of ARs and AKs in circulation using  
 10 the NSSF data?  
 11 A. I think if they're going to cite data, yes,  
 12 the NSSF data is the data they should be using.  
 13 Q. If you could put the -- well, go ahead and  
 14 mark Exhibit 19. That would be the Klarevas report.  
 15 (Exhibit 19 was identified.)  
 16 THE WITNESS: Okay. I have that open.  
 17 BY MR. ARRINGTON:  
 18 Q. Okay. We'll set that aside for a moment.  
 19 So you indicated that you had designed and  
 20 manufactured and sold magazines; is that correct?  
 21 A. Yes.  
 22 Q. And you also designed firearms and/or  
 23 firearm components?  
 24 A. Yes.  
 25 Q. And who did you design those for?

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1 A. It's various entities. So one is Remington,  
 2 one is FN, and I've worked on other firearms  
 3 components that were specifically intended to go on a  
 4 particular firearm. Some of them were -- you know,  
 5 went to military trials. One of my coms was actually  
 6 in a -- and gas walks was actually in a military  
 7 trial for a firearm, oh, like, six or seven years  
 8 ago.  
 9 Q. Okay. And FN means what?  
 10 A. It is -- I'm not sure exactly. FNH, but FN,  
 11 I think it's Fabrique Nationale. I mean, it's --  
 12 they're a manufacturer. So I don't know exactly what  
 13 FN stands for, but I think it's Fabrique Nationale.  
 14 And the H has recently been dropped. So when I did  
 15 it, it was FNH. Now it's just FN.  
 16 Q. Okay. So counsel asked you a question  
 17 earlier, and you said -- well, is it true that you --  
 18 you think that you can issue expert reports just  
 19 because you're a quote, unquote, "gun guy"?  
 20 Do you consider this -- consider yourself to  
 21 be more than just a gun guy, whatever that means?  
 22 A. Yes. I mean, I have designed firearms.  
 23 I've worked on -- as an expert, I've worked on  
 24 several cases, and so I have extensive training and  
 25 education, experience, related to firearms. I mean,

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1 from design and manufacturer, use, and even from the  
 2 training perspective.  
 3 Q. And do you believe that your experience  
 4 gives you a perspective that would be helpful to the  
 5 Court in evaluating the data about the number of  
 6 magazines in the country?  
 7 A. I do.  
 8 Q. And why do you believe that?  
 9 A. Because it shows -- it shows some  
 10 perspective from the eyes of a person who actually  
 11 has been involved in the firearms industry, designing  
 12 magazines, using magazines, rather than just looking  
 13 at numbers that are not going to be reflective of the  
 14 total number of magazines or even firearms that have  
 15 been manufactured and are in the common use in the  
 16 United States.  
 17 Q. Thank you.  
 18 Could you -- so the first sentence of your  
 19 paragraph -- or your report, your initial report, it  
 20 says that you believe that magazines are in common  
 21 use.  
 22 A. Yes.  
 23 Q. Okay. Go to Exhibit 19, please.  
 24 A. I am at 19.  
 25 Q. Okay. This is Mr. Klarevas's expert report,

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1 dated May 5, 2023. If you'd go to Paragraph 11. Is  
 2 that correct? It's the Klarevas report from May of  
 3 '23?  
 4 MR. VAN HEMMEN: I'm sorry. Are you asking  
 5 me, Barry?  
 6 MR. ARRINGTON: No, I'm asking the witness.  
 7 MR. VAN HEMMEN: Oh, okay.  
 8 BY MR. ARRINGTON:  
 9 Q. Go to the last page for the date is the only  
 10 place I can find the date.  
 11 A. The very last page?  
 12 Q. The very last page under --  
 13 A. Yeah, executed May 5, 2023, in New York.  
 14 Q. Okay. So the paragraph -- or Exhibit 19  
 15 purports to be the Klarevas expert report from May of  
 16 2023?  
 17 A. Yes.  
 18 Q. Okay. Go to Paragraph 14.  
 19 A. Fourteen?  
 20 Q. Yes. On Page 11.  
 21 A. Okay.  
 22 Q. If you could read for the record the  
 23 sentence that begins, "Based on National Sport."  
 24 A. "Based on National Sport Shooting Foundation  
 25 and federal government data, quote, 'modern sporting

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1 rifles,' end quote, which is a firearm-industry term  
 2 for AR15 platform and AK-47 platform firearms make up  
 3 approximately 5.3 percent of all firearms in  
 4 circulation in American society, according to the  
 5 most recently publicly available data. This is  
 6 24.4 million out of an estimated 461.9 million  
 7 firearms."  
 8 Do you want me to keep reading?  
 9 Q. Nope.  
 10 So do you understand the 24.4 and the 461.9  
 11 million figures to be from the NSSF report 2022?  
 12 A. Give me a second, because I know the -- the  
 13 24.4 certainly appears to be from the NSSF report  
 14 and --  
 15 Q. Actually, just if you can look at -- read  
 16 Footnote 8.  
 17 A. Yeah, I'm looking at it.  
 18 Yes, that appears to be accurate.  
 19 Q. What appears to be accurate?  
 20 A. The question that you asked, are those two  
 21 numbers from the NSSF report.  
 22 Q. So the next sentence in Footnote 8  
 23 begins, "In a 2020 report that captured data through  
 24 the end of 2018."  
 25 Do you see that?

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1 A. Yes.  
 2 Q. Is that the same report that you referred to  
 3 in your initial report?  
 4 A. It is.  
 5 Q. Okay. So in your estimation, was it  
 6 reasonable for Dr. Klarevas to base his opinions in  
 7 his initial expert report on NSSF data?  
 8 A. Yes.  
 9 Q. And why do you think that is?  
 10 A. Because that is the -- what I've said is the  
 11 most reliable baseline number of numbers that we can  
 12 look at, as far as the ownership of firearms and  
 13 magazines.  
 14 Q. Dr. Klarevas says that the 24.4 million --  
 15 well, I won't put words in his mouth.  
 16 Can you see the sentence that says, "And in  
 17 all likelihood"?  
 18 A. In the footnote or above?  
 19 Q. Above this.  
 20 A. Give me a second.  
 21 Q. It's after 461.9 million.  
 22 A. Oh, yes. Yep.  
 23 Q. Can you read that into the record.  
 24 A. It says, "And, in all likelihood, this is an  
 25 overestimation because the figures appear to include

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1 firearms belonging to law enforcement agencies in the  
 2 United States."  
 3 Q. So I am -- I read this, and it seems to  
 4 say -- and I'm asking -- I'm asking if you agree with  
 5 this interpretation of what he's saying -- that the  
 6 NSSF data states that there are 24.4 million modern  
 7 sporting rifles in circulation, but in Dr. Klarevas's  
 8 opinion that overstates it because it includes  
 9 firearms belonging to law enforcement.  
 10 Does that appear to be what it's saying to  
 11 you?  
 12 A. That --  
 13 MR. VAN HEMMEN: I know we have a standing  
 14 objection to the form. I'm just going to note that  
 15 on the record here, but please continue.  
 16 THE WITNESS: Yeah, actually, he's  
 17 misstating the data. He says, "The NSSF estimates  
 18 there are approximately 24.4 million sporting rifles  
 19 in civilian hands."  
 20 That's not what the NSSF data says. The  
 21 NSSF data shows how many firearms were made between  
 22 1990 and either 2018 or 20 -- actually, in this case,  
 23 and 2022. So a -- sorry, a 30-year span.  
 24 So that's not even an accurate estimation as  
 25 to the ownership. And regardless of whether or not

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1 they're owned by law enforcement agencies or not  
 2 doesn't make a difference. They were still  
 3 manufactured. They're still owned by somebody, and  
 4 that somebody is not the military.  
 5 BY MR. ARRINGTON:  
 6 Q. So what I'm -- what my question is, if one's  
 7 goal is to determine -- or estimate the number of  
 8 modern sporting rifles in circulation among  
 9 law-abiding United States citizens, why would want  
 10 exclude law enforcement?  
 11 A. They wouldn't.  
 12 Q. Are you familiar -- have you -- one would  
 13 assume, wouldn't one, that law enforcement personnel  
 14 are typically law-abiding United States citizens.  
 15 A. Everyone that I know is, yes.  
 16 Q. And excluding them from that circulation  
 17 number would just essentially be an arbitrary slicing  
 18 off the top, wouldn't it?  
 19 A. It would.  
 20 Q. So if you could go to Exhibit 3.  
 21 A. Got it.  
 22 Q. Go to Page 6, please.  
 23 A. Okay.  
 24 Q. Paragraph 11, Dr. Klarevas quotes the  
 25 English survey, and, of course, the English survey is

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1 something you relied upon in your report?  
 2 A. Yes.  
 3 Q. Says, "24.6 million people have owned an AR  
 4 or similar rifle and up to 44 million such rifles  
 5 have been owned."  
 6 Do you see that part?  
 7 A. I do.  
 8 Q. That's just quoting from the English survey;  
 9 right?  
 10 A. Correct.  
 11 Q. So go to Paragraph 12.  
 12 MR. VAN HEMMEN: I'm sorry, Barry. We're in  
 13 Exhibit 3?  
 14 MR. ARRINGTON: Yes.  
 15 BY MR. ARRINGTON:  
 16 Q. Do you remember counsel asking you questions  
 17 about Paragraph 12 and Dr. Klarevas's conclusions in  
 18 that paragraph?  
 19 A. I do.  
 20 Q. So he talks about 74,000 people and 320,000  
 21 people. That's a total of 394,000; correct? That's  
 22 just math?  
 23 A. 74,000 and -- yes.  
 24 Q. And he talks about a -- that as a subset of  
 25 the total number of people who own these -- these --

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1 we'll call them modern sporting rifle, AR -- by which  
 2 I mean AR or similarly styled rifles; correct?  
 3 A. Correct.  
 4 Q. And so in Paragraph 11 he quotes English,  
 5 saying they're 24.6 million total owners, and if you  
 6 back out that 394, you come to roughly 24.2 million;  
 7 right?  
 8 A. If you back out -- from -- if you back out  
 9 24.6 from which number?  
 10 Q. No. If you back out 394 --  
 11 A. Oh, okay.  
 12 Q. -- from 24.6, you get about 24.2.  
 13 A. Correct.  
 14 Q. Is that correct?  
 15 A. Correct.  
 16 Q. Okay.  
 17 MR. VAN HEMMEN: Barry, I know that we've  
 18 been referring to as the cross-examination, but let  
 19 me just remind you that this is your witness.  
 20 MR. ARRINGTON: Okay.  
 21 BY MR. ARRINGTON:  
 22 Q. And so he's talking about 11 million AR  
 23 style rifles concentrated in the hands of that  
 24 1.6 percent.  
 25 Do you see that bolded sentence in

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1 Paragraph 7?  
 2 A. I do.  
 3 Q. Okay. According to English, how many -- if  
 4 you back out that 11 million from the total number of  
 5 rifles he estimated, how many million rifles would be  
 6 left? I'd refer you up to Paragraph 11.  
 7 A. If you backed out 11 from 24.6?  
 8 Q. Nope. That's owners, not rifles.  
 9 A. Oh, 11 from 44 million?  
 10 Q. Yes.  
 11 A. Would be 33 million total rifles.  
 12 Q. Because let me ask the question again.  
 13 If you follow Dr. Klarevas's logic and back  
 14 out the 11 million AR style rifles owned by this  
 15 1.6 percent, how many million rifles are owned by all  
 16 the other owners?  
 17 A. 33 million.  
 18 Q. Okay. So is it fair to say that even if you  
 19 back out the owners of rifles -- let me start over.  
 20 Is it fair to say that even if you back out  
 21 these owners of rifles who own them at a high rate  
 22 over five, you still have tens of millions of rifles  
 23 left over in the hands of some 24.2 other million  
 24 people?  
 25 A. I -- I think that's inaccurate, because he

Page 240

1 says -- I think he uses 11 to 100, and if you back  
 2 that out, that would still be 24.6 minus that smaller  
 3 number of 394.  
 4 So it would be 24.2 million, which is --  
 5 Q. Okay.  
 6 A. -- really close to the number of, you know,  
 7 24.2 that was actually manufactured from 1990 to  
 8 2020.  
 9 Q. Okay. Let's go to paragraph -- or I'm  
 10 sorry. Exhibit 20.  
 11 A. Exhibit 20.  
 12 (Exhibit 20 was identified.)  
 13 BY MR. ARRINGTON:  
 14 Q. And just look at the title there where it  
 15 says, "Expanded Report," just above the word  
 16 "Abstract."  
 17 A. Still opening.  
 18 Q. Okay.  
 19 A. All right. I have it now.  
 20 Q. Okay. Do you see where the title -- at the  
 21 bottom of the title, it says "Expanded Report"?  
 22 A. Yes.  
 23 Q. Okay. Close that down and the -- look at  
 24 the English report that was marked previously.  
 25 A. Exhibit 15?

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1 Q. Okay. Yes.  
 2 And that's a -- the English report from  
 3 about a year earlier, and it doesn't say "Expanded  
 4 Report"; correct?  
 5 A. Correct. It says, "Draft Report, July 13,  
 6 2021."  
 7 Q. Okay. So which one do you believe that you  
 8 looked at? Was it the draft report or the expanded  
 9 report?  
 10 A. I believe it was the draft report.  
 11 Q. Okay. You looked at the first one or the  
 12 later one?  
 13 A. The later one, the one that is marked  
 14 MP0015 is the one that I looked at.  
 15 Q. Oh, okay.  
 16 Look at Exhibit 10, please.  
 17 A. Okay.  
 18 Q. Page 79.  
 19 A. Page 79 in the actual transcript?  
 20 Q. 79 -- yes, Page 79 of the transcript. Yes.  
 21 A. Okay.  
 22 Q. We're talking about the Washington Post  
 23 survey -- actually, you can go back to 78 at the  
 24 bottom.  
 25 A. Okay.

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1 Q. It says, "What source are you using there?"  
 2 "The Washington Post survey."  
 3 "Is that a trustworthy source?"  
 4 And then you say, "I don't know."  
 5 Earlier today, you recall talking to counsel  
 6 about the Washington Post survey?  
 7 A. Yes.  
 8 Q. And I guess I'm trying to understand if it's  
 9 not trustworthy, how you can rely upon it in your  
 10 report.  
 11 Do you have -- do you mean -- tell me  
 12 what --  
 13 A. Yeah, it is -- it is a dataset, and it is a  
 14 dataset that comes from surveys, and it is also  
 15 significantly below the NSSF.  
 16 And so I believe that it -- while it's based  
 17 on a survey, I believe that it's substantially lower  
 18 numbers than what is actually represented, and that's  
 19 because the NSSF report, I believe, is a more robust  
 20 set of data than what the Washington Post used.  
 21 Q. So when you say it's not trustworthy, are  
 22 you saying they're just totally out to lunch?  
 23 A. No.  
 24 Q. Or are you saying -- or are you saying it's  
 25 not trustworthy in the sense that -- that the NSSF

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1 data is more reliable?  
 2 A. The NSSF data is more reliable. That's --  
 3 that's what I've said. That's what's in my report.  
 4 This is a data point that is in -- Washington Post  
 5 uses, and I believe that that number is low, that  
 6 their numbers are significantly below what is  
 7 actually in existence.  
 8 But at the same time, this Washington Post  
 9 report is a report that has been used by people to  
 10 say, this is the number of firearms or the number of  
 11 AR15s that are in existence, and I think their  
 12 numbers are -- are flawed. I think they're too low.  
 13 Q. Okay. Same question about the English  
 14 survey.  
 15 If it -- you are saying that it's completely  
 16 untrustworthy, or that it's just less trustworthy  
 17 than the NSSF report?  
 18 A. Well, I think the English report looks at  
 19 different types of information and types of  
 20 information that is closer to the Washington Post  
 21 report.  
 22 That is, they did surveys. The NSSF, yes,  
 23 those are surveys, but they are surveys from industry  
 24 members and from ATF forms. And so my confidence  
 25 that the numbers -- granted, they are only in a

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1 period from 1990 to 2018 or 1990 to 2020, I think  
 2 those numbers in that window are more reliable than  
 3 the Washington Post numbers.  
 4 The English report -- I mean, there's --  
 5 yes, there's some validity to it. He did the  
 6 research. He did the survey. Those numbers are  
 7 higher than the Washington Post numbers. It's --  
 8 it's to punctuate that it's hard to come up with  
 9 specific numbers. And that's -- that's the basis and  
 10 also why I rely and why I say in my supplemental  
 11 report that the NSSF numbers are the benchmark that  
 12 I'm going to use.  
 13 Q. When you talked about your -- your  
 14 discussion about Magpul, you said you -- well, let me  
 15 back up.  
 16 When you got the answer that -- from the VP  
 17 at Magpul, was his estimate surprising at all?  
 18 A. No.  
 19 Q. Why wasn't it surprising?  
 20 A. Because I think the numbers are really much  
 21 higher than what we have been able to count in either  
 22 surveys or -- well, in surveys from English,  
 23 Washington Post, and the National Shooting Sports  
 24 Foundation.  
 25 I think there are missing elements, and so

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1 their number, I believe, is probably closer to actual  
 2 and accurate.  
 3 You know, we have magazines that have been  
 4 imported from foreign countries even that there's  
 5 no -- there's no recording of them in any manner.  
 6 Q. So did it give you some confidence, when you  
 7 heard that number, that it was -- it's not exactly  
 8 the same as the other numbers that you had seen, at  
 9 least roughly consistent with those numbers?  
 10 A. Yes. And, you know, the point is that in --  
 11 while I do discuss it, and I do -- do math off of it,  
 12 that is an upper -- that is an upper bound. I mean,  
 13 I would not feel comfortable going beyond what  
 14 Magpul's estimate is.  
 15 But, again, in my supplemental report, I  
 16 basically state, again, that the NSSF numbers are the  
 17 baseline. Those are the numbers that I know that can  
 18 be determined to be accurate and factual.  
 19 Q. Okay. So was the fact that it was roughly  
 20 consistent with other data a basis upon which you  
 21 could evaluate the Magpul representative's  
 22 representation?  
 23 A. Yes.  
 24 Q. Okay. So you testified earlier that you had  
 25 no basis to evaluate his representation.



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1 Was that accurate?

2 A. No, I think the questions are different.

3 You know, I -- I basically said that I evaluated

4 Mr. Liptak's based on that I trust Mr. Liptak. That

5 is that number that he gave me.

6 Looking at the NSSF numbers, which are much

7 less, I have confidence that Magpul has a good

8 estimate, but that difference between, you know, the

9 160 million magazines or whatever from the NSSF and

10 the 350 million magazines that Magpul says, that's

11 unverifiable. It doesn't mean they don't exist.

12 It's just that's the unverifiable component of that

13 number, whereas NSSF numbers are verifiable.

14 It's -- it's almost like if you go into a

15 school and -- I mean, Mr. van Hemmen asked about

16 marbles. If you go into a school and you count the

17 number of children in a room, and you know that there

18 are ten other classes, but you only count those

19 numbers, you can verify those numbers because you saw

20 them. But you may not have gone into the other rooms

21 and counted the other ones. You may not have had the

22 ability to do that.

23 So the verifiable is the NSSF. That

24 unverifiable number doesn't mean they don't exist,

25 but it's somewhere higher than NSSF and probably

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1 close to the Magpul number.

2 MR. ARRINGTON: Okay. That's all my

3 questions.

4 MR. VAN HEMMEN: All right. Give me just a

5 minute.

6

7 EXAMINATION

8 BY MR. VAN HEMMEN:

9 Q. All right. Can we go to Exhibit 18?

10 A. Okay.

11 Q. Were you aware of this document when you

12 wrote your initial report?

13 A. No.

14 Q. Did you first learn of this document in the

15 deposition in the State case?

16 A. Yes.

17 MR. VAN HEMMEN: All right. Thank you. I'm

18 good.

19 MR. ARRINGTON: That it?

20 MR. VAN HEMMEN: Yep.

21 MR. ARRINGTON: Okay.

22 THE VIDEOGRAPHER: This concludes today's

23 testimony given by Mark Passamaneck. The total

24 number of media units used was seven and will be

25 retained by Veritext Legal Solutions.

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1 Going off the record. The time is 5:20.

2 (End of video deposition.)

3 THE COURT REPORTER: I just want to confirm

4 who is getting what orders?

5 MR. ARRINGTON: I guess we've got a

6 conundrum here in terms of -- well, I guess if we

7 have to reconvene this deposition, there will be two

8 transcripts then; right?

9 THE COURT REPORTER: Yes. It would just be

10 a Volume II and have the next consecutive page

11 number.

12 MR. ARRINGTON: My normal order is fine.

13 Regular turnaround is fine with me.

14 THE COURT REPORTER: And would you like a

15 rough tonight?

16 MR. ARRINGTON: Would I? No.

17 MR. VAN HEMMEN: Yeah, if we could get the

18 rough, that would be great, but normal timeline is

19 fine.

20 THE COURT REPORTER: Great. Thank you,

21 Counsel.

22 THE VIDEOGRAPHER: Are you going to need a

23 copy of the video of this one?

24 MR. VAN HEMMEN: Yes. Yes, please.

25 THE VIDEOGRAPHER: And, Mr. Arrington?

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1 MR. ARRINGTON: No.

2 THE VIDEOGRAPHER: Mr. van Hemmen, do you

3 need the expedited copy of the video? Our normal

4 turnaround is 15 days. Is that adequate for you

5 guys?

6 MR. VAN HEMMEN: That's fine.

7 THE VIDEOGRAPHER: Our standard video format

8 is synced with the transcript. Is that all right, or

9 do you have a different format you would like?

10 MR. VAN HEMMEN: I think that should be

11 fine.

12 THE VIDEOGRAPHER: All right. Very good.

13 Thank you.

14

15 (Whereupon, the proceedings were concluded

16 at 5:20 PM. Total time on the record was

17 6 hours, 29 minutes.)

18

19

20

21

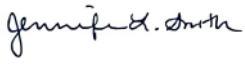
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23

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1 REPORTER'S CERTIFICATE  
 2  
 3 I, JENNIFER L. SMITH, California CSR No.  
 4 10358, Washington CCR No. 3101, RMR, CRR, CRC, and  
 5 Notary Public within and for the State of Colorado,  
 6 commissioned to administer oaths, do hereby certify  
 7 that previous to the commencement of the examination,  
 8 the witness was duly sworn by me to testify the truth  
 9 in relation to matters in controversy between the  
 10 said parties; that the said deposition was taken in  
 11 stenotype by me at the time and place aforesaid and  
 12 was thereafter reduced to typewritten form by me; and  
 13 that the foregoing is a true and correct transcript  
 14 of my stenotype notes thereof.  
 15 That I am not an attorney nor counsel nor in  
 16 any way connected with any attorney or counsel for  
 17 any of the parties to said action nor otherwise  
 18 interested in the outcome of this action.  
 19 My commission expires: February 7, 2026  
 20  
 21   
 22 \_\_\_\_\_  
 23 JENNIFER L. SMITH  
 24 CA CSR NO. 10358  
 25 WA CCR NO. 3101  
 RMR, CRR, CRC,  
 and Notary Public

Page 251

1 BARRY ARRINGTON, ESQ.  
 2 barry@arringtonpc.com  
 3 August 7, 2023  
 4 RE: ROCKY MOUNTAIN GUN OWNERS, et al. vs.  
 THE TOWN OF SUPERIOR, et al.  
 5 7/28/2023, Mark W. Passamaneck (#5991442)  
 6 The above-referenced transcript is available for  
 7 review.  
 8 Within the applicable timeframe, the witness should  
 9 read the testimony to verify its accuracy. If there are  
 10 any changes, the witness should note those with the  
 11 reason, on the attached Errata Sheet.  
 12 The witness should sign the Acknowledgment of  
 13 Deponent and Errata and return to the deposing attorney.  
 14 Copies should be sent to all counsel, and to Veritext at  
 15 cs-ny@veritext.com.  
 16  
 17 Return completed errata within 30 days from  
 18 receipt of testimony.  
 19 If the witness fails to do so within the time  
 20 allotted, the transcript may be used as if signed.  
 21  
 22 Yours,  
 23 Veritext Legal Solutions  
 24  
 25

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1 ROCKY MOUNTAIN GUN OWNERS, et al. vs.  
 THE TOWN OF SUPERIOR, et al.  
 2 7/28/2023 - Mark W. Passamaneck (#5991442)  
 3 E R R A T A S H E E T  
 4 PAGE \_\_\_\_ LINE \_\_\_\_ CHANGE \_\_\_\_  
 5 \_\_\_\_\_  
 6 REASON \_\_\_\_\_  
 7 PAGE \_\_\_\_ LINE \_\_\_\_ CHANGE \_\_\_\_  
 8 \_\_\_\_\_  
 9 REASON \_\_\_\_\_  
 10 PAGE \_\_\_\_ LINE \_\_\_\_ CHANGE \_\_\_\_  
 11 \_\_\_\_\_  
 12 REASON \_\_\_\_\_  
 13 PAGE \_\_\_\_ LINE \_\_\_\_ CHANGE \_\_\_\_  
 14 \_\_\_\_\_  
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 21 REASON \_\_\_\_\_  
 22 \_\_\_\_\_  
 23 \_\_\_\_\_  
 24 Mark W. Passamaneck Date \_\_\_\_\_  
 25

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1 ROCKY MOUNTAIN GUN OWNERS, et al. vs.  
 THE TOWN OF SUPERIOR, et al.  
 2 7/28/2023 - Mark W. Passamaneck (#5991442)  
 3 ACKNOWLEDGEMENT OF DEPONENT  
 4 I, Mark W. Passamaneck, do hereby declare that I  
 5 have read the foregoing transcript, I have made any  
 6 corrections, additions, or changes I deemed necessary as  
 7 noted above to be appended hereto, and that the same is  
 8 a true, correct and complete transcript of the testimony  
 9 given by me.  
 10 \_\_\_\_\_  
 11 \_\_\_\_\_  
 12 Mark W. Passamaneck Date \_\_\_\_\_  
 13 \*If notary is required  
 14 SUBSCRIBED AND SWORN TO BEFORE ME THIS  
 15 \_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_.  
 16  
 17  
 18 \_\_\_\_\_  
 19 NOTARY PUBLIC  
 20  
 21  
 22  
 23  
 24  
 25

# EXHIBIT D

**barry@arringtonpc.com**

---

**From:** barry@arringtonpc.com  
**Sent:** Friday, July 28, 2023 4:02 PM  
**To:** 'hendrik.vanhemmen@gmail.com'  
**Subject:** FW: Liptak

---

**From:** Mark Passamaneck <Mark@EntropyEC.com>  
**Sent:** Friday, July 28, 2023 4:00 PM  
**To:** Barry Arrington <barry@arringtonpc.com>  
**Subject:** Liptak



**Duane Liptak** ▾  
Active now



Apr 12, 2023, 2:01 PM

Would you happen to have any reference for how many magazines OVER 15 rounds, are owned by Americans? I am preparing legal declarations (as a retained expert by NAGR) for several cases. CO has a 15 round limit, but the data I have is under over 10 rounds.

 **Duane Liptak**   
Active now    

Apr 12, 2023, 2:30 PM

Super hard to say, exactly, as I'm sure you know, but the numbers aren't too far different. You lose a good number of handguns 15 and below, but I think we use over 350 Million as a conservative number.



Thanks so much!



"  
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GZJ KDKV'G



**Practice Areas:**

- Mechanical
- Plumbing
- Automotive

Mark@EntropyEC.com



## Mark W. Passamaneck, PE

Mr. Passamaneck is a mechanical engineer with eighteen years of experience in the forensic field. His forensic background includes the investigation of commercial and residential mechanical products and systems and associated failures, damages and injury causation. In addition, he has extensive experience evaluating failures and accidents involving commercial, consumer, off-road and race vehicles.

### LICENSURE & EDUCATION

Licensed Professional Engineer in CO, CA, AZ, NCEES registered  
 BS, Mechanical Engineering, University of Colorado at Denver, 1997  
 Master's level coursework in Mechanical Engineering at the Univ. of CO  
 Certified in Hazardous Waste Operations and Emergency Response (HAZWOPER) OSHA 29 CFR 1910.120(e)  
 Certified in DOT Haz-Mat Transportation, 49 CFR 172, 704 (1-4)  
 Certified Radiation Safety Officer, CRS RH 8.6.1  
 Certified Installer for several specialty piping systems for gas (CSST) and water (PEX)  
 NPGA certified: Basic Principles and Practices, Vapor Distribution System Installation, Appliance Installation, GASCheck®, 2007  
 Boiler Maintenance & Operator Course, NTT, 2005  
 Automotive Plastic Part Design, ETS, 2003  
 Vehicle Fire Investigation, Lee S. Cole & Associates, 1999  
 Uniform Plumbing Code, IAPMO, 1997

### WORK HISTORY

President, *Carbon Arms Corp.*, 2011 to present  
 President & Principal Engineer, *Entropy Engineering Corp.*, 2008 to present  
 Vice President & Principal Engineer, *Western Engineering & Research Corporation*, 2006 to 2008  
 Project Engineer, *Western Engineering & Research Corporation*, 1997 to 2005  
 Engineering Technician, *Analytical Engineering, Inc.*, 1995 to 1997

### AUTOMOTIVE & MECHANICAL SYSTEMS ANALYSIS

Mark Passamaneck is a nationally recognized expert in plumbing system and component failures. He developed and managed the plumbing analysis group at Western Engineering while working on thousands of cases. His extensive plumbing expertise includes fire suppression systems, scald cases, material analysis, appliance failure analysis and code and standard compliance. He investigates failures and performance problems of HVAC systems including the design and installation of radiant heat systems. He investigates CO poisonings, as well as the cause of fires and explosions due to natural gas and propane fired equipment. He has experience working in a manufacturing setting, successfully passing several Federal regulatory audits. His depth of machinery and materials knowledge allows him to conduct testing, analysis and certification for manufacturers and to evaluate machinery accidents including human factor issues. He has designed, constructed and driven race cars in competition. He performs vehicle accident site documentation and analysis, inspections of failed automotive systems and components, and investigations related to vehicle fires. Mr. Passamaneck is proficient in several types of welding, machining, and manufacturing processes, and he has extensive expertise in material behavior and fracture mechanics for both metals and polymers. He has extensive knowledge related to firearms, cartridge reloading and shooting incidents.

### PUBLICATIONS

*Lead Poisoning and the Shooter, The Canadian Marksman®*, Summer/Autumn 2003; *A Primer on Sewer Backups, NASP Subrogator®*, Fall 2005; *Plumbing Products Liability Primer, NASP Subrogator®*, Winter 2006; *The Glock in Competition*, Taylor, Carver, Passamaneck, ISBN 0-9662517-4-1; *Warnings and Labels and Instructions...Oh my!*, *ECS*, issue 1 vol 3; *Forensic Engineering* (monthly column) *PS&D®*, 2010. Mr. Passamaneck has also had several articles published in newsletters and firearms related periodicals. He has presented numerous seminars on plumbing, mechanical systems, automotive failures, accidents and forensic engineering.

### AFFILIATIONS

*American Society of Materials, American Society of Mechanical Engineers, American Society of Plumbing Engineers, Society of Automotive Engineers., International Code Council, Pi Tau Sigma (Honorary Mechanical Engineering Fraternity).*

# EXHIBIT F



**MARK PASSAMANECK - May 31, 2023**

Page 1	Page 3
1 IN THE UNITED STATES DISTRICT COURT	1 I N D E X
2 FOR THE DISTRICT OF COLORADO	2 EXAMINATION OF MARK PASSAMANEK PAGE
3 Civil Action No. 1:22-CV-1866-GPG-SKC	3 May 31, 2023
4	4 By Mr. Baumann 5, 187
5 DEPOSITION OF: MARK PASSAMANECK	5 By Mr. Arrington 176, 191
6 May 31, 2023	6 INITIAL
7	7 DEPOSITION EXHIBITS REFERENCE
8 BENJAMIN GATES, TRAVIS SWARTZ, KARL HONEGGER, AND	8 Exhibit 1 - Passamanek expert report 7
9 NATIONAL FOUNDATION FOR GUN RIGHTS, INC.	9 Exhibit 2 - Passamanek CV 11
10 Plaintiffs,	10 Exhibit 3 - Passamanek prior depo transcript 12
11 v.	11 Exhibit 4 - Court order in Alves case 21
12 JARED S. POLIS, IN HIS OFFICIAL CAPACITY AS GOVERNOR	12 Exhibit 5 - Magpul article 44
13 OF THE STATE OF COLORADO,,	13 Exhibit 6 - Passamanek tweets 55
14 Defendant.	14 Exhibit 7 - Passamanek tweet 60
15	15 Exhibit 8 - Michael Bane article 60
16 PURSUANT TO NOTICE, the deposition of	16 Exhibit 9 - 11/16/20 article 82
17 MARK PASSAMANECK was taken on behalf of the Plaintiffs	17 Exhibit 10 - English report 87
18 at 1300 Broadway,, Denver, Colorado 80203, on May 31,	18 Exhibit 11 - 2020 Industry Intelligence Report 102
19 2023, at 9:08 a.m., before Rianna R. Elmshaeuser,	19 Exhibit 12 - AFMER report 144
20 Registered Professional Reporter, Federal Certified	20 Exhibit 13 - Passamanek updated CV 175
21 Realtime Reporter, and Notary Public within Colorado.	
22	
23	
24	
25	
Page 2	Page 4
1 A P P E A R A N C E S	1 Exhibit 14 - Passamanek updated case list 176
2 For the Defendant:	2 Exhibit 15 - Congressional Research Service 176
3	3 Report
4 PETER BAUMANN, ESQ.	
5 DANIEL MAGALOTTI, ESQ.	
6 Colorado Attorney General's Office	
7 1300 Broadway, 6th Floor	
8 Denver, CO 80203	
9 peter.baumann@coag.gov	
10 daniel.magalotti@coag.gov	
11 For the Plaintiffs:	
12	
13 BARRY ARRINGTON, ESQ.	
14 Arrington Law Firm	
15 3801 E Florida Ave #830	
16 Denver, CO 80210	
17 barry@arringtonpc.com	
18	
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25	

MARK PASSAMANECK - May 31, 2023

Page 5

1 WHEREUPON, the following proceedings  
 2 were taken pursuant to the Federal Rules of Civil  
 3 Procedure.  
 4 \* \* \* \* \*  
 5 MARK PASSAMANECK,  
 6 having been first duly sworn to state the  
 7 whole truth, testified as follows:  
 8 (Deponent's reply to oath: I do.)  
 9 EXAMINATION  
 10 BY MR. BAUMANN:  
 11 Q. Good morning, Mr. Passamaneck.  
 12 A. Good morning.  
 13 Q. My name is Peter Baumann and I represent  
 14 the defendant in Gates v. Polis. And let's start off,  
 15 have you ever been deposed before?  
 16 A. Yes.  
 17 Q. And so you know all of the rules. We  
 18 have a court reporter here who is taking everything  
 19 down which means, first and foremost, that we should  
 20 try and avoid talking over each other. I will do my  
 21 best to let you finish your answers before I ask my  
 22 questions and if you could let me finish my questions  
 23 before you answer.  
 24 A. Fair enough.  
 25 Q. Does that work?

Page 6

1 A. Yes.  
 2 Q. It also means that we'll need to be  
 3 verbal. The court reporter can't capture nods or  
 4 headshakes. Does that work?  
 5 A. That works.  
 6 Q. You also know then the questions we have  
 7 to get out of the way at the beginning. Is there any  
 8 reason why you will be -- you would be unable to  
 9 testify truthfully today?  
 10 A. No.  
 11 Q. Are you under any medications that would  
 12 inhibit your ability to testify today?  
 13 A. No.  
 14 Q. Are you under the influence of anything  
 15 else that would inhibit your ability?  
 16 A. No.  
 17 Q. You've been retained as an expert witness  
 18 in this case, correct?  
 19 A. Correct.  
 20 Q. And you've been retained by the  
 21 plaintiffs?  
 22 A. Correct.  
 23 Q. And you prepared an expert report in this  
 24 case?  
 25 A. Yes.

Page 7

1 Q. And that expert report includes all of  
 2 the opinions that you would offer if called to testify  
 3 at trial?  
 4 A. Correct.  
 5 Q. And it includes the full basis for those  
 6 opinions?  
 7 A. It does.  
 8 Q. And all of the facts underlying those  
 9 opinions?  
 10 A. Yes.  
 11 Q. I'm going to go ahead and hand you a  
 12 document.  
 13 (Deposition Exhibit 1 was marked.)  
 14 Q. Barry, this is Exhibit 1 in the file I  
 15 sent you.  
 16 MR. ARRINGTON: Okay.  
 17 Q. (BY Mr. Baumann) Do you recognize this  
 18 document, Mr. Passamaneck?  
 19 A. Yes.  
 20 Q. What is it?  
 21 A. It is a report that I prepared for this  
 22 case.  
 23 Q. Let's go ahead and keep that one nearby  
 24 because I think we'll go back to it fairly often. In  
 25 fact, let's go ahead and dive right in and let's go to

Page 8

1 the very end, starting on page three onto page four.  
 2 Is this a list of all of the testimony you have  
 3 provided in the past four years?  
 4 A. Yes.  
 5 Q. And is this a complete list?  
 6 A. It is.  
 7 Q. And none of these cases involved  
 8 firearms, correct?  
 9 A. That is correct.  
 10 Q. And what was your area of expertise in  
 11 most of these cases?  
 12 A. Mechanical systems. I mean, licensed as  
 13 a mechanical engineer in Colorado and these are all  
 14 mechanical systems.  
 15 Q. And can you just -- I am not a science  
 16 person or an engineer so if I ask you clarifying  
 17 questions, please indulge me.  
 18 A. Okay.  
 19 Q. When you say mechanical systems, what do  
 20 you mean?  
 21 A. In the area of work that I work in is  
 22 really anything mechanical. So like in this building  
 23 there's HVAC, fire suppression system, and plumbing  
 24 systems. Those are the mechanical systems that would  
 25 be in this building, so those are items that I work

MARK PASSAMANECK - May 31, 2023

Page 9

1 on. Automotive, firearms, you know, connected to HVAC  
 2 obviously is boilers, and then natural gas, propane,  
 3 carbon monoxide. That's generally the area I've  
 4 worked in my entire career.  
 5 Q. And is there a ready definition for  
 6 mechanical?  
 7 A. A mechanical engineer?  
 8 Q. Let's start there.  
 9 A. I mean, a mechanical engineer would be, I  
 10 mean from coursework, education, and licensure  
 11 perspective, would be anybody who works on mechanical  
 12 systems. So gears and drivetrains, the types of  
 13 things I explained to you and anything that deals with  
 14 mechanical systems that are designed, their  
 15 implementation, their use, so, you know, factory work.  
 16 There are a lot of factory accidents that  
 17 I've worked on. Mechanical systems such as pressure  
 18 cookers, assembly lines, those kind of things, when  
 19 there's a failure, those are the kind of things I also  
 20 work on.  
 21 Q. So it's how things work?  
 22 A. How things work but I'll differentiate  
 23 between a civil engineer builds buildings and streets  
 24 and foundations and water systems and those are not  
 25 things that I work on on a regular basis. Electrical

Page 10

1 engineers is going to design the electrical systems;  
 2 the alarms, the lighting, the power systems that feed  
 3 all of our mechanical systems. I don't touch those.  
 4 So I hope that kind of maybe helps you differentiate.  
 5 Q. Yeah, I think so. We can take a look at  
 6 it if it would be helpful, but I was looking through  
 7 some of these and one of them -- actually the very  
 8 first one on page three is Martha Munoz v. Public  
 9 Service, DBA, Xcel Energy. And testimony there you  
 10 described you practice areas as mechanical, plumbing,  
 11 and automotive. Does that sound right?  
 12 A. Yeah, generally.  
 13 Q. And when you say "generally," can you  
 14 elaborate on that?  
 15 A. Well, mechanical is a huge area as you  
 16 know, and I don't work in every single area of  
 17 mechanical engineering. Plumbing I would say probably  
 18 has made up 50 percent of my work over the 20 plus  
 19 years; a lot of plumbing systems, a lot of plumbing  
 20 system failures so, yeah.  
 21 Q. I'm going to go ahead and hand you  
 22 another document.  
 23 MR. BAUMANN: Barry, this is Exhibit 5 in  
 24 the folder that you have. And if we could go ahead  
 25 and mark this as Exhibit 2.

Page 11

1 (Deposition Exhibit 2 was marked.)  
 2 Q. Do you recognize this document?  
 3 A. Yes.  
 4 Q. What is it?  
 5 A. That is my CV that I assume you printed  
 6 from online but that's my basic CV.  
 7 Q. And this is the CV that you used for  
 8 Entropy Engineering Corporation, correct?  
 9 A. It is. And I don't know if you have it.  
 10 I don't know if Barry has it, but I do have an  
 11 expanded one that has information about firearms on  
 12 it. I don't put that online because a lot of  
 13 attorneys don't hire anybody who does firearms work.  
 14 So I don't put it out there in the public realm, but I  
 15 do have a supplemental one. If you want me to get  
 16 that to Barry, I can get it to you.  
 17 Q. This is -- and we can look at Exhibit 1.  
 18 The very first sentence on page one is, "At your  
 19 request, Entropy Engineering Corporation, has  
 20 evaluated portions of the case referenced above." Is  
 21 that right?  
 22 A. Correct.  
 23 Q. So Entropy Engineering Corporation is who  
 24 the plaintiffs hired in this case, correct?  
 25 A. Correct.

Page 12

1 Q. And this resume comes from the Entropy  
 2 Engineering Corporation website, correct?  
 3 A. Correct.  
 4 Q. And at the top of that resume, it lists  
 5 three practice areas. Could you read those for us?  
 6 At the very top. Next to your photo.  
 7 A. Oh, mechanical, plumbing, automotive.  
 8 Q. Okay. Now, if we go back to your report  
 9 and, again, we're looking at the list of testimony  
 10 from the last four years.  
 11 A. Mm-hm.  
 12 Q. Each of these cases involves one of those  
 13 three practice areas, correct?  
 14 A. Yes.  
 15 Q. And this is all of the cases over the  
 16 last four years where you have testified either at a  
 17 deposition or at trial?  
 18 A. Correct.  
 19 Q. Okay. I want to --  
 20 MR. BAUMANN: Barry, we're going to skip  
 21 away ahead to Exhibit 45 in your -- in what you have.  
 22 (Deposition Exhibit 3 was marked.)  
 23 Q. Do you recognize this document,  
 24 Mr. Passamaneck?  
 25 A. Yes, I do.

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Page 13

1 Q. What is it?

2 A. It appears to be my deposition from a

3 case that was Tim Alvez versus the Army Corp of

4 Engineer.

5 Q. And what's the date of this deposition?

6 A. November 10, 2021.

7 Q. And you were the deponent, correct?

8 A. Yes.

9 Q. And this was within the last four years,

10 correct?

11 A. It was.

12 Q. And this is not listed in your report,

13 correct?

14 A. You are correct.

15 Q. Okay. So when you said earlier that all

16 of your testimony from the last four years was

17 included in this list, that was inaccurate?

18 A. You are correct.

19 Q. Are there any other cases that are

20 missing?

21 A. I don't know. I don't think so.

22 Q. Do you recall anything about this

23 deposition in Alvez from November 10 of 2021?

24 A. I recall what it was about.

25 Q. What was it about?

Page 14

1 A. This was a wench on a dock system in

2 Idaho.

3 Q. And what were you -- what was the

4 expertise that you provided in that case?

5 A. It was related to the wench and

6 components related to its wear, tear, and suitability.

7 Q. Mechanical systems?

8 A. Correct.

9 Q. And you took an oath before that

10 deposition, correct?

11 A. I did.

12 Q. And that was just like the one you took

13 today?

14 A. Correct.

15 Q. And so you told the truth in that

16 deposition, correct?

17 A. Yes.

18 Q. Okay. Let's turn to what's -- page eight

19 of the deposition, page four, but it's page eight in

20 kind of the mini-things. It's on the upper,

21 right-hand corner of the fourth page. I think you'll

22 need to turn back. Nope, turn forward one, and I

23 think it's that one. You'll see in the very upper,

24 right-hand corner it says page eight. Do you see

25 that?

Page 15

1 A. Yes.

2 Q. And it looks like you testified in this

3 deposition that you've testified 150 times total; is

4 that right?

5 A. Yes.

6 Q. And does that sound accurate to you?

7 A. Generally, yes.

8 Q. And if you go down at line 10, you were

9 asked whether all of those 150 times were on

10 engineering topics; is that right?

11 A. Yes.

12 Q. And can you read your answer to that

13 question?

14 A. "Always on engineering, with a slight

15 caveat. I do shooting reconstruction and I do it from

16 an engineering perspective. But there are a couple

17 cases where my expertise as gone into evaluation of

18 events leading up to, so shooting reconstruction,

19 shooting expertise."

20 Q. So you've testified 150 times before?

21 A. Correct.

22 Q. And all of those -- all of that testimony

23 has been on engineering or shooting reconstruction?

24 A. I mean I consider the shooting

25 reconstruction to be part of the same type of thing, i

Page 16

1 mean the same principles, but yes.

2 Q. So -- because it's mechanical systems?

3 A. Correct.

4 Q. How things work?

5 A. Correct.

6 Q. I want to go back to what we've marked as

7 Exhibit 2. I believe it's your resume. And I think

8 you mentioned before that you have a longer resume

9 that includes information about firearms work. Is

10 that right?

11 A. Correct.

12 Q. This resume talks a little bit about

13 firearms, doesn't it?

14 A. It does a little bit.

15 Q. And the other one you have just expands

16 on that?

17 A. Correct.

18 Q. And have you found that your mention of

19 firearms in this resume hinders your ability to be

20 hired for expert testimony?

21 A. I have had attorneys tell me that they

22 will not hire anybody who -- yes, who works on

23 firearms.

24 Q. Who does shooting reconstruction work?

25 A. Who does shooting reconstruction, yes,

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1 and those types of things.

2 Q. So why do you keep the firearm related

3 information on this resume?

4 A. Because I think in order to be honest, I

5 have to have at least some mention of it on my resume.

6 Q. And so this resume is honest in its

7 description of your work?

8 A. Yes.

9 Q. Can you tell me how your opinion in this

10 case relates to mechanical engineering?

11 A. Well, the firearms are a mechanical

12 system.

13 Q. And so your testimony here is about how

14 firearms work?

15 A. Primarily, yes.

16 Q. Is there any part of your report that is

17 not on how firearms work?

18 A. Yeah, there's a significant portion of it

19 that is looking at research as far as the number of

20 firearms and/or magazines.

21 Q. Are you qualified to do that research?

22 A. No. That's why I quote other people who

23 do the research.

24 Q. Are you qualified to evaluate that

25 research?

Page 18

1 A. Yes.

2 Q. Why?

3 A. Because I've been involved in the

4 firearms industry for 25 or 30 years. As far as

5 running matches and training, you know, variety of

6 aspects.

7 Q. Some of your report deals with

8 statistical analysis; is that right?

9 A. Yes.

10 Q. Are you qualified to do statistical

11 analysis?

12 A. Sure.

13 Q. Why?

14 A. Because in the limited scope of this

15 statistical is done is basic, high school statistics.

16 It's not a statistical analysis. It's literally just

17 looking at the numbers that are presented by somebody

18 else and putting them out. So I don't even consider

19 that to be an expertise area.

20 Q. So you -- is it correct that you, for

21 that portion of your report, and we'll obviously take

22 a closer look at this. You just looked at numbers

23 presented by someone else?

24 A. I looked at their numbers, but I did do

25 some math. I mean, there's some very simple math. I

Page 19

1 think it spells itself out pretty clearly in my

2 report.

3 Q. Yeah, and we'll get to some of that math.

4 But I'm interested in kind of the underlying question

5 which is any of us can read a number of things on any

6 given day and the question of whether to trust that

7 information or not is a second question. And I'm

8 interested in why you are qualified to tell us that

9 the figures you cite are trustworthy.

10 A. You're asking me -- let me clarify.

11 You're asking me is the information from the Kennedy

12 Study and NSSF, why do I believe that's accurate? Is

13 that what your question is?

14 Q. Yeah.

15 A. In several areas, it is consistent with

16 my own observations of people in the shootings force

17 and the shooting industry, and even people who are

18 recreational shooters. And then I also went and

19 looked at Kennedy. And his background is information,

20 and as an expert witness, I'm allowed to rely on other

21 people's information and so I looked at his

22 information. It appears to be consistent with my

23 perceptions of what those numbers would mean and what

24 they would actually be.

25 The National Shooting Sport Foundation, I

Page 20

1 don't know if you've looked at them, but they actually

2 are an industry trade group, so they pull that

3 information from manufacturers. So their information

4 in my opinion is very trustworthy because it's from

5 actual manufacturers.

6 Q. That all makes sense. We'll take a

7 closer look at some of that. In the Alvez case that

8 we just looked at, part of your testimony --

9 A. Can you give me a second?

10 Q. Of course.

11 A. I want to make a note because you've

12 pointed out an error, so I want to get my assistant to

13 fix that when I get back. If I don't make a note, I

14 might forgot about it. Okay. Thank you.

15 Q. Of course. Did your assistant prepare

16 that list of cases?

17 A. Yes.

18 Q. And did you review it before including it

19 in your report?

20 A. I looked at it. I mean, I did not go

21 through my actual calendar to make sure everything was

22 correct. That's what she does. She looks at my

23 calendar, and when I go to depositions, she sends out

24 the invoice, she adds it to that testimony list.

25 Q. Did she prepare anything else in this

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Page 21

1 report?

2           **A. No.**

3           Q. Everything else in here is your work?

4           **A. Yes.**

5           Q. In the Alvez case, part of your testimony

6 there -- or you were disqualified from providing part

7 of your testimony in that case, correct?

8           **A. I don't know if I was disqualified by the**

9 **Court. We talked about certain aspects but I'm not**

10 **sure what you're discussing specifically.**

11          Q. Let's take a look.

12          MR. BAUMANN: Barry, this is going to be

13 what's marked as Exhibit 46 in your.

14                   (Deposition Exhibit 4 was marked.)

15          Q. Okay. Do you recognize this document,

16 Mr. Passamaneck?

17          **A. I don't.**

18          Q. What does it appear to be?

19          **A. It appears to be a court order.**

20          Q. And is it a court order in Alvez v. Army

21 Corps of Engineers?

22          **A. Yes.**

23          Q. And you can look at the first paragraph

24 of text. Does it look like a court order on a motion

25 to exclude the expert report and testimony of Mark

Page 22

1 Passamaneck?

2           **A. It does.**

3           Q. If you turn to the third page, under

4 where it says discussion, go down a few paragraphs, do

5 you see the paragraph that starts, "Mr. Passamaneck is

6 an engineering, not a legal expert"?

7           **A. I do.**

8           Q. And goes on to say that some of

9 Mr. Passamaneck's opinions opine on the obligations of

10 such companies as lessors -- well, we don't need to

11 read this. Is this -- does this refresh your

12 recollection about whether part of your testimony was

13 excluded?

14          **A. I was never told that it was excluded.**

15          Q. Okay. Have you ever been disqualified

16 from offering an expert opinion?

17          **A. Apparently, if that's what this is, then**

18 **yes. But prior to this, I'm not aware of any.**

19          Q. Do you remember testifying previously

20 against Colorado's magazine ban?

21          **A. I do.**

22          Q. And were you restricted in what opinions

23 you were allowed to offer in that case?

24          **A. I don't know.**

25          Q. You don't have any recollection of other

Page 23

1 cases in which you've been disqualified?

2           **A. Not that I'm aware of.**

3           Q. And you say you've testified over 150

4 times; is that correct?

5           **A. Correct.**

6           Q. And, again, no recollection of ever being

7 disqualified?

8           **A. I only recall two Daubert hearings that I**

9 **was present at, and in each case the judge said that I**

10 **was qualified to testify.**

11          Q. Do you recall a Daubert hearing in this

12 Alvez case?

13          **A. I don't.**

14          Q. So it's possible that you have been

15 disqualified and you just don't know about it?

16          **A. It's possible.**

17          Q. I should have stated at the outset, we

18 can take a break any time you want, just let me know,

19 unless there's a question pending.

20          **A. Okay.**

21          Q. But just keep me updated with how you're

22 feeling. What's the highest level of education you've

23 obtained?

24          **A. I have a bachelor's degree.**

25          Q. And on your resume, which we've marked as

Page 24

1 Exhibit 2, mentions some master's level course work;

2 is that right?

3           **A. Correct.**

4           Q. What was that master's level coursework

5 in?

6           **A. Mechanical engineering.**

7           Q. And describe what master's level

8 coursework means.

9           **A. Well, I did all the coursework to receive**

10 **a master's, and then it was a difference of opinion**

11 **between myself and my advisers to whether or not I was**

12 **going to do a thesis or not.**

13          Q. I take it that your opinion was that you

14 did not want to do a thesis?

15          **A. You are correct.**

16          Q. And so you did not achieve a master's?

17          **A. Correct.**

18          Q. But you did all of the coursework?

19          **A. I did.**

20          Q. And again that was in mechanical

21 engineering?

22          **A. Correct.**

23          Q. We would be here all day if you walked

24 through every course, but can you give us kind of a

25 high level description of what that coursework looks

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Page 25

1 like?

2           A.    The master's coursework?

3           Q.    Yeah.

4           A.    Sure. One was numerical methods, one was

5 vibrations. There was advanced thermodynamics. Two

6 in internal combustion engines and one mechanics and

7 materials. There may be one or two other. I just

8 can't remember. It was like eight courses.

9           Q.    Yeah, did you think about doing the

10 thesis?

11          A.    Not for a second.

12          Q.    Why not?

13          A.    So it University of Colorado. There were

14 three options to complete your masters. One was a

15 three-hour course, which is what I had always planned

16 to do. One was a six-hour masters thesis, and one was

17 a survey something, I don't even know what it was,

18 nine credit hours. And I had always planned on doing

19 the three credit hour course and my advisor said,

20 "You're too smart to do a course. You're going to do

21 six hours thesis." And I said, "No, I'm not." And I

22 was working full time. I had, you know, kids on the

23 way, so, no, not doing that.

24          Q.    Someone who -- just passed the year mark

25 with my first kid and I've turned down a lot of things

Page 26

1 in the last year, so I get it. What year was that

2 coursework?

3           A.    So I got my BS in '97 so it was '98, '99

4 it may have gone into 2000-2001. I don't remember

5 exactly what the years were.

6           Q.    One of the courses you mentioned is

7 numerical methods. What was the numerical methods

8 course about?

9           A.    A lot of work.

10          Q.    Was it hard?

11          A.    It was hard. It was hard. Number

12 methods is -- it's higher level calculus, differential

13 equations, but it's using computer analysis to do

14 those things that are beyond the capability of a

15 human. So I don't assume that you ever did a math

16 course where you did matrices.

17          Q.    I did. I can't promise that I remember

18 it all.

19          A.    But you know what they are.

20          Q.    Yes.

21          A.    So, you know, a three by three matrix,

22 you could sit down and you could do that by hand.

23 When you get multiple variables and you're doing nine

24 by nine and 20 by 20, it would take years to do those

25 that matrices. So numerical methods is the ability to

Page 27

1 take the equations, put them into a software package

2 or actually write code to get an output.

3           And then you have certain numerical

4 methods, matrices, et cetera, that are basically

5 considered proofs. So you put those through your

6 program. You make sure your program is correct. And

7 if it comes out correct with the proof ones, then

8 you're confident that your numerical method program

9 works. It's still an approximation. If you're going

10 to do design based on something, you still do an R and

11 D prototyping and then take it further. So, yes, it

12 is complex.

13          Q.    Yeah, my head hurts just thinking about

14 it. Was it your favorite course?

15          A.    No.

16          Q.    Why not?

17          A.    It was a lot of work and I'm not a

18 computer jockey by any stretch. So the people who had

19 CS undergrads, they did great and I needed help from

20 them. But I had one program, and it was about 15

21 minutes on the Cray down in Colorado Springs for the

22 first one and the second one took an hour. So your

23 little PC even today would take months for it to run.

24          Q.    Wow. Was there any Cray survey

25 methodology in that course?

Page 28

1           A.    Not in the -- not in what you're digging

2 for. Yes, you have variables and you need to keep

3 those variables -- are you familiar with Monte Carlo

4 analysis?

5           Q.    Yeah.

6           A.    So you have those variables in ranges and

7 so, yes, there is some component of that. And then

8 you need to make sure that as you're looking at those

9 variables, obviously to make the computer program run

10 most efficiently, you try to keep that window as small

11 as possible. So there is some survey in analysis of

12 those variables to make sure that you're using them in

13 the narrowest possible realm that's reasonable.

14          Q.    But it sounds like nothing like how to

15 design a survey to identify public opinion on

16 something?

17          A.    No, sir.

18          Q.    Or to survey the number of a given item

19 in the population?

20          A.    No.

21          Q.    Looking back at what we've marked as

22 Exhibit 2, there's a large paragraph in the middle

23 that I think we've already kind of walked through a

24 lot of this here. It says that you are a nationally

25 recognized expert in plumbing system and component

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1 failures; is that right?

2           **A. Yes.**

3           **Q. And are you a nationally recognized**

4 **expert in plumbing system and component failures?**

5           **A. Yes.**

6           **Q. And if we go a little bit further, you**

7 **investigate failures and performance problems of HVAC**

8 **systems?**

9           **A. Correct.**

10          **Q. Including the design and installation of**

11 **radiant heat systems?**

12          **A. Correct.**

13          **Q. And that's all correct?**

14          **A. Yes.**

15          **Q. And you investigate Colorado poisons?**

16          **A. No, that's carbon monoxide.**

17          **Q. I even had a note in there, because I --**

18 **This is how you know I work for the State of Colorado.**

19 **I see C-O and immediately go there. You investigate**

20 **carbon monoxide poisonings?**

21          **A. Correct.**

22          **Q. And you have experience working in a**

23 **manufacturing setting?**

24          **A. I do.**

25          **Q. And if we scroll down a little bit more,**

Page 30

1 you perform vehicle accident site documentation and

2 analysis?

3           **A. I have, yes.**

4           **Q. What do you mean you have?**

5           **A. I do very, very little of that now. When**

6 **I was younger working under a principle, I did a ton**

7 **of it, but I don't do a whole lot of it myself now. I**

8 **have one client that I do a very narrow scope of low**

9 **speed vehicle accident reconstruction, and that's it.**

10          **Q. And do you still do inspections of failed**

11 **automotive systems and components?**

12          **A. Yes.**

13          **MR. ARRINGTON: Then at the very end there**

14 **it says --**

15          **MR. BAUMANN: Go ahead, Barry.**

16          **MR. ARRINGTON: When you reach a natural**

17 **break, let me know.**

18          **MR. BAUMANN: In fact, I think we'll have**

19 **one in about two minutes.**

20          **MR. ARRINGTON: Okay. Thanks.**

21          **Q. (BY Mr. Baumann) And it says here at the**

22 **very end that you have extensive knowledge related to**

23 **firearms, cartridge reloading, and shooting incidents.**

24 **What do you mean by that?**

25          **A. Well, it's a broad catchall and we could**

Page 31

1 go through each component if you want to. You know, I

2 have been a competitive shooter since I was basically

3 21 years old. I've got several national level

4 competitions with top 10 finishes. I run matches on a

5 national -- and I've even run international matches as

6 a match director and range master. I hunt. I coach a

7 track team. I mean, there's not really a realm of

8 firearms that I have not been involved in personally

9 over the last 35 years or so.

10          **Q. You mentioned a lot of uses for firearms**

11 **there. Notably absent was self-defense. Have you**

12 **ever used a firearm in self-defense?**

13          **A. I have not personally, no.**

14          **Q. Have you conducted studies on the use of**

15 **firearms in self-defense?**

16          **A. I have.**

17          **Q. Such as?**

18          **A. Well, I have about 7,000 students that**

19 **I've trained in CCW courses. Some of those have been**

20 **involved in shootings. I've been questioned by**

21 **district attorney's in a couple of those cases. I**

22 **mean, from a personal perspective, I just consume mass**

23 **amounts of information and data related to those**

24 **topics pretty much on a regular basis.**

25          **Q. Have you ever testified as to any of**

Page 32

1 those topics?

2           **A. No. Every shooting case that I've had so**

3 **far has either settled or been dismissed. I might**

4 **have one that's still open in the City and County of**

5 **Denver. I'm not positive if it's still open or not.**

6           **Q. And under your work history, it mentions**

7 **that you're the President of Carbon Arms Corporation.**

8 **Is that right?**

9           **A. Yes.**

10          **Q. What is Carbon Arms Corporation?**

11          **A. So it's a company that I started. I**

12 **designed several pieces of equipment for competition**

13 **shooting. I actually also have Stretch Precision**

14 **that's under Carbon Arms in which I manufacture AR-15**

15 **barrels. Carbon Arms made shotgun clips and -- for**

16 **loading, primarily for competition. If you went**

17 **through my deposition from 2013 -- well, the 2013**

18 **case, the mag, you will see that I actually did**

19 **manufacture magazines and magazine base pads. When**

20 **that law went into effect, I ceased all that**

21 **manufacture.**

22          **Q. So today you don't do any design and**

23 **manufacture of detachable magazines?**

24          **A. I have not.**

25          **Q. And you have no real training, correct?**



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1           **A. Correct.**  
2           Q. And you're not a historian?  
3           **A. No.**  
4           Q. And you have taken no courses in history?  
5           **A. Other than what was required at School of**  
6 **Mines, which I think was one.**  
7           Q. Got the credit out of the way?  
8           **A. Rocks for Jocks, Lit 101, and History**  
9 **101, yeah, that was pretty quick.**  
10          Q. And you're not a statistician?  
11          **A. No.**  
12          Q. And you have no training in statistical  
13 analysis?  
14          **A. Other than what is in my coursework, no.**  
15          Q. And you have no training in survey  
16 design?  
17          **A. Correct.**  
18          Q. Okay.  
19          MR. BAUMANN: Barry, this would be a good  
20 time to take a break.  
21          MR. ARRINGTON: Okay. Great. Thank you.  
22 Can you give me a call, Mark, please?  
23          **A. Sure.**  
24          (A recess was taken from 9:45 a.m. to 9:52  
25 a.m.)

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1           Q. (BY Mr. Baumann) Okay. Let's go back to  
2 your report, which we've marked as Exhibit 1, and  
3 we'll take a look at page two, the first full  
4 paragraph about halfway down. It says -- that starts,  
5 "Detachable magazines are necessary to make  
6 semiautomatic firearms," and then it continues. But I  
7 want to stop there for a second. What is a  
8 semiautomatic firearm?  
9           **A. A semiautomatic firearm is, if it has**  
10 **mechanical safeties and they are disengaged, every**  
11 **time you press the trigger, a cartridge is fired from**  
12 **the firearm.**  
13          Q. Until when?  
14          **A. Until the magazine no longer has**  
15 **ammunition in it.**  
16          Q. Does every semiautomatic firearm utilize  
17 a detachable magazine?  
18          **A. No.**  
19          Q. And can you explain why you answered no  
20 to that?  
21          **A. Because there are some that do have**  
22 **internal box magazines. There's not a lot, but there**  
23 **are some.**  
24          Q. So when you use semiautomatic firearms in  
25 this report, are you clear about when you're referring

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1 to ones that receive detachable magazines?  
2           **A. No.**  
3           Q. Okay. Are you only referring to ones  
4 that receive detachable magazines?  
5           **A. Yes. I mean, let me back up. The**  
6 **magazine, whether it detaches or not, functions and**  
7 **operates in the same way. The only difference between**  
8 **a detachable magazine and one that is internal and not**  
9 **detachable is that you can quickly replenish the**  
10 **firearm with a new magazine without having to actually**  
11 **load them individually into the firearm.**  
12          Q. So for a fixed magazine, what does  
13 reloading that weapon look like?  
14          **A. In most cases, the action would have to**  
15 **be open and you would individually press the**  
16 **cartridges into the internal box magazine.**  
17          Q. As opposed to now describe how a  
18 detachable magazine works.  
19          **A. A detachable magazine, whether you have**  
20 **ammunition in the magazine or it's empty, you push**  
21 **some kind of release, it's a lever or button, magazine**  
22 **comes out. You could, if you had a second magazine,**  
23 **put another magazine in that had been preloaded. So**  
24 **you could load four magazines and they could all have**  
25 **ammunition in them. When the first magazine is empty,**

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1 **you could drop that magazine out of the firearm and**  
2 **put a new magazine in and then you could shoot.**  
3          Q. So the first sentence of that paragraph  
4 says, "Detachable magazines are necessary to make  
5 semiautomatic firearms, designed to receive such  
6 magazines, operate effectively. And I'm sorry. I'm  
7 going to take us all back to our fourth grade grammar.  
8 But the clause "designed to receive such magazines,"  
9 what is that clause referring to in that sentence?  
10          **A. I'm differentiating that detachable**  
11 **magazines are what the whole paragraph is about, so**  
12 **semiautomatic firearms with detachable magazines.**  
13          Q. Got it. So that modifies semiautomatic  
14 firearm to mean only semiautomatic firearms that are  
15 designed to receive detachable magazines.  
16          **A. Right. That's what this paragraph was**  
17 **about.**  
18          Q. Okay. That was not a "got you." I just  
19 wanted to make sure I understood. What is an example  
20 of a semiautomatic firearm with a -- designed to  
21 receive a detachable magazine?  
22          **A. Holy cow. Ruger 10-22 is one that's very**  
23 **common. The AR-15 platform. AR-15 and AR-10, I will**  
24 **use those terms, but realize that is a style. It is**  
25 **not intended to be specifically a brand name.**

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1 Q. Yeah.

2 A. So AR-10 are typically large frame or

3 large pattern semiautomatic firearms in that realm,

4 whereas an AR-15 is a small frame. They're -- the

5 cartridge -- and when I say small and large, I'm

6 talking about the size of the cartridges.

7 Q. Got it. I think we'll probably get into

8 that and have you educate me a little bit more on

9 those distinctions.

10 A. Can we go to the range?

11 Q. I'd love to. We may have to wait until

12 Barry is back in town. The three of us can go. Okay.

13 So let's use the AR-15. Can an AR-15 be fired -- can

14 an AR-15 platform rifle be fired without a magazine in

15 the well?

16 A. For one round.

17 Q. But it can be fired?

18 A. It could -- so you would have to take a

19 magazine, insert it, chamber the round, take the

20 magazine out, and then you can fire that one round and

21 it might malfunction.

22 Q. Why might it malfunction?

23 A. Because the whole system is designed to

24 feed a magazine with spring pressure into the chamber.

25 So the bottom of the bolt actually catches the rim, it

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1 feeds it in. So when you don't have that pressure,

2 when it cycles and opens, one, it won't lock back

3 because the lifter is not locked the bolt back. So

4 there's a lever that's activated by the follower in

5 the magazine that lifts the lever that locks the bolt

6 back. That won't happen. And so in some cases, with

7 some firearms, and it depends on age, wear, how dirty

8 they are, et cetera, yeah, it might malfunction and

9 jam.

10 Q. Why is that any different than the last

11 bullet in a magazine?

12 A. Because that lifter is designed with a

13 shelf that lifts a lever that holds to bolt back. And

14 then when you drop the magazine out, that lever has

15 already been activated. So you put new magazine in,

16 hit the bolt release, it goes forward. So if you

17 don't have a magazine in the firearm and you have a

18 round in the chamber and you fire that, the bolt's

19 closed, and so fixing that is complicated.

20 Q. Got it.

21 A. And when I say complicated, I should

22 probably qualify that. It's complicated in terms of

23 design and probably for someone who is inexperienced.

24 For someone who's experienced, they'll understand what

25 the malfunction is, fix it, and go on.

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1 Q. You are very proficient with firearms,

2 correct?

3 A. I am.

4 Q. You've won multiple competitions?

5 A. I have.

6 Q. And placed top 10 in some national

7 competitions?

8 A. I have.

9 Q. How fast would it take you to replace an

10 AR-15 rifle magazine?

11 A. My standard reload, if I was shooting

12 standing up, is on the order of about 2 seconds. If

13 I'm from the prone, it's maybe three, three and a

14 half.

15 Q. And you teach a lot of shooting, correct?

16 A. I do.

17 Q. For your average student, what is their

18 reload time for an AR-15 platform rifle?

19 A. Average student? I guess I'd have to

20 qualify what average means, and if we're going to take

21 average, I would say that's going to be someone who is

22 not a competitor. Usually if you're talking to people

23 who compete, you're looking at the top 5 percent of

24 all people who shoot firearms. So average, it's going

25 to be five, six seconds, somewhere in that range, if

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1 not more.

2 Q. And that's for people who do not compete?

3 A. Correct.

4 Q. Would it ever take 10 seconds?

5 A. Oh, sure, yeah.

6 Q. No weapon requires a 16 plus round

7 magazine to operate, correct?

8 A. That is correct.

9 Q. Are you an expert on magazine

10 degradation?

11 MR. ARRINGTON: Sorry. Can you repeat that?

12 MR. BAUMANN: I'm sorry, Barry.

13 Q. (BY Mr. Baumann) I asked are you an

14 expert on magazine degradation?

15 A. I would like to qualify what degradation

16 means. Are you talking loss of reliability, wear and

17 tear over course of time, or through use?

18 Q. Let's look at the last three -- four

19 sentences in the paragraph we were just looking at.

20 "Some of the most common polymer magazines will wear

21 out and become inoperable in as little as 50 rounds.

22 Very few can pass -- 500 rounds. Excuse me. Very few

23 can pass 2,000 rounds without replacement and that is

24 significantly less than the 50K to 100K rounds to wear

25 out a firearm." I'll ask again, are you -- are you

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1 qualified to offer an opinion on how quickly magazines  
2 wear out and become inoperable?  
3       **A. Yes.**  
4       **Q. Why?**  
5       **A. Because I've used them. I've designed**  
6 **them. I've interacted with Magpul, FN, and Remington,**  
7 **and their engineers as far as how are their magazines**  
8 **designed. I've designed those magazines prior to 2013**  
9 **and, yes, I absolutely --**  
10       **Q. So you would consider yourself an expert**  
11 **on how quickly magazines deteriorate?**  
12       **A. Deteriorate, again, it's a hard word. I**  
13 **mean, if it's an unloaded magazine sitting on a shelf**  
14 **for 10 years unused, there's probably no deterioration**  
15 **at all. If it's loaded and it's sitting there, and**  
16 **there's pressure on polymer feed lips, we have a**  
17 **totally different set of parameters. If we're**  
18 **actually shooting, then it's again a different set of**  
19 **parameters.**  
20       **Q. Did you -- so you say here that some of**  
21 **the most common polymer magazines wear out and become**  
22 **inoperable in as little as 500 rounds. Which ones?**  
23       **A. So Magpul makes a variety of magazines**  
24 **and when left loaded and when fired at 500 rounds, the**  
25 **spine in some of them does crack. And when the spine**

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1 **cracks, some of them will work, some of them won't.**  
2 **Some of them are these phantom, you know, phantom**  
3 **malfunctions, can't figure out what's going on.**  
4       **There are times where you'll see**  
5 **competitors and they're using a specific magazine and**  
6 **malfunction, malfunction, malfunction. They change**  
7 **magazines and everything is fine. And, you know, you**  
8 **query them, how old was that magazine? I've been**  
9 **using it for like three years and haven't changed it.**  
10 **Those kind of things are very common.**  
11       **Q. Are we talking about the PMAG, the Magpul**  
12 **PMAG?**  
13       **A. Correct. But also understand that PMAG**  
14 **means polymer mag, so they make them for a variety of**  
15 **firearms not just AR-15.**  
16       **Q. It says very few can pass 2,000 rounds**  
17 **without replacement; is that right?**  
18       **A. Correct.**  
19       **Q. And would that also apply to generally**  
20 **speaking the Magpul PMAG?**  
21       **A. Yes.**  
22       **Q. And that's based on your experience?**  
23       **A. Yes.**  
24       **Q. Have you conducted any studies related to**  
25 **how quickly those magazines wear out?**

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1       **A. I still have some loaded, yes. So I**  
2 **have -- I mean, there's a variety of them that when I**  
3 **practice, I keep track of round counts and I pay**  
4 **attention to when the round counts, when they start to**  
5 **malfunction. Now, there's a variety of ways that**  
6 **magazines wear out. I don't want to imply that it's**  
7 **only the cracking of the spine.**  
8       **Q. And that makes sense to me. We talked**  
9 **earlier about your ability and your qualification to**  
10 **review others -- review the studies of others or the**  
11 **reports of others. Did you review any reports or**  
12 **studies before expressing that opinion?**  
13       **A. Well, I mean, studies and reports, other**  
14 **than my own information and having a lot of**  
15 **information directly from Magpul, no specific report**  
16 **that I can think of.**  
17       **Q. And when you say information direct from**  
18 **Magpul, do you cite any of that information in your**  
19 **report?**  
20       **A. The only thing that is in my report that**  
21 **is a direct communication from Magpul that's not in**  
22 **the public realm is this number of 350 million.**  
23       **Q. So nothing in the paragraph that we're**  
24 **looking at now?**  
25       **A. Correct.**

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1       **Q. Okay. And user error contributes to when**  
2 **a magazine might become inoperable, correct?**  
3       **A. Certainly.**  
4       **Q. User error, as I'm using it in that**  
5 **sentence, includes how you store the magazine?**  
6       **A. It could be. Environmental conditions**  
7 **could be part of that as well.**  
8       **Q. Let's take a look at --**  
9       **MR. BAUMANN: Barry, this is going to be**  
10 **what is in your folder as 44.**  
11       **(Deposition Exhibit 5 was marked.)**  
12       **Q. (BY Mr. Baumann) Do you recognize this**  
13 **document?**  
14       **A. No, I have not seen this before.**  
15       **Q. It looks to be a news story; is that**  
16 **right?**  
17       **A. I guess. I mean is guns.com a news**  
18 **source?**  
19       **Q. I'll defer to you on that.**  
20       **A. I don't know.**  
21       **Q. Let's turn to page two.**  
22       **A. Okay.**  
23       **Q. And it's the last full paragraph here.**  
24 **That starts in December 2016?**  
25       **A. Okay.**

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1 Q. It says quote in December 2016 Magpul  
2 announced the Marines had, after a four-year testing  
3 evolution, adopted their MCT PMAG for use in all their  
4 5.56 millimeter platforms. In government administered  
5 tests, the PMAG reportedly cycled 20,400 rounds of  
6 M855A1 ammo without any magazine related stoppages."  
7 I'd like to get your reaction to that sentence.  
8 A. There's not enough data for there to be a  
9 reaction.  
10 Q. Does that seem unlikely to you?  
11 A. If the word is the PMAG, like a singular  
12 PMAG, I would say, one, it's unlikely that's what the  
13 test was about and, two, I would be very surprised if  
14 a single magazine could go 20,000 rounds.  
15 Q. Because you stand by your number, which  
16 is 1/10th of that?  
17 A. Correct.  
18 Q. You can go ahead and put that one aside.  
19 We talked a little bit about self-defense earlier. If  
20 I have a magazine that has fired 2,500 rounds, would  
21 you consider that magazine to be inadequate for  
22 self-defense?  
23 A. Depends on the magazine.  
24 Q. Explain.  
25 A. Is it a PMAG? Is it a -- is it a Wilson

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1 combat magazine? Is it a Cobra magazine? You tell me  
2 what brand, I'll answer the question. But as you say,  
3 in general, yeah, there's huge variability as far as  
4 what magazines are made of and their life cycle and  
5 their duty cycle.  
6 Q. So I take your point. I don't see any of  
7 those qualifications in your report where it just  
8 says, quote, very few can pass 2,000 rounds without a  
9 replacement. So it is your opinion that very few  
10 magazines of any type can pass 2,000 rounds without a  
11 replacement?  
12 A. That's correct.  
13 Q. Okay. So if I have a magazine --  
14 A. And I probably should have made that  
15 word -- I probably should have said "replacement" or  
16 "repair" because that would be actually more accurate.  
17 Q. So you would actually like to add "or  
18 repair" to that sentence?  
19 A. It would be more accurate to, yes.  
20 Q. So if I gave you no more information  
21 other than I have a magazine that has been fired 2,500  
22 times, you would say in all likelihood, if that  
23 magazine has never been replaced or repaired, it will  
24 not function correctly?  
25 A. So let me qualify that. And we already

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1 talked about statistics, but when you get past a  
2 certain point, there is a probability that it can  
3 malfunction. Does that mean that at 2,500 rounds they  
4 will malfunction? No. It's just that now you're past  
5 the point where you no longer have confidence that  
6 it's going to be 100 percent reliable.  
7 Q. So, again, I take that point. That's not  
8 in your sentence. Your sentence says very few  
9 magazines can pass 2,000 rounds without replacement or  
10 repair and you standby that sentence?  
11 A. I do.  
12 Q. So if I have a magazine that has passed  
13 2,000 rounds, the vast likelihood is that it needs to  
14 be replaced or repaired?  
15 MR. ARRINGTON: Objection, asked and  
16 answered.  
17 THE WITNESS: I would say, yes, it needs to  
18 be replaced or repaired.  
19 Q. (BY Mr. Baumann) You're familiar with  
20 Colorado's magazine ban, correct?  
21 A. I am.  
22 Q. And you know that it grandfathered in  
23 magazines that were possessed as of July -- well,  
24 let's say June 2013?  
25 A. I believe the date was July 1, 2013.

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1 Yes.  
2 Q. If you had to guess, what percentage of  
3 magazines that were possessed on July 1st, 2013, are  
4 still operable today?  
5 A. I have no idea.  
6 Q. How would -- how would you go about --  
7 MR. ARRINGTON: I didn't hear the response.  
8 MR. BAUMANN: The response was, "I have no  
9 idea."  
10 MR. ARRINGTON: Okay. Thank you.  
11 Q. (BY Mr. Baumann) If I gave you no more  
12 information other than that a magazine has been  
13 possessed since 2012, would you feel comfortable using  
14 that magazine in a shooting competition?  
15 A. I don't know. I mean, I have magazines  
16 that were possessed prior to July 1, 2013, that are  
17 still in plastic. They're basically brand new.  
18 They've never been used. And most of the people who I  
19 know compete have -- they have some of those magazines  
20 as well.  
21 Q. Would you say though that the number of  
22 magazines that existed in -- on July 1st, 2013, and  
23 were operable on July 1, 2013 -- let me rephrase that  
24 question. Of the magazines that were operable on July  
25 1st, 2013, do you believe that all of them are still

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1 operable today?

2           A.    No.

3           Q.    Okay. Some of them are inoperable?

4           A.    I mean, yes. I mean, I probably have

5 five or six magazines a year that go down. I mean,

6 they're no longer usable.

7           Q.    Can you expand on what you mean by five

8 or six magazines that go down?

9           A.    Yeah, all of a sudden they start having

10 malfunctions in the firearm where prior they did not.

11 For instance, at a competition last year, shooting at

12 a 10-round Chip McCormick magazine, I started having

13 malfunctions with that magazine. So I got home. I

14 threw it in the bin to rebuild and a couple months

15 later, I have probably eight or nine magazines in the

16 bin. I went through and I took them apart, cleaned

17 them, changed the springs, changed the followers, put

18 them back together, and put them in the rotation.

19           Q.    Do you know firearm users who in that

20 situation would just throw out that magazine?

21           A.    Yes.

22           Q.    Because not everyone can repair them like

23 you can?

24           A.    Let's qualify that. Prior to July 1,

25 2013, if I had a PMAG that failed, I threw it in the

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1 trash can. Now I check and see if the spine is

2 cracked, and if it's not, I rebuild it. Because they

3 are valuable to me because the law made them

4 significantly more valuable in terms of my possession

5 of them than prior to July 1, 2013.

6           Q.    And I want to jump on that. You

7 mentioned earlier that some, but not all, magazine

8 failures are due to the spine cracking. Is that

9 right?

10           A.    For PMAGs, yes.

11           Q.    For PMAGs.

12           A.    Yep.

13           Q.    And if a spine cracks, is it possible to

14 repair that?

15           A.    Nope. And I've tried. I've actually

16 emailed Magpul and said I have the base plate, the

17 follower, and the spring. And my interpretation of

18 the law is I can rebuild that, so send me a body. And

19 they're like, nope, won't do it. So I have no choice.

20 That magazine is now dead, gone.

21           Q.    Let's talk a little bit about these --

22 the law that you mentioned, and I'm referring to it as

23 a magazine ban because I don't want to get into a

24 fight over definitions. I'm sure we'll need to define

25 some terms later, but for now let's just call it the

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1 magazine ban. What's your personal opinion on the

2 law?

3           A.    I'm not sure if it's relevant but I mean,

4 there's aspects of it where I think it's -- I mean,

5 let me back up. We've already established that I'm

6 not a lawyer, and so I have an understanding of the

7 constitution. I have an understanding of the law.

8 I'm not qualified to say whether those are 100 percent

9 accurate or not.

10           Q.    I'm not asking about your legal

11 interpretation. I'm just asking, if you were in the

12 general assembly, would you have voted for it?

13           A.    No.

14           Q.    Why not?

15           A.    Because I don't think it does any good.

16           Q.    Why not?

17           A.    Because -- and, again, we're way out of

18 my area of expertise because I'm not a psychologist,

19 but my perception is that people who kill people has

20 nothing to do with guns. It has to do with

21 something's broken inside them. I don't know that I

22 want to go that much further, but something is broken.

23 And once you stop valuing human life, doesn't make a

24 difference what tool you use, you don't value human

25 life.

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1           Q.    Do you think the magazine bans like

2 Colorado's reduce mass shootings?

3           A.    I don't think so.

4           Q.    And that's something that has been

5 studied add nauseam. Have you reviewed any of those

6 studies?

7           A.    I've read them. I've read some that say

8 yes and some that say no. I guess I'm going to say

9 it's a draw.

10           Q.    And we've already talked about this, but

11 you're qualified to look at those studies and review

12 whether the conclusions are accurate or not?

13           A.    I don't think I ever said that. I mean,

14 in my report and in my article, I'm looking at the

15 guns that are owned, the firearms that are owned,

16 their function, their operation, I don't think I've

17 ever said that I can look at a report regarding acts

18 that criminals perpetuate and say that I'm an expert

19 as to whether or not those are accurate or not.

20                    I mean, I could look at crime statistics

21 and see that they're going up in Colorado. I could

22 look at crime statistics nationwide and say, yeah,

23 here's a trend. But the reason, I think that's way

24 beyond what I was hired to do in this case and I think

25 it's way beyond what I would give an opinion on, at

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1 **least in a legal proceeding.**

2 Q. If you were presented with a study that

3 showed that jurisdictions with magazine bans have

4 lower fatality rates in mass shooting events, would

5 you be qualified to opine?

6 MR. ARRINGTON: Peter, can you tell me why

7 this is relevant? I understand that you can inquire

8 about potential bias, but you seem to be going really

9 far afield from the area for which we've offered his

10 testimony.

11 MR. BAUMANN: Yeah, this question is

12 actually getting Mr. Passamaneck's qualification to

13 review studies and review studies and evaluate whether

14 or not they're accurate. So I'm happy to note an

15 objection, and I will tell you that we will be moving

16 on very quickly but that's what this question is

17 getting at.

18 MR. ARRINGTON: Okay. Thank you.

19 MR. BAUMANN: Would you like to have the

20 court reporter read back the question?

21 THE WITNESS: Sure.

22 (The last question was read back as

23 follows: "If you were presented with a study that

24 showed that jurisdictions with magazine bans have

25 lower fatality rates in mass shooting events, would

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1 you be qualified to opine?")

2 THE WITNESS: I mean, if all the data was

3 presented, I don't think so. I've read studies where,

4 you know, jurisdictions have made other, you know,

5 inroads into reducing casualties at mass shooting

6 events. I mean do you know what Stop the Bleed is?

7 Q. (BY Mr. Baumann) Please tell me.

8 A. **Stop the Bleed is basically -- it's a**

9 **nationwide program, and I think Polis just signed a**

10 **bill allowing Stop the Bleed training to go to public**

11 **schools or all schools in Colorado. I'm certified as**

12 **a Stop the Bleeding instructor. I've told people time**

13 **after time taking a Stop the Bleed course will save**

14 **more lives than taking a firearms course.**

15 **So if fatalities are less in a**

16 **jurisdiction, is the jurisdiction tight? Do they have**

17 **a tier one trauma center? Do they have a lot of**

18 **people trained in Stop the Bleed? So fatalities are**

19 **not the only indicator. It's how many people wounded,**

20 **how many people shot, and there's a lot of different**

21 **parameters that can be looked at.**

22 **So if I had all the background**

23 **information, sure, but the vast majority of reports**

24 **that I see that are put out in the public realm, all**

25 **that background information is not there.**

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1 Q. But it's important to review all that

2 background information before opining on the accuracy

3 of a study, correct?

4 A. **Sure.**

5 Q. I'd like to go ahead and mark a document.

6 MR. BAUMANN: Barry, this is Exhibit 34 in

7 your folder. And I think we're up to six now.

8 (Deposition Exhibit 6 was marked.)

9 Q. This is a printout of some Tweets from a

10 twitter account that is @markpcolo, C-O-L-O. Is that

11 your Twitter account?

12 A. **It is.**

13 Q. And the first one here is from February

14 28th of 2013. Did you tweet, "If you want some AR

15 mags before the Dems sink the state, here is how"?

16 A. **I did.**

17 Q. And was that in -- were you referring to

18 the magazine ban?

19 A. **Yes.**

20 Q. What did -- what do you mean by "sink the

21 state"?

22 A. **I believe that the magazine ban is a**

23 **violation of the constitution.**

24 Q. And so any violation of the constitution

25 sinks the state?

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1 A. **It's the slippery slope and, yes, I do**

2 **believe that.**

3 Q. So here we are 10 years later is the

4 state sunk?

5 A. **It's getting closer.**

6 Q. What do you mean?

7 A. **Crime rates are higher. I mean, my own**

8 **zip code where I live, in 2013 had one officer that**

9 **had been killed. We now have two officers that have**

10 **been killed and the number of officer involved**

11 **shootings has skyrocketed. The number of thefts and**

12 **drugs and all kinds of things has skyrocketed,**

13 **absolutely.**

14 Q. And you think that's because of the

15 magazine ban?

16 A. **I do not. I think it's because of a**

17 **variety of policies that have been put in place that**

18 **do not put the citizens of Colorado in the primary**

19 **position, the first position.**

20 Q. What do you mean by that?

21 A. **You're an employee of the State of**

22 **Colorado, right?**

23 Q. Sometimes.

24 A. **But a politician and employees, their**

25 **job, from my understanding of the constitution, is to**

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1 serve the people. The constitution restricts the  
2 government and we have changed. And this is, again,  
3 way beyond my scope of my report and my expertise, but  
4 we have changed. And we have changed to where the  
5 government has ignored portions of historical  
6 interpretation and even the constitution and that's my  
7 personal opinion.

8 Q. And so it's your personal opinion that  
9 the government ignored the constitution in passing the  
10 magazine ban?

11 A. Yes.

12 Q. You say here, "If you want some AR mags  
13 before the Dems sink the state, here is how," and you  
14 link to a Magpul link. Is that right?

15 A. Correct.

16 Q. Did you purchase magazines at this time  
17 in 2013?

18 A. I had -- I probably did.

19 Q. And based on your, you know, knowledge of  
20 firearms, do you think many people in Colorado  
21 purchased magazines at that time?

22 A. I think thousands and thousands of people  
23 in Colorado did, yes.

24 Q. And do you think everyone only purchased  
25 one magazine?

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1 A. Probably not.

2 Q. Is it accurate to say that people often  
3 purchase more than one magazine at a time?

4 A. I think it depends on the person and the  
5 firearm. I mean, you know, most of my handguns, I  
6 don't know, I'll purchase one, two, or three at a  
7 time. Rifles usually I only purchase one or two at a  
8 time.

9 Q. Did you believe that when the magazine  
10 limit bill passed the Colorado house, that was a  
11 travesty?

12 A. I do.

13 Q. And do you believe that the voices of 100  
14 million gun owners were silenced?

15 A. They were silenced in terms of passing  
16 the law, yes. I mean, the testimony of gun owners and  
17 law enforcement even was not taken as credible. It  
18 was dismissed.

19 Q. Did you follow the debate in the general  
20 assembly closely?

21 A. I did. I testified. I spoke to Rhonda  
22 Fields two or three times in person.

23 Q. Was the bill amended in response to any  
24 testimony from firearm owners?

25 A. It was.

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1 Q. Okay. So they were listened to?

2 A. I think amending the bill to say we're  
3 going to change the number versus there shouldn't be a  
4 law restricting the capacity at all, if you call that  
5 listened to, sure, I guess so.

6 Q. In your personal opinion should a person  
7 be allowed to have a hundred round drum magazine?

8 A. Sure.

9 Q. 200 rounds?

10 A. Sure. I mean, the laws up until this  
11 passed, there was no restriction. Now there are  
12 restrictions on firearms and, you know, you cannot buy  
13 a firearm under certain circumstances. If you're  
14 going to ask me do I have a problem with the Form  
15 4473, not in the least. Not in the least.

16 MR. ARRINGTON: Peter, this is Barry. I  
17 have just emailed you some documents Mr. Passamaneck  
18 mentioned, a firearm supplement to his resume and I  
19 wanted to give you an opportunity to review that and  
20 ask him any questions that you might have about that.  
21 So I've provided that to you.

22 MR. BAUMANN: Okay. I'll see if we have  
23 time to review that before the day is done and -- or  
24 whether we need to keep the deposition open for that.

25 MR. ARRINGTON: I'll review it in cross.

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1 Q. (BY Mr. Baumann) So we already went over  
2 you agree that Colorado's magazine ban -- or it is  
3 your opinion, in your personal capacity, that  
4 Colorado's magazine ban has no effect on reducing the  
5 impact of mass shootings?

6 A. I don't believe so.

7 Q. Okay. When did Carbon Arms stop selling  
8 magazines?

9 A. When the -- basically when the bill  
10 became law. I mean, even at the -- I don't know when  
11 my deposition was. It was after this had passed.  
12 There may be some dates in there that say when I  
13 actually stopped it, but I couldn't tell you off the  
14 top of my head. I don't think we actually ran any  
15 batches of magazines in 2013 so it would have been  
16 2012 was the last production batch that we made of  
17 magazines.

18 Q. Let's go ahead and take a look at  
19 Exhibit 36 in your -- well, let's start with 35.  
20 (Deposition Exhibits 7 and 8 were  
21 marked.)

22 Q. Okay. So let's take a look at first at  
23 what's been marked as Exhibit 7. Does this look like  
24 a retweet from your Twitter account?

25 A. It does.

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1 Q. And do you remember this blog post that  
2 you retweeted here?

3 A. No.

4 Q. Let's take a look at what's been marked  
5 as Exhibit 8. Feel free to take a look at and see if  
6 that refreshes your recollection.

7 A. I mean, I know that I read it at some  
8 point.

9 Q. Okay.

10 A. I'm not sure that I can tell you  
11 specifically chapter and verse what it says.

12 Q. And you retweeted it, right?

13 A. I did.

14 Q. Okay. Let's take a look at the very  
15 first page at the very bottom. The paragraph that  
16 starts, quote, "For individuals, it's time to protect  
17 yourselves. Buy as many standard capacity magazines  
18 as you can afford." What do you understand the author  
19 to mean by standard capacity magazines there?

20 A. Magazines with capacity that's  
21 unrestricted.

22 Q. And as of February 16, 2013, were you  
23 encouraging people to buy as many standard capacity  
24 magazines as they could afford?

25 A. I don't know if it was as many as they

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1 could afford. I mean, make sure that you have  
2 magazines for the firearms you have. And, honestly, I  
3 bought a couple magazines for guns I didn't even own  
4 yet because I wasn't sure, hey, maybe I want this in  
5 the future.

6 Q. Okay. Let's turn to the next page that  
7 starts, "You may need to clarify issues of firearms  
8 ownership." And let's scroll down to where it says,  
9 quote, "Remember, the purpose of these laws is not to  
10 reduce crime, protect children, whatever. The purpose  
11 of these laws is to trap you," in bold italics, "and  
12 provide a framework where you can be stripped of your  
13 rights." You said that you spoke with Rhonda Fields  
14 and other members of the legislature. Do you agree  
15 that the purpose of the mag ban was to trap gun owners  
16 and provide a framework where they can be stripped of  
17 their rights?

18 A. I do not. I think that was -- I think in  
19 some cases that could be the functional outcome, but I  
20 don't believe that was Rhonda Fields' intent, no,  
21 absolutely not.

22 Q. So you disagree with that sentence?

23 A. I do.

24 Q. Okay. And --

25 A. As Rhonda Fields, as the, you know,

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1 author, I don't know what the right name is, but the  
2 person who promulgated the bill, where that text came  
3 from and the intent behind that, I don't know. I  
4 didn't talk to the person who actually wrote the text  
5 that she used.

6 Q. And when you retweeted this blog, did you  
7 note that you disagreed with that sentence?

8 A. I did not.

9 Q. So you oppose Colorado's magazine ban in  
10 your personal capacity?

11 A. I do.

12 Q. And you think it's bad policy?

13 A. I do.

14 Q. And you think that it has helped sink the  
15 state?

16 A. I think it's one component that is  
17 damaging to the government and the people in the State  
18 of Colorado, yes.

19 Q. Okay. And you testified -- we talked  
20 about this briefly but you testified in an earlier  
21 challenge to this law, correct?

22 A. My understanding that was on the basis of  
23 the state constitution, correct?

24 Q. That's correct. It was a challenge  
25 brought under the state constitution to the magazine

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1 ban, right?

2 A. Yes.

3 Q. And now you're testifying in another  
4 challenge to that law?

5 A. Yes.

6 Q. Do you need a break? Want to keep moving  
7 forward?

8 A. No, nope.

9 MR. BAUMANN: Barry, you okay?

10 MR. ARRINGTON: Doing good. At some point  
11 I'm going to ask you to print the exhibits that I sent  
12 to you because I'm going to use them in my cross. So,  
13 thank you.

14 MR. BAUMANN: Barry, I will try and do so.  
15 I think if you wanted to use them, you should have  
16 sent them to me before the deposition. And so I'm --  
17 in good faith, I'll try and review them, but I can't  
18 promise that I'll be able to because I didn't have  
19 them before we were already in the deposition.

20 MR. ARRINGTON: Well, that's the nature of  
21 cross. You don't know what you're going to need until  
22 you know.

23 MR. BAUMANN: I understand.

24 Q. (BY Mr. Baumann) Okay. Let's take a look  
25 back at your report here, which has been marked as



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1 Exhibit 1. And I want to take a look at the first  
2 sentence under the discussion section that starts  
3 "standard capacity magazines." And let's just start  
4 with this: What is a standard capacity magazine as  
5 you're using it in that sentence?  
6 **A. The capacity as designed by the**  
7 **manufacturer.**  
8 Q. You're familiar with firearms, right?  
9 **A. Yes.**  
10 Q. And you're familiar with firearms  
11 manufacturers?  
12 **A. Yes.**  
13 Q. And you're familiar with the fact that  
14 most firearms manufacturers sell their weapons with  
15 several different magazine sizes?  
16 **A. I guess I'd ask you to clarify that.**  
17 Q. If I go to Glock.com you would agree that  
18 on Glock.com I can find a Glock 17, generation one,  
19 for example, with several different magazine styles?  
20 **A. No, I don't agree with that.**  
21 Q. Okay. We'll take a look at that later.  
22 So standard capacity magazine is magazines that the  
23 manufacturer intended the weapon to be used with; is  
24 that right?  
25 **A. That's correct.**

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1 Q. Okay. So for any given firearm, there is  
2 only one standard capacity magazine?  
3 **A. Correct.**  
4 Q. Okay. How do we know what that magazine  
5 is?  
6 **A. It's the magazine that the manufacturer**  
7 **provides with the firearm when it's sold.**  
8 Q. Okay. How do I know what the  
9 manufacturer provides with the magazine when it's  
10 sold?  
11 **A. Well, today it's a little more**  
12 **complicated because there's magazines that are sold in**  
13 **California and Colorado and, you know, a variety of**  
14 **states that the manufacturer now provides different**  
15 **capacity magazines in order to meet the laws in that**  
16 **specific state.**  
17 Q. I thought you just told me that that  
18 doesn't happen.  
19 **A. You said Glock, Gen1.**  
20 Q. Oh, very good catch. Let's use Gen3?  
21 **A. Gen3 is probably on it's way out by the**  
22 **way.**  
23 Q. All right. So I read. Let's use Glock  
24 17 Gen3. That is sold with multiple different  
25 magazine capacities?

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1 **A. That is correct.**  
2 Q. So how do I know what a standard capacity  
3 magazine is for the Glock 17 Gen3?  
4 **A. You would have to look at an unrestricted**  
5 **state and how do they sell them in that unrestricted**  
6 **state?**  
7 Q. So why do I have to look at an  
8 unrestricted state?  
9 **A. Because that's how they originally**  
10 **designed them, the Glock 17. The Glock 17 was**  
11 **originally designed with a 17-round magazine.**  
12 Q. Okay. So I have to -- you would agree  
13 that in Colorado I can buy Glock 17 from the  
14 manufacturer -- well, let's take that out. You would  
15 agree that Glock sells a Glock 17 Gen3 in Colorado?  
16 **A. And if we want to be technically**  
17 **accurate, no, Glock doesn't sell anything directly to**  
18 **the consumer. They sell to distributors who sell to**  
19 **dealers and the dealers sell to the consumer.**  
20 Q. So if I am a consumer, how do I know what  
21 the standard capacity magazine is at any given time?  
22 **A. You may not.**  
23 Q. So in your report, when you use "standard  
24 capacity magazines," how do I know what magazine size  
25 you're referring to?

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1 **A. As originally designed in that platform.**  
2 Q. Do you say that anywhere in your report?  
3 **A. That's what standard capacity magazines**  
4 **means.**  
5 Q. Well, I'm interested here. So it says,  
6 "Standard capacity magazines, as originally designed,  
7 manufactured, and sold within the State of Colorado,  
8 are commonly possessed and used for lawful purposes."  
9 So based on the definition you just said, a standard  
10 capacity magazine, as sold within the State of  
11 Colorado, is going to be less than 16 rounds, correct?  
12 **A. You can go and buy a 30-round magazine in**  
13 **Colorado right now off the shelf of a retailer. I**  
14 **don't know what to tell you.**  
15 Q. What do you mean?  
16 **A. What do you mean what do I mean?**  
17 Q. Where can I buy a 30-round magazine off  
18 the shelf in Colorado?  
19 **A. There are stores that have them on the**  
20 **shelf.**  
21 Q. Is your testimony that there are stores  
22 that are breaking the law to sell those?  
23 **A. That's not my job to interpret that. I**  
24 **won't buy them, but they can be sold. Or they are**  
25 **being sold.**

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1 Q. Interesting. When you see those, do you  
2 tell anyone?

3 A. **What do you mean do I tell anyone?**

4 Q. I mean alert anyone that there are  
5 30-round magazines available for sale in the State of  
6 Colorado?

7 A. **I'm still not sure what you mean.**

8 Q. Do you tell law enforcement?

9 A. **I do not.**

10 Q. And are these 30-round magazines that are  
11 for sale available to non-law enforcement officers?

12 A. **Yes.**

13 Q. So the next sentence here is that  
14 millions of Americans own and use AR-15 style rifles.  
15 Let's start with this. What is an AR-15 style rifle?

16 A. **It is platform as originally designed by  
17 Eugene Stoner and manufactured by literally hundreds  
18 of manufacturers. There is something called the  
19 technical data package, which at one point was owned  
20 by Colt. But it is a firearm with a upper receiver, a  
21 lower receiver, barrel, hand guard, trigger group, and  
22 stock that are basically all interchangeable and  
23 follow the same general specifications for their  
24 dimensions and functionality.**

25 Q. I want to back up for a second to that

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1 first sentence. So standard capacity magazines are  
2 the magazines that any given firearm was originally  
3 designed to accept; is that right?

4 A. **Correct.**

5 Q. Okay. And there are -- you would agree  
6 that there are firearms for which the standard  
7 capacity magazine is less than 16 rounds, correct?

8 A. **Yes.**

9 Q. Okay. So when you say "standard capacity  
10 magazines, as originally designed, manufactured, and  
11 sold within the State of Colorado are commonly  
12 possessed and used for lawful purposes," that sentence  
13 tells us nothing about magazine capacity size?

14 A. **Correct.**

15 Q. Because some of those standard capacity  
16 magazines might be more than 15 and some might be  
17 less?

18 A. **That is accurate.**

19 Q. Okay. So that sentence can go. What's  
20 the difference between an AR-15 and a modern sporting  
21 rifle?

22 A. **In my opinion? Not a thing.**

23 Q. So if -- what's the difference between an  
24 AR-15 and an AR-10?

25 A. **Small frame versus large frame.**

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1 Q. So when you are referring to the AR-15 --  
2 so you refer -- your report in the next couple of  
3 sentences, feel free to take the time to read them,  
4 only deals with the AR-15, correct?

5 A. **Correct.**

6 Q. Okay. Is the AR-10 a modern sporting  
7 rifle?

8 A. **Depends on what the manufacturer calls  
9 it.**

10 Q. What about the NSSF?

11 A. **I think that they have made an attempt to  
12 reclassify the AR-15 as a modern sporting rifle.**

13 Q. And would they consider the AR-10 to be a  
14 modern sporting rifle?

15 A. **I don't know. It's an argument that I  
16 ignore.**

17 Q. So you don't know what the NSSF considers  
18 to be a sporting rifle?

19 A. **They consider it to be at least an AR-15.**

20 Q. And you don't know whether they also  
21 consider other weapons to be modern sporting rifles?

22 A. **I don't know.**

23 Q. Okay. It says here that millions of  
24 Americans own and use AR-15 style rifles. What is  
25 that opinion based on?

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1 A. **The data from NSSF, manufacturers, their  
2 sales.**

3 Q. And it's the data that you cite in the  
4 rest of this paragraph, correct?

5 A. **Correct.**

6 Q. Okay. So that sentence is based on the  
7 rest of this paragraph?

8 A. **Yes.**

9 Q. Is it possible for an AR-15 style rifle  
10 to function with a 10-round magazine?

11 A. **If the magazine is properly designed,  
12 sure.**

13 Q. And you agree that some AR-15s are sold  
14 with 10-round magazines?

15 A. **Some of them are.**

16 Q. And you can buy 10-round magazines on the  
17 secondary market for AR-15 style rifles?

18 A. **You can.**

19 Q. So not every AR-15 in the United States  
20 is accompanied by a 16-plus round magazine?

21 A. **That's correct.**

22 Q. Do you own an AR-15 style rifle?

23 A. **I do.**

24 Q. And how many rounds to you fire per year  
25 on average?

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<p>1           <b>A. Out of the AR-15s? Ten to 15,000.</b></p> <p>2           Q. So it's possible -- well, I mean, back</p> <p>3 up. If I own -- if I tell you I own an AR-15, what</p> <p>4 does that tell you about the size, the capacity of</p> <p>5 magazine that I own to go with that AR-15?</p> <p>6           <b>A. Nothing.</b></p> <p>7           Q. Okay. I want to skip ahead. The first</p> <p>8 full sentence of page two says, "Conservatively there</p> <p>9 are at least 34 million AR-15s owned by US citizens."</p> <p>10 And let's focus just on that clause for now. Do you</p> <p>11 see that?</p> <p>12          <b>A. I do.</b></p> <p>13          Q. How did you reach that figure?</p> <p>14          <b>A. Well, the numbers are -- and you have to</b></p> <p>15 <b>go through and add them up. I mean...</b></p> <p>16          Q. Actually, let's -- before we do that and</p> <p>17 we will, it says conservatively. What does that mean?</p> <p>18          <b>A. That means based on the numbers that</b></p> <p>19 <b>there's at least that many. The estimate in 2019 was</b></p> <p>20 <b>just that, an estimate.</b></p> <p>21          Q. And you think it was a conservative</p> <p>22 estimate?</p> <p>23          <b>A. I do.</b></p> <p>24          Q. But as we go through and count things,</p> <p>25 you would agree that conservatively we're looking at</p>	<p>1 from 2020?</p> <p>2           <b>A. Yes.</b></p> <p>3           Q. Okay. So that's 8 to 9 million prior to</p> <p>4 1990. And I think we actually have to go to the</p> <p>5 sentence before and this one you do cite the Industry</p> <p>6 Intelligence Report. And so -- again, I'm just trying</p> <p>7 to make sure our record is clear. You can understand</p> <p>8 why it's unclear to me that you are citing to that</p> <p>9 report in the prior to 1990 sentence, right?</p> <p>10          <b>A. I mean, sure. I understand what you're</b></p> <p>11 <b>saying, why you're asking.</b></p> <p>12          Q. Because you do cite to it in the previous</p> <p>13 sentence.</p> <p>14          <b>A. Correct.</b></p> <p>15          Q. And you do provide the basis for that</p> <p>16 opinion in the previous sentence?</p> <p>17          <b>A. Correct.</b></p> <p>18          Q. And you don't in the prior to 1990</p> <p>19 sentence?</p> <p>20          <b>A. Well, I don't change the source of the</b></p> <p>21 <b>data until I cite something else which is after.</b></p> <p>22          Q. Okay. That's helpful. That's helpful.</p> <p>23 So for any sentence that doesn't have a citation in</p> <p>24 it, we can assume it's to the previous thing you</p> <p>25 cited?</p>
<p>1 the low end of those estimates?</p> <p>2           <b>A. Yes.</b></p> <p>3           Q. Okay. So let's do that. So if you flip</p> <p>4 back to the previous page, the very last sentence,</p> <p>5 it's not a full sentence, but it starts, "It is</p> <p>6 estimated that about 8 to 9 million AR-15s were owned</p> <p>7 by US citizens prior to 1990." Is that right?</p> <p>8           <b>A. Yes.</b></p> <p>9           Q. So it's 8 to 9 million prior to 1990.</p> <p>10 Just let's pause there for a second. You say it was</p> <p>11 estimated by whom?</p> <p>12          <b>A. NSSF.</b></p> <p>13          Q. Do you cite NSSF there?</p> <p>14          <b>A. I don't think so.</b></p> <p>15          Q. So we just should take your word that</p> <p>16 that's NSSF?</p> <p>17          <b>A. Yes, that's where it came from.</b></p> <p>18          Q. Do you know what study?</p> <p>19          <b>A. One of their studies, and I don't know if</b></p> <p>20 <b>Barry provide the study to you or not, but their</b></p> <p>21 <b>Industry Intelligent Report from 2020, there is a</b></p> <p>22 <b>paragraph in there that talks about how they came up</b></p> <p>23 <b>with their numbers.</b></p> <p>24          Q. Okay. So it's from the -- that 8 to 9</p> <p>25 million AR-15s is from the Industry Intelligent Report</p>	<p>1           <b>A. Correct.</b></p> <p>2           Q. Okay. Okay. So that sentence before</p> <p>3 says, "Further, the NSSF 2020 Industry Intelligence</p> <p>4 Report, has the number of AR-15 rifles produced, minus</p> <p>5 exports, so sold in the US at just under 20 million</p> <p>6 from 1990 through 2018." Is that right?</p> <p>7           <b>A. Correct.</b></p> <p>8           Q. Okay. So let's go ahead and write down</p> <p>9 20 million. And so now we have 8 to 9 million prior</p> <p>10 to 1990 and 20 million from 1990 through 2018, right?</p> <p>11          <b>A. Correct.</b></p> <p>12          Q. And then if we go to the very first full</p> <p>13 sentence on page two, it's from 2019 through 2022,</p> <p>14 another 3 to 4 million have been sold.</p> <p>15          <b>A. Correct.</b></p> <p>16          Q. Okay. So if I take the high of all of</p> <p>17 those, that is 9 million prior to 1990, 20 million</p> <p>18 from 1990 through 2018 and 4 million from 19 through</p> <p>19 2022.</p> <p>20          <b>A. Correct.</b></p> <p>21          Q. I'm just a lawyer, but that gives me 33</p> <p>22 million.</p> <p>23          <b>A. So you don't think there's any firearms</b></p> <p>24 <b>that were sold in 2023?</b></p> <p>25          Q. Do you?</p>

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1           A.    Yes.  They're literally selling -- at the  
2 current rate, they're literally selling 1 to 2 million  
3 a year.  It varies year by year based on how many are  
4 available, but, I mean, if you look at the trend, the  
5 trend is I mean at this point, as I wrote this report,  
6 yes, we were at 34 million.

7           Q.    But you don't put any of that in your  
8 report?

9           A.    So conservatively there are at least 34  
10 million AR-15s owned by US citizens.  "Are," that  
11 means at the time I wrote that report.

12          Q.    But you just gave me a reason to believe  
13 that there were several weapons sold between 2022 and  
14 April 12 of 2023?

15          A.    Correct.

16          Q.    And you don't include that in your  
17 report.

18          A.    I mean, if you want to say that, that's  
19 fine.  I mean, what I wrote is accurate.

20          Q.    But you also told me at the beginning  
21 that everything -- that all of the bases for all of  
22 your opinions were included in this report.

23          A.    I did.

24          Q.    And you just told me that you added at  
25 least a million into that number without giving us the

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1 basis for that.

2           A.    Well, the basis is that you can figure  
3 out how many AR-15s were sold per year and then figure  
4 out that, hey, we're past that time now and, yeah, if  
5 you don't want to do that math, that's fine.

6           Q.    You didn't do that.

7           A.    No, I did do that math.  That's why I  
8 wrote 34 instead of 33.

9           Q.    But you didn't include that math.

10          MR. ARRINGTON:  Objection, asked and  
11 answered.

12          THE WITNESS:  If it's not obvious to you,  
13 that's fine.  It's obvious to me.

14          Q.    (BY Mr. Baumann) Okay.  And I just want  
15 to be clear all of those estimates are from the 2020  
16 Industry Intelligence Report?

17          A.    Yes.

18          Q.    Okay.  So Washington -- let's go back up  
19 to the first page there.  It says, "A Washington Post  
20 survey in 2022 numbers the owners of AR-15s at 16  
21 million."  Is that right?

22          A.    Correct.

23          Q.    And what source are you using there?

24          A.    The Washington Post survey.

25          Q.    And is that a trustworthy source?

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1           A.    I don't know.  I mean, what I'm saying is  
2 that was their estimate, and then I go through and  
3 give another analysis from NSSF.  So you tell me  
4 whether they're accurate or not.  I don't think  
5 they're accurate.  The number is too low.  That's why  
6 it's in there.

7           Q.    You don't think the Washington Post  
8 survey figure is accurate?

9           A.    I don't.

10          Q.    So you don't think that is a trustworthy  
11 source?

12          A.    I don't.

13          Q.    You are not comfortable aligning the  
14 numbers in that survey?

15          A.    Let me back up.  I think that the numbers  
16 that they put in the survey are not accurate.  That is  
17 what I believe.

18          Q.    And why do you believe that?

19          A.    Because the industry report from NSSF  
20 show a number that is significantly higher by almost  
21 twice.

22          Q.    Do you think the industry report from  
23 NSSF -- let me back up.  What did, "A Washington Post  
24 survey in 2022 numbers the owners of AR-15s at 16  
25 million."  What does that mean?

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1           A.    That means that there's 16 million people  
2 that own AR-15s.

3           Q.    Okay.  And you think that's low because  
4 the NSSF number of people that own AR-15s is higher?

5           A.    No, you're misinterpreting what I said.

6           Q.    I apologize.

7           A.    The 34 million that I cite is the total  
8 number of AR-15s that NSSF says have been  
9 manufactured.  We don't know if people own one or two  
10 or 85.  We don't know.  I think the number 16 million  
11 is low, but it's still a number.  It's still a data  
12 point.  It's not related to manufacturer sales.

13          Q.    So I guess my question is, are you  
14 comfortable relying on the Washington Post survey for  
15 data related to the number of owners of AR-15s?

16          A.    I think it could establish a bottom  
17 number but I don't know.  It's a number that they came  
18 up with.  Is it valid?  I don't know.

19          Q.    You don't know if that's valid?

20          A.    I don't know.

21          Q.    Did you review the methodology for that  
22 Washington Post survey?

23          A.    No.

24          Q.    Okay.  Let's take a look at that second  
25 clause in that sentence that says, "While the 2020

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1 number was almost 20 million according to NSSF  
2 President and CEO Joseph Bartozzi." The 2020 number  
3 of what?  
4 **A. Well, the whole -- that whole sentence is**  
5 **owners.**  
6 Q. Where is this figure from?  
7 **A. What the -- the 2020 number of 20**  
8 **million?**  
9 Q. Yep.  
10 **A. It's from an article that's on the NSSF**  
11 **website.**  
12 Q. Do you know how the NSSF calculated that  
13 number?  
14 **A. They do surveys.**  
15 Q. Did you review the methodology of those  
16 surveys?  
17 **A. I did not.**  
18 Q. Did you speak with Mr. Bartozzi about how  
19 he reached that figure?  
20 **A. No.**  
21 Q. Did you speak with anyone at the NSSF  
22 about how they reached that figure?  
23 **A. No.**  
24 Q. Do -- you have no basis by which to  
25 evaluate the accuracy of that number?

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1 **A. No.**  
2 Q. Okay. And you just said -- so we're  
3 looking at the number of owners of AR-15s, right?  
4 **A. Correct.**  
5 Q. Okay.  
6 MR. BAUMANN: Let's take a look at  
7 Exhibit 39, Barry.  
8 (Deposition Exhibit 9 was marked.)  
9 Q. Do you recognize this document?  
10 **A. I don't know if I looked at this one**  
11 **specifically or not. I probably did, but in the**  
12 **format that you have it, I'm not sure that I can say**  
13 **that I recognize it.**  
14 Q. Okay. I want to look at a couple things  
15 here. So I cut us off in that sentence, but the full  
16 sentence -- well, let's ignore the Washington Post  
17 part. It says, "While the 2020 number was almost 20  
18 million according to NSSF President and CEO Joseph  
19 Bartozzi who called the AR-15 the, quote, most popular  
20 rifle sold in America and a, quote, commonly owned  
21 firearm." Do you see that?  
22 **A. I do.**  
23 Q. So you quoted Mr. Bartozzi there?  
24 **A. Yes.**  
25 Q. And if you take a look at page three of

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1 this exhibit, at the very top, is this where you got  
2 those quotes from?  
3 **A. Nope. That's -- it's not the same quote.**  
4 Q. Does Mr. Bartozzi say that it's the most  
5 popular rifle sold in America?  
6 **A. Well, he -- no, because it's different**  
7 **wording. I mean, commonly owned firearm, there's**  
8 **actually a hyphen there, and the most popular rifle**  
9 **sold in America? I don't know if -- I don't think**  
10 **that's where that quote came from. I think it is a**  
11 **different quote.**  
12 Q. So where did that quote come from?  
13 **A. It was an article that was on the NSSF**  
14 **website.**  
15 Q. But not this article which uses the same  
16 two phrases?  
17 **A. It's possible but, again, like I told**  
18 **you, I don't recognize this article in the format that**  
19 **it's in, so I don't know if this was the exact quote**  
20 **or not. Sorry. I can't tell you.**  
21 Q. I'm just --  
22 **A. I mean, I agree that they're**  
23 **substantially the same, but I cannot verify to you**  
24 **that this is the actual article that I used.**  
25 Q. So let's take a look at -- just so our

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1 record is clear, the quote in Exhibit 9 is, "The  
2 modern sporting rifle continues to be the most popular  
3 rifle sold in America today, and with nearly 20  
4 million in circulation is clearly a commonly owned  
5 firearm that is being used for lawful purposes every  
6 day in America."  
7 And then your report says, "While the  
8 2020 number was almost 20 million according to NSSF  
9 President and CEO Joseph Bartozzi, who called the  
10 AR-15 the most popular rifle sold in America and a  
11 commonly-owned firearm." Did I read that accurately?  
12 **A. You did.**  
13 Q. You would agree that 20 million in  
14 circulation is different than owned by 20 million  
15 people, correct?  
16 **A. Correct.**  
17 Q. And is that why you don't think this is  
18 what you relied on?  
19 **A. That's correct. What is there looks**  
20 **different than what I recall.**  
21 Q. But you can't tell me what you relied on?  
22 **A. I mean, I've got it saved on my computer.**  
23 Q. And you can provide -- that is a basis  
24 for your opinion, correct?  
25 **A. Yes.**

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1 Q. And you -- pardon me, you agree to  
2 provide us with the complete basis for your opinions,  
3 correct?

4 A. Correct.

5 Q. Okay. So you agree if I were to ask you  
6 to provide to Barry to provide to me the basis for  
7 that opinion, you could do so?

8 A. I can.

9 Q. You have it saved on your computer?

10 A. Yes.

11 Q. And you would agree not to conduct  
12 additional research?

13 A. I would.

14 Q. You would agree just to send us whatever  
15 is saved on your computer?

16 A. Yes. I may have even sent it to Barry  
17 already. I don't know. You can ask him.

18 Q. Okay.

19 MR. ARRINGTON: So, Mark, what you sent me  
20 is the report, so if you go ahead and send that to me.

21 THE WITNESS: Okay.

22 MR. BAUMANN: And I would ask that you  
23 send -- well, that's fine.

24 Q. (BY Mr. Baumann) You would agree though  
25 that -- and I just want to make sure the record is

Page 86

1 clear on this, that this quote is not the same as what  
2 you have included in your report, correct?

3 A. I do.

4 Q. Okay. Because 20 million in circulation  
5 is not the same as 20 million owners.

6 A. Correct.

7 Q. Okay. Okay. Let's take a look at the  
8 next sentence which says, "A 2021 survey conducted by  
9 Georgetown University Professor William English in  
10 2021 of 16,000 gun owners revealed that of those, 30  
11 percent owned AR-15 style rifles." Is that survey a  
12 trusted source?

13 A. I believe it.

14 Q. Why?

15 A. Because it is consistent with my personal  
16 observations and what I have seen.

17 Q. What can you tell us about the  
18 methodology of that survey?

19 A. I read everything that was associated  
20 with it, but I can't tell you more than I read it and  
21 reviewed it and felt that his survey was done  
22 properly.

23 Q. Would you say it was done more properly  
24 than the Washington Post survey?

25 A. I don't know.

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1 Q. And is that because you're not qualified  
2 to opine on survey methodology?

3 A. That's probably part of it, yes.

4 Q. What else is there?

5 A. Well, I didn't look at the methodology of  
6 the Washington Post survey.

7 Q. But you did look at the methodology of  
8 the English survey?

9 A. What he had provided, yes.

10 Q. What was that methodology?

11 A. I just told you I don't recall exactly  
12 what it is. I just reviewed what he had in the  
13 report.

14 Q. Okay. Let's take a look at --

15 MR. BAUMANN: Barry, this is Exhibit 40, and  
16 I think we are up to 10.

17 (Deposition Exhibit 10 was marked.)

18 Q. Do you recognize this document?

19 A. Yes.

20 Q. What is it?

21 A. It is the report that I referenced -- or  
22 it is the surveys that I referenced in my report.

23 Q. Okay. Let's start with -- well, let's  
24 just start at the very beginning on the first full --  
25 the second full paragraph on the first page. "The

Page 88

1 survey finds an overall rate of adult firearm  
2 ownership of about" -- excuse me. Let me restart.  
3 "Survey finds an overall rate of adult firearm  
4 ownership of 31.9 percent." Is that right?

5 A. That's what it says.

6 Q. And do you believe that figure?

7 A. Yes.

8 Q. Do you have any reason to believe that  
9 figure is inaccurate?

10 A. No.

11 Q. So less than 1/3 of adult Americans own a  
12 firearm?

13 A. If that's what the number says.

14 Q. And you believe that number?

15 A. I believe that number is accurate.

16 Q. And you rely on this source in your  
17 report?

18 A. In this portion of it, yes.

19 Q. Okay. Let's turn to page four. And it  
20 looks like the first full paragraph gets into a little  
21 bit of survey methodology here, and I'll give you a  
22 chance to review that for a second.

23 A. Okay.

24 Q. So why are you comfortable relying on a  
25 survey that uses this methodology?

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1           **A. Because I don't see any significant**  
2 **indications to me that there is a flaw in it.**  
3           **Q. And what training have you received in**  
4 **survey methodology flaws?**  
5           **A. We've already talked about that. I'm not**  
6 **a survey expert. I'm merely relying on information**  
7 **that's in the public realm. After having looked at**  
8 **several surveys.**  
9           **Q. Did you look at surveys that you did not**  
10 **include in your report?**  
11           **A. I looked at a bunch of them, yes.**  
12           **Q. So what is it about this that stood out**  
13 **as reliable to you?**  
14           **A. The -- there was a lack of hyperbole.**  
15 **There was a lack of emotion in it and the methodology**  
16 **was presented so that people could look at it.**  
17           **Q. People could evaluate where it was strong**  
18 **methodology -- excuse me, let me rephrase that.**  
19 **People could evaluate whether it was methodologically**  
20 **strong?**  
21           **A. Correct.**  
22           **Q. This was fun for me. In a previous life**  
23 **I was a pollster, designed these types of surveys, so**  
24 **I find this stuff very interesting. If I interviewed**  
25 **500 people on the streets of Colorado, could I draw**

Page 90

1 **conclusions based on their responses about the entire**  
2 **United States population?**  
3           **A. Probably not.**  
4           **Q. Why not?**  
5           **A. It's too small a sample.**  
6           **Q. If I interviewed 500 people across the**  
7 **United States, and I chose them using specific -- very**  
8 **specific choices in how I chose them. And I then**  
9 **employed weighting techniques, which we'll talk about**  
10 **in a second, could I draw conclusions based on that**  
11 **500 person sample?**  
12           **A. I don't know.**  
13           **Q. Why not?**  
14           **A. Because I don't know.**  
15           **Q. That's not something you're qualified to**  
16 **opine?**  
17           **A. Professionally the most I've done is**  
18 **looking at FDA studies in my employment as choosing**  
19 **people and looking at all that data. So, I mean, I've**  
20 **looked at all that data, but choosing the subjects,**  
21 **that's not something I know how to do.**  
22           **Q. What about designing surveys to ensure**  
23 **there's no drop off? Do you know anything about that?**  
24           **A. I don't.**  
25           **Q. And what's your opinion on the use of**

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1 **online panel surveys versus telephone surveys?**  
2           **A. I mean, I think there's probably some**  
3 **flaws in both, but couldn't tell you what specifically**  
4 **those are, I would be speculating.**  
5           **Q. That's because you have no training in**  
6 **survey methodology?**  
7           **A. That's correct.**  
8           **Q. And so your ability to view a survey is**  
9 **based on no specialized training, knowledge, or**  
10 **experience?**  
11           **A. I'm not sure I even understand what you**  
12 **just asked. Can you rephrase it?**  
13           **Q. Okay. Is your ability to evaluate a**  
14 **survey like this one based on any training you've**  
15 **received?**  
16           **A. No.**  
17           **Q. Is it based on any specialized knowledge**  
18 **you have?**  
19           **A. My knowledge in the firearms industry and**  
20 **the scientific method, yeah. I mean, those obviously**  
21 **factor in.**  
22           **Q. Based on any specialized knowledge of**  
23 **survey mechanics?**  
24           **A. No.**  
25           **Q. And what about experience designing**

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1 **surveys?**  
2           **A. No.**  
3           **Q. You're ability to view this survey and**  
4 **opine on it and its accuracy is not based on any**  
5 **specialized experience in designing surveys?**  
6           **A. That is correct.**  
7           **Q. Okay. Let's take a look at the next**  
8 **page.**  
9           **MR. BAUMANN: Why don't we take a break now?**  
10           **(A recess was taken from 11:17 a.m. to 11:27**  
11 **a.m.)**  
12           **MR. BAUMANN: Barry, I just want to say on**  
13 **the record I misunderstood you before. Happy to print**  
14 **those documents you sent our way. I'm sorry about**  
15 **that. I was lost in my own notes and paying half**  
16 **attention.**  
17           **MR. ARRINGTON: That's never happened to me**  
18 **before.**  
19           **MR. BAUMANN: We'll get those printed.**  
20           **MR. ARRINGTON: Appreciate you though.**  
21           **Q. (BY Mr. Baumann) Okay. I want to go back**  
22 **to the English study, which we have marked as**  
23 **Exhibit 10, and take a look at page five. The very**  
24 **first full sentence says, "For the purpose of**  
25 **estimating firearms ownership rates for the general US**

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1 population, we employed raked weighting on gender,  
2 income, age, race, and state of residence." What's  
3 your opinion on using raked weighting in a survey like  
4 this one?

5 **A. Don't have one.**

6 Q. Why not?

7 **A. I don't know enough about it.**

8 Q. What is raked weighting?

9 **A. I don't know.**

10 Q. Do you have an opinion on whether, for an  
11 online survey like this one, it's better to use raked  
12 weighting or a matching approach?

13 **A. I don't know.**

14 Q. Do you have an opinion?

15 **A. I don't.**

16 Q. Why not?

17 **A. Because I don't know enough about it.**

18 Q. Okay. Does this report include data on  
19 defensive gun use?

20 **A. There are some. I could find them I**  
21 **guess if I read through it, but there are portions in**  
22 **here, yes, that do.**

23 Q. And did you -- do you have an opinion on  
24 the accuracy or -- let me back up. Do you have an  
25 opinion on how reliable those sections of this report

Page 94

1 are?

2 **A. You know, at first reading it -- some of**  
3 **the numbers that he cited, if I recall, I would have**  
4 **to go find it, seemed a little high to me. But I'm**  
5 **not the guy that did the survey. I mean, the NRA**  
6 **claims some number that's like 3 million defensive**  
7 **uses of firearms a year. I read some of their**  
8 **information, I'm like, I think they're stretching**  
9 **their numbers a little bit with some hyperbole there**  
10 **as well.**

11 Q. Okay. So let's go back to your report  
12 here. It says, "A 2021 survey conducted by Georgetown  
13 University Professor William English in 2021, 16,000  
14 gun owners revealed that of those 30 percent owned  
15 AR-15 style rifles." Is that right?

16 **A. Yes, I mean, the numbers may not be**  
17 **exactly what's in his report. I think he's more**  
18 **specific about some of the numbers, but I rounded**  
19 **them.**

20 Q. And that's the report that we were  
21 looking at that's been marked as Exhibit 10, correct?

22 **A. Correct.**

23 Q. The report that you just indicated you're  
24 not the guy that did the survey, correct?

25 **A. Correct.**

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1 Q. And that you're not sure about the  
2 accuracy of some of the defensive gun use numbers?

3 **A. Correct.**

4 Q. Okay. The report suggests that the  
5 average gun owner owns five firearms. Does that sound  
6 right to you?

7 **A. Yeah, generally it does. I mean, you**  
8 **know, the people that I know that I compete with**  
9 **obviously own more, but most of my friends who are not**  
10 **in the firearms industry and don't compete, you know,**  
11 **it does sound about right.**

12 Q. And you would agree that I think we had  
13 this colloquy earlier that knowing that 30 percent of  
14 gun owners own AR-15 style rifles tells us nothing  
15 about the magazine size of those rifles, correct?

16 **A. Correct.**

17 Q. Do some quick math here. If 32 percent  
18 of adults own guns and 30 percent of those own AR-15s,  
19 that comes out to about 9 percent of adults own an  
20 AR-15. Is that right?

21 **A. Yeah, I think your math is pretty close.**

22 Q. And again AR-15s can come with Colorado  
23 compliant magazines?

24 **A. They can, yes.**

25 Q. Did you look at the data in the English

Page 96

1 report on individuals who have owned magazines with  
2 certain number of rounds?

3 **A. I would have to go back and look through.**  
4 **I mean, I read the whole report, so I'd have to go**  
5 **back and look for it if you have specific questions**  
6 **about that.**

7 Q. Let's take a look at page 22. Last --  
8 the first sentence of the last paragraph starts, "48  
9 percent of gun owners," and then there's some  
10 information in the parenthetical. What does that  
11 information in the parenthetical mean?

12 **A. Some statistical number.**

13 Q. Do you know what it means?

14 **A. I do not.**

15 Q. If I suggest to you that it means that at  
16 the 95 percent confidence interval. Do you know  
17 anything about confidence intervals?

18 **A. That's what I would speculate that means,**  
19 **but not a statistician.**

20 Q. So "48 percent of gun owners answered yes  
21 to the question, 'Have you ever owned a handgun or  
22 rifle magazine that holds more than 10 rounds?'  
23 Parentheses, you can count magazines that you may keep  
24 in another state if there are local restrictions  
25 against ownership." What's your reaction to that



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1 figure?

2           **A. To the figure?**

3           Q. To the 48 percent.

4           **A. Seems reasonable to me.**

5           Q. Based on what?

6           **A. Based on looking at the NSSF data about**

7 **how many people compete, what kind of competition they**

8 **do, how many people, you know, hunt, how many people**

9 **are recreational shooters, not necessarily competition**

10 **shooters, because we already agree that's a pretty**

11 **small subset. That seems appropriate. We know the**

12 **numbers of people who shoot, you know, shotguns in the**

13 **clay sports. A lot of those people may own a revolver**

14 **or they may own a hunting rifle, but a lot of them**

15 **don't own a firearm that would accept a magazine**

16 **that's over 10 rounds.**

17           Q. Have you reviewed other surveys?

18           **A. Yeah, I mean the National Shooting Sports**

19 **Foundation has several surveys. I think they've even**

20 **got one they break in from 10, 15, and 20 rounds.**

21 **They break them up. And, I mean, yes, over the course**

22 **of years, I've looked at these surveys. You know, I**

23 **can't say that when the assault weapon ban was in**

24 **place -- and we're talking the Clinton assault weapon**

25 **ban, if that's an okay term. I didn't really look at**

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1 **any information or data at that point, but once that**

2 **expired, I did start looking at data.**

3           Q. And you mentioned the NSSF data. Do you

4 know if that data refers to the number that were ever

5 owned or the number ever produced?

6           **A. I don't know. I'd have to look at it**

7 **specifically.**

8           Q. Okay.

9           **A. I assume because their numbers come from**

10 **industry that it would be produced, but I would have**

11 **to look at it.**

12           Q. Doing some back-of-the-envelope math

13 again, which is always dangerous. If 32 percent of

14 adults own guns and 48 percent have ever owned a

15 handgun or rifle magazine that holds more than 10

16 rounds, that brings us to about 15 percent of adults

17 that have ever owned a gun?

18           **A. Yeah, about that number.**

19           Q. Let me make sure our record is clear.

20 That's about 15 percent that have ever owned a handgun

21 or rifle magazine that holds more than 10 rounds?

22           **A. Yes.**

23           Q. And you agree that in Colorado it's legal

24 to own a 10-round magazine?

25           **A. Yes.**

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1           Q. And an 11-round magazine?

2           **A. Yes.**

3           Q. Up to a 15-round magazine?

4           **A. It's legal to own higher than that if you**

5 **had them prior to July 1, 2013.**

6           Q. Leaving aside the prior to July 31, 2013,

7 it is legal to own a 15-round magazine in Colorado,

8 correct?

9           **A. Yes.**

10           Q. So if 15 percent of adults have ever

11 owned a magazine with more than 10 rounds, something

12 less than 15 percent have ever owned a magazine with

13 more than 15 rounds?

14           **A. That's reasonable, yes.**

15           Q. And the way this is phrased is, "48

16 percent of gun owners responded yes to the question,

17 'Have you ever owned a handgun or rifle magazine that

18 holds more than 10 rounds,'" correct?

19           **A. Correct.**

20           Q. So that's different than the number

21 currently owned?

22           **A. Correct.**

23           Q. Okay. And you would agree that if you

24 ever owned a magazine with more than 10 rounds, it's

25 likely you own several of them, correct?

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1           **A. Correct.**

2           Q. Okay. I want to go back to your report

3 here and we're going to move on to the next sentence

4 which says, "Further, the NSSF 2020 Industry

5 Intelligence Report has the number of AR-15 rifles

6 produced, minus exports," so sold in the US, "at just

7 under 20 million from 1990 through 2018." Is that

8 right?

9           **A. Correct.**

10           Q. How is that report compiled?

11           **A. What do you mean by compiled?**

12           Q. How do they arrive at their data?

13           **A. They get that data from their members,**

14 **which are manufacturers.**

15           Q. And do you know how they collect that

16 data?

17           **A. I do not.**

18           Q. Have you asked how they collect that

19 data?

20           **A. I mean, at points I've had -- I would**

21 **guess I would say casual conversations with people**

22 **from NSSF and, yes, I mean, they send out surveys to**

23 **their members and they know not only who are their**

24 **members, but they know the major manufacturers who are**

25 **not members. And there are some of them. I'm not**

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1 sure if SIG dropped their membership with NSSF or not  
2 but they were one that was purported to have dropped  
3 their membership at some point and they're a large  
4 manufacturer.  
5 Q. Okay. Have you reviewed any of these  
6 surveys that they sent out?  
7 A. I have read them, yes.  
8 Q. And do you believe that they are  
9 methodologically appropriate?  
10 A. As far as I can tell, yes.  
11 Q. And do you know how NSSF verifies the  
12 data provided by the manufacturers?  
13 A. I do not.  
14 Q. Have you collected any data from  
15 manufacturers?  
16 A. I have not.  
17 Q. I want to look at the sentence that says  
18 that -- this sentence says that the number of AR-15  
19 rifles produced from 1990 through 2018 was just under  
20 20 million. Is that right?  
21 A. Correct.  
22 Q. And a couple -- couple sentences earlier,  
23 you say that according to NSSF and CEO Joseph Bartozzi  
24 there were 20 million owners of AR-15s in 2020. Is  
25 that right?

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1 A. That is what is in my report, yes.  
2 Q. Are those two numbers consistent?  
3 A. Probably not.  
4 Q. Let's take a look at what's been marked  
5 as Exhibit 41.  
6 MR. BAUMANN: Or excuse me. What is in  
7 Barry's folder as Exhibit 41.  
8 (Deposition Exhibit 11 was marked.)  
9 Q. Do you recognize this document?  
10 A. Is there somewhere that says that this is  
11 the 2020?  
12 MR. MAGALOTTI: On the last page at the  
13 very, very bottom in tiny print.  
14 Q. (BY Mr. Baumann) On the very, very back,  
15 on the flip over.  
16 A. There's a copyright. See, this says here  
17 that they're listing some 2018. Give me a second.  
18 Let me read this. This may not be the same -- this  
19 may be a prior one. So on the web page, the one that  
20 I have on my computer specifically says the 2020  
21 Industry Intelligent Report. And this one, when it  
22 has sources only is reported through February 28,  
23 2020, and there's a lot of 2018 in here. So this  
24 might be the one that's prior.  
25 Q. So I -- we may need to take a break to

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1 print some stuff out, but let me offer an explanation.  
2 We'll see if it rings a bell. If not, we'll print  
3 some stuff out and clean all this up. The 2020 report  
4 covers data through 2018 because the data is collected  
5 on a year lag, and so the 2020 report runs through  
6 2018.  
7 A. Okay.  
8 Q. Is that ringing any bells?  
9 A. It's consistent and if you claim that  
10 that's true, I'd have no reason to disbelieve you.  
11 Q. Yeah, well, let's -- let me do one more,  
12 then we'll decide if we need to do this. So your  
13 report says the number of AR-15 rifles produced minus  
14 exports are just under 20 million from 1990 through  
15 2018. Go ahead and turn to page seven of that  
16 document.  
17 A. Okay.  
18 Q. And I would ask whether you think that  
19 you got that number from this chart.  
20 A. Sure looks like it.  
21 Q. And then let me go a step further and  
22 we're jumping a little bit ahead here. Well,  
23 actually, let's not. Let's just stop there. So let  
24 me ask this. Is the report that I put in front of you  
25 the report that you relied on for that figure in that

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1 sentence?  
2 A. It looks like it probably is. I mean, I  
3 can confirm that when I get to my computer and see if  
4 this is actually -- everything is all the same. If  
5 you want me to make a note to do that, I can.  
6 Q. No. I'm trying to -- we had it up on --  
7 I'm just going to talk out loud for a second.  
8 MR. BAUMANN: And, Barry, I'm interested in  
9 your thoughts here. So I have the NSSF web page up  
10 that talks about the 2020 edition of their Industry  
11 Intelligence Report, which has data from 1991 through  
12 2018. And I'm happy to print that out and send a copy  
13 to you, Barry. I will say I'm quite confident we are  
14 talking about the same report here.  
15 A. Okay.  
16 Q. (BY Mr. Baumann) Are you confident?  
17 A. I think it -- I'll be 99 percent sure  
18 that that's probably accurate.  
19 MR. BAUMANN: Barry, I will send you the web  
20 page that I'm about to put in front of your -- or  
21 Daniel will send the web page.  
22 MR. MAGALOTTI: I could just share it.  
23 MR. BAUMANN: No I don't think we can share  
24 it from there.  
25 MR. MAGALOTTI: Do you want me to pull it up

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<p>1 on here and share it?</p> <p>2 MR. BAUMANN: That would be great.</p> <p>3 THE WITNESS: I'm really not trying to be</p> <p>4 obtuse. I just want to make sure.</p> <p>5 Q. (BY Mr. Baumann) And I'm not trying to be</p> <p>6 difficult. I just want to be sure we're talking about</p> <p>7 the same thing.</p> <p>8 <b>A. I realize that you are very specific, so</b></p> <p>9 <b>I get it.</b></p> <p>10 MR. BAUMANN: I'm going to wait until we can</p> <p>11 share this in real time with Barry.</p> <p>12 MR. MAGALOTTI: Okay. So I'll share it from</p> <p>13 here.</p> <p>14 MR. BAUMANN: Okay. Barry, we're going to</p> <p>15 share the screen with you. This is exactly what I'm</p> <p>16 putting in front of Mr. Passamaneck.</p> <p>17 MR. ARRINGTON: Okay.</p> <p>18 MR. MAGALOTTI: Barry, can you see it?</p> <p>19 Q. (BY Mr. Baumann) And scrolling down to</p> <p>20 what reads, "Firearms production in the United States</p> <p>21 2020 edition." Do you see that?</p> <p>22 <b>A. I do.</b></p> <p>23 Q. And do you see how it says that that</p> <p>24 collects data from 1991 through 2018?</p> <p>25 <b>A. I do.</b></p>	<p>1 referenced in your report?</p> <p>2 <b>A. It is.</b></p> <p>3 Q. Okay. And just so we're clear, this is</p> <p>4 the source of the 20 million, AR-15 rifles produced</p> <p>5 minus exports?</p> <p>6 <b>A. Correct.</b></p> <p>7 Q. 1990 through 2018?</p> <p>8 <b>A. Correct.</b></p> <p>9 Q. Okay. We talked a little bit about this</p> <p>10 earlier, but this isn't showing AR-15s, is it?</p> <p>11 <b>A. Modern Sporting Rifle and AR-15 from the</b></p> <p>12 <b>perspective of an engineering, they're the same.</b></p> <p>13 Q. And you told me earlier you don't know</p> <p>14 how NSSF defines modern sporting rifle?</p> <p>15 <b>A. I don't. I don't even care.</b></p> <p>16 Q. So this chart shows whatever NSSF's</p> <p>17 definition of what a modern sporting rifle is,</p> <p>18 correct?</p> <p>19 <b>A. It does.</b></p> <p>20 Q. And your report takes that to mean there</p> <p>21 are that many AR-15s rifles produced?</p> <p>22 <b>A. Correct.</b></p> <p>23 Q. But those could be two different things?</p> <p>24 <b>A. They are not. It's a political speak and</b></p> <p>25 <b>it's hyperbole. They're the same thing.</b></p>
<p>Page 106</p> <p>1 Q. Okay. And if I click on that link, does</p> <p>2 that look like the document -- is this the document</p> <p>3 that has been marked as Exhibit 11?</p> <p>4 <b>A. It is.</b></p> <p>5 Q. Okay. And so based on that, do you agree</p> <p>6 that the document that has been marked as Exhibit 11</p> <p>7 is the source of the -- is the 2020 Industry</p> <p>8 Intelligence Report as referenced in your expert</p> <p>9 report?</p> <p>10 <b>A. Yes, most likely. I mean, I'm not going</b></p> <p>11 <b>to say 100 percent until I actually look at it, but</b></p> <p>12 <b>I'm confident that it's accurate.</b></p> <p>13 Q. Okay. Thank you all. That was problem</p> <p>14 solving 101.</p> <p>15 MR. BAUMANN: I will go on the record and</p> <p>16 say I would like the NSSF to put 2020 on the top of</p> <p>17 their reports.</p> <p>18 Q. (BY Mr. Baumann) Okay. Let's take a look</p> <p>19 at page seven, which we just looked at. And what does</p> <p>20 the top -- what is the chart at the top of page seven</p> <p>21 showing?</p> <p>22 <b>A. The title is Modern Sporting Rifle</b></p> <p>23 <b>Production plus imports, less exports, 1990 through</b></p> <p>24 <b>2018, and then it shows a per year chart.</b></p> <p>25 Q. Okay. And is this the source of the data</p>	<p>Page 108</p> <p>1 Q. Why didn't you use modern sporting rifle</p> <p>2 then?</p> <p>3 <b>A. Because to me that is hyperbole and it's</b></p> <p>4 <b>politicizing the term in order to get around some poor</b></p> <p>5 <b>perceptions, and I really -- honestly, from an</b></p> <p>6 <b>engineering perspective, doesn't matter.</b></p> <p>7 Q. But you're not -- you are not acting as</p> <p>8 an engineer in this paragraph, are you?</p> <p>9 <b>A. Well, the design of these firearms is</b></p> <p>10 <b>based on engineering, absolutely. So I mean whether</b></p> <p>11 <b>you want to call it a modern sporting rifle or you</b></p> <p>12 <b>want to call it an AR-15 style, I don't care. They're</b></p> <p>13 <b>the same thing.</b></p> <p>14 Q. So it is your testimony here today that</p> <p>15 it is accurate to interpret this chart to refer to</p> <p>16 only AR-15s?</p> <p>17 <b>A. Yes.</b></p> <p>18 Q. Even though that's not what this chart</p> <p>19 says?</p> <p>20 <b>A. Yes.</b></p> <p>21 Q. Did you communicate with NSSF about what</p> <p>22 they were measuring in this chart?</p> <p>23 <b>A. Those are AR-15 style rifles, absolutely.</b></p> <p>24 <b>I've talked to them several times about this, yes.</b></p> <p>25 Q. But you indicated earlier you don't know</p>

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1 how they define modern sporting rifle?  
2           **A. I don't really care how they define it.**  
3 **It is a term that is attempting to depoliticize the**  
4 **term AR-15. Doesn't matter to me. I mean, if I call**  
5 **you a person or a human, you still are the same**  
6 **person. You're the same human. Different word, but**  
7 **it's the same thing.**  
8           **Q. You would agree that it's important to be**  
9 **specific when interpreting data, correct?**  
10          **A. Yes.**  
11          **Q. And you can't tell me whether this chart**  
12 **on page seven includes AR-10s or not?**  
13          **A. Well, I don't know. I mean, the AR-10**  
14 **production is such a small percentage of the AR**  
15 **pattern rifles, it probably does. I mean modern**  
16 **sporting rifle is intended to be an encapsulation of**  
17 **people who call them modern sporting rifles and AR-15s**  
18 **and all the other terms that have been used for them.**  
19 **That's what they were trying to capture. That's what**  
20 **they've always been trying to capture.**  
21          **Q. And you explained to us earlier the**  
22 **difference between an AR-15 and an AR-10 platform?**  
23          **A. It is large frame and small frame, yes.**  
24          **Q. And your report only purports to address**  
25 **the number of AR-15s?**

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1           **A. Correct.**  
2           **Q. But you don't know whether this figure**  
3 **includes AR-10s?**  
4           **A. I don't know.**  
5           **Q. Do you know if the 2020 number you cite**  
6 **earlier in that paragraph from Joseph Bartozzi is the**  
7 **same as the 20 million number you cite here?**  
8           **A. I don't know.**  
9           **Q. It's possible it could be though,**  
10 **correct?**  
11          **A. It is.**  
12          **Q. In fact, it's likely?**  
13          **A. Correct.**  
14          **Q. Did you know you were citing the same**  
15 **figure twice?**  
16          **A. No.**  
17          **Q. Did you purposefully cite the same figure**  
18 **twice?**  
19          **A. No.**  
20          **Q. I want to take a look at the bottom of**  
21 **page seven. It says source. And I'll admit that it's**  
22 **a little bit unclear what this is referring to, but**  
23 **let's ask it this way. This chart at the top of page**  
24 **seven, do you know what the source for this chart is?**  
25          **A. I don't see anything that has -- I mean,**

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1 **there is a source down at the very bottom, but I**  
2 **assume that's -- I don't know what it's related to.**  
3 **There's no specific citation on the graphic itself**  
4 **that connects it to the source at the bottom, but that**  
5 **could be it.**  
6           **Q. And so you don't know what the source is**  
7 **for this 19.797 million figure?**  
8           **A. Well, it's NSSF's data. It's they're**  
9 **collection of data from wherever they get it from.**  
10          **Q. Let's take a look at how they collect**  
11 **their data. Let's take a look at page one and say**  
12 **the -- let's read that first paragraph. "Providing a**  
13 **comprehensive overview of firearm production trends**  
14 **spanning a period of 28 years. This report is based**  
15 **primarily on the data source from the Bureau of**  
16 **Alcohol, Tobacco, Firearms, and Explosives. ATF's**  
17 **annual firearms manufacturing and export reports,**  
18 **AFMER." You reviewed those reports?**  
19          **A. I have not reviewed those reports, no.**  
20          **Q. And you would agree that this report is**  
21 **based primarily on data sourced from those reports?**  
22          **A. That's what it says, yes.**  
23          **Q. Okay. And then it also includes -- and**  
24 **we're skipping to the next paragraph here,**  
25 **"Manufacturing trends for ammunition as sourced from**

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1 **the Census Bureau's annual survey of manufacturers,"**  
2 **correct?**  
3           **A. Correct.**  
4           **Q. And you would agree that that chart we**  
5 **were just looking at on page seven doesn't deal with**  
6 **ammunition, correct?**  
7           **A. I don't think it does. No, it doesn't.**  
8           **Q. Okay. And then finally continuing on in**  
9 **that paragraph, "Import and export statistics compiled**  
10 **from US International Trade Commission are presented**  
11 **in conjunction with the AFMER numbers to provide a**  
12 **more accurate picture of the historical production**  
13 **that has been made available to the US market." What**  
14 **does that mean?**  
15          **A. Well, they're looking at not just what**  
16 **was produced, which has to be reported to the ATF, but**  
17 **they're looking at how many firearms went out of the**  
18 **country. So those would not be owned by people in the**  
19 **US, one would assume, and how many were imported. So**  
20 **there are some firearms that are imported that are**  
21 **made not in the United States. So that's giving you a**  
22 **number of how many firearms are in the US.**  
23          **Q. Which is what -- and you say sold in the**  
24 **US in your report, is that right?**  
25          **A. Correct.**

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1 Q. Okay. So looks like those three sources  
2 make up this report. It's different than what you  
3 said earlier about the NSSF sending out surveys to its  
4 members, correct?  
5 A. No, they do send surveys out to its  
6 members.  
7 Q. So are the figures in this report based  
8 on those surveys?  
9 A. Some of the data I'm sure is.  
10 Q. But you don't know?  
11 A. I don't know specifically. I mean, I can  
12 only read what's in the report.  
13 Q. And you would agree that nothing on the  
14 first page of this report -- and feel free to read it  
15 on -- indicates that those surveys that they send out  
16 are a source for this report?  
17 A. They are a source for some portions of  
18 the report. The chart that we talked about on page  
19 seven, I don't think it's a source of that chart.  
20 Q. You think that comes from the AFMER?  
21 A. I mean, down below it says ATF AFMER and  
22 US ITC and industry estimates, so there's three areas.  
23 Q. You said earlier --  
24 A. That source is related to this graph and  
25 the magazine chart graph, then that's what it

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1 indicates.  
2 Q. You said earlier you don't know if that  
3 source relates to the chart at the top of page seven.  
4 A. I don't directly know. I mean, you know,  
5 there's not an asterisk or something that says  
6 specifically that it's that, and it's below the  
7 magazine chart so I don't know. ATF doesn't collect  
8 any numbers based on magazines, so it's probably that.  
9 Q. But you would agree with me that nowhere  
10 on this first page where it lays out what this report  
11 is based on does it say surveys to NSSF members?  
12 A. I don't know what to tell you. It says  
13 industry estimates and those are, you know, the  
14 industry estimates come from NSSF members.  
15 Q. Do you know that?  
16 A. I do know that.  
17 Q. How?  
18 A. Because I've asked them this. We've  
19 talked about it. It's not a secret. I mean, they put  
20 industry estimates on here.  
21 Q. But you don't know if those industry  
22 estimates relate to the chart at the top of page  
23 seven?  
24 A. I don't know.  
25 Q. And you don't know how those industry

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1 estimates were compiled?  
2 A. I don't know.  
3 Q. And you don't know who compiled those  
4 industry estimates?  
5 A. National Shooting Sports Foundation at  
6 some point put them in a report.  
7 Q. And you don't know which members were  
8 surveyed?  
9 A. I don't.  
10 Q. And you don't know which non-members were  
11 surveyed?  
12 A. I do not.  
13 Q. And you don't know the methodology you  
14 used?  
15 A. Correct.  
16 Q. So we've now gone through all of the full  
17 sentences on the first page of your report under  
18 discussion and you would agree that none of these  
19 sentences address the number of 16-plus round  
20 magazines currently used in the United States,  
21 correct?  
22 A. Correct.  
23 Q. And each of the figures cited in these  
24 sentences relate to AR-15s, correct?  
25 A. Yes.

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1 Q. And AR-15s may have Colorado compliant  
2 magazines, correct?  
3 A. Yes.  
4 Q. So so far, in this paragraph you have  
5 expressed no opinion based on data concerning how  
6 common 16-plus round magazines are in the United  
7 States?  
8 A. Well, that's your interpretation of it.  
9 I think it does lay the foundation for the fact that  
10 there are people in Colorado that do own standard  
11 capacity magazines that are over 16 rounds.  
12 Q. And elaborate.  
13 A. I mean, it's pretty clear that in the  
14 time period that these sentences address, that the  
15 surveys I've looked at address, that there are people  
16 in Colorado that own magazines over 16 rounds, sure.  
17 I mean, are -- you know, there's 20 million or 16  
18 million or 10 million Americans that own magazines  
19 that are over 16 rounds. Some of those are people who  
20 live in Colorado. I know a bunch of people who live  
21 in Colorado that have magazines like that.  
22 Q. Can you show me which sentence addresses  
23 the number of 16-plus round magazines currently owned?  
24 A. Standard capacity magazines are magazines  
25 that are 20 or 30 rounds. That is what it means.

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1 We've talked about this before. You don't agree with  
 2 it, but that's what it means.

3 Q. You told me standard capacity magazines  
 4 relate to the specific firearm?

5 A. As designed.

6 Q. As designed.

7 A. AR-15s as designed come with 20 and 30  
 8 round magazines.

9 Q. But you agree that AR-15s can be sold  
 10 with Colorado compliant magazines?

11 A. I did.

12 Q. So which number here addresses the number  
 13 of 16-round magazines currently used?

14 A. The whole paragraph.

15 Q. Elaborate.

16 A. Standard capacity magazines that come  
 17 with AR-15s are 20 and 30 rounds and they were bought  
 18 and sold at least up until July 31, 2013, by lots of  
 19 Coloradans. That's the whole basis of it.

20 Q. Is your opinion only related to the  
 21 commonality of these magazines in Colorado?

22 A. No, it's based on nationwide. I mean,  
 23 both of these surveys, the NSSF and the Kennedy report  
 24 are both nationwide surveys. So Colorado is a subset  
 25 of that nationwide group of people.

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1 Q. You keep referring to the Kennedy, is  
 2 that the English survey?

3 A. I'm sorry. Have I been saying Kennedy?  
 4 If I said Kennedy, I meant English. I'm sorry.

5 Q. I'm just trying to make sure our record  
 6 is clear.

7 A. That is my mistake. I'm sorry.

8 Q. So that is what's been marked as  
 9 Exhibit 10?

10 A. Yes.

11 Q. So let me see if I can piece together the  
 12 logic of your opinions here. There are X number of  
 13 AR-15s that have been sold between 1990 and 2018,  
 14 correct?

15 A. Yes.

16 Q. Some, perhaps many, came with a 16-plus  
 17 round magazine?

18 A. Correct.

19 Q. But not all?

20 A. That's probably accurate as well.

21 Q. And so 16-plus round magazines must be  
 22 common in Colorado?

23 A. That's correct.

24 Q. Okay. You would agree that there's an  
 25 analytical gap that we need to jump there, right?

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1 A. I mean, not really.

2 Q. Well, let's do this. Let's take that  
 3 first -- the very first sentence with data in it. A  
 4 Washington Post survey in 2022 numbers the owners of  
 5 AR-15s at 16 million. How many of those owners own 16  
 6 plus-round magazines?

7 A. Probably most of them.

8 Q. Do you know how many?

9 A. I don't.

10 Q. So that's our analytical gap, right? We  
 11 know that some percentage of those own 16-plus, but we  
 12 don't know how many.

13 A. I mean, I would say it's a significant  
 14 percentage. I mean, honestly, up until the Colorado  
 15 magazine ban law passed, I don't know that I ever saw  
 16 a magazine under 30 rounds that was retailed with an  
 17 AR-15. I just don't ever recall ever having seen one.  
 18 And with the AR-10s, they were 20-round magazines.  
 19 That's why we use the number 20 and 30. 20s primarily  
 20 came with AR-10s, and 30s primarily came with AR-15s.

21 Q. So you are using the number of AR-15s as  
 22 a proxy for the number of 16-plus round magazines?

23 A. Not necessarily. I mean, if you owned an  
 24 AR-15, you buy it with a standard capacity magazine.  
 25 It's very likely that it came with a 30-round

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1 magazine. And you said yourself, I mean, in asking a  
 2 question earlier, do people who have magazines  
 3 typically have more than one? So, yeah, I mean, if  
 4 there's 20 million people or 10 million people that  
 5 own an AR-15 with one 30-round mag, there's a good  
 6 percentage of them have more than one magazine.

7 Q. And that's based on your personal  
 8 experience?

9 A. It is. And it's also based on the data  
 10 that's in the NSSF report. It's based on information  
 11 from Magpul. You realize that Magpul is a  
 12 manufacturer that not only supplies magazines to OEMs,  
 13 but they sell them aftermarket in the retail space as  
 14 well.

15 Q. Yeah, and we're going to take a look at  
 16 some of those. And -- and I understand you get to  
 17 that. I'm just trying, again, to make sure our record  
 18 is clear that in the sentences that we've looked at so  
 19 far, you are only expressing an opinion about the  
 20 number of AR-15s that are either owned in some of  
 21 these numbers or that have been produced in others,  
 22 correct?

23 A. Correct.

24 Q. Okay. Okay. I want to go back to  
 25 something we talked about earlier. The very next

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<p>1 sentence in your report is it is estimated that about 2 8 to 9 million AR-15s were owned by US citizens prior 3 to 1990. Is that correct?</p> <p>4 <b>A. Yes.</b></p> <p>5 Q. Okay. And you said earlier that that was 6 drawn from the 2020 NSSF Industry Intelligence Report?</p> <p>7 <b>A. Yes.</b></p> <p>8 Q. Okay. Give you as much time as you need. 9 Can you show me where in the report that information 10 is? Because I have to tell you, I can't find it.</p> <p>11 <b>A. I don't see it in here.</b></p> <p>12 Q. So you don't know what the source for 13 that figure was?</p> <p>14 <b>A. It's from NSSF, and so I will have -- I 15 would have to go back to my computer and find what 16 I've downloaded from NSSF and look at it.</b></p> <p>17 Q. In your report, you do not provide a 18 citation for that figure, correct?</p> <p>19 <b>A. Correct.</b></p> <p>20 Q. Earlier when you say that we can assume 21 that any sentence, if it doesn't include a citation, 22 refers to the last document cited?</p> <p>23 <b>A. Correct.</b></p> <p>24 Q. That's incorrect?</p> <p>25 <b>A. I don't know. I'm going to have to go</b></p>	<p>1 <b>close, but...</b></p> <p>2 Q. And then the next sentence goes on to say 3 from 2019 to 2022, another 3 to 4 million have been 4 sold. Where is that statistic from?</p> <p>5 <b>A. It's from NSSF.</b></p> <p>6 Q. But it's not in the 2020 report?</p> <p>7 <b>A. I'll give you the same answer. What is 8 in front of me, I don't know if this exactly what I 9 have downloaded on my computer or not. So it may be a 10 summary of this. I don't know. I'll have to go look 11 at it.</b></p> <p>12 Q. Well, and again, this is not a gotchya. 13 You would agree that what we looked at earlier 14 indicated that the 2020 report included data from 1990 15 through 2018, correct?</p> <p>16 <b>A. Correct.</b></p> <p>17 Q. So it would have to be a new updated NSSF 18 report to cover 2019 through 2022?</p> <p>19 <b>A. Correct.</b></p> <p>20 Q. Okay. And you would agree that that 21 report is not cited in your -- in your expert report?</p> <p>22 <b>A. I do agree with that.</b></p> <p>23 Q. Okay. Okay. We already talked about 24 that next sentence. And I think we agreed that you 25 were estimating, based on your personal experience,</p>
<p>Page 122</p> <p>1 <b>look again what I downloaded. I mean, you clicked on 2 a link and so it may be in the front portion of that. 3 I don't know. I'm going to have to go look at it.</b></p> <p>4 Q. And what about the rest of that sentence? 5 The total number of semiautomatic firearm rifles owned 6 in the US at just over 43 million as of 2018.</p> <p>7 <b>A. And what are you asking?</b></p> <p>8 Q. Where is that from?</p> <p>9 <b>A. Give me a second. I don't know. I'm 10 going to have to look at my -- what I downloaded 11 because I don't see it in these datasets.</b></p> <p>12 Q. So you're not sure what that statistic -- 13 where that statistic comes from?</p> <p>14 <b>A. Correct.</b></p> <p>15 Q. And you note that the NSSF report that 16 we've been looking at deals with production, correct?</p> <p>17 <b>A. Correct.</b></p> <p>18 Q. And that sentence deals with ownership, 19 right?</p> <p>20 <b>A. Correct.</b></p> <p>21 Q. So those are two different things?</p> <p>22 <b>A. They are.</b></p> <p>23 Q. And the number of firearms produced is 24 not the same as the number of firearms owned?</p> <p>25 <b>A. Not necessarily. I mean, we're probably</b></p>	<p>Page 124</p> <p>1 the number of weapons that have been sold -- excuse 2 me, AR-15s that have been sold since 2022, correct?</p> <p>3 <b>A. Correct.</b></p> <p>4 Q. And that would have been in the first 5 four and a half months of 2023?</p> <p>6 <b>A. Yes.</b></p> <p>7 Q. There were at least a million AR-15s 8 sold?</p> <p>9 <b>A. I don't know. I'll have to look at it.</b></p> <p>10 Q. Well, do you remember the math we did 11 earlier?</p> <p>12 <b>A. I do and it came out to 33.</b></p> <p>13 Q. So in order for there to have been 34 as 14 of April 12, 2023, there would have had to have been 15 at least a million more AR-15s sold?</p> <p>16 <b>A. Well, if you believe the estimates, sure. 17 I mean...</b></p> <p>18 Q. Do you believe the estimates?</p> <p>19 <b>A. I mean, is there a possibility that that 20 number should be 33 instead of 34? Sure. I mean, I 21 still think there's at least 34 million AR-15s in the 22 U.S. owned by citizens the day I wrote this report. 23 So, you know, the numbers are conservative and they're 24 not universal. I mean, we don't know how many 25 firearms were owned prior to the time that NSSF</b></p>

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1 started collecting that data. We don't know.  
2 And they say 8 to 9 million, there's  
3 other people who say -- most of the reports that I've  
4 read actually have that number much higher. So --  
5 Q. You don't --  
6 A. It's an estimate.  
7 Q. You don't cite those reports?  
8 A. I'm sorry. What?  
9 Q. You don't cite those reports though?  
10 A. No.  
11 Q. Your best estimate is 8 to 9 million?  
12 A. Yes.  
13 Q. Okay. And your best estimate is a  
14 million were sold in the first four and a half months  
15 of 2023?  
16 A. No, that there are 34 million at the date  
17 I wrote this report.  
18 Q. And what's that based on?  
19 A. It's based on more my looking at the data  
20 and the information.  
21 Q. The data that you cited in your report?  
22 A. Correct.  
23 Q. Which we totaled up on the high end to be  
24 33 million, correct, through 2022?  
25 A. Yes.

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1 Q. Okay. How did you learn about the  
2 English report?  
3 A. I think that I first saw it on a forum.  
4 I mean, I've seen it a couple different places before  
5 I started doing this report, and so I had to go and  
6 look at -- look for that report specifically once I  
7 started to write this report. But I -- I'm not sure  
8 that -- I don't have a documentation of when I first  
9 was -- became aware of it because I wasn't retained  
10 when I first became aware of it.  
11 Q. And where did you learn of the 2020 NSSF  
12 Industry Intelligence Report?  
13 A. I could not tell you that. I knew it  
14 before I was retained on this case. I look at the  
15 industry report more out of curiosity I guess than  
16 anything else. I mean, no one pays me to look at  
17 them, but I go and look at them on a regular basis.  
18 Q. If I have a -- if I own -- if I buy,  
19 let's do that. If I buy an AR-15 in 1990, is it true  
20 that I necessarily own it today?  
21 A. No.  
22 Q. Why not?  
23 A. Because you could have sold it.  
24 Q. Could it have jammed?  
25 A. Could have jammed?

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1 Q. Could it have ever jammed?  
2 A. Sure.  
3 Q. Could the jam have been so bad that I  
4 threw it in the trash?  
5 A. I hope not. You know, I mean, firearms  
6 shouldn't just be disposed of in the trash. I think  
7 somebody got in trouble for doing that a couple years  
8 ago.  
9 Q. Could it have been disposed of in a  
10 better way?  
11 A. Sure.  
12 Q. So it doesn't necessarily mean that if a  
13 weapon was produced in 1990, it is still owned today?  
14 A. That's correct.  
15 Q. Okay.  
16 A. In fact, probably a lot of them are not  
17 owned. I mean, if there is -- maybe you can answer  
18 this question. If the City and County of Denver has a  
19 firearm in their evidence locker that's been  
20 surrendered and they have it, I mean, it's not owned  
21 by a civilian. It's owned by a governmental entity  
22 so, yeah, there's all kinds of places firearms can end  
23 up that are not in civilian possession; destroyed,  
24 turned in, sold to somebody else. Somebody with  
25 firearms could have moved out of the country. I don't

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1 know how that works, but, sure, I don't know.  
2 Q. I do everything I can to avoid property  
3 law so. Okay. The second half of the sentence we  
4 were just looking at says conservatively there are at  
5 least 34 million AR-15s owned by US citizens. Where  
6 are you getting the US citizens part of that from?  
7 A. I mean, that's my opinion based on the  
8 data that I've looked at. I mean, these are people  
9 who are -- I mean, are they owned by people who are  
10 not US citizens in America? There's probably some  
11 small portion. But 4473s, I mean you have to -- I  
12 don't know the immigration law issues on it, but if  
13 you're not a US citizens, there is some path to own a  
14 firearm. I don't know what it is and I know it's a  
15 very small percentage.  
16 Q. I'm just interested in why you suddenly  
17 switched to US citizens there.  
18 A. Well, we're talking about America. I  
19 mean, even in my citation of the numbers of AR-15s,  
20 I'm careful to make sure that I pay attention to the  
21 fact that there's import and export, and that those  
22 are now in the U.S. And, whether they're manufactured  
23 or imported in the U.S., when they come into the U.S.  
24 or they're manufactured in the U.S. and not exported,  
25 I don't think it's a huge leap to assume that those



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1 get sold to American citizens.

2 Q. Let's take a look at this. The

3 Washington Post survey that you relied on, is that

4 limited to US citizens?

5 A. Nope.

6 Q. The English survey that you relied on,

7 was that limited to US citizens?

8 A. I don't know. I don't know. I'd have to

9 look at it.

10 Q. And the -- we already covered the NSSF

11 Intelligence reports don't address ownership, only

12 production, correct?

13 A. Correct.

14 Q. So by definition, we don't know who owns

15 the produced firearms referenced in that report?

16 A. Correct.

17 Q. So we don't know if those are US

18 citizens?

19 A. Correct.

20 Q. Okay. You say, "The vast majority are

21 sold with at least one 20 or 30-round magazine." How

22 did you reach that conclusion?

23 A. If you go to the manufacturer's websites

24 and you look at firearms, they list what the magazine

25 it's provided with is. And with AR-10s, it's 20 and

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1 with AR-15s its 30. And that's what's on the

2 manufacturer's website as they are sold in the

3 restricted states. Colorado and California, sometimes

4 those magazine are pulled by distributors, sometimes

5 they're pulled by the manufacturer. Sometimes they're

6 pulled by the dealers and swapped out for either no

7 magazines or lower capacity magazines.

8 Q. You said earlier that the standard

9 capacity for an AR-15 is 30 rounds, correct?

10 A. Yes.

11 Q. Standard capacity magazine for an AR-15

12 is not 20, correct?

13 A. Correct.

14 Q. Okay. But you're telling me that at

15 least some of them are sold with 20-round magazines,

16 correct?

17 A. There can be AR-15s that are sold with

18 20-round magazines, sure.

19 Q. Just like there can be AR-15s sold with

20 10-round magazines?

21 A. I mean, I don't know that I've seen that

22 on a manufacturer's websites. There might be some,

23 sure.

24 Q. But you have seen AR-15s on

25 manufacturer's websites sold with 20 round magazines?

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1 A. There are some, yes.

2 Q. Okay. How do I know in this sentence --

3 well, let's back up. Do you have any sales data to

4 confirm that the vast majority of those rifles were

5 sold with at least one 20 or 30-round magazine?

6 A. I think you're going down a rabbit hole.

7 I mean, the fact is the manufacturer. When you go to

8 Daniel Defense and you look at their firearms and

9 their AR-15s, most of them come with a 30-round

10 magazine. I mean, that's what the manufacturers sell

11 them with. Are there deviations to that? Yes. I

12 already answered that. But when they -- the most

13 prevalent magazine sold on AR-15 is a 30-round

14 magazine.

15 Q. And that's based on your personal

16 experience?

17 A. It's based on data from the

18 manufacturers, my personal experience, sure. I mean,

19 there's nothing that refutes that. If you've got

20 something that refutes that, I'd love to see it

21 because I don't think it exists.

22 Q. I mean, just in what data from the

23 manufactures you have.

24 A. Their websites. They have websites. You

25 can look it up and they'll have the information.

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1 Q. So the data that you have to confirm that

2 the vast majority of those rifles were sold with at

3 least one 20 or 30-round magazine is your personal

4 visits to manufacturer's websites?

5 A. And seeing firearms in gun shops and

6 seeing firearms at trade shows and yes, all of that.

7 Q. Okay. It's not based on statistics?

8 A. No.

9 Q. If I go to Daniel Defense's website, can

10 I buy a California compliant AR-15?

11 A. Sure.

12 Q. So how does that --

13 A. Well, I'm sorry. I misspoke. You can

14 see it on their website as a California compliant.

15 You can't buy it from them. You can only buy it from

16 the FFL dealer in California.

17 Q. Right. So how does that relate to what

18 you were saying earlier that your source is what is

19 offered on the manufacture's websites?

20 A. Up until these magazine capacity laws

21 came in, they all said 30 and now the manufacturers

22 have been forced to source lower capacity magazines to

23 meet the laws in the states where they distribute

24 their firearms.

25 Q. So you're --

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1           **A.**    It's the law that has created what you're  
2 asking.

3           **Q.**    So here we go. This is helpful. There  
4 are 34 million AR-15s owned by US citizens and the  
5 vast majority of those rifles were sold with at least  
6 one 20 or 30-round magazine. And the source for that  
7 is your experience visiting manufacturer's websites  
8 and gun shows, correct?

9           **A.**    Yeah, not necessarily gun shows. I  
10 haven't been to a gun show in like 20 years. I just  
11 don't go to them but I have been to industry trade  
12 shows often, yes. There is a difference.

13          **Q.**    Yep. So industry -- your source for that  
14 is manufacturer's websites and industry trade shows?

15          **A.**    Yes.

16          **Q.**    Your personal experience visiting those  
17 websites and attending those trade shows?

18          **A.**    Yes.

19          **Q.**    Okay.

20          **A.**    And seeing firearms at retailers, seeing  
21 firearms on price tables. I mean, there's a lot of  
22 sources for that. It's not just one.

23          **Q.**    And all of those sources are your  
24 personal experience?

25          **A.**    They are.

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1           **Q.**    Something you said earlier was that now  
2 if you go to these manufacturer's websites, they are  
3 offering weapons -- AR-15s with Colorado compliant  
4 magazines, correct?

5           **A.**    Yeah. I mean, if you go to a website and  
6 some just don't list anything and some will list the  
7 various states that are, you know, have magazine  
8 capacity. I mean, Colorado has a magazine capacity  
9 law, but I don't think that we as yet have a law that  
10 restricts other features of firearms. There are a lot  
11 of states that do and so those features sometimes they  
12 can't be sold in one state. They can be sold in  
13 another state. This is all something that's come  
14 about as a result of laws that have been enacted that  
15 restrict capacity or features.

16          **Q.**    This is what I'm getting at here, and  
17 again we may have an analytical gap. Your statement  
18 in your report is present. At present there are  
19 conservatively at least 34 million AR-15s owned by US  
20 citizens, and the vast majority of those rifles were  
21 sold with at least one 20 or 30-round magazine. You  
22 indicate that's because if you go to a manufacturer's  
23 website, that's what they're offering; 20 or 30 round  
24 magazine. But then you indicate that that's not the  
25 case because of these magazine limitations laws.

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1           **A.**    You're misconstruing that.

2           **Q.**    Okay. So clear it up for me.

3           **A.**    How many states have a magazine capacity  
4 law? I don't know the number, but it's not all of  
5 them. It's a portion of them. So the magazines that  
6 are sold in the state or the firearms that are sold in  
7 the states without magazine capacity laws where the  
8 AR-15 is concerned, they still come with a 30-round  
9 magazine. The states that have a capacity  
10 restriction, those lower capacity restrictions  
11 sometimes the manufacturer's supply those firearms  
12 with a different capacity magazine. Sometimes they  
13 leave it up to the distributor. Sometimes they leave  
14 it up to the dealers.

15          **Q.**    Are there -- how do you know that someone  
16 in a state without a magazine restriction isn't  
17 choosing the 10-round option when they purchase  
18 from -- go to a website?

19          **A.**    So most firearms go from the manufacturer  
20 to a distributor, and then the dealers buy from those.  
21 If you go into a gun store and you say, hey, counter  
22 guy, show me what firearms you can get. I mean, most  
23 of them, there are restrictions that pop up. You're  
24 in the a capacity limit state, and you can only order  
25 these firearms.

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1                           **The people who sell firearms in states**  
2 **that aren't capacity restricted, they do not go to any**  
3 **kind of measure to say, oh, we're going to sell**  
4 **Connecticut or Colorado or California or Washington**  
5 **guns. They sell the ones that are the standard**  
6 **capacity, and typically there is some kind of a**  
7 **surcharge from some manufacturers to reduce the**  
8 **capacity.**

9           **Q.**    So I just pulled up the -- I was just  
10 looking at the Daniel's Defense website and I can buy  
11 a Colorado compliant or I can be connected with a  
12 dealer that will sell me a Colorado compliant magazine  
13 and I can choose a California compliant magazine. I  
14 assume that's a 15-round in the first case and a  
15 10-round in the second case. How do you know that I  
16 don't prefer the 10 round?

17          **A.**    If you go into a gun store in Colorado  
18 and you can buy a California compliant firearm, that  
19 would be pretty rare.

20          **Q.**    Okay.

21                   **MR. ARRINGTON:** This is Barry. You've been  
22 going for quite awhile now, and it's past lunchtime.  
23 I suggest that we take a lunch break unless you're  
24 about to wrap up. It doesn't sound like you are.

25                   **MR. BAUMANN:** I think lunch break is a good

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1 idea. And, yeah, let's do it now. And, Barry, I  
 2 think I probably have an hour left.  
 3 (A recess was taken from 12:30 p.m. to 1:31  
 4 p.m.)  
 5 Q. (BY Mr. Baumann) So before we broke, I  
 6 think we had just taken a look at the sentence that  
 7 starts, "AR-15s owned by US citizens," right?  
 8 A. We were somewhere in there.  
 9 Q. Let's go ahead and move on to the next  
 10 one. "As magazines are a commodity that is sold  
 11 without serialization or tracking, the total number of  
 12 magazines that are above 15 rounds is difficult to  
 13 measure." What did you try?  
 14 A. As far as to find a number? Oh, I tried  
 15 everything. I looked at the NSSF. I talked to  
 16 Magpul. I talked to my contact at FN. I tried to  
 17 look at the NRA, even the, you know, some of the  
 18 firearms policy coalition and various groups on both  
 19 sides of the debate to see if there was any consistent  
 20 information that looked to me to be reliable.  
 21 And so, I mean, Magpul says 350 million  
 22 is their guess, and that's their guess. And, you  
 23 know, in the NSSF report that we've been looking at,  
 24 there's also some numbers. It's a big number, but it  
 25 is difficult to pin down specifically.

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1 Q. And it sounds like you tried everything.  
 2 A. Well, I don't know if I tried everything.  
 3 I spent, you know, a good amount of time trying to  
 4 find that number.  
 5 Q. Okay. So let's move on there and take a  
 6 look at that next sentence, which I think is one of  
 7 the sources. "However, the 2018 NSSF magazine chart  
 8 estimates 71 million handgun magazines and 11-plus  
 9 rounds, 9.4 million rifle magazines from 11 to 29  
 10 rounds, 20 being the most common and 15 being the  
 11 second most common, and 79 million rifle magazines of  
 12 30-plus rounds." Is that right?  
 13 A. Yes.  
 14 Q. Okay. Let's take a look at that. Let's  
 15 take a look at what has been marked as Exhibit 11.  
 16 And you say this is the 2018 NSSF magazine chart.  
 17 Let's take a look at page seven. Is this the chart  
 18 you're referring to?  
 19 A. Yes.  
 20 Q. When you drafted that sentence, did you  
 21 know you were referring to the 2020 Industry  
 22 Intelligence Report that you had relied on earlier?  
 23 A. I honestly don't know. I don't know if I  
 24 pulled this data out as a separate report or it's the  
 25 2020 report. Probably 2020 report.

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1 Q. But you cite it a little bit differently  
 2 here?  
 3 A. Mm-hm.  
 4 Q. Okay. But this -- the data for this  
 5 sentence comes from the chart on the bottom of page  
 6 seven, correct?  
 7 A. Yes.  
 8 Q. Now, I want to go back to -- so you'll  
 9 have to forgive me here. I feel like this sentence is  
 10 missing a verb. So the 20 -- let's look at the first  
 11 one. "The 2018 NSSF magazine chart estimates 71  
 12 million handgun magazines of 11-plus rounds." Are  
 13 owned? Have ever existed?  
 14 A. The chart is possession, but I don't know  
 15 how you estimate possession because of the factors  
 16 we've talked about before. That's why I'm saying it's  
 17 difficult. So I don't know exactly where this data  
 18 comes from. You know, I assume it's industry  
 19 estimates based on the information that's on this page  
 20 but it's difficult. I mean, just going to tell you,  
 21 it's difficult.  
 22 Q. Okay. How can you interpret this chart?  
 23 A. Meaning what?  
 24 Q. There's a figure, let's use the pistol  
 25 magazines of 11-plus rounds.

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1 A. Mm-hm.  
 2 Q. And I see a figure that's 71.2 million.  
 3 A. Right.  
 4 Q. How do you interpret -- 71.2 million  
 5 what?  
 6 A. Again, it's difficult. I don't know if  
 7 that means in 2018 or if it means were in possession  
 8 across -- what is that? 28 years? I mean, it would  
 9 seem to be that it should be what was in possession of  
 10 2018, but that's -- the chart does not say that  
 11 specifically.  
 12 Q. What did you mean when you cited that in  
 13 your report?  
 14 A. I am literally just regurgitating what's  
 15 on the chart.  
 16 Q. And you don't know what the chart is  
 17 referring to?  
 18 A. From what I could determine, nobody was  
 19 exactly sure that I talked to at NSSF if that meant in  
 20 2018 or what it meant. I mean, there's -- there is  
 21 something missing in the chart. In my opinion.  
 22 Q. I mean, I think it seems pretty clear  
 23 that from 1990 to 2018 there were 71.2 million pistol  
 24 magazines possessed by U.S. consumers. Do you  
 25 disagree with that?

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1 A. I don't think that makes any sense.

2 Q. Why?

3 A. Because those numbers are just too high.

4 I mean, so are you saying that you believe the chart

5 says for a period of 28 years, 71 million magazines

6 were owned over a period of 28 years? That's a weird

7 way to compile data. This is what the chart says, but

8 I think it's got some -- it's got some errors in it as

9 far as specificity as to what those numbers actually

10 mean.

11 Q. Based on this chart, are you able to

12 indicate how many 16-plus round magazines were

13 possessed in 2018?

14 A. Well, if you believe this chart is

15 accumulative up to 2018, then, yes, you could figure

16 that out from the math. I mean, when you say over --

17 you said over 15?

18 Q. 16-plus rounds magazines.

19 A. No, you can't because they didn't break

20 it that way.

21 Q. So this chart is insufficient to allow

22 you to say how many 16-plus round magazines were

23 possessed in 2018?

24 A. Correct.

25 Q. Or were possessed from 1990 through 2018

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1 if that's what the chart shows?

2 A. Correct.

3 Q. So we're not sure whether this chart

4 tells us how many magazines total even were possessed

5 as of 2018, right?

6 A. No.

7 Q. You say here that 20 rounds is the most

8 common and 15 is the second most common. Can you show

9 me where you're getting that information from?

10 A. Oh, you mean between the 11 and 29?

11 Q. So it says here that -- from your report,

12 this is Exhibit 1. It's right 9.4 million rifle

13 magazines from 11 to 29 rounds, 20 being the most

14 common, 15 being the second most common.

15 A. So just looking at what is produced and

16 what magazines are out there, that's where that comes

17 from. That's my experience in seeing magazines,

18 looking at magazines, talking to Magpul, and looking

19 at what is actually sold.

20 Q. When you say looking at what is actually

21 sold, do you mean what you've seen sold?

22 A. Correct.

23 Q. And I just want to be very clear. And,

24 again, I'm not -- this is to just make sure that the

25 record is clear. You have not requested or received

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1 sales data from any of these manufacturers, correct?

2 A. Correct.

3 Q. Are you aware of any firearms that can

4 take a 20-round magazine but cannot take a 15-round

5 magazine?

6 A. No.

7 Q. We looked at this a little bit earlier.

8 There's this, on page seven of Exhibit 11, which is

9 the same page we're looking at and where this

10 sentence's data was pulled from. There's some

11 language there that indicates the source, correct?

12 A. You mean the small print at the very

13 bottom?

14 Q. Small print at the very bottom.

15 A. Yes.

16 Q. And we weren't sure whether that applied

17 to the chart at the top, but is it fair to say that at

18 minimum it applies to this chart at the bottom,

19 correct?

20 A. Well, there's three different sources

21 there. So it is the magazine chart, industry

22 estimates, and based on what they say on the first

23 page, the top chart is just the ATF AFMER and the US

24 ITC. I don't know.

25 Q. Have you reviewed what the ATF AFMER

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1 looks like?

2 A. I have seen samples of it, but I have not

3 reviewed it, no. No.

4 Q. Let's take a look.

5 MR. BAUMANN: Barry, this is Exhibit 47 in

6 your folder.

7 (Deposition Exhibit 12 was marked.)

8 Q. Do you recognize this document?

9 A. I have seen this, yes.

10 Q. And what is it?

11 A. It is ATF Form 5300.11 from April of

12 2019.

13 Q. And this is the annual firearms

14 manufacturing and exportation report, correct?

15 A. Correct.

16 Q. And so this is what firearms

17 manufacturers fill out and send to the ATF annually,

18 correct?

19 A. Yeah.

20 Q. And based on what we read earlier, this

21 is what the NSSF uses to compile at least some of the

22 information in the 2020 Industry Intelligence Report?

23 A. Correct.

24 Q. Does this form ask for anything about

25 magazine size?

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1 **A. Let me look. I don't see anything.**  
2 **Obviously, I've not read the whole thing, but I don't**  
3 **see anything if it does.**  
4 Q. And does this form ask for the total  
5 number of modern sporting rifles sold?  
6 **A. No.**  
7 Q. Okay. So if we look back at the chart we  
8 were looking at earlier, it says source ATF AFMER, but  
9 we now that the two things on page seven of Exhibit 11  
10 aren't part of the AFMER, correct?  
11 **A. I'm sorry. Say that again?**  
12 Q. I apologize. That was poorly phrased.  
13 The two charts on page seven of the 2020 NSSF Industry  
14 Intelligence Report are modern sporting rifle  
15 production, plus imports less exports, correct?  
16 **A. Correct.**  
17 Q. And total number of magazines, correct?  
18 **A. Correct.**  
19 Q. By magazine size, correct?  
20 **A. Correct.**  
21 Q. And neither of those are tracked on that  
22 AFMER form?  
23 **A. Give me one second. Correct.**  
24 Q. And we know that the US ITC is just  
25 imports and exports?

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1 **A. Correct.**  
2 Q. And that means that the total number of  
3 modern sporting rifles and the total number of  
4 magazines on page seven, all of this must come from  
5 industry estimates, correct?  
6 **A. That is the logical conclusion.**  
7 Q. Is that the conclusion you would draw?  
8 **A. It's the logical conclusion. I'm not**  
9 **going to tell you that's absolutely correct, but it is**  
10 **the conclusion that I would draw, yes.**  
11 Q. And you don't know if that's correct or  
12 not?  
13 **A. I don't know.**  
14 Q. Because you don't know how the data on  
15 this page was compiled?  
16 **A. Correct.**  
17 Q. And the data on this page is the data  
18 you've relied on in your report?  
19 **A. Yes.**  
20 Q. Sorry. Let me know if you need me to  
21 spread out of your way at all.  
22 **A. No, you're fine.**  
23 Q. Okay. The next sentence in Exhibit 1,  
24 your report here, is that, "Magpul, the largest  
25 manufacturer of AR-15 magazines, and who also produces

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1 Glock and AR-10 magazines estimates the total  
2 magazines of 15-plus rounds at 350 million." Is that  
3 correct?  
4 **A. Yes.**  
5 Q. And is that based -- I think you said a  
6 minute ago that you had some conversations with  
7 Magpul. Is that right?  
8 **A. Yes. That number is direct communication**  
9 **from Duane Liptak to me and he is I think the**  
10 **executive vice president of Magpul. I think that's**  
11 **his title.**  
12 Q. Can you spell his name, please?  
13 **A. D-U-A-N-E, L-I-P-T-A-K.**  
14 Q. And when did you speak with Mr. Liptak?  
15 **A. His reply to me literally was the day of**  
16 **this report.**  
17 Q. So that was April 12, 2023?  
18 **A. Correct.**  
19 Q. And what did you ask him?  
20 **A. Pretty much without question what that**  
21 **sentence says. Do you have any idea how many**  
22 **magazines are in the United States over 15 rounds?**  
23 Q. And do you know how he reached that  
24 estimate?  
25 **A. He said that their estimate is 350**

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1 **million. And, nope, I do not know his methodology.**  
2 Q. Okay. How do you know the Magpul is the  
3 largest manufacturer of AR-15 magazines?  
4 **A. I think the production numbers speak for**  
5 **themselves.**  
6 Q. You've seen the production numbers?  
7 **A. I have seen the production numbers of**  
8 **Magpul compared to the second and third, yes.**  
9 Q. Do you know where you've seen those  
10 numbers?  
11 **A. Couldn't tell you. And I think probably**  
12 **a large portion of that is because all of our armed**  
13 **services use PMAGs and so with those large contracts,**  
14 **it really kicks them up a notch.**  
15 Q. Do you know if they're the largest  
16 manufacturer of AR-15 magazines sold in the civilian  
17 market?  
18 **A. I don't know the breakdown.**  
19 Q. Not to be -- not to sound like a broken  
20 record, but I have my same missing verb problem here.  
21 "The total number of magazines of 15-plus rounds at  
22 350 million." Total number produced? Owned?  
23 Currently possessed? Do you know?  
24 **A. Don't know. I mean, we talked about**  
25 **that. I mean, magazines degrade. I mean, they get**

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1 thrown away. They get lost. They got sold, traded.  
2 All we can know is how many really were put into  
3 commerce at one point. Big Macs get tracked by  
4 McDonald's but do they all get eaten? I don't know.  
5 Q. Well, this is a little bit different,  
6 right, because we've talked a magazine degradation?  
7 A. Sure, but I mean a Big Mac sitting on the  
8 side of the road would degrade over time and you  
9 wouldn't eat it.  
10 Q. Now we have fast food nation. Wasn't  
11 there a documentary about this at some point? About  
12 how long does the --  
13 A. I should probably just skip that analogy.  
14 Q. You would agree though that that could be  
15 two very different things, right? If it is 350  
16 million magazines that have ever been produced as  
17 opposed to 350 magazines that are currently owned,  
18 those could be -- those are two vastly different  
19 things?  
20 A. Sure. If we say the average person owns  
21 five magazines for an AR-15 and there's 16 million  
22 people that own them, you can do that simple math.  
23 It's 80 million, right?  
24 Q. When was the first detachable magazine of  
25 15-rounds produced?

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1 A. That's in a different report for a  
2 different case and I'm not sure I can remember it.  
3 You're looking at the mini-14 as produced by Ruger,  
4 and then the AR-15, the ArmaLite rifle as produced by  
5 ArmaLite as the first two that came out that were over  
6 15 rounds, and you could probably even actually take  
7 that number down lower. It's probably 10.  
8 Q. When was the ArmaLite first introduced?  
9 A. We're looking in the '60s and I don't  
10 have the notes right in front of me because it wasn't  
11 in my report. But that rifle first went into the  
12 design in the late '50s and was definitely used in  
13 Vietnam and Korea. So there's some crossover in terms  
14 of when it hit the civilian market, when it hit the  
15 military market, etc.  
16 And I don't know if you know the history,  
17 but at one point ArmaLite owned the patent and then  
18 Colt owned the patent and then Colt had other people  
19 produce it and now there's 100 of them.  
20 Q. So you would agree with me that if this  
21 sentence is -- so you don't know whether this sentence  
22 means the total number of magazines of 15-plus rounds  
23 ever produced is 350 million?  
24 A. I don't know.  
25 Q. And so if that does mean the total number

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1 of magazines ever produced, that would date back to  
2 potentially the '60s?  
3 A. Sure. And, you know, what's interesting,  
4 I mean, it's -- maybe a side note but at one point in  
5 '86, I bought 300 magazines that had been discarded  
6 that were to be thrown away, and I refurbished them.  
7 I rebuilt them in 20s and 30s and sold them. So there  
8 are companies that take those discarded magazines and  
9 put those back into circulation after rebuilding them.  
10 But I know that there's a ditch at a  
11 certain match that we go to that has some magazines  
12 over the hill because people -- their magazines  
13 malfunction, they get made, they throw them over the  
14 hill. Nobody goes and finds them because there's  
15 rattlesnakes. So, yes, there's a wide parameter of  
16 things that could be dealt with.  
17 Q. Does that 350 million figure include the  
18 military?  
19 A. I don't know.  
20 Q. Does that include law enforcement?  
21 A. It should.  
22 Q. But do you know?  
23 A. I don't know.  
24 Q. Fifteen round magazines are legal in  
25 Colorado, correct?

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1 A. Correct.  
2 Q. So what does Magpul estimate is the total  
3 number of 16-plus round magazines?  
4 A. In Colorado?  
5 Q. Whatever the description is there, I'm  
6 asking you instead of 15-plus, I'm asking you 16-plus.  
7 A. I don't know. That was their breaking  
8 point. I mean, they make 20 and 30-round magazines.  
9 It may be the same number but I can't answer it.  
10 Q. But you don't know because the only  
11 number they gave you was 15-plus?  
12 A. Correct.  
13 Q. Which includes 15-round magazines?  
14 A. It should, yes.  
15 Q. Okay. Let's do the next sentence is,  
16 "The 2018 NSSF estimate of semiautomatic handguns is  
17 89 million." Well, let's -- yeah, let's try and solve  
18 our missing verb problem again there. 89 million  
19 what?  
20 A. I mean, again, we can go back and look at  
21 the chart, and all I can tell you is what the numbers  
22 say. Let's see. I think I would actually have to get  
23 a calculator out to add these up because there's  
24 several different charts in here.  
25 Q. Tell us which charts you're looking at.

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1           **A.** Well, you have the U.S. Firearm  
2 Production and they have --  
3           **Q.** What page are you on?  
4           **A.** I'm on page two. And so they have  
5 pistols and revolvers, and then total handguns. And  
6 so if you add up all of the pistols in that time frame  
7 from '91 to 2018, it's 54, 54 million. That would be  
8 pistols. And the way that they have categorized this,  
9 they have differentiated semiautomatic pistols from  
10 revolvers. Again, it's semantics so their combined  
11 total handgun is 68 million, and then you'd have to go  
12 look at the caliber because they have a different  
13 chart for caliber and they have --  
14           **Q.** Let's stop there for a second. Where are  
15 you getting the 89 million semiautomatic handguns?  
16           **A.** The same as they have for AR-15s, they  
17 have a number that was owned prior to the 1991 and  
18 that is on their website.  
19           **Q.** So you would agree it's not included in  
20 this report?  
21           **A.** I don't know. I'll have to keep looking  
22 through the report, see if it's in here or not.  
23           **Q.** And which one of these columns is small  
24 handguns?  
25           **A.** On the page two, the ones that says

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1 pistols.  
2           **Q.** Are all pistols semiautomatic handguns?  
3           **A.** No. And so they've -- they have  
4 classified in this report revolvers and pistols. And  
5 so they have taken pistols as a subset of handguns  
6 separate from revolvers. Revolvers are -- can be  
7 called handguns. They can be called pistols, so can  
8 semiautomatics. In this report they have separated  
9 pistols from all handguns.  
10           **Q.** Could we go back to what was marked  
11 Exhibit 12, please?  
12           **A.** Okay.  
13           **Q.** Well, actually, I'm sorry. Let's back up  
14 for a second. In that chart we were just looking at  
15 on page two of Exhibit 11, do you see where the source  
16 of this chart is listed?  
17           **A.** The ATF Explosives Annual Firearms  
18 Manufacturing Export Report.  
19           **Q.** Okay. So that's the AFMER?  
20           **A.** That's correct.  
21           **Q.** Now let's go take a look at that AFMER,  
22 which has been marked as Exhibit 12. And I think you  
23 will notice that the categories in section eight on  
24 this report align with some of the categories in the  
25 chart we were just looking at.

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1           **A.** Yes.  
2           **Q.** Incoming pistols, right?  
3           **A.** Yes.  
4           **Q.** Now let's turn to the last page of  
5 Exhibit 12 where the ATF form, the AFMER form defines  
6 pistol. "A weapon originally designed, made, and  
7 intended to fire a projectile bullet from one or more  
8 barrels when held in one hand and having, A, a chamber  
9 or chambers, as integral part/parts or permanently  
10 aligned with the bores and, B, a short stock designed  
11 to be gripped by one hand and at an angle to and  
12 extending below the line of the bores." Is that how  
13 you define semiautomatic handgun?  
14           **A.** Nope.  
15           **Q.** Okay. So pistols as used in chart -- in  
16 the chart on page two of Exhibit 11, which is the 2020  
17 NSSF Industry Intelligence Report, does not list  
18 semiautomatic handguns?  
19           **A.** Correct.  
20           **Q.** So earlier when you say that this is  
21 where you drew the estimate for semiautomatic  
22 handguns, was that correct?  
23           **A.** That's correct.  
24           **Q.** So did you just not realize that they  
25 were defining pistols differently than you defined

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1 semiautomatic handguns?  
2           **A.** No.  
3           **Q.** Okay. Explain what I'm missing here.  
4           **A.** One, these definitions are archaic and  
5 the ATF has not updated them, so that is a whole other  
6 separate issue. But they have called out a revolver,  
7 so a revolver is also a pistol, is also a handgun. So  
8 they called out the subset so every other pistol that  
9 is not a revolver is what they're defining.  
10           **Q.** Okay. If I -- and I'm sorry. I'm sure  
11 you've had plenty of conversations with Mr. Bartozzi,  
12 specificity is really important here. You looked at  
13 pistols in this chart and instead of saying pistols in  
14 your report, you said semiautomatic handguns?  
15           **A.** Yes.  
16           **Q.** Those are two different things, correct?  
17           **A.** A semiautomatic handgun is a subset of a  
18 pistol and they comprise the vast majority of all  
19 pistols handled.  
20           **Q.** But they do not comprise all pistols as  
21 defined in this chart?  
22           **A.** That's accurate.  
23           **Q.** Not all semiautomatic handguns have  
24 16-plus round magazines, correct?  
25           **A.** Correct.

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1 Q. And a 16-round magazine is not necessary  
2 for a semiautomatic handgun to operate.  
3 A. Correct.  
4 Q. Where is this 40 percent being  
5 9-millimeter figure from?  
6 A. There is another chart that shows U.S.  
7 production by caliber, and so that is on page five of  
8 the report.  
9 Q. That one I am going to need to just do my  
10 quick math, and I'll make it very -- so you're --  
11 A. It's actually right here. I'm pointing  
12 to the chart that says 20 years; 9-millimeters, 38,  
13 27. The 25 years is 38.1, the last -- or the five  
14 years from 14 to 18 is 45.88, so it varies over the  
15 time. But that's why I said "about."  
16 Q. But about 40?  
17 A. About 40 percent.  
18 Q. And just to make sure we're looking at  
19 the same thing here on page five, this is pistol  
20 production by caliber, correct?  
21 A. Correct.  
22 Q. Not semiautomatic handgun production by  
23 caliber?  
24 A. Essentially the same number.  
25 Q. Is it the same number?

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1 A. Very close.  
2 Q. But not all pistols are semiautomatic  
3 handguns?  
4 A. That's correct.  
5 Q. You say next, "9-millimeter semiautomatic  
6 handguns are commonly 15 or 17 rounds depending on the  
7 frame size." Is that right?  
8 A. I'm sorry.  
9 Q. I'm sorry. We're back on your report.  
10 This is Exhibit 1?  
11 A. Oh, yes.  
12 Q. Again, this is not gotchya. I want to  
13 make sure I understand this right. 40 percent of  
14 semiautomatic handguns are 9 millimeter?  
15 A. Yes.  
16 Q. And 9-millimeter handguns are commonly 15  
17 or 17 rounds; is that right?  
18 A. Correct.  
19 Q. Did I -- okay. And what is commonly 15  
20 or 17 rounds, what's that opinion based on?  
21 A. Just facts.  
22 Q. Facts as known to you?  
23 A. Facts as in the number of guns sold and  
24 as what the frame sizes are and how many they sell,  
25 yes.

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1 Q. And, again, have you seen data from -- do  
2 you have data from firearm manufacturers that show  
3 this?  
4 A. Well, that's what the NSSF industry  
5 report is. It's a compilation of that data.  
6 Q. I don't see anywhere in this report that  
7 the most common, that 9-millimeter semiautomatic  
8 handguns or pistols commonly come with 15 or 17  
9 rounds.  
10 A. I mean, that's what the frame -- those  
11 two frame sizes are the common frame sizes that, up  
12 until just recently, have been the most common. Don't  
13 know how to -- I don't know how to say it any other  
14 way.  
15 Q. And, again, I'm sorry. I'm not trying to  
16 be difficult. I'm just trying to know what that's  
17 based on. That's based on your personal experience?  
18 A. My personal experience, yes.  
19 Observations, going to the industry trade shows,  
20 knowing what manufacturers sell. I've talked to  
21 Ruger. I can't document when I talked to Ruger  
22 because it's -- we're having a conversation over lunch  
23 or at a range and you ask questions and, yes, there  
24 are high capacity, you know, AR-15s and there are  
25 standard capacity pistol magazines are the ones that

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1 they sell the most. You can ask them. I mean, I  
2 don't know how to tell you that what's in my brain has  
3 gotten there from talking to firearm manufacturers  
4 over the course of 25-30 years.  
5 Q. How are those conversations any different  
6 than the conversation you had with Mr. Liptak from  
7 Magpul?  
8 A. They're similar. It's just I didn't call  
9 Mr. Liptak on the phone and I didn't see him in  
10 person. You know, that's -- there's a difference when  
11 somebody is in person. I have it documented because I  
12 was writing a specific report.  
13 Q. And just to make sure I understand, you  
14 have email correspondence with Mr. Liptak?  
15 A. I would have to go look and see what it  
16 is, but I think it was actually Facebook messenger is  
17 where it came from.  
18 Q. So 9-millimeter semiautomatic handguns  
19 commonly have 15-round magazines, correct?  
20 A. 15 or 17 depending on the frame size.  
21 Q. But some frame sizes are 15, right?  
22 A. Some are 15, some are 17, yes.  
23 Q. Okay. Let's talk -- let's move on to the  
24 next sentence here. "The Glock 17 is the most  
25 prolific handgun in the U.S." What's that opinion



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1 based on?

2           **A. Sales numbers. And Glock puts it out and**

3 **if you look at law enforcement agencies, that's what**

4 **the majority of them use. I mean, you know, there are**

5 **some articles even in the law enforcement journals**

6 **that talk about the production numbers of Glocks**

7 **versus MMPs and CZs and HKs and all the different**

8 **other brands.**

9           Q. So the Glock 17 is popular amongst law

10 enforcement officers?

11           **A. It has -- well, you've got to be careful**

12 **there. Sometimes the agencies force them to use a**

13 **particular again. So it may not be, quote, popular.**

14 **It's just what they have to use. And sometimes they**

15 **choose it themselves.**

16           Q. What's good for the goose is good for the

17 gander and I very much appreciate your specificity

18 with my word choice there. So you say that 60-70

19 percent of law enforcement officer use the Glock 17.

20 That's a better way of saying what I was trying to say

21 there. Is that right?

22           **A. Correct.**

23           Q. So many law enforcement officers use the

24 Glock 17?

25           **A. Correct.**

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1           Q. And the Glock 17 is legal in Colorado,

2 correct?

3           **A. With the standard capacity magazine at**

4 **17, no. It has to be ordered from the manufacturer**

5 **with a 15-round magazine as opposed to the 17-round**

6 **magazine. The Glock 19 comes with a standard 15-round**

7 **magazine, and when this law passed, most gun stores**

8 **ended up selling more 19s than they did 17s.**

9           Q. But law enforcement officers can still

10 possess a Glock 17 with a 17-round magazine, correct?

11           **A. As long as you're not going to charge me**

12 **for making a legal opinion, I think that's what the**

13 **law says, yes.**

14           Q. What percentage of the firearm market

15 excluding law enforcement officers is comprised of --

16 let me back up. Is the Glock 17 the most prolific

17 handgun in the United States if you take law

18 enforcement out of the picture?

19           **A. Most likely, yes.**

20           Q. And what's that opinion based on?

21           **A. Well, if you look at the surveys from gun**

22 **clubs, the number of rentals, national level matches**

23 **where they survey members as far as what firearms they**

24 **use, that's what gets that number that it's at least**

25 **30 percent.**

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1           Q. Do you know what the 17 in Glock 17

2 refers to?

3           **A. Yes.**

4           Q. What?

5           **A. Patent number.**

6           Q. I'm impressed.

7           **A. Do you know what 16 was?**

8           Q. No. It wasn't guns though, right?

9           **A. We'll talk about it later.**

10           Q. I have heard that one miscited more times

11 than I care to count. Let's skip down a couple of

12 sentences here and then we'll go back. Couple

13 sentences down in your report, you say they are sold

14 with two or three standard capacity 17-round

15 magazines. "They" in that sentence is the Glock 17?

16           **A. Yes.**

17           Q. It's possible to buy a Glock 17 with a

18 Colorado compliant magazine, correct?

19           **A. Yes.**

20           Q. And the Glock 17 can operate with the

21 Colorado compliant magazine, correct?

22           **A. Yes.**

23           Q. And you have no data of what percentage

24 of Glock 17s are sold with Colorado compliant

25 magazines, correct?

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1           **A. Correct.**

2           Q. Why does the Glock 17 have a, quote, edge

3 for use as a home or self-defense firearm?

4           **A. The operation is simple.**

5           Q. Elaborate.

6           **A. All the safeties in the Glock are what is**

7 **considered to be passive, and they are not active.**

8 **And so gross motor skills are all that is really**

9 **needed to fire that handgun efficiently.**

10           Q. Is that the handgun you would recommend

11 for use as a home or self-defense firearm?

12           **A. Not necessarily. And probably not,**

13 **actually.**

14           Q. So what do -- I guess, elaborate on what

15 you mean by -- why did you include this sentence?

16 "They have an edge for use as a home or self-defense

17 firearm." An edge over what?

18           **A. An edge over alternative designs.**

19           Q. But they are not necessarily the best?

20           **A. Accurate statement.**

21           Q. Okay. Do you use it as your self-defense

22 firearm?

23           **A. No.**

24           Q. Is a 17-round magazine necessary for home

25 self-defense?

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1           **A. No.**

2           **Q. Okay. Now we're close to the end of this**

3 paragraph here. There's a sentence that starts,

4 "Conservative estimates are that, conservative, and

5 there are certainly close to 100 million handgun

6 magazines in the U.S. that are over 15 rounds." Where

7 are you getting -- well, how did you calculate that?

8           **A. Take a look at the magazine chart.**

9           **Q. Which page?**

10          **A. Page seven of Exhibit 11. It only breaks**

11 **pistol magazines 10 rounds or less and 11-plus rounds.**

12 **But if you look at the manufacturer of after market**

13 **magazines in addition to the pistols that have been**

14 **sold, that they come with two or three, that's where**

15 **you can come up with that 100 million number of**

16 **magazines.**

17          **Q. So you're getting -- you're drawing**

18 **this -- your hundred million dollar number from --**

19          **A. It's not 100 million. It's just 100**

20 **million. Did I mishear what you said?**

21          **Q. We could go back, but I'll just rephrase.**

22 **This sentence, "There are certainly close to 100**

23 **million handgun magazines in the U.S. that are over 15**

24 **rounds." Your source for that is the chart on the**

25 **bottom of page seven of the NSSF 2020 Industry**

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1 Intelligence Report?

2           **A. Not entirely Czech. It's a combination**

3 **of that, plus looking at the production of pistol**

4 **calibers realizing they all come with two magazines,**

5 **and the fact that there are additional magazines that**

6 **are manufactured and sold by Mec-Gar and Wilson and**

7 **PMAG -- or Magpul that makes PMAGs. So they are also**

8 **producing aftermarket magazines. And so, yeah, the**

9 **number is -- I mean 100 million is probably a pretty**

10 **conservative number, almost laughable probably**

11 **conservative. It's probably significantly higher than**

12 **that.**

13          **Q. So the NSSF magazine chart on the bottom**

14 **of page seven of Exhibit 11, does that include**

15 **aftermarket magazines like the ones from Mec-Gar and**

16 **Magpul?**

17          **A. Don't know. There are several magazine**

18 **manufacturers out there that are multimillion dollar**

19 **companies that only make handgun magazines. They're**

20 **making a lot of magazines.**

21          **Q. Is there any reason to believe those are**

22 **not included in these figures?**

23          **A. If you look at this production, if you**

24 **look at this magazine chart and you look at the**

25 **production of magazines realizing that, you know, if**

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1 **you were to say 2.5 magazines come with each pistol.,**

2 **yeah, there's a reason to believe those magazines are**

3 **not included in this chart.**

4           **Q. Because you think it would be much**

5 **higher, a greater number than what's based on this**

6 **chart?**

7           **A. Yes.**

8           **Q. And that's based on your personal**

9 **experience?**

10          **A. Yes.**

11          **Q. You can understand why I'm a little bit**

12 **confused because according to this chart, there were**

13 **71,000,000 11-plus pistol magazines either in 2018 or**

14 **from 1990 through 2018. And we get from that to**

15 **certainly close to 100 million today.**

16          **A. I understand your confusion, but the data**

17 **is -- the data from my opinion is incomplete related**

18 **to magazines in this report.**

19          **Q. So you think we can't rely on this chart?**

20          **A. I think you can rely on it as a bottom**

21 **number but definitely not the top number. And I don't**

22 **have a clue how to tell you to get the top number.**

23          **Q. But you don't think this chart is**

24 **accurate?**

25          **A. I do not.**

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1           **Q. Do you think the NSSF Intelligence Report**

2 **as a whole is accurate?**

3           **A. As a whole I think it's accurate.**

4 **There's obviously some reference and technical things**

5 **that could be cleaned up and how they write the report**

6 **to give it more specificity, but generally I think**

7 **that their numbers are accurate. Sometimes what they**

8 **reflect is maybe not known, but I think the numbers**

9 **themselves are probably accurate.**

10          **Q. So the next sentence is, "That leaves**

11 **approximately 250 million rifle magazines over 15**

12 **rounds." How are you calculating that?**

13          **A. Magpul says there's 350 million, so if**

14 **you take 100 million from 350, you end up with 250.**

15          **Q. Is 15-plus the same thing as over 15?**

16          **A. I think it is, yes. I mean, you know, I**

17 **think those numbers are estimates to some degree and**

18 **so they're not specific numbers. It's not 349-point,**

19 **you know, 445 million. That's not the number. So**

20 **that they're general numbers, they're rounded numbers.**

21          **Q. So we've already established that for the**

22 **350 million number you relied on Magpul's estimate.**

23          **A. Correct.**

24          **Q. And you don't know what that is an**

25 **estimate of?**

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1           **A. Well, I just know that they believe**  
2 **there's 350 million magazines. 350 million magazines,**  
3 **is that in existence? Is that produced? I don't**  
4 **know. It's a big number.**  
5           **Q. Okay. And so if you're using that figure**  
6 **in these last two sentences for the 100 million and**  
7 **the 250 million, again, we don't know whether that's**  
8 **in existence, ever produced, or owned today?**  
9           **A. Correct.**  
10          **Q. So based on your conversation with**  
11 **Mr. Liptak at Magpul, you said 245 -- you decided, it**  
12 **is your opinion that there are 350 million 15-plus**  
13 **round magazines, correct?**  
14          **A. Correct.**  
15          **Q. Then you took that and you turned it into**  
16 **your opinion regarding the number of magazines of**  
17 **16-plus?**  
18          **A. I think you're playing semantics, but I**  
19 **mean I stand by what I wrote. You know, 15 rounds to**  
20 **me would include 15, 16, 17, 18 and over 15 includes**  
21 **only 16 and up. The numbers are going to be almost**  
22 **exactly the same.**  
23          **Q. But there are some number that are**  
24 **included in the Magpul estimate that would not be**  
25 **included in this calculation you do at the bottom of**

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1 paragraph? The 15-round magazines --  
2          **A. It's an approximation, but, yeah, you're**  
3 **right.**  
4          **Q. And you told us that 15-round magazines**  
5 **are common on 9-millimeter semiautomatic handguns?**  
6          **A. They are one of the common counts, yes.**  
7          **Q. So it sounds to me like there are a lot**  
8 **of 15-round magazines.**  
9          **A. There are.**  
10          **Q. So you can understand why I'm a little**  
11 **bit troubled by that disconnect?**  
12          **A. I mean, if you want to -- if you want to**  
13 **go and ask all the manufacturers of magazines how many**  
14 **magazines they made, I mean, all I can do is tell you**  
15 **what my opinion is based on what I think -- you know,**  
16 **what I've seen and what I think they've done.**  
17          **Q. We did.**  
18          **A. Well, in this number, Carbon Arms was**  
19 **never pulled, and I made 10,000 magazines, and they**  
20 **were all 24 rounds. So I mean, there is a missing**  
21 **number -- there is a missing link there. So not all**  
22 **manufacturers are pulled, only some are pulled.**  
23          **Q. So there's a gap in this data?**  
24          **A. Of course, that's why I said these**  
25 **numbers are conservative.**

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1           **Q. And you don't know how Magpul may have**  
2 **tried to account for that gap?**  
3           **A. I don't know.**  
4           **Q. They may have just added a certain number**  
5 **to account for companies like Carbon Arms?**  
6           **A. They may have.**  
7           **Q. Did Mr. Liptak provide any sort of**  
8 **affidavit swearing to that 350 million number?**  
9           **A. No.**  
10          **Q. And so that number was not given to you**  
11 **under oath?**  
12          **A. No.**  
13          **Q. And -- okay. Let's take a look at the**  
14 **very last sentence of that paragraph. "From one-half**  
15 **to one-third of all U.S. gun owners surely own a**  
16 **magazine that is over 15 rounds." What are you basing**  
17 **that on?**  
18          **A. The information that I reviewed and my**  
19 **personal knowledge.**  
20          **Q. And what part of your training allows you**  
21 **to make that determination?**  
22          **A. I mean, my experience in dealing in the**  
23 **firearms industry.**  
24          **Q. And what part of your -- well, let's**  
25 **just -- that's based on your personal experience?**

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1           **A. Yes.**  
2           **Q. And the data that we have just reviewed**  
3 **in this paragraph, correct?**  
4           **A. Correct.**  
5           **Q. Okay. You -- you're a prolific**  
6 **competition shooter, correct?**  
7           **A. I have been, 2020 and recently I had neck**  
8 **surgery so I've not competed as much recently, but**  
9 **yes.**  
10          **Q. And so you're very familiar with**  
11 **competition shooting?**  
12          **A. I am.**  
13          **Q. And would you say you are more familiar**  
14 **with competition shooting than hunting?**  
15          **A. No.**  
16          **Q. Why not?**  
17          **A. I mean, I do both equally. I hunt every**  
18 **year. Probably not going to get tags this year, but**  
19 **I've been hunting since I was a small kid. I probably**  
20 **spent as many days hunting every year as I do**  
21 **competitive shooting.**  
22          **Q. When you go to industry trade shows, do**  
23 **you spend more time looking for hunting firearms or**  
24 **sports shooting firearms?**  
25          **A. I think if you put them into three**

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1 classifications, sports shooting, hunting, and  
 2 self-defense, I look at them all fairly equally. I  
 3 enjoy all of them.  
 4 Q. Is it your opinion that one-half of all  
 5 gun owners own a 16-plus round magazine?  
 6 A. I think my sentence says a third to a  
 7 half own a magazine that is over 15 rounds. I think  
 8 that is -- I think if the actual data and facts were  
 9 able to be known, sure, I think that is an accurate  
 10 statement.  
 11 Q. And you think if we had data, it would  
 12 show that?  
 13 A. I do.  
 14 Q. But we don't have that data?  
 15 A. We don't have a complete picture, no.  
 16 Q. Okay. The most complete picture we have  
 17 is the one you've laid out in this paragraph?  
 18 A. I agree.  
 19 Q. Okay. Why don't we take a short break?  
 20 A. Okay.  
 21 MR. BAUMANN: And then, Barry, I think I'm  
 22 pretty close to done and I can pass the witness.  
 23 MR. ARRINGTON: Okay.  
 24 MR. BAUMANN: Come back in five minutes?  
 25 (A recess was taken from 2:28 p.m. to 2:37

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1 p.m.)  
 2 MR. BAUMANN: Okay. Barry, I think we're  
 3 all back here.  
 4 MR. ARRINGTON: Okay.  
 5 MR. BAUMANN: And I just have one last  
 6 question, a couple last questions just to make sure I  
 7 understand here.  
 8 Q. (BY Mr. Baumann) And, again, I'm looking  
 9 at the bottom of the paragraph in your report that  
 10 we've been spending so much time on that there are  
 11 certainly close to 100 million handgun magazines in  
 12 the U.S. that are over 15 rounds and that leaves  
 13 approximately 250 million rifle magazines over 15  
 14 rounds. I just want to make sure I understand how we  
 15 got there.  
 16 The 100 million magazines was loosely  
 17 based on NSSF data and then supplemented with your  
 18 personal experience. And then you performed some  
 19 subtraction there and you subtracted that 100 million  
 20 from Magpul number?  
 21 A. Correct.  
 22 Q. And that's how you got the 250 million  
 23 rifle magazines, correct?  
 24 A. Yes.  
 25 Q. Okay.

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1 MR. BAUMANN: No further questions. I will  
 2 pass the witness, Barry.  
 3 MR. ARRINGTON: Peter, could you hand him  
 4 the document called, "Firearms shooting resume  
 5 supplement"?  
 6 MR. BAUMANN: Already done.  
 7 MR. ARRINGTON: And can we mark that --  
 8 what's the next exhibit number? Mark that Exhibit 13.  
 9 (Deposition Exhibit 13 was marked.)  
 10 MR. ARRINGTON: I sent you an update and  
 11 then a second update. Can we mark the second update  
 12 the most recent one is 14.  
 13 MR. BAUMANN: I want to make sure that we  
 14 printed the right one. Is this the one that came with  
 15 all --  
 16 MR. ARRINGTON: It came by itself.  
 17 MR. BAUMANN: Okay. We need to print that  
 18 one. We'll need to print that one separately. I  
 19 didn't realize you wanted us to print that as well.  
 20 MR. MAGALOTTI: It's not that?  
 21 MR. BAUMANN: No. This is the one that came  
 22 only by itself, right, Barry?  
 23 MR. ARRINGTON: Yes.  
 24 MR. BAUMANN: Okay. Let's go off the record  
 25 for two seconds and I will be back in two minutes with

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1 that one.  
 2 (A recess was taken from 2:41 p.m. to  
 3 2:43 p.m.)  
 4 MR. BAUMANN: Okay. Barry, I think we are  
 5 ready now.  
 6 MR. ARRINGTON: Thank you, Peter. Can you  
 7 mark that as Exhibit 14, please, court reporter?  
 8 (Deposition Exhibit 14 was marked.)  
 9 EXAMINATION  
 10 BY MR. ARRINGTON:  
 11 Q. Let's start with Exhibit 14. Is that a  
 12 more accurate list of your most recent depositions in  
 13 the last four years?  
 14 A. Yes.  
 15 Q. Okay. If you can just set that one  
 16 aside, let's go to Exhibit 13. Is this the supplement  
 17 for firearm shooting that you referred to earlier?  
 18 A. Yes.  
 19 Q. Is the information in Exhibit 13  
 20 accurate?  
 21 A. Yes.  
 22 Q. Okay. Can you get a congressional  
 23 research report document that I sent to you? Make  
 24 that 15.  
 25 (Deposition Exhibit 15 was marked.)

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1 Q. So if you could take a look at Exhibit 15  
2 on the second page, I believe, the first two the NSSF  
3 report, it might take you awhile, the report is small.  
4 But if you could take a look at that and when you find  
5 24 million AR-15 estimate, let me know.

6 A. I think I found it. It says AR and AK  
7 type rifles in circulation is the bold and there's a  
8 paragraph below it. Yes.

9 Q. Can you read that into the report,  
10 please?

11 A. The whole paragraph?

12 Q. No, just where it talks about referring  
13 to the NSSF. Well, hold on for just a sec. So are  
14 you familiar with the Congressional Research Service?

15 A. No. I've not seen this.

16 Q. So this is the Congressional Research  
17 Service report on proposed assault weapon ban dated  
18 August 24, 2022. When I say "this", I mean  
19 Exhibit 15.

20 A. Okay.

21 Q. And on page two, Congressional Research  
22 Service says, "According to the National Shooting  
23 Sports Foundation, NSSF, from 1990 through 2020,  
24 nearly 24.5 million AR and AK tagged rifles were  
25 introduced into the civilian gun stock." Does that

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1 refresh your recollection about whether that means  
2 guns that are existing now or guns that have been  
3 introduced into the civilian gun stock from 1990 to  
4 2020?

5 A. Yeah, I mean that's --

6 MR. BAUMANN: Object to form.

7 THE WITNESS: I mean, from this report and  
8 we're looking at Exhibit 15, yeah, that's what it  
9 says. That over the course of 30 years, 24.5 million  
10 AR and AK rifles were introduced. So I mean, I guess  
11 it's 31 years.

12 Q. (BY Mr. Arrington) Okay. And then it  
13 says in 2020 alone nearly 17 million firearms were  
14 introduced into the US civilian gunstock of which an  
15 estimated 2.8 million were AR or AK type rifles." Is  
16 that consistent with your understanding?

17 A. Yes.

18 Q. And of course there's the issue of --  
19 well, let me just ask you this. The Congressional  
20 Research Service is quoting the NSSF data in its  
21 report to Congress. Let me just ask you this, is the  
22 NSSF research sort of industry standard for obtaining  
23 data of this type?

24 MR. BAUMANN: Object to form.

25 THE WITNESS: Yes.

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1 Q. (BY Mr. Arrington) Is it considered  
2 generally reliable by those who obtain -- let me back  
3 up. Is NSSF data such as that we just talked about  
4 considered generally reliable in the firearms  
5 industry?

6 A. I think, yes, but also acknowledging the  
7 caveats that we spoke about in my direct testimony  
8 that their numbers are conservative. There are other  
9 firearms that don't get collected in the NSSF numbers.

10 Q. For example NSSF differentiates between  
11 AR-15 rifles and AR-15 pistols, which is not the same  
12 thing, correct?

13 A. Correct.

14 Q. Can you tell me the difference?

15 A. Yes. And granted, this is an ATF issue  
16 that's currently having issues and being litigated.  
17 But as the ATF defines a pistol, that is a barrel that  
18 is under 16 inches and does not have a stock. We  
19 could go back and read from the form, the actual  
20 definition of pistol, which, again, I said is an  
21 archaic definition.

22 Whereas an AK or AR-15 rifle has a barrel  
23 length over 16 inches and does have a stock and there  
24 is a third classification called SBRs and that's what  
25 at issue in this other case.

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1 Q. So an AR-15 pistol, let me back up and  
2 start over. An AR-15 pistol has the same action more  
3 or less as an AR-15 rifle, it's just barrel length and  
4 stock are the only differences or main differences?

5 A. Exactly, yes.

6 Q. So if you were just tracking magazines  
7 for AR-15 rifles, you would leave out AR-15 pistol  
8 magazines?

9 A. Yes.

10 Q. Which could be 30 rounds as well?

11 A. Correct.

12 Q. So let's look at your experience. How  
13 long have you been involved with firearms in one way  
14 or the other?

15 A. I mean, since I was a child. I mean, I  
16 started hunting and shooting in 4H and .22s when I  
17 was, you know, 10 years old.

18 Q. And how old are you now?

19 A. Fifty-six.

20 Q. So that's 46 years. Is my math right?

21 A. Your math is correct.

22 Q. So you've been involved with firearms for  
23 46 years. Of that 46 years, how long have you been  
24 involved in the firearms in what I would call a  
25 professional capacity, either as an instructor, as an

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1 engineer, or as a manufacturer?  
2 MR. BAUMANN: Object to form.  
3 THE WITNESS: Generally for the last 30  
4 years. Done it for the last 30 years.  
5 Q. (BY Mr. Arrington) So for 30 years you've  
6 been involved in firearms in commercial or  
7 professional capacity?  
8 A. Yes.  
9 Q. And in that 30 years, how many articles  
10 about firearms have you read? Is it -- would it  
11 number in the thousands?  
12 A. Peer reviewed published articles?  
13 There's --  
14 Q. Articles of any type.  
15 A. Articles of any type? I mean, if you  
16 count, you know, explanations and forum posts and  
17 things like that, yeah, it's thousands probably.  
18 Q. Okay. Have you talked to manufacturers?  
19 A. Yes.  
20 Q. And representatives of manufacturers?  
21 A. Yes, I have talked directly with  
22 manufacturers and engineers, I've consulted and even  
23 designed firearms or firearms components for  
24 manufacturers.  
25 Q. Can you give me an estimate of the number

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1 of firearms manufacturer agents, representatives, that  
2 you've spoken to in the last 30 years?  
3 A. I'm sure it's well over a hundred, but I  
4 couldn't give you a specific number.  
5 Q. And you produced magazines for or owned a  
6 company that produced magazines?  
7 A. I did produce magazines up through 2012,  
8 yes.  
9 Q. Is it fair to say you're familiar with  
10 the magazine market?  
11 A. Yes.  
12 Q. And so we had offered you here as an  
13 expert in two basic areas. One is the number of these  
14 magazines that are out in the market and two is kind  
15 of a mechanical explanation, asking you how many  
16 automatic firearms work, and counsel's examination  
17 concerned mainly the former.  
18 Now I'm going to talk about mainly the  
19 former as well. But -- actually let me back up. Have  
20 you been to trade shows?  
21 A. I have.  
22 Q. How many trade shows have you been to?  
23 A. I've been to at least 15 trade shows.  
24 Q. Okay. And over the course of the 30  
25 years, have you, in talking to firearms manufacturers,

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1 magazine manufacturers, reading thousands of articles,  
2 going to trade shows, have you developed a good sense  
3 of the magazine market?  
4 A. Yes.  
5 Q. So I'm going to -- in 2014, Governor  
6 Hickenlooper in his official capacity on behalf of  
7 State of Colorado entered into the following  
8 stipulation. I'm going to call this Colorado  
9 Stipulation 1. "Although the total number is not  
10 known, the number of lawfully owned semiautomatic  
11 firearms that utilize a detachable magazine with a  
12 capacity greater than 15 rounds is in the 10s of  
13 millions," close quote. Mr. Passamaneck, do you agree  
14 with Colorado Stipulation 1?  
15 A. Yes.  
16 Q. Is Colorado Stipulation 1 consistent with  
17 your report?  
18 A. Yes.  
19 Q. In 2014 Governor Hickenlooper on behalf  
20 of the State of Colorado made the following  
21 stipulation, "Although the total number of magazines  
22 of any size in the United States is not known, the  
23 number of large capacity magazines is in the 10s of  
24 millions," close quote. We'll call that State of  
25 Colorado Stipulation 2. Mr. Passamaneck, do you agree

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1 with the State of Colorado Stipulation 2?  
2 A. Yes.  
3 Q. Is state of Colorado Stipulation 2, based  
4 upon your 30 years of experience, accurate?  
5 A. Yes.  
6 Q. Is Colorado Stipulation 2 consistent with  
7 your report?  
8 A. It is.  
9 Q. 2017, Governor Hickenlooper on behalf of  
10 the State of Colorado made the following stipulation,  
11 which we'll call Stipulation 3. "States without laws  
12 regulating magazine capacity, AR-15 platform rifles  
13 are usually sold at retail with detachable box  
14 magazine capable of holding up to 30 rounds. States  
15 without laws regulating magazine capacity, the  
16 majority of owners of AR-15 platform rifles use  
17 magazines with the capacity of either 20 and or 30  
18 rounds," close quote. Mr. Passamaneck, do you agree  
19 with State of Colorado Stipulation 3?  
20 A. Yes.  
21 Q. Is State of Colorado Stipulation 3  
22 consistent with your report?  
23 A. Yes.  
24 Q. Based upon your 30 years of experience in  
25 the firearm industry, is State of Colorado Stipulation

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1 3 accurate?  
2 **A. Yes.**  
3 Q. 2017 Governor Hickenlooper made the  
4 following stipulation. We'll call it Colorado  
5 Stipulation 4. Prior to the effective date of Section  
6 18-12-301 ad sec, semiautomatic firearms with  
7 detachable box magazines with capacity greater than 15  
8 rounds were frequently used in Colorado for multiple  
9 lawful purposes including recreational target  
10 shooting, competition shooting, hunting and were kept  
11 for home defense and defense outside the home."  
12 Mr. Passamaneck, based on your 30 years  
13 of experience in the firearm industry, do you have an  
14 opinion about whether State of Colorado Stipulation 4  
15 is accurate?  
16 **A. It is mostly accurate. The hunting issue  
17 becomes a problem because Colorado Parks and Wildlife,  
18 which used to be Colorado Department of Wildlife, they  
19 do not allow magazines of that higher capacity to be  
20 used. And so the hunting portion, if that word was  
21 stricken, then that would be an accurate statement.**  
22 Q. In 2017, Governor Hickenlooper on behalf  
23 of the State of Colorado entered into the following  
24 stipulation, we'll call Stipulation 5. "Any full size  
25 9 millimeter semiautomatic pistols sold at retail with

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1 magazines with capacities of greater than 15, such as  
2 the Glock 17. The Glock 17 is one of the most popular  
3 handguns sold in the United States. It is often used  
4 by law enforcement personnel." Mr. Passamaneck, is  
5 State of Colorado Stipulation 5 accurate?  
6 **A. It is.**  
7 Q. Is State of Colorado Stipulation 5  
8 consistent with your report?  
9 **A. It is.**  
10 Q. 2017, Governor Hickenlooper made the  
11 following stipulation we'll call State of Colorado  
12 Stipulation 6. "Prior to the effective date, section  
13 18-12-301, ad sec, magazines with capacity greater  
14 than 15 rounds were not unusual in Colorado," close  
15 quote. Mr. Passamaneck, based upon your 30 years of  
16 experience in the firearm industry, is State of  
17 Colorado Stipulation 6 accurate?  
18 **A. Yes.**  
19 Q. Based upon your 30 years of experience in  
20 the firearm industry, the thousands of articles that  
21 you've read, the manufacturers you've talked to, your  
22 experience as a manufacturer of magazines, trade  
23 shows, competitions, hunting, all the things you've  
24 done in the last 30 years as -- in the capacity as an  
25 expert in firearms, is there any information, a

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1 scintilla of information whatsoever, that would  
2 indicate that magazines with a capacity greater than  
3 16 are owned in any amount less than 10s of millions?  
4 **A. No.**  
5 Q. Could anybody reasonably opine the  
6 magazines with the capacity of more than 15 rounds are  
7 unusual?  
8 **A. No.**  
9 MR. BAUMANN: Object to form.  
10 THE WITNESS: Sorry.  
11 MR. BAUMANN: It's okay.  
12 MR. ARRINGTON: No further questions.  
13 MR. BAUMANN: I just have I think two  
14 very -- two or three very short follow-ups limited to  
15 those topics.  
16 EXAMINATION  
17 BY MR. BAUMANN:  
18 Q. Mr. Passamaneck, do you remember  
19 involvement in a case called Wheatridge Office, LLC,  
20 v. Auto Owners Insurance Company?  
21 **A. I do.**  
22 Q. And were you deposed in that case?  
23 **A. I think I was.**  
24 MR. ARRINGTON: I object. I think this is  
25 beyond the scope of cross.

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1 MR. BAUMANN: The cross included an updated  
2 list of testimony.  
3 MR. ARRINGTON: Well, there you go.  
4 MR. BAUMANN: Okay.  
5 MR. ARRINGTON: I'll withdraw that  
6 objection.  
7 Q. (BY Mr. Baumann) This was marked as  
8 Exhibit 14 and Wheatridge Office, LLC, is not listed  
9 here, is it?  
10 **A. I don't see that.**  
11 Q. Okay. You testified in response to a  
12 question from Mr. Arrington that you don't know what  
13 the Congressional Research Service is, correct?  
14 **A. I did not. I've read some of it, so I  
15 can guess what it is. But I've not heard of it  
16 before.**  
17 Q. And do you know what NSSF report they  
18 were relying on?  
19 **A. I don't.**  
20 Q. And you did not rely on the Congressional  
21 Research Service in reaching any of the conclusions in  
22 your expert report?  
23 **A. Correct.**  
24 Q. Have you seen any of the stipulations  
25 Mr. Arrington just read to you prior to today?

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1 A. Not that I recall.

2 Q. And you were asked several times whether

3 those stipulations were accurate, is that correct?

4 A. Yes.

5 Q. And to the best of your knowledge, when

6 you responded that they were accurate, were you

7 responding based on accuracy as of 2017?

8 A. I was basing on accuracy of as far as I

9 know them to be true today.

10 Q. And you were read State of Colorado

11 Stipulation 5. First of all, what basis do you have

12 to believe that the State of Colorado entered into

13 those stipulations?

14 A. I have not reviewed the document so I

15 don't know.

16 Q. And State of Colorado Stipulation 5, as

17 Mr. Arrington termed it, was that the entire

18 stipulation that was entered into back in 2017?

19 A. I don't know.

20 Q. Have you reviewed that stipulation?

21 A. I have not.

22 Q. Have you reviewed any of the underlying

23 bases for that stipulation?

24 A. I have not.

25 Q. Do you have any reason to believe it is

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1 inaccurate?

2 A. I don't remember which one number five

3 was.

4 Q. Do you have any reason to believe any of

5 the stipulations read to you are inaccurate?

6 A. Only the one I brought up related to

7 hunting because I know that one is wrong.

8 Q. And your reaction to those stipulations

9 is based on your personal experience?

10 A. Yes.

11 Q. You have no underlying data?

12 A. I have personal knowledge of

13 manufacturers and my understanding in the firearms

14 industry, so I think it's more than just personal

15 knowledge, but yes.

16 Q. Okay. In 2017, State of Colorado

17 Stipulation 5, as Mr. Arrington termed it, included a

18 line that the Glock 17 is also sold with factory

19 magazines with a capacity of 10 rounds. Based on your

20 30 years of experience, is that an accurate statement?

21 A. Yes.

22 Q. Okay. My favorite words in any

23 deposition, no further questions.

24 MR. ARRINGTON: I got one more question.

25

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1 EXAMINATION

2 BY MR. ARRINGTON:

3 Q. And then I think I asked this with

4 respect to all the stipulations, but all of the

5 stipulations that I read to you, we'll call them State

6 of Colorado Stipulations 1 through 6 are consistent

7 with the research you did and the information and the

8 opinions that's set forth in your report, correct?

9 A. Correct.

10 MR. ARRINGTON: Okay. I have no further

11 questions. Thank you, Peter.

12 MR. BAUMANN: My second favorite set of

13 words in any deposition.

14 MR. ARRINGTON: Yes, we'll have a copy of

15 the transcript and I'll handle read and sign.

16 WHEREUPON, the within proceedings were

17 concluded at the approximate hour of 3:07 p.m. on

18 the 31st day of May, 2023.

19 \* \* \* \* \*

20

21

22

23

24

25

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1 I, MARK PASSAMANECK, do hereby certify

2 that I have read the above and foregoing deposition

3 and that the same is a true and accurate

4 transcription of my testimony, except for attached

5 amendments, if any.

6 Amendments attached ( ) Yes ( ) No

7

8

9 \_\_\_\_\_

10 MARK PASSAMANECK

11 The signature above of MARK PASSAMANECK

12 was subscribed and sworn to or affirmed before me in

13 the county of \_\_\_\_\_, state of

14 \_\_\_\_\_, this \_\_\_\_\_ day of

15 \_\_\_\_\_, 2023.

16

17

18 \_\_\_\_\_

19 Notary Public

20 My commission expires

21

22

23

24

25 \*\*Gates, 5/31/2023(re)



MARK PASSAMANECK - May 31, 2023

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1 REPORTER'S CERTIFICATE

2 STATE OF COLORADO )

3 ) ss.

4 COUNTY OF DOUGLAS )

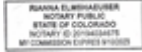
5 I, RIANNA R. ELM SHAEUSER, Registered  
6 Professional Reporter, Federal Certified Realtime  
7 Reporter, and Notary Public ID 20194034675, State of  
8 Colorado, do hereby certify that previous to the  
9 commencement of the examination, the said MARK  
10 PASSAMANECK was duly sworn or affirmed by me to  
11 testify to the truth in relation to the matters in  
12 controversy between the parties hereto; that the  
13 said deposition was taken in machine shorthand by me  
14 at the time and place aforesaid and was thereafter  
15 reduced to typewritten form; that the foregoing is a  
16 true transcript of the questions asked, testimony  
17 given, and proceedings had.

18 I further certify that I am not  
19 employed by, related to, nor counsel for any of the  
20 parties herein, nor otherwise interested in the  
21 outcome of this litigation.

22 IN WITNESS WHEREOF, I have affixed my  
23 signature this 21st day of June, 2023.

24 My commission expires September 10,  
25 2023.

- 26  Reading and Signing was requested.
- 27  Reading and Signing was waived.
- 28  Reading and Signing is not required.



*Rianna R. Elmsaeuser*

Rianna R. Elmsaeuser, RPR, FCRR

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GZJ KDKV'I "

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF COLORADO**

**Civil Action No. 22-cv- 2680**

ROCKY MOUNTAIN GUN OWNERS,  
NATIONAL ASSOCIATION FOR GUN RIGHTS,  
CHARLES BRADLEY WALKER,  
BRYAN LAFONTE,  
CRAIG WRIGHT,  
GORDON MADONNA,  
JAMES MICHAEL JONES, and  
MARTIN CARTER KEHOE,

Plaintiffs,

v.

THE TOWN OF SUPERIOR,  
CITY OF LOUISVILLE, COLORADO, CITY  
OF BOULDER, COLORADO, and  
BOARD OF COUNTY COMMISSIONERS OF BOULDER COUNTY,

Defendants.

**Rebuttal Report of Louis Klarevas**

## REBUTTAL REPORT OF LOUIS KLAREVAS

I, Louis Klarevas, declare:

1. Plaintiffs' proffered expert Mark W. Passamaneck has submitted a report that, among other things, attempts to estimate the number of AR-15 style rifles and large-capacity magazines in civilian circulation in the United States.<sup>1</sup> This rebuttal expert report responds to the first paragraph of the "Discussion" section of Passamaneck's report.<sup>2</sup> This rebuttal report is based on my own personal knowledge and experience, and, if I am called as a witness, I could and would testify competently to the truth of the matters discussed in it.

### **I. Passamaneck Fails to Provide Source Citations, Often Making Verification of His Claims Difficult**

2. Before addressing the specific claims asserted by Passamaneck, it is important to note that Passamaneck's report employs an unorthodox methodology: it asserts factual claims without providing specific sources for those claims. One of the goals of research is that all analyses be reproducible. In order to achieve this objective, detailed source citations are generally required, pointing reviewers to the precise data and/or evidence used in the original assessment. Passamaneck fails to provide detailed source citations. In fact, there is not a single, full citation of source material to be found anywhere in Passamaneck's report. As such, it is often difficult, and at times impossible, to verify Passamaneck's claims.

<sup>1</sup> Expert Witness Report of Mark W. Passamaneck, PE, *Rocky Mountain Gun Owners, et al. v. Town of Superior, Colorado, et al.*, 22-cv-2680 (D. Colo.), April 12, 2023 (attached as **Exhibit A**). Even though all four ordinances that are the subject of the present case define large-capacity magazines as ammunition-feeding devices with a capacity greater than 10 rounds, most of Passamaneck's analysis focuses on a subset of large-capacity magazines that have a capacity greater than 15 rounds of ammunition. It is not clear why Passamaneck generally employs an ammunition threshold that is different from the ordinances that are the focus of the present case, nor does Passamaneck offer any explanation or justification for this discrepancy.

<sup>2</sup> Unless stated otherwise, any references to or quotations of Passamaneck's claims are from the first paragraph of the "Discussion" section of Passamaneck's report. *Ibid.*, at 1-2.

## II. Passamaneck Asserts Problematic and, At Times, Conflicting Factual Claims

3. Passamaneck's claims seem to fall into two categories: claims about AR-15 style rifles and claims about large-capacity magazines (LCMs). I will address each category in turn.

### II.A. Assertions Pertaining to AR-15 Style Rifles

4. With regard to AR-15 style rifles, Passamaneck writes:

Millions of Americans own and use AR15 style rifles. A Washington Post survey in 2022 numbers the owners of AR15s at 16 million while the 2020 number was almost 20 million according to NSSF President and CEO Joseph Bartozzi, who called the AR-15 the "most popular rifle sold in America" and a "commonly owned firearm." A 2021 survey conducted by Georgetown University Professor William English in 2021 of 16,000-gun owners revealed that of those, 30% owned AR15 style rifles. Further, the NSSF 2020 Industry Intelligence report has the number of AR15 rifles produced minus exports (so sold in the US) at just under 20 million from 1990 through 2018. It is estimated that about 8 to 9 million AR15s were owned by US citizens prior to 1990 and the total number of semi-automatic rifles owned in the US (2018) at just over 43 million. From 2019 through 2022, another 3 to 4 million have been sold. So, conservatively, there are at least 34 million AR15s owned by US citizens, and the vast majority of those rifles were sold with at least one 20 or 30 round (30 round standard being most common) magazines.<sup>3</sup>

5. Passamaneck begins by asserting that "Millions of Americans own and use AR15 style rifles." This is an unusually vague claim. It is unclear exactly how many Americans *own* AR-15s and exactly how many Americans *use* AR-15s. With regard to the latter, it is also not clear in what manner and with what frequency (if any) gun owners "use" AR-15 style rifles. Finally, it is not evident if, by "Americans," Passamaneck is referring to private citizens who lawfully own personal AR-15 style rifles or if he is also including law enforcement officers, security guards, firearm sellers, and/or individuals prohibited from possessing firearms (e.g., criminals). Without more precision and without citations to source materials, it is practically impossible to discern what exactly Passamaneck means by this statement.

<sup>3</sup> This block quotation, including punctuation and capitalization, is reproduced exactly as it appears in Passamaneck's report.

6. Passamaneck does go on to provide some statistics about the number of AR-15 style rifles in circulation in the United States. However, here too Passamaneck's analysis is plagued by the fact that he conflates owners with items owned and he conflates items manufactured with items sold—even though, in each instance, these factors are distinct. Where possible, I have attempted to track down what I understand to be the sources of Passamaneck's claims so that I could assess them.

7. Addressing the estimated number of AR-15 owners, Passamaneck writes, “A Washington Post survey in 2022 numbers the owners of AR15s at 16 million while the 2020 number was almost 20 million according to NSSF President and CEO Joseph Bartozzi.” Passamaneck appears to be stating that the number of AR-15 owners has decreased from 20 million in 2020 to 16 million in 2022. However, after reviewing the likely sources of these two claims, neither of these claims, as presented by Passamaneck, is accurate.

8. According to two surveys conducted by Ipsos in 2022, one of which was co-sponsored by the *Washington Post*, approximately 31% of all American adults own at least one firearm and, of those gun owners, 19% own an AR-15 style rifle.<sup>4</sup> In 2022, according to the U.S. Census Bureau, there were 260.8 million adults in the United States.<sup>5</sup> Of those American adults, 80.8 million (31%) are estimated by Ipsos to own a gun.<sup>6</sup> Of those 80.8 million gun owners, 15.4 million (19%) are estimated to own an AR-15 style rifle.<sup>7</sup>

9. According to the National Shooting Sports Foundation (NSSF), which is the trade association of the firearm industry, in 2020, it was estimated that there were approximately 19.8

<sup>4</sup> Emily Guskin, Aadit Tambe, and Jon Gerberg, “Why Do Americans Own AR-15s?” *Washington Post*, March 27, 2023, available at <https://www.washingtonpost.com/nation/interactive/2023/american-ar-15-gun-owners> (last accessed May 31, 2023).

<sup>5</sup> United States Census Bureau, “National Population by Characteristics: 2020-2022,” March 31, 2023, available at <https://www.census.gov/data/tables/time-series/demo/popest/2020s-national-detail.html> (last accessed May 31, 2023).

<sup>6</sup> Guskin, Tambe, and Gerberg, *supra* note 4.

<sup>7</sup> *Ibid.* The 15.4 million figure appears to have been erroneously rounded up to 16 million.

million “modern sporting rifles” (MSRs) in circulation in the United States.<sup>8</sup> MSRs include AR- and AK-platform firearms. MSRs are not limited only to AR-15 style rifles. Because this estimate of 19.8 million MSRs includes other rifles such as AK-platform rifles, the number of AR-15 style rifles is necessarily lower than 19.8 million. And, as I noted in my expert report in this case, NSSF estimates appear to be over-estimates that include the number of MSRs in the possession of law enforcement and security agencies, firearms retailers, and prohibited owners (such as criminals and domestic abusers).<sup>9</sup> It is also likely that the NSSF’s estimate includes firearms that have been illegally trafficked to other countries, especially neighboring Mexico.<sup>10</sup> Regardless, Passamaneck misrepresents the nearly 20 million NSSF figure as the number of gun *owners* who have AR-15 style rifles, when the NSSF is actually providing an estimate as to the number of such *rifles* in circulation.

10. Indeed, just two sentences later, Passamaneck notes that, according to a 2020 NSSF Industry Intelligence Report, it was estimated that the number of MSRs in circulation as of 2018 was “just under 20 million.” Passamaneck, however, again misrepresents this figure as the number of AR-15 style rifles *sold* in the United States. A review of the NSSF report makes clear that this figure does not represent the number of AR-15 style rifles sold between 1990 and 2018, as Passamaneck claims.<sup>11</sup> First, the NSSF tracks the broader category of MSRs, not the sub-category of AR-15 style MSRs. Second, the NSSF does not publish MSR sales figures, let alone

<sup>8</sup> National Shooting Sports Foundation (“NSSF”), “NSSF Releases Most Recent Firearm Production Figures,” November 16, 2020, *available at* <https://www.nssf.org/articles/nssf-releases-most-recent-firearm-production-figures> (last accessed May 31, 2023). For the full report, *see* National Shooting Sports Foundation, *Firearm Production in the United States with Firearm Import and Export Data*, NSSF Industry Intelligence Reports, 2020, *available at* <https://www.nssf.org/wp-content/uploads/2020/11/IIR-2020-Firearms-Production-v14.pdf> (last accessed May 31, 2023).

<sup>9</sup> Expert Witness Report of Louis Klarevas, *Rocky Mountain Gun Owners, et al. v. Town of Superior, Colorado, et al.*, 22-cv-2680 (D. Colo.), May 5, 2023

<sup>10</sup> *See, for example*, Liz Mineo, “Stopping Toxic Flow of Guns from U.S. to Mexico,” *Harvard Gazette*, February 18, 2022, *available at* <https://news.harvard.edu/gazette/story/2022/02/stopping-toxic-flow-of-gun-traffic-from-u-s-to-mexico> (last accessed May 31, 2023).

<sup>11</sup> NSSF, *Firearm Production in the United States with Firearm Import and Export Data*, *supra* note 8.

AR-15 sales figures.<sup>12</sup> The figures that the NSSF published are based on estimates of how many MSRs were manufactured and imported each year, minus the number of MSRs exported. This total produces an estimate of the number of MSRs that enter the American firearms market annually. As a reminder, this figure appears to be an over-estimate of the number of MSRs owned by private citizens.

11. Passamaneck also mentions a 2021 survey conducted by William English that found that “30% owned AR15 style rifles.” To quote the survey findings accurately, English states, “30.2% of gun owners, about 24.6 million people, have owned an AR-15 or similarly styled rifle, and up to 44 million such rifles have been owned.”<sup>13</sup> There is a wide discrepancy between the *Washington Post*-Ipsos estimate of 15.4 million owners of AR-15 style rifles and the English estimate of 24.6 million owners of AR-15 style rifles. Similarly, there is a wide discrepancy between the NSSF estimate of 20 million MSRs (of which AR-15 style rifles owned by private citizens as personal firearms is only a portion) and the English estimate of 44 million AR-15 style rifles.

12. Besides glossing over this wide discrepancy in the figures, Passamaneck fails to note what is arguably the most striking finding in the English paper. In surveying ownership rates, English found that 0.3% of respondents “indicate owning over 100” AR-15 styled rifles.<sup>14</sup> Assuming English correctly estimates that 24.6 million people have owned an AR-15 or similarly styled rifle, his survey results indicate that approximately 74,000 people own over 100 such rifles. Moreover, English also reports that 1.3% of all AR-15 style rifle owners (approximately 320,000 people) own between 11 and 100 such rifles.<sup>15</sup> Even if, for the sake of argument, these 74,000 people all owned only 101 AR-15s and these additional 320,000 people

<sup>12</sup> In all likelihood, the NSSF might not have accurate knowledge of how many MSRs are sold each year.

<sup>13</sup> William English, “2021 National Firearms Survey: Updated Analysis Including Types of Firearms Owned,” Unpublished Paper (May 13, 2022; Revised September 22, 2022), available at [https://papers.ssrn.com/sol3/cf\\_dev/AbsByAuth.cfm?per\\_id=4283305](https://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=4283305) (last accessed May 31, 2023).

<sup>14</sup> *Ibid.*

<sup>15</sup> *Ibid.*



all owned 11 AR-15s—the lowest possible number in the range that they identified as best capturing the number of AR-15 styled rifles they own—that would mean that, ***at the very least, approximately 11 million AR-15 styled rifles are concentrated in the hands of 1.6% of AR-15 owners.***<sup>16</sup> As a reminder, 11 million AR-15 style rifles is a conservative estimate calculated using the absolute minimum numbers in the reported ranges of 11-to-100 and 101-or-more.<sup>17</sup>

13. Next, Passamaneck, without any attribution, claims that “about 8 to 9 million AR15s were owned by US citizens prior to 1990.” From 1963 through 1977, when the patent for the AR-15 expired, Colt was the only firearms manufacturer producing AR-15 rifles for sale to

<sup>16</sup> In its most recent survey data (2022), the NSSF found that civilian owners of modern sporting rifles own, on average, 3.8 such rifles, with 24% of these owners possessing only one such rifle. NSSF, *Modern Sporting Rifle: Ownership, Usage and Attitudes Toward AR- and AK-Platform Modern Sporting Rifles*, Comprehensive Consumer Report, 2022, at 12, available at <https://www3.nssf.org/share/PDF/pubs/NSSF-MSR-Comprehensive-Consumer-Report.pdf> (last accessed May 31, 2023). While the NSSF, unlike the English survey, does not report whether respondents in its surveys of modern sporting rifle owners happen to own more than 10, let alone more than 100, modern sporting rifles, NSSF has detected a growing trend toward increased ownership of multiple modern sporting rifles. For instance, in its 2010 survey, it found that 40% of modern sporting rifle owners owned only 1 modern sporting rifle and 60% owned multiple modern sporting rifles, with the average number of modern sporting rifles owned being 2.6. In its 2013 survey, it found that 35% of modern sporting rifle owners owned only 1 modern sporting rifle and 65% owned multiple modern sporting rifles, with the average number of modern sporting rifles owned increasing to 3.1. In its most recent, 2021 survey, the NSSF found that 24% of modern sporting rifle owners owned only 1 modern sporting rifle and 76% owned multiple modern sporting rifles, with the average number of modern sporting rifles owned increasing yet again to 3.8. This speaks to a growing trend in which modern sporting rifles are being purchased by gun owners who already own a modern sporting rifle, resulting in modern sporting rifles being concentrated, relatively speaking, in the hands of those who already own modern sporting rifles. *Ibid.*

<sup>17</sup> While the English survey is discussed in an unpublished academic paper that is publicly available online, there are significant concerns with the study, which call into question the findings reported in the paper. Arguably, the biggest problem with the English survey (as reported in the unpublished paper) is that it appears to be in serious violation of the Code of Professional Ethics and Practices of the American Association for Public Opinion Research (AAPOR). See “AAPOR Code of Professional Ethics and Practices,” April 2021, available at <https://aapor.org/standards-and-ethics> (last accessed May 31, 2023). Among the ways that the English survey seemingly runs afoul of AAPOR canons, it fails to identify the source of sponsorship funding and it fails to fully and openly disclose the measurement tools (Rules III.A.2-3). The former is vital to assuring that the survey was not designed and conducted to further the political or economic interests of particular people or organizations. The latter allows independent observers and researchers to assess if, among other factors, question order, question wording, or answer options biased responses. The latter is also crucial to assuring that select findings were not suppressed because they would, if publicized, undermine the agenda of the survey’s sponsor(s). Without release of the entire questionnaire and the full results to the public, it cannot be confirmed that questions and corresponding responses were not suppressed.

civilians. Between 1963 and 1979, Colt only manufactured a total of 96,401 AR-15-Marked Sporter I rifles.<sup>18</sup> Beginning in the early 1980s, other AR-15 style rifles entered the market for sale to the general public. And, according to NSSF estimates, in 1990, only a total of 74,000 MSRs were introduced into civilian circulation (again likely including law enforcement and security agencies, firearms retailers, prohibited owners, and illegally trafficked firearms).<sup>19</sup> Even if, for the sake of argument, 100,000 MSRs—an estimate much higher than the 74,000 that the NSSF estimated to have been introduced in 1990—had been introduced into the civilian market annually between 1980 and 1989 and all of these MSRs were AR-15 style rifles, less than 1.1 million AR-15 style rifles would have been in civilian circulation prior to 1990.<sup>20</sup> Indeed, one estimate that reviewed the serial numbers of AR-15 style rifles in civilian circulation, prior to the federal Assault Weapons Ban taking effect in 1994, calculated that the number of such pre-ban rifles was less than 800,000.<sup>21</sup> Accounting for the broader period of 1963 through 2017, that same analysis estimated that, based on manufacturing data, the total number of AR-15 style rifles in civilian circulation was less than 8.3 million.<sup>22</sup> I am not aware of any basis for Passamaneck’s unsubstantiated estimate that “about 8 to 9 million AR15s were owned by US citizens *prior to 1990*” (emphasis added).

<sup>18</sup> Christopher R. Bartocci, *America’s Rifle: M16/M4 Late Cold War through Global War on Terror* (2022), at 283-284 (relevant excerpt attached as **Exhibit B**). See, also, General Staff, “Estimating AR-15 Production, 1964-2017,” November 9, 2019, available at [http://www.generalstaff.org/Firearms/Count/AR15\\_Production.htm](http://www.generalstaff.org/Firearms/Count/AR15_Production.htm) (last accessed June 2, 2023). The patent for the AR-15 rifle expired in 1977. *Ibid.* However, it took a few years for the design to appear in the civilian marketplace. Todd C. Frankel, et al., “The Gun That Divides a Nation,” *Washington Post*, March 27, 2023, available at <https://www.washingtonpost.com/nation/interactive/2023/ar-15-america-gun-culture-politics> (last accessed May 31, 2023).

<sup>19</sup> NSSF, *Firearm Production in the United States with Firearm Import and Export Data*, *supra* note 8.

<sup>20</sup> Assuming 100,000 MSRs entering the American market annually for the ten-year period of 1980-1989 would produce a total of 1 million MSRs. Adding the number of AR-15 rifles produced by Colt for private citizens to purchase and own between 1963 and 1979 (96,401) to the figure of 1 million MSRs covering the timeframe of 1980-1989 results in a total of 1,096,401 MSRs maximum.

<sup>21</sup> General Staff, *supra* note 18.

<sup>22</sup> *Ibid.*

14. Despite the numerous issues just discussed, Passamaneck goes on to conclude that, at present, “conservatively, there are at least 34 million AR15s owned by US citizens”—an estimate that he offers without explaining how he calculated it.

## **II.B. Assertions Pertaining to LCMs**

15. With regard to LCMs, Passamaneck writes:

As magazines are a commodity that is sold without serialization or tracking, the total number of magazines that are above 15 rounds is difficult to measure. However, the 2018 NSSF Magazine Chart estimates 71 million handgun magazines of 11+ rounds, 9.4 million rifle magazines from 11-29 rounds (20 being the most common and 15 being the second most common) and 79 million rifles magazines of 30+ rounds. Mag-Pul, the largest manufacturer of AR15 magazines (and who also produces Glock and AR10 magazines) estimates the total number of magazines of 15+ rounds at 350 million.... Conservative estimates are that, conservative, and there certainly close to 100 million handgun magazines in the US that are over 15 rounds. That leaves approximately 250 million rifle magazines over 15 rounds. From one third to one half of all US gun owners surely own a magazine that is over 15 rounds.<sup>23</sup>

16. Passamaneck begins his overview of magazine circulation estimates with a statement that is accurate: “As magazines are a commodity that is sold without serialization or tracking, the total number of magazines that are above 15 rounds is difficult to measure.” Passamaneck then goes on to discuss a chart published by the NSSF that estimated that, as of 2018, there were approximately 160 million LCMs with a capacity greater than 10 rounds in circulation in the United States.<sup>24</sup> However, as James Curcuruto, the NSSF’s former Director of

<sup>23</sup> This block quotation, including punctuation and capitalization, is reproduced exactly as it appears in Passamaneck’s report. The portion of the quotation that has been replaced by ellipsis reads: “The 2018 NSSF estimate of Semi-Automatic handguns is 89 million, with about 40% being 9mm, which are commonly 15 or 17 rounds depending on the frame size. The Glock 17 is the most prolific handgun in the US with 60 to 70 percent of LEOs utilizing them and at least 30% of target and sport shooters using them. They also have an edge for use as a home, or self-defense firearm. They are sold with 2 or 3 standard capacity 17 round magazines.”

<sup>24</sup> The 2018 NSSF Magazine Chart is published in NSSF, *Firearm Production in the United States with Firearm Import and Export Data*, *supra* note 8, at 7. As Passamaneck notes, “the 2018 NSSF Magazine Chart estimates 71 million handgun magazines of 11+ rounds, 9.4 million rifle magazines from 11-29 rounds (20 being the most common and 15 being the second most common) and 79 million rifles magazines of 30+ rounds.” While the NSSF Magazine Chart does estimate 159.8 million magazines with a capacity greater than 10 rounds of

Industry Research and Analysis and one of the creators of the NSSF’s “Magazine Chart,” has stated in another case, he is “not aware of any singular public source providing *reliable* figures identifying exactly how many ammunition magazines are manufactured or imported for sale within the United States each year.”<sup>25</sup> Therefore, there is good reason to be suspicious of the NSSF estimate mentioned by Passamaneck. For starters, the NSSF estimate is asserted without any reviewable evidence to support it. It is merely a blanket claim offered with zero proof. Indeed, as Curcuruto himself conceded regarding the NSSF estimate, “magazines with a capacity greater than 10 rounds in circulation is an estimation based on extrapolation from indirect sources and *cannot be confirmed as unequivocally accurate.*”<sup>26</sup>

17. After presenting the NSSF estimate, Passamaneck presents an estimate that he attributes to the magazine manufacturing company Magpul, suggesting that there are 350 million LCMs with a capacity greater than 15 rounds of ammunition. Because there is no link to any source material for this estimate, it is impossible to verify that Magpul has made such an estimate. If Passamaneck’s representation is correct, then, Magpul, a member of the firearms industry, has calculated a drastically larger estimate than the firearm industry trade association has suggested. Indeed, the difference between the NSSF estimate (which covers all LCMs holding more than 10 rounds) and the Magpul estimate (which covers a subset of LCMs holding more than 15 rounds) might even be greater than three-fold.

18. Passamaneck appears to believe that the unsubstantiated Magpul estimate of 350 million magazines with a capacity greater than 15 rounds is a conservative estimate. As he states, “Conservative estimates are that, conservative, and there [*sic*] certainly close to 100 million handgun magazines in the US that are over 15 rounds.” He adds, “That leaves

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ammunition, nowhere in the chart or the larger report (where the chart appears) does the NSSF provide a breakdown that shows the difference between rifle magazines with a capacity of 15 rounds compared to rifle magazines with a capacity of 20 rounds. Passamaneck’s assertion that “20 being the most common and 15 being the second most common” is unsubstantiated by the NSSF report which contains the Magazine Chart. *Ibid.*

<sup>25</sup> Declaration of James Curcuruto, *Wiese v. Bonta*, 2:17-cv-00903-WBS-KJN (E.D. Calif.), June 14, 2017, Dkt. No. 28-3, para. 6 (emphasis added) (attached as **Exhibit C**).

<sup>26</sup> *Ibid.*, para. 13 (emphasis added).

approximately 250 million rifle magazines over 15 rounds.” Again, these figures are presented without an evidentiary foundation. Furthermore, Passamaneck does not explain how he (or Magpul) determined that the 350 million magazines holding more than 15 rounds broke down into 100 million handgun and 250 million rifle magazines. Nor does he explain why this estimate is a conservative estimate (which, if true, would mean that the NSSF’s estimate is grossly erroneous).

19. Passamaneck concludes his assessment of LCM circulation estimates by declaring, “From one third to one half of all US gun owners *surely* own a magazine that is over 15 rounds” (emphasis added). This is the first time that Passamaneck addresses how many gun owners possess an LCM (in this instance, LCMs with a capacity greater than 15 rounds), as opposed to how many *LCMs* are in circulation. Based on the information in his report (or lack thereof), it is impossible to determine how Passamaneck arrived at this conclusion. It is also not possible to determine why the range is so wide, from one-third to one-half.

20. In 2013, in the immediate aftermath of the Sandy Hook Elementary School massacre, the news media was reporting that the number of LCMs holding more than 10 rounds of ammunition was estimated to be approximately 40 million.<sup>27</sup> According to the NSSF, a mere five years later, the number of such LCMs with a capacity greater than 10 rounds was estimated to be 160 million, which represents more than a four-fold difference.<sup>28</sup> And, allegedly according to Magpul, the number of LCMs holding not just more than 10 rounds of ammunition, but more than 15 rounds of ammunition, is estimated to be 350 million—a nearly nine-fold difference.

21. As these three substantially different, unverifiable estimates (40/160/350 million) demonstrate, the number of LCMs in circulation in the United States is not known with any degree of certainty or accuracy.

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<sup>27</sup> See, for example, Patrik Jonsson, “Gun Debate 101: Time to Ban High-Capacity Magazines?” *Christian Science Monitor*, January 16, 2013, available at <https://www.csmonitor.com/USA/Politics/DC-Decoder/2013/0116/Gun-debate-101-Time-to-ban-high-capacity-magazines> (last accessed May 31, 2023).

<sup>28</sup> NSSF, *Firearm Production in the United States with Firearm Import and Export Data*, *supra* note 8.

Executed on June 8, 2023, at Nassau County, New York.

  
/s/ \_\_\_\_\_

Louis Klarevas

# EXHIBIT A

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF COLORADO**

**Civil Action No. 22-cv-2680**

ROCKY MOUNTAIN GUN OWNERS,  
NATIONAL ASSOCIATION FOR GUN RIGHTS,  
CHARLES BRADLEY WALKER,  
BRYAN LAFONTE,  
CRAIG WRIGHT,  
GORDON MADONNA,  
JAMES MICHAEL JONES, and  
MARTIN CARTER KEHOE,

Plaintiffs,

v.

THE TOWN OF SUPERIOR,  
CITY OF LOUISVILLE, COLORADO,  
CITY OF BOULDER, COLORADO, and  
BOARD OF COUNTY COMMISSIONERS OF BOULDER COUNTY,

Defendants.

---

**EXPERT DISCLOSURES**

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Plaintiffs submit the attached expert disclosures.

*/s/ Barry K. Arrington*

---

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Shaun Pearman  
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Fax Number: (303) 991-7601  
E-mail: [shaun@pearmanlawfirm.com](mailto:shaun@pearmanlawfirm.com)

*Attorneys for Plaintiffs*

### **CERTIFICATE OF SERVICE**

I hereby certify that on May 5, 2023, I emailed the foregoing to:

[Careydunne1@gmail.com](mailto:Careydunne1@gmail.com)  
[gvaughan@vaughandemuro.com](mailto:gvaughan@vaughandemuro.com)  
[cmuse@vaughandemuro.com](mailto:cmuse@vaughandemuro.com)  
[vnd@vaughandemuro.com](mailto:vnd@vaughandemuro.com)  
[david.toscano@davispolk.com](mailto:david.toscano@davispolk.com)  
[christopher.lynch@davispolk.com](mailto:christopher.lynch@davispolk.com)  
[christopher.lynch@davispolk.com](mailto:christopher.lynch@davispolk.com)  
[wtaylor@everytown.org](mailto:wtaylor@everytown.org)  
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*/s/ Barry K. Arrington*

---

Barry K. Arrington



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April 12, 2023

Barry K. Arrington  
Arrington Law Firm  
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Wheat Ridge, Colorado 80033  
[Barry@arringtonpe.com](mailto:Barry@arringtonpe.com)

### Expert Report

RE: Client: National Foundation for Gun Rights  
EEC Project: 2402 Colorado Magazine Limits

Dear Mr. Arrington,

At your request, Entropy Engineering Corp (Entropy) has evaluated portions of the case referenced above. The purpose of this report is to provide expert opinions on matters for which the author is qualified and has extensive knowledge.

### Discussion

Standard capacity magazines, as originally designed, manufactured and sold within the State of Colorado are commonly possessed and used for lawful purposes. Millions of Americans own and use AR15 style rifles. A Washington Post survey in 2022 numbers the owners of AR15s at 16 million while the 2020 number was almost 20 million according to NSSF President and CEO Joseph Bartozzi, who called the AR-15 the "most popular rifle sold in America" and a "commonly owned firearm." A 2021 survey conducted by Georgetown University Professor William English in 2021 of 116,000-gun owners revealed that of those, 30% owned AR15 style rifles. Further, the NSSF 2020 Industry Intelligence report has the number of AR15 rifles produced minus exports (so sold in the US) at just under 20 million from 1990 through 2018. It is estimated that about 8 to 9 million AR15s were owned by US citizens prior to 1990 and the

April 12, 2023

Arrington

EEC 2402

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total number of semi-automatic rifles owned in the US (2018) at just over 43 million. From 2019 through 2022, another 3 to 4 million have been sold. So, conservatively, there are at least 34 million AR15s owned by US citizens, and the vast majority of those rifles were sold with at least one 20 or 30 round (30 round standard being most common) magazines. As magazines are a commodity that is sold without serialization or tracking, the total number of magazines that are above 15 rounds is difficult to measure. However, the 2018 NSSF Magazine Chart estimates 71 million handgun magazines of 11+ rounds, 9.4 million rifle magazines from 11-29 rounds (20 being the most common and 15 being the second most common) and 79 million rifles magazines of 30+ rounds. Mag-Pul, the largest manufacturer of AR15 magazines (and who also produces Glock and AR10 magazines) estimates the total number of magazines of 15+ rounds at 350 million. The 2018 NSSF estimate of Semi-Automatic handguns is 89 million, with about 40% being 9mm, which are commonly 15 or 17 rounds depending on the frame size. The Glock 17 is the most prolific handgun in the US with 60 to 70 percent of LEOs utilizing them and at least 30% of target and sport shooters using them. They also have an edge for use as a home, or self-defense firearm. They are sold with 2 or 3 standard capacity 17 round magazines. Conservative estimates are that, conservative, and there certainly close to 100 million handgun magazines in the US that are over 15 rounds. That leaves approximately 250 million rifle magazines over 15 rounds. From one third to one half of all US gun owners surely own a magazine that is over 15 rounds.

Detachable magazines are necessary to make semi-automatic firearms, designed to receive such magazines, operate effectively. Without such magazines, semi-automatic firearms are inoperable. The feed angle, magazine spring pressure, and feed ramps are all design features coupled between the magazine (when inserted into the magwell) and the firearm to ensure function as intended. Magazines, by nature and with use, are wear items that must be periodically replaced. The largest percentage of semi-automatic firearms failures are due to damage, or wear, of the magazines. When citizens are not allowed to purchase magazines for their firearms, they will eventually become useless. Some of the most common polymer magazines will wear out and become inoperable in as little as 500 rounds. Very few can pass 2000 rounds without replacement. That is significantly less than the 50K to 100K rounds to wear out a firearm.

Magazines are not merely a box in which ammunition is stored, rather, cartridges are held in the magazine under spring tension. When a semi-automatic firearm is fired, the spring pushes another cartridge up for the bolt to push it into the chamber so that it can be fired with the next pull of the trigger. If there is no magazine pushing cartridges up into the action, one by one, there is no ability to fire a subsequent cartridge due to a subsequent pull of the trigger, which is

April 12, 2023  
 Arrington  
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 Page 3

the defining characteristic of a semi-automatic weapon. Thus, without magazines as a designed component of semi-automatic firearms they would not exist. In other words, magazines are a necessary and integral part of the operation of a semi-automatic firearm.

In addition, for at least the last 40 years, magazines, as an integral commodity product that allow the semi-automatic firearm to function, have been designed with basepads that specially allow them to be changed with different pads allowing for variable capacities.

**Report Limitation**

Entropy has been retained to provide advice relative to referenced matter. The findings and conclusions contained herein are derived from numerous sources and believed to be correct. This report is subject to change in the event that additional information or findings are provided to Entropy. Neither this report, nor any of the professional opinions contained herein (or the bases for those opinions) shall be used, relied upon, or otherwise disclosed to anyone other than the parties involved in this matter without Entropy’s express written consent.

**Qualifications**

Mr. Passamaneck has extensive knowledge of firearms desing, manufacture and use. He has designed magazines, barrels, muzzle devices, gas blocks and complete firearms for manufacturers. Mr. Passamaneck has extensively tested firearms, ammunition and accessories. He has conducted shooting reconstructions related to both intentional and unintentional firing of firearms. Mr. Passamaneck has been admitted in courts as a firearms expert and as a ballistics expert. He holds several training certifications and has trained and coached shooting in a wide array of disciplines.

Mr. Passamaneck charges \$250/hour for consulting services, including producing work product, testimony and travel. His testimony for the last 4 years is as follows:

Project	Date	Arb. Depo, Trial, Hearing, Mediation	Case Number	Court	Case Name	Client
2280	05.03.19	D	Case#201 8CV03095 4	Office of Franz Hardy Gorden Rees Scully Mansukhani,LLP	Martha Munoz V Public Service DBA X-Cel Energy	John Sheppard

April 12, 2023

Arrington

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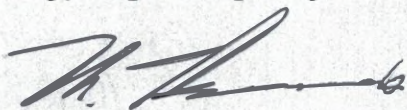
Page 4

2251	07.07.20	T	Workers Comp. No. 5-123-298	Call In Zoom Call	Cassandra Newell V O'Reilly Auto Parts	Brad Miller
2356	9/16/20	T	Workers Comp. No. 5-119-454	Office of Administrative Courts, Denver, CO	Larry Pfannenstiel V O'Reilly Auto Parts	Brad Miller
2356	10.01.20	D	Workers Comp. No. 5-119-454	Office of Administrative Courts, Denver, CO	Larry Pfannenstiel V O'Reilly Auto Parts	Brad Miller
2252	06.10.21	D	Case#201 8CV31645	District Court Adams County	Steven-Roberts Originals, LLC V Rocky Mountain Mechanical Systems	Brian Suth
2340	08.19.21	T	Case#17C V6	District Court Eagle County, Colorado	Tania Bricel v Wyndham Worldwide	James Bailey
2373	4.21.22	D	Case#202 1CV30152	Boulder County,	Pipe X v Park North	Brad Shefrin
2392	12.13.22	D	2022CV30 439	District Court, Denver County, Colorado	Moutain States Plumbing v. Winter Park Land Co. LLC	Kirsten Kube

Thank you for using Entropy in this matter. Please contact this writer if you have any questions or if we may be of further assistance.

Sincerely,

**Entropy Engineering Corp**



Mark W. Passamaneck, PE  
President, Principal Engineer

# EXHIBIT B

**AMERICA'S RIFLE**  
**M16/M4 LATE COLD WAR THROUGH GLOBAL**  
**WAR ON TERROR**  
**CHRISTOPHER R. BARTOCCI**



**This is an authorized, revised and expanded edition of BLACK RIFLE II-M16 Into  
The 21st Century, originally published by Collector Grade Publications Inc. and  
edited by R. Blake Stevens, which is now out of print.**

# Serial Number Designations for Colt Semi-Automatic-Only Rifles

## Arms Produced Prior to the Assault Weapon Ban of 1994

SN and Prefix	Description
SP360200 and below	Pre-Ban AR-15-marked rifles
CC001616 and below	Pre-Ban Colt Carbine
CH019500 and below	Pre-Ban Competition HBAR
GC018500 and below	Pre-Ban Government Carbine
LH011326 and below	Pre-Ban Sporter Lightweight 7.62x39mm
MH086025 and below	Pre-Ban Sporter Match HBAR rifles
NL004800 and below	Pre-Ban Sporter Lightweight 9mm
SL027264 and below	Pre-Ban Sporter Lightweight .223 Rem
ST038100 and below	Pre-Ban Sporter Target rifles with muzzle brake
TA10100 and below	Pre-Ban 9mm Carbine
BD000134 and below	Pre-Ban AR-15A3 Tactical Carbine

## Post-Ban Match Target Series Rifles

### Manufactured after September 13, 1994

SN Prefix	Description
MTM	Match Target M4 Carbine
CCH	Match Target Competition HBAR
CNL	Match Target Lightweight
CST	Colt Match Target, Target Model
CMH	Match Target Match HBAR
CJC	Match Target Competition HBAR II
BK	CAR-A3 HBAR Elite
CSL	Colt Match Lightweight .223 Rem
CLH	Colt Match Lightweight 7.62x39mm

## Colt Law Enforcement Series

SN Prefix	Description
LSL	Law Enforcement Lightweight Carbine
LGC	Law Enforcement AR-15A2 Carbine
LTA	Law Enforcement 9mm Carbine
LBD	Law Enforcement AR-15A3 Tactical Carbine
LSL	Law Enforcement Lightweight 39mm

## Serial Number Ranges For Colt AR-15 Sporter I Rifles

Year	SN Range	Year	SN Range
1963	SP00001 – SP00023	1968	SP10750
1964	SP00101	1969	SP14000 – SP14653
1965	SP02501	1970	SP15001 – SP15473
1966	SP05600	1971	SP16001
1967	SP08250	1972	SP19401



## 284 Serial Number Designations for Colt Semi-Automatic Only Rifles

<b>Year</b>	<b>SN Range</b>	<b>Year</b>	<b>SN Range</b>
1973 . . . . .	SP24201	1978 . . . . .	SP03400
1974 . . . . .	SP32601	1979 . . . . .	SP96401
1975 . . . . .	SP43801	1980 . . . . .	SP112801
1976 . . . . .	SP55301	1981 . . . . .	SP134601
1977 . . . . .	SP67651	1982 . . . . .	SP158201

# EXHIBIT C

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LANCE COWLEY, SHERMAN MACASTON,  
10 ADAM RICHARDS, CLIFFORD FLORES,  
L.Q. DANG, FRANK FEDEREAU, ALAN NORMANDY,  
11 TODD NIELSEN, THE CALGUNS FOUNDATION,  
FIREARMS POLICY COALITION,  
12 FIREARMS POLICY FOUNDATION,  
and SECOND AMENDMENT FOUNDATION

13  
14 UNITED STATES DISTRICT COURT

15 FOR THE EASTERN DISTRICT OF CALIFORNIA

16  
17 WILLIAM WIESE, et al.,

18 Plaintiffs,

19 vs.

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

22 Defendants.  
23  
24

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

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

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

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

25  
26 //  
27 //  
28 //

DECLARATION OF JAMES CURCUTO

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

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

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

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

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

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

SEILER EPSTEIN ZIEGLER & APPEL GATE LLP  
Attorneys at Law

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

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

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

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

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

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

SEILER EPSTEIN ZIEGLER & APLEGATE LLP  
Attorneys at Law

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

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

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

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

15  
16   
17 James Curcuruto

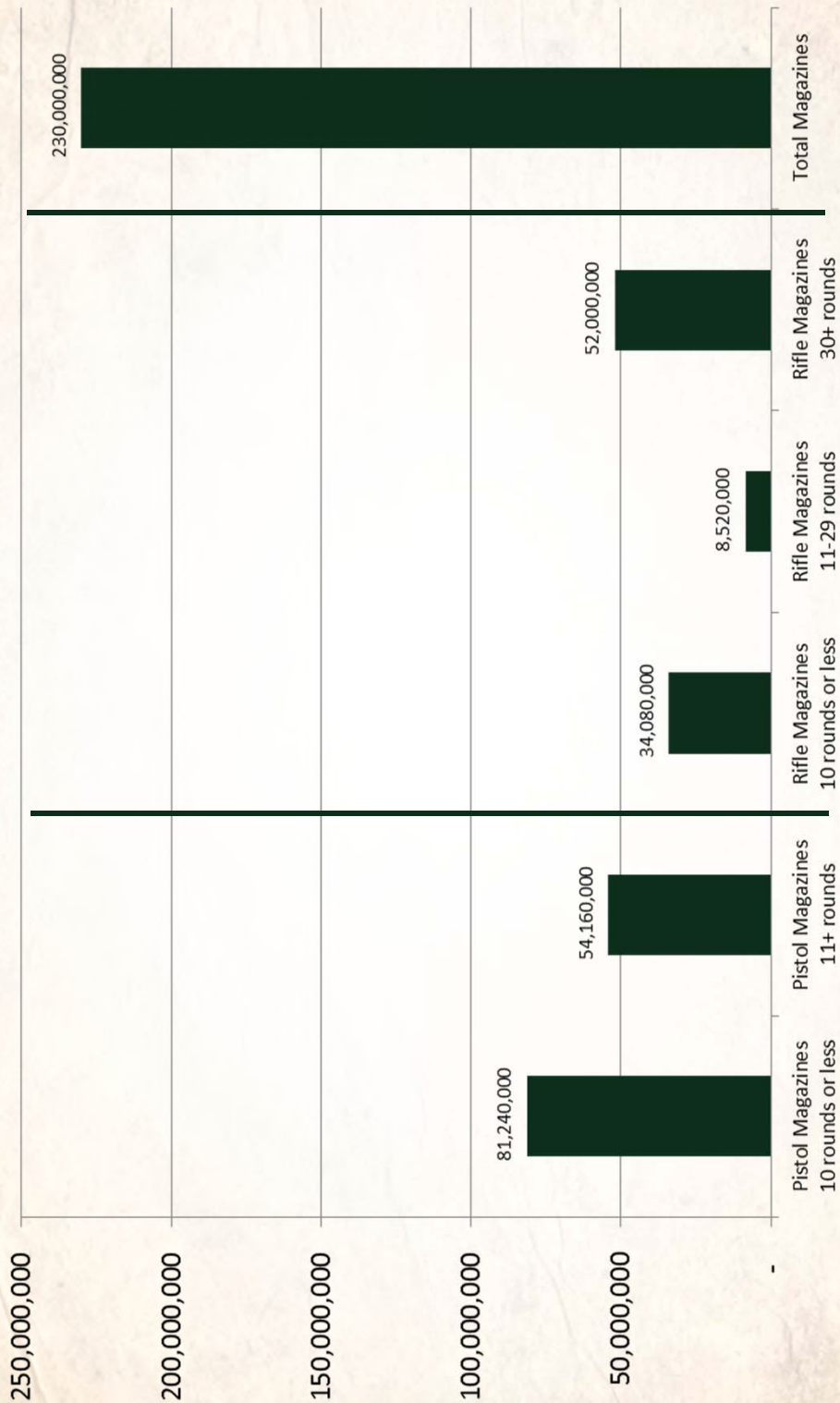
SELLER EPSTEIN ZIEGLER & APPEL GATE LLP  
Attorneys at Law

28

**EXHIBIT A**

# NSSF® Magazine Chart

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



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

**NSSF.ORG**



# EXHIBIT H

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF COLORADO**

**Civil Action No. 22-cv-2680**

ROCKY MOUNTAIN GUN OWNERS,  
NATIONAL ASSOCIATION FOR GUN RIGHTS,  
CHARLES BRADLEY WALKER,  
BRYAN LAFONTE,  
CRAIG WRIGHT, and  
GORDON MADONNA,  
JAMES MICHAEL JONES,  
and MARTIN CARTER  
KEHOE,

Plaintiffs,

v.

THE TOWN OF SUPERIOR,  
CITY OF LOUISVILLE, COLORADO,  
CITY OF BOULDER, COLORADO, and  
BOARD OF COUNTY COMMISSIONERS OF BOULDER COUNTY,

Defendants.

---

**Expert Rebuttal Report of James Yurgealitis**

---

I, James E. Yurgealitis, state as follows:

1. I have been retained by the Town of Superior, the City of Boulder, the City of Louisville, and the Board of County Commissioners of Boulder County (“Defendants”) to serve as an expert witness in this case.

2. At the request of Defendants, I previously prepared and submitted an expert report, executed May 5, 2023, addressing the types and operation of firearms, the evolution and operation of assault weapons, the evolution and operation of large-capacity and lower-capacity magazines, and the use of firearms in self-defense.

3. My resume, qualifications, and rate of compensation as included with and stated in that initial report remain accurate, with the following addition: On June 6, 2023, I testified as an expert witness at trial in *Oregon Firearms Federation v. Koteck*, Nos. 2:22-cv-01815-IM (lead case), 3:22-cv-01859-IM (trailing case), 3:22-cv-01862-IM (trailing case), 3:22-cv-01869-IM (trailing case) (D. Or.).

4. Since submission of my initial expert report, I have received and reviewed additional material submitted by Plaintiffs that was not available prior to the submission of my initial report: the report submitted by Plaintiffs’ proffered expert, Mark W. Passamaneck. I have prepared this rebuttal expert report in response to Mr. Passamaneck’s report. This rebuttal report responds in particular to the second, third, and fourth paragraphs of the “Discussion” section of Mr. Passamaneck’s report.

5. Like my initial report, this rebuttal report is based on my own personal knowledge and experience and, if called as a witness, I could and would testify competently to the truth of the matters discussed in this report. I hold all opinions expressed herein to a reasonable degree of professional certainty.

## DISCUSSION

6. Mr. Passamaneck begins the second paragraph of the “Discussion” section of his report by stating: “Detachable magazines are necessary to make semi-automatic firearms, designed to receive such magazines, operate effectively. Without such magazines, semi-automatic firearms are inoperable.” Those statements are not correct.

7. As I explained in my initial report (*see* ¶¶ 29, 35, 49, 119, 121), numerous semi-automatic firearms operate with fixed internal magazines rather than detachable magazines. Some notable examples include the M1 Garand, the Browning BAR, and the SKS.

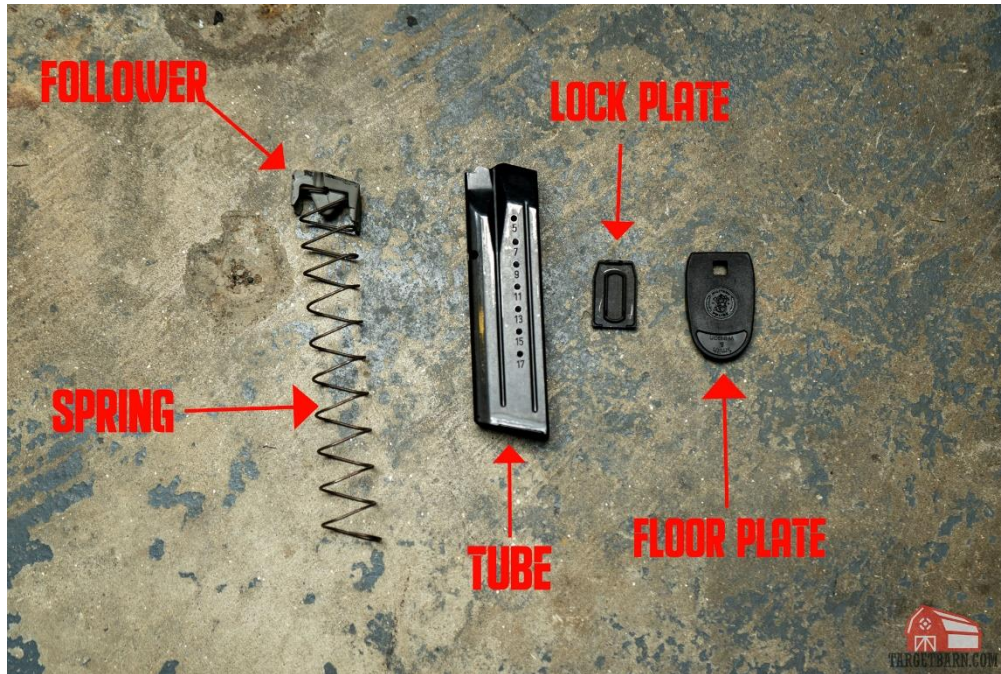
8. In addition, as discussed further below, *see infra* ¶ 15, a magazine, whether fixed internal or detachable, is not required for a semi-automatic firearm to function.

9. Mr. Passamaneck focuses much of his report on detachable magazines and statements regarding how firearms use detachable magazines. In order to respond to those portions of Mr. Passamaneck’s report, it is necessary to provide some additional details about the construction and operation of detachable magazines.

10. Detachable magazines are, generally speaking, devices that hold and facilitate the feeding of ammunition into semi-automatic or full-automatic firearms and are commonly constructed of five components:

- A.) the magazine body or tube (commonly constructed of metal or polymer),
- B.) the magazine follower,
- C.) the magazine spring,
- D.) the magazine lock plate, and
- E.) the magazine baseplate or floorplate.

11. The following illustration details the five components of a detachable magazine for a Smith & Wesson semi-automatic pistol.<sup>1</sup>



12. When assembled, the magazine body contains the other four components. The follower is mounted at the top of the spring and the lock plate at the bottom. The spring, with the two components attached, is compressed into the magazine body and secured by the baseplate. It is loaded by pushing ammunition cartridges down into the magazine body, against the follower, until the desired capacity is attained. This action also further compresses the spring, placing it under tension.

13. When the magazine is inserted into a semi- or full-automatic firearm, the bolt of the firearm (rifles and shotguns) or slide (pistols) is pulled back and released, which “strips” the first cartridge from the top of the magazine and feeds it into the chamber. Subsequent cartridges will be pushed upwards in the magazine body by the follower, which is “powered” by the spring tension.

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<sup>1</sup> Image Source: <https://www.targetbarn.com/broad-side/media/partsofapistolmagazine.jpg>

14. It is important to note that the ability of a semi- or full-automatic firearm to function is not dependent on the capacity of the magazine. Any firearm capable of accepting or designed to utilize a detachable magazine with a capacity exceeding 10 rounds will function with a magazine with a capacity of 10 rounds or less. And thus any firearm capable of accepting or designed to utilize a detachable magazine with a capacity exceeding 10 rounds will function with a magazine legal under the ordinances challenged in this case. Magazine capacity is not a determinant of a firearm's operability.

15. A magazine is not required for a semi-automatic firearm to function. Generally speaking, a semi-automatic firearm, without a magazine inserted, can be loaded manually with a single cartridge and fired.<sup>2</sup> The magazine, with additional available cartridges, is what allows the firearm to fire additional shots without manual manipulation of the bolt or slide.

16. In the fourth paragraph of the "Discussion" section of his report, Mr. Passamaneck makes some statements about magazine baseplates or basepads. Magazine baseplates are a standard part of a detachable magazine and, in modern designs, typically removable. Removable baseplates facilitate cleaning, maintenance, and repair of the magazines. Because they are removable, these baseplates also can be replaced with aftermarket baseplate extensions or extenders available from numerous vendors, which can allow for the loading of additional cartridges above the original capacity of the magazine as manufactured.

---

<sup>2</sup> Exceptions to this include the FN/Browning "Hi Power" pistol and other firearms which incorporate a magazine safety (or magazine disconnect). The "Hi Power" pistol as manufactured will not fire, even with a cartridge in the chamber, unless a magazine is inserted into the magazine well which releases the safety. The vast majority of available semi-automatic pistols do not have a magazine safety. Note that, as with other semi-automatic firearms, the capacity of the magazine is not a determining factor, as it will function with a magazine having a capacity of 10 rounds or less or with one of greater capacity.

17. Mr. Passamaneck also makes several statements in his report about the durability of detachable magazines. Specifically, in the second paragraph of the “Discussion” section of his report, he states:

Magazines, by nature and with use, are wear items that must be periodically replaced. The largest percentage of semi-automatic firearms failures are due to damage, or wear, of the magazines. When citizens are not allowed to purchase magazines for their firearms, they will eventually become useless. Some of the most common polymer magazines will wear out and become inoperable in as little as 500 rounds. Very few can pass 2000 rounds without replacement. That is significantly less than the 50K to 100K rounds to wear out a firearm.

Those statements in Mr. Passamaneck’s report are misleading and inaccurate.

18. Consistent with their original development and design for military combat, which I discussed in my initial report (*see* ¶¶ 121-22), detachable magazines are designed and manufactured to be durable and function in adverse conditions. As such, they are not delicate devices and rarely fail in their entirety. Much as with any other mechanical device, malfunctions can usually be traced to damage or wear of one of the component parts. In my 26 years of experience in federal law enforcement, I only had two occasions where I needed to replace a cracked baseplate for one of my issued magazines. Other than those two occurrences, the magazines performed flawlessly while having thousands of rounds fired through them over a period of several years. My experience in this regard is consistent with the experience of other law enforcement officers I have either trained, or trained with, during my career.

19. The bodies of detachable magazines are either made of metal (steel or aluminum) or polymer (a high-grade, impact-resistant plastic).

20. Traditional steel- or aluminum-bodied detachable magazines are extremely durable, owing to their initial intended use in combat.

21. Polymer-bodied magazines are very popular and are manufactured and/or included by popular handgun manufacturers, such as Glock. They are also manufactured by numerous aftermarket suppliers, such as Magpul. The chief advantages of polymer- over traditional steel- or aluminum-bodied magazines are their resistance to corrosion, ability to absorb impacts without dents or dings (which may impair function), and overall lighter weight.

22. Although polymer-bodied magazines have certain advantages, military forces worldwide continue to utilize metal-bodied magazines, as they are durable and reliable (as proven in over a century of use in combat). Additionally, polymer-bodied magazines are not available for every firearm that utilizes detachable magazines.

23. Polymer-bodied magazines are also inherently reliable, as evidenced by the recent Defense Logistics Agency (DLA) award of a three-year \$20,000,000 contract with Magpul to produce their polymer-bodied magazine (PMAG) for the U.S. Armed Forces. This follows an earlier 2016 procurement by the U.S. Marine Corps as well as a DLA Contract in 2017 with Magpul for \$12,000,000. Such widespread adoption by the U.S. military is confirmation of the advantages, both in reliability and durability, of polymer-bodied magazines.

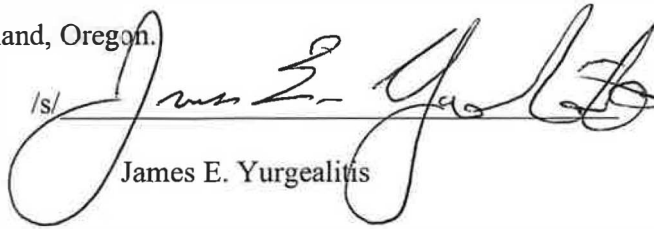
In December 2016, Magpul announced the Marines had, after a four-year testing evolution, adopted their MCT PMAG for use in all their 5.56mm platforms. In government-administered tests, the PMAG reportedly cycled 20,400 rounds of M855A1 ammo without any magazine-related stoppages. This, in turn, drew questions from lawmakers to Army Chief of Staff Gen. Mark Milley over why the country's primary small arms user wasn't fielding polymer mags. Subsequently, the DLA in 2017 announced a \$12 million contract with Magpul to supply the Army, Air Force, and Marine Corps with PMAGs.<sup>[3]</sup>

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<sup>3</sup> <https://www.guns.com/news/2023/01/20/magpul-grabs-20-million-pentagon-mag-contract>; *see also* <https://www.arbuildjunkie.com/ar-15-magazine-basics-performance-overview-duane-liptak-magpul/> (describing military testing where a magazine did not create a malfunction in a weapon until over 30,000 rounds had been fired).



Executed on June 8, 2023 at Portland, Oregon.

/s/   
James E. Yurgealitis

# EXHIBIT I

# 2021 National Firearms Survey

William English, PhD

Georgetown University

Draft Report: July 13, 2021

## Abstract

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

Consistent with other recent survey research, the survey finds an overall rate of adult firearm ownership of 31.9%, suggesting that in excess of 81.4 million Americans aged 18 and over own firearms. The survey further finds that approximately a third of gun owners (31.1%) have used a firearm to defend themselves or their property, often on more than one occasion, and it estimates that guns are used defensively by firearms owners in approximately 1.67 million incidents per year. Handguns are the most common firearm employed for self-defense (used in 65.9% of defensive incidents), and in most defensive incidents (81.9%) no shot was fired. Approximately a quarter (25.2%) of defensive incidents occurred within the gun owner's home, and approximately half (53.9%) occurred outside their home, but on their property. About one out of ten (9.1%) defensive gun uses occurred in public, and about one out of twenty (4.8%) occurred at work.

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

The average gun owner owns 5 firearms, and handguns are the most common type of firearm owned. 48.0% of gun owners have owned magazines that hold over 10 rounds, and 30.2% of gun owners – totaling about 24.6 million individuals – have owned an AR-15 or similarly styled rifle. Demographically, gun owners are diverse. 42.2% are female

and 57.8% are male. Approximately 25.4% of Blacks own firearms, 28.3% of Hispanics own firearms, 19.4% of Asians own firearms, and 34.3% of Whites own firearms.

## 1 Introduction

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

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

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

Although the National Opinion Research Center’s General Social Survey and other surveys have asked respondents whether they personally own a firearm or live in a home with firearms, few have asked about the number of guns respondents own, let alone more detailed information about these firearms and the people who own them, such as reasons for firearm ownership, where firearms were acquired, how much firearms cost, whether they are carried in public, and how they are stored at home (Smith and Son 2015; Gallup 2016; Morin 2014). Because of this, the best and most widely cited estimates of the number of firearms in civilian hands are derived from two national surveys dedicated to producing detailed, disaggregated, estimates of the U.S. gun stock, one conducted in 1994, the other in 2004 (Cook and Ludwig 1997, 1996; Hepburn et al. 2007).

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

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

Today, professional survey firms like Centiment<sup>3</sup> cultivate large pools of survey respondents, enabling representative sampling, and have techniques that encourage high response and completion rates while also ensuring the integrity of responses.<sup>4</sup> The online survey summarized here was presented to a nationally representative sample (excluding residents of Vermont who had already responded to a pilot version of this survey) of 54,244 individuals aged 18 or over who completed an initial questionnaire that included an indirect question indicating whether they owned a firearm (respondents were presented with a list of items commonly owned for outdoor recreational purposes, including firearms, and were asked to

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

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

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

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

select all items that they own).

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

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

The initial sample of respondents achieved excellent demographic representation across all 49 states and DC, excluding Vermont (see Appendix A and B). For the purpose of estimating firearms ownership rates for the general U.S. population we employed raked weighting on gender, income, age, race, and state of residence. Note that there was a brief period in the first two days after the soft launch of the survey that comprehensive demographic data was not collected from those respondents who did not indicate firearms ownership, and thus did not proceed to the main survey (approximately 300 respondents). Although the survey company, Centiment, maintained demographic data on these panel respondents, it was determined that this data was not as comprehensive as the data collected by the survey, at which point the demographic questions were moved to the front of the survey, and

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

asked of all respondents, including those who did not indicate firearms ownership. For the purpose of calculating statistics on national firearms ownership rates, we exclude the entire sample of both firearms owners and non-firearms owners from these first two days (410 respondents), leaving us with 53,834 respondents after this date for whom we have comprehensive demographic data. Firearms-owning respondents from the first two days are included in subsequent analysis of firearms owners, and we do possess comprehensive demographic information for these individuals.

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

One of the challenges in asking questions about firearms is eliciting truthful responses from firearms owners who may be hesitant to reveal information about practices that are associated with public controversy. The “tendency to respond to questions in a socially acceptable direction” when answering surveys is often referred to as “social desirability bias” (Spector, 2004), and there is evidence that it can influence survey responses to questions regarding firearms. For example, when Rafferty et al. (1995) conducted a telephone survey of Michigan residents who had purchased a hunting license or registered a handgun, only 87.3 percent of the handgun registrants and 89.7 percent of hunting license holders reported having a gun in their household. Similarly, Ludwig et al. (1998) have documented a large gender gap in reporting of firearms ownership, finding that “in telephone surveys, the rate of household gun ownership reported by husbands exceeded wives’ reports by an average of 12 percentage points.” Asking questions via an anonymous survey instrument on the internet is likely to cause less concern or worry than traditional phone-based questionnaires with a live person on the other end or during face-to-face interviews, which is how the General Social Survey – one of the most prominent national surveys that regularly asks

about firearm ownership – is conducted.<sup>6</sup> Even when presented in the more impersonal setting of a computer interface, however, a survey must be worded thoughtfully so as to assure anonymity, and not give respondents reason to worry about answering truthfully.

This survey employs five common devices to encourage more truthful responses. First, it uses an indirect “teaser” question to pre-screen respondents in order to select those who own firearms. The initial question prompt presents the survey as concerned with “recreational opportunities and related public policies” and asks respondents if they own any of the following items, presented in a random order: Bicycle, Canoe or Kayak, Firearm, Rock Climbing Equipment, None of the Above. Only those who select “Firearm” are then presented the full survey. We also ask demographic questions at the outset, which allows us to assess the representativeness of the sample, including those who do not indicate firearms ownership. Second, the survey was carefully phrased so as to not suggest animus towards gun owners or ignorance of firearms-related terminology. Third, the survey assures respondents of anonymity. Fourth, in order to ensure that respondents are reading the survey questions carefully, and then responding with considered answers thereto, a “disqualifying” question (sometimes referred to as a “screening” question) was embedded a little over half of the way through the survey instructing respondents to select a particular answer for that question, which only those who read the question in its entirety would understand. Anyone registering an incorrect answer to this question was disqualified from the survey and their responses to any of the survey questions were neither considered nor tallied.

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

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<sup>6</sup>For a description of the methods of the General Social Survey see: [https://www.nsf.gov/pubs/2007/nsf0748/nsf0748\\_3.pdf](https://www.nsf.gov/pubs/2007/nsf0748/nsf0748_3.pdf)



variations are sometimes observed in the total number of respondents for certain questions.

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

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

## 2 Gun Ownership Demographics

- About a third of adults in the U.S. report owning a firearm, totaling about 81.4 million adult gun owners.
- 57.8% of gun owners are male, 42.2% are female.
- 25.4% of Blacks own firearms.
- 28.3% of Hispanics own firearms.
- 19.4% of Asians own firearms.
- 34.3% of Whites own firearms.

With raked weighting employed for gender, state, income, race, and age we find that 32.5% of US adults age 21 and over own a firearm. Expanding the sample population to include those age 18-20, who are restricted in some states from purchasing firearms, 31.9% of US adults age 18 and over own firearms. This is slightly above, but consistent with, the

most recent in-depth survey of firearms ownership conducted by Pew in 2017, which reports that 30% of adults in America own a firearm (Brown, 2017).

As a benchmark to assess the accuracy of the teaser question used to ascertain firearm ownership, we can also compare ownership rates of other items reported by respondents for this question. We find 52% of respondents indicating owning a bicycle, which closely matches Pew’s finding that 53% of Americans own a bicycle, according to a poll conducted in 2014.<sup>7</sup>

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

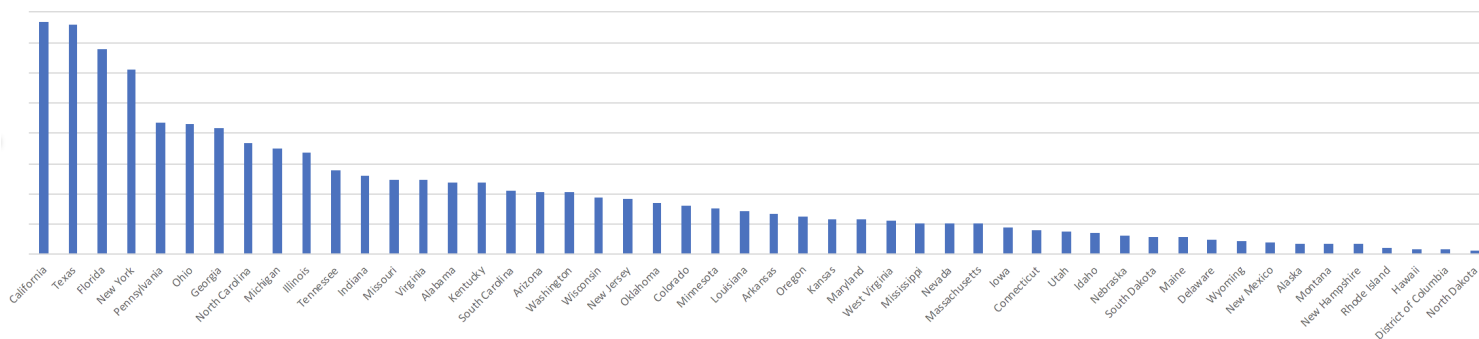


Figure 1: Distribution of Firearms Owners Surveyed

Regarding the demographics of gun ownership, we find that 57.8% of gun owners are male and 42.2% are female, the average age of gun owners is 46-50 years old, and the average annual household income is \$80,000-\$90,000. Approximately 18% of gun owners do not identify as White (alone). Overall, approximately 10.6% of gun owners identify as Black, 3.6% identify as Asian, 1.6% identify as American Indian, .2% identify as Pacific Islander, 82.0% identify as White, and 2.0% identify as Other. When analyzed within racial groups, we find that 25.4% of Blacks own firearms, 28.3% of Hispanics own firearms, 19.4% of Asians own firearms, and 34.3% of Whites own firearms.

According to the latest (2019) census estimates, there are approximately 255,200,373 individuals age 18 and over in the U.S., which implies that there are about 81.4 million

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

adult gun owners.<sup>8</sup> Note that this figure does not include those under the age of 18 who may use or possess firearms for purposes such as hunting or shooting sports.

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

### 3 Defensive Use of Firearms

- 31.1% of gun owners, or approximately 25.3 million adult Americans, have used a gun in self-defense.
- In most cases (81.9%) the gun is not fired.
- There are approximately 1.67 million defensive uses of firearms per year.
- The majority of defensive gun uses take place outside of the home (74.8%), and many (51.2%) involve more than one assailant.
- Handguns are the firearm most commonly used in defensive incidents (65.9%), followed by shotguns (21.0%) and rifles (13.1%).

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

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

Given that 31.1% of firearms owners have used a firearm in self-defense, this implies that approximately 25.3 million adult Americans have defended themselves with a firearm. Answers to the frequency question suggest that these gun owners have ever been involved

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

Have you ever defended yourself or your property with a firearm, even if it was not fired or displayed? Please do not include military service, police work, or work as a security guard.

[For those indicating Yes.] How many times have you defended yourself or your property with a firearm, even if it was not fired or displayed? Again, please do not include military service, police work, or work as a security guard.

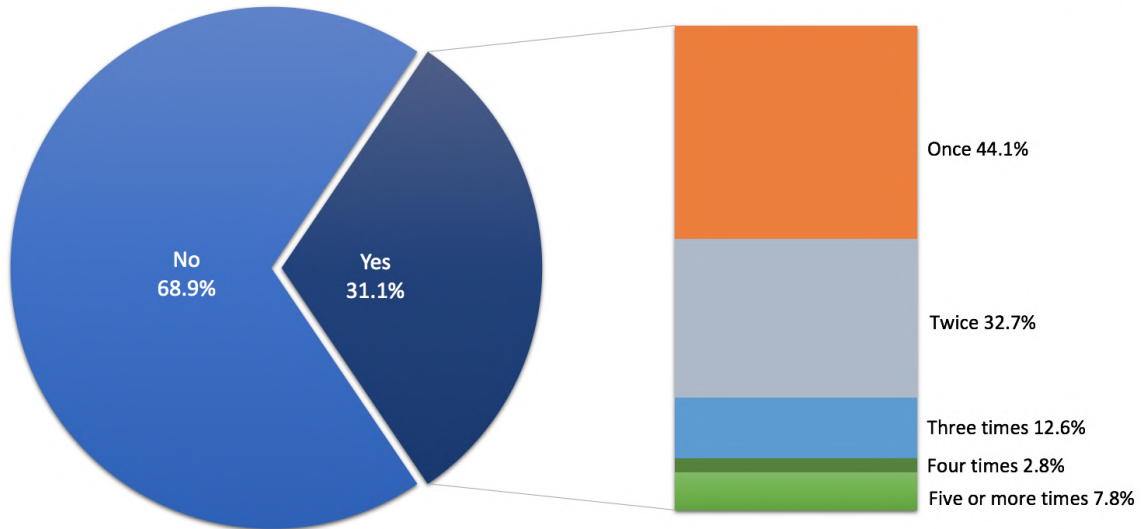


Figure 2: Defensive Gun Use: 31.1% of firearms owners have defended themselves or their property with a gun, and a majority have done so more than once.

in approximately 50 million defensive incidents. Assuming that defensive uses of firearms are distributed roughly equally across years, this suggests at least 1.67 million defensive uses of firearms per year in which firearms owners have defended themselves or their property through the discharge, display, or mention of a firearm (excluding military service, police work, or work as a security guard).<sup>9</sup>

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

Note that this estimate is inherently conservative for two reasons. First, it assumes that gun owners possessed firearms, or had access to firearms, from the age of 18. In so far as firearms were only first acquired/accessed by some respondents in later years, this would reduce the number of adult firearms owning years represented by the survey responses and result in a higher estimate of the number of defensive incidents per year. Second, this figure only captures defensive gun uses by those currently indicating firearms

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

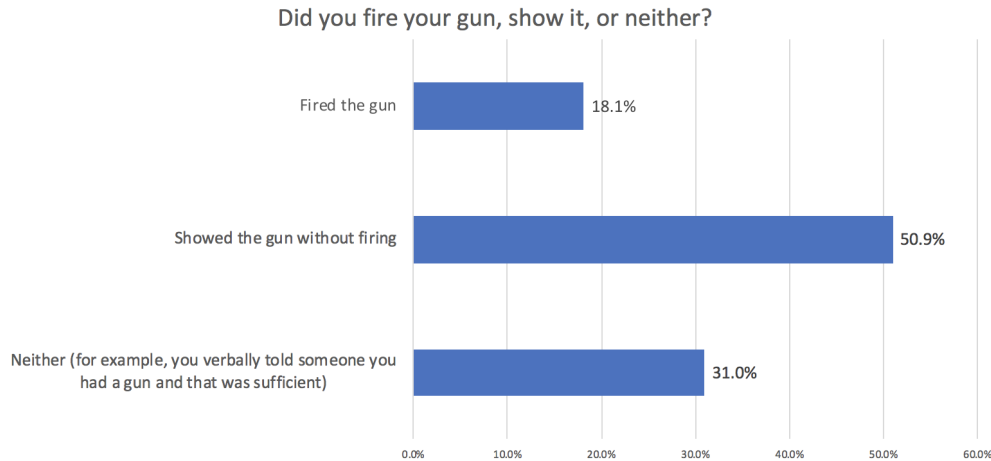


Figure 3: How Guns are Employed in Self-defense: In most defensive incidents no shots are fired.

Figure 4 shows where defensive gun uses occurred. Approximately a quarter (25.2%) of defensive incidents took place within the gun owner’s home, and approximately half (53.9%) occurred outside their home but on their property. About one out of ten (9.1%) of defensive gun uses occurred elsewhere. According to Kleck and Gertz (1995), only 59.5% of respondents who reported a defensive gun use personally owned a gun (p.187). This would suggest that the true number of defensive gun uses, if those who do not personally own firearms are included in the estimate, could be substantially higher - perhaps as high as 2.8 million per year.

Finally, note that our overall approach assumes that children are not employing firearms for self-defense with any meaningful frequency. However, for the purpose of sensitivity analysis, if we lower the age used for calculating defensive incident frequency to assume that children as young as 12 years old are commonly possessing and using firearms for self-defense (and no non-firearms owning adults used firearms for self-defense), this would still imply 1.39 million defensive uses of firearms per year (48 years - 12 years = 36 years over which 50 million defensive incidents took place).

gun uses occurred in public, and about one out of twenty (4.8%) occurred at work.

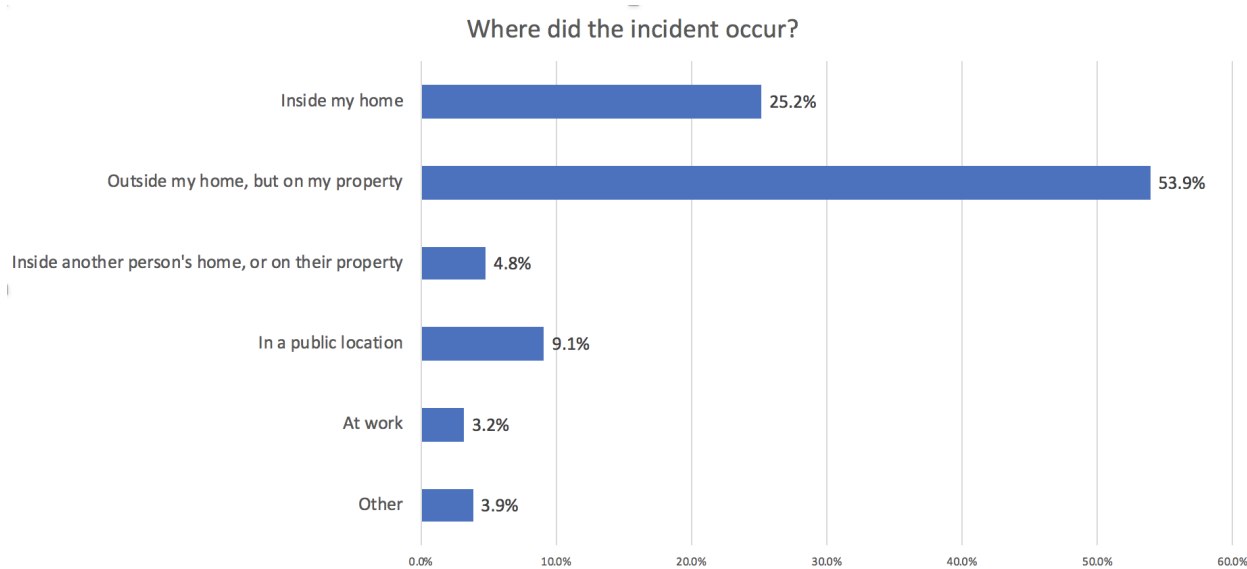


Figure 4: The Location of Defensive Incidents: Most take place outside the home.

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

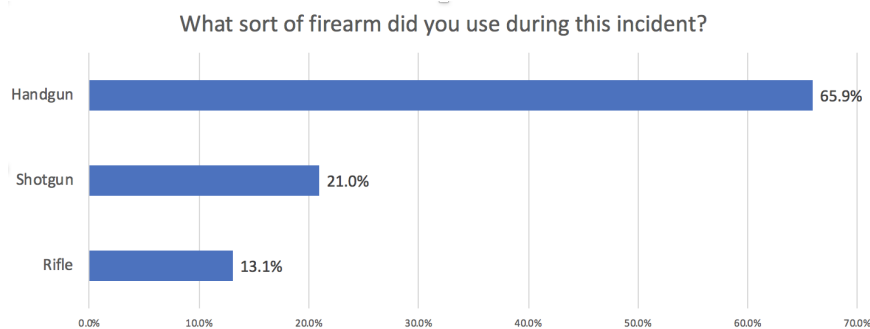


Figure 5: Type of Gun Used for Defense: Handguns are the most common type of firearm used in defensive encounters, followed by shotguns and rifles.

Respondents were also asked to indicate how many assailants were involved in each defensive incident. As Figure 6 illustrates, about half of defensive encounters (51.2%) involved

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

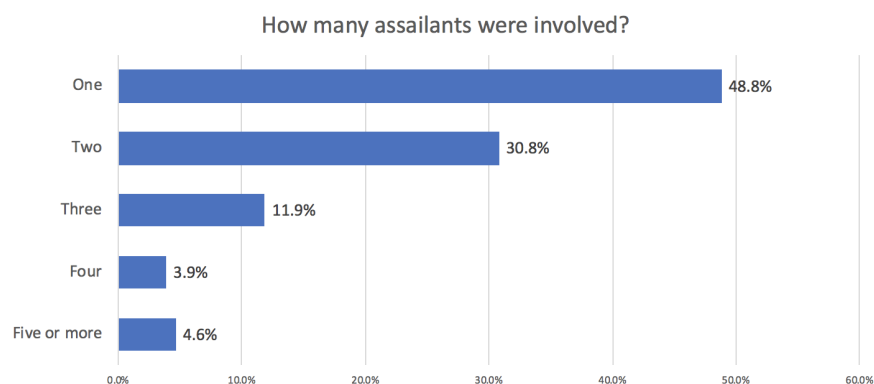


Figure 6: Distribution of the Number of Assailants Involved in a Defensive Incident: Multiple assailants are common.

Finally, after respondents answered these detailed questions about each defensive incident, which all flowed from their initial affirmative answer to the question, “Have you ever defended yourself or your property with a firearm, even if it was not fired or displayed?”, all gun owners were asked, “Separate from any incident in which you directly used a gun to defend yourself, has the presence of a gun ever deterred any criminal conduct against you, your family, or your property?” Respondents answering in the affirmative could indicate how many times such deterrence occurred, from once to five or more occasions. As Figure 7 illustrates, separate from the self-defense incidents summarized earlier, 31.8% of gun owners reported that the mere presence of a gun has deterred criminal conduct, and 40.2% of these individuals indicated that this has happened on more than one occasion. Extrapolated to the population at large, this suggests that approximately 25.9 million gun owners have been involved in an incident in which the presence of a firearm deterred crime on some 44.9 million occasions. This translates to a rate of approximately 1.5 million incidents per year for which the presence of a firearm deterred crime.

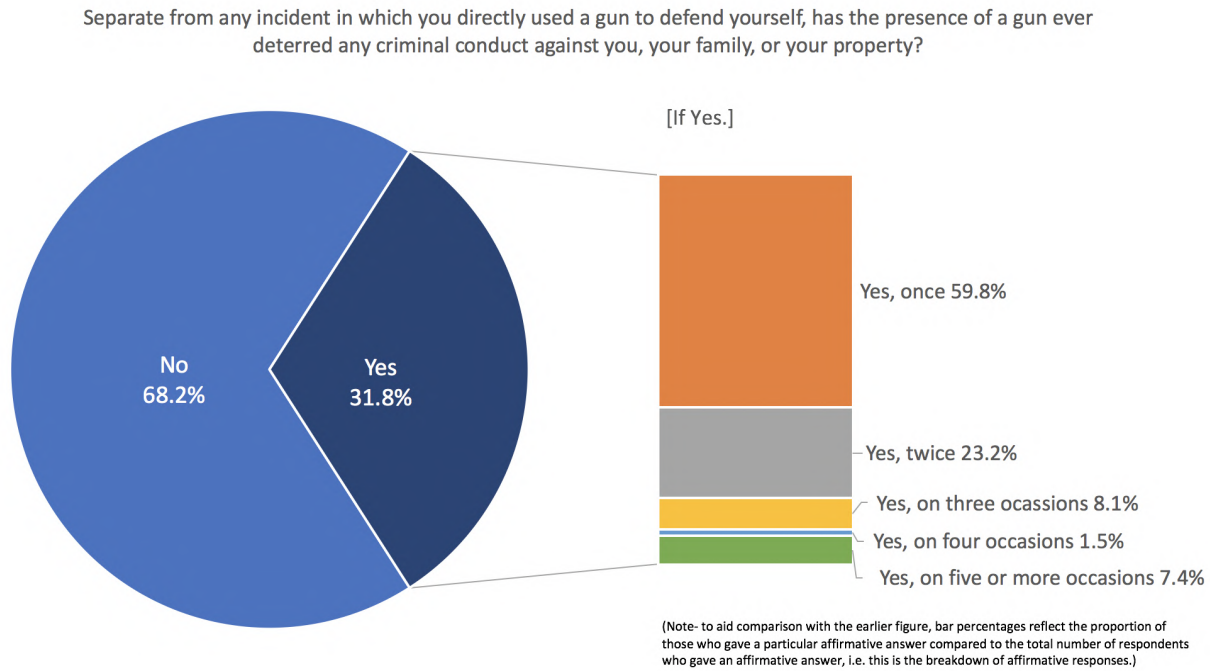


Figure 7: Frequency with which Firearms Deter Crime: 31.8% of firearms owners report that the presence of a firearm has deterred criminal conduct against them, often on more than one occasion.

## 4 Carry Outside of the Home

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

As Figure 8 illustrates, a majority of gun owners (56.2%), or about 45.8 million, indicate that there are some circumstances in which they carry a handgun for self-defense (which can include situations in which no permit is required to carry, such as on their own property);



and about 35% of gun owners report carrying a handgun with some frequency (indicating that they carry “Sometimes,” “Often,” or “Always or almost always.”). Moreover, as Figure 9 summarizes, 34.9% of gun owners report that there have been instances in which they wanted to carry a handgun for self-defense, but local rules did not allow them to carry.

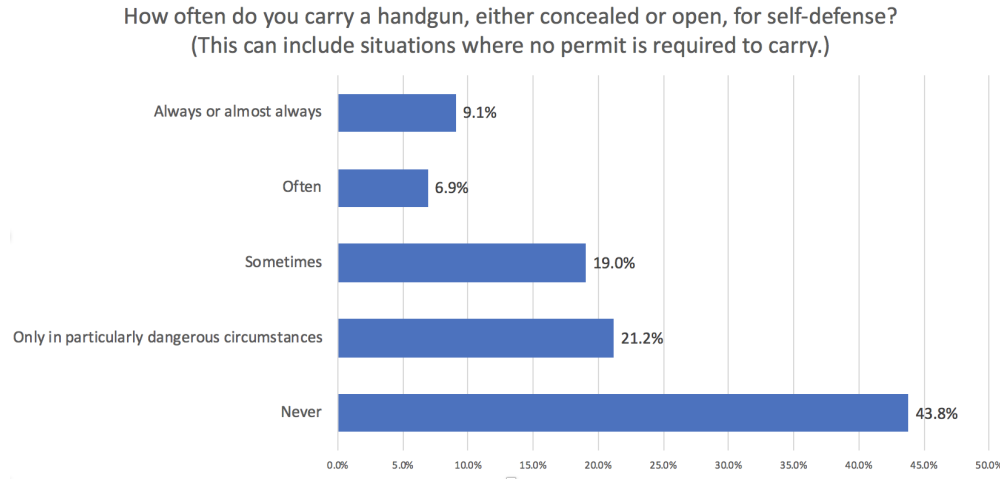


Figure 8: Frequency of Defensive Carry: Carrying a handgun for self-defense is common.

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

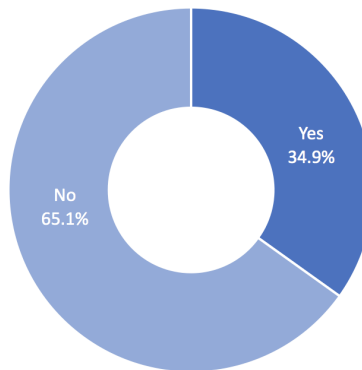


Figure 9: Prohibition of Carry: About a third of gun owners have wanted to carry a handgun for self-defense in a particular situation but local rules prohibited them from doing so.

Assessing the number of people who carry a concealed handgun in public is complicated due, in part, to the proliferation of so-called “constitutional carry” or “permitless carry”

states in recent years. These states - about 18 at the time this survey was conducted - generally allow adults in good legal standing (often restricted to those age 21 and older) to carry a concealed weapon without a permit. Most of these states previously had a permitting process for concealed carry and required permits to be renewed at regular intervals in order to remain valid. Under constitutional carry, law abiding adults in these states are permitted to carry concealed without an official “permit.” However, most of these states continue to issue permits to residents who desire them because such permits can be useful for reciprocal carry benefits in other states. For example, a person acquiring a Utah carry permit would be entitled to carry a handgun in a number of other states such as neighboring Colorado and Nevada.<sup>10</sup> Thus, while basically all gun owners age 21 and over are “permitted” to carry a handgun for self-defense in constitutional carry states, many individuals may also possess a “permit,” even though it is redundant for in-state carry.

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

In order to provide a robust but conservative estimate of those who actually carry in public, we code as “public carriers” those individuals who indicated both that they have a

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

<sup>11</sup>For example, a number of states such as California, Georgia, and Oregon allow those with a hunting or fishing license to carry concealed while engaged in hunting or fishing or while going to or returning from an expedition. See: <https://oag.ca.gov/sites/all/files/agweb/pdfs/firearms/pdf/cf12016.pdf>, <https://law.justia.com/codes/georgia/2010/title-16/chapter-11/article-4/part-3/16-11-126/>, <https://codes.findlaw.com/or/title-16-crimes-and-punishments/or-rev-st-sect-166-260.html>

concealed carry permit and that they carry a handgun for self-defense at least “sometimes.” We also restrict analysis and population estimates to those age 21 and over given that most states restrict those under 21 from carrying concealed in public.

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

## 5 Types of Firearms Owned

- 82.7% of gun owners report owning a handgun, 68.8% report owning a rifle, and 58.4% report owning a shotgun.
- 21.9% of gun owners own only one firearm.
- The average gun owner owns 5 firearms.
- 30.2% of gun owners, about 24.6 million people, have owned an AR-15 or similarly styled rifle.
- 48.0% of gun owners have owned magazines that hold over 10 rounds.

## 6 Conclusion

This report summarizes the main findings of the most comprehensive survey of firearms ownership and use conducted in the United States to date. While many of its estimates corroborate prior survey research in this area, it also provides unique insights that are relevant to timely public policy debates - particularly regarding the defensive use of firearms. Moreover, it does so in the wake of a period of social unrest, which has led to rising crime rates and record gun sales. This report has focused on presenting top-line results and summary

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

statistics, but the breadth and detail of this survey equip it to be a valuable resource for further research. This data will be analyzed in greater depth within a larger book-length project and ultimately made available for public use.

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## Appendix A: Vermont Pilot Survey

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

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

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

As Figure 10 illustrates, almost a third of gun owners (29.3%) reported having used a firearm to defend themselves or their property (not counting incidents that were due to military service, police work, or work as a security guard). In nearly half of these defensive gun uses (45.9%), respondents reported facing multiple assailants. 85.8% of all incidents were resolved without the firearm owner having to fire a shot (e.g. by simply showing a firearm or verbally threatening to use it).

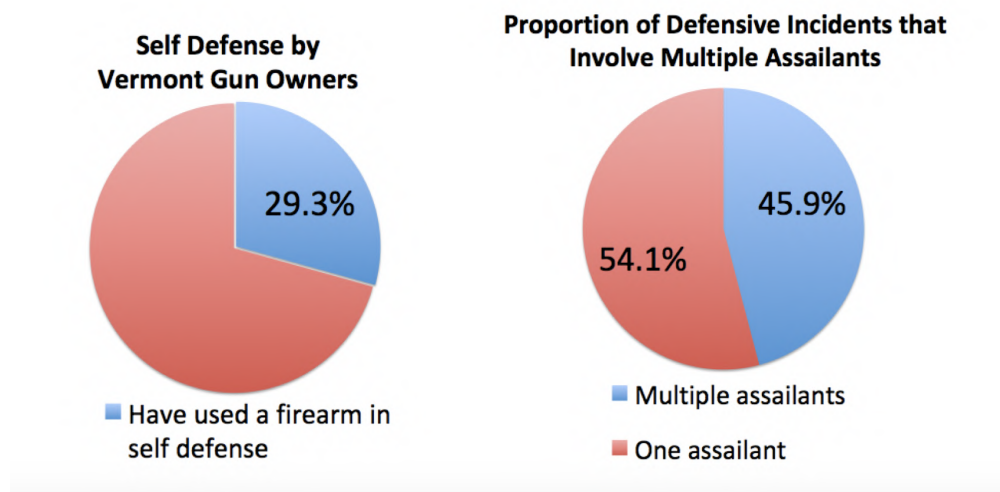


Figure 10: Proportion of gun owners in Vermont who have use a firearm in self-defense and number of assailants involved.

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

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

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

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

<b>State of Residence</b>	<b>Initial Sample Proportions</b>	<b>Census Based Weighted Proportions</b>
Alabama	1.83%	1.52%
Alaska	0.39%	0.22%
Arizona	2.10%	2.16%
Arkansas	1.10%	0.91%
California	9.75%	11.95%
Colorado	1.59%	1.75%
Connecticut	1.23%	1.09%
Delaware	0.56%	0.30%
District of Columbia	0.27%	0.21%
Florida	7.29%	6.51%
Georgia	3.67%	3.24%
Hawaii	0.36%	0.44%
Idaho	0.44%	0.56%
Illinois	4.14%	3.87%
Indiana	2.13%	2.05%
Iowa	0.91%	0.96%
Kansas	0.92%	0.89%
Kentucky	1.61%	1.36%
Louisiana	1.23%	1.41%
Maine	0.51%	0.41%
Maryland	1.67%	1.87%
Massachusetts	1.88%	2.13%
Michigan	3.21%	3.05%
Minnesota	1.36%	1.73%
Mississippi	0.83%	0.90%
Missouri	1.93%	1.86%
Montana	0.25%	0.33%
Nebraska	0.53%	0.59%
Nevada	0.90%	0.94%
New Hampshire	0.40%	0.42%
New Jersey	2.97%	2.81%



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