No. 24-203

IN THE

Supreme Court of the United States

DAVID SNOPE, *et al.*,

Petitioners,

v.

ANTHONY G. BROWN, IN HIS OFFICIAL CAPACITY AS ATTORNEY GENERAL OF MARYLAND, *et al.*,

Respondents.

ON PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE FOURTH CIRCUIT

BRIEF OF *AMICI CURIAE* INTERNATIONAL LAW ENFORCEMENT EDUCATORS AND TRAINERS ASSOCIATION, PROFESSORS OF SECOND AMENDMENT LAW AND HISTORY, AND INDEPENDENCE INSTITUTE IN SUPPORT OF PETITIONERS

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TABLE OF CONTENTS

Table of Contents

TABLE OF CITED AUTHORITIES

Page

Supreme Court Cases

Lower Court Cases

Expert Declarations

Page

Regulations

Books

Page

Journal Articles

Page

Page

Other Federal Sources

Page

Other Sources

INTEREST OF *AMICI CURIAE*[1]

The **International Law Enforcement Educators and Trainers Association (ILEETA)** comprises over 6,000 professional law enforcement instructors, committed to reducing risk and saving lives of law enforcement officers and citizens. ILEETA members train officers in proper use of firearms and other force, and many other topics. ILEETA trains trainers at its annual conference, and through the ILEETA Journal, ILEETA Digest, ILEETA E-Bulletin, and ILEETA Learning Lab. ILEETA's amicus briefs were cited by Justice Breyer in *Heller* and by Justices Alito and Stevens in *McDonald*.

Amici professors teach and write on the Second Amendment: Randy Barnett (Georgetown), Royce Barondes (Missouri, emeritus), Robert Cottrol (George Washington), Lee Francis (Widener, Harrisburg), Don Kilmer (Lincoln), George Mocsary (Wyoming), Joe Muha (Akron), Joseph Olson (Hamline-Mitchell, emeritus), Michael O'Shea (Oklahoma City), David Raney (Hillsdale, history prof.), and Glenn Reynolds (Tennessee).

Further information about the professors is available at: https://davekopel.org/Briefs/SCt/Snope/professorbios-Snope.pdf.

The **Independence Institute** is a think tank in Denver, Colorado, founded in 1985 on the eternal truths of the Declaration of Independence. The briefs and scholarship of Research Director David Kopel have been cited in seven

1. No party's counsel authored this brief. No one other than *amici*, their members, or their counsel contributed money to it. All counsel of record received notice of intent to file this brief at least 10 days prior to the deadline.

opinions from this Court, including *Bruen*, *McDonald*, and *Heller*. The Institute's Senior Fellow in Constitutional Studies, law professor Robert Natelson, has been cited in a dozen Court opinions.

SUMMARY OF ARGUMENT

The AR-type semiautomatic rifles banned by Maryland are excellent arms for lawful defense of self and others. They are more accurate than handguns. Their ammunition is capable of incapacitating an attacker, but less likely to over-penetrate walls than handgun or shotgun ammunition. Their ergonomics make them easier to use than many other firearms. Hence, these arms are often chosen by law enforcement officers and by law-abiding citizens for lawful defense of self and others.

Although the Fourth Circuit claims these rifles are "excessively dangerous," they are not. The rifles are not machine guns; they fire at the same rate as common handguns. They are less powerful than most other rifles. The wounds they cause are generally less severe than wounds from other long guns.

ARGUMENT

The *en banc* Fourth Circuit in *Bianchi v. Brown* called AR-type and other semiautomatic rifles "excessively dangerous" weapons that are "ill-suited for self-defense." Pet.App.3a-4a. The court held that such firearms—regardless of their commonality—are not "arms" protected by the Second Amendment.[2]

2. ArmaLite built the ArmaLite Rifle-15 as an automatic weapon (in federal statutory terms, "machinegun") and sold the

Bianchi re-asserts the rationale adopted in *Kolbe v. Hogan*, 849 F.3d 114 (4th Cir. 2017) (en banc), that ARs are "exceptionally lethal weapons of war," having "a capability for lethality—more wounds, more serious, in more victims—far beyond that of other firearms in general, including other semiautomatic guns." *Id.* at 125, 137.

Similarly, the Seventh Circuit declared the rifles are not Second Amendment "arms" because they are "almost the same" as machine guns, "exclusively or predominantly useful in military service" or "reserved to the military." *Bevis v. City of Naperville*, 85 F.4th 1175, 1194-97 (7th Cir. 2023). Several district courts used the same rationale to deny preliminary relief against rifle bans, whereas the Southern District of California, after trial, held the state's ban unconstitutional. *Miller v. Bonta*, 699 F.Supp.3d 956 (S.D. Cal. 2023).

If *Bianchi*'s claims are true, and the rifles actually are useful only for mass slaughter, typical American peace officers would not choose them. Conversely, if the rifles are no more dangerous than other firearms, the *Bianchi* rationale collapses.

The Fourth Circuit repeatedly cites its earlier decision in *Kolbe* as well as post-*Bruen* lower court decisions

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patent to Colt's Manufacturing, which won a military contract early in the Vietnam War. The rifle's name was changed to M16. In 1965 Colt's introduced a civilian semiautomatic version (one shot per trigger pull) and called it "AR-15." Because the patent is long expired, many manufacturers produce AR-type rifles; however, Colt's still owns the "AR-15" trade name. For accuracy, this brief will refer to semiautomatic "AR rifles," except when "AR-15" appears in a quote.

denying preliminary injunctions. Pet.App. 32a-42a. Many of the supposed facts about the banned rifles come from opinions in which plaintiffs relied exclusively on the "common use" doctrine from *Heller*, and pointedly declined to contest the ridiculous assertions about ARs made by government defendants. *Bianchi* rests upon incorrect and impossible factual claims.

I. Law enforcement officers choose rifles like those at issue because those rifles are often best for defense of self and others.

Most law enforcement patrol cars carry a rifle, a shotgun, or both. The patrol rifle usually is a semiautomatic AR-type. *Bianchi* describes these rifles as "excessively dangerous weapons ill-suited and disproportionate" for self-defense. Pet.App.26a.

To the contrary, ARs have excellent utility for lawful defense of self and others, as demonstrated by the routine choices of law enforcement officers. One typical use is close-quarters operations inside buildings, a similar situation to that faced by many citizen defenders.

Prudently, American citizens have always looked to law enforcement for guidance in choosing defensive firearms, because law enforcement firearms are selected with care. Officers choose their duty arms for one purpose: lawful defense of self and others.

The most important reason why citizens often do and should copy law enforcement officers' firearms selections is to ensure that citizens will have reliable firearms for defense. Officers' arms are well-suited for defense against

violent criminals; and they are appropriate for use in civil society.[3]

Buford Boone, one of plaintiffs' firearms and ballistics experts in *Kolbe*, explained why ARs are particularly suitable for defensive purposes. *See* Boone Decl. at J.A. 2176-83, in Kolbe v. Hogan, 849 F.3d 114 (4th Cir. 2017).[4] Effective self-defense requires incapacitating the attacker as quickly as possible—delivering a "threat-stopping hit." Such a hit requires two things: first, the defender's shots must hit the attackers. Second, the shots must "compel an attacker to stop"—such that his "body ceases to be able to support action." *Id.* at 2176-77.

There is an inherent tension between the two. The less powerful the gun, the easier it is to shoot accurately. The more powerful the gun, the better the chance that a hit will stop the attacker. For many defensive users, including law enforcement, the AR is an excellent compromise.

Like most rifles, ARs are more powerful than handguns.[5] Among rifles, ARs are among the least powerful.

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3. In a typical law enforcement agency, only a small number of officers possess genuinely military arms, such as machine guns or stun grenades. These arms are deployed only for unusual situations, such as hostage scenarios or high-risk warrant service, not for standard patrol.

4. Boone directed the FBI Ballistic Research Facility for 15 years.

5. The very small .22 caliber rimfire cartridge, used in both rifles and handguns, is less powerful than other ammunition. Likewise very low-powered are even smaller cartridges, such as .17 Hornet. References in this brief to "rifles" exclude the tiny calibers, except as otherwise noted.

Like all rifles, ARs are larger than handguns, and so better absorb recoil. Because the most common AR ammunition is low power compared to other rifles, recoil is also lower. Less recoil makes a gun easier to shoot accurately. So does the lighter weight of the AR. The advantages matter especially for persons who do not have great upper body strength.

Additionally, the AR platform is built for best ergonomics, for factory-installed or easily-added features such as a telescoping stock, which can adjust for a precise fit to the user's size. A customizable forward grip provides stability. The rails surrounding the barrel (sometimes called the handguard or forend) facilitate adding scopes, red dot optics, and/or flashlights, all for better accuracy. *Id.* at 2182.

The AR's superior accuracy over handguns reduces missed shots, thus reducing danger to bystanders. As discussed in Part III.E, for defense in the home, the most common AR ammunition calibers (.223 inches or 5.56mm) are less likely to penetrate walls than are handguns, other rifles, or shotguns.

An AR rifle is superb for putting a bullet on target. The trade-off is that the AR is inferior to most other rifles in being able to stop an attacker with one hit. "That is why law enforcement agencies believe that 30-round magazines are the best choice for defensive purposes when using the AR-15 rifle." *Id.* at 2179.

Of course law enforcement officers do not rely solely on the AR, nor do many law-abiding citizens. Handguns are superior in portability and maneuverability and can

be fired one-handed. But they require higher skill to shoot accurately.

A 12-gauge shotgun (the largest very common size) is most likely to deliver a threat-stopping hit at close range. But it has much greater recoil, making it more difficult to control. It is harder to reload, especially under the life-or-death conditions of self-defense.

There is no "best" type of gun for self- or family-defense. Different guns are best in different situations for different defenders. That is why law enforcement officers usually have a handgun in a holster and different arms in the patrol car. Many citizens also have more than one type of firearm. The Second Amendment guarantees citizens the individual right to choose any common arm.

II. The rifles at issue fire at the same rate as most common handguns.

Many citizen semiautomatic AR rifles look like the military M16, because most differences come from internal components. As this Court has explained, a semiautomatic firearm fires one bullet for each pull of the trigger, whereas an automatic (machine gun) fires continuously so long as the shooter presses and holds the trigger. *Staples v. United States*, 511 U.S. 600, 602 n.1. (1994).[6] "The AR-15 is the civilian version of the military's M-16 rifle, and is ... a semiautomatic weapon. The M-16, in contrast, is a selective fire rifle that allows the operator, by rotating a selector switch, to choose semiautomatic or automatic

6. Some automatics "burst fire," with two or three shots per trigger pull.

fire." *Id.* at 603. That is a reason why semiautomatics, specifically including "the AR-15," have "traditionally have been widely accepted as lawful possessions." *Id.* at 603, 612; *cf. Garland v. Cargill*, 602 US 406, 430 (2024) (Sotomayor, J., dissenting) (semiautomatic AR-15s are "commonly available").

A. Because semiautomatic rifles cannot fire automatically, they are not used by any military.

Rejecting *Heller*'s common-use test, *Bianchi* seizes upon *Heller*'s rule that "dangerous and unusual" "weapons that are most useful in military service—M-16 rifles and the like—may be banned," *District of Columbia v. Heller*, 554 U.S. 570, 627 (2008). *Bianchi* declares that civilian ARs have "the same basic characteristics, functionality, capabilities, and potential for injury as the M16"; "just like the M16, the AR-15 is most useful in military service and may be banned consistent with the Second Amendment." Pet.App.42a-43a.

ARs are *not* "most useful" in military service; they are not used in military service *at all*. No military force in the world uses a service rifle that is semiautomatic only. Harold Johnson Decl., in Heller v. District of Columbia, 698 F. Supp. 2d 179 (D.D.C. Sept. 14, 2009); Gregory Wallace, "*Assault Weapon*" *Myths*, 43 S. Ill. U.L.J. 193, 207-11 (2018).[7]

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7. Johnson is author of the Defense Intelligence Agency's Small Arms Identification and Operation Guide—Eurasian Communist Countries (editions 1969, 1970, 1973, 1976, 1983).

As one of plaintiffs' experts in *Kolbe* explained:

> The defining characteristic of military weapons designed for combat—the characteristic that separates military weapons from civilian firearms—is the functional ability to fire in fully automatic mode, 3-round burst mode [a type of automatic fire], or select fire mode [the user can switch between automatic and semi-automatic]. The significance of this functional difference ... [is] civilian firearms like the AR-15 cannot fire in fully automatic mode and therefore cannot be considered military weapons.

Guy Rossi Decl. at J.A. 2129, in Kolbe v. Hogan.[8]

This Court in *Staples* accurately differentiated the AR-15: it is the "*civilian* version" of the M16 rifle. *Staples*, 511 U.S. at 603 (emphasis added). The semiautomatic AR is not a military weapon and never has been.

The Seventh Circuit embraced the Fourth Circuit's error, labeling ARs "almost the same" as machine guns and other weapons "exclusively or predominantly useful in military service," "reserved to the military," and "indistinguishable" from the M16. *Bevis*, 85 F.4th at 1194-97. But the Seventh Circuit overlooked that one rifle fires much faster than the other, and so the slower one is never adopted by any military.

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8. Rossi is a former law enforcement officer who specialized in field training and defensive tactics instruction. He is a nationally recognized law enforcement trainer (including at ILEETA's annual training conference) and expert witness on use of force, defensive tactics, and firearms.

B. Semiautomatic rifles fire at the same rate as common handguns, much slower than automatic rifles.

All semiautomatics fire at about the same rate. The rate-of-fire for ARs and other semiautomatic rifles is like the rate of fire for common semiautomatic handguns. None of the opinions cited in *Bianchi* acknowledges the fact. Semiautomatic handguns comprise approximately 84% of new handguns, so the claim that the AR's semiautomatic mechanism makes it just like a machine gun is really a claim that 84% of handguns can be banned.[9]

It is not remotely true that semiautomatics fire as rapidly as automatics. The U.S. military's automatic M16/M4 rifles have a cyclic rate-of-fire of 700-to-900 rounds-per-minute. U.S. Dep't of the Army, FIELD MANUAL 3-22.9, RIFLE MARKSMANSHIP: M16/M4-SERIES WEAPONS, Table 2-1 (2008).[10] That is 12-to-15 rounds per second.

Kolbe asserted the rate for the semiautomatic-only "AR-15" is "nearly identical." 849 F.3d at 136. The cited authority was a 1994 congressional report asserting, "Semiautomatic weapons can be fired at rates of 300

9. According to the latest data, in 2019 there were 3,046,013 pistols manufactured in the U.S. and 580,601 revolvers. Alcohol, Tobacco, Firearms and Explosives, *Firearms Commerce in the United States Annual Statistical Update 2021* at 1-2, ex. 1 (2021). The figure could be adjusted to remove the unknown but very likely small number of non-semiautomatic handguns classified as pistols *(e.g.*, one or two shot), remove exports, and add imports, but ATF's data do not distinguish types of handgun imports. *Id.* at 3-6.

10. https://www.moore.army.mil/infantry/DoctrineSupplement/ATP3-21.8/PDFs/fm3_22x9.pdf.

to 500 rounds per minute, making them virtually indistinguishable in practical effect from machine guns." *Id.* at 125 (quoting H.R. Rep. No. 103-489, at 18 (1994)). *Bevis* claimed ARs can fire 300 rounds-per-minute. 85 F.4th at 1196-97.

These claims are impossible. Because any semiautomatic fires only one cartridge for each trigger pull, the user would have to pull the trigger five-to-eight times *per second* for an entire minute. That would take a superhuman finger, especially when pulling against the pounds of force required to move a trigger. The 300-to-500-rounds-per-minute pseudo-fact came from an unsourced claim by a gun-control lobbyist in 1991. *See* Wallace, *Myths* at 214-22.

More accurately, as Justice Sotomayor wrote in *Garland v. Cargill*, "a regular person with an AR-15 can achieve a fire rate of around 60 rounds per minute," while a "professional sport shooter can use the AR-15 to fire at a rate of up to 180 rounds per minute, pulling the trigger three times per second." 602 U.S. at 433.

Claiming that the civilian AR has a similar rate of fire as the M16 is false. The rate for the automatic M16 is 700-to-900 rounds per minute, while the rate of semiautomatic AR is 60-to-180.

Bianchi deflects the rate-of-fire difference by claiming it "pales in significance compared to the plethora of combat-functional features that makes the two weapons similar." Pet.App.35a. These features include detachable magazines; flash suppressors; barrel shrouds; and affixable sights, scopes, flashlights, and bipods. Pet.App.33a. Most

of these features are ergonomic, accuracy-enhancing, and common for other long guns. *See* Wallace, *Myths*, at 226-40. None make AR bullets fire faster or strike harder.[11]

III. The rifles at issue are more powerful than handguns and less powerful than most other rifles.

Bianchi asserts that the AR bullets produce "more serious wounds," "catastrophic damage," "multiple organs shattered, bones exploded, and soft tissue absolutely destroyed." Pet.App.34a, 36a.

The claims are exaggerated, but *Bianchi* is right that AR rifles are inherently more powerful than common handguns. So are most other rifles. The AR actually is less powerful than those.

A. Because AR bullets are small, their terminal performance is inferior to many other long guns.

Like most modern rifles, ARs fire bullets with more velocity than handguns. This is in part because rifles have longer barrels than handguns, so the rifle bullet receives a longer push from the expanding gunpowder gas.

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11. *Bianchi* asserts that although the AR is not a machine gun, modifications like bump stocks and binary triggers can transform it into one. Pet.App.35a. Such devices can substantially increase a rifle's rate of fire. But, as Judge Richardson points out in his *Bianchi* dissent, "the solution is to regulate the modifications, not the weapons themselves." Pet.App. at 193a n.73. Some legislatures have chosen to regulate these devices similarly to machine gun conversion kits.

However, greater velocity does not necessarily mean greater wound severity; a ping-pong ball and a rifle bullet traveling at the same velocity will produce very different results when they strike.

Consider the wounding effects of three common rounds of ammunition, all having approximately the same muzzle velocity. The diminutive .22LR rifle fires bullets weighing 30 to 40 grains; it is a favorite for plinking at tin cans. The .44 magnum revolver is a powerful defensive handgun, carried by fictional Detective "Dirty Harry" Callahan. Its bullets weigh around 200 grains. Todd Woodward (ed.), CARTRIDGES OF THE WORLD 473, 637-39 (17th ed. 2022). The 12-gauge 00-buckshot shotgun cartridge is so named because it is popular for deer hunting. It fires nine pellets all at once, each weighing 53.8 grains—about the same as a 55 grain .223 bullet.[12]

Cumulatively, the shotgun pellets weigh 484 grains (1.1 ounce). At short range, they will cause much more tissue disruption than the 200 grain .44 magnum handgun bullet; the big handgun bullet will cause far more disruption than the tiny .22LR rifle bullet. *See* Martin Fackler, *Civilian Gunshot Wounds and Ballistics: Dispelling the Myths*, 16 Emerg. Med. Clin. North Am. 17, 23 (1998).[13]

The wounding power of a bullet comes mainly from the *kinetic energy* it imparts to the target. The formula is: KE = ½ x M x V^2. In words: one-half of the Mass, times the

12. *Buckshot Size Chart and Ammo Guide*, ProArmory (Mar. 14, 2023), https://proarmory.com/blog/buckshot-size-chart/.

13. Dr. Fackler, military trauma surgeon, served as director of the Army's Wound Ballistics Laboratory for 10 years.

square of the Velocity. Wounding power is a combination of bullet weight and bullet speed.[14]

The following table compares the typical weight, velocity, and kinetic energy of some modern handgun, rifle, and shotgun projectiles, measured at the firearm's muzzle and at 100 yards.

Table 1. Ballistics Data

Caliber	Bullet Weight (Grains)	Velocity @ Muzzle ft/s	Velocity @100 yds ft/s	Energy @ Muzzle ft-lbs	Energy @100 yds ft-lbs
Handguns					
9 mm	115	1140	954	332	232
.357 Magnum	125	1500	1147	624	365
.40 S&W	175	1010	899	396	314
10mm	180	1275	1052	650	443
.44 Magnum	200	1500	1196	999	635
.45 ACP +P	230	950	872	461	385
Long guns					
.22LR Rimfire	40	1070	908	102	73

14. Other factors are the bullet's physical characteristics (mass, shape, construction), location of impact, and the type of tissues disrupted along the bullet's path.

.223/5.56	55	3240	2854	1282	995
.243 Winchester	90	3150	2911	1983	1693
6.5 Creedmoor	143	2700	2557	2315	2076
.30-30	160	2400	2151	2046	1643
.308/7.62	165	2700	2496	2670	2282
.30-06	178	2750	2582	2989	2635
.300 Win. Mag	180	2960	2766	3502	3058
.338 Lapua Mag	270	2800	2680	4699	4304
.50 BMG	750	2820	2728	13241	12388
12-ga shotgun slug[15]	438	1610	1139	2521	1262

Gregory Wallace, "*Assault Weapon" Lethality*, 88 Tenn. L. Rev. 1, 44-45 (2020).

As the Table shows, most rifles have more kinetic energy than handguns, so they have more wounding power. AR rifles are more powerful than handguns, and so are all other rifles above .22 caliber.

Compared to other rifles, the .223/5.56 ammunition for ARs has slightly higher velocity, but uses a smaller bullet. As a result, this AR ammunition imparts *much*

15. While shotguns most often use cartridges that fire multiple pellets, a "shotgun slug" is a single large lead projectile.

less kinetic energy to the target than do most other rifles. The AR's 223/5.56 bullet has well under half the kinetic energy of the some of the classic American hunting rifle cartridges (.308, .30-30, and .30-06). AR bullets also strike with less energy than a shotgun slug, which is often used for hunting deer and similar game.

Throughout American history, the standard military cartridge has always been commonly used for hunting and self-defense. This has also been true for the .223, except that in some states, it is illegal to hunt deer or larger game with the .223 because it is considered too *underpowered* to reliably cause immediate, humane kills. *See*, *e.g.*, 2 Code of Colo. Reg. 406-2-203(A)(1); 4 Va. Admin. Code 15-270-10; Wash. Admin. Code 220-414-020(1)(c). Dr. Martin Fackler, a leading expert on wound ballistics, called the .223 round "a 'varmint' cartridge, used effectively for shooting woodchucks, crows, and coyotes." Martin Fackler, *Literature Review*, 5 Wound Ballistics Rev. 39, 41 (Fall 2001).

B. The ARs' wounding power is no more severe than non-banned long guns.

While kinetic energy is a useful guide to wound effects, the effects are also studied by examining bullet penetration of various targets, such as wounds in human subjects, or projectiles test-fired into ballistic gelatin.

The Army Wound Ballistics Laboratory examines all aspects of firearms wounds. Compared to .223 and 5.56mm bullets, wound profiles of bullets from very common rifle hunting calibers—such as .308, .30-30, and .30-06—are at least as extensive and typically more so. Martin Fackler,

Wound Profiles, 5 Wound Ballistics Rev. 25, 29-31, 33-34 (Fall 2001); Wallace, *Lethality* at 43-56 (in-depth analysis of wound ballistics).

As one of the plaintiffs' ballistic experts in *Kolbe* explained:

> AR15's firing relatively weak .223/5.56 mm ammunition ... pale in destructive capacity when compared to common civilian hunting rifles firing calibers like .260 Rem, .270 Win, 7 mm Mag, .30-06, .300 Mag, .338 Mag, .375 H&H, .416 Rigby, .458 Lott, and .500 Nitro. Even hunting rifles in older calibers from the 1800's, like .30-30 and .45-70, penetrate much deeper and are far more damaging than the .223/5.56 mm ammunition fired by the AR15.

Gary Roberts Decl. at J.A.2095, in Kolbe v. Hogan.[16]

Quoting lower court decisions and media articles, *Bianchi* claims that AR bullets cause "catastrophic damage" with "multiple organs shattered, bones exploded, and soft tissue absolutely destroyed." Pet.App.34a.

These exaggerations are nothing new. Thirty-four years ago, Dr. Fackler described how media accounts embellished the injuries suffered in the 1989 elementary

16. Roberts served on the Joint Service Wound Ballistic Integrated Product Team and was a consultant to the Joint FBI-USMC munitions testing program. He has performed military, law enforcement, and privately funded wound ballistic testing and analysis.

school shooting in Stockton, California, the crime that created the national "assault weapon" controversy. Dr. Fackler conducted ballistics testing on the ammunition used in the criminal's semiautomatic AK rifle. That rifle's 7.62mm rounds are around 123 grains, more than double the typical 55-grain weight of .223/5.56mm bullets. Dr. Fackler reviewed the autopsies of the five children murdered. He explained:

> The myth of "shock waves" resounding from these "high velocity" bullets "pulverizing bones and exploding organs" (even if they were not hit by the bullet) "like a bomb" going off in the body was repeated by the media ... None of the autopsies showed damage beyond the projectile path. ... In the Stockton schoolyard, the death rate was 14% and none of the [wounded] victims died later or required extremity amputation.

Martin Fackler, et al., *Wounding Effects of the AK-47 Rifle Used by Patrick Purdy in the Stockton, California, Schoolyard Shooting of January 17, 1989*, 113 Amer. J. Forensic Med. & Path. 185, 187-88 (1990).

Most gun crimes, including mass shootings, take place at close range. So do most defensive gun uses. At close range "the 12 gauge shotgun (using either buckshot or a rifled slug) is far more likely to incapacitate than is a .223 rifle. The 12 gauge shotgun is simply a far more powerful weapon." Martin Fackler, *Questions and Comments*, 5 Wound Ballistics Rev. 5 (Fall 2001). At distances less than 10 feet "the shotgun produces the most devastating injuries of all small arms." P.K. Stefanopoulos, et al., *Wound Ballistics of Firearm-Related Injuries—Part 1:*

Missile Characteristics and Mechanisms of Soft Tissue Wounding, 43 Int. J. Oral Maxillofac. Surg. 1445, 1453 (2014).

C. There are longstanding complaints within the military about the relatively weak stopping power of AR bullets.

The Fourth Circuit's comparisons between civilian ARs and the military M16/M4 wrongly assume that all military rifles are themselves exceptionally lethal.

The automatic M16/M4 and the semiautomatic AR fire similar cartridges. The military uses the 5.56mm NATO round; civilians use that round, and also the slightly shorter .223 (inches) caliber round. (Caliber is a measure of the bullet's diameter.)

Both the .223 and the 5.56 rounds are smaller and lighter, and hence less powerful, than the standard rounds of previous American combat rifles, such as the 7.62mm (.308 inches) for the M14 automatic rifle in the Korean War. During the first half of the twentieth century, the standard was the .30-06 (.30 inches, adopted in 1906). It was used in the semiautomatic M1 Garand of World War II, and in bolt-action rifles before that.

The.223/5.56 rounds introduced in the 1960s were smaller and lighter, so soldiers could carry more. Being smaller, they needed less gunpowder, so recoil was reduced, and accuracy thereby improved.

However, the new, small ammunition has less stopping power. As Major General Robert Scales testified to the

Senate, the 5.56mm "is simply too small for modern combat.... The civilian version of the 5.56-mm bullet was designed as a 'varmint killer' and six states prohibit its use for deer hunting because it is not lethal enough to ensure a quick kill." Senate Comm. on Armed Services, Subcomm. on Airland, Hearing on United States Military Small Arms Requirements, Cong. S. Hrg. 115-425, at 12 (May 17, 2017).

In the words of combat veteran and small arms expert Jim Schatz, "The disturbing failure of the 5.56x45mm caliber to consistently offer adequate incapacitation has been known for nearly 20 years." Jim Schatz, *Do We Need a New Service Rifle Cartridge? End User Perspective and Lessons Learned*, Small Arms Def. J. 119 (Spring 2011).[17]

Schatz described a Special Forces (SF) mission in Afghanistan when an insurgent was shot seven or eight times in the torso, got back up, climbed over a wall, and reengaged other SF soldiers, killing a SF medic. The insurgent then was shot another six-to-eight times from about 20-30 yards before finally being killed by a SF soldier with an M1911 handgun. *Id.* at 125. *See also* Glenn Dean & David LaFontaine, *Small Caliber Lethality: 5.56mm Performance in Close Quarters Battle*, WSTIAC Q., Jan. 2008, at 3 (reports from soldiers in Afghanistan using 5.56mm rounds "experiencing multiple 'through-and-through' hits on an enemy combatant where the target continued to fight").[18]

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17. https://www.yumpu.com/en/document/read/37272962/do-we-need-a-new-service-rifle-cartridge-hkprocom.

18. https://perma.cc/682N-7E6S.

Mark Bowden's bestselling book *Black Hawk Down* recounts the less-than-lethal performance of the Army's 5.56mm bullet in the Battle of Mogadishu in 1993. One Delta operator's rounds "were passing right through his targets.... The bullet made a small, clean hole, and unless it happened to hit the heart or spine, it wasn't enough to stop a man in his tracks. [The operator] felt like he had to hit a guy five or six times just to get his attention." Mark Bowden, Black Hawk Down: A Story of Modern War 208 (1999).

Jeff Gurwich, a Special Forces soldier with nine combat tours, explains that operators involved in close-quarter-battle were trained to shoot five-round strings. Jeff Gurwich, *A Comprehensive Look at CQB Tactics and Techniques Used by SF from the Late 90s through GWOT*, Modern Tactical Shooting (2024).[19]

Partly because of the above complaints, the U.S. military has recently decided to adopt the larger-caliber 6.8mm rifle round. *See* C. Todd Lopez, *Army Announces 2 New Rifles for Close-Combat Soldiers*, U.S. Dep't of Defense (Apr. 22, 2022).[20] Because many civilians have less upper body strength than soldiers, many still choose ARs for accuracy, notwithstanding the lesser power.

19. https://www.youtube.com/watch?v=byB-8VJ0Jck (31:10-32:18).

20. https://perma.cc/34NR-AGRW.

D. Reports of the AR-15's massive wounding power in Vietnam were proven false by subsequent testing.

Bianchi asserts that "[t]he firepower of the AR-15 and M16 is a key component of their 'phenomenal lethality.'" Pet.App.33a. The "phenomenal lethality" claim comes from a 1962 Vietnam military field test report that was subsequently was shown to be irreproducible, and likely fabricated.

The testing was conducted as part of Project AGILE by the Defense Department's Advanced Research Projects Agency (DARPA). At the time, the military was considering whether to adopt the select-fire AR-15 as its primary combat rifle. (As noted above, the original "AR-15" was a select-fire weapon that could fire automatically. It was later renamed the "M16." The semiautomatic-only rifle that was introduced in the civilian market in 1965 was named "AR-15.") Project AGILE supplied rifles to South Vietnamese troops for field trials.

DARPA's report claimed massive injuries from the selective-fire AR-15, including two amputations and a decapitation. DARPA, *Test of Armalite Rifle, AR-15*, Annex A, at 5, 7 (1962).[21]

Later, the gruesome anecdotes were exposed as gross exaggerations designed to convince the military to adopt the rifle. The Army's Ballistic Research Laboratory tested the rifle against gelatin, animals, and cadavers but could not duplicate the "theatrically grotesque wounds"

21. https://apps.dtic.mil/sti/pdfs/AD0343778.pdf.

reported by Project AGILE. *See* C.J. Chivers, The Gun 288 (2010); Blake Stevens & Edward Ezell, The Black Rifle: M16 Retrospective 110-16 (1994).

Attempting to reproduce the purported extreme results, the Army Laboratory even tried shooting hollow-point rounds. While not used by the military, hollow-points are widely used by American law enforcement and citizens, and generally produce more destructive wounds. Yet "even the hollow-points failed to duplicate anything like the spectacular effects recorded by the Vietnamese unit commanders and their American advisors, which had subsequently been taken as fact and much used in the ... campaign to sell the AR-15." *Id.* at 116.[22]

C.J. Chivers, a Pulitzer Prize-winning *New York Times* journalist, extensively researched the testing for his book *The Gun.* "No matter what they did, they were unable to reproduce the effects that the participants in Project AGILE claimed to have seen." Chivers at 288.

The Ballistic Research Laboratory's study was kept secret for decades. "[A]t the most important time, during the early and mid-1960s, the Project AGILE report, with its suspicious observations and false conclusions, remained uncontested." *Id.* at 289.

Dr. Fackler recounted how other claims in the 1960s and 1970s about the M16's bullets causing "massive" and "devastating" injuries were disproven or contradicted by

22. Ezell was Curator of the National Firearms Collection at the National Museum of American History, part of the Smithsonian Institution. He founded the Institute for Research on Small Arms in International Security.

other reports. Martin Fackler, *Gunshot Wound Review*, 28 Annals Emergency Med. 194, 194-95 (Aug. 1996). Delegates to war surgery conferences in the early 1970s "reported no unusual problems associated with 'high-velocity' bullet wounds in Vietnam. There were no reports of rifle bullet wounds causing traumatic amputations of an extremity." *Id.* According to Dr. Fackler, "In my experience and research, at least as many M16 users in Vietnam concluded that [the M16 round] produced unacceptably minimal, rather than 'massive,' wounds." Fackler, *Literature Review* at 40.

E. AR ammunition is safer than other types because it is less likely to penetrate a wall.

Bianchi claims AR bullets penetrate walls, thereby posing a "grave risk" to bystanders. Pet.App.41a. In fact, almost all handgun, rifle, and shotgun rounds can pass through multiple walls. *See* R.W. Scheifke, *Penetration of Exterior House Walls by Modern Police Ammunition*, Canadian Police Research Centre (Oct. 1997).[23]

AR bullets generally penetrate *less* though building materials than do common handgun rounds. That is one reason law enforcement officers often use ARs for raiding buildings and barricaded hostage situations. *See* Boone Decl. at J.A.2168-69, in Kolbe v. Hogan. A Massachusetts Municipal Police training manual states that ARs are less dangerous to bystanders because "the most popular patrol rifle round, the 5.56mm NATO (.223 Remington) will penetrate fewer walls than service pistol rounds or 12 gauge slugs." Massachusetts Municipal Police Training

23. https://perma.cc/8V6N-8MK9.

Committee, Basic Firearms Instructor Course: Patrol Rifle 3 (Sept. 2007).[24]

According to the founder and senior instructor of the L.A. Police Department's Tactical Rifle Team, "concerns about overpenetration and the danger to the populace presented by missed rounds have been greatly exaggerated.... [T]he 5.56mm/.223 is relatively safer than pistol bullets for everyone in close-quarter-battle (CQB) application." Gabriel Suarez, The Tactical Rifle: The Precision Tool for Urban Police Operations 38 (1999).

AR rifle bullets do penetrate soft body armor that is designed only to stop handgun bullets. The same is true for all rifles, other than the tiny .22LR or smaller. *See* U.S. Dep't of Justice, National Inst. of Justice, *Guide: Body Armor* 12-13 (2014).

IV. The deadliest firearms in mass shootings are handguns.

Bianchi says that ARs used in mass shootings "result in more numerous wounds, more serious wounds, and more victims." Pet.App.36a. Not so.

Researchers led by Dr. Babak Sarani, founder and chief of the Center for Trauma and Critical Care at George Washington University Hospital, examined the relationship between the type of firearm used, wounding characteristics, and probability of death in mass shootings. Babak Sarani, et al., *Wounding Patterns Based on Firearm Type in Civilian Public Mass Shootings in the*

24. https://perma.cc/M8VW-DUXR.

United States, 228 J. Amer. College Surgeons 228 (Mar. 2019). They studied firearm types and autopsy reports for 232 victims from 23 mass shootings, including high-casualty shootings with "assault weapons" at Orlando and Las Vegas.

To their surprise, the researchers found that mass shootings with handguns are more lethal than those with rifles because they result in more wounds per victim and more injuries to vital organs. *Id.* at 228-29, 232-33. "All of us were shocked," Dr. Sarani said. "We came to the table with our bias that an assault weapon would be worse." Carolyn Crist, *Handguns More Lethal Than Rifles in Mass Shootings*, Reuters (Dec. 31, 2018).[25]

Victims shot with a handgun were almost four times more likely to have three or more wounds compared to those shot with a rifle. Thus "the probability of death is higher for events involving a handgun than a rifle." Sarani at 232. Twenty-six percent of victims shot with handguns and 16% shot with shotguns had multiple fatal organ injuries; only 2% of those shot by a rifle had two or more such injuries. *Id.* Wounds to the brain and heart, which have the highest fatality rates, were most likely to occur when handguns were used. *Id.* at 233. Victims shot with rifles were twice as likely to have a preventable death (if medical care is rendered in time) than those shot with other firearms. *Id.* at 231.

The handgun is the most common weapon to perpetrate mass shootings. Shooters used handguns in high-casualty shootings at Virginia Tech (58), Ft. Lauderdale (48),

25. https://perma.cc/N9VY-CVUX.

Killeen, Texas (45), Ft. Hood (45), and Thousand Oaks (33), whose casualties approximate or exceed mass shootings with "assault weapons" at Highland Park (53), El Paso (49), Sutherland Springs (45), Uvalde (38), and Parkland (34). *See* The Violence Project, *Mass Shooter Database* (vers. 8.0 January 2024).[26] Overall, "assault weapons" have been used in 28% of mass shootings. *Id.*

CONCLUSION

ARs and other banned semiautomatic rifles are superb for lawful defense of self and others. The assertions against them are implausible. The petition should be granted.

Respectfully submitted,

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26. https://www.theviolenceproject.org/mass-shooter-database/.