

Case No. 19-56004

In the United States Court of Appeals
for the Ninth Circuit

STEVEN RUPP, et al.,
Plaintiffs-Appellants,

v.

XAVIER BECERRA,
in his official capacity as Attorney General of the State of California,
Defendant-Appellee.

On Appeal from the United States District Court
for the Central District of California
Case No. 8:17-cv-00746-JLS-JDE

**APPELLANTS' EXCERPTS OF RECORD
VOLUME II OF XXII**

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January 27, 2020

Under Federal Rules of Appellate Procedure for the Ninth Circuit, rule 30-1, Plaintiffs-Appellants Steven Rupp, Steven Dember, Cheryl Johnson, Michael Jones, Christopher Seifert, Alfonso Valencia, Troy Willis, Dennis Martin, and California Rifle & Pistol Association, Incorporated, by and through their attorney of record, confirm to the contents and form of Appellants' Excerpts of Record.

Date: January 27, 2020

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s/ Sean A. Brady

Sean A. Brady

Attorneys for Plaintiffs/ Appellants

Steven Rupp, et al.

INDEX TO APPELLANTS' EXCERPTS OF RECORD**VOLUME I**

Dkt	Date	Document Description	Page
111	07.31.19	Judgment	1
108	07.22.19	Order Granting Attorney General's Motion for Summary Judgment and Denying Plaintiffs' Motion for Summary Judgment	3

VOLUME II

114	08.27.19	Plaintiffs' Notice of Appeal and Representation Statement	26
***	05.31.19	Reporter's Revised Transcript of Proceedings Re: Plaintiffs' and Defendants' Motions for Summary Judgment	30
106	05.28.19	Plaintiffs' Notice of Motion and Motion to Exclude the Testimony of Defendants' Expert Witness Michael Mersereau	56
105	05.28.19	Plaintiffs' Notice of Motion and Motion to Exclude the Testimony of Defendants' Expert Witness John J. Donohue	59
104	05.28.19	Plaintiffs' Notice of Motion and Motion to Exclude the Testimony of Defendants' Expert Witness Christopher B. Colwell, M.D.	62
103	05.28.19	Plaintiffs' Notice of Motion and Motion to Exclude the Testimony of Defendants' Expert Witness Lucy P. Allen	65
101	05.17.19	Defendants' Reply Statement of Genuine Disputes of Material Fact	68
96-1	05.03.19	Exhibit 49 of Declaration of Sean A. Brady in Support of Plaintiffs' Opposition to Defendant's Motion for Summary Judgment	71
96-2	05.03.19	Exhibit 50 of Declaration of Sean A. Brady in Support of Plaintiffs' Opposition to Defendant's Motion for Summary Judgment	108

96-3	05.03.19	Exhibits 51-52 of Declaration of Sean A. Brady in Support of Plaintiffs' Opposition to Defendant's Motion for Summary Judgment	145
------	----------	--	-----

VOLUME III

96-4	05.03.19	Exhibit 53, Part 1 of 2 of Declaration of Sean A. Brady in Support of Plaintiffs' Opposition to Defendant's Motion for Summary Judgment	212
------	----------	---	-----

VOLUME IV

96-5	05.03.19	Exhibit 53, Part 2 of 2 of Declaration of Sean A. Brady in Support of Plaintiffs' Opposition to Defendant's Motion for Summary Judgment	362
------	----------	---	-----

VOLUME V

96-6	05.03.19	Exhibit 54 of Declaration of Sean A. Brady in Support of Plaintiffs' Opposition to Defendant's Motion for Summary Judgment	511
------	----------	--	-----

VOLUME VI

96-7	05.03.19	Exhibit 55 of Declaration of Sean A. Brady in Support of Plaintiffs' Opposition to Defendant's Motion for Summary Judgment	733
------	----------	--	-----

VOLUME VII

96-8	05.03.19	Exhibit 56 of Declaration of Sean A. Brady in Support of Plaintiffs' Opposition to Defendant's Motion for Summary Judgment	833
------	----------	--	-----

VOLUME VIII

96-9	05.03.19	Exhibit 57 of Declaration of Sean A. Brady in Support of Plaintiffs' Opposition to Defendant's Motion for Summary Judgment	1111
96-10	05.03.19	Exhibits 58-62 of Declaration of Sean A. Brady in Support of Plaintiffs' Opposition to Defendant's Motion for Summary Judgment	1288

96-11	05.03.19	Exhibit 63 of Declaration of Sean A. Brady in Support of Plaintiffs' Opposition to Defendant's Motion for Summary Judgment	1312
-------	----------	--	------

VOLUME IX

96-12	05.03.19	Exhibits 64-69 of Declaration of Sean A. Brady in Support of Plaintiffs' Opposition to Defendant's Motion for Summary Judgment	1362
95	05.02.19	Declaration of Sean A. Brady in Support of Plaintiffs' Opposition to Defendants' Motion for Summary Judgment	1480
94	05.02.19	Plaintiffs' Request for Judicial Notice in Support of Plaintiffs' Opposition to Defendants' Motion for Summary Judgment	1486
93	05.02.19	Plaintiffs' Objections to Evidence Filed in Support of Defendants' Motion for Summary Judgment	1495
92-1	05.02.19	Plaintiffs' Statement of Genuine Disputes of Material Fact and Additional Uncontroverted Facts	1534
90	05.02.19	Supplemental Declaration of Peter H. Chang in Support of Defendants' Opposition to Plaintiffs' Motion for Summary Judgment	1552
90-1	05.02.19	Exhibit 46 of Supplemental Declaration of Peter H. Chang in Support of Defendants' Opposition to Plaintiffs' Motion for Summary Judgment	1555
89	05.02.19	Defendants' Statement of Genuine Disputes of Material Fact	1569
87	04.26.19	Plaintiffs' Statement of Uncontroverted Facts and Conclusions of Law in Support Motion for Summary Judgment	1593

VOLUME X

79	03.25.19	Request for Judicial Notice in Support of Plaintiffs' Motion for Summary Judgment	1607
78	03.25.19	Declaration of Sean A. Brady in Support of Plaintiffs' Motion for Summary Judgment; Exhibits 1-8	1727

VOLUME XI

78-1	03.25.19	Exhibits 9-11 of Declaration of Sean A. Brady in Support of Plaintiffs' Opposition to Defendant's Motion for Summary Judgment	1891
78-2	03.25.19	Exhibits 12-19 of Declaration of Sean A. Brady in Support of Plaintiffs' Opposition to Defendant's Motion for Summary Judgment	1947
78-3	03.25.19	Exhibit 20-21 of Declaration of Sean A. Brady in Support of Plaintiffs' Opposition to Defendant's Motion for Summary Judgment	1998
78-4	03.25.19	Exhibit 22, Part 1 of 4 of Declaration of Sean A. Brady in Support of Plaintiffs' Opposition to Defendant's Motion for Summary Judgment	2061
78-5	03.25.19	Exhibit 22, Part 2 of 4 of Declaration of Sean A. Brady in Support of Plaintiffs' Opposition to Defendant's Motion for Summary Judgment	2106

VOLUME XII

78-6	03.25.19	Exhibit 22, Part 3 of 4 of Declaration of Sean A. Brady in Support of Plaintiffs' Opposition to Defendant's Motion for Summary Judgment	2150
78-7	03.25.19	Exhibit 22, Part 4 of 4 of Declaration of Sean A. Brady in Support of Plaintiffs' Opposition to Defendant's Motion for Summary Judgment	2197
78-8	03.25.19	Exhibit 23 of Declaration of Sean A. Brady in Support of Plaintiffs' Opposition to Defendant's Motion for Summary Judgment	2244
78-9	03.25.19	Exhibit 24, Part 1 of 3 of Declaration of Sean A. Brady in Support of Plaintiffs' Opposition to Defendant's Motion for Summary Judgment	2332

VOLUME XIII

78-10	03.25.19	Exhibit 24, Part 2 of 3 of Declaration of Sean A. Brady in Support of Plaintiffs' Opposition to Defendant's Motion for Summary Judgment	2433
-------	----------	---	------

78-11	03.25.19	Exhibits 24, Part 3 of 3 - Exhibit 26 of Declaration of Sean A. Brady in Support of Plaintiffs' Opposition to Defendant's Motion for Summary Judgment	2525
78-12	03.25.19	Exhibit 27 of Declaration of Sean A. Brady in Support of Plaintiffs' Opposition to Defendant's Motion for Summary Judgment	2659

VOLUME XIV

78-13	03.25.19	Exhibits 28-44 of Declaration of Sean A. Brady in Support of Plaintiffs' Opposition to Defendant's Motion for Summary Judgment	2689
-------	----------	--	------

VOLUME XV

78-14	03.25.19	Exhibits 45-48 of Declaration of Sean A. Brady in Support of Plaintiffs' Opposition to Defendant's Motion for Summary Judgment	2884
77-2	03.25.19	Plaintiffs' Statement of Uncontroverted Facts & Conclusions of Law in Support of Motion for Summary Judgment	2987
77-3	03.25.19	Declaration of Steven Rupp in Support of Plaintiffs' Motion for Summary Judgment	3001
77-4	03.25.19	Declaration of Steven Dember in Support of Plaintiffs' Motion for Summary Judgment	3005
77-5	03.25.19	Declaration of Cheryl Johnson in Support of Plaintiffs' Motion for Summary Judgment	3008
77-6	03.25.19	Declaration of Christopher Seifert in Support of Plaintiffs' Motion for Summary Judgment	3011
77-7	03.25.19	Declaration of Alfonso Valencia in Support of Plaintiffs' Motion for Summary Judgment	3015
77-8	03.25.19	Declaration of Troy Willis in Support of Plaintiffs' Motion for Summary Judgment	3018
77-9	03.25.19	Declaration of Michael Jones in Support of Plaintiffs' Motion for Summary Judgment	3022
77-10	03.25.19	Declaration of Dennis Martin in Support of Plaintiffs' Motion for Summary Judgment	3026

77-11	03.25.19	Declaration of Richard Travis in Support of Plaintiffs' Motion for Summary Judgment	3030
76	03.25.19	Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	3034
76-1	03.25.19	Exhibit 1 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	3039

VOLUME XVI

76-2	03.25.19	Exhibit 2 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	3157
76-3	03.25.19	Exhibit 3 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	3173
76-4	03.25.19	Exhibit 4 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	3185
76-5	03.25.19	Exhibit 5 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	3235
76-6	03.25.19	Exhibit 6 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	3275
76-7	03.25.19	Exhibit 7 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	3289
76-8	03.25.19	Exhibit 8 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	3300
76-9	03.25.19	Exhibit 9 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	3309
76-10	03.25.19	Exhibit 10 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	3337
76-11	03.25.19	Exhibit 11 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	3390

VOLUME XVII

76-12	03.25.19	Exhibit 12 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	3443
76-13	03.25.19	Exhibit 13 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	3486

76-14	03.25.19	Exhibit 14 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	3523
-------	----------	--	------

VOLUME XVIII

76-15	03.25.19	Exhibit 15 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	3636
-------	----------	--	------

VOLUME XIX

76-16	03.25.19	Exhibit 16 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	3784
76-17	03.25.19	Exhibit 17 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	3932
76-18	03.25.19	Exhibit 18 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	3944
76-19	03.25.19	Exhibit 19 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	3962
76-20	03.25.19	Exhibit 20 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	3984

VOLUME XX

76-21	03.25.19	Exhibit 21 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	4048
76-22	03.25.19	Exhibit 22 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	4102
76-23	03.25.19	Exhibit 23 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	4122
76-24	03.25.19	Exhibit 24 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	4132
76-25	03.25.19	Exhibit 25 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	4134
76-26	03.25.19	Exhibit 26 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	4137
76-27	03.25.19	Exhibit 27 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	4142

76-28	03.25.19	Exhibit 28 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	4189
76-29	03.25.19	Exhibit 29 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	4194
76-30	03.25.19	Exhibit 30 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	4206

VOLUME XXI

76-31	03.25.19	Exhibit 31 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	4311
76-32	03.25.19	Exhibit 32 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	4341
76-33	03.25.19	Exhibit 33 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	4395
76-34	03.25.19	Exhibit 34 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	4414
76-35	03.25.19	Exhibit 35 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	4452
76-36	03.25.19	Exhibit 36 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	4466
76-37	03.25.19	Exhibit 37 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	4474
76-38	03.25.19	Exhibit 38 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	4479
76-39	03.25.19	Exhibit 39 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	4488
76-40	03.25.19	Exhibit 40 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	4493
76-41	03.25.19	Exhibit 41 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	4502
76-42	03.25.19	Exhibit 42 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	4506
76-43	03.25.19	Exhibit 43 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	4516

76-44	03.25.19	Exhibit 44 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	4519
76-45	03.25.19	Exhibit 45 of Declaration of Peter Chang in Support of Defendants' Motion for Summary Judgment	4526
74	03.25.19	Defendants' Statement of Uncontroverted Facts in Support of Defendants' Motion for Summary Judgment	4528
60	07.06.18	Third Amended Complaint	4536
58	07.05.18	Answer to Third Amended Complaint	4572

VOLUME XXII

1	04.24.17	Complaint for Declaratory and Injunctive Relief	4588
***	01.27.20	District Court Docket	4620

CERTIFICATE OF SERVICE

I hereby certify that on January 27, 2020, an electronic PDF of APPELLANTS' EXCERPTS OF RECORD, VOLUME II OF XXII was uploaded to the Court's CM/ECF system, which will automatically generate and send by electronic mail a Notice of Docket Activity to all registered attorneys participating in the case. Such notice constitutes service on those registered attorneys.

Date: January 27, 2020

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s/ Sean A. Brady

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UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA
SOUTHERN DIVISION

STEVEN RUPP, et al.,

Plaintiffs,

vs.

XAVIER BECERRA, in his official
capacity as Attorney General of the State
of California,

Defendant.

Case No.: 8:17-cv-00746-JLS-JDE

**PLAINTIFFS' NOTICE OF APPEAL
AND REPRESENTATION
STATEMENT**

Action Filed: April 24, 2017

1 NOTICE IS HEREBY GIVEN that all Plaintiffs Steven Rupp, Steven
2 Dember, Cheryl Johnson, Michael Jones, Christopher Seifert, Alfonso Valencia,
3 Troy Willis, Dennis Martin, and the California Rifle & Pistol Association,
4 Incorporated, hereby appeal to the United States Court of Appeals for the Ninth
5 Circuit from the Judgment entered in this action on the 31st day of August, 2019
6 (Docket No. 111).

7 Plaintiffs' Representation Statement is attached to this Notice as required by
8 Ninth Circuit Rule 3-2(b).

9
10 Dated: August 27, 2019

MICHEL & ASSOCIATES, P.C.

11 *s/ Sean A. Brady*

12 Sean A. Brady
13 Attorneys for Plaintiffs
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REPRESENTATION STATEMENT

The undersigned represents Plaintiffs-Appellants, Steven Rupp, Steven Dember, Cheryl Johnson, Michael Jones, Christopher Seifert, Alfonso Valencia, Troy Willis, Dennis Martin, and the California Rifle & Pistol Association, Incorporated, and no other party. Pursuant to Rule 12(b) of the Federal Rules of Appellate Procedure and Circuit Rule 3-2(b), Plaintiffs-Appellants submit this Representation Statement. The following list identifies all parties to the action, and it identifies their respective counsel by name, firm, address, telephone number, and e-mail, where appropriate.

PARTIES	COUNSEL OF RECORD
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Dated: August 27, 2019

MICHEL & ASSOCIATES, P.C.

s/ Sean A. Brady

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CERTIFICATE OF SERVICE
IN THE UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA
SOUTHERN DIVISION

Case Name: *Rupp, et al. v. Becerra*
Case No.: 8:17-cv-00746-JLS-JDE

IT IS HEREBY CERTIFIED THAT:

I, the undersigned, am a citizen of the United States and am at least eighteen years of age. My business address is 180 East Ocean Boulevard, Suite 200, Long Beach, California 90802.

I am not a party to the above-entitled action. I have caused service of:

**PLAINTIFFS' NOTICE OF APPEAL
AND REPRESENTATION STATEMENT**

on the following party by electronically filing the foregoing with the Clerk of the District Court using its ECF System, which electronically notifies them.

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I declare under penalty of perjury that the foregoing is true and correct.

Executed August 27, 2019.

s/ Laura Palmerin
Laura Palmerin

UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA
SOUTHERN DIVISION AT SANTA ANA
HONORABLE JOSEPHINE L. STATON, JUDGE PRESIDING
CERTIFIED TRANSCRIPT

STEVEN RUPP, ET AL.,)
)
 PLAINTIFFS,)
)
 vs.) SACV NO. 17-00746-JLS
)
 XAVIER BECERRA, ET AL.,)
)
 DEFENDANTS.)
 _____)

REPORTER'S REVISED TRANSCRIPT OF PROCEEDINGS
SANTA ANA, CALIFORNIA
FRIDAY, MAY 31, 2019
10:57 A.M.

DEBORAH D. PARKER, CSR 10342
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1 **SANTA ANA, CALIFORNIA; FRIDAY, MAY 31, 2019; 10:57 A.M.**

2 THE CLERK: Calling Calendar Item No. 3.
3 SACV 17-00746-JLS, Steven Rupp, et al., versus Xavier
4 Becerra.

5 Counsel, once you get situated, please, state your
6 appearances for the record.

7 MR. BRADY: Good morning, Your Honor.

8 Sean Brady, on behalf of the plaintiffs.

9 THE COURT: Good morning.

10:58:07 10 MR. CHANG: Good morning, Your Honor.

11 Peter Chang, on behalf of defendant Becerra.

12 MR. ECHEVERRIA: Good morning, Your Honor.

13 John Echeverria for the defendant.

14 THE COURT: Good morning.

10:58:17 15 All right. We are here on the cross-motions for
16 summary judgment, and I will just hear from the parties.

17 I'll just give you a few minutes to be heard. If
18 I have any questions to ask, I will jump in with those. But
19 on summary judgment motions, I just want you to have an
10:58:38 20 opportunity to highlight whatever you think maybe wasn't
21 clear in your brief or what you think the high points of
22 your briefing would be.

23 And we'll begin with the plaintiff.

24 MR. BRADY: Thank you, Your Honor.

10:58:55 25 This case is about whether the Government can ban

Deborah D. Parker, U.S. Court Reporter

10:59:01 1 an extremely popular class of firearms by merely declaring
2 them dangerous assault weapons and then, when challenged on
3 that designation, justify it with evidence gathered by third
4 parties *post hoc* that arguably show that those firearms can
10:59:20 5 result in slightly more casualties when used in an
6 exceedingly rare type of criminal attack: A public mass
7 shooting.

8 The answer to whether the Government can do that,
9 Supreme Court precedent tells us is no. And that's because
10:59:35 10 the tests that the *Heller* court laid out is that arms that
11 are typically possessed by law-abiding people for lawful
12 purposes are protected under the Second Amendment. What
13 that means is, while they can be right, those arms that
14 qualify under that --

10:59:50 15 THE COURT: Specifically, in that case, they were
16 talking about handguns, right?

17 MR. BRADY: Indeed.

18 THE COURT: But the common -- and they referenced
19 them as being "the most commonly used and preferred method
11:00:04 20 of self-defense in the home."

21 MR. BRADY: Correct.

22 THE COURT: Okay. And they also distinguished
23 that from weapons that might be considered dangerous but
24 ones that they described as like military weapons, correct?

11:00:20 25 MR. BRADY: Correct. There was dicta, if you

11:00:24 1 will, about an M16 machine gun that's used by the military
2 that could conceivably be outside of the Second Amendment.
3 It suggested that there are arms that will be dangerous and
4 unusual, I assume, a rocket-propelled grenade or grenades or
11:00:40 5 that sort. Because they are inherently dangerous, they can
6 explode. They can accidentally kill just by having them.

7 The sort of arms, I believe, that the *Heller* court
8 was referring to, if you look at the *Staples* case, the
9 Supreme Court has expressly distinguished between the M16
11:00:58 10 and the AR-15 in this very fashion.

11 Now, they weren't -- this was pre-*Heller*, so they
12 weren't discussing it in the context of: Is it
13 Second-Amendment protected? But I think it's very telling
14 that the Supreme Court expressly distinguished the AR-15 as
11:01:14 15 so different from the M16 that -- *mens rea* that the gun was,
16 you know, problematic, was criminal to possess, could not be
17 inferred. I think that that, basically, says that there is
18 such a distinction between these two types of guns that they
19 cannot be assumed to be the same.

11:01:32 20 THE COURT: That was a very different context
21 though, wasn't it, that case?

22 MR. BRADY: It is, but I think that -- you know,
23 because they are so -- you know, if the Court is going to
24 say that you cannot infer criminal intent -- that if it was
11:01:45 25 a machine gun, if it was an M16, the possessor should

11:01:49 1 know -- they should be on notice that it was a bad -- that
2 it was a criminal gun [sic].

3 THE COURT: In criminal cases, we have very
4 different kinds of standards that are applied in deciding
11:01:59 5 whether you can hold someone criminally liable, correct?

6 MR. BRADY: Of course. Yes. I'm not trying to
7 say that the standards are the same. What I'm getting at is
8 that in that case the Court made the distinction between the
9 two that said they cannot -- they are apples and oranges and
11:02:16 10 went so far as to say that they are common -- that they're
11 the civilian version of that rifle and that they have been
12 lawfully owned -- generally lawfully owned.

13 And I think it's telling that -- the author of
14 that opinion, Justice Thomas, wrote a dissent to the
11:02:33 15 rejection of the *Friedman v. Highland Park* case which was,
16 essentially, involving this very same issue -- a challenge
17 to, essentially, the same type of law. And Justice Thomas
18 laid out his opinion that these types of rifles are
19 protected by the Second Amendment.

11:02:51 20 Now, that doesn't -- you know, that's obviously
21 not binding authority on this Court, but it goes to show you
22 where Justice Thomas was in writing the *Staples* opinion and
23 where he's at on this issue.

24 So, on that point as to -- I think it's crucial
11:03:07 25 for the Court to understand that the plaintiffs do not need

11:03:12 1 to prove that these firearms are not dangerous or unusual.
2 The burden is wholly on the State to make that case, and
3 that's because *Heller* says that bearable arms are
4 *prima facie* protected by the Second Amendment. And *Heller*
11:03:30 5 defines "bearable arms," "as" a weapon of offense or thing
6 that a man wears for his defense or takes into his hands
7 that is carried for the purpose of offensive or defensive
8 action." Rifles of any sort necessarily meet that
9 definition of "bearable arms."

11:03:47 10 THE COURT: Would a grenade?

11 MR. BRADY: Yes, it would, but that's my point.
12 It would meet that definition. And it is protected. And
13 then it is the State's burden to show that they are
14 dangerous and unusual. I think the State wouldn't [sic]
11:04:00 15 meet its burden to say that a grenade is dangerous and
16 unusual, because you can't go to Big Five, or Turner's, or
17 Wal-Mart and buy grenades. I don't know anybody who owns
18 grenades.

19 The evidence shows that you can -- or prior to
11:04:13 20 this law, you could go to Big Five, Wal-Mart, places to buy
21 these very rifles, but they are owned by the millions; that
22 there are --

23 The world series of shooting sports, if you will,
24 involves these very rifles. These are not grenades. These
11:04:28 25 are the most popular rifle [sic] in the country. The

11:04:33 1 evidence -- the State's suggestion -- and I think it's
2 another crucial point to understand the evidence here
3 that -- that --

4 The State says, *Assault weapon registration*
11:04:47 5 *numbers are the right number to look at in determining*
6 *commonality*. That is -- I'm sorry. I don't want to, you
7 know, lose decorum. But it strains credulity to even
8 suggest that that is a proper number, in light of the fact
9 that there's been an Assault Weapon Control Act in place for
11:05:05 10 30 years that people were able to modify their rifles so
11 that they didn't have to register them. People could take
12 them out of state. There was a -- it is known that there
13 was very low compliance with the registration rate for
14 people, not because they are scofflaws but out of ignorance
11:05:24 15 that they even had to register.

16 You have no idea how many people come into our
17 office saying, *Oh, I got arrested for having this assault*
18 *weapon. They told me I had to register it. I didn't know*
19 *that.*

11:05:33 20 So the suggestion that the California registration
21 numbers are a better barometer of the popularity to these
22 rifles is a farce. And the far better number is to look at
23 Professor English, plaintiffs' expert's, report where he
24 lays out industry reports and surveys where it shows up to
11:05:59 25 90-some percent of gun dealers sell these rifles, out of a

11:06:04 1 survey of 260 of them and that about half of hunters and
2 sport shooters were -- said that they own these rifles.

3 THE COURT: Does it have -- is it just popularity,
4 in general? Or is it popular use for self-defense in the
11:06:20 5 home?

6 MR. BRADY: I think that self-defense is a
7 critical component. You know, the *Heller* court says "lawful
8 purposes." It doesn't specify self-defense, but
9 self-defense is certainly at the core.

11:06:31 10 And so, while a gun, say, an Olympic-style pistol
11 that wouldn't be used for self-defense may meet -- may have
12 some Second Amendment protection because it's used for
13 lawful purposes, I think that the Government's burden to
14 justify a restriction on an arm of that sort would be far
11:06:50 15 lower than an arm that is typically possessed for
16 self-defense.

17 And the evidence, again, shows that these arms are
18 indeed owned for self-defense. The surveys that --

19 THE COURT: Is there any showing that they're,
11:07:05 20 typically, used in self-defense?

21 MR. BRADY: Your Honor, I think that -- are you --
22 when you say "used," are you --

23 THE COURT: People can own -- I understand that
24 what you might say is that there's some evidence that people
11:07:19 25 who purchase them, purchase them for purposes of

11:07:23 1 self-defense; that you can find people who do that. And
2 your argument would be: They're in large number.

3 What if the evidence were to reflect -- I'm not
4 sure how relevant this is. I'm simply asking the question:
11:07:37 5 What if the evidence were to reflect that these are not
6 weapons that are useful in self-defense? Because of the
7 nature of the weapon that it's most useful in military kind
8 of operation or using when you're, you know, out on a
9 killing field. And it's not the most useful weapon or a
11:08:00 10 useful weapon or as useful of others for self-defense.

11 Do I look at what do people say they're buying it
12 for when they buy it, as opposed to what is -- whether it
13 really can be used effectively for self-defense in the home?
14 Or whether the legislature decided -- made that decision,
11:08:18 15 right?

16 I mean, if we get out -- there are two questions,
17 right? Does it fall within the scope of the
18 Second Amendment? And you disagree on that. The defendants
19 argue that because this is most useful in military
11:08:35 20 circumstances that under *Heller*, it is not covered by the
21 Second Amendment. It's outside the scope.

22 And then, the second argument is: Okay. Let's
23 assume that that is incorrect and that it is within the
24 scope of the Second Amendment. Then, we look at the
11:08:50 25 intermediate scrutiny level. There's no disagreement as to

11:08:57 1 that level of scrutiny, correct?

2 MR. BRADY: I would suggest that there is, but I
3 don't think it matters. I don't even think you need to get
4 to the intermediate scrutiny standard, because it is a ban.
11:09:08 5 We're not talking about a regulation.

6 So once you meet the first step of *Chovan*; that
7 these rifles meet -- that they are protected by the Second
8 Amendment, what good is Second Amendment protection, if you
9 can then go and ban them?

11:09:21 10 THE COURT: I'm not sure that that's consistent
11 with the facts or with the law. Let's just assume that this
12 Court is going to use an intermediate scrutiny level that
13 doesn't treat this as an entire ban that is per se violative
14 of the Second Amendment and that the Court will actually
11:09:37 15 apply a level of scrutiny.

16 MR. BRADY: Sure.

17 THE COURT: And that that would be intermediate.

18 Then, if the legislature has made -- I'm just sort
19 of moving this on to the next argument, because I want to
11:09:47 20 make sure I have time to hear from both sides, and I've read
21 the papers.

22 If the legislature has decided that based on the
23 evidence before it in promoting general safety of all of its
24 citizens that a ban on these kinds of weapons -- ones that
11:10:07 25 have been used in mass shootings and are very effective in

11:10:13 1 mass shootings -- it's in the interest to -- not to allow
2 the possession of those in the way that the law limits it.
3 Obviously, there's grandfathering. There are other things.
4 But if the legislature has made that determination, tell me
11:10:29 5 why the Court should reject that.

6 MR. BRADY: Sure. As an initial point, the
7 legislature considered hardly any evidence in passing the
8 Assault Weapon Control Act, initially, and then it only
9 amended it to go after additional firearms when they
11:10:47 10 realized that their first iteration didn't cover the
11 firearms they wanted to, because, frankly, they don't know
12 how to write this law. They don't know what they want.
13 They just know that they want a law that goes after
14 scary-looking guns.

11:10:59 15 So that's why I said in my opening statement that
16 they are justifying this law *post hoc* with evidence gathered
17 by third parties. And the reason this Court should reject
18 that evidence that the State puts forth -- not that the
19 legislature considered but that the State puts forth to
11:11:18 20 *post hoc* justify the legislature's decision to ban these
21 firearms, is because the evidence is unreliable. And
22 we've -- I don't want to go into the *Daubert* motions that
23 plaintiffs filed. We can consider those later if they come
24 up, but I think in those motions you will see -- and we've
11:11:35 25 laid it out in these papers on a more limited basis.

11:11:38 1 You can put their evidence -- the State's evidence
2 into four categories. One of which is Dr. Colwell, the
3 expert who says that assault weapons cause worse injuries
4 and more injuries. He is --

11:11:55 5 It is objectively unequivocally erroneous that
6 assault weapons cause a worse injury. Nothing -- an
7 "assault weapon" is a technical term, right?

8 It is defined by a pistol grip with an adjustable
9 stock and a flash suppressor. The undisputed evidence shows
11:12:14 10 that not one of those features has any effect on what a
11 bullet does when it leaves the rifle. So if you take the
12 pistol grip off, you have a fixed stock. You don't have a
13 flash suppressor. You have the same rifle with the same
14 barrel length shooting the same ammo. The identical wound
11:12:32 15 results.

16 So it is -- it is unobjectively [sic] false to say
17 that assault weapons cause worse wounds. Now, he moves on
18 and says, *Well, it's not just the individual wound.* That's
19 what the State argues. It is that they are able to produce
11:12:43 20 multiple of these wounds.

21 Well, in Dr. Colwell's testimony, he explained
22 that he could not say at what rate an assault weapon fires.
23 He can't say -- so he's basing on an assumption of technical
24 knowledge that he can't -- that he doesn't have, frankly.
11:13:02 25 He admits he has no technical knowledge of firearms. He

11:13:05 1 can't say how rapidly rounds were fired just by looking at
2 wounds. I think it's very telling that he was --

3 By the way, Dr. Colwell is a great man, a hero,
4 and I wish there were more of him in the work that he does;
11:13:20 5 but, frankly, he doesn't know what he thinks he knows in
6 this regard. He's basing his entire premise that assault
7 weapons cause worse injuries on being told by a third
8 party -- by officers, usually, or the victim -- that
9 somebody shot -- the victim was shot with an assault weapon.

11:13:39 10 And he's -- from memory, over 30 years or so of practicing,
11 he's saying, *Yeah, I've been told, and I sort of noticed*
12 *that when people say they've been shot by assault weapons*
13 *that the wounds tend to be worse.*

14 That's just unreliable. That's not scientific,
11:13:56 15 Your Honor. It cannot be relied upon, especially when he
16 doesn't have the technical background. So that's just the
17 wounding.

18 Then, you get to the very -- you know, the
19 argument from Lucy Allen that when assault rifles are used
11:14:08 20 in a mass shooting, that casualty rates go up. Her analysis
21 where she says "Assault rifle shootings includes victims who
22 were shot" -- admittedly, in her deposition -- "were shot by
23 handguns, or shotguns, or non-assault weapon."

24 If a shooting used multiple firearms --

11:14:26 25 For example, the Aurora, Colorado shooting, the

11:14:31 1 shooter used an assault rifle, a shotgun and a pistol. She
2 includes all of those victims in her assault rifle casualty
3 counts. That evidence is completely unreliable, just based
4 on that alone.

11:14:49 5 Setting aside the fact that the State's own
6 expert, Mike Mesereau, says that you have to have expert
7 knowledge of assault weapons in order to identify them --
8 and Lucy Allen has not indicated she has any background in
9 identifying technical firearms, let alone assault weapons,
11:15:07 10 so her entire analysis is unreliable.

11 Then we get to my favorite, Professor Donahue,
12 who -- if you read Professor Donahue's report -- and I
13 invite the Court to read it and pay attention to how it's
14 written and what he relies on -- it is not an expert report.
11:15:30 15 It is a legal brief. He is literally making the case for
16 why assault weapon bans are good. He is not objectively
17 evaluating anything. And I think, just to give a prime
18 example of his 50-page report that I could go through and
19 bore the Court with every little detail on it, but --

11:15:48 20 THE COURT: No, please.

21 MR. BRADY: -- I will not --

22 THE COURT: I have all the papers, so just
23 highlight -- I'm going to give you a few more minutes.

24 MR. BRADY: Sure. I just think it's very telling
11:15:57 25 that Professor Donahue has a section in his report where he

11:15:59 1 says, "Law enforcement and military support for assault
2 weapon bans," and then he cites to two individuals who
3 support assault weapon bans: One was a former military
4 officer turned U.S. Attorney.

11:16:16 5 What possible relevance does that have for an
6 expert? That's the stuff of a State making an argument in a
7 brief, not an expert providing insight as to the credibility
8 of evidence. Not to mention, you know, his initial findings
9 on gun ownership rates, which I don't even think it's
11:16:44 10 relevant here, but it's relevant to show that he's
11 unreliable because it's based on material he put together
12 three years ago. He purports to opine on current rates of
13 gun ownership, and he's relying on material he put together
14 many years ago. And then when confronted with, *Well, did*
11:17:03 15 *you consider this survey -- this more recent survey that you*
16 *cite in another part of your motion for another proposition?*
17 And he says, *No.* And his excuse is, *Oh, that's old*
18 *material. I didn't bother looking at updated things.*

19 That means he's either unreliable or he is biased
11:17:22 20 and trustworthy. And I personally think it's both, frankly.
21 So that's their evidence.

22 Their other experts, Blake Graham and Michael
23 Mesereau, all they simply do is agree with our self-defense
24 experts that the features that are being restricted make a
11:17:42 25 firearm more user-friendly, more controllable and more

11:17:47 1 accurate. They just think that that's a bad thing. And I
2 don't --

3 I don't see how the State can say that people
4 should have less controllable, less accurate firearms in the
11:18:02 5 hopes that we might make a mass shooter less capable of
6 creating casualties. I mean, think about that. That would
7 be like saying, *Oh, we have to not allow adjustable seats in*
8 *a car so that the getaway driver, you know, has a tougher*
9 *time getting away from the bank.* It's --

11:18:25 10 Quite frankly, I'm trying to take this seriously.
11 The State's law is an unserious response to a very serious
12 issue and they cloak it in, you know, this facade that they
13 have evidence supporting this restriction, and they simply
14 do not. The evidence that they've put forth is, frankly,
11:18:47 15 inadmissible, most of it. And all it does show from their
16 two guys who don't [sic] have a clue about guns is that
17 these guns work good and that people should not have guns
18 that work good.

19 I would like to just close by saying that when the
11:19:04 20 the State -- all of the State's arguments that rely on
21 assault weapons being used disproportionately in particular
22 crimes, they should be barred from making that argument.
23 They put forth in discovery that's in the record that they
24 have no idea how many of these firearms are out there, and
11:19:22 25 they do not have sufficient material to even make an

11:19:28 1 estimate. And, yet, they're able to figure out whether
2 these arms are disproportionately used or not. You have to
3 know the amount before you can say something is
4 disproportionate, right?

11:19:39 5 So unless Your Honor has any other questions --

6 THE COURT: I don't have any other questions.

7 Thank you.

8 MR. CHANG: Good morning --

9 THE COURT: And since you each have -- you're each
11:19:53 10 filing cross-motions, I'm just going to hear from each side
11 once. There's no burdens that are greater on one side than
12 the other, necessarily.

13 So go ahead.

14 MR. CHANG: Yes, Your Honor.

11:20:07 15 I think it's significant in this case that the
16 plaintiffs has not addressed or attempted to distinguish
17 this case from the five Circuit Court decisions that have
18 upheld assault weapons bans in other -- in other
19 jurisdictions.

11:20:25 20 The uniform weight of the Circuit Court decision
21 is that assault -- States may restrict assault weapons,
22 including assault rifles. The Fourth Circuit in *Kolbe* even
23 went so far as to hold that assault weapons are not within
24 the scope of the Second Amendment, because it is like the
11:20:47 25 M16, a weapon most useful in the military.

11:20:51 1 And I think the -- it's also significant to
2 establish clearly what the legal standard is, under an
3 intermediate scrutiny for the Court's review. The Court --
4 and the Ninth Circuit made this very clear in the *Peña*
11:21:07 5 case. The Court is not to weigh evidence as in a criminal
6 trial. Instead, what the Court is looking for is whether
7 the State has put forward evidence that fairly supports the
8 legislature's judgment as to how the law could further the
9 public interest in public safety.

11:21:29 10 THE COURT: So if the legislature expressed its
11 judgment as to how it would further public safety but
12 there's not evidence in the -- in the record that the
13 legislature had all the evidence that you're presenting now
14 in front of it at the time, does that mean that I disregard
11:21:45 15 the evidence that you are providing now?

16 MR. CHANG: No, Your Honor.

17 And this was addressed squarely by the
18 Ninth Circuit in *Peña*. The Court said there that
19 *Legislatures are not required to put together a record of*
11:21:59 20 *everything it reviewed when it passes a law.*

21 And, you know, for that reason, the Court
22 shouldn't just look to exactly what the legislature had
23 looked at. Instead, the Court may look at the statement put
24 forward everything that it thinks that is relevant to the
11:22:18 25 legislature -- you know, to the case and that these are

11:22:21 1 legislative facts, not adjudicative facts.

2 But in any event, in this case, you know, we
3 have -- the State has submitted an abundance of evidence to
4 support its position. But the legislature had also
11:22:38 5 considered evidence when it passed the -- initially passed
6 the AWCA in 1989, and also looked at additional evidence
7 every time it's been amended. I believe that's also in the
8 record.

9 And so, while the parties, you know -- the State
11:22:55 10 believes that, you know -- what the plaintiffs are asking
11 for is for the Court to actually weigh the evidence, which
12 the Ninth Circuit said the Court shouldn't do and actually
13 require the State to prove with scientific precision that
14 the law actually enhances public safety or will actually
11:23:16 15 enhance public safety and must be justified by a causal link
16 that assault rifles cause harm.

17 And, you know, that's just not what the legal
18 standard requires here. But even under that standard, we
19 believe that the State has put forward sufficient evidence
11:23:34 20 that assault rifles do cause increased casualties when
21 they're used in public mass shootings. And that can be
22 clearly seen in Defendants' Exhibit 6, the data that has put
23 been together by defendants' expert, Lucy Allen, who clearly
24 had shown by the numbers that when -- in the case of public
11:23:56 25 mass shootings, when there's no assault weapon, the

11:24:00 1 large-capacity magazine used, you know, I believe it was
2 nine casualties on average per incident.

3 When you have assault weapons -- when you have --
4 just have large-capacity magazines, that number jumps up to,
11:24:15 5 I believe, 16. And when you have assault weapons and
6 large-capacity magazines, that number jumps up even higher
7 to 41. I think the record does show that assault weapons,
8 separate from large-capacity magazines, increases the number
9 of casualties.

11:24:32 10 And I want to say that the -- you know, the
11 plaintiffs -- I want to address a couple of things that the
12 plaintiffs have raised: That the effect of the assault
13 rifle rounds that it causes when it's being used to shoot
14 someone, I don't believe that's actually -- I don't believe
11:25:02 15 there's an actual dispute about that, because plaintiffs'
16 own expert, the ballistic expert, Mr. Boone, testified that
17 the assault rifle rounds do cause more damage when
18 there's -- they're fired into a person, because the bullets,
19 themselves, they do more permanent damage because the bullet
11:25:25 20 actually rotates inside someone's body, and there's
21 tremendous cavitation that causes tissue [sic] beyond just
22 what the actual bullet penetrates.

23 And he also testified that, you know, in contrast
24 to a handgun round, that the assault rifle wounds -- wounds
11:25:46 25 caused by assault rifle rounds are much harder to repair.

11:25:51 1 Well, as with handgun rounds, physicians are -- it's much
2 easier for physicians to repair those wounds.

3 THE COURT: I think -- and I may be wrong. I
4 thought that the plaintiff was merely saying that assault
11:26:04 5 weapons that don't come within the scope of the band,
6 perhaps because they have a mixed magazine or something to
7 that effect, those don't cause any greater wounds or
8 different?

9 Am I mistaken in that? Are you saying handguns
11:26:19 10 and assault weapons cause the same damage?

11 MR. BRADY: No, you have it right, Your Honor.
12 The rifle -- comparing rifles and handguns is comparing
13 apples and oranges. We're saying that the assault weapon
14 features have zero to do. So their argument is against
11:26:34 15 rifles in general, not, you know, assault weapons.

16 MR. CHANG: Thank you, Your Honor, for that
17 clarification.

18 In that case, then the difference is that the
19 assault weapons -- assault rifles with the features, while
11:26:45 20 they may cause the same damage as a hunting rifle, for
21 example, it's the fact that the features allow them to be
22 fired more rapidly and with more accuracy. And evidence
23 does show that when assault rifles are used, more shots are
24 fired and more -- they're leading to more casualties.

11:27:05 25 Now, we think the Court could uphold the

11:27:14 1 challenged restrictions on assault rifles, based under
2 intermediate scrutiny. As most other courts have done, we
3 do also think that the evidence is also clear for the Court
4 to rule similarly to what the Fourth Circuit did in *Kolbe*
11:27:32 5 that assault rifles are simply outside the scope of the
6 Second Amendment.

7 The only difference between assault rifles, for
8 example, and the AR-15 that's restricted under the AWCA and
9 the M16, which is a machine gun, is that the M16 has the
11:27:47 10 ability to fire in semiautomatic mode and automatic mode,
11 which -- while the assault rifles can only fire in
12 semiautomatic mode but that difference -- there's,
13 essentially, very little difference.

14 Congress found, based on evidence, that the
11:28:10 15 semiautomatic weapons can be fired nearly as fast as
16 machine guns between 2- to 500 rounds per -- I believe it
17 was per minute. And the military even instructs its
18 soldiers to normally deploy their M16s in a semiautomatic
19 configuration.

11:28:33 20 So there's -- while there is a technical
21 difference between the M16 machine gun and assault rifles,
22 that difference is for purposes of the Second Amendment and
23 for purposes in real-life applications, the State submits
24 that that purpose is inconsequential.

11:28:59 25 And, finally, if the Court has no more questions,

11:29:04 1 the State would ask that if the Court is considering
2 granting the plaintiffs' motion, that we would ask the Court
3 to issue a stay at the same time it issues its decision so
4 there's not a mad rush for people to acquire these type of
11:29:23 5 weapons before -- and the stay can be eventually issued.

6 THE COURT: All right. Thank you.

7 I'll take the matter under submission. And the
8 Court's ruling will be posted on the docket.

9 MR. CHANG: Thank you, Your Honor.

11:29:35 10 Yes. And the parties would like to jointly
11 request that the Court vacate the remaining dates on the
12 schedule. I believe there's a motion for *in limine*,
13 pretrial conference and also the hearing notice for the
14 plaintiffs' *Daubert* motions, until the Court has resolved
11:29:53 15 the parties' cross-motions.

16 THE COURT: I often don't do that; but in this
17 case, I will. I think under the circumstance of
18 cross-motions here and the level of preparation, et cetera,
19 it makes sense to vacate the dates pending the Court's
11:30:12 20 resolution, depending upon the Court's resolution.

21 Then, what I will also order is that within 10
22 days of the Court's determination on a motion, to the extent
23 that any claim remains viable in terms of moving forward in
24 this Court, that the parties file a joint report
11:30:37 25 recommending new dates, all right?

11:30:39 1 MR. CHANG: Thank you, Your Honor.

2 THE COURT: Thank you.

3 THE CLERK: All rise.

4 *(At 11:30 a.m., proceedings were adjourned.)*

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Deborah D. Parker, U.S. Court Reporter

1 CERTIFICATE

2 I hereby certify that pursuant to Section 753,
3 Title 28, United States Code, the foregoing is a true and
4 correct transcript of the stenographically reported
5 proceedings held in the above-entitled matter and that the
6 transcript page format is in conformance with the
7 regulations of the Judicial Conference of the United States.
8

9 Date: December 5, 2019

10
11
12 /s/DEBORAH D. PARKER
13 DEBORAH D. PARKER, OFFICIAL REPORTER
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Deborah D. Parker, U.S. Court Reporter

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Attorneys for Plaintiffs

UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA
SOUTHERN DIVISION

STEVEN RUPP, et al.,

Plaintiffs,

vs.

XAVIER BECERRA, in his official
capacity as Attorney General of the State
of California,

Defendant.

Case No.: 8:17-cv-00746-JLS-JDE

**PLAINTIFFS' NOTICE OF
MOTION AND MOTION TO
PARTIALLY EXCLUDE THE
TESTIMONY OF DEFENDANT'S
EXPERT WITNESS DETECTIVE
MICHAEL MERSEREAU UNDER
FEDERAL RULE OF EVIDENCE
702**

Hearing Date: July 5, 2019
Hearing Time: 10:30 a.m.
Judge: Josephine L. Staton
Courtroom: 10A

1 TO THE HONORABLE COURT, ALL PARTIES, AND THEIR ATTORNEYS OF
2 RECORD:

3 PLEASE TAKE NOTICE that on July 5, 2019, at 10:30 a.m. in Courtroom
4 10A of the above captioned court, located at 411 West Fourth Street, Courtroom
5 10A, 10th Floor, Santa Ana, California 92701, Plaintiffs Steven Rupp, Steven
6 Dember, Cheryl Johnson, Michael Jones, Christopher Seifert, Alfonso Valencia,
7 Troy Willis, Dennis Martin, and the California Rifle & Pistol Association,
8 Incorporated, (“Plaintiffs”) will move to partially exclude the testimony of
9 Defendant Xavier Becerra’s expert witness Detective Michael Mersereau under
10 Federal Rule of Evidence 702. Plaintiffs contend that per the evidentiary standards
11 for the admissibility of expert witness testimony under Rule 702 and elucidated in
12 *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), Mr.
13 Mersereau’s testimony and opinions identified in the memorandum of points and
14 authorities filed concurrently herewith are not admissible.

15 This Motion is based on this notice of motion and motion, memorandum of
16 points and authorities, declaration of Sean A. Brady, and all exhibits filed
17 concurrently herewith. This motion is also based on the pleadings and record already
18 on file and on any further matters this Court deems appropriate.

19
20 Dated: May 28, 2019

MICHEL & ASSOCIATES, P.C.

21
22 /s/ Sean A. Brady

23 Sean A. Brady
24 Attorneys for Plaintiffs
25
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CERTIFICATE OF SERVICE
IN THE UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA
SOUTHERN DIVISION

Case Name: *Rupp, et al. v. Becerra*
Case No.: 8:17-cv-00746-JLS-JDE

IT IS HEREBY CERTIFIED THAT:

I, the undersigned, am a citizen of the United States and am at least eighteen years of age. My business address is 180 East Ocean Boulevard, Suite 200, Long Beach, California 90802.

I am not a party to the above-entitled action. I have caused service of:

**PLAINTIFFS' NOTICE OF MOTION AND MOTION TO PARTIALLY
EXCLUDE THE TESTIMONY OF DEFENDANT'S EXPERT WITNESS
DETECTIVE MICHAEL MERSEREAU UNDER FEDERAL RULE OF
EVIDENCE 702**

on the following party by electronically filing the foregoing with the Clerk of the District Court using its ECF System, which electronically notifies them.

Xavier Becerra
Attorney General of California
Peter H. Chang
Deputy Attorney General
E-mail: peter.chang@doj.ca.gov
John D. Echeverria
Deputy Attorney General
E-mail: john.echeverria@doj.ca.gov
455 Golden Gate Ave., Suite 11000
San Francisco, CA 94102

I declare under penalty of perjury that the foregoing is true and correct.

Executed May 28, 2019.

/s/ Laura Palmerin
Laura Palmerin

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Sean A. Brady – SBN 262007
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Attorneys for Plaintiffs

UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA
SOUTHERN DIVISION

STEVEN RUPP, et al.,

Plaintiffs,

vs.

XAVIER BECERRA, in his official
capacity as Attorney General of the State
of California,

Defendant.

Case No.: 8:17-cv-00746-JLS-JDE

**PLAINTIFFS' NOTICE OF
MOTION AND MOTION TO
EXCLUDE THE TESTIMONY OF
DEFENDANT'S EXPERT
WITNESS JOHN J. DONOHUE
UNDER FEDERAL RULE OF
EVIDENCE 702**

Hearing Date: July 5, 2019
Hearing Time: 10:30 a.m.
Judge: Josephine L. Staton
Courtroom: 10A

1 TO THE HONORABLE COURT, ALL PARTIES, AND THEIR ATTORNEYS OF
2 RECORD:

3 PLEASE TAKE NOTICE that on July 5, 2019, at 10:30 a.m. in Courtroom
4 10A of the above captioned court, located at 411 West Fourth Street, Courtroom
5 10A, 10th Floor, Santa Ana, California 92701, Plaintiffs Steven Rupp, Steven
6 Dember, Cheryl Johnson, Michael Jones, Christopher Seifert, Alfonso Valencia,
7 Troy Willis, Dennis Martin, and the California Rifle & Pistol Association,
8 Incorporated, (“Plaintiffs”) will move to exclude the testimony of Defendant Xavier
9 Becerra’s expert witness John J. Donohue under Federal Rule of Evidence 702.
10 Plaintiffs contend that per the evidentiary standards for the admissibility of expert
11 witness testimony under Rule 702 and elucidated in *Daubert v. Merrell Dow*
12 *Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), Mr. Donohue’s testimony is not
13 admissible.

14 This Motion is based on this notice of motion and motion, memorandum of
15 points and authorities, declaration of Sean A. Brady, and all exhibits filed
16 concurrently herewith. This motion is also based on the pleadings and record already
17 on file and on any further matters this Court deems appropriate.

18
19 Dated: May 28, 2019

MICHEL & ASSOCIATES, P.C.

20
21 /s/ Sean A. Brady

22 Sean A. Brady
23 Attorneys for Plaintiffs
24
25
26
27
28

CERTIFICATE OF SERVICE
IN THE UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA
SOUTHERN DIVISION

Case Name: *Rupp, et al. v. Becerra*
Case No.: 8:17-cv-00746-JLS-JDE

IT IS HEREBY CERTIFIED THAT:

I, the undersigned, am a citizen of the United States and am at least eighteen years of age. My business address is 180 East Ocean Boulevard, Suite 200, Long Beach, California 90802.

I am not a party to the above-entitled action. I have caused service of:

**PLAINTIFFS' NOTICE OF MOTION AND MOTION TO EXCLUDE THE
TESTIMONY OF DEFENDANT'S EXPERT WITNESS JOHN J. DONOHUE
UNDER FEDERAL RULE OF EVIDENCE 702**

on the following party by electronically filing the foregoing with the Clerk of the District Court using its ECF System, which electronically notifies them.

Xavier Becerra
Attorney General of California
Peter H. Chang
Deputy Attorney General
E-mail: peter.chang@doj.ca.gov
John D. Echeverria
Deputy Attorney General
E-mail: john.echeverria@doj.ca.gov
455 Golden Gate Ave., Suite 11000
San Francisco, CA 94102

I declare under penalty of perjury that the foregoing is true and correct.

Executed May 28, 2019.

/s/ Laura Palmerin
Laura Palmerin

C. D. Michel – SBN 144258
Sean A. Brady – SBN 262007
Matthew D. Cubeiro – SBN 291519
cmichel@michellawyers.com
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Long Beach, CA 90802
Telephone: 562-216-4444
Facsimile: 562-216-4445

Attorneys for Plaintiffs

UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA
SOUTHERN DIVISION

STEVEN RUPP, et al.,

Plaintiffs,

vs.

XAVIER BECERRA, in his official
capacity as Attorney General of the State
of California,

Defendant.

Case No.: 8:17-cv-00746-JLS-JDE

**PLAINTIFFS' NOTICE OF
MOTION AND MOTION TO
EXCLUDE THE TESTIMONY OF
DEFENDANT'S EXPERT
WITNESS CHRISTOPHER B.
COLWELL, M.D. UNDER
FEDERAL RULE OF EVIDENCE
702**

Hearing Date: July 5, 2019
Hearing Time: 10:30 a.m.
Judge: Josephine L. Staton
Courtroom: 10A

1 TO THE HONORABLE COURT, ALL PARTIES, AND THEIR ATTORNEYS OF
2 RECORD:

3 PLEASE TAKE NOTICE that on July 5, 2019, at 10:30 a.m. in Courtroom
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6 Dember, Cheryl Johnson, Michael Jones, Christopher Seifert, Alfonso Valencia,
7 Troy Willis, Dennis Martin, and the California Rifle & Pistol Association,
8 Incorporated, ("Plaintiffs") will move to exclude the testimony of Defendant Xavier
9 Becerra's expert witness Christopher B. Colwell, M.D. under Federal Rule of
10 Evidence 702. Plaintiffs contend that per the evidentiary standards for the
11 admissibility of expert witness testimony under Rule 702 and elucidated in *Daubert*
12 *v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), Dr. Colwell's testimony
13 is not admissible.

14 This Motion is based on this notice of motion and motion, memorandum of
15 points and authorities, declaration of Sean A. Brady, and all exhibits filed
16 concurrently herewith. This motion is also based on the pleadings and record already
17 on file and on any further matters this Court deems appropriate.

18
19 Dated: May 28, 2019

MICHEL & ASSOCIATES, P.C.

20
21 /s/ Sean A. Brady

22 Sean A. Brady
23 Attorneys for Plaintiffs
24
25
26
27
28

CERTIFICATE OF SERVICE
IN THE UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA
SOUTHERN DIVISION

Case Name: *Rupp, et al. v. Becerra*
Case No.: 8:17-cv-00746-JLS-JDE

IT IS HEREBY CERTIFIED THAT:

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I am not a party to the above-entitled action. I have caused service of:

**PLAINTIFFS' NOTICE OF MOTION AND MOTION TO EXCLUDE THE
TESTIMONY OF DEFENDANT'S EXPERT WITNESS CHRISTOPHER B.
COLWELL, M.D. UNDER FEDERAL RULE OF EVIDENCE 702**

on the following party by electronically filing the foregoing with the Clerk of the District Court using its ECF System, which electronically notifies them.

Xavier Becerra
Attorney General of California
Peter H. Chang
Deputy Attorney General
E-mail: peter.chang@doj.ca.gov
John D. Echeverria
Deputy Attorney General
E-mail: john.echeverria@doj.ca.gov
455 Golden Gate Ave., Suite 11000
San Francisco, CA 94102

I declare under penalty of perjury that the foregoing is true and correct.

Executed May 28, 2019.

/s/ Laura Palmerin
Laura Palmerin

C. D. Michel – SBN 144258
Sean A. Brady – SBN 262007
Matthew D. Cubeiro – SBN 291519
cmichel@michellawyers.com
MICHEL & ASSOCIATES, P.C.
180 East Ocean Boulevard, Suite 200
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Telephone: 562-216-4444
Facsimile: 562-216-4445

Attorneys for Plaintiffs

UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA
SOUTHERN DIVISION

STEVEN RUPP, et al.,

Plaintiffs,

vs.

XAVIER BECERRA, in his official
capacity as Attorney General of the State
of California,

Defendant.

Case No.: 8:17-cv-00746-JLS-JDE

**PLAINTIFFS' NOTICE OF
MOTION AND MOTION TO
EXCLUDE THE TESTIMONY OF
DEFENDANT'S EXPERT
WITNESS LUCY P. ALLEN
UNDER FEDERAL RULE OF
EVIDENCE 702**

Hearing Date: July 5, 2019
Hearing Time: 10:30 a.m.
Judge: Josephine L. Staton
Courtroom: 10A

1 TO THE HONORABLE COURT, ALL PARTIES, AND THEIR ATTORNEYS OF
2 RECORD:

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5 California 92701, Plaintiffs Steven Rupp, Steven Dember, Cheryl Johnson, Michael
6 Jones, Christopher Seifert, Alfonso Valencia, Troy Willis, Dennis Martin, and the
7 California Rifle & Pistol Association, Incorporated, (“Plaintiffs”) will move to
8 exclude the testimony of Defendant Xavier Becerra’s expert witness Lucy P. Allen
9 under Federal Rule of Evidence 702. Plaintiffs contend that per the evidentiary
10 standards for the admissibility of expert witness testimony under Rule 702 and
11 elucidated in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993),
12 Ms. Allen’s testimony is not admissible.

13 This Motion is based on this notice of motion and motion, memorandum of
14 points and authorities, declaration of Sean A. Brady, and all exhibits filed
15 concurrently herewith. This motion is also based on the pleadings and record already
16 on file and on any further matters this Court deems appropriate.

17
18 Dated: May 28, 2019

MICHEL & ASSOCIATES, P.C.

19
20 /s/ Sean A. Brady

21 Sean A. Brady
22 Attorneys for Plaintiffs
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CERTIFICATE OF SERVICE
IN THE UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA
SOUTHERN DIVISION

Case Name: *Rupp, et al. v. Becerra*
Case No.: 8:17-cv-00746-JLS-JDE

IT IS HEREBY CERTIFIED THAT:

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I am not a party to the above-entitled action. I have caused service of:

**PLAINTIFFS' NOTICE OF MOTION AND MOTION TO EXCLUDE THE
TESTIMONY OF DEFENDANT'S EXPERT WITNESS LUCY P. ALLEN
UNDER FEDERAL RULE OF EVIDENCE 702**

on the following party by electronically filing the foregoing with the Clerk of the District Court using its ECF System, which electronically notifies them.

Xavier Becerra
Attorney General of California
Peter H. Chang
Deputy Attorney General
E-mail: peter.chang@doj.ca.gov
John D. Echeverria
Deputy Attorney General
E-mail: john.echeverria@doj.ca.gov
455 Golden Gate Ave., Suite 11000
San Francisco, CA 94102

I declare under penalty of perjury that the foregoing is true and correct.

Executed May 28, 2019.

/s/ Laura Palmerin
Laura Palmerin

XAVIER BECERRA
Attorney General of California
MARK R. BECKINGTON
Supervising Deputy Attorney General
JOHN D. ECHEVERRIA
Deputy Attorney General
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Attorneys for Defendant Xavier Becerra

IN THE UNITED STATES DISTRICT COURT
FOR THE CENTRAL DISTRICT OF CALIFORNIA
SOUTHERN DIVISION

STEVEN RUPP, et al.,

Plaintiffs,

v.

**XAVIER BECERRA, in his official
capacity as Attorney General of the
State of California, et al.,**

Defendants.

8:17-cv-00746-JLS-JDE

**DEFENDANT'S REPLY
STATEMENT OF GENUINE
DISPUTES OF MATERIAL FACT**

Date: May 31, 2019
Time: 10:30 a.m.
Courtroom: 10A
Judge: Hon. Josephine L. Staton
Trial Date: N/A
Action Filed: April 24, 2017

In accordance with Local Rule 56-2 and this Court's procedures, and in response to Plaintiffs' Statement of Genuine Disputes of Material Fact and Additional Uncontroverted Facts, ECF No. 92-1, Defendant Xavier Becerra, Attorney General of the State of California, sued in his official capacity ("Defendant"), submits the following Reply Statement of Genuine Disputes of Material Fact in support of his Reply in Support of Motion for Summary Judgment, filed concurrently herewith.

While Defendant disputes certain facts herein, resolution of these facts does not require a trial. *See* Def. Opp. to Mem. in Supp. of Pls. Mot. Summ. J., ECF No. 88, at 13-14.

	Plaintiffs' Additional Undisputed Material Facts¹	Defendant's Genuine Disputes of Material Fact
1	California has prohibited what it classifies as "assault weapons" over the past three decades. (Cal. Penal Code §§ 30600-30605 (formerly Cal. Penal Code §§ 12280 (originally adopted in 1989)).)	Undisputed.
2	California has never directly notified owners of firearms classified by California of "assault weapons" of the need to register them as "assault weapons" in order to continue their lawful possession. (Defendant's Supplemental Response to Plaintiff Troy Willis's First Set of Interrogatories, Response to Interrogatory No. 10; AG00018310 ("The California Department of Justice . . . is diligently attempting to notify California gun owners of these new [registration laws]. The Department is seeking [the] assistance	Disputed. Evidence cited by Plaintiffs does not support the proposed statement of fact. (<i>See, e.g.</i> , Defendant's Supplemental Response to Plaintiff Troy Willis's First Set of Interrogatories, Response to Interrogatory No. 10; AG00018310 ("The California Department of Justice . . . is diligently attempting to notify California gun owners of these new [registration laws]. The Department is seeking [the] assistance

¹ The Court's Initial Standing Order required Plaintiffs to continue their purported genuine disputes of material fact in sequentially numbered paragraphs, ECF No. 8, § 8(c)(i), but Plaintiffs have numbered their additional undisputed material facts beginning with paragraph 1. Defendant has reproduced Plaintiffs' numbering herein.

		[of California law enforcement agencies, firearm dealers, gun-show producers, and gun-range owners] with the notification process.”)
3	Countless individuals have lawfully modified their firearms, removed them from the state of California, or sold or transferred them to avoid the ‘assault weapon’ registration requirements. (Cal. Penal Code § 30920 (requiring persons who lawfully possessed firearms subsequently declared ‘assault weapons’ to dispossess themselves of their firearms or register them with the California Department of Justice).)	Disputed. Evidence cited by Plaintiffs does not support the proposed statement of fact. (Cal. Penal Code § 30920; <i>see id.</i> § 30900.)
4	The California Department of Justice, Bureau of Firearms, anticipated between 1 to 1.5 million “assault weapon” registrations during the most recent “assault weapon” registration period alone. (RJN Ex. 2.)	Undisputed.

Dated: May 17, 2019

Respectfully submitted,

XAVIER BECERRA
 Attorney General of California
 MARK R. BECKINGTON
 Supervising Deputy Attorney General
 JOHN D. ECHEVERRIA
 Deputy Attorney General

 /s/ Peter H. Chang

 PETER H. CHANG
 Deputy Attorney General
Attorneys for Defendant Xavier Becerra

EXHIBIT 49

United States Senate Judiciary Committee
Full Committee Hearing
“What Should America Do About Gun Violence?”

January 30, 2013
10:00 AM
Hart Senate Office Building, Room 216

Written Testimony of David B. Kopel

Research Director, Independence Institute, Golden, Colorado.

Associate Policy Analyst, Cato Institute, Washington, D.C.¹

Adjunct Professor of Advanced Constitutional Law, Denver University,
Sturm College of Law. www.davekopel.org.

“[W]e cannot clearly credit the [1994 ‘assault weapons’] ban with any of the nation’s recent drop in gun violence.”—U.S. Department of Justice 2004 study.²

“Passing a law like the assault weapons ban is a purely symbolic move in that direction [to disarm the citizenry]. . . . [T]hat change in mentality starts with the symbolic yielding of certain types of weapons. The real steps, like the banning of handguns, will never occur unless this one is taken first. . . .”—Charles Krauthammer³

“The [‘assault’] weapons’ menacing looks, coupled with the public’s confusion over fully automatic machine guns versus semi-automatic assault weapons—anything that looks like a machine gun is assumed to be a machine gun—can only increase the chance of public support for restrictions on these weapons.”—Josh Sugarmann, Founder, Violence Policy Center⁴

The Political Attack on Firearms Ownership

On December 14, 2012, a deranged and hate-filled mass-murderer first killed his own mother and then snuffed out 26 additional lives at Sandy Hook Elementary School in Newtown, Connecticut. It was one of the worst mass murders at school since 1927, when a defeated school board candidate set off explosives at an elementary school in Bath Township, Michigan, killing 38 children and five adults. The horrific crime at Sandy Hook tore the heart out of the nation. It filled every life-loving American—every parent, grandparent, aunt, and uncle—with anger, dread, and anguish.

In the aftermath of this crime, many Americans are exploring ways to responsibly and realistically reduce the possibility of another such attack, such as by better-addressing mental illness,⁵ training people how to more-effectively respond to “active shooters,”⁶ and allowing teachers and other responsible adults to carry concealed handguns in schools—something already successfully implemented in Utah and parts of Texas, Ohio, and Colorado.⁷

Unfortunately, others are promoting repressive laws which would have done nothing to prevent Sandy Hook, and would do nothing to prevent the inevitable copycat crimes that may take place in the near future. The demands for symbolic but useless anti-gun laws are accompanied by an aggressive culture war against dissenters. A *Des Moines Register* journalist declared that well-known defenders of gun rights should be dragged behind pickup trucks, that the Second Amendment should be repealed, that the National Rifle Association (NRA) should be declared a “terrorist organization,” and that membership in the NRA should be outlawed.⁸ A writer for the *Huffington Post* declared that anyone who believes guns may

legitimately be owned for self-defense—or that the Second Amendment protects that right—is a “menace” and “a danger to your children.”⁹

Unfortunately, such mean-spirited and unjust demonization and scapegoating of law-abiding American gun owners has become a central feature of the political campaign to ban or restrict semi-automatic guns and the magazines that go with them. Even worse, the Newtown murders are being politically exploited

Prohibitionists use the false and inflammatory labels of “assault weapon” and “high-capacity magazine” to mischaracterize ordinary firearms and their standard accessories.

The AR-15 rifle has for years been the most popular, best-selling firearm in the United States. Millions of law-abiding Americans own AR-15s and similar guns. In an article for *Slate*, Justin Peters estimates that there may be nearly four million AR-15 rifles in the country—and that’s just one brand of rifle.¹⁰ Contrary to media claims, these ordinary citizens are not psychopaths intent on mass murder. Rather, Americans own so-called “assault weapons” for all the legitimate reasons that they own any type of firearm: lawful defense of self and others, hunting, and target practice. They do not own these firearms to “assault” anyone. To the contrary, rifles such as the AR-15, and standard capacity magazines of 11-19 rounds (for handguns) and up to 30 rounds (for rifles) are commonly used by rank and file police officers, because such firearms and magazines are often the best choice for the lawful protection of self and others.

That is why the police choose them so often. At Sen. Feinstein’s press conference introducing her new prohibition bill, Rev. Hale, of the National Cathedral, asserted that the guns and magazines are useful only for mass murder. This is a mean-spirited insult to the many police officers who have chosen these very same guns and magazines as the best tools for the most noble purpose of all: the defense of innocent life.

What Is An “Assault Weapon?”

Gun prohibition advocates have been pushing the “assault weapon” issue for a quarter century. Their political successes on the matter have always depended on public confusion. The guns are *not* machine guns. They do *not* fire automatically. They fire only one bullet each time the trigger is pressed, just like every other ordinary firearm. They are *not* more powerful than other firearms; to the contrary, their ammunition is typically intermediate in power, less powerful than guns and ammunition made for big game hunting.

The difference between automatic and semi-automatic

For an automatic firearm (commonly called a “machine gun”), if the shooter presses the trigger and holds it, the gun will fire continuously, automatically, until the ammunition runs out.¹¹ Ever since the National

Firearms Act of 1934, automatics have been very strictly regulated by federal law: Every person who wishes to possess one must pay a \$200 federal transfer tax, must be fingerprinted and photographed, and must complete a months-long registration process with the federal Bureau of Alcohol, Tobacco, Firearms, and Explosives (BATFE). In addition, the transferee must be granted written permission by local law enforcement, via ATF Form 4. Once registered, the gun may not be taken out of state without advance written permission from BATFE.

Since 1986, the manufacture of new automatics for sale to persons other than government agents has been forbidden by federal law.¹² As a result, automatics in U.S. are rare (there are about a hundred thousand legally registered ones), and expensive, with the least expensive ones costing nearly ten thousand dollars.

The automatic firearm was invented in 1883 by Hiram Maxim. The early Maxim Guns were heavy and bulky, and required a two-man crew to operate. In 1943, a new type of automatic was invented, the “assault rifle.” The assault rifle is light enough for a soldier to carry for long periods of time. Soon, the assault rifle became the ubiquitous infantry weapon. Examples include the U.S. Army M-16, the Soviet AK-47, and the Swiss militia SIG SG 550. The AK-47 (and its various updates, such as the AK-74 and AKM) can be found all over the Third World, but there are only a few hundred in the United States, mostly belonging to firearms museums and wealthy collectors.

The precise definition of “assault rifle” is supplied by the Defense Intelligence Agency.¹³ If you use the term “assault rifle,” persons who are knowledgeable about firearms will know precisely what kinds of guns you are talking about. The definition of “assault rifle” has never changed, because the definition describes a particular type of thing in the real world—just like the definitions of “apricot” or “Minnesota.”

In contrast, the definition of “assault weapon” has never been stable. The phrase is merely an epithet. It has been applied to things which are not even firearms (namely, air guns). It has been applied to double-barreled shotguns, to single-shot guns (guns whose ammunition capacity is only a single round), and to many other sorts of ordinary handguns, shotguns, and rifles.

The first “assault weapon” ban in the United States, in California in 1989, was created by legislative staffers thumbing through a picture book of guns, and deciding which guns looked bad. The result was an incoherent law which, among other things, outlawed certain firearms that do not exist, since the staffers just copied the typographical errors from the book, or associated a model by one manufacturer with another manufacturer whose name appeared on the same page.

Over the last quarter century, the definition has always kept shifting. One recent version is Sen. Dianne Feinstein’s new bill. Another is the pair of bills defeated in the January 2013 lame duck session of the Illinois legislature

which would have outlawed most handguns (and many long guns as well) by dubbing them “assault weapons.”

While the definitions of what to ban keep changing, a few things remain consistent: The definitions do *not* cover automatic firearms, such as assault rifles. The definitions do *not* ban guns based on how fast they fire, or how powerful they are. Instead, the definitions are based on the name of a gun, or on whether a firearm has certain superficial accessories (such as a bayonet lug, or a grip in the “wrong” place).

Most, but not all, of the guns which have been labeled “assault weapons” are semi-automatics. Many people think that a gun which is “semi-automatic” must be essentially the same as an automatic. This is incorrect.

Semi-automatic firearms were invented in the 1890s, and have been common in the United States ever since. Today, about three-quarters of new handguns are semi-automatics. A large share of rifles and shotguns are also semi-automatics. Among the most popular semi-automatic firearms in the United States today are the Colt 1911 pistol (named for the year it was invented, and still considered one of the best self-defense handguns), the Ruger 10/22 rifle (which fires the low-powered .22 Long Rifle cartridge, popular for small game hunting or for target shooting at distances less than a hundred yards), the Remington 1100 shotgun (very popular for bird hunting and home defense), and the AR-15 rifle (popular for hunting game no larger than deer, for target shooting, and for defense). All of these guns were invented in the mid-1960s or earlier. All of them have, at various times, been characterized as “assault weapons.”

Unlike an automatic firearm, a semi-automatic fires only one round of ammunition when the trigger is pressed. (A “round” is one unit of ammunition. For a rifle or handgun, a round has one bullet. For a shotgun, a single round contains several pellets).

In some other countries, a semi-automatic is usually called a “self-loading” gun. This accurately describes what makes the gun “semi”-automatic. When the gun is fired, the bullet (or shot pellets) travel from the firing chamber, down the barrel, and out the muzzle. Left behind in the firing chamber is the now empty case or shell that contained the bullets (or pellets) and the gunpowder.

In a semi-automatic, some of the energy from firing is used to eject the empty shell from the firing chamber, and then load a fresh round of ammunition into the firing chamber. Then, the gun is ready to shoot again, when the user is ready to press the trigger.

In some other types of firearms, the user must perform some action in order to eject the empty shell and load the next round. This could be moving a bolt back and forth (bolt action rifles), moving a lever down and then up (lever action rifles), or pulling and then pushing a pump or slide (pump action and slide action rifles and shotguns). A revolver (the second-most popular

type of handgun) does not require the user to take any additional action in order to fire the next round.¹⁴

The semi-automatic has two principle advantages over lever action, bolt action, slide action, and pump action guns. First, many hunters prefer it because the semi-automatic mechanism allows a faster second shot. The difference may be less than a second, but for a hunter, this can make all the difference.

Second, and more importantly, the semi-automatic's use of gunpowder energy to eject the empty case and then to load the next round substantially reduces how much recoil is felt by the shooter. This makes the gun much more comfortable to shoot, especially for beginners, or for persons without substantial upper body strength and bulk.

The reduced recoil also make the gun easier to keep on target for the next shot, which is important for hunting and target shooting, and extremely important for self-defense.

Semi-automatics also have their disadvantages. They are much more prone to misfeeds and jams than are simpler, older types of firearms, such as revolvers or lever action.

Contrary to the hype of anti-gun advocates and less-responsible journalists, there is no rate of fire difference between a so-called "assault" semi-automatic gun and any other semi-automatic gun.

How fast does a semi-automatic fire?

Here is a report on the test-firing of a new rifle:

187 shots were fired in three minutes and thirty seconds and one full fifteen shot magazine was fired in only 10.8 seconds.

Does that sound like a machine gun? A "semi-automatic assault weapon"? Actually it is an 1862 test report of the then-new lever-action Henry rifle, manufactured by Winchester. If you have ever seen a Henry rifle, it was probably in the hands of someone at a cowboy re-enactment, using historic firearms from 150 years ago.

The Winchester Henry is a lever-action, meaning that after each shot, the user must pull out a lever, and then push it back in, in order to eject the empty shell casing, and then load a new round into the firing chamber.

The lever-action Winchester is not an automatic. It is not a semi-automatic. It was invented decades before either of those types of firearms. And yet that old-fashioned Henry lever action rifle can fire one bullet per second.

By comparison, the murderer at Sandy Hook fired 150 shots over a 20 minute period, before the police arrived. In other words, a rate of fewer than 8 shots per minute. This is a rate of fire far slower than the capabilities of a lever-action Henry Rifle from 1862, or a semi-automatic AR-15 rifle from

2010. Indeed, his rate of fire could have been far exceeded by a competent person using very old technology, such as a break-open double-barreled shotgun.

Are semi-automatics more powerful than other guns?

The power of a firearm is measured by the kinetic energy it delivers. Kinetic energy is based on the mass (the weight) of the projectile, and its velocity.¹⁵ So a heavier bullet will deliver more kinetic energy than a lighter one. A faster bullet will deliver more kinetic energy than a slower bullet.¹⁶

How much kinetic energy a gun will deliver has nothing to do with whether it is a semi-automatic, a lever action, a bolt action, a revolver, or whatever. What matter is, first of all, the weight of the bullet, how much gunpowder is in the particular round of ammunition, and the length of the barrel.¹⁷

None of this has anything to do with whether the gun is or is not a semi-automatic. Manufacturers typically produce the same gun in several different calibers, sometimes in more than a dozen calibers.

Regarding the rifles which some people call “assault weapons,” they tend to be intermediate in power, as far as rifles go. Consider the AR-15 rifle in its most common caliber, the .223. The bullet is only a little bit wider than the puny .22 bullet, but it is longer, and thus heavier.

Using typical ammunition, an AR-15 in .223 would have 1,395 foot-pounds of kinetic energy.¹⁸ That’s more than a tiny rifle cartridge like the .17 Remington, which might carry 801 foot-pounds of kinetic energy. In contrast, a big-game cartridge, like the .444 Marlin, might have 3,040.¹⁹ This is why rifles like the AR-15 are suitable and often used for hunting small to medium animals (such as rabbits or deer), but are not suitable for the largest animals, such as elk or moose.²⁰

Many (but not all) of the ever-changing group of guns which are labeled “assault weapons” use detachable magazines (a box with an internal spring) to hold their ammunition. But this is a characteristic shared by many other firearms, including many non-semiautomatic rifles (particularly, bolt-actions), and by the large majority of handguns. Whatever the merits of restricting magazine size (and we will discuss this below), the size of the magazine depends on the size the magazine. If you want to control magazine size, there is no point in banning certain guns which can take detachable magazines, while not banning other guns which also take detachable magazines.

Bans by name

Rather than banning guns on rate of fire, or firepower, the various legislative attempts to define an “assault weapon” have taken two approaches: banning guns by name, and banning guns by whether they have certain superficial features.

After a quarter century of legislative attempts to define “assault weapon,” the flagship bill for prohibitionists, by Senator Dianne Feinstein, still relies on banning 157 guns by name. This in itself demonstrates that “assault weapons” prohibitions are not about guns which are actually more dangerous than other guns.

After all, if a named gun really has physical characteristics which make it more dangerous than other guns, then legislators ought to be able to describe those characteristics, and ban guns (regardless of name) which have the supposedly dangerous characteristics.

Banning guns by name violates the Constitution’s prohibition on Bills of Attainder. It is a form of legislative punishment, singling out certain politically disfavored companies for a prohibition on their products.

Bans by features

An alternative approach to defining “assault weapon” has been to prohibit guns which have one or more items from a list of external features. These features have nothing to do with a gun’s rate of fire, its ammunition capacity, or its firepower. Below are various items from Senator Feinstein’s 1994 and/or 2013 bills.

Bayonet lugs. A bayonet lug gives a gun a military appearance. But to say the least, it has nothing to do with any real-world issue. Drive-by bayonetings are not a problem in this country.

Attachments for rocket launchers and grenade launchers. Since nobody makes guns for the civilian market that have such features, these bans would affect nothing. Putting the words “grenade launcher” and “rocket launcher” into the bill gives readily-gulled media the opportunity to ask indignantly “How can anyone support guns made to shoot grenades!?!” Besides that, grenades and rockets are subject to extremely severe controls, and essentially impossible for civilians to acquire.

Folding or telescoping stocks. Telescoping stocks are extremely popular because they allow shooters to adjust the gun to their own size and build, to the clothing they’re wearing, or to their shooting position. Folding stocks make a rifle or shotgun much easier to carry in a backpack while hunting or camping. Even with a folding stock, the gun is still far larger, and less concealable, than a handgun.

Grips. The Feinstein bills outlaw any long gun that has a grip, or anything which can function as a grip. Of course, all guns have grips—or they couldn’t be held in the hand to fire at all. While this means that some bills would presumptively ban nearly all semi-autos, the likely intent is to ban pistol-style grips. This reflects the fact that gun prohibitionists learn much of what

they know about guns by watching movies made by other gun prohibitionists, such as the “Rambo” series by Sylvester Stallone. So they think that the purpose of a “pistol grip” is to enable somebody to “spray fire” a gun. And, of course, the prohibitionists imagine that semiautomatic rifles *are* exactly the same as the machine guns in the Rambo movies.

In truth, a grip helps a responsible shooter stabilize the rifle while holding the stock against his shoulder. It is particularly useful in hunting, where the shooter will not have sandbags or a benchrest, or perhaps anything else on which to rest the forward part of the rifle. Accurate hunting is humane hunting. And should a long gun be needed for self-defense, accuracy can save the victim’s life.

The gun prohibition lobbies, though, oppose firearms accuracy. On the January 16, 2013, PBS Newshour, Josh Horwitz (an employee of the Coalition to Stop Gun Violence) said that grips should be banned because they prevent “muzzle rise” and thereby allow the shooter to stay on target.

Well, yes, a grip helps stabilize the gun so that a second shot (whether at a deer or a violent attacker) will go where the first shot went. Horowitz was essentially saying that guns which are easy to fire accurately should be banned.

This is backwards. It is like claiming that history books which are especially accurate should be banned, while less-accurate books could still be allowed.

Guns which are more accurate are better for all the constitutionally-protected uses of firearms, including self-defense, hunting, and target shooting. To single them out for prohibition is flagrantly unconstitutional.

Barrel covers. For long guns that do not have a forward grip, the user may stabilize the by holding the barrel with her non-dominant hand. A barrel cover or shroud protects the user’s hand. When a gun is fired repeatedly, the barrel can get very hot. This is not an issue in deer hunting (where no more than a few shots will be fired in a day), but it is a problem in some other kinds of hunting, and it is a particular problem in target shooting, where dozens of shots will be fired in a single session.

Threaded barrel for safety attachments. Threading at the end of a gun barrel can be used to attach muzzle brakes or sound suppressors.

When a round is fired though a gun barrel, the recoil from the shot will move the barrel off target, especially for a second, follow-up shot. Muzzle brakes reduce recoil and keep the gun on target. It is very difficult to see how something which makes a gun more accurate makes it so “bad” that it must be banned.

A threaded barrel can also be used to attach as sound suppressor. Suppressors are legal in the United States; buying one requires the same very severe process as buying a machine gun. They are sometimes,

inaccurately, called “silencers.” They typically reduce a gunshot’s noise by about 15-20 decibels, which still leaves the gun four times louder than a chainsaw.

But people who only know about firearms by watching movies imagine that a gun with a “silencer” is nearly silent, and is only used by professional assassins. In real life, sound suppressors are used by lots of people who want to protect their hearing, or to reduce the noise heard by neighbors of a shooting range. Many firearms instructors choose suppressors in order to help new shooters avoid the “flinch” that many novices display because of a gun’s loudness.

The bans on guns with grips, folding stocks, barrel covers, or threads focus exclusively on the relatively minor ways in which a feature might help a criminal, and completely ignore the feature’s utility for legitimate sports and self-defense. The reason that manufacturers include these features on firearms is because millions of law-abiding firearms owners choose them for entirely legitimate purposes.

Sen. Dianne Feinstein’s 2013 Legislation

Sen. Feinstein attempts to reassure gun owners by also including an appendix of guns which she is not banning. In 1994, she exempted 670 “recreational” firearms. In 2013, the exempted guns list grows to over 2,200. Notably, not a single handgun appears on either of Sen. Feinstein’s lists. The basis for a gun being exempted is because it is, supposedly, suitable for recreational uses. This ignores the holding of *District of Columbia v. Heller* that self-defense is the core of the Second Amendment.

The exemption list is meaningless. It is inflated by naming certain models repeatedly. For example, the Remington 870 pump action shotgun appears 16 different times, in its various configurations. Besides that, none of the exempted guns are covered by the bill’s ban on guns by name or by feature.

Regarding grandfathered guns, Sen. Feinstein makes them non-transferable, thus imposing a slow-motion form of uncompensated confiscation.

Grandfathering with slow-motion confiscation may be a way-station to immediate confiscation, when political circumstances allow. As Sen. Feinstein told CBS 60 Minutes in 1995, “If it were up to me, I would tell Mr. and Mrs. America to turn them in—turn them all in.”²¹

Would a ban do any good?

Connecticut banned so-called “assault weapons” in 1993, and the ban is still on the books. The Bushmaster rifle used by the Sandy Hook murderer was not an “assault weapon” under Connecticut law. Nor was it an “assault weapon” under the 1994-2004 Feinstein ban.²² The new Feinstein ban would cover that particular model of Bushmaster. But it would allow Bushmaster (or any other company) to manufacture other semi-automatic rifles, using a

different name, which fire just as fast, and which fire equally powerful bullets.

To reiterate, the Sandy Hook murderer's rate of fire (150 shots in 20 minutes) could be duplicated by any firearm produced in the last century and a half.

We do not have to speculate about whether "assault weapon" bans do any good. A Department of Justice study commissioned by the Clinton administration found that they do not.

In order to pass the 1994 federal ban, proponents had to accept two related provisions. First, the ban would sunset after 10 years. Second, the Department of Justice would have to commission a study of the ban's effectiveness. The study would then provide Congress with information to help decide whether to renew the ban.

The Justice Department of Attorney General Janet Reno chose the Urban Institute to conduct the required study. The Urban Institute is well-respected and long-established progressive think tank in Washington. The study found the Feinstein ban to be a complete failure. There was no evidence that lives were saved, no evidence that criminals fired fewer shots during gun fights, no evidence of any good accomplished. Given the evidence from the researchers selected by the Clinton-Reno Department of Justice, it was not surprising that Congress chose not to renew the 1994 ban.

The final report was published by the U.S. Department of Justice's research arm, the National Institute of Justice, in 2004, based on data through 2003. The authors were Christopher S. Koper, Daniel J. Woods, and Jeffrey A. Roth.²³ The 2004 final report replaced two preliminary papers by Roth and Koper, one of which was published in 1997, and the other in 1999.²⁴

The 2004 final report concludes: "we cannot clearly credit the ban with any of the nation's recent drop in gun violence. . . . Should it be renewed, the ban's effects on gun violence are likely to be small at best and perhaps too small for reliable measurement."

As the paper noted, "assault weapons" "were used in only a small fraction of gun crimes prior to the ban: about 2% according to most studies and no more than 8%." Most of those that were used in crime were pistols, not rifles.

Recall that "assault weapons" are arbitrarily categorized guns that are functionally equivalent to other guns. Thus, criminals, to the degree that the ban affects them at all, can and did easily substitute other guns for so-called "assault weapons."

Regarding the ban's impacts on crime, the 2004 paper concludes that "the share of crimes involving" so-called "assault weapons" declined, due "primarily to a reduction in the use of assault pistols," but that this decline "was offset throughout at least the late 1990s by steady or rising use of other guns equipped with" magazines holding more than ten rounds. In other words, as anyone with common sense could have predicted, criminals easily

substituted some guns for others. (Magazines are discussed in the next section.)

Unfortunately, Senator Feinstein's website is somewhat inaccurate in claiming that the 1994 ban was helpful. The Senator's web page on "assault weapons" lists five sources that allegedly show the "effectiveness" of the 1994 ban. However, four of those sources pertain, not to changes in crime rates, but to changes in weapon and magazine use. Such trends do not show that the 1994 ban was effective. Instead, they show, among other things, that the ban took place in a period of declining crime rates. Crime was declining before the imposition of the ban, and it continued to decline after the ban was lifted. The shift in gun use in crime also shows that criminals can easily replace "assault" semi-automatic guns with other, functionally equivalent semi-automatic guns.²⁵

The four cited sources show that if you make it illegal to manufacture a gun with a certain name, then firearms companies will make guns with different names. Then, guns with the "bad" names will become a smaller fraction of the total U.S. gun supply. Some of the guns in the legal pool of guns are eventually acquired by criminals. (The principal means are thefts, and "straw purchases," in which a confederate who does not have a criminal record purchases a firearm on behalf of a convicted criminal. Straw purchases are federal felonies.) So over time, criminals have fewer guns with the "bad" name, and more guns with other names. Changing the names of the guns that criminals use does not make anyone any safer.

For the fifth source, the website makes the following claim:

In a Department of Justice study, Jeffrey Roth and Christopher Koper find that the 1994 Assault Weapons Ban was responsible for a 6.7 percent decrease in total gun murders, holding all other factors equal. . . .

Original source (page 2): Jeffrey A. Roth & Christopher S. Koper, "Impact Evaluation of the Public Safety and Recreational Firearms Use Protection Act of 1994," The Urban Institute (March 1997).

Attentive readers will notice that Roth and Koper are two of the authors of the 2004 study discussed above. So why does the website cite the 1997 study by these researchers, but not their 1999 study or (regarding this point) their 2004 study? The later studies repudiated the preliminary guess in the 1997 study.

Here is what the 1997 study actually said:

Our best estimate is that the ban contributed to a 6.7 percent decrease in total gun murders between 1994 and 1995, beyond what would have been expected in view of ongoing crime, demographic, and economic trends. However, with only one year of post-ban data, we cannot rule out

the possibility that this decrease reflects chance year-to-year variation rather than a true effect of the ban.²⁶

So initially, the researchers mistook a “year-to-year variation”—actually part of a long-term decline in crime rates—for the effects of the “assault weapons ban.” They corrected this error in their subsequent reports—a fact that Senator Feinstein’s website does not acknowledge.

What about state-level “assault weapons bans?” Remember that Connecticut has had such a ban since 1993. The Newtown murders are a vivid illustration that such bans do not save lives.

Economist John Lott examined data for the five states with “assault weapon” bans in his 2003 book, *The Bias Against Guns*. Controlling for sociological variables, and testing the five states with bans against the other 45 states, he found no evidence of a reduction in crime. To the contrary, the bans were associated with increased crime in some categories.²⁷ Whether the adverse effect Lott reports is a phantom of statistical analyses or random factors, or whether it is the result of criminals feeling relatively empowered due to state governments cracking down on law-abiding gun owners, the state-level data do not support the claim that “assault weapons” bans reduced crime rates.

It is ridiculous to claim that banning some semi-automatic guns, while leaving other, functionally equivalent semi-automatic guns legal, will reduce violent crime. It is analogous to banning knives with black handles, but not knives with brown handles, and expecting that to reduce knife-related crime.

Regarding mass murders in particular, *Mother Jones* examined 62 mass shootings since 1982, finding that 35 of the total 142 guns used were designated as “assault weapons.”²⁸ To take one example not involving an “assault weapon,” in 1991 a man murdered 22 people at a Texas cafeteria using a pair of ordinary semi-automatic pistols, not an “assault weapon.” He reloaded the gun multiple times.²⁹ Tragically, in order to comply with laws against concealed carry, Suzanna Hupp had locked her own handgun in her vehicle before entering the cafeteria, rendering her defenseless as the attacker murdered her parents and many others.³⁰

Obviously criminals need not limit themselves to semi-automatic guns. Consider first the potential lethality of shotguns. The Winchester Model 12 pump action shotgun (defined as a “recreational” firearm by the 1994 federal “assault weapons” ban) can fire six 00 buckshot shells, each shell containing twelve .33 caliber pellets, in three seconds. Each of the pellets is larger in diameter than the bullet fired by an AKS (a semiautomatic look-alike of an AK-47 rifle). In other words, the Winchester Model 12 pump action shotgun can in three seconds unleash seventy-two separate projectiles, each single one capable of causing injury or death. The Remington Model 1100 shotgun (a common semiautomatic duck-hunting gun, also defined as a “recreational” firearm under the 1994 ban) can unleash the same seventy-two projectiles in

2.5 seconds. In contrast, an AKS would take about a minute to fire forty aimed shots (or perhaps twice that many without aiming).³¹ Notably, a pump-action shotgun is extremely easy to reload without lowering the gun from firing position, and each additionally loaded shell can be fired immediately. When mass murderers target victims in tightly-packed venues, a “recreational” shotgun could be particularly deadly.

The purpose of gun bans is to ban guns

The only true utility of a ban on “assault weapons” is to condition the public to bans on more guns. For example, Douglas Anthony Cooper advocates a ban on “assault” semi-automatics and “high-capacity” magazines, though he grants such legislation makes little or no difference. His solution is to ban all semi-automatic rifles and all pump-action shotguns, writing that pump-action shotguns “are in some ways *more* useful than many often-banned weapons, if you intend to shoot a huge number of people, quickly.”³²

In the 1996 op-ed quoted above, Charles Krauthammer calls for government to “disarm its citizenry,” and he sees the “assault weapons ban” as meaningful only as a step in that direction. Krauthammer argues, “The claim of the advocates that banning these 19 types of ‘assault weapons’ will reduce the crime rate is laughable. There are dozens of other weapons, the functional equivalent of these ‘assault weapons,’ that were left off the list and are perfect substitutes for anyone bent on mayhem.” Nevertheless, Krauthammer sees the ban as useful insofar as it leads to “real steps, like the banning of handguns,” down the road.³³

Although writer Christian Chung does not offer a detailed plan on the legislation he would eventually like to see in place, he refers to Feinstein’s newly proposed “assault weapons ban” as “only the start” of much more extensive legislation. One of Chung’s complaints is that the “assault weapons ban” arbitrarily outlaws some semi-automatic guns because of some “cosmetic addition” while leaving functionally equivalent guns legal.³⁴

Writing for the *Atlantic*, senior editor Robert Wright similarly complains about the “assault weapons ban,” arguing that “the assault weapons issue is a red herring.” As he points out, “there’s no clear and simple definition of an assault weapon, and this fact has in the past led to incoherent regulation.” What is Wright’s preferred legislation? He advocates legislation to accomplish the following: “It’s illegal to sell or possess a firearm—rifle or pistol—that can hold more than six bullets. And it’s illegal to sell or possess a firearm with a detachable magazine.”³⁵ In other words, Wright wants to outlaw the overwhelming majority of semi-automatic guns.

Magazines

Nationally, anti-gun advocates are calling for a ban on magazines holding more than 10 rounds. New York Governor Andrew Cuomo has gone even further, with a ban on anything holding more than seven.³⁶ These bans are unconstitutional, and harmful to public safety.

A magazine is the part of the firearm where ammunition is stored. Sometimes the magazine is part of the firearm itself, as in tube magazines underneath barrels. This is typical for shotguns.

For rifles and handguns, the typical magazine is detachable. A detachable magazine is a rectangular or curved box, made of metal or plastic. At the bottom of the magazine is a spring, which helps push a fresh round of ammunition into the firing chamber, after the empty shell from the previous round has been ejected. Some people use the word “clip,” but this is incorrect.

The type or model of gun does not determine what size magazine can be used. Any gun that uses a detachable magazine can accommodate a detachable magazine of any size.

As detailed above, the 1994 Feinstein ban was predicated on the theory that “recreational” firearm use is legitimate, and other firearms use is not. The ban did in fact impede recreational firearms use. More importantly, the ban is plain a violation of *Heller*, which affirms the right of defensive gun ownership.

For target shooting competitions, there are many events which *require* the use of magazines holding more than 10 rounds. For hunting, about half the states limit the magazine size that a hunter can carry in the field, but about half the states do not.

In some scenarios, such as deer hunting, it is quite true that a hunter will rarely get off more than two shots at a particular animal. But in other situations, particularly pest control, the use of 11 to 30 round magazines is quite typical, because the hunter will be firing multiple shots. These include the hunting of packs of feral wild hogs (which are quite strong, and are often difficult to put down with a single shot), prairie dogs, and coyotes.

More generally, the rifle that might shoot only one or two shots at a deer might be needed for self-defense against a bear, or against human attackers. In 2012, Arizona repealed its limitations on magazine capacity for hunters precisely because of the need for self-defense against unexpected encounters with smuggling gangs in the southern part of the state. It is well-established that drug traffickers and human traffickers often use the same wild and lonely lands that hunters do.

For the firearms that are most often chosen for self-defense, asserting that any magazine over 10 (or seven) rounds is “high capacity” is incorrect. The term “high-capacity magazine” might have a legitimate meaning when it refers to a magazine that extends far beyond that intended for the gun’s optimal operation. For example, although a semi-automatic handgun can

accept a 30-round magazine, such a magazine extends far beneath the gun grip, and it is therefore impractical to use with a concealed-carry permit, to take one example. For a handgun, a 30-round magazine may be a “high-capacity magazine.”

The persons who have the most need for actual high-capacity magazines are persons who would have great difficulty changing a magazine—such as elderly persons, persons with handicaps, persons with Parkinson’s disease, and so on. For a healthy person, changing a magazine takes only a second or two. How is this accomplished? Typically a gun’s magazine-release button is near the trigger. To change a magazine, the person holding the gun presses the magazine-release button with a thumb or finger. The magazine instantly drops to the floor. While pushing the magazine-release button with one hand, the other hand grabs a fresh magazine (which might be carried in a special holster on a belt) and bringing it towards the gun. The moment the old magazine drops out, a fresh one is inserted.³⁷

Although changing magazines is quick, persons being attacked by violent criminals will typically prefer not to spend even two seconds in a magazine change. This is why semi-automatic handguns often come factory-standard with a magazine of 11 to 19 rounds. For example, Rep. Gabrielle Giffords has said that she owns a 9mm Glock handgun. The most popular Glocks in this caliber come standard with 15 or 17 round magazines.³⁸

For most other manufacturers as well, handgun magazines with a capacity of 11 to 19 rounds are factory standard. A ban on magazines with a capacity of more than 10 rounds means a ban on the most common and most useful magazines purchased for purposes of recreational target practice and self-defense.

One thing that proves the obvious usefulness of standard capacity magazines is the fact that most police officers use them. An officer typically carries a semi-automatic handgun on a belt holster as his primary sidearm. The magazine capacity is typically in the 11-19 range.

Likewise, the long gun that is carried in police patrol cars is quite often an AR-15 rifle with a 30-round magazine.³⁹

True, a police officer is much more likely than other civilians to find him- or herself in a confrontation with violent criminals. Nevertheless, every civilian faces some risk of such a confrontation, and every law-abiding citizen has a moral right to own the best tools of self-defense should such a confrontation come to pass. Although different guns work better for different individuals in different circumstances, in many contexts the officer’s advice is equally sound for non-police civilians who own a gun for self-defense.

Why might someone “need” a factory-standard fifteen-round magazine for a common 9 mm handgun? Beyond the fact that government should recognize and protect people’s rights, not dictate to free Americans what they “need” to own, standard-capacity magazines can be extremely useful for self-defense. This is true in a variety of circumstances, such as if a defender faces multiple

attackers, an attacker is wearing heavy clothing or body armor, an attacker is turbo-charged by methamphetamine or cocaine, an attacker poses an active threat from behind cover, or a home invader cuts the lights to the home before entering at night. Especially because, in stressful circumstances, police as well as non-police civilians often miss when firing a handgun even at close range, having the extra rounds can be crucially important in some defensive contexts.

Consider the advantages a criminal has over his intended victims. The criminal often takes time to carefully prepare an attack; the victim is caught off-guard. The criminal has the element of surprise; the victim is the one surprised. The criminal can adapt his plans, as by selecting different weaponry; the victim must respond with what's at hand at the moment of attack. A criminal can, for instance, substitute a shotgun or a bag full of revolvers for a semi-automatic gun. A criminal can pack multiple magazines if he uses a semi-automatic gun. The intended victim, on the other hand, usually will have on hand at most a single defensive gun, carrying (if it is a semi-automatic) a single magazine. Thus, what legislation such as a ban on "high-capacity" magazines does is give the criminal a greater advantage over his intended victims.

Would a magazine ban do any good?

Recall that in 2004 the National Institute of Justice study found that the 1994-2004 ban on the manufacture or import of such magazines had no discernible benefit. As the authors noted, the existing supply of such magazines was so vast that criminals apparently had no trouble obtaining magazines of whatever size they wished.⁴⁰

Since the September 2004 expiration of the ban on new magazines, the supply has grown vaster still. In other words, we know that the pre-1994 supply of magazines was so large that nine years of prohibition had no effect. The much larger supply of magazines as of 2013 means that the already-demonstrated period of nine years of futility would be far longer.

No one can say if a ban on new magazines would ever do any good. But we can be rather certain that a ban would be ineffectual for at least fifteen years, and perhaps many more. Preventing the next Newtown is something that requires solutions which will start working this year—and not futile laws which, in the best case scenario, might possibly begin to have their first benefits around 2030.

It is entirely possible to speculate what might happen if criminals did not have magazines with 11 or more rounds, just as one can speculate about what might happen if all criminals could not obtain stolen cars, or if criminals could not obtain guns, or if all criminals were left-handed. But there is no particular reason to think that any of these scenarios might ever come true.⁴¹

A national ban on the millions of currently owned "high capacity" magazines would require a heavy-handed police state to enforce. The new

Cuomo ban in New York will be enforceable only if the state's motto of "The Empire State" is changed to "The Police State."

It would be possible to outlaw the legal transfer of grandfathered magazines, but this would not remove "high-capacity" magazines from the black market.

Regarding "shootout" scenarios, the types of criminals most likely to get into shootouts with the police or with other criminals are precisely the types of criminals expert at acting on the black market. Although gun prohibitionists often link "assault weapons" to gang violence associated with the illegal drug trade,⁴² they miss the irony of their argument. They are, in effect, claiming that gangs operating the black market in drugs will somehow be restricted from acquiring "high capacity" magazines by legislation limiting the manufacture and sale of such magazines. In short, their argument—at least as it pertains to career criminals—is ludicrous. If gangsters can obtain all the cocaine they want, despite a century of severely-enforced prohibition, they are going to be able to get 15 round magazines.

Besides that, magazines are not very difficult to build. Anyone with moderate machine shop skills can build a small metal box and put a spring in it. Building magazines is vastly easier than building guns, and we know that tribespeople in Ghana (who do not have access to high-quality machine shops) produce a hundred thousand working copies of the AK-47 per year.⁴³

Moreover, 3-D printing technology has *already* produced "printed" plastic magazines.⁴⁴ It's not very hard—just a box in a particular shape, along with a spring. For manufacturing actual firearms, 3-D printing is currently just a hypothetical; a firearm needs to be strong enough to withstand (over the course of its use) many thousands of gunpowder explosions in the firing chamber. But for a mere magazine, the current strength of printed plastics is sufficient.

We can limit the discussion, then, to mass murders in which the perpetrator targets victims randomly, often seeking the global infamy the mass media so readily provide them. Of course some such people could still illegally purchase a "high capacity magazine" on the black market. Given that 36 percent of American high school seniors illegally acquire and consume marijuana,⁴⁵ it is unrealistic to think that someone intent on mass mayhem would be unable to find his magazine of choice on the black market.

Besides that, the truly high-capacity magazines (e.g., a 100 round drum), are very prone to malfunction. For example, during the mass murder at the movie theater in Aurora, the murderer's 100-round magazine malfunctioned, causing the killer to cease using the gun with the magazine.⁴⁶ Had the killer had numerous, smaller magazines, he would have been able to fire more rounds from that particular gun. Hundred round magazines are novelty items, and are not standard for self-defense by civilians or police.

Advocates of the ban on standard capacity magazines assert that while the attacker is changing the magazine, one of the victims can tackle him.

There are three known instances where something this may have happened: in Springfield, Oregon, in 1998; in Tucson, Arizona, in 2011;⁴⁷ and the Long Island Railroad in 1991.

Far more commonly, however, the victims are fleeing, and are not close enough to the shooter to tackle him during a two-second interval. At Newtown, the murderer changed magazines many times, firing only a portion of the rounds in each magazine.⁴⁸ At the 1991 murders at the Luby's Texas cafeteria (24 dead), the perpetrator changed magazines multiple times. In the Virginia Tech murders, the perpetrator changed magazines 17 times.⁴⁹

The *Heller* decision teaches us that one does not decide on the constitutionality of banning something simply by looking at instances of misuse. Handguns are used in thousands of homicides annually, and in several hundred thousand other gun crimes. A ban on handguns (imagining it would be effective) would have orders of magnitude greater benefits than a ban on magazines holding more than 10 rounds (imagining that too to be effective).

Heller, however, reminds us that the Second Amendment has already done the cost-benefit analysis. The Framers were quite familiar with gun crime, and with lawful defensive gun use. The arms and accessories protected by the Second Amendment are those which are commonly used by law-abiding citizens for legitimate purposes, especially self-defense. In today's America, this certainly includes handguns and rifles with magazines that prohibitionists would consider "large."

International Comparisons

Some Americans, including Howard Dean, the former chair of the Democratic National Committee, have advocated the mass confiscation of firearms. Their model is the confiscations that took place in the past quarter-century in Great Britain.

This dystopian situation in Great Britain actually shows the perils of repressive anti-gun laws:

- A woman in Great Britain is three times more likely to be raped than an American woman.
- In the United States, only about 13% of home burglaries take place when the occupants are home, but in Great Britain, about 59% do. American burglars report that they avoid occupied homes because of the risk of getting shot. English burglars prefer occupied homes, because there will be wallets and purses with cash, which does not have to be fenced at a discount. British criminals have little risk of confronting a victim who possesses a firearm. Even the small percentage of British homes which have a lawfully-owned gun would

not be able to unlock the gun from one safe, and then unlock the ammunition from another safe, in time to use the gun against a home invader. It should hardly be surprising, then, that Britain has a much higher rate of home invasion burglaries than does the United States.⁵⁰

- Overall, the violent crime rate in England and Wales is far above the American rate. (Using the standard definition for the four most common major violent crimes: homicide, rape, robbery, and aggravated assault.)
- According to the United Nations (not exactly a “pro-gun” organization), Scotland is the most violent nation in the developed world.⁵¹

In the early 20th century, the Great Britain had virtually no gun control, virtually no gun control. Today, it has a plethora of both.

What went wrong? Various minor and ineffectual gun controls were enacted in the late nineteenth and early twentieth centuries; proposals for more extensive controls ran into strenuous opposition in Parliament from MPs who still believed in natural rights. The advocacy for gun control was almost always accompanied by a bodyguard of lies, such as when the government, fearful of a workers rebellion, pushed through the Firearms Act of 1920. The government falsely told the public that gun crimes were rapidly increasing, and hid the law’s true motive (political control) from the public, presenting the law as a mere anti-crime measure.⁵² In practice, the law eliminated the right of British subjects to be armed, and turned it into a privilege. The Firearms Act also began a decades-long process of eliminating the public’s duty to protect their society and right to protect themselves. By the late 20th century, Great Britain had one of the lowest rates of gun ownership in the Western World. Only 4% of British households would admit gun ownership to a telephone pollster.⁵³

In 1998, after a known pedophile used a handgun to murder kindergarten children in Dunblane, Scotland, the Parliament banned non-government possession of handguns. As a result the Gun Control Network (a prohibition advocacy group) enthused that “present British controls over firearms are regarded as ‘the gold standard’ in many countries.” According to GCN spokesperson Mrs. Gill Marshall-Andrews, “the fact that we have a gold standard is something to be proud of....”⁵⁴

A July 2001 study from King’s College London’s Centre for Defence Studies found that handgun-related crime increased by nearly 40% in the two years following implementation of the handgun ban. The study also found that there had been “no direct link” between lawful possession of guns by licensed citizens and misuse of guns by criminals. According to the King’s College report, although the 1998 handgun ban resulted in over 160,000 licensed handguns being withdrawn from personal possession, “the UK

appears not to have succeeded in creating the gun free society for which many have wished. Gun related violence continues to rise and the streets of Britain...seem no more safe.”⁵⁵

A few weeks before the King’s College study was released, Home Office figures showed that violent crime in Great Britain was rising at the second fastest rate in the world, well above the U.S. rate, and on par with crime-ridden South Africa.⁵⁶ In February 2001, it was reported that 26 percent of persons living in England and Wales had been victims of crime in 1999.⁵⁷ Home Secretary Jack Straw admitted, “levels of victimisation are higher than in most comparable countries for most categories of crime.” On May 4, 2001, *The Telegraph* disclosed that the risk of a citizen being assaulted was “higher in Britain than almost anywhere else in the industrialized world, including America.”⁵⁸

As King’s College observed, with passage of the Firearms Act of 1997, “it was confidently assumed that the new legislation effectively banning handguns would have the direct effect of reducing certain types of violent crime by reducing access to weapons.”⁵⁹ The news media promised that the “world’s toughest laws will help to keep weapons off the streets.”⁶⁰

Yet faster than British gun-owners could surrender their previously-registered handguns for destruction, guns began flooding into Great Britain from the international black market (especially from eastern Europe and China), driven by the demands of the country’s rapidly developing criminal gun culture.⁶¹

It is true that there are far fewer gun deaths in Great Britain than in the United States. Most of the difference is due to different methods of suicide; guns being scarce in Great Britain, suicides are perpetrated with other methods.

The one major criminal justice statistic in which Great Britain appears to be doing better than the U.S. is the homicide rate, with the U.S. rate at a little more than 4, and the England and Wales rate at 1.4. However, the U.S. rate is based on initial reports of homicides, and includes lawful self-defense killings (about 10-15% of the total); the England and Wales rate is based only on final dispositions, so that an unsolved murder, or a murder which is pleaded down to a lesser offense, is not counted a homicide. In addition, multiple murders are counted as only a single homicide for Scottish statistics.⁶²

But let’s assume that the entire difference is the homicide rates between the U.S. and Great Britain is due to gun control. The advocates of British-style controls in America ought to acknowledge the fearsome price that gun control has exacted on the British people: an astronomical rate of rape, of home invasions, and of violent crime in general.

Registration

An important difference between Great Britain and the United States is that in Great Britain, many people complied with gun confiscation because their guns were already registered.

The evidence is overwhelming that Americans will not comply with gun confiscation programs; a recent Rasmussen poll showed that 65 percent of American gun owners would not obey government orders to surrender their guns.

Nor will Americans obey laws which retroactively require them to register their guns. During the first phase of the “assault weapon” hoax, several states and cities passed bans, and allowed grandfathered owners to keep the guns legally by registering the guns. The non-compliance rates for retroactive registration were always at least 90%, and frequently much higher than that.⁶³

Americans are quite aware that gun registration can be a tool for gun confiscation. That is why Congress has enacted three separate laws (1941, 1986, and 1993) to prohibit federal gun registration. Congress first acted in 1941 because Congress saw how Hitler and Stalin had been using gun registration for confiscation.⁶⁴ Since then, registration lists have been used in many countries, and in New York City, for confiscation. Indeed, even if we look only at registration laws enacted by democratic nations, in most countries gun registration lists have eventually been used for the confiscation of many firearms.

Congress cannot expand or contract the judicially-declared scope of a constitutional right;⁶⁵ but Congress can, under section 5 of the Fourteenth Amendment, enact “prophylactic” measures to prevent state and local governments from endangering civil rights,⁶⁶ provided that these laws are “congruent and proportional” to the problem that Congress is addressing.⁶⁷ Congress should use this power to prohibit all state and local registration of guns and gun owners, and to require the destruction of any existing records.

Persons who are advocating gun confiscation are irresponsible in the extreme. Confiscation would endanger the lives of law enforcement officers who were ordered to carry it out. We should remember that the political dispute between the American Colonies and Great Britain turned into a shooting war precisely at the moment when the British attempted house-to-house gun confiscation.⁶⁸

Mass prohibitions of guns or gun accessories invite a repetition of the catastrophe of alcohol prohibition. Just as alcohol prohibition in the 1920s and drug prohibition in modern times have spawned vast increases in state power, and vast infringements on the Bill of Rights, another national war against the millions of Americans who are determined to possess a product which is very important to them is almost certain to cause tremendous additional erosion of constitutional freedom and traditional liberty. Legal and customary protections unreasonable search and seizure, against invasion of

privacy, against selective enforcement, and against harsh and punitive statutes would all suffer.⁶⁹

What Can be Done?

Acknowledging success

Regarding firearms crime in general (and not just the highly-publicized mass homicides), we should start by acknowledging the success of policies of the last three decades. Since 1980, the U.S. homicide rate has fallen by over half, from more than 10 victims per 100,000 population annually, to under 5 today.⁷⁰

Homicide, as horrifying as it is, did not make the top fifteen causes of death for 2011, according to preliminary data published by the Centers for Disease Control.⁷¹ Of the 2,512,873 total deaths for that year, the large majority were caused by health-related problems. The fifth leading cause of death was accidents, at 122,777 deaths. Suicide made the top ten with 38,285 deaths.

Appropriately, the media tend to report homicides much more frequently and emphatically than they report deaths from other causes. The problem is that the uncritical consumer of media might develop a skewed perspective of the actual risks he or she faces.

In 2011, homicides numbered 15,953, or 0.63 percent of all deaths. Of those, 11,101 were caused by “discharge of firearms”—or nearly 70 percent of all homicides.

The vast majority of these were from handguns, which shotguns in second place. The FBI reports that in 2011, 13 percent of homicides were committed with “knives or cutting instruments,” while nearly 6 percent were committed with “personal weapons” such “hands, fists, feet, etc.”⁷²

Most of the guns which are inaccurately called “assault weapons” are rifles. All types of rifles combined comprise only about two percent of homicide weapons—far less than “blunt instruments” such as hammers, clubs, and so on.

As for accidents in 2011, 34,676 deaths were caused by “motor vehicle accidents”; 33,554 deaths by “accidental poisoning and exposure to noxious substances”; 26,631 deaths by falls; 3,555 deaths by “accidental drowning and submersion”; and 851 deaths by “accidental discharge of firearms.”⁷³

Regarding violent crime in general, violent crime has been on a 20-year decline, so that today Americans are safer from violent crime than at any time since the early 1960s.⁷⁴

The news is even better for young people. According to Bureau of Justice Statistics (part of the U.S. Department of Justice), “From 1994 to 2010, the overall rate of serious violent crime against youth declined by 77%.”⁷⁵

These successes have taken place during a period when American gun ownership has soared. In 1964, when crime was about the same as it is now,

per capita gun ownership was only .45, less than 1 gun per 2 Americans. In 1982, there were about .77 guns per capita. (About 3 guns per 4 Americans). By 1994, that had risen to .91 (9 guns per 10 Americans). Today, there are slightly more guns in America than Americans. We have increased from 232 million guns in 1982 to over 308 million in 2010.⁷⁶

The causes of crime fluctuations are many. They include (among other things) changes in illegal drug activity and government enforcement thereof, changes in police tactics, changes in incarceration rates, changes in the average age of the population (which in the U.S. has been increasing), and changes in reporting (which can mask real changes in underlying crime trends).

It would not be accurate to say that increased gun ownership, and the spread of laws allowing the licensed carry of handguns is the only cause of progress that has been made in recent decades. We can say with certainty that “more guns” is not associated with “more crime.” If anything, just the opposite is true.

Armed defenders

Sandy Hook Elementary School was a pretend “gun free zone”: responsible adults were legally prohibited from effectively protecting the children in their care, while an armed criminal was could not be prevented from entering.

What did finally stop the murderer? He killed himself just before being confronted by men carrying guns, guns that no doubt included “assault weapons” with “high-capacity magazines.” As the Associated Press reports, the murderer “shot himself in the head just as he heard police drawing near to the classroom where he was slaughtering helpless children.”⁷⁷

The Newtown murders took place in a state with a ban on “assault weapons,” and with a strict system of gun owner licensing and registration—one of the most restrictive in the nation. Not even the most restrictive laws (short of complete prohibition of all legal gun ownership) can remedy the problems of an absent, divorced, and detached father, and a custodial mother who is so recklessly irresponsible that even while she tells people in town about her plans to have her son committed to a mental institution, she leaves her registered guns readily accessible to him.

Armed guards are generally successfully at deterring the robbery of diamond stores and banks, and they equally legitimate for preventing the murder of children, who are far more valuable than diamonds or greenbacks.

There are at least 10 cases in which armed persons have stopped incipient mass murder: Pearl High School in Mississippi; Sullivan Central High School in Tennessee; Appalachian School of Law in Virginia; a middle school dance in Edinboro, Pa.; Players Bar and Grill in Nevada; a Shoney's restaurant in Alabama; Trolley Square Mall in Salt Lake City; New Life Church in

Colorado; Clackamas Mall in Oregon (three days before Sandy Hook); Mayan Palace Theater in San Antonio (three days after Sandy Hook).

Sometimes the hero was an armed school guard (Sullivan Central High). Sometimes it was an off-duty police officer or mall security guard (Trolley Square, Mayan Theater, Clackamas Mall and the Appalachian Law School, where two law students, one of them a police officer and the other a former sheriff's deputy, had guns in their cars). Or a restaurant owner (Edinboro). Or a church volunteer guard with a concealed carry permit (Colorado). Or a diner with a concealed carry permit (Alabama and Nevada). At Pearl High School, it was the vice principal who had a gun in his car and stopped a 16-year-old, who had killed his mother and two students, before he could drive away, perhaps headed for the junior high.

For schools, Utah provides a model. In Utah, if a law-abiding adult passes a fingerprint-based check and a safety training class, then he or she is issued a permit to carry a concealed handgun throughout the state. Thus, teachers may carry at school. Several Texas school districts also encourage armed teachers. Connecticut, however, is similar to most of the other 40 other states that generally allow law-abiding adults to carry in public places: It limits where guns may be carried, and no civilian, not even teachers and principals, may carry at school.

Anti-gun ideologues invent all sorts of fantasy scenarios about the harms that could be caused by armed teachers. But the Utah law has been in effect since 1995, and Texas since 2008, with not a single problem.

Gun prohibitionists also insist that armed teachers or even armed school guards won't make a difference. But in the real world, they have — even at Columbine, where the armed “school resource officer” (a sheriff's deputy, in this case) was in the parking lot when the first shots were fired. The officer twice fired long-distance shots and drove the killers off the school patio, saving the lives of wounded students there. Unfortunately, however, the officer failed to pursue the killers into the building—perhaps due to a now-abandoned law enforcement doctrine of waiting for the SWAT team to solve serious problems.

Whatever should be done in the long run, the long gun will be much too late to stop the next copycat sociopath who attacks a school (or a mall or movie theater). More concealed carry laws like the ones in Utah and Texas are the best way to save lives right now. Teachers who are already licensed to carry a gun everywhere else in the state should not be prevented from protecting the children in their care.

Doing something effective

While armed defense is a necessity, in the short run, to thwart copycat killers, long-term solutions are also necessary.

A very large proportion of mass murders—and about one-sixth of “ordinary” murderers—are mentally ill. Better care, treatment, and stronger

laws for civil commitment could prevent many of these crimes. Of course any involuntary commitment must respect the Constitution which, as applied by the U.S. Supreme Court, requires proof by “clear and convincing evidence” that the individual is a danger to himself or others in order for the person to be committed. Better mental health treatment is expensive in the short run, but pays for itself in the long run, through reduced criminal justice and imprisonment costs, not to mention reduced costs to victims.⁷⁸

Although “universal background checks” are, at the highest level of generality, a popular idea, one should pay attention to the details. Every “background check” bill introduced in Congress in the last several years has come from Michael Bloomberg’s gun prohibition lobby, and has included a gun registration component. For the reasons detailed above, gun registration is anathema to the Second Amendment.

Consider, for example, the misnamed “Fix Gun Checks Act,” from the previous Congress, S. 436 (sponsored by Sen. Schumer). Here is what the bill actually would have done:

- Create a national firearms registry.
- Make it a federal felony to temporarily allow someone to use or hold’s one’s firearm in the following circumstances:
 - While a friend visits your home.
 - While taking a friend target shooting on your property, or on public lands where target shooting is allowed.
 - While instructing students in a firearms safety class.
- Current law bans gun possession if there has been a formal determination that a person’s mental illness makes him a danger to himself or others. S. 436 would abolish the requirement for a fair determination and a finding of dangerousness. Instead, S. 436 would ban gun possession by anyone who has ever been ordered to receive counseling for any mental problem. This would include:
 - A college student who was ordered to get counseling because the school administration was retaliating against him for criticizing the administration.
 - An adult who when in fifth grade was ordered to receive counseling for stuttering, for attention deficit disorder, or for mathematics disorder.
 - A person who was once ordered to receive counseling for homosexuality, cross-dressing, or for belonging to some other sexual minority.
 - A women who was raped in an elevator, and who has therefore developed a phobia about elevators.
- S. 436 rejects the constitutional standards of due process and fair trial. S. 436 allows for the prohibition of gun ownership based on an arrest, rather than a conviction. Thus, S. 436 would make it gun possession a

felony for a person who was once arrested for marijuana possession, and was later found innocent because a police officer mistook tobacco for marijuana.

- Among the reasons that S. 436 was unconstitutional was because it:
 - Strips a person of a fundamental constitutional right because of an arrest, rather than a conviction.
 - Is purportedly based on the congressional power “to regulate Commerce . . . among the several States”—but its transfer bans apply solely to transfers that are not commerce, and are not interstate.
 - Violates the scope of gun control laws approved by the Supreme Court in *District of Columbia v. Heller*. The Heller Court approved of some “laws imposing conditions and qualifications on the commercial sale of arms.” Yet S. 436 attempted to control non-retail “transfers” that are not even “commercial” or “sales”—such as letting a friend use a gun while target shooting.
 - Is unconstitutionally “overbroad” because rather than banning gun possession by persons who have been determined to pose a threat to themselves or others (current laws) bans gun possession by anyone who has been ordered to get counseling even for non-dangerous mental problems (such as nicotine dependence, or lack of interest in sex).
 - Violates the Fifth Amendment requirement of due process of law, because it imposes gun bans without due process—such as a mere arrest, or the mere order by a school employee or work supervisor that a person receive counseling. Regardless of whether that employee or supervisor offered the person a fair hearing, and regardless of whether the counselor eventually determined that the person had no mental problem at all.
 - Violates the equal protection of the laws guarantee which is implicit in the Fifth Amendment, because it bans possession for categories of persons who cannot rationally be classified as more dangerous than other persons. The victims of S. 436’s unfair gun bans would include homosexuals and other sexual minorities, persons who have a phobia about elevators or diseases, and many other persons who are ordered into counseling for reasons that have nothing to do with dangerousness.

Today, the media are reporting that a backroom deal is being worked out in the Senate on “universal background checks.” Senators who sincerely follow their oath to protect the United States Constitution would not support a bill which has a title of “Universal Background Checks,” but which contains any of the poisonous anti-constitutional provisions of last session’s Bloomberg “background checks” bill.

Moreover, without universal gun registration, mandated background checks on purely private sales (e.g., friends in a hunting club selling guns to each other) are impossible to enforce. Universal gun registration is impossible in practice, and would lead to massive resistance. When Canada tried to impose universal gun registration, the result was a complete fiasco. The registration system cost a hundred times more than promised. Non-compliance (by Canadians, who are much more compliant with government than Americans) was at least fifty percent. And the registration system proved almost entirely useless in crime solving or crime prevention. In 2012, the Canadian government repealed the registration law, and ordered all the registration records destroyed.

Obviously, criminals who are selling guns to each (which is completely illegal, and already subject to severe mandatory sentences) are not going to comply with a background check mandate. It will be irrelevant to them.

Ordinary law-abiding citizens who selling guns to each other might be happy to take the gun into a firearm store for a voluntary check, provided that the check is not subject to a special fee, that there is no registration, and that the check is convenient and expeditious. Changing statutes and regulations so that gun stores can carry out voluntary checks for private sellers is the most that can be expected, realistically. President Obama's order that the Bureau of Alcohol, Tobacco, Firearms and Explosives provide instructions to dealers on how to facilitate voluntary checks is a good idea. In light of this order, there is no need for Congress to enact additional legislation to impose a futile and unenforceable mandate.

"Doing something" is the slogan for politicians who seek merely to exploit terrible crimes for self-serving purposes. "Doing something effective" is the approach of people who want to save lives and protect the public, especially children.

The lives of Americans, especially schoolchildren, depend on the choice that elected officials make between these two alternatives.

¹ Some of this testimony is based on a Policy Analysis which Kopel and co-author Ari Armstrong are writing for the Cato Institute. The published Cato version will include more complete endnotes, which were impossible to provide for this testimony, given the very short time available.

² Christopher S. Koper, Daniel J. Woods, and Jeffrey A. Roth, "An Updated Assessment of the Federal Assault Weapons Ban: Impacts on Gun Markets and Gun Violence, 1994-2003: Report to the National Institute of Justice, United States Department of Justice," University of Pennsylvania, June 2004, http://www.sas.upenn.edu/jerrylee/research/aw_final2004.pdf.

³ Charles Krauthammer, "Disingenuous Debate on Repeal of Assault Weapons Ban," *Chicago Tribune*, April 8, 1996, http://articles.chicagotribune.com/1996-04-08/news/9604080024_1_assault-weapons-ban-gun-control-crime-rate.

⁴ Josh Sugarmann, "Conclusion," *Assault Weapons and Accessories in America*, Violence Policy Center, 1988, <http://www.vpc.org/studies/awaconc.htm>.

⁵ See, for example, David Kopel, "Guns, Mental Illness and Newtown," *Wall Street Journal*, December 17, 2012,

<http://online.wsj.com/article/SB10001424127887323723104578185271857424036.html>.

⁶ See Ari Armstrong, "Civilian Responses to Active Shooters," *Free Colorado*, July 21, 2012, <http://ariarmstrong.com/2012/07/civilian-responses-to-active-attackers>; *Active Shooter Survival* (DirectMeasures, 2012), Survival Edge Series, Disc 1, <http://www.directmeasures.com/buy-ACT-LastResort.htm>.

⁷ Alexander Abad-Santos, "This Is What Teachers Learning to Shoot Guns Look Like," *Atlantic Wire*, December 28, 2012, <http://www.theatlanticwire.com/national/2012/12/post-newtown-teacher-gun-training-classes/60409>; Angela K. Brown, "Texas Town Allows Teachers to Carry Concealed Guns," Associated Press, December 20, 2012, <http://www.usatoday.com/story/news/nation/2012/12/20/texas-town-teachers-guns/1781663>; Cathy Lynn Grossman and Greg Toppo, "Trainer for Gun-Toting Teachers: Make it Hard to Kill a Kid," *USA Today*, December 28, 2012, <http://www.usatoday.com/story/news/nation/2012/12/27/gun-classes-teachers-utah-ohio-shooting/1793773>; Michelle Malkin, "The Gift of Self-Empowerment," December 26, 2012, <http://michellemalkin.com/2012/12/26/the-gift-of-self-empowerment>.

⁸ Tim Graham, "Des Moines Register Publishes Gun-Ban Column Advocating Deadly Violence Against NRA, GOP Leaders," *Fox News*, January 2, 2013, <http://www.foxnews.com/opinion/2013/01/02/liberal-ex-columnist-death-threats-published-in-des-moines-register>.

⁹ Douglas Anthony Cooper, "A Proven Way to End the Gun Slaughter: Will We Fight for It?", *Huff Post Politics*, December 26, 2012, http://www.huffingtonpost.com/douglas-anthony-cooper/proven-way-end-slaughter_b_2341815.html.

¹⁰ Justin Peters, "How Many Assault Weapons Are There In America? How Much Would It Cost the Government To Buy Them Back?", *Slate*, December 20, 2012, http://www.slate.com/blogs/crime/2012/12/20/assault_rifle_stats_how_many_assault_rifles_are_there_in_america.html.

¹¹ Some machine guns are or may be set to fire a certain number of rounds with one pull of the trigger.

¹² "Fully-Automatic Firearms," NRA-ILA, July 29, 1999, <http://www.nraila.org/news-issues/fact-sheets/1999/fully-automatic-firearms.aspx>; "National Firearms Act (NFA)—Machine Guns," <http://www.atf.gov/firearms/faq/national-firearms-act-machine-guns.html>, accessed January 3, 2013.

¹³ See David B. Kopel, *Guns: Who Should Have Them* (New York: Prometheus Books, 1995), p. 162; *Defense Intelligence Agency, Small Arms Identification and Operation Guide—Eurasian Communist Countries* (Washington, D.C.: Government Printing Office, 1988), p. 105.

¹⁴ However, the energy which is used to turn the cylinder of the revolver (bringing the next round into place, ready to fire) comes from the user pulling the trigger. (The trigger is mechanically linked to the cylinder, and a trigger pull performs the "double action" of cocking the hammer and firing a round.) Thus, the revolver does not use gunpowder energy in order to load the next round. So even though a revolver is comparable to a semi-automatic handgun in that each pull of the trigger chambers and fires one round, a revolver is a not a semi-automatic.

¹⁵ The formula is: $KE = \frac{1}{2} MV^2$. Or in words: one-half of mass times the square of the velocity.

¹⁶ Rifles have longer barrels than handguns, and rifle cartridges generally burn more gunpowder. Thus, a bullet shot from a rifle spends more time traveling through the barrel than does a bullet shot from a handgun. As a result, the rifle bullet receives a longer, more powerful push from the expanding cloud of gunpowder in the barrel. So rifles generally deliver more kinetic energy than do handguns. (As for shotguns, the mass of shot pellets is much heavier than any single rifle or handgun bullet, so shotguns have very high kinetic

energy at short ranges. But their kinetic energy drops rapidly, because the round pellets rapidly lose speed due to air friction. Rifle and handgun bullets are far more aerodynamic than are shotgun pellets.)

¹⁷ If the gun's caliber is .17, that means the gun's barrel is 17/100 of an inch wide, and can accommodate a bullet which is very slightly smaller than that. So a .38 caliber bullet is bigger than a .17 caliber bullet, and a .45 caliber bullet is bigger than either of them. (Calibers can also be expressed metrically. 9mm is nearly the same as .357, which is slightly smaller than .38).

The bullet's size depends on its width (caliber) and on its length. So one .45 caliber bullet might be longer, and hence heavier, than another .45 caliber bullet.

For any particular gun in any particular caliber, there are a variety of rounds available, some of which have more gunpowder than others. More gunpowder makes the bullet fly straighter for longer distances (especially important in many types of hunting or target shooting); less gunpowder reduces recoil, and makes the gun more comfortable to shoot and more controllable for many people.

¹⁸ Measured at the muzzle. Kinetic energy begins declining as soon as the bullet leaves the barrel, because air friction progressively reduces velocity.

¹⁹ For details, see David B. Kopel, *Guns: Who Should Have Them* (New York: Prometheus Books, 1995), pp. 168–70.

²⁰ The assertion that so-called “assault weapons” are “high-velocity” is true only in the trivial sense that most guns which are called “assault weapons” are rifles, and rifles are generally higher velocity than handguns or shotguns.

As for the handguns which are sometimes dubbed “assault weapons,” they are necessarily lower velocity, with less powerful bullets, than the most powerful handguns. The most powerful handgun calibers, such as .44 magnum or .454 Casull (often carried by hikers for self-defense against bears) have so much gunpowder that the relatively delicate mechanisms of a semi-automatic handgun cannot handle them. These heavy-duty calibers are available only for revolvers.

²¹ Quoted in Randy E. Barnett and Don B. Kates, “Under Fire: The New Consensus on the Second Amendment,” *Emory Law Journal*, vol. 45, 1996, reproduced at http://www.bu.edu/rbarnett/underfire.htm#Document0zzFN_B535. Feinstein's quote is from an interview with Lesley Stahl on *60 Minutes* in February 1995.

²² Jacob Sullum, “How Do We Know an ‘Assault Weapon’ Ban Would Not Have Stopped Adam Lanza? Because It Didn’t,” *Reason*, December 17, 2012, <http://reason.com/blog/2012/12/17/how-do-we-know-an-assault-weapon-ban-wou>.

²³ Christopher S. Koper, Daniel J. Woods & Jeffrey A. Roth, “An Updated Assessment of the Federal Assault Weapons Ban: Impacts on Gun Markets and Gun Violence, 1994-2003: Report to the National Institute of Justice, United States Department of Justice,” University of Pennsylvania, June 2004, http://www.sas.upenn.edu/jerrylee/research/aw_final2004.pdf.

²⁴ Jeffrey A. Roth & Christopher S. Koper, “Impacts of the 1994 Assault Weapons Ban: 1994–96,” National Institute of Justice Research in Brief, U.S. Department of Justice, March 1999, <https://www.ncjrs.gov/pdffiles1/173405.pdf>.

²⁵ “Stopping the Spread of Deadly Assault Weapons,” <http://www.feinstein.senate.gov/public/index.cfm/assault-weapons>, accessed January 2, 2013. For another reply to Feinstein's claims, see Gregory J. Markle, “A Short Analysis of Senator Feinstein's ‘Proof’ of the Efficacy of the 1994 Assault Weapons Ban,” December 29, 2012, http://pc3c.org/files/feinstein_fisking.pdf.

²⁶ Jeffrey A. Roth & Christopher S. Koper, “Impact Evaluation of the Public Safety and Recreational Firearms Use Protection Act of 1994: Final Report,” Urban Institute, March 13, 1997, http://www.sas.upenn.edu/jerrylee/research/aw_final1997.pdf.

²⁷ John Lott, *The Bias Against Guns: Why Almost Everything You've Heard About Gun Control Is Wrong* (Washington, D.C.: Regnery Publishing, 2003), p. 214.

Looking at the raw crime data, Lott observes:

The comparison group here is the forty-five states that did not adopt a ban. For both murder and robbery rates, the states adopting assault weapons bans were experiencing a relatively faster drop in violent crimes prior to the ban and a relatively faster increase in violent crimes after it. For rapes and aggravated assaults, the trends before and after the law seem essentially unchanged.

Based on the crime data, Lott concludes that it is “hard to argue that . . . banning assault weapons produced any noticeable benefit in terms of lower crime rates.” In statistical analyses that seek to control for other possible factors in the fluctuations of crime rates, Lott finds that, if anything, the state-level “assault weapons” bans had an adverse effect on crime rates:

Presumably if assault weapons are to be used in any particular crimes, they will be used for murder and robbery, but the data appears more supportive of an adverse effect of an assault weapons ban on murder and robbery rates . . . , with both crime rates rising after the passage of the bans. . . . Murder and robbery rates started off relatively high in the states that eventually adopted a ban, but the gap disappears by the time the ban is adopted. Only after instituting the ban do crime rates head back up. There is a very statistically significant change in murder and rape rate trends before and after the adoption of the ban. . . . It is very difficult to observe any systematic impact of the ban on rape and aggravated assault rates.

²⁸ Mark Follman, Gavin Aronsen, and Deanna Pan, “A Guide to Mass Shootings in America,” *Mother Jones*, December 15, 2012, <http://www.motherjones.com/politics/2012/07/mass-shootings-map>; see also Mark Follman, Gavin Aronsen, and Deanna Pan, “US Mass Shootings, 1982–2012: Data from Mother Jones’ Investigation,” *Mother Jones*, December 28, 2012, <http://www.motherjones.com/politics/2012/12/mass-shootings-mother-jones-full-data>.

²⁹ Thomas C. Hayes, “Gunman Kills 22 and Himself in Texas Cafeteria,” *New York Times*, October 17, 1991, <http://www.nytimes.com/1991/10/17/us/gunman-kills-22-and-himself-in-texas-cafeteria.html>.

³⁰ “About Suzanna,” http://www.suzannahupp.com/?page_id=2, accessed January 13, 2013.

³¹ Most of the text in this paragraph is adapted from David B. Kopel, *Guns: Who Should Have Them* (New York: Prometheus Books, 1995), p. 164. That book in turn cites William R. Magrath, “An Open Letter to American Politicians,” *Police Marksman*, May–June 1989, p. 19; Edward Ezell, *The AK-47 Story* (Mechanicsburg, PA: Stackpole Books, 1986); Kent Jenkins Jr., “Calls for Ban Boost Assault Rifle Sales,” *Washington Post*, March 6, 1989, p. B1; and “Assault Weapon Import Control Act of 1989,” 1989: Hearings on H.R. 1154 before Subcommittee on Trade of the House Committee on Ways and Means, 101st Cong., 1st Sess. (1989).

³² Douglas Anthony Cooper, “A Proven Way to End the Gun Slaughter: Will We Fight for It?,” *Huff Post Politics*, December 26, 2012, http://www.huffingtonpost.com/douglas-anthony-cooper/proven-way-end-slaughter_b_2341815.html.

³³ Charles Krauthammer, “Disingenuous Debate on Repeal of Assault Weapons Ban,” *Chicago Tribune*, April 8, 1996, http://articles.chicagotribune.com/1996-04-08/news/9604080024_1_assault-weapons-ban-gun-control-crime-rate.

³⁴ Christian Chung, “Dianne Feinstein New Assault Weapons Ban Doesn’t Go Far Enough: It’s Only the Start,” *Policymic*, December 29, 2012, <http://www.policymic.com/articles/21639/dianne-feinstein-new-assault-weapons-ban-doesn-t-go-far-enough-it-s-only-the-start>.

³⁵ Robert Wright, "A Gun Control Law That Would Actually Work," *Atlantic*, December 17, 2012, <http://www.theatlantic.com/national/archive/2012/12/a-gun-control-law-that-would-actually-work/266342>.

³⁶ The "features" on semi-automatic shotguns under the ban are similar to the features list for rifles, with one important addition. Feinstein outlaws any semi-auto shotgun that has "A fixed magazine with the capacity to accept more than 5 rounds." This bans a wide variety of home defense shotguns. It also means that if you use a magazine extender to turn your 5-round Remington 1100 into a 7-round gun, you are now an instant felon.

³⁷ See Clayton E. Cramer, "High-Capacity-Magazine Bans," *National Review*, December 19, 2012, <http://www.nationalreview.com/articles/336006/high-capacity-magazine-bans-clayton-e-cramer>. (If the final round from the last magazine has been fired, the first round from the new magazine must be chambered before the gun will fire. Chambering a round involves "racking" the gun by manually operating the gun's slide mechanism, a process that typically takes fractions of a second.)

³⁸ The G17 (standard), G19 (compact), and G34 (competition). Optional magazines of 19 or 33 rounds are available. The subcompact G26 comes with a 10 round magazine, with 12, 15, 17, 19, and 33 round magazines available.

For a 9mm handgun standard-sized handgun, the 15 or 17 round magazine is "normal capacity," not "high capacity," whereas a 10-round magazine is "restricted capacity." The Glock 30 SF, a larger .45 caliber, comes standard with a 10-round magazine, with factory options of 9 and 13 rounds. Because the bullets are larger (.45 inch vs. 9 mm, which is about .35 inch), fewer can fit in a given space—hence, the smaller magazine capacity. Other Glock .45 handguns come standard with larger or smaller magazines, depending on the size of the gun. "Glock 19 Gen4," <http://us.glock.com/products/model/g19gen4>; "Glock 30 SF," <http://us.glock.com/products/model/g30sf>; "Glock 21 Gen4," <http://us.glock.com/products/model/g21gen4>; "Glock 36," <http://us.glock.com/products/model/g36>; each accessed January 3, 2013.

³⁹ A "high-capacity" magazine on his hip, and often he carries a pump-action shotgun or "assault" rifle (or both) in his trunk. A look at a forum thread at Officer.com, "What Gun Does Your Department Use" (see <http://forums.officer.com/t138759>), offers an insightful look at typical police weaponry—the list includes Glocks with 17-round magazines and AR-15 semi-automatic rifles.

Regarding magazine capacity, one veteran from a municipal police department in Texas advises:

I would not carry a duty gun that carries fewer than 12 rounds in the magazine. One of the great advantages offered by semi-automatic handguns is the increased carrying capacity. Most manufacturers have increased the capacity of .45 pistols to at least 12 rounds, so this would be the minimum I would be comfortable with

"What is the Best Pistol for Police Officers?", *Spartan Cops*, March 30, 2009, <http://www.spartancops.com/pistol-police-officers>; "About," *Spartan Cops*, <http://www.spartancops.com/about>. Nashville Police can now carry their personal AR-15s in their vehicles while on duty. <http://tnne.ws/ULB0HY>.

⁴⁰ What about magazines? "The failure to reduce LCM use has likely been due to the immense stock of exempted pre-ban magazines, which has been enhanced by recent imports," the 2004 paper speculates. The paper notes that "millions" of "assault weapons" and "large-capacity magazines" were "manufactured prior to the ban's effective date."

⁴¹ Still, if one wants to speculate, Koper, Woods, and Roth do so in an articulate fashion. Their 2004 report states:

[S]emiautomatic weapons with LCMs [large-capacity magazines] enable offenders to fire high numbers of shots rapidly, thereby potentially increasing both the number of persons wounded per gunfire incident (including both intended targets and innocent bystanders) and the number of gunshot victims suffering multiple wounds, both of which would increase deaths and injuries from gun violence.

Because of this, the paper's writers speculate, "the LCM ban has greater potential for reducing gun deaths and injuries than does the AW [assault weapons] ban." They continue:

[A] ban's impact on gun violence is likely to be small at best, and perhaps too small for reliable measurement. . . . Guns with LCMs are used in up to a quarter of gun crimes, but it is not clear how often the outcomes of gun attacks depend on the ability to fire more than 10 shots (the current limit on magazine capacity) without reloading.

Nonetheless, reducing crimes with . . . LCMs could have non-trivial effects on gunshot victimizations. As a general matter, hit rates tend to be low in gunfire incidents, so having more shots to fire rapidly can increase the likelihood that offenders hit their targets, and perhaps bystanders as well. While not entirely consistent, the few available studies contrasting attacks with different types of guns and magazines generally suggest that attacks with semiautomatics—including AWs and other semiautomatics with LCMs—result in more shots fired, persons wounded, and wounds per victim than do other gun attacks.

The authors of the 2004 report, then, believe that a ban on magazines holding more than ten rounds likely would not reduce the number of crimes committed, but that such a ban might reduce the harm of certain types of rare crimes (presumably mass murders with many rounds fired and "shootouts"). The authors do not (and do not claim to) present convincing evidence that their hypothesis is correct; they present their claim as reasonable speculation.

However, a careful reading of the paragraphs cited above reveals one of the major flaws of the writers' argument. The writers claim that "attacks with semiautomatics"—whether or not they are used with "large capacity" magazines—result in greater harm. There are good reasons to think that, even if criminals could somehow be restricted to using ten-round magazines—and obviously they cannot—they could typically cause the same level of harm, and sometimes more harm.

The general problem with the claims of those who wish to ban magazines holding more than ten rounds is that such advocates fail to account for the adaptability of criminals. Such advocates assume they can hold "all other things equal," when clearly criminals thrive on adapting their plans in order to surprise and overwhelm their intended victims.

⁴² Josh Sugarmann, "Drug Traffickers, Paramilitary Groups . . .," *Assault Weapons and Accessories in America*, Violence Policy Center, 1988, <http://www.vpc.org/studies/awadrug.htm>.

⁴³ David B. Kopel, Paul Gallant & Joanne D. Eisen, "The Arms Trade Treaty: Zimbabwe, the Democratic Republic of the Congo, and the Prospects for Arms Embargoes on Human Rights Violators," 114 *Penn State Law Review* 891, at note 46 (2010).

⁴⁴ <http://defcad.org/>

⁴⁵ "Third of High School Seniors Take Marijuana," *News Medical*, December, 22, 2012, <http://www.news-medical.net/news/20121222/Third-of-high-school-seniors-take-marijuana.aspx>.

⁴⁶ Alicia A. Caldwell, "James Holmes' Gun Jammed During Aurora Attack, Official Says," *Associated Press*, July 22, 2012, http://www.huffingtonpost.com/2012/07/22/james-holmes-gun-jammed-aurora-colorado-dark-knight-shooting_n_1692690.html.

⁴⁷ An additional fact about this case is that, had the Arizona murderer not been tackled by bystanders, he would have faced armed opposition moments later. Joe Zamudio, another man who helped restrain the murderer, said the following during an MSNBC interview:

I carry a gun, so I felt like I was a little bit more prepared to do some good than maybe somebody else would have been. . . . As I came out of the door of the Walgreens . . . I saw several individuals wrestling with him, and I came running. . . . I saw another individual holding the firearm, and I kind of assumed he was the shooter, so I grabbed his wrists, and . . . told him to drop it, and forced him to drop the gun on the ground. When he did that, everybody said, no, it's this guy . . . and I proceeded to help hold that man down. . . . When I came through the door, I had my hand on the butt of my pistol, and I clicked the safety off. I was ready to kill him. But I didn't have to do that, and I was very blessed I didn't have to go to that place. Luckily, they'd already begun the solution, so all I had to do is help. If they hadn't grabbed him, and he'd have been still moving, I would have shot him.

We were unable to locate the video on the MSNBC web page. It is reproduced at <http://youtu.be/y-3GTwalrGY>.

In return for this profoundly courageous act of heroism in which Zamudio ran toward gunfire, William Saletan libeled Zamudio in an article for Slate, wrongly claiming he “nearly shot the wrong man.” William Saletan, “Friendly Firearms,” *Slate*, January 11, 2011, http://www.slate.com/articles/health_and_science/human_nature/2011/01/friendly_firearms.html.

Obviously in the brief seconds of the incident, Zamudio considered the possibility that the man holding the gun might be the perpetrator of the crime—and then Zamudio acted with restraint, appropriately disarmed the man holding the gun, and helped restrain the perpetrator. Although police in Arizona likely are more responsible with their firearms than are police in New York, the recent incident in which New York police shot nine bystanders illustrates that Zamudio did the other man holding the gun—and everyone else in the crowd—a profound favor by forcing him to drop it.) “NYPD: 9 Shooting Bystander Victims Hit By Police Gunfire,” *Associated Press*, August 25, 2012, <http://www.foxnews.com/us/2012/08/25/nypd-shooting-bystander-victims-hit-by-police-gunfire>.

⁴⁸ Philip Caulfield, “Sandy Hook Elementary School Shooter Adam Lanza Wore Earplugs, Rapidly Changed Clips, Shot Up Cars in Parking Lot: Report,” *New York Daily News*, January 7, 2013, <http://www.nydailynews.com/news/national/lanza-wore-earplugs-shot-cars-article-1.1234747>.

⁴⁹ Will Grant, “Active Shooter Response: Lessons for Experts,” *Blackwater*, January 6, 2013, <http://blackwaterusa.com/active-shooter-response-lessons-from-experts>.

Even if they resorted to revolvers, criminals could impose mass casualties. Recall that Robert Wright, a senior editor at the Atlantic, wants to ban all detachable magazines and all guns “that can hold more than six bullets.” In other words, he wants to ban the large majority of guns in existence. (Like Cooper, Wright totally ignores the use of guns in self-defense.) Even if we assume that criminals could not still purchase their weapons of choice on the black market—an assumption that is obviously false—Wright’s analysis of the likely results is faulty.

Wright tries to hold “other things equal” that cannot be held equal. Wright uses the example of the Newtown murders, noting that the criminal carried a rifle and two handguns and that he shot about twelve rounds before reaching the students. Wright supposes, “At that point, as he headed for the classrooms, he’d have six more rapid-fire bullets left, after which he’d have to reload his guns bullet by bullet.” Robert Wright, “A Gun Control Law That Would Actually Work,” *Atlantic*, December 17, 2012,

<http://www.theatlantic.com/national/archive/2012/12/a-gun-control-law-that-would-actually-work/266342>.

Wright ignores several obvious facts here. A criminal limited to six-round guns likely would choose larger-caliber guns and target each round more carefully. More significantly in a mass-murder scenario, a criminal would by no means be limited to three guns; he could easily carry many revolvers (or six-round semiautomatics). Like semi-automatics, double-action revolvers fire one round with each pull of the trigger.

For more on the effective firing rates of revolvers and other types of guns, see David B. Kopel, *Guns: Who Should Have Them* (New York: Prometheus Books, 1995), pp. 164–165 (The finger must accomplish more of the mechanical work with a double-action revolver.) Revolvers typically are extremely reliable, and often they are less expensive than other types of guns. Even a gun ban that banned most guns in existence—a far more ambitious proposal than legislation pertaining to the manufacture and sale of new “high capacity” magazines—would do nothing to curb black market sales, and it would have little or no impact on criminals’ ability to commit violent atrocities.)

⁵⁰ David B. Kopel, “Lawyers, Guns, and Burglars,” 43 *Arizona Law Review* 345 (2001).

⁵¹ “Scotland Worst for Violence – UN,” *BBC News*, Sept. 18, 2005 (“Scotland has been named the most violent country in the developed world by a United Nations Report.”).

⁵² Joyce Malcolm, *Guns and Violence: The English Experience* 141-142 (2002); Joseph Edward Olson & Clayton Cramer, “Gun Control: Political Fears Trump Crime Control,” 61 *Maine Law Review* 57-81 (2009), <http://ssrn.com/abstract=1083528>.

⁵³ David B. Kopel & Joseph P. Olson, “All the Way Down the Slippery Slope: Gun Prohibition in England, and Some Lessons for America,” 22 *Hamline Law Review* 399 (1999).

⁵⁴ House of Commons, Home Affairs – Second Report – Controls over Firearms, Session 1999-2000, Apr. 6, 2000, at ¶22, <http://www.publications.parliament.uk/pa/cm199900/cmselect/cmhaff/95/9502.htm>.

⁵⁵ *Illegal Firearms in the United Kingdom*, Centre for Defence Studies, King’s College London, Jul. 2, 2001, Working Paper 4.

⁵⁶ Nick Paton Walsh, “UK Matches Africa in Crime Surge,” *The Guardian*, Jun. 3, 2001.

⁵⁷ Sean O’Neill, “A Quarter of English are Victims of Crime,” *The Telegraph*, Feb. 23, 2001.

⁵⁸ Philip Johnston, “Britain Leads the World on Risk of Being Assaulted,” *The Telegraph*, May 4, 2001.

⁵⁹ *Illegal Firearms*, Working Paper 1, at 7.

⁶⁰ Philip Johnston, “World’s Toughest Laws Will Help to Keep Weapons off the Streets,” *The Telegraph*, Nov. 2, 1996.

⁶¹ *Illegal Firearms*, Working Paper 4, at 15.

⁶² See Joyce Malcolm, *Guns and Violence: The English Experience* 228-31 (2002); Patsy Richards, Homicide Statistics, Research Paper 99/56, House of Commons Library Social and General Statistics Section, May 27, 1999, at 9. See also Statistics Release, Homicides in Scotland in 2001 – Statistics Published: A Scottish Executive National Statistics Publication, Nov. 28, 2002, <http://www.scotland.gov.uk/stats/bulletins/00205-00.asp> (visited May 16, 2006), at Note 2 (“A single case of homicide is counted for each act of murder or culpable homicide irrespective of the number of perpetrators or victims.”)

⁶³ David B. Kopel, *Guns: Who Should Have Them?* (Prometheus Books, 1995).

⁶⁴ Stephen P. Halbrook, “Congress Interprets the Second Amendment: Declarations by a Co-Equal Branch on the Individual Right to Keep and Bear Arms,” 61 *Tenn. L. Rev.* 597 (1994).

⁶⁵ *City of Boerne v. Flores*, 521 U.S. 507 (1997).

⁶⁶ *Katzenbach v. Morgan*, 384 U.S. 641 (1966).

⁶⁷ *E.g.*, *Board of Trustees of Univ. of Alabama v. Garrett* (2001); *Nevada Dept. of Human Resources v. Hibbs* (2003),

⁶⁸ David B. Kopel, “How the British Gun Control Program Precipitated the American Revolution,” 38 *Charleston Law Review* 283 (2012), <http://ssrn.com/abstract=1967702>.

⁶⁹ For more detailed analysis of the civil rights implications of gun prohibition laws, *see, e.g.*, David B. Kopel, *Peril or Protection? The Risks and Benefits of Handgun Prohibition*, 12 ST. LOUIS U. PUB. L. REV. 285, 319-23 (1993).

⁷⁰ “Estimated Crime in United States—Total,” U.S. Department of Justice, Uniform Crime Reporting Statistics, <http://www.ucrdatatool.gov/Search/Crime/State/RunCrimeStatebyState.cfm>, accessed January 4, 2013.

⁷¹ Donna L. Hoyert and Jiaquan Xu, “Deaths: Preliminary Data for 2011,” *National Vital Statistics Reports*, vol. 61, no. 6, October 10, 2012, p. 28, http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61_06.pdf.

⁷² “Murder, by State, Types of Weapons, 2011,” *Crime in the United States 2011*, Table 7, <http://www.fbi.gov/about-us/cjis/ucr/crime-in-the-u.s/2011/crime-in-the-u.s.-2011/tables/expanded-homicide-data-table-7>.

⁷³ Donna L. Hoyert and Jiaquan Xu, “Deaths: Preliminary Data for 2011,” *National Vital Statistics Reports*, vol. 61, no. 6, October 10, 2012, pp. 41–42, http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61_06.pdf.

⁷⁴ For example, the homicide rate in 1962 and 1963 was 4.6 deaths per 100,000 population. In 1964 it was 4.8

⁷⁵ Nicole White & Janet L. Lauritsen, *Violent Crime Against Youth, 1994–2010*, Bureau of Justice Statistics, NCJ 240106 (Dec. 2012), <http://www.bjs.gov/content/pub/pdf/vcay9410.pdf>.

⁷⁶ Nicholas J. Johnson, David B. Kopel, Michael P. O’Shea & George Moscary, *Firearms Law and the Second Amendment: Regulation, Rights, and Policy* (Aspen Publishers 2012), online chapter 12, forthcoming at <http://firearmsregulation.org>.

⁷⁷ Matt Apuzzo and Pat Eaton-Robb, “Conn. Gunman Had Hundreds of Rounds of Ammunition,” Associated Press, December 17, 2012, <http://bigstory.ap.org/article/agents-visit-conn-gun-shops-after-school-massacre>.

⁷⁸ Clayton E. Cramer, *My Brother Ron: A Personal and Social History of the Deinstitutionalization of the Mentally Ill* (2012).

EXHIBIT 50

Updated Expert Witness Rebuttal Report of J. Buford Boone III

Rupp, et al. v. Becerra
United States District Court
Central District of California, Southern Division
Case No.: 8:17-cv-00746-JLS-JDE
December 3, 2018

ASSIGNMENT

I have been asked by counsel for the plaintiffs in the above described matter to provide my opinion on statements made concerning the ballistics of “assault weapons” in the reports of three expert witnesses for the Defendant: Professor John Donohue, Dr. Christopher Colwell, M.D., and Detective Michael Mersereau. This rebuttal report sets forth my qualifications and foundation for my opinions. I offer these opinions to a reasonable degree of firearm, ballistic, law enforcement, and scientific certainty and am willing and able to testify consistently with the contents of this report.

COMPENSATION

I am being compensated for my time in this case at the rate of \$700 per hour. My compensation is not contingent on the results of my analysis or the substance of my testimony.

BACKGROUND AND QUALIFICATIONS

I am currently the sole member of Boone Ballistics, LLC and a retired Supervisory Special Agent (SSA) of the Federal Bureau of Investigation (FBI). I was the primary SSA with oversight of the FBI Ballistic Research Facility (BRF) from April 15, 1997 – August 31, 2012.

As the Member of Boone Ballistics, LLC, I have been employed as an expert witness in civil and criminal cases. Additionally, I have been employed as a consultant in civil and criminal cases. I teach internal, external and terminal ballistics, including selection of ammunition and weapons for efficiently incapacitating an aggressive human adversary. I have lectured on the applicability of the Hague Convention of 1899 to the selection of ammunition for use by the U.S. Military. I conduct time of flight testing to better document small arms projectile flight as it applies to the use of a Ballistic Coefficient to predict projectile impact at long distances.

Prior to my first full-time law enforcement employment, I served as a reserve police officer or Deputy Sheriff with Tuscaloosa County, Alabama, Upson County, Georgia, Las Animas County, Colorado and Trinidad Colorado.

Approximately May of 1988 I was hired as a Police Officer with the Tuscaloosa, Alabama, Police Department. I was subsequently offered a position as a Special Agent of the Federal Bureau of Investigation (FBI) in July of 1988. I began employment with the FBI on 07/25/1988. I was graduated from the FBI Academy on 10/21/1988. My first duty station was New Haven, Connecticut.

I have maintained an interest in firearms all my adult life. I have shot competitively. My firearms scores at the FBI Academy were sufficiently high to allow me to attempt the

"Possible" Club. I was successful on my first attempt. To shoot a "Possible", Agents must fire a perfect score on a very difficult course. Though there were in excess of 10,000 Agents in 1988, my "Possible" was approximately number 1,198 in FBI history.

Upon arrival in New Haven, I was assigned to the Reactive Squad conducting background, bank robbery and fugitive investigations. I later served as the Fugitive Coordinator for the New Haven Division. I was named "Detective of the Month" by the Bronx Homicide Task Force for the capture of an America's Most Wanted fugitive.

I successfully completed FBI Firearms Instructor School in July of 1989. This qualified me to teach firearms to Field Agents.

I was transferred to the Organized Crime/Narcotics Squad in July of 1990. I primarily participated in investigations of drug gangs. These investigations typically involved significant amounts of surveillance, electronic monitoring and the service of multiple search warrants. I also participated in organized crime investigations. I have participated in multiple arrests in urban and suburban areas.

I was named the Principal Firearms Instructor (PFI) of the New Haven Division in November of 1992. I maintained that position until I transferred to the Firearms Training Unit at the FBI Academy, Quantico, Virginia.

As PFI, I oversaw all firearm and defensive tactics training of the 90+ Agents in the New Haven Division of the FBI. I coordinated training sessions for all firearms issued to general Agents. This included revolvers, pistols, carbines and shotguns. It also included coordination of deadly force training with the Principal Legal Advisor. During my time as the PFI, the FBI transitioned from revolvers to semi-automatic pistols. The training for this transition was my responsibility for New Haven Division Agents.

In September of 1989 I was admitted to the FBI New Haven Special Weapons and Tactics (SWAT) Team as a Sniper/Observer. I successfully passed both the two week Sniper/Observer and the two week Basic SWAT courses at the FBI Academy. I served operationally on the New Haven SWAT Team until my transfer to the FBI Firearms Training Unit at the FBI Academy, Quantico, Virginia.

In March of 1996, I was promoted to a position as a Term GS-14 Firearms Instructor at the Firearms Training Unit (FTU), FBI Academy, Quantico, Va. During this assignment, I performed line and PFI instruction of Agent trainees. I provided or oversaw line and combat instruction in handguns, carbines and shotguns. I also provided judgmental instruction utilizing Firearms Training Simulator (FATS) equipment. The FATS training was used primarily to teach Agents when the use of deadly force was appropriate, and when it was not.

I was transferred to the Ballistic Research Facility (BRF) of the FTU on April 15, 1997. I maintained my position at the BRF for more than 15 years, retiring on August 31, 2012. I received a permanent promotion to Supervisory Special Agent in September of 1997.

The BRF has responsibility for testing and evaluating all ammunition used operationally by the FBI. The BRF was created following a 1986 shootout wherein a subject was fatally

injured by FBI projectiles but continued fighting and ultimately killing two Agents after receiving the "fatal" wound. A thorough investigation revealed the primary cause of the failure to rapidly incapacitate was the projectiles lack of sufficient penetration in the subject's body. It stopped short of the heart.

This investigation spawned research into the mechanics of wound ballistics. Ultimately, the research led to the creation of a scientifically repeatable method of comparing the potential effectiveness of individual cartridges. The resultant test has been referred to as the "FBI Method". The BRF published test findings available upon official request of Law Enforcement and Military agencies. The BRF became the most trusted source of ballistic information in the Law Enforcement and Military community.

As SSA of the BRF, my responsibility was to oversee all aspects of the research. I was the only full-time person at the BRF until a support person (non-Agent) was assigned as an Engineering Technician, Ballistics (ETB), in the last quarter of 1998. I was the Supervisor and rating official of the ETB.

As SSA, I performed or directed all functions of the BRF. I hand loaded cartridges, put test firearms together, hand-fired firearms for testing, built tissue simulant blocks, conducted penetration testing and reported on same. I created a relational database to store data and report test results. I operated sophisticated ballistic testing and photographic equipment. I was frequently sought out to train others in the use of this equipment.

I was the primary author of specifications for ammunition procurements for the FBI. This included ammunition used for training as well as for operational use, commonly referred to as "Service" ammunition.

I was the primary author of the FBI Body Armor Test Protocol.

I directed the creation of a procurement of 5.56mm NATO ammunition using piezoelectric conformal transducers for pressure testing.

The BRF served as the primary source of ballistic information regarding ammunition and firearms for all FBI Agents. Field Agents routinely referred local and state partners to me for ballistic information and advice.

During my service at the BRF, a strong liaison was formed with the Department of Defense (DOD). The BRF performed testing for and consultation with the DOD on many occasions. My expertise has been, and continues to be, sought out and relied upon by the Special Operations Community. During my service at the BRF, the Department of Defense Law of War Chair established protocol that all new DOD small arms munitions required testing and evaluation by the FBI BRF prior to legal authorization being granted for their use.

I have been a participant in a number of government sponsored Integrated Product Teams researching ballistics, including:

Joint Services Wound Ballistics
Lead Free Ammunition

Protective Armor
Armor Piercing Ammunition development

In 2002, I traveled to Darligen, Switzerland, at the specific request of the Department of State, to represent the United States in discussions of wound ballistics.

I have provided numerous live-fire terminal ballistic demonstrations to local, state and federal law enforcement officers as well as to all branches of the United States Military.

I have conducted international presentations on wound ballistics, ammunition selection, weapon selection, sniper operations and body armor.

I have briefed the Secretary of the Army and provided, at his request, my professional opinion of a 5.56mm NATO cartridge intended to replace the M855.

I have functioned as the primary instructor of 52 Basic Law Enforcement Sniper/Observer schools. Approximately 978 students have successfully completed this course under my instruction.

I consistently received high performance ratings in the FBI. I received the highest possible, "Outstanding", each of the last 4 years of my service. I have received numerous letters of commendation and performance awards.

I was the 2008 recipient of the National Defense Industrial Association Joint Armaments Committee's Gunnery Sergeant Carlos Hathcock Award.

Publications I authored during my FBI employment and restricted to official law enforcement or government request:

Review of Accuracy 1st Training
Weapon Selection – Revision III
Ammunition Selection 2007
TSWG MURG Briefing Accuracy Expectations
AIM III TSWG Briefing 3/16/2010
Wound Ballistics
B2 Sniper Rifle Cleaning Method

Publication I authored during my FBI employment that is publicly available:

FBI Body Armor Test Protocol

I have testified as an expert in the following cases:

- *Rivera v. Body Armor Outlet, LLC, et al.*, USDC, for the District of New Hampshire Case No.: 1:17-cv-00512 LM, on November 15, 2018;
- *Worman v. Healey*, No. 1:17-cv-10107-WGY, in the U.S. District Court for the District of Massachusetts, on October 24, 2017;

- I was certified as an Expert in Ballistics, and thereafter provided testimony, in *United States of America v. Armet Armored Vehicles, Inc., et al.*, No. 4:12-CR-00021, in the U.S. District Court for the Western District of Virginia, on September 28, 2017;
- *Kolbe v. O'Malley*, No. 1:13-cv-02841-CCB, in the U.S. District Court for the District of Maryland, on January 3, 2014.

OPINIONS AND ANALYSIS

It is my opinion that the assertions from both Prof. Donohue and Dr. Colwell that “assault weapons” are ballistically different than non-“assault weapons” such that they necessarily cause more physical harm with the projectiles they fire is, as a matter of indisputable science, erroneous. With the exception of a firearm being used as a striking or impact weapon, injuries reported to have been inflicted by a firearm are actually inflicted by a projectile that the firearm launched. Projectiles are unable to modify their ballistics according to factors other than barrel configuration (chamber, bore, length, rifling profile). Neither Prof. Donohue nor Dr. Colwell makes any claim as to the barrel configuration of “assault weapons” differing from non-“assault weapons”.

It is also my opinion that Detective Mersereau’s assertion that rifles meeting the definition of “assault weapon” are generally not suitable self-defense weapons is erroneous and contrary to well-vetted law enforcement training and practices.

Muzzle Velocity

In his report, Defendant’s expert Prof. Donohue, states that:

“Assault weapons, at least of the long gun variety, tend to have higher muzzle velocities than, for instance, handguns.”

(Page 22, paragraph 54).

Muzzle velocity is a calculation of the speed of a projectile at the firearm’s muzzle. This calculation is, normally, based on a measurement at some point in front of the muzzle. In my experience, the actual speed of a firearm’s muzzle has only been measured in an attempt to measure recoil.

Professor Donohue’s statement about “assault weapons” having particular muzzle velocities, therefore, does not make sense.

It would be reasonable to believe that Professor Donohue actually intended to speak to the velocity of projectiles launched by “assault weapons” as compared to the velocity of projectiles launched by “non-assault weapons”. This statement also would make no sense.

Such generalizations cannot be made with any degree of accuracy. The firearms Prof. Donohue references can be obtained in many different chamberings. This includes both rifle and pistol cartridges from the diminutive .22LR up to at least the .50 Beowulf and the .338 Lapua Magnum.

The muzzle velocity of an “assault weapon” is mostly dependent on its barrel configuration and the cartridge fired.

“Assault Weapons”, as used in Professor Donohue’s report are defined by features that cannot have an effect on muzzle velocity. It is impossible for a pistol grip, flash suppressor, adjustable or folding stock, or the ability to accept a detachable magazine to affect muzzle velocity. While I have seen semiautomatic actions being given attribution for affecting muzzle velocity, the effect claimed is to reduce muzzle velocity – a direct contradiction of Professor Donohue’s claim.

A projectile fired from a non-“assault weapon” rifle would have substantially the same velocity as one fired from an “assault weapon” rifle, as long as the two rifles have similar barrels (and assuming the two projectiles came from identical cartridges).

It is true that projectiles fired from “assault weapon” rifles (which are “long guns”) tend to have higher muzzle velocities than those fired from handguns. But that is generally the case for projectiles fired from any rifle, whether an “assault weapon” or not. All other things being equal, muzzle velocity typically increases with barrel length, until the point of diminishing returns is reached. Because rifles generally have longer barrels than handguns, projectiles fired from rifles will generally have higher muzzle velocities than if identical cartridges were fired in both. However, if the rifle and handgun have the same barrel characteristics (chamber, bore and length), firing the cartridges will result in substantially the same muzzle velocity from both.

It cannot be disputed that the characteristics used in this matter to define an “assault weapon” have nothing to do with the velocity at which the weapon launches a projectile. As such, Prof. Donohue’s statement that “assault weapons” have certain muzzle velocities is purely erroneous.

For the same reason, the following statement from Defendant’s other expert, Dr. Christopher Colwell, M.D., in his report, is likewise erroneous:

“Gunshot wounds from assault rifles, such as AR-15s and AK-47s, tend to be higher in complexity with higher complication rates than such injuries from non-assault weapons, increasing the likelihood of morbidity in patients that present injuries from assault rifles. In my experience, assault rifles tend to cause far greater damage to the muscles, bones, soft tissue, and vital organs. They are too often shredded beyond repair. The greater complications are likely due to the higher muzzle velocity and higher caliber of rounds involved in assault rifle shootings.”

(Pp. 3-4).

Dr. Colwell makes a similar mistake to Prof. Donohue by attributing the projectile’s effect on the object it impacts to the firearm from which it is discharged, rather than the projectile itself. Nowhere in Dr. Colwell’s report does he claim to have been advised of the particular type of cartridge used in the shooting. Multiple types of cartridges are available to fit most chamberings. These cartridges can, and often do, exhibit varying terminal performance. As stated previously, except for the aforementioned barrel characteristics, the firearm does not alter muzzle velocity or what effect a projectile has on an object upon impact.

In laymen's terms, the projectile making those wounds would have done the same damage whether discharged from an "assault weapon" or a non-"assault weapon," as long as the two rifles had similar barrels.

Ammunition

Dr. Colwell makes an additional mistake by claiming that "assault rifles" use "higher caliber rounds." This is not accurate. The Sporting Arms and Ammunition Manufacturer's Association (SAAMI) online glossary defines "Caliber" as:

1. A term used to designate the specific cartridge(s) for which a firearm is chambered.
2. Firearms: The approximate diameter of the circle formed by the tops of the lands of a rifled barrel, often expressed in hundredths of an inch (".38 Caliber") or millimeters ("7mm Caliber").
3. Ammunition: A numerical term included in a cartridge name to indicate a rough approximation of the bullet diameter.

While there certainly are rifles meeting the "assault weapon" definition that fire higher caliber projectiles, it is not always the case. To the contrary, it is usually not the case. Likely the most popular cartridge for AR-15 platform rifles is the .223 or 5.56 NATO.¹ The .223 and 5.56 NATO have effectively the same caliber projectile as a .22LR, the cartridge popular for teaching new shooters, especially children, and small game (e.g., rabbit) hunting. Inasmuch as firearms commonly used as personal weapons range in bore diameter from .17" - .50", .22 caliber projectiles are near the extreme low end of caliber size.

Prof. Donohue likewise makes incorrect statements in his report about the nature of the ammunition used by some rifles meeting the "assault weapons" definition.

First, he says:

"They ["assault rifles"] also tend to utilize .223 rounds, which are designed to fragment and mushroom in a person's body." (Page 22, paragraph 54).

The statement is overly broad and misleading. There are numerous cartridges, of varying configuration, loaded as ".223". The salient characteristics of the projectile, the speed at which it is launched and its interaction with any intervening barriers determine its terminal ballistics. Additionally, not all .223 rounds are designed "to fragment and mushroom in a person's body." This has been recognized since at least 1899.

Due to the cartridge's use by the U.S. military, some very commonly encountered .223 or 5.56 rounds were, ostensibly, designed to conform to the Hague declaration of 1899, which states:

The Contracting Parties agree to abstain from the use of bullets which expand or flatten easily in the human body, such as bullets with a hard envelope which does not entirely

¹ The .223 and the 5.56 NATO cartridges, for purposes of this discussion, are considered to be the same.

cover the core, or is pierced with incisions.
(http://avalon.law.yale.edu/19th_century/dec99-03.asp)

Also, as explained above, while .223 is likely the most common round used in such rifles, it is not uncommon to find rifles meeting the “assault weapon” definition chambered for many rounds other than the .223.

Then Prof. Donohue says:

“unlike a shotgun filled with birdshot, which is far more likely to hit a target and not penetrate through walls than a bullet from an assault weapon, assault weapons are simply not well suited for defensive use in the home.”

(Pages 38-39, paragraph 96).

As an initial matter, “birdshot” is a vague and overly broad term. Spherical shot commonly loaded in shotguns ranges in diameter from .05” to .36”. Pellets in the range of .24” to .36” are typically considered to be “Buckshot.” I have witnessed shot as small as .09 “ fully peforate an exemplar wall constructed of two layers of sheetrock spaced 3.5” apart.

I am unaware of any modern law enforcement intentional issuance of “birdshot” for defense against human adversaries.

Shotgun pellets exit the barrel as a mass and spread as they travel forward. The rate of spread depends on many factors. This spread is generally believed to increase the probability of hitting a target. While this is true, once the spread is larger than your target, it also guarantees some pellets will miss. Those pellets retain their ability to wound and the shooter retains his responsibility for launching them.

In any event, Prof. Donohue’s conclusion that “assault weapons” are not well suited for defensive use in the home is contradicted by a report from the U.S. Bureau of Alcohol, Tobacco, Firearms, and Explosives (“ATF”) titled “Data Analysis of .223 Caliber Ammunition,” a copy of which is included herewith. This report relies heavily on data from the “FBI Weapons Selection” test that I authored. After comparing the terminal performance of the projectiles launched using typical service cartridges of handguns chambered in 9mm Luger and .40 S&W with those for rifles chambered in .223, the ATF report concludes that a shoulder-fired rifle chambered in .223 is the “weapon of choice.” Specifically included was including their usefulness inside structures and their threat level to innocent bystanders. The report explained that ballistic studies have shown that certain .223 rounds discharged from a rifle were *less* likely to over- penetrate barriers commonly found in structures than certain common rounds fired from handguns (9mm and .40S&W) AND more likely to provide the recommended level of 12”-18” of penetration.

Reasonable effective range

Detective Mersereau states:

“It is highly unlikely that citizens would face a situation where the threat is beyond the effective range of a handgun and certainly not with any great frequency. It is even less likely that the law would view such a distant perceived threat as justifying a use of force at all much less a use of lethal force delivered via a rifle”

Page 10, line14

This is especially curious, inasmuch as he, earlier, cited an incident known to have occurred at extended range:

According to reports that I have read, a single shooter firing from a 32nd floor hotel window located some distance from a crowded outdoor concert venue was able to shoot to death 58 concert goers and injuring hundreds of others.”

Page 9, line 3

Therefore, Detective Mersereau directly contradicted his assertion that because use of “deadly force is commonly understood to be a defense against an immediate and proximate threat of physical harm to one’s self or others” . . . “[t]his proximity requirement makes a rifle an inappropriate and unnecessary choice of weapon”. (P. 9, paragraph 23).

Interestingly enough, Detective Mersereau seems to imply that use of lethal force delivered via a rifle somehow requires more justification than lethal force delivered by any other method. This is absurd. Any citizen justified in defending themselves with a firearm is also justified in the use of any firearm available to them.

While he provides some other bases, Detective Mersereau’s assertion seems to be primarily based on the premise that “[t]he purpose of deploying a rifle as opposed to a handgun should be based on the fact that the target is beyond the reasonable effective range of a handgun.” (P. 10, paragraph 23). But, the ATF report shows that rifles meeting the definition of “assault weapon”, and using the proper cartridges are not only more accurate than handguns and cause more effective penetration in a human target, thereby making incapacitation of an attacker more likely, but they do so while being *less* likely to over-penetrate through intervening barriers, like the walls of a house. In other words, such rifles are extremely well suited for self-defense, including within confined areas like a home.

Dated: December 3, 2018



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Member
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Data Analysis of .223 Caliber Ammunition

Penetration Capabilities of Law Enforcement Ammunition

This presentation consists of data accumulated from the FBI's "Weapons Selection" test, San Diego County Sheriff's Department's "Structural Penetration Testing" and the Drug Enforcement Administration's "Construction Material Test" and is use with their permission



Purpose of ATF's Presentation

- ⇒ Simplify data currently circulating in the Law Enforcement Community
- ⇒ Dispel myths about ammunition
- ⇒ Allow informed decisions of ammunition choice
- ⇒ Facts of Ballistic superiority

Basic Terminology

- Ballistics
- Terminal Ballistics
- Effective Penetration

Ballistics

⇒ The science dealing with the motion and
impact of projectiles



Terminal Ballistics

- ⇒ How the projectile reacts once it hits an object
- ⇒ The projectile's effect on the object



Effective Penetration

- ⇒ 12 - 18 inches
- ⇒ Less than 12 inches, unlikely to reach vital organs from some angles
- ⇒ More than 18 inches, unlikely to damage additional vital organs

Consideration of Under Penetration



- ⇒ Failure to incapacitate subject
- ⇒ Subject may cause injury to Agents and innocent parties



Consideration of Over Penetration

- ⇒ Exits subject's body and wounds others
- ⇒ Some projectile's penetration can be increased as a result of penetrating through an intervening barrier (plywood, dry wall, steel)

Ammunition and Weapon Consideration



- ⇒ Operational use
- ⇒ Ballistic Superiority
- ⇒ Threat to Innocent Parties



Considerations for Operational Use

- ⇒ A number of ATF arrests involved arrests take place in and around vehicles or making entry into residences
- ⇒ Vehicles provide cover and concealment for agents and suspects
- ⇒ Interior and exterior walls of a residence provide cover and concealment
- ⇒ There is an increasing number of suspects using body armor



Ballistics Superiority

- ➔ Shotgun (slug) and rifle/carbines are always ballistically superior to other choices
- ➔ Handguns and subguns have similar ballistics
- ➔ Shoulder weapons are tactically superior
- ➔ Use of shoulder weapons will increase hit probability



Threat to Innocent Parties

- ⇒ Approximately 80% of rounds fired in Law Enforcement shootings miss the intended target according to FBI static's
- ⇒ All missed shots will eventually hit something
- ⇒ It is believed that the use of a shoulder weapon will increase hit probability
- ⇒ What happens next will depend on the projectile and what it hits



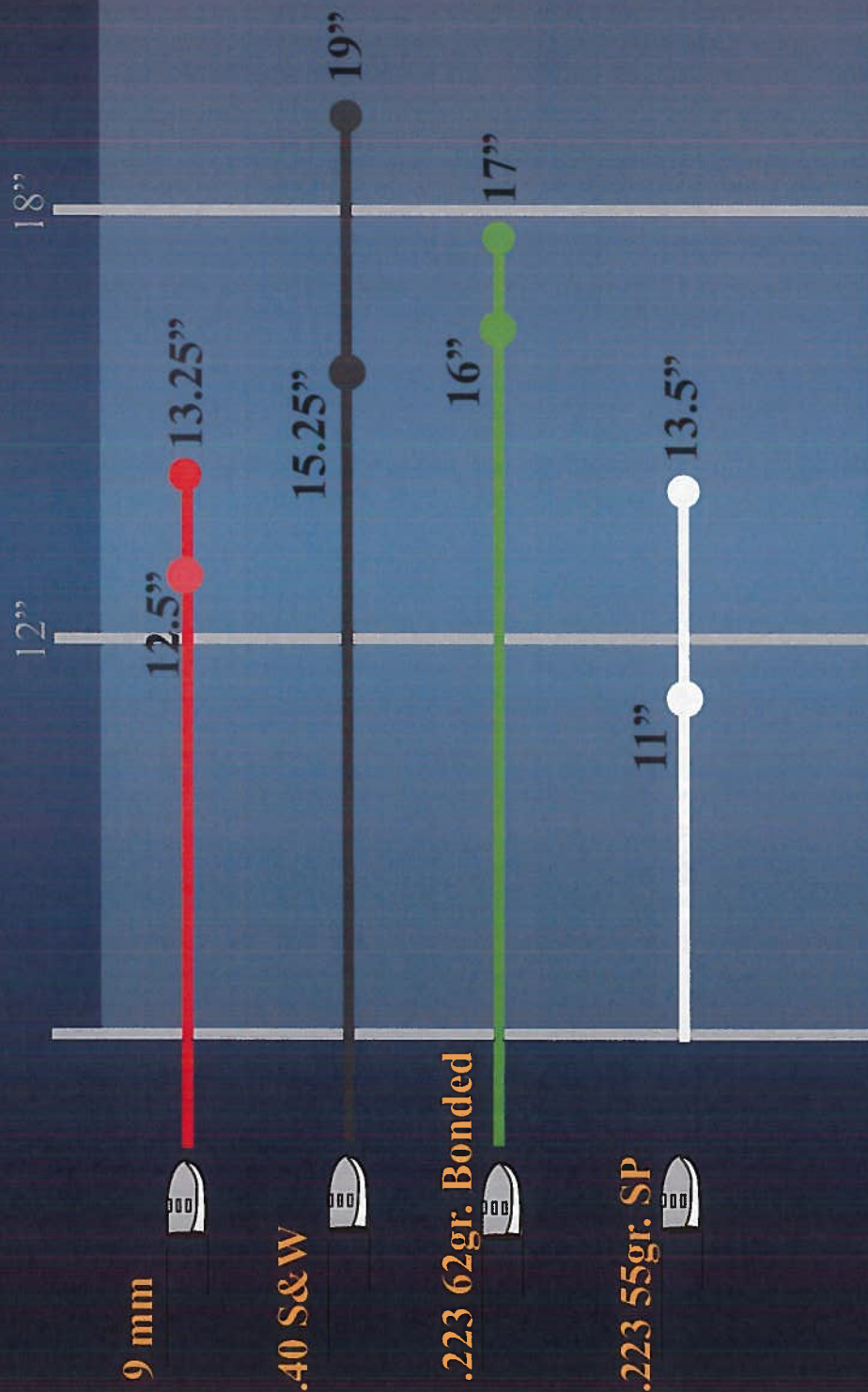
How far will a projectile travel before it falls 60 inches to the earth?

→ This calculation is based on the assumption that an average person would fire a weapon from a height of 60 inches, Center mass to a target at the same height.

– 870 Shotgun - 12ga. Slug	200 yards
– MP5 - 9mm	200 yards
– M-4 - .223cal.	500 yards



FBI Bare Gelatin Test





Penetration Tests

- FBI penetration test
- San Diego penetration test
- DEA penetration test



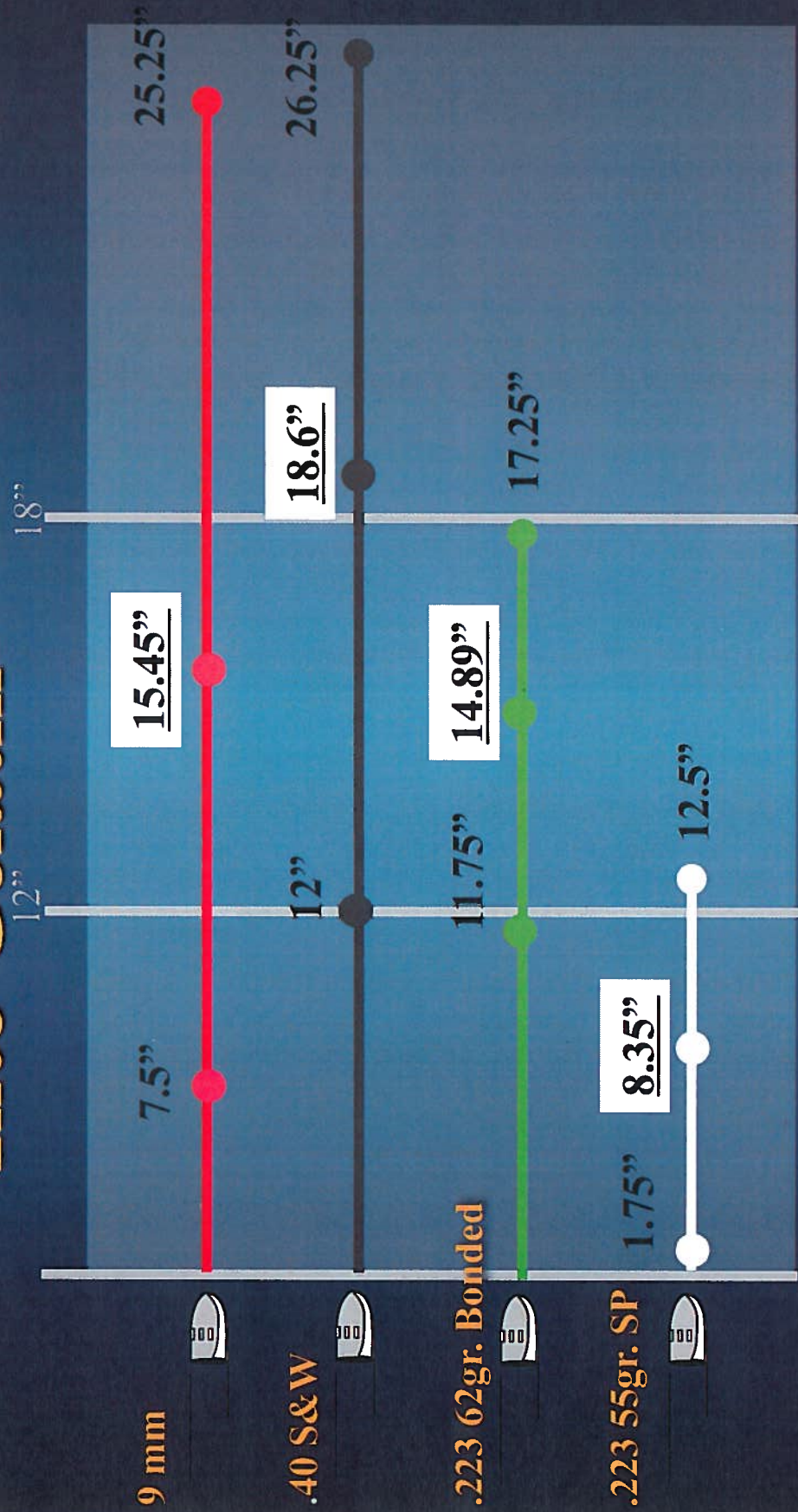
FBI Penetration Test

⇒ Consisted of firing through a variety of
different material barriers into ballistic
gelatin

⇒ Barrier Materials

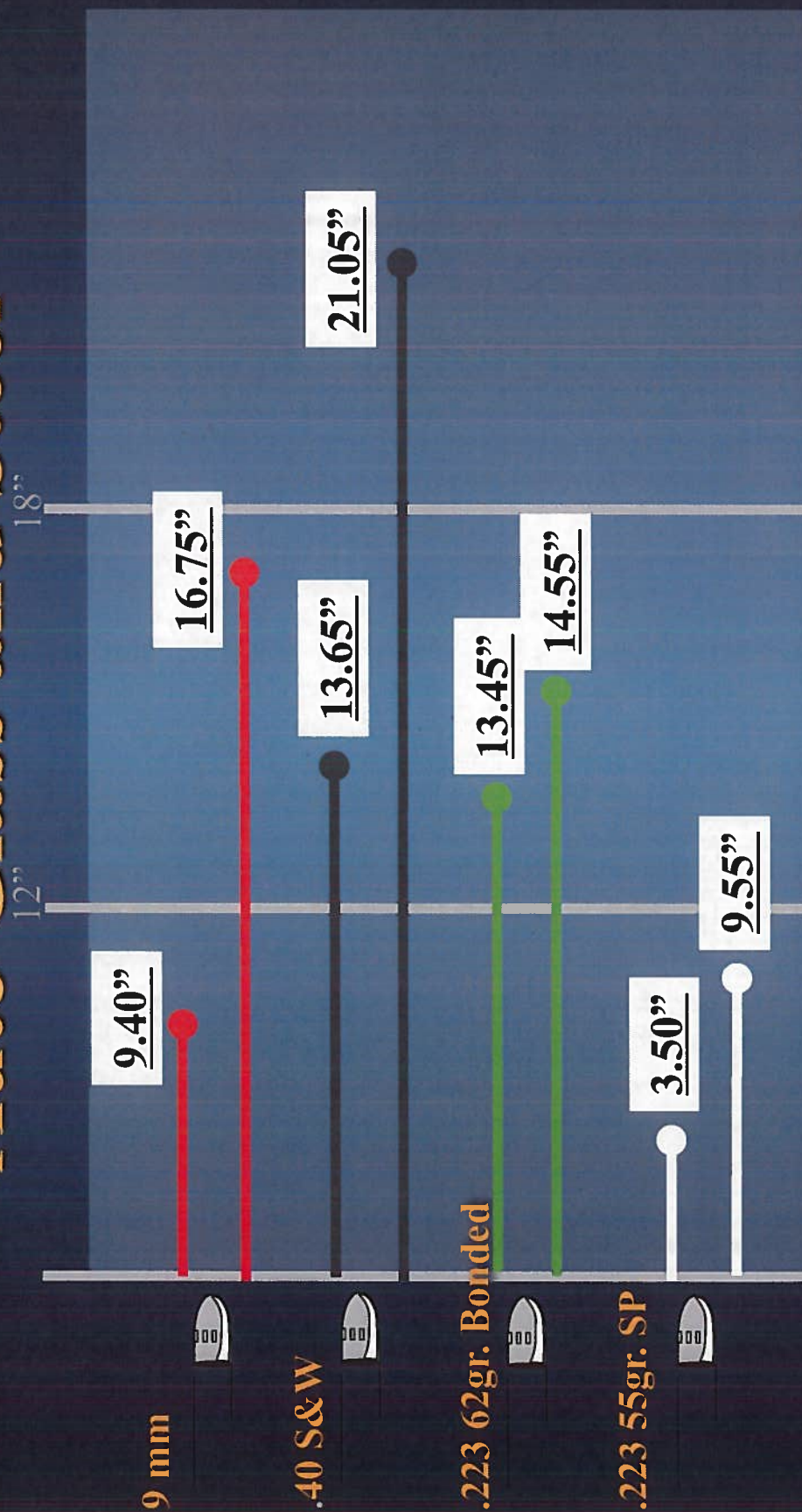
- Steel car door
- Automobile glass
- Plywood
- Drywall
- etc.

Combined Penetration Averages Through Medium Into Gelatin





Average Penetration Through Auto Glass and Steel





San Diego Wall Penetration Test

⇒ Consisted of firing rounds through 4 walls approximately 5 yards apart. The walls were constructed of various materials to include:

– 1/2” Wood Siding

– Stucco material

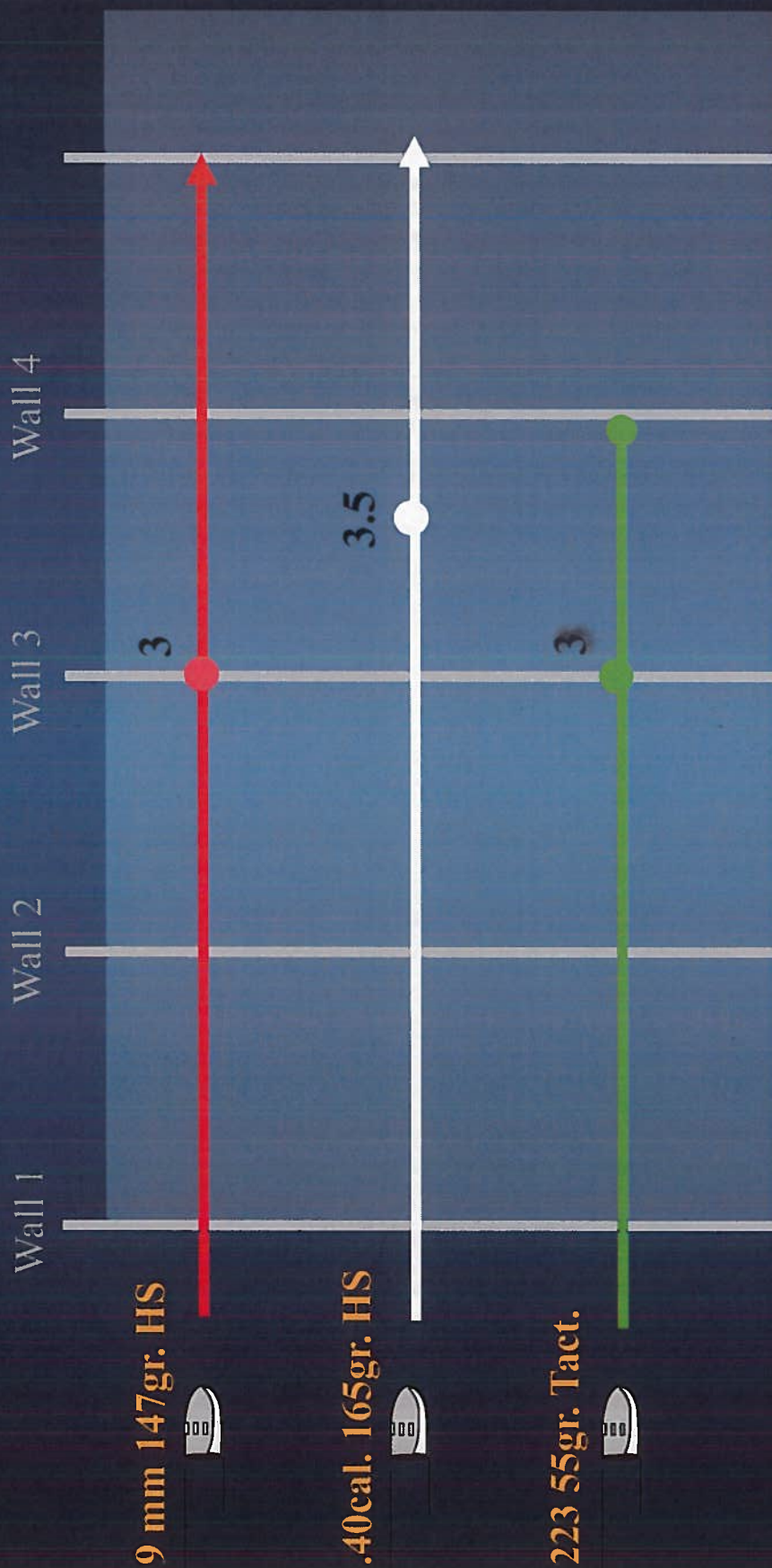
– Insulation

– 1/2” Gypsum

– Cinder block



Combined Wall Penetration Averages



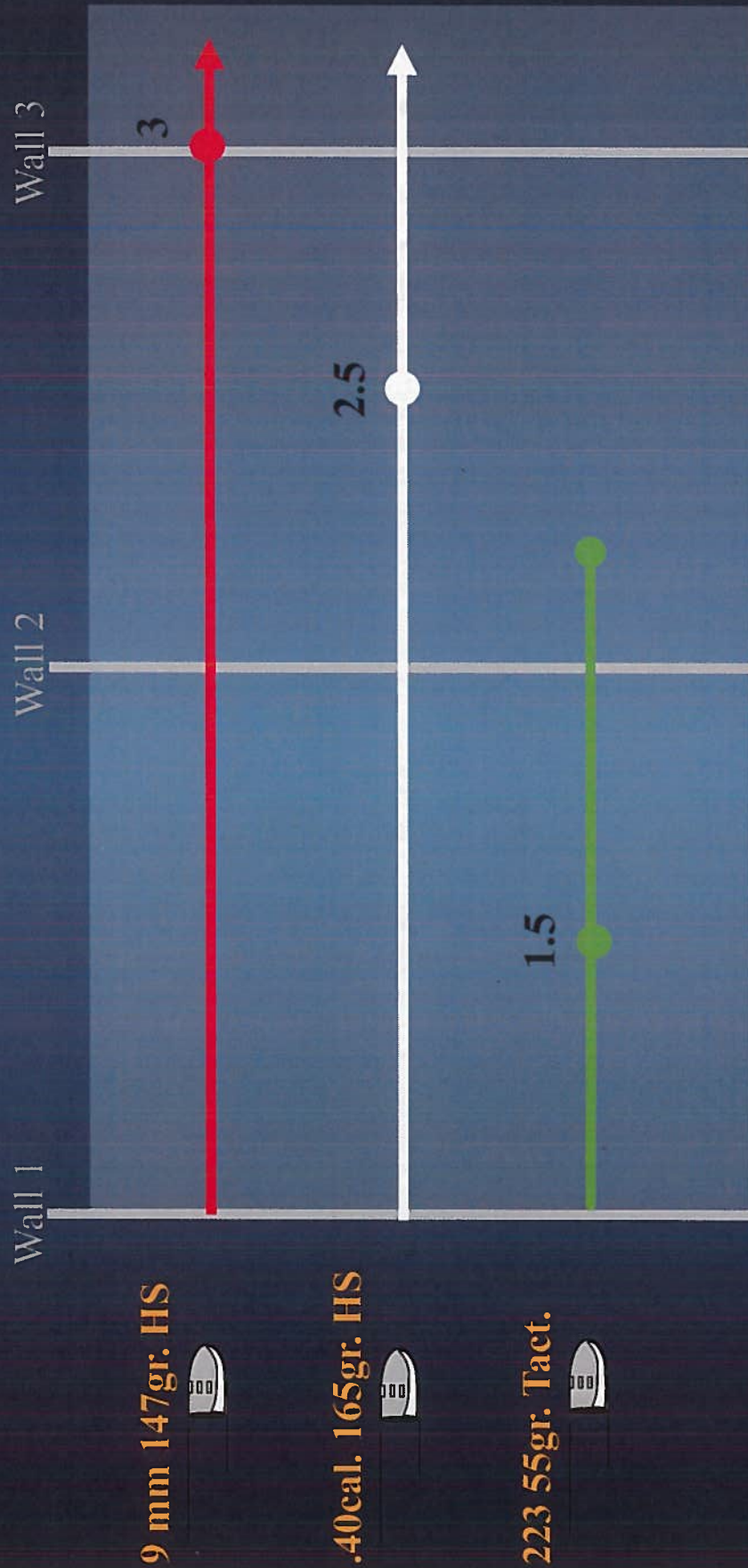


DEA Wall Penetration Test #1

- ⇒ Consisted of firing rounds through 3 walls approximately 2 yards apart.
- ⇒ Wall #1 was constructed of:
 - 1 sheet of 1/16” plastic siding
 - 2 sheets of 7/16” plywood
 - 1 sheet of 9/16” hard insulation
 - 2” of soft insulation
 - 1 sheet of 1/2” drywall
- ⇒ Walls # 2 and #3 were constructed of:
 - 2 sheets of 7/16” plywood
 - 2 sheets of 1/2” drywall
 - 2” of soft insulation



Combined Wall Penetration Averages



9 mm 147gr. HS



.40cal. 165gr. HS



223 55gr. Tact.



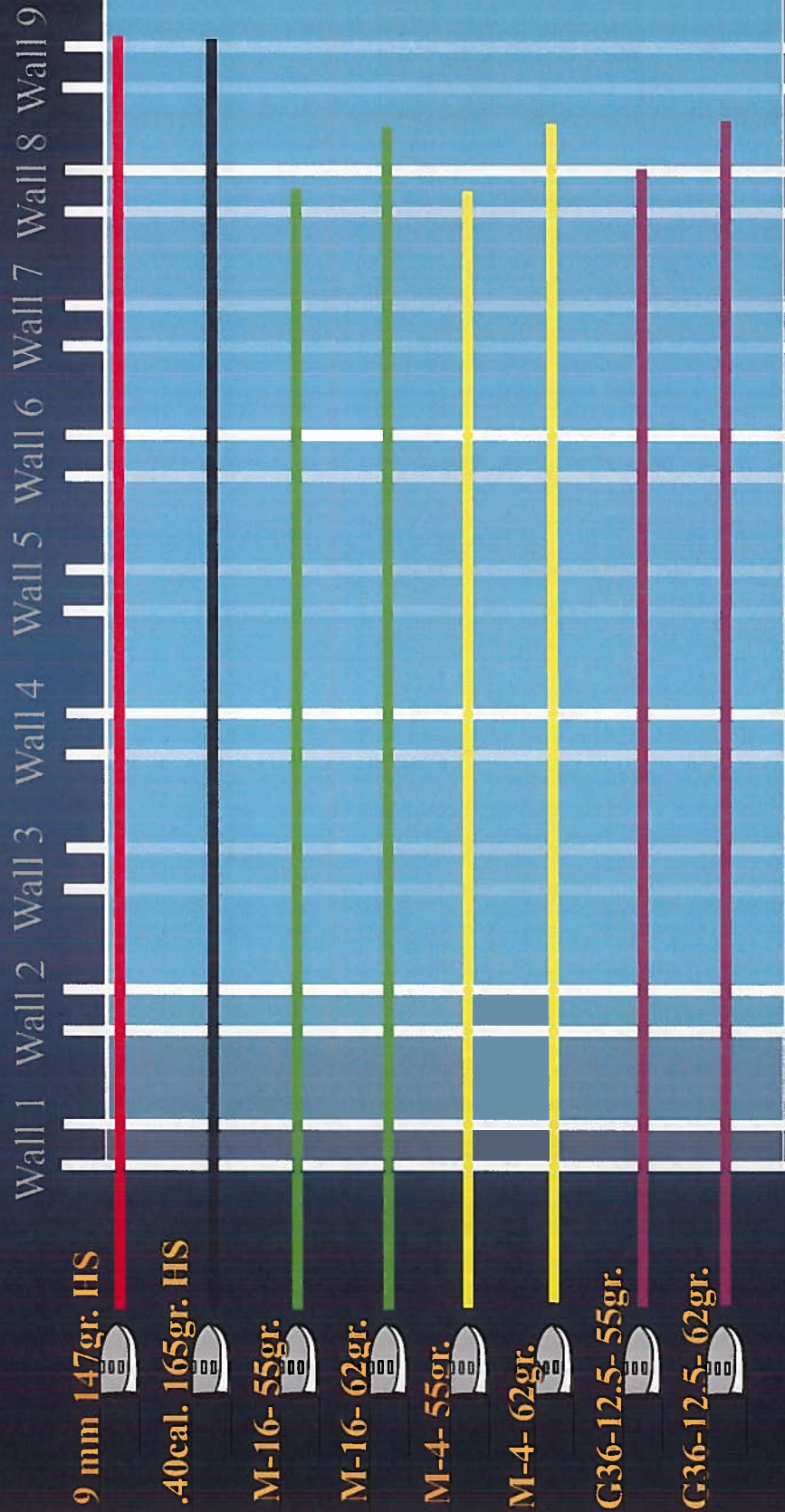


DEA Wall Penetration Test #2

- ⇒ Consisted of firing rounds through 9 walls approximately 4 yards apart.
- ⇒ Walls #1 - #8 were constructed of:
 - 2 sheets of 1/2" drywall, this simulates the construction of an interior wall of a residence
- ⇒ Wall # 9 was constructed of:
 - 1 sheet of 1/2" drywall
 - 1 sheet of 7/16" plywood
 - 3" soft insulation
 - 9/16" hard insulation
 - 1/16" plastic siding, this simulates the construction of an exterior wall of a residence



Wall Penetration Test 9mm & 40cal. vs .223cal. 55 & 62gr.



Wall Penetration Test Continued



Wall 1 Wall 2 Wall 3 Wall 4 Wall 5 Wall 6 Wall 7 Wall 8 Wall 9

9 mm 147gr. HS



.40cal. 165gr. HS



HK53-55gr.



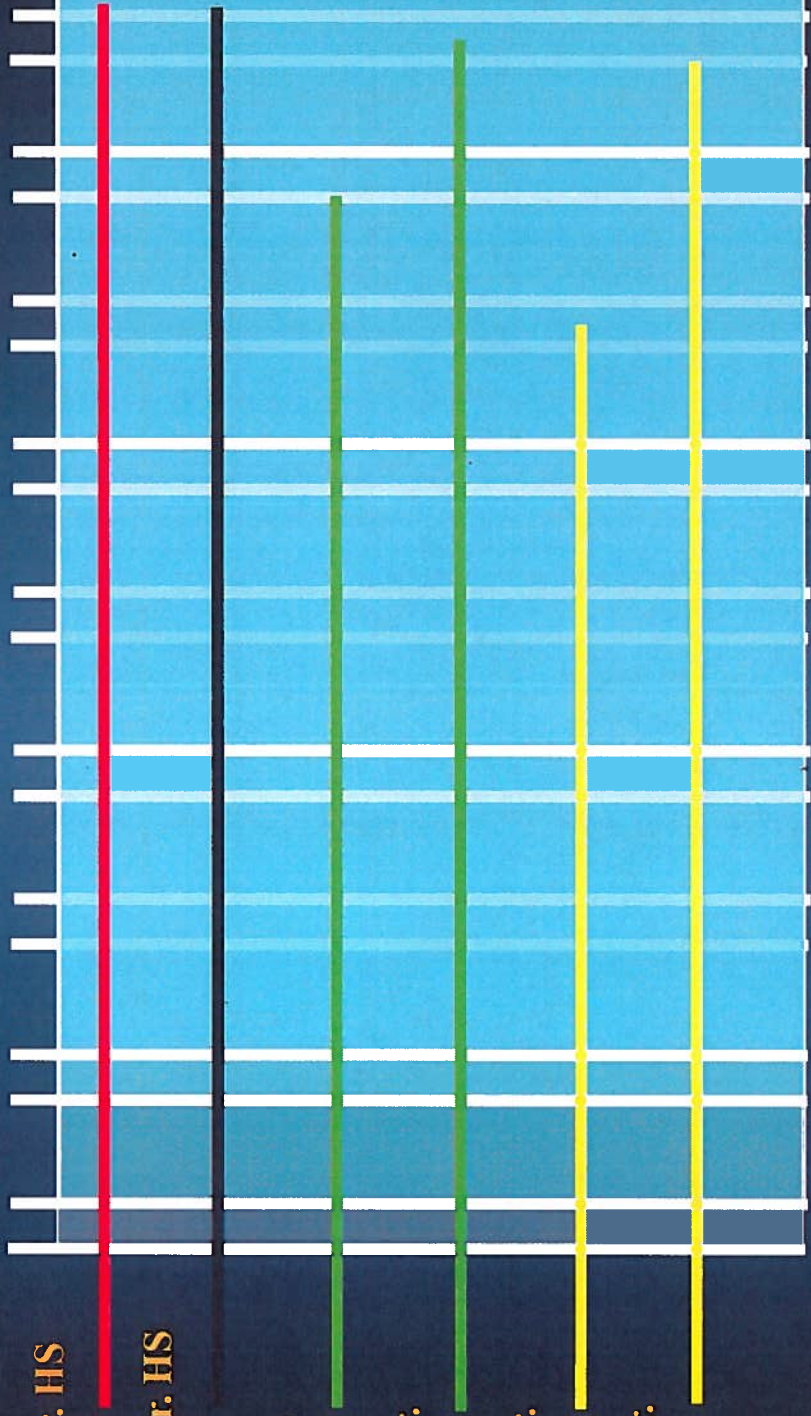
HK53- 62gr.



G36-9- 55gr.



G36-9- 62gr.





Results of Data for ATF's Mission

⇒ Weapon of choice
✓ Colt M4

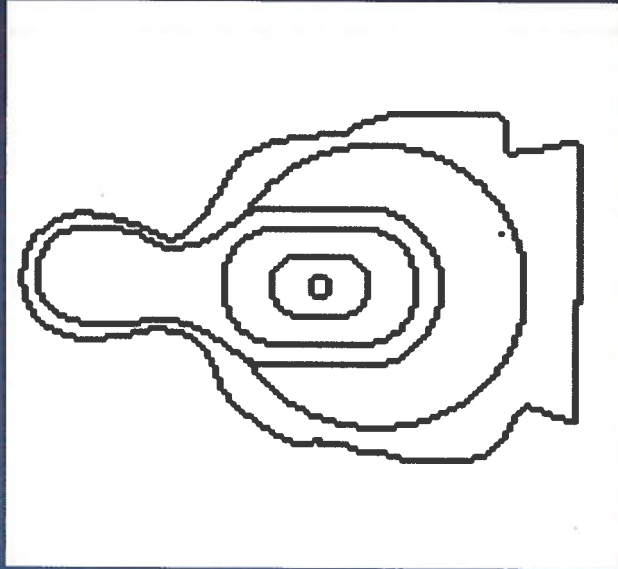


EXHIBIT 51

Rebuttal to the Expert Reports of John J. Donohue and Lucy Allen

In *Rupp et al. v. Becerra*
Gary Kleck
College of Criminology and Criminal Justice
Florida State University
Tallahassee, FL 32306

November 21, 2018

I. Assignment

I have been asked by counsel for the plaintiffs in the above described matter to provide my opinion rebutting various opinions concerning the prevalence of “assault weapons” in mass shooting and other related matters, made in the reports of two expert witnesses for the Defendant: Professor John Donohue and Ms. Lucy Allen. This rebuttal report sets forth my qualifications and foundation for my opinions. I offer these opinions based on my experience and abilities as a criminologist and am willing and able to testify consistently with the contents of this report.

II. Background & Qualifications

I am an emeritus Professor of Criminology and Criminal Justice at Florida State University. I received my doctorate in Sociology from the University of Illinois in 1979, where I received the University of Illinois Foundation Fellowship in Sociology. I was, at the time of my retirement in May 2016, the David J. Bordua Professor of Criminology at Florida State University, where I served on the faculty from 1978 to 2016. My research has focused on the impact of firearms and gun control on violence, and I have been called “the dominant social scientist in the field of guns and crime.” William J. Vizzard, *Shots in the Dark: The Policy, Politics, and Symbolism of Gun Control* 183 (2003).

I have published the most comprehensive reviews of evidence concerning guns and violence in the scholarly literature, which informs and serves as part of the basis of my opinions. I am the author of *Point Blank: Guns and Violence in America*, which won the 1993 Michael J. Hindelang Award of the American Society of Criminology, awarded to the book of the previous several years which “made the most outstanding contribution to criminology.” I also authored *Targeting Guns* (1997) and, with Don B. Kates, Jr., *The Great American Gun Debate* (1997) and *Armed* (2001)—books that likewise addressed the topic of guns and violence.

I have also published scholarly research articles in virtually all the leading professional journals in my field. Specifically, my articles have been published in the *American Sociological Review*, *American Journal of Sociology*, *Social Forces*, *Social Problems*, *Criminology*, *Journal of Criminal Law and Criminology*, *Law & Society Review*, *Journal of Research in Crime and Delinquency*, *Journal of Quantitative Criminology*, *Law & Contemporary Problems*, *Law and*

Human Behavior, Law & Policy Quarterly, Violence and Victims, Journal of the American Medical Association, and other scholarly journals.

I have testified before Congress and state legislatures on gun control issues, and worked as a consultant to the National Research Council, National Academy of Sciences Panel on the Understanding and Prevention of Violence, as a member of the U.S. Sentencing Commission's Drugs—Violence Task Force, and as a member of the Institute of Medicine and National Research Council Committee on Priorities for a Public Health Research Agenda to Reduce the Threat of Firearm-Related Violence. I am a referee for over a dozen professional journals, and serve as a grants consultant to the National Science Foundation.

Finally, I have taught doctoral students how to do research and evaluate the quality of research evidence, and have taught graduate courses on research design and causal inference, statistical techniques, and survey research methodology.

My current curriculum vitae, which includes a full list of my qualifications and publications, is attached hereto as **Exhibit 1**.

In the past four years, I have been deposed and/or testified at trial in the following matters:

- *Heller v. District of Columbia*, D.D.C. (deposed July 2, 2013).
- *Cook et al. v. Hickenlooper*, D. Colo. (deposed and testified Mar. or April 2013).
- *Wilson v. Cook County* (deposed Sept. 16, 2013).
- *Kolbe v. O'Malley*, D. Md. (deposed Jan. 2, 2014).
- *Barbra Schlifer Commemorative Clinic v. HMQ Canada* ("Cross-examined" [Canadian term for deposed] Feb. 24, 2014).
- *Friedman v. City of Highland Park* (deposed May or June 2014).
- *Tracy Rifle and Pistol v. Harris*, E.D. Cal. (deposed Nov. 2, 2016).

III. Compensation

I am being compensated for my time in this case at the rate of \$400 per hour. My compensation is not contingent on the results of my analysis or the substance of my testimony.

IV. Opinions & Analysis

Rebuttal of the Expert Report of John J. Donohue

I have organized my rebuttal according to the paragraph numbering in Professor Donohue's expert report.

Paragraph 11.

Donohue asserts that “the problem of public mass shootings in the United States is a serious national problem” (p. 4). Although public mass shootings generate a huge amount of news media coverage, they contribute less than one percent of the homicide deaths in the U. S. For example, 114 people were killed in mass (4+ dead) public shootings in 2013 (Krouse and Richardson 2015, p. 43), a year in which a total of 14,249 Americans were murdered (U.S. FBI 2014). While even one murder is one too many, it is surely a gross overstatement to characterize public mass shootings as a major national problem, no matter how much news coverage they stimulate.

Donohue also claims that “efforts to arm the public with increased gun carrying” generate increases in violent crime is not supported by the vast bulk of research. For support, Donohue relies entirely on his own research on the effects of right-to-carry laws (which make it easier to get carry permits), but does not share with readers the fact that his conclusions are very much a minority opinion in the field, and that the vast majority of scholars who have evaluated these laws have concluded that they either reduce violent crime or have no effect one way or the other. Moody and Marvell (2008, pp. 275-276) found that of 19 studies published in refereed outlets, 11 found that these laws reduce crime, 8 found that they have no net effect, and *no* refereed studies (as of 2008) found that the laws increase crime. The only studies finding that the laws increase crime were all by Donohue, and all appeared in nonrefereed publications. For a critical assessment of Donohue’s most recent research on this topic, see Kleck (2018c).

Paragraph 12.

“Gun massacres” did not fall “substantially” during the ten years when the federal assault weapons ban (“AWB”) was in effect, and the most thorough evaluation of that law concluded that any declines in violence that did occur during that period could not be attributed to the AWB (Koper 2004).

The “problem of active shooters inflicting mayhem on the public” has *not* been “rising substantially” since the end of the federal AWB. Donohue claims that “FBI data” support his assertion (p. 4), but does not cite any particular FBI source that does so. It should be noted that the term “active shooters” is highly misleading, even meaningless, in the context of a discussion of mass shootings because it can encompass incidents in which *zero* persons were shot, fatally or nonfatally (Blair and Schweit 2014). As to the more meaningful category of mass shootings, Fox and Fridel (2016, p. 17) have shown that the trend was basically flat from 1992 to 2013. More relevant still to claims concerning current or very recent trends, the number of mass shootings (4+ killed) has not increased in the most recent five years for which data are available, 2013-2017 inclusive. Based on the most comprehensive data source available, the Gun Violence Archive, there were 25 mass shooting incidents in 2013, 20 in 2014, 26 in 2015, 25 in 2016, and 24 in 2017 (Table 3). Indeed, if one were willing to take very small changes seriously, one would have to conclude that the problem of mass shootings has been declining recently.

Paragraph 14.

Persons “who have the criminal intent to kill as many individuals” are precisely the kinds of offenders *least* likely to be restrained by an AWB or other gun control measure from acquiring firearms. There is no evidence known to me that any AWB has prevented any prospective mass shooter from acquiring guns that function the same as those generally prohibited by AWBs, and none of the evidence cited by Donohue supports such a claim. In the most thorough evaluation of the federal AWB, Koper (2004) concluded that violent criminals just substituted other semiauto firearms with large-capacity magazines for those banned under the federal AWB, with no effect on the frequency or seriousness of firearms violence.

Donohue claims that the “banned assault weapons are notably ill-suited for self-defense in the home because of their high penetration capacity, which leads their bullets to easily penetrate walls, thereby endangering other lawful occupants” (p. 5). This observation is at best irrelevant to the merits of AWBs. People who own those banned rifles are not compelled to use them when there is a risk of shots penetrating walls and wounding innocent persons; they can confine their use to circumstances where this is not a problem. For example, people who own these rifles for protection may live in rural areas, in homes surrounded by a great deal of open space. The issue of bullet penetration would be of little significance in outdoor defensive uses of guns in such locations.

Finally, Donohue inserts into this paragraph his speculation that the banned rifles impose greater risks to law enforcement officers, presumably an allusion to the ability of bullets fired from “assault rifles” to penetrate police body armor. This claim is rebutted elsewhere in this report (see the discussion of Donohue’s Paragraph 110).

Paragraph 15.

The guns restricted by the California AWB are not “uniquely designed to aid in their homicidal rampages.” The banned “assault rifles” are rarely used by mass shooters, and this was so even before the federal AWB was enacted (Kleck 1997, p. 144). This could be because rifles are less concealable than handguns, and thus less suitable for criminal purposes, including those of mass killers (Kleck 1997, pp. 110-112).

Paragraph 16.

The number of U.S. households owning firearms has *not* been declining “in recent decades” (a temporal term Donohue does not define), and even Donohue’s cherry-picked sources of survey data do not support this claim. Donohue relies most heavily on data drawn from the GSS, whose trends in gun ownership deviate sharply from virtually every other national survey, and therefore is arguably the worst source for determining trends in household gun prevalence. In any case, the GSS data indicate no significant change in the past 20 years, with the percent of households reporting gun ownership varying almost entirely within the narrow 32-36% range (see my Table 1). His claim that 31% of U.S. households “currently” own firearms (p. 6) is inaccurate. The figure is 43% in the most recent Gallup poll, conducted in October of 2017 (Table 1).

Table 1 also shows that the GSS surveys have regularly missed a large share of household gun ownership in recent decades. For example, in the 2016 GSS, only 32% of respondents admitted to household gun ownership, even though the Gallup poll for that same year found that 40% of households reported guns. The reason why the GSS does so poorly may lie with its unusual character among regularly conducted national surveys in relying on non-anonymous interviews in the respondents' homes. Without any assurance of anonymity, many gun owners may be unwilling to admit their gun ownership to strangers.

Donohue also notes results from the Behavioral Risk Factor Surveillance System (BRFSS) survey, but reports only two gun-prevalence estimates, and these two data points (for what it's worth) indicated *increasing* gun prevalence! (see Donohue and Rabbini, in Appendix to Donohue report, Figure 2).

The national survey that has gathered data on gun ownership for the longest period by far is the Gallup Poll, which likewise indicates no downward trend over the past 20 years (Table 1), or even the past 50 years (see Figure 2 in Donohue Appendix). The Gallup poll indicates that 41% +/- 6% of U.S. households have reported gun ownership throughout the past two decades, as well as the entire 1968-2017 period (Kleck 1997, pp. 98-99; Table 1). Indeed, if one were willing to be as selective as Donohue is in picking data to cite, one could cite the Gallup poll finding that just 34% of households reported guns in 1999, and a 2011 Gallup poll finding that 47% of households reported guns, and assert that there was a huge *increase* in gun prevalence. The entire body of data, however, actually indicates no long-term trend one way or the other since 1997 (Table 1).

Only the GSS has ever indicated any persistent downward trend in U.S. gun ownership, but this brief decline did not occur in the most recent decades; instead it occurred between 1990 and 2000 (see Figure 2 in the unpublished Donohue and Rabbini paper in Donohue's Appendix). Regarding the past two decades, however, even GSS data show no downward trend. Because of Donohue's vagueness about what he meant by the term "recent decades," one could charitably speculate that he was alluding to some other historical period that was even less recent, yet nevertheless "recent" by his subjective standards. Even if we generously assume that he meant to refer to some unspecified part of the past half century, however, the Gallup figures (Donohue's Figure 2; Table 1 herein) indicate that there has been no significant trend in household gun prevalence since 1968.

Donohue creates a false impression of independent support for his thesis from other surveys, by making illegitimate inferences about trends on the basis of comparisons of results from different surveys. When different survey organizations conduct surveys, they may use different sampling procedures, employ interviewers of differing levels of expertise, and use crucially different wordings of the gun ownership questions. Consequently, results from different surveys (e.g. GSS vs. BRFSS) are not comparable with each other and cannot be used to judge trends. The noncomparability of survey results from different survey organizations is definitively established by Donohue's own data. His Appendix Figure 2 indicates that the GSS regularly yields estimates of gun prevalence that are far lower than estimates from the Gallup poll – as much as 12 percentage points lower (see also my Table 1).

Once one disposes of these illegitimate comparisons between surveys conducted by different survey organizations, Donohue's case for a downward trend relies entirely on the GSS results, and even those results indicate no downward trend in gun prevalence in the most recent two decades. If Donohue was asserting that gun prevalence in America has been declining in *recent* years, and that this is therefore a trend likely to continue into the future, his own evidence clearly does not support this assertion. The prevalence of gun ownership in America has not been declining.

Donohue also asserts that gun ownership has become increasingly concentrated in recent years, but can only guess ("presumably..." – p. 6) that this is specifically true of "assault weapons" - he presents no evidence on "assault weapons" at all. Regarding firearms in general, all his claim amounts to is the bland assertion that those who already owned guns in the past are continuing to acquire guns, increasing the number of guns per gun-owning household. This assertion is correct, but Donohue offers no explanation for how this is relevant to the merits of California's AWB or gun control in general.

In the middle of paragraph 16 Donohue also tosses in the claim that "most Americans favor bans on assault weapons." This is false. The most recent national survey result is from the October 2018 Gallup poll, and it indicates that most Americans *oppose* bans on even the narrower category of "assault rifles" (the very firearms at issue in this lawsuit) – 57% opposed such a measure, and only 40% supported it (Gallup 2018). Even fewer would support a law banning a still broader category of firearms such as "assault weapons." Even in previous years when a bare majority (51%) favored banning "assault rifles," much of the support was attributable to the erroneous but widespread belief that the guns proposed for banning fired in fully automatic mode like a machinegun. In a January 2013 national survey, when asked to describe an "assault weapon," 29% of the respondents stated that it was an automatic weapon, among other inaccurate descriptions (Reason-Rupe 2013).

Paragraph 17.

Donohue claims that a federal ban on assault weapons did "greatly curtail the number of assault weapons in circulation" (p. 16). He cites no evidence to support this extraordinary claim, and I know of none. For example, Koper's extensive 2004 evaluation of the federal AWB did not present any evidence on the number of "assault weapons" in circulation. Given the highly durable character of firearms, even sharp reductions in the number of new firearms added to the gun stock through production or importation would not reduce the total number in circulation, but would only restrict its growth. In fact, the cumulated civilian stock of all firearms, regardless of type, continued to increase during the 1994-2004 period when the federal AWB was in effect (Table 2).

Paragraph 55.

Donohue claims that the federal AWB "saved lives." This is not what the best available evidence indicates. The most extensive evaluation of the ban, sponsored by the U.S. Justice Department and conducted by a scholar with extensive background in studying guns and

violence, concluded that the law had no measurable effect on the rate of gun violence, including homicide, and produced “no discernable reduction in the lethality and injuriousness of gun violence” (Koper 2004, p. 96).

Paragraph 56.

Instead of relying on the sophisticated and detailed research done by Koper, Donohue chooses to rely on material in a non-scholarly book written by an author, Louis Klarevas, with no prior experience or record of publication on guns and violence. His crude “analysis” consisted of simply noting the counts of what he calls “gun massacres” for the decades around the period when the federal AWB was in effect. Klarevas uncritically assumed that any differences in the numbers of “gun massacres” were attributable to the presence or absence of the AWB. More distinguished experts on mass murder such as James Fox and Christopher Koper, however, have concluded that the federal AWB had little or no impact on mass shootings (Fox and Fridel 2016, pp. 16-17; Koper 2004, p. 96).

Paragraph 57.

Donohue believes that he can support his claim that the federal AWB reduced mass shootings by noting that supposed post-2004 increases in “gun massacre incidents” “closely tracks the growth in U.S. sales of assault weapons.” The phrase “closely tracks” is nothing more than an eccentric way of alluding to a coincidence in trends, i.e., a rough correlation of two trends over time. As even beginning researchers know, correlation is not causation. Donohue’s claims in Paragraph 57 are nothing more than guesses, not scientific conclusions from evidence. Finally, his apparently serious reliance on the opinion of the executive director of an organization that lobbies for AW bans is patently not the action of a serious, unbiased researcher, but rather of someone who either has a desired outcome or who is unsophisticated in research science.

Paragraph 62.

Donohue claims that the U.S. has a higher rate of public mass shootings than other advance industrialized nations (p. 26). The only academic research study that he cited to support (albeit way back in Paragraph 50) was a study that has already been discredited. Lankford (2016) made this claim, supposedly based on data covering 171 nations, and Donohue uncritically accepts Lankford’s conclusions. Lankford, however, failed to offer any detail on how he conducted the research that supposedly supported his conclusions or to describe all the sources he used to get world-wide counts of mass shootings. When subsequently challenged, Lankford refused to specify what sources he had relied on (Lott 2018). The only source known to me that covers mass shootings in more than a handful of nations are news media accounts. Lankford did not claim to be able to read any languages other than English, so if he did indeed rely on news accounts for most of his 171 countries, this means that he would not have been able to obtain even minimally complete counts of mass shootings except for English-speaking nations, including the U.S. Counting only a tiny fraction of those occurring in non-English speaking nations would necessarily bias Lankford’s analysis in favor of his claim that the U.S. has far more mass shootings than other nations.

Lott (2018) studied the same topic, but used a source that yielded far more complete counts of mass shootings in foreign nations than Lankford obtained. Lott analyzed data from the University of Maryland Global Terrorism Database (which itself offers only partial coverage), excluded cases of “insurgency” and counted the number of public shootings in which four or more people were killed. He found that the per capita rate of mass public shootings in the U.S. was substantially *lower* than the rate for the world as a whole, and that even though the U.S. claimed 4.6% of the world’s population, it had only 2.93% of the mass public shootings. The U.S. ranked just 56th in the per capita rate of mass public shooting incidents. “Advanced industrial nations” with higher rates of mass public shootings than the U.S. included Finland, Israel, Norway, Russia, Croatia, Yugoslavia, Serbia, and Slovakia.

Paragraph 81.

This paragraph is a masterpiece of misleadingly selective citation of a source. Donohue refers to work by Christopher Koper (2004), but instead of citing the results of empirical research reported by Koper, he cites only Koper’s non-empirical hopes for what might be achieved at some future point if the federal AWB were reinstated and kept in operation for a long time. This was little more than wishful thinking by Koper, not evidence. There can be no scientific or scholarly justification for Donohue ignoring Koper’s evidence-based conclusions that the federal AWB did not reduce either the frequency or the seriousness of violent crime (including mass shootings) (Koper 2004, p. 96), and citing only Koper’s optimistic hopes as support for Donohue’s beliefs.

Paragraph 86.

Donohue repeats a long-discredited claim that defensive gun use, regardless of the type of gun used, is rare. His sole source of support for this claim is the National Crime Victimization Survey (NCVS). Donohue, however, withholds two key pieces of information from readers. The first is that the NCVS *has never asked a single respondent specifically about defensive gun use*, and thus its data cannot be used to meaningfully estimate the frequency of defensive gun use (Kleck and Gertz 1995). Respondents to the NCVS can only report a defensive gun use if they choose to volunteer this information in response to a general question about self-protection that makes no reference to gun use. The second piece of information is that *every other national survey known to have asked a question about defensive gun use* has obtained results indicating that defensive gun use is common in the U.S., and has yielded estimates of defensive gun use frequency that are orders of magnitude larger than the estimates derived from the NCVS. At least 20 professionally conducted national surveys, using representative probability samples of the adult U.S. population, have obtained results implying anywhere from 600,000 to 3 million defensive gun uses (DGUs) per year – far more than the number of crimes committed with guns (Kleck 2018a, Table 4). The relevant empirical evidence is clear: defensive gun use is not rare and is much more frequent than criminal offensive gun use resulting in a person being harmed.

Paragraphs 87-89.

Donohue claims that the need for an “assault weapon” is virtually nonexistent in DGUs, citing for support research supposedly indicating that defenders rarely do anything beyond “brandishing” the gun. He does not explain why this is relevant to the defensive effectiveness of gun use, and appears to assume that the deterrent or intimidating effect of brandishing an “assault weapon” could not be greater than brandishing some other gun type; particularly a smaller one that the attacker may not see. In any case, the share of DGUs in which something beyond merely brandishing the gun is done is far larger than Donohue claims. For example, crime victims using guns for protection actually fire the gun in 24% of the incidents (Kleck and Gertz 1995, p. 185), not the less than 1% or 2% supposedly implied by the Lott survey. The latter survey was never published, Lott cannot supply the data supposedly produced by his survey, cannot provide a copy of the questionnaire he used, and cannot describe in detail the procedures used to conduct the survey. Thus, his results cannot be relied upon.

No one knows how many DGUs involve the use of “assault weapons” because the surveys that have asked about DGU have never asked for the detailed information about the guns used (make, model, magazine size, “military-style” features, etc.) that would be needed to establish whether they were “assault weapons.” Certainly there have been cases reported in the news media of the AR-15 being used in self-defense (Messamore 2013). Thus, Donohue has no scientific foundation whatsoever for his assertion that defensive use of such weapons is rare.

Paragraph 92.

“Assault weapons” are not “mass killers’ armaments of choice” (p. 37). Mass killers rarely use “assault rifles” or “high-capacity” magazines. A Congressional Research Service study found that only 9.78% of the guns used by mass shooters were “assault weapons” (Krouse and Richardson 2015, p. 29). This is roughly the same as the share of ordinary (not mass) gun crimes committed with “assault weapons.” Koper (2004, p. 97) reported that “AWs were used in no more than 8% of gun crimes even before the [federal] ban.” Thus, neither mass killers nor ordinary gun criminals prefer to use “assault weapons.” The evidence Donohue cites in support of his outlandish claim is derived from a propaganda source (see his footnote 72), and the propagandists’ claim could be supported only because they limited their analysis to a tiny unrepresentative subset of mass shootings that were chosen precisely because the authors already knew that they were more likely to involve large-capacity magazines or assault weapons. Studies that examine the *full* set of mass shootings find precisely the opposite of what Donohue claims – only a tiny minority (less than a tenth) of mass shooters use assault weapons, assault rifles, or large-capacity magazines (Krouse and Richardson 2015, p. 29).

Paragraph 98.

Donohue claims that Australia’s 1996 National Firearms Agreement (NFA) “dramatically reduced mass shootings in Australia.” His sole support for this claim is that there had been 7 mass shootings in the 17 years before the NFA was implemented and none in the 22 years afterwards (p. 39). What Donohue does not tell the reader is that the absence of mass shootings in the post-NFA period was nothing more than a return to the norm that had prevailed in

Australia for almost all pre-NFA years – zero mass shootings in a typical year. Further, the nation most similar to Australia, New Zealand, also experienced zero mass shootings in the post-1996 period even though New Zealand did not enact any significant new gun control measures (McPhedran and Baker 2011). Thus, if one uses the New Zealand to establish the number of mass shootings we could expect in Australia after 1996 if Australia had not enacted the NFA, we would expect zero – precisely the number that Australia in fact experienced in the immediate post-NFA period (Kleck 2018b).

In any case, Donohue’s claim that “there have been none” since the NFA was implemented (p. 39) is false: Australia has experienced two mass shootings since the NFA was implemented (RTE News 2018). More importantly, Australia has experienced at least 10 *mass murders* (4 or more dead), regardless of whether firearms were used, since the NFA was implemented (Wikipedia 2018). The NFA did not stop mass murder in Australia. At best, it may have reduced the number committed *with guns*. I am not aware of any public benefit from deranged people killing large numbers of victims by burning or knifing them to death rather than shooting them to death.

Further, the apparently dramatic contrast between 7 public mass shootings committed before the NFA was implemented and (supposedly) none committed after the NFA is something of an illusion produced by pro-NFA supporters’ eccentric definition of mass shootings. Scholars typically define a shooting incident as a mass shooting if the offender shoots many people in one location and in one limited period of time (Kleck 2016; Fox and Fridel 2016; Krouse and Richardson. 2015). Shootings that occur in multiple incidents in different locations, at widely separated times, are called “spree shootings,” not mass shootings. The distinction is crucial with regard to Australia’s NFA or California’s AWB because these control measures focus on firearms that can be capable of firing many rounds in a short period of time without reloading. Advocates of these control measures can make a rational argument that such firearms might affect the number of casualties in a mass shooting in which many victim are shot in a few seconds or minutes, but such an argument would be nonsensical with regard to spree shootings in which only one or two victims are shot in any one burst of shooting, and each burst is separated by long periods of time in which the shooter had ample opportunity to reload, regardless of the type of firearm he possessed.

In one study supporting the NFA (Chapman, Alpers, and Jones 2016) the authors counted 13 “mass shootings” in the years prior to the NFA, but at least six of these were actually spree shootings in which no more than three people were shot in any burst of shooting. By padding out the list of mass shootings with spree shootings, the authors artificially exaggerated the contrast between the number of mass shootings before the NFA (13 according to the authors) and the number after (0 according to the authors). In reality, there were no more than seven mass shootings before the NFA and two since then (Kleck 2018b).

Paragraph 99.

This paragraph seems to suggest that Australia’s NFA was a moderate control measure that merely deprived “disturbed individuals” of guns, and that the NFA merely banned semiautomatic rifles. This distortion conceals just how much more extreme a measure the NFA

was than any law implemented by California or any other state. The NFA not only banned any further manufacture, importation, or sale of the prohibited guns, it also required people who already owned such guns to turn them in to the government (Peters 2013). Further, it did not just ban semiauto rifles; it also banned semiauto pistols, semiauto shotguns, and pump-action shotguns (Peters 2013). Since the NFA was a far more radical measure than any gun control measure that one could realistically expect to be passed in the United States, even if the evidence really did indicate that the NFA reduced mass shootings, it would say nothing about the effects of either California's AWB or of any other gun laws actually enacted in the U.S.

Paragraph 108.

Donohue claims that "Klarevas, Koper, and [unspecified] courts" have observed that "assault weapons with large capacity magazines are disproportionately used in mass shootings." In fact neither Klarevas nor Koper have shown this to be true. Indeed, they could not possibly have done so given that one would necessarily have to know how many assault weapons—let alone rifles meeting that definition—with large capacity magazines there are in order to determine whether their involvement in mass shootings is disproportionate to their numbers. Neither Klarevas nor Donohue provides an estimated number of how many such rifles are possessed by the American public. Consequently, neither one can legitimately say whether the involvement of such firearms in mass shootings is even slightly greater than one would expect based on their share of all extant firearms, as they do not ever purport to know what that number is.

Donohue misleadingly cites a statistical association between use of such firearms at a shooting and the number of shots fired and number of persons wounded. It is important to note that Donohue does not explicitly state that use of such firearms *causes* more shots fired or more victims injured, though noting such associations is likely to suggest causation to the unwary reader if it is not accompanied by explicit caveats to the contrary. There is good reason to believe that the association is "spurious," i.e. not causal. Shooters differ in the lethality of their intentions, some desiring to hurt only one or a few victims, others desiring to hurt many. Their lethality of intent, however, also almost certainly affects both (1) the number of victims they in fact hurt in an attack, and (2) the kinds and number of weapons they employ. If more lethal intentions increase both (1) the number of victims hurt and (2) the use of assault weapons with large-capacity magazines, the result will be an association between (1) and (2) even if (2) has no effect on (1). No researcher has reported evidence that rules out the possibility that this association is totally spurious (Kleck 2016).

What *is* known that bears on this issue? A shooter armed with three magazines holding 10 rounds can fire 30 rounds, the same as a shooter armed with a single large-capacity magazine holding 30 rounds. The only effect of the shooter using smaller magazines is that it requires the shooter to reload more times. It has been established that U.S. mass shooters invariably use either multiple guns or multiple magazines, and usually both. Consequently, they do not need large-capacity magazines to fire large numbers of rounds with little or no interruption to reload (Kleck 2016). The unpublished master's thesis by Luke Dillon, cited by Donohue (see his fn. 90), does not in any way contradict this proposition, but merely documents once again the simple

statistical association between weapons used and harm inflicted, while doing nothing to rule out the possibility that it is totally spurious.

Paragraph 109.

In this paragraph, Donohue repeats the falsehood that “mass shooters seem to prefer using assault weapons” (p. 44). The previously cited evidence on the rarity of assault weapon use among mass shooters indicates that mass shooters do *not* prefer using “assault weapons,” and the evidence indicating that their use is unnecessary for hurting large numbers of victims (Kleck 2016) helps explain just why shooters intent on hurting many victims would have no preference for using these weapons.

Paragraph 110.

Donohue claims that assault weapons are especially dangerous to law enforcement officers because the rounds they fire are especially capable of penetrating body armor. If this really were the serious problem that Donohue argues it to be, one would expect him to cite statistics on the large numbers of officers killed with rounds fired from an assault weapon and penetrating body armor. He does not.

How big a problem is this for police? In 2016 there were over 421,000 full-time sworn officers in the U.S., and still more if one counted part-time officers. For the most recent 10 years of data available, 2008-2017, a total of 496 police officers were killed, 455 of them with guns. Only 22 of these, however, were killed because a round penetrated the officer’s body armor, and only some unknown fraction of these few shootings involved “assault weapons” (U.S. Federal Bureau of Investigation 2018, Tables 35-39). Thus, at most two officers per year, out of 421,000-plus officers at risk, are killed by a round fired from an “assault weapon” that penetrated the officer’s body armor. All but one of these deaths involved use of a rifle, but not necessarily an “assault rifle.” Only one involved any kind of a handgun.

As to rifles, it may be true that rounds fired from some banned “assault rifles” are “capable of penetrating the soft body armor customarily worn by law enforcement” (p. 45), but Donohue fails to explain whether non-“assault rifles” can also penetrate such body armor. If they can, and Donohue provides no basis for believing they cannot, offenders would still be able to use rifles to inflict armor-penetrating wounds on law enforcement officers even in the complete absence of “assault rifles.” Consequently, it is not clear whether *any* police deaths can be attributed to the availability of “assault weapons,” or would be prevented by AWBs.

Paragraph 112.

Donohue claims that the federal AWB reduced criminal use of “assault weapons,” relying on a report produced by a gun control advocacy group (see his fn. 97). Leaving aside the dubious practice of relying on a propaganda document, this assertion is extremely misleading. The term “assault weapons” in this context referred to the specific firearms banned by the federal AWB. Donohue’s claim is misleading because, although fewer criminals used *the specific guns banned by the AWB* while it was in effect, they also substituted mechanically

identical *unbanned* semiauto firearms that could be fired just as fast, could also accept easily changed detachable magazines, and were just as lethal as the banned guns. Consequently, reduced use of the banned models of firearms did not produce any reduction in the number or seriousness of violent crimes (Koper 2004, pp. 5, 10-11, 92-96).

Donohue also commits a rudimentary research error, drawing conclusions about trends in the use of “assault weapons” in crime based on firearms trace data from the Bureau of Alcohol, Tobacco, and Firearms (ATF) (p. 46). One could only use trace data to judge the prevalence of AW use in crime, or trends in this prevalence, if the guns traced were a representative sample of all firearms used in crime. They are not. As ATF itself explicitly states in a caveat to readers of their firearms trace reports: “Firearms selected for tracing are not chosen for purposes of determining which types, makes or models of firearms are used for illicit purposes. The firearms selected do not constitute a random sample and should not be considered representative of the larger universe of all firearms used by criminals, or any subset of that universe.” (U.S. Bureau of Alcohol, Tobacco, Firearms, and Explosives 2018, p. 2).

Paragraph 113.

In this paragraph Donohue asserts that mass killers have an especially powerful desire to have and use an “assault weapon,” but in light of how few mass killers use such weapons, it would be more accurate to only say that mass killers have especially strong motivations to obtain and use *some* kind of firearm, not necessarily an “assault weapon.” By far the most common type of firearm used by mass shooters is a semiautomatic pistol (Krouse and Richardson 2015; Koper 2004).

Further, Donohue fails to draw the most obvious implication of mass shooters’ powerful motivations to obtain firearms: they are precisely the kinds of criminals *least* likely to be blocked from obtaining firearms by laws like California’s AWB, and most likely to seek substitutes for the banned weapons. AWBs only prohibit a tiny select subset of firearms while leaving available a wide variety of firearms that function identically to “assault weapons,”—able to accept detachable magazines and capable of the same rate of fire—remain available to would-be mass shooters (Kleck 1997, pp. 110-117).

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Table 1. Recent Trends in U.S. Gun Ownership (Percent of Households Reporting Guns) – A Comparison of Results from the Gallup Poll vs. Those of the General Social Surveys

<u>Year</u>	<u>Gallup</u>	<u>GSS</u>
1997	42	
1998		34.9
1999	35*	
2000	42*	32.5
2001	40	
2002	44	34
2003	43	
2004	40	38
2005	43	
2006	43	36
2008	42	35
2009	40	
2010	41	34
2011	47	
2012	36	34
2013	36	
2014	44	32
2016	40	32
2017	43	

* Average of two surveys conducted in the same year.

Source: Roper iPoll online database of survey results.

Table 2. The Size of the Cumulated Civilian Gun Stock, 1986-2014

Year	Net Additions to Stock			Cumulated Stock		Guns/1000 pop	
	Handguns	Long guns	Total	Handguns	Total	Handguns	Total
1986	1,538,080	2,178,190	3,540,637	63,959,072	194,196,773	266.3	808.7
1987	1,842,145	2,668,607	4,323,951	65,801,217	198,522,724	271.6	819.4
1988	2,234,883	2,604,824	4,830,214	68,036,100	203,352,938	278.3	831.7
1989	2,353,087	2,769,701	5,113,576	70,389,187	208,466,514	285.2	844.6
1990	2,109,394	2,224,544	4,318,410	72,498,581	212,784,924	290.4	852.4
1991	1,941,977	1,930,422	3,837,827	74,440,558	216,622,751	294.3	856.3
1992	2,802,490	3,675,942	6,469,113	77,243,048	223,091,864	301.1	869.7
1993	3,880,773	3,878,055	7,756,056	81,123,821	230,847,920	312.1	888.2
1994	3,324,238	3,316,541	6,634,310	84,448,059	237,482,230	320.9	902.5
1995	2,199,420	2,712,789	4,902,135	86,647,479	242,384,365	325.4	910.3
1996	1,820,847	2,569,347	4,378,347	88,468,326	246,762,704	328.4	916.0
1997	1,772,849	2,469,663	4,289,499	90,241,175	251,052,203	331.0	920.8
1998	1,727,548	2,716,952	4,464,837	91,968,723	255,517,040	333.4	926.3
1999	1,556,003	3,124,416	4,683,654	93,524,726	260,200,694	335.2	932.5
2000	1,205,095	2,391,755	3,596,850	94,729,821	263,797,552	335.6	934.7
2001	882,166	1,867,508	2,749,674	95,611,987	266,547,226	335.1	934.2
2002	1,995,332	3,117,157	5,112,489	97,607,319	271,659,715	338.9	943.3
2003	1,923,026	2,625,708	4,548,734	99,530,345	276,208,449	342.3	949.8
2004	1,828,395	2,952,787	4,781,182	101,358,740	280,989,631	345.9	958.9
2005	1,883,511	2,974,636	4,858,147	103,242,251	285,847,778	349.1	966.5
2006	2,358,631	3,095,672	5,454,303	105,600,882	291,302,081	353.7	976.4
2007	2,914,690	3,344,090	6,258,280	108,515,572	297,560,361	359.8	986.7
2008	3,165,183	3,155,843	6,321,026	111,680,755	303,881,387	366.9	998.4
2009	4,514,639	3,855,386	8,370,025	116,195,394	312,251,412	378.5	1,017.1
2010	4,402,181	2,761,267	7,163,448	120,597,575	319,414,860	388.7	1,029.6
2011	4,752,010	4,573,483	9,497,402	125,349,585	328,912,262	402.3	1,055.6
2012	6,634,485	6,210,392	13,135,646	131,984,070	342,047,908	420.5	1,089.8
2013	8,073,647	7,445,169	16,031,210	140,057,717	358,079,118	443.0	1,132.7
2014	6,695,705	5,506,759	12,202,524	146,753,482	370,281,642	481.9	1,196.1

Source: U.S. Bureau of Alcohol, Tobacco and Firearms, Firearms Commerce in the United States: Annual Statistical Update 2017. Available online at <https://www.atf.gov/resource-center/data-statistics>.

Notes: Net Additions to Stock equal the number of firearms manufactured minus number exported plus number imported, as of the end of the calendar year. Totals manufactured exclude firearms made for the U.S. military but include guns purchased by domestic law enforcement agencies. Import figures prior to 1992 covered Fiscal years; these figures have been treated as if they apply to the corresponding calendar year. Import figures for 1992 covered five quarters because this was a transitional year from the fiscal year period to the calendar year period; they were treated as if they pertained to calendar year 1992. "Total" columns include gun types not

separately tabulated in the Handguns and Longguns categories. “Handguns” figures encompass pistols and revolvers, while “Longguns” figures encompass rifles, shotguns, and combination guns.

Table 3. Recent Trends in Mass Shootings (4 or More Victims Killed), 2013-2017

<u>Year</u>	<u>Number of Incidents</u>
2013	25
2014	20
2015	26
2016	25
2017	24

Annual average = 24

Source: Gun Violence Archive, at www.shootingtracker.com, accessed 1-20-18. Note that this source does not cover any period before 2013.

Rebuttal of Expert Report of Lucy P. Allen

As with my rebuttal of the Donohue expert report, I have organized my rebuttal of Lucy Allen's report according to her numbering of paragraphs.

Paragraph 8.

Allen narrowly focuses her analysis on just one tiny subset of firearms crimes, mass shootings, and within that subset an even smaller subset of that subset, *public* mass shootings. She claims she did this because "it is my understanding that the state of California is concerned about public mass shootings and enacted the challenged laws, in part, to address the problem of public mass shootings" (p. 4). This justification is illogical. The fact that the State of California is concerned about public mass shootings does not mean it is not concerned with all the other shootings that do not fall into this narrow category. Further, her own statement concedes that California's "assault weapons" ban (AWB) was enacted only "in part" to address these kinds of shootings, and thus must have also been based on concerns about other kinds of gun violence. Certainly, Allen does not cite any California legislators who stated they were concerned about large-scale murders committed in public places but not those committed elsewhere. People murdered in public places are just as dead as those murdered in private places, so policymakers in California, like those elsewhere are undoubtedly concerned about criminal violence regardless of where it occurs. Thus, her proffered explanation does not justify her narrow focus. It will be shown later that the narrowness of her focus produces some highly misleading results.

First, it should be made clear just how narrow her focus is. Less than 1% of all U.S. murder victims are killed in *any* kind of a mass shooting, regardless of location or other attributes. A Congressional Research Service (CRS) study covering 1999-2013 found that 1,554 victims were killed in all mass shootings (Krouse and Richardson 2015, p. 14), a period for which FBI data indicated that there were 237,524 persons murdered (U.S. FBI 2013). Thus, only 2/3rds of one percent of all murders were committed as part of a mass shooting of any kind ($1,554/237,524=0.0065$). Second, even within this tiny subset of killings, only 20.8% of mass shooting incidents were *public* mass shootings (Krouse and Richardson 2015, p. 29). The 446 victims killed in public mass shootings therefore accounted for 0.00188 of U.S. murder victims, or just 1 in 533 victims. Thus, public mass shootings contribute an even tinier share of firearms violence than mass shootings as a whole. Allen's focus on this set of killings cannot be justified on the basis of their claiming a big part of America's violence problem.

The main consequence of this narrow focus is that it allows Allen to claim that a large share of killings involve use of "assault weapons" (AWs) or large capacity magazines (LCMs). AWs and LCMs are of little or no significance in ordinary gun violence crimes with few victims and few shots fired (Kleck 1997, pp. 121-128; 2016), but advocates of LCM restrictions claim that their benefit is most likely to lie within the set of mass shootings, where many shots are fired and LCMs supposedly increase the casualty count. However, even within this subset of violent crimes – mass shootings as a whole - LCMs are rarely involved (Kleck 2016). The Violence Policy Center (2018), which advocates bans on LCMs, was able to identify only 49 incidents with four or more dead (excluding the shooter) over the 38 year period from 1980 to 2017 that involved LCMs, or less than 1.3 per year (note that this organization inflated their numbers

somewhat by including incidents involving only three dead victims besides the shooter and by counting shooters in their victims-killed totals). The shootings with four or more dead accounted for 534 murdered victims, or about 14 per year. Over this same period, the FBI (2017) reports a total of 704,651 murders (assuming the same number of murders in 2017 as in 2016). Thus, mass shootings (4+ dead) known to involve LCMs accounted for just 0.000758 of murder victims, or $1/13^{\text{th}}$ of one percent (Kleck 2016).

Public mass shootings account for an even smaller fraction of U.S. homicide deaths, but are far more likely to involve “assault weapons” or LCMs than other mass shootings. The Congressional Research Service found that only 9.78% of *all* mass shootings in 1999-2013 involved “assault weapons,” but in the minority of incidents that were *public* mass shootings, 27.3% (18 of 66) involved use of “assault weapons” (Krouse and Richardson 2015, p. 29). In sum, it is only within the tiny subset of *public* mass shootings in which a nonnegligible share involve use of LCMs. Limiting her analysis to these extremely rare and unrepresentative shootings thereby allows Allen to report misleadingly high shares of the incidents as involving AWs or LCMs, as she does in her Paragraph 10.

Paragraph 9-11.

Allen asserts that a large share of public mass shootings involve AWs and/or LCMs, and states that her analyses were based on two sources, a dataset compiled by the staff of Mother Jones magazine, and one compiled by the Citizens Crime Commission of New York City – both of which were confined to shootings in public places. While this is certainly consistent with Allen’s artificially constricted focus, it is not useful for assessing the claimed benefits of California’s AWB since it fails to cover the vast majority of mass shootings, as well as over 99% of all homicides.

Paragraphs 12 and 13.

Allen reports that casualty counts were higher in mass public shootings in which AWs, or more specifically “assault rifles” (as defined in the California AWB), than in incidents not involving such weapons, but does not offer any explanation of why this is so, or why the reader should believe that it was the use of these types of firearms that caused higher casualty counts. For example, why should use of a semiauto rifle of a type banned by California result in more casualties than use of a functionally identical semiauto rifle capable of equally rapid fire and also capable of accepting detachable magazines that was not banned under the California AWB? After all, neither this law nor any other AWBs banned all semiauto firearms (or all semiauto rifles) capable of accepting detachable magazines, and many other models of firearms capable of firing the same number of rounds at the same pace as the banned models continued to be legally available after implementation of the AWBs (Koper 2004).

It has already been noted, in an article Allen cites (Kleck 2016; see Allen’s fn. 9 and 11), that the crude bivariate association between LCM or AW use and casualty counts is at least partially and possibly entirely spurious, i.e. *not* causal in nature. One would expect to find this statistical association even if use of LCMs or AWs had no effect at all on how many people a mass shooter killed or injured. This is due to two facts that neither Allen nor any other scholar

known to me has disputed. (1) First, the lethality of the shooter's intentions (i.e., how badly he wants to hurt many people) affects how many people he will in fact hurt. (2) Second, the more lethal the shooter's intentions, the more likely it is that he will use weaponry he believes is suited to the task, whether or not the weaponry actually does facilitate hurting large numbers of people. The first statement is a virtual tautology, not subject to serious dispute. The second statement is supported by accounts of mass shootings with high death tolls, which "routinely describe the shooters making elaborate plans for their crimes, well in advance of the attacks, and stockpiling weaponry and ammunition," including multiple firearms such as "assault rifles," multiple magazines, and larger capacity magazines (Kleck 2016, p. 31; see this source for numerous supporting citations).

Allen does nothing to address the possibility that these associations are spurious, and thus has no basis concluding that use of AWs or LCMs has any causal effect on the numbers of people killed or wounded in mass public shootings, or any other kind of shooting. If their use does not affect the number of casualties, there is no mass shooting-based justification for banning them.

Paragraph 14.

Allen claims that 59-66% of the public mass shootings "considered in this analysis" involved magazines holding more than 10 rounds. The only reason these percentages are so high, however, is because the two sources on which she relied effectively preselected for analysis small, unrepresentative subsets of mass shootings in which LCM use was more common. More meaningful analysis of *all* mass shootings indicates that LCMs are rarely used. Based on data compiled in the Gun Violence Archive, the U.S. experienced a total of 120 incidents in which four or more victims were shot dead (without regard to location) from 2013 through 2017 (see Table 3 in rebuttal of Donohue report). Of these, just 10 incidents (8%) were known to involve magazines holding more than 10 rounds (Violence Policy Center 2018).

Allen creates an impression that LCMs are used in a large share of mass shootings through a combination of dubious tactics. First, she dropped the FBI definition of mass shootings as involving four or more dead, justifying this procedure by alleging some undocumented "change in the federal definition of a mass shooting" (p. 4), and substituted a criterion of *three*-or-more dead. She does not provide any supporting evidence for this supposed change in the "federal definition." In any case, describing an incident in which as few as three people are shot as a "mass shooting" hardly seems to accord with either popular usage or the way the term is typically used in the news media.

Second, and even more dubiously, she includes *offenders* in her count of "victims" shot, thereby qualifying incidents as mass shootings that did not even involve three deaths of persons who could legitimately be defined as victims. Her "mass shootings" could involve as few as just *two* dead victims, plus a dead offender. She provides no evidence whatsoever, or even argumentation, that LCMs would be necessary or even helpful for shooting as few as two victims. This is not a trivial matter – for 2013-2017, of 33 public "mass" shootings included in Allen's Appendix B dataset, 36% (n=12) involved fewer than four victims. Five of the incidents did not involve four total victims even if one included those nonfatally shot. Using such a low

victim count threshold, however, allowed Allen to greatly inflate the number of LCM-involved mass shootings.

Third, Allen radically reduced the total count of mass shootings (the denominator in the percent of incidents that involved an LCM) through her arbitrary focus on just those few that occurred in public places. For example, for the 2013-2017 for which we have fairly complete data from the Gun Violence Archive, there were at least 120 total shooting incidents with four or more dead victims (see Table 3 in rebuttal of Donohue report), yet Allen's Appendix B shows that she analyzed only 33 incidents that she labeled *public* mass shootings. Further, only 21 of these involved four or more dead victims, which would constitute just 17.5% of all shootings in that period known to involve four or more dead victims.

To be sure, it is trivially true that one can easily identify a subset of killings in which a large share involved LCMs. Indeed, one could identify a subset in which 100% of the incidents involved LCMs, simply by preselecting cases with certain circumstances already known to involve LCMs. No serious policy-making or scholarly purpose, however, can be served by such a stratagem.

Finally, after checking on all Allen's Appendix B incidents that occurred in 2013-2017, I found that her claims that the incidents numbered 10, 30, and 35 involved LCMs cannot be confirmed by news accounts, either those cited in her two sources or in any I located using the Newsbank database. For incidents 10 and 30, none of the sources I checked made any mention of the capacities of magazines used by the shooter. And for incident number 35, the Orange County Register (May 28, 2014) explicitly reported that the "shooter used 10-round magazines." Confirming the suspicion that these cases did not actually involve use of LCMs, none of these three incidents were included in the compilation of LCM-involved mass shootings maintained by the Violence Policy Center (2018), an organization that advocates stricter gun control.

After one (1) eliminates incidents that were not really mass shootings (based on the common 4+ fatalities criterion), (2) excludes incidents that had four dead victims only if one counted offenders as victims, and (3) eliminates the incidents that, as far as can be determined from news accounts, did not really involve LCMs, we are left with only 10 genuine mass public shootings that involved LCMs in 2013-2017 – two per year. These constitute just 8.3% of all mass shootings (4+ dead) committed in 2013-2017 – only a tenth the 83% figure Allen reports (p. 6) for public mass shootings in 1982-2018. In sum, mass shooters in America rarely use LCMs.

Paragraphs 15-19.

The same problem afflicts Allen's discussions of higher casualty counts and rounds fired in mass shootings with LCMs (or both LCMs and AWs) that characterized her discussion of "assault weapons" (see discussion of her paragraphs 12 and 13). For what it's worth, there is indeed a simple bivariate association between LCM use and casualty counts, but neither Allen nor anyone else has established a basis in empirical research for believing that LCM use *causes* higher casualty counts rather than merely serving as an outward indicator that the shooter intended to hurt many people. There is no extant information known to me that establishes that

this correlation is anything more than a spurious association. As far as we know, shooters using LCMs, or LCM and “assault weapons,” fire more rounds and kill or injure more victims because (1) they *want* to hurt more people, and (2) they prepare for doing so by acquiring the equipment they believe, correctly or not, will help them do that – not because of the firearms and magazines they used.

The rationales offered by supporters of bans on LCMs for why LCM use purportedly affects casualty counts in mass shootings are inconsistent with what research has revealed about mass shootings. Use of LCMs has no effect on the total number of rounds a would-be mass shooter can bring to the scene of his crime – a shooter with three 10-round magazines obviously has just as many rounds to fire as one with a 30-round magazine. The real difference between two such shooters is that the one with three smaller magazines would need to reload twice to fire 30 rounds, while the one with the LCM would not need to reload at all. LCM bans that prevented a least some prospective mass shooters from acquiring LCMs would therefore force affected shooters to reload more often than if they had obtained LCMs. How, then, is this need to reload relevant to casualty counts in mass shootings?

Supporters of LCM bans offer two explanations of why more reloading by prospective mass shooters would save lives. First, they claim that when shooters pause to reload it offers a somewhat safer opportunity for bystanders to tackle the shooter and thereby prevent any further inflicting of harm. The more times the shooter must reload, they contend, the more such opportunities there would be. Second, they claim that additional pauses to reload could lengthen the time available for prospective victims to escape to safety (Kleck 2016).

The problems with these rationales is that (1) bystanders to U.S. mass shootings have virtually never tackled mass shooters using semiauto guns with detachable magazines – at most just once in the U.S. over the entire 20-year period from 1994 through 2013 (in an incident that did not occur in California), and (2) reloading does not actually lengthen the time available for prospective victims to escape. Mass shooters almost always take longer between shots, even when *not* reloading, than it takes to reload a detachable magazine – about 2 to 4 seconds. In other words, the few seconds it takes to reload does not slow mass shooters’ firing because they typically fire fairly slowly even when not reloading (Kleck 2016).

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Further, all known mass shooters (more than 6 persons shot, fatally or nonfatally) in the U. S., regardless of where their crimes took place, used either multiple magazines or multiple guns, and usually both. This means that even if they had no LCMs (or banned semiauto firearms), they could still fire many rounds with little or no interruption that might allow either bystander intervention or more victims to escape (Kleck 2016). In sum, empirical information about the way that mass shootings actually occur in the U.S. contradicts advocates' claims about how LCM use increases casualty counts and why LCM bans would reduce casualty counts. The absence of any known mechanism by which LCM use could cause higher casualty counts in mass shootings strongly suggests that the associations between LCM use and casualty counts cited by Allen are indeed spurious, i.e. do not reflect causal effects.

Dated: November 21, 2018



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EXHIBIT 1

CURRICULUM VITAE

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PERSONAL

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CURRENT POSITION

David J. Bordua Emeritus Professor of Criminology, Florida State University

COURTESY APPOINTMENT

Courtesy Professor, College of Law, Florida State University

PROFESSIONAL MEMBERSHIPS

American Society of Criminology

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EDUCATION

A.B. 1973 - University of Illinois, with High Honors and with Distinction in Sociology

A.M. 1975 - University of Illinois at Urbana, in Sociology
Ph.D. 1979 - University of Illinois at Urbana, in Sociology

ACADEMIC HONORS

National Merit Scholar, 1969
Freshman James Scholar, University of Illinois, 1969
Graduated from University of Illinois with High Honors and with Distinction in Sociology, 1973
University of Illinois Foundation Fellowship in Sociology, 1975-76
1993 Winner of the Michael J. Hindelang Award of the American Society of Criminology, for the book that made "the most outstanding contribution to criminology" (for Point Blank: Guns and Violence in America).
Awarded Named Professorship, Florida State University, 2012.
Nominated for University Teaching Award, Florida State University, 2014.
Paper of the Year awarded by Criminal Justice Review for "Does Gun Control Reduce Crime?," Volume 4, pp. 488-513 (2016).

TEACHING POSITIONS

Fall, 1991 to May 2016	Professor, College of Criminology and Criminal Justice, Florida State University
Fall, 1984 to Spring, 1991	Associate Professor, School of Criminology, Florida State University.
Fall, 1979 to Spring, 1984	Assistant Professor, School of Criminology, Florida State University.
Fall, 1978 to Spring, 1979	Instructor, School of Criminology, Florida State University.

COURSES TAUGHT

Criminology, Applied Statistics, Regression, Introduction to Research Methods, Law Enforcement, Research Methods in Criminology, Guns and Violence, Violence Theory Seminar, Crime Control, Assessing Evidence, Survey Research, Research Design and

Causal Inference.

DISSERTATION

Homicide, Capital Punishment, and Gun Ownership: An Aggregate Analysis of U.S. Homicide Trends from 1947 to 1976. Department of Sociology, University of Illinois, Urbana. 1979.

PUBLICATIONS (sole author unless otherwise noted)

BOOKS

1991, Point Blank: Guns and Violence in America. Hawthorne, N.Y.: Aldine de Gruyter. Winner of the 1993 Michael J. Hindelang award of the American Society of Criminology. Republished in 2005 in paperback by Transaction Publishers.

Reviewed in Contemporary Sociology, American Journal of Sociology, Social Forces, Journal of Criminal Law and Criminology, The Criminologist, The Public Interest, Criminal Law Forum, Social Science Review, Criminal Justice Abstracts, Crime, Criminal Justice and Law Enforcement, Newsletter of Public Policy Currents, Commonweal, Choice, and others.

1997 Targeting Guns: Firearms and their Control. Hawthorne, N.Y.: Aldine de Gruyter.

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RESEARCH MONOGRAPH

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- 2011 "Mass killings aren't the real gun problem --- how to tailor gun-control measures to common crimes, not aberrant catastrophes." Wall Street Journal January 15, 2011. Invited opinion article.
- 2011 "The myth of big-time gun trafficking." Wall Street Journal May 21, 2011. Invited opinion article.
- 2015 "Defensive gun ownership is not a myth: why my critics still have it wrong." Politico Magazine, February 17, 2015. Online at Politico.Com.

BOOK CHAPTERS

- 1984 (with David Bordua) "The assumptions of gun control." Pp. 23-48 in Don B. Kates, Jr. (ed.) Firearms and Violence: Issues of Regulation. Cambridge, Mass.: Ballinger.

(Also appeared in Federal Regulation of Firearms, report prepared by the Congressional Research Service, Library of Congress, for the Committee on

the Judiciary, United States Senate, 1982).

- 1984 "The relationship between gun ownership levels and rates of violence in the U.S." Pp. 99-135 in Kates, above.
- 1984 "Handgun-only gun control: a policy disaster in the making." Pp. 167-199 in Kates, above.
- 1996 "Racial discrimination in criminal sentencing." Pp. 339-344 in Crime and Society, Volume III – Readings: Criminal Justice, edited by George Bridges, Robert D. Crutchfield, and Joseph G. Weis. Thousand Oaks, Calif.: Pine Forge Press.
- 1996 "Gun buy-back programs: nothing succeeds like failure." Pp. 29-53 in Under Fire: Gun Buy-Backs, Exchanges and Amnesty Programs, edited by Martha R. Plotkin. Washington, D.C.: Police Executive Research Forum.
- 2000 "Firearms and crime." Pp. 230-234 in the Encyclopedia of Criminology and Deviant Behavior, edited by Clifton D. Bryant. Philadelphia: Taylor & Francis, Inc.
- 2001 (with Leroy Gould and Marc Gertz) "Crime as social interaction." Pp. 101-114 in What is Crime?: Controversy over the Nature of Crime and What to Do About It, edited by Stuart Henry and Mark M. Lanier. Lanham, Md.: Rowman and Littlefield.
- 2003 "Constricted rationality and the limits of general deterrence." Chapter 13 in Punishment and Social Control: Enlarged Second Edition, edited by Thomas G. Blomberg. New York: Aldine de Gruyter.
- 2004 "The great American gun debate: what research has to say." Pp. 470-487 in The Criminal Justice System: Politics and Policies, 9th edition, edited by George F. Cole, Marc Gertz, and Amy Bunger. Belmont, CA: Wadsworth-Thomson.
- 2008 "Gun control." Article in The Encyclopedia of Social Problems, edited by Vincent N. Parrillo. Thousand Oaks, CA: Sage.
- 2009 "Guns and crime." Invited chapter. Pp. 85-92 in 21st Century Criminology: A Reference Handbook, edited by J. Mitchell Miller. Thousand Oaks, CA: Sage.
- 2012 Kovandzic, Tomislav, Mark E. Schaffer, and Gary Kleck. "Gun prevalence, homicide rates and causality: A GMM approach to endogeneity bias." Chapter 6, pp. 76-92 in The Sage Handbook of Criminological Research Methods, edited by David Gadd, Susanne Karstedt, and Steven F. Messner. Thousand Oaks, CA: Sage.

- 2012 (with Kelly Roberts) "What survey modes are most effective in eliciting self-reports of criminal or delinquent behavior?" Pp. 415-439 in Handbook of Survey Methodology, edited by Lior Gideon. NY: Springer.
- 2013 "An overview of gun control policy in the United States." Pp. 562-579 in The Criminal Justice System, 10th edition, Edited by George F. Cole and Marc G. Gertz. Wadsworth.
- 2014 "Deterrence: actual vs. perceived risk of punishment. Article in Encyclopedia of Criminology and Criminal Justice. Berlin: Springer Verlag.
- 2018 "Gun control." Chapter in The Handbook of Social Control. Hoboken, NJ: Wiley-Blackwell. In press.
- 2018 "The effect of firearms on suicide." In Handbook on Gun Studies, edited by Jennifer Carlson, Kristin Goss, and Harel Shapira. NY: Routledge. In press.

BOOK REVIEWS

- 1978 Review of Murder in Space City: A Cultural Analysis of Houston Homicide Patterns, by Henry Lundsgaarde. Contemporary Sociology 7:291-293.
- 1984 Review of Under the Gun, by James Wright et al. Contemporary Sociology 13:294-296.
- 1984 Review of Social Control, ed. by Jack Gibbs. Social Forces 63: 579-581.
- 1985 Review of Armed and Considered Dangerous, by James Wright and Peter Rossi, Social Forces 66:1139-1140.
- 1988 Review of The Citizen's Guide to Gun Control, by Franklin Zimring and Gordon Hawkins, Contemporary Sociology 17:363-364.
- 1989 Review of Sociological Justice, by Donald Black, Contemporary Sociology 19:261-3.
- 1991 Review of Equal Justice and the Death Penalty, by David C. Baldus, George G. Woodworth, and Charles A. Pulaski, Jr. Contemporary Sociology 20:598-9.
- 1999 Review of Crime is Not the Problem, by Franklin E. Zimring and Gordon Hawkins. American Journal of Sociology 104(5):1543-1544.
- 2001 Review of Gun Violence: the Real Costs, by Philip J. Cook and Jens Ludwig. Criminal Law Bulletin 37(5):544-547.
- 2010 Review of Homicide and Gun Control: The Brady Handgun Violence Prevention

Act and Homicide Rates, by J. D. Monroe. Criminal Justice Review 35(1):118-120.

LETTERS PUBLISHED IN SCHOLARLY JOURNALS

- 1987 "Accidental firearm fatalities." American Journal of Public Health 77:513.
- 1992 "Suicide in the home in relation to gun ownership." The New England Journal of Medicine 327:1878.
- 1993 "Gun ownership and crime." Canadian Medical Association Journal 149:1773-1774.
- 1999 "Risks and benefits of gun ownership." Journal of the American Medical Association 282:136.
- 2000 (with Thomas Marvell) "Impact of the Brady Act on homicide and suicide rates." Journal of the American Medical Association 284:2718-2719.
- 2001 "Violence, drugs, guns (and Switzerland)." Scientific American 284(2):12.
- 2002 "Doubts about undercounts of gun accident deaths." Injury Prevention Online (September 19, 2002). Published online at <http://ip.bmjournals.com/cgi/eletters/8/3/252>.
- 2005 "Firearms, violence, and self-protection." Science 309:1674. September 9, 2005.

UNPUBLISHED REPORT

- 1987 Violence, Fear, and Guns at Florida State University: A Report to the President's Committee on Student Safety and Welfare. Reports results of campus crime victimization survey and review of campus police statistics on gun violence (32 pages).

RESEARCH FUNDING

- 1994 "The Impact of Drug Enforcement on Urban Drug Use Levels and Crime Rates." \$9,500 awarded by the U.S. Sentencing Commission.
- 1997 "Testing a Fundamental Assumption of Deterrence-Based Crime Control Policy." \$80,590 awarded by the Charles E. Culpeper Foundation to study the link between actual and perceived punishment levels.

PRESENTED PAPERS

- 1976 "Firearms, homicide, and the death penalty: a simultaneous equations analysis." Presented at the annual meetings of the Illinois Sociological Association, Chicago.
- 1979 "The assumptions of gun control." Presented at the Annual Meetings of the American Sociological Association, New York City.
- 1981 "Lethality comparisons between handguns and weapons which might be substituted in assault if handguns were prohibited." Presented at the Annual Meetings of the American Society of Criminology, Washington, D.C.
- 1982 "Life support for ailing hypotheses: Modes of summarizing the evidence on racial discrimination." Presented at the Annual Meetings of the American Society of Criminology, Toronto.
- 1984 "Policy lessons from recent gun control research." Presented at the Duke University Law School Conference on Gun Control.
- 1985 "Policy lessons from recent gun control research." Presented at the Annual Meetings of the American Society of Criminology, San Diego.
- 1986 "Miscounting suicides." Presented at the Annual Meetings of the American Sociological Association, Chicago.
- 1987 (with Theodore G. Chiricos, Michael Hays, and Laura Myers) "Unemployment and crime: a comparison of motivation and opportunity effects." Annual meetings of the American Society of Criminology, Montreal.
- 1988 "Suicide, guns and gun control." Presented at the Annual Meetings of the Popular Culture Association, New Orleans.
- 1988 (with Susan Sayles) "Rape and resistance." Presented at the Annual Meetings of the American Society of Criminology, Chicago, Ill.
- 1989 (with Karen McElrath) "The impact of weaponry on human violence." Presented at the Annual Meetings of the American Sociological Association, San Francisco.
- 1989 (with Britt Patterson) "The impact of gun control and gun ownership levels on city violence rates." Presented at the Annual Meetings of the American Society of Criminology, Reno.
- 1990 "Guns and violence: a summary of the field." Presented at the Annual Meetings of the American Political Science Association, Washington, D.C.

- 1991 "Victim resistance and weapons effects in robbery." Presented at the Annual Meetings of the American Society of Criminology, San Francisco.
- 1991 "News media bias in covering gun control issues." Presented at the Annual Meetings of the American Society of Criminology, San Francisco.
- 1992 "Interrupted time series designs: time for a re-evaluation." Presented at the Annual Meetings of the American Society of Criminology, New Orleans.
- 1993 (with Chester Britt III and David J. Bordua) "The emperor has no clothes: Using interrupted time series designs to evaluate social policy impact." Presented at the Annual Meetings of the American Society of Criminology, Phoenix.
- 1993 "Crime, culture conflict and support for gun laws: a multi-level application of the General Social Surveys." Presented at the Annual Meetings of the American Society of Criminology, Phoenix.
- 1994 (with Marc Gertz) "Armed resistance to crime: the prevalence and nature of self-defense with a gun." Presented at the Annual Meetings of the American Society of Criminology, Miami.
- 1995 (with Tom Jordan) "The impact of drug enforcement and penalty levels on urban drug use levels and crime rates." Presented at the Annual Meetings of the American Society of Criminology, Boston.
- 1996 (with Michael Hogan) "A national case-control study of homicide offending and gun ownership." Presented at the Annual Meetings of the American Society of Criminology, Chicago.
- 1997 "Evaluating the Brady Act and increasing the utility of BATF tracing data." Presented at the annual meetings of the Homicide Research Working Group, Shepherdstown, West Virginia.
- 1997 "Crime, collective security, and gun ownership: a multi-level application of the General Social Surveys." Presented at the Annual Meetings of the American Society of Criminology, San Diego.
- 1998 (with Brion Sever and Marc Gertz) "Testing a fundamental assumption of deterrence-based crime control policy." Presented at the Annual Meetings of the American Society of Criminology, Washington, D.C.
- 1998 "Measuring macro-level gun ownership levels." Presented at the Annual Meetings of the American Society of Criminology, Washington, D.C.
- 1999 "Can owning a gun really triple the owner's chances of being murdered?" Presented at the Annual Meetings of the American Society of Criminology,

Toronto.

- 2000 "Absolutist politics in a moderate package: prohibitionist intentions of the gun control movement." Presented at the Annual Meetings of the American Society of Criminology, San Francisco.
- 2001 (with Tomislav V. Kovandzic) "The impact of gun laws and gun levels on crime rates." Presented at the Annual Meetings of the American Society of Criminology, Atlanta.
- 2001 "Measures of gun ownership levels for macro-level violence research." Presented at the Annual Meetings of the American Society of Criminology, Atlanta.
- 2002 "The effects of gun ownership levels and gun control laws on urban crime rates." Presented at the Annual Meetings of the American Society of Criminology, Chicago.
- 2003 (with Tomislav V. Kovandzic) "The effect of gun levels on violence rates depends on who has them." Presented at the Annual Meetings of the American Society of Criminology, Denver.
- 2003 (with Kyubeom Choi) "Filling in the gap in the causal link of deterrence." Presented at the Annual Meetings of the American Society of Criminology, Denver.
- 2004 (with Tomislav Kovandzic) "Do violent crime rates and police strength levels in the community influence whether individuals own guns?" Presented at the Annual Meetings of the American Society of Criminology, Nashville.
- 2004 (with Jongyeon Tark) "Resisting crime: the effects of victim action on the outcomes of crime." Presented at the Annual Meetings of the American Society of Criminology, Nashville.
- 2004 (with Jongyeon Tark) "The impact of self-protection on rape completion and injury." Presented at the Annual Meetings of the American Society of Criminology, Nashville.
- 2004 (with Kyubeom Choi) "The perceptual gap phenomenon and deterrence as psychological coercion." Presented at the Annual Meetings of the American Society of Criminology, Nashville.
- 2005 (with Jongyeon Tark) "Who resists crime?" Presented at the Annual Meetings of the American Society of Criminology, Toronto.
- 2005 (with Jongyeon Tark and Laura Bedard) "Crime and marriage." Presented at the Annual Meetings of the American Society of Criminology, Toronto.

- 2006 (with Shun-Yang Kevin Wang) “Organized gun trafficking, ‘crime guns,’ and crime rates.” Presented at the Annual Meetings of the American Society of Criminology, Los Angeles.
- 2006 “Are police officers more likely to kill black suspects?” Presented at the Annual Meetings of the American Society of Criminology, Los Angeles.
- 2007 (with Shun-Yang Kevin Wang) “The myth of big-time gun trafficking. ”Presented at the Annual Meetings of the American Society of Criminology, Atlanta.
- 2007 (with Marc Gertz and Jason Bratton) “Why do people support gun control?” Presented at the Annual Meetings of the American Society of Criminology, Atlanta.
- 2008 (with J.C. Barnes) “Deterrence and macro-level perceptions of punishment risks: Is there a “collective wisdom?” Presented at the Annual Meetings of the American Society of Criminology, St. Louis.
- 2009 “The myth of big-time gun trafficking.” Presented at UCLA Law Review Symposium, “The Second Amendment and the Right to Bear Arms After DC v. Heller.” January 23, 2009, Los Angeles.
- 2009 (with Shun-Yung Wang) “Employment and crime and delinquency of working youth: A longitudinal study of youth employment.” Presented at the Annual Meetings of the American Society of Criminology, November 6, 2009, Philadelphia, PA.
- 2009 (with J. C. Barnes) “Do more police generate more deterrence?” Presented at the Annual Meetings of the American Society of Criminology, November 4, 2009, Philadelphia, PA.
- 2010 (with J. C. Barnes) “Article productivity among the faculty of criminology and criminal justice doctoral programs, 2005-2009.” Presented at the annual Meetings of the American Society of Criminology, November 18, 2010, San Francisco, CA.
- 2010 (with Will Hauser) “Fear of crime and gun ownership.” Presented at the annual Meetings of the American Society of Criminology, November 18, 2010, San Francisco, CA.
- 2010 “Errors in survey estimates of defensive gun use frequency: results from national Internet survey experiments.” Presented at the annual Meetings of the American Society of Criminology, November 19, 2010, San Francisco, CA.
- 2010 (with Mark Faber and Tomislav Kovandzic) “Perceived risk, criminal

- victimization, and prospective gun ownership.” Presented at the annual Meetings of the American Society of Criminology, November 19, 2010, San Francisco, CA.
- 2011 (with Shun-young Wang) “The impact of job quality and career commitment on delinquency: conditional or universal?” Presented at the annual Meetings of the American Society of Criminology, November 17, 2011, Washington, D.C.
- 2011 (with Moonki Hong) “The short-term deterrent effect of executions on homicides in the United States, 1984-1998.” Presented at the annual Meetings of the American Society of Criminology, November 16, 2011, Washington, D.C.
- 2011 (with Kelly Roberts) “Which survey modes are most effective in getting people to admit illegal behaviors?” Presented at the annual Meetings of the American Society of Criminology, November 17, 2011, Washington, D.C.
- 2011 (with Will Hauser) “Pick on someone your own size: do health, fitness, and size influence victim selection?” Presented at the annual Meetings of the American Society of Criminology, November 18, 2011, Washington, D.C.
- 2011 (with Tomislav Kovandzic) “Is the macro-level crime/punishment association spurious?” Presented at the annual Meetings of the American Society of Criminology, November 18, 2011, Washington, D.C.
- 2012 (with Dylan Jackson) “Adult unemployment and serious property crime: a national case-control study.” Presented at the annual Meetings of the American Society of Criminology, November 15, 2012, Chicago, IL.
- 2013 (with Will Hauser) “Confidence in the Police and Fear of Crime: Do Police Force Size and Productivity Matter?” Presented at the annual Meetings of the American Society of Criminology, November 22, 2013, Atlanta, GA.
2013. (with Dylan Jackson) “Adult unemployment and serious property crime: a national case-control study.” Presented at the annual Meetings of the American Society of Criminology, November 22, 2013, Atlanta, GA.
- 2014 (with Dylan Jackson) “Does Crime Cause Punitiveness?” Presented at the annual Meetings of the American Society of Criminology, November 20, 2014, San Francisco, CA.
- 2015 “The effect of large capacity magazines on the casualty counts in mass shootings.” Presented at the annual Meetings of the American Society of Criminology, November 18, 2015, Washington, D.C.
- 2015 (with Bethany Mims) “Article productivity among the faculty of criminology and criminal justice doctoral programs, 2010-2014.” Presented at the annual Meetings of the American Society of Criminology, November 20, 2015,

Washington, D.C.

- 2016 “Firearms and the Lethality of Suicide Methods.” Presented at the annual Meetings of the American Society of Criminology, November 16, 2016, New Orleans, L.A.
- 2017 “Macro-level Research on the Effect of Firearms Prevalence on Suicide Rates: A Systematic Review and New Evidence.” Presented at the annual Meetings of the American Society of Criminology, November 15, 2017.

CHAIR

- 1983 Chair, session on Race and Crime. Annual meetings of the American Society of Criminology, Denver.
- 1989 Co-chair (with Merry Morash), roundtable session on problems in analyzing the National Crime Surveys. Annual meetings of the American Society of Criminology, Reno.
- 1994 Chair, session on Interrupted Time Series Designs. Annual meetings of the American Society of Criminology, New Orleans.
- 1993 Chair, session on Guns, Gun Control, and Violence. Annual meetings of the American Society of Criminology, Phoenix.
- 1995 Chair, session on International Drug Enforcement. Annual meetings of the American Society of Criminology, Boston.
- 1999 Chair, Author-Meets-Critics session, More Guns, Less Crime. Annual meetings of the American Society of Criminology, Toronto.
- 2000 Chair, session on Defensive Weapon and Gun Use. Annual Meetings of the American Society of Criminology, San Francisco.
- 2002 Chair, session on the Causes of Gun Crime. Annual meetings of the American Society of Criminology, Chicago.
- 2004 Chair, session on Protecting the Victim. Annual meetings of the American Society of Criminology, Nashville.

DISCUSSANT

- 1981 Session on Gun Control Legislation, Annual Meetings of the American Society of Criminology, Washington, D.C.
- 1984 Session on Criminal Sentencing, Annual Meetings of the American Society of

Criminology, Cincinnati.

- 1986 Session on Sentencing, Annual Meetings of the American Society of Criminology, Atlanta.
- 1988 Session on Gun Ownership and Self-protection, Annual Meetings of the Popular Culture Association, Montreal.
- 1991 Session on Gun Control, Annual Meetings of the American Statistical Association, Atlanta, Ga.
- 1995 Session on International Drug Enforcement, Annual Meetings of the American Society of Criminology, Boston.
- 2000 Session on Defensive Weapon and Gun Use, Annual Meetings of the American Society of Criminology, San Francisco.
- 2004 Author-Meets-Critic session on Guns, Violence, and Identity Among African-American and Latino Youth, by Deanna Wilkinson. Annual meetings of the American Society of Criminology, Nashville.
- 2007 Session on Deterrence and Perceptions, University of Maryland 2007 Crime & Population Dynamics Summer Workshop, Aspen Wye River Center, Queenstown MD, June 4, 2007.
- 2009 Session on Guns and Crime, at the DeVoe Moore Center Symposium On The Economics of Crime, March 26-28, 2009.
- 2012 Panel discussion of news media coverage of high profile crimes
Held at the Florida Supreme Court On September 24-25, 2012, sponsored by the Florida Bar Association as part of their 2012 Reporters' Workshop.

PROFESSIONAL SERVICE

Editorial consultant -

- American Sociological Review
- American Journal of Sociology
- Social Forces
- Social Problems
- Law and Society Review
- Journal of Research in Crime and Delinquency
- Social Science Research
- Criminology
- Journal of Quantitative Criminology
- Justice Quarterly
- Journal of Criminal Justice

Violence and Victims
Violence Against Women
Journal of the American Medical Association
New England Journal of Medicine
American Journal of Public Health
Journal of Homicide Studies

Grants consultant, National Science Foundation, Sociology Program.

Member, Gene Carte Student Paper Committee, American Society of Criminology, 1990.

Area Chair, Methods Area, American Society of Criminology, annual meetings in Miami, November, 1994.

Division Chair, Guns Division, American Society of Criminology, annual meetings in Washington, D.C., November, 1998.

Dissertation evaluator, University of Capetown, Union of South Africa, 1998.

Division Chair, Guns Division, American Society of Criminology, annual meetings in Washington, D.C., November, 1999.

Member of Academy of Criminal Justice Sciences selection committee for Editor of Justice Quarterly, 2007.

Outside reviewer of Dr. J. Pete Blair for promotion to Full Professor in the School of Criminal Justice at Texas State University, San Marcos, 2014.

UNIVERSITY SERVICE

Member, Master's Comprehensive Examination Committee, School of Criminology, 1979-1982.

Faculty Advisor, Lambda Alpha Epsilon (FSU chapter of American Criminal Justice Association), 1980-1988.

Faculty Senate Member, 1984-1992.

Carried out campus crime survey for President's Committee on Student Safety and Welfare, 1986.

Member, Strategic Planning and Budgeting Review Committee for Institute for Science and Public Affairs, and Departments of Physics and Economics, 1986.

Chair, Committee on Ph.D. Comprehensive Examination in Research Methods, School of Criminology, Summer, 1986.

Member, Committee on Ph.D. Comprehensive Examination in Research Methods, School of Criminology, Summer, 1986 to present.

Chair, Committee on Graduate Assistantships, School of Criminology, Spring, 1987.

Chair, Ad Hoc Committee on Computers, School of Criminology, Fall, 1987.

Member, Recruitment Committee, School of Criminology, Spring, 1988; Spring, 1989; and 1989-90 academic year.

Member, Faculty Senate Committee on Computer-Related Curriculum, Spring, 1988 to Fall, 1989.

Chair, Ad Hoc Committee on Merit Salary Distribution, School of Criminology, Spring, 1988.

Chair, Ad Hoc Committee on Enrollment Strains, Spring, 1989.

Member, Graduate Handbook Committee, School of Criminology, Spring, 1990.

Member, Internal Advisement Committee, School of Criminology Spring, 1990.

University Commencement Marshall, 1990 to 1993.

Member, School of Criminology and Criminal Justice Teaching Incentive Program award committee.

Chair, Faculty Recruitment Committee, School of Criminology and Criminal Justice, 1994-1995.

Chair, Committee on Ph.D. Comprehensive Examination in Research Methods, School of Criminology and Criminal Justice, 1994-1995.

Member, University Computer and Information Resources Committee, 1995-1998.

Member, University Fellowship Committee, 1995 to present.

Member, University Library Committee, 1996 to 1999.

Chair, Electronic Access Subcommittee, University Library Committee, 1998 to 1999.

Member, Ad Hoc Committee on Merit Salary Increase Allocation, School of Criminology and Criminal Justice, 1998-1999.

Member, Academic Committee, School of Criminology and Criminal Justice, 2000-

present.

Member, Recruiting Committee, School of Criminology and Criminal Justice, 2000-2001.

Member, Promotion and Tenure Committee, School of Criminology and Criminal Justice, 2000-present.

Chair, Committee on Ph.D. Comprehensive Examination in Research Methods, School of Criminology and Criminal Justice, 2000-2002.

Chair, Promotion and Tenure Committee, School of Criminology and Criminal Justice, 2001-2002.

Faculty Adviser, School of Criminology and Criminal Justice Graduate Student Association, 2001-present.

Member, ad hoc committee on survey research, School of Criminology and Criminal Justice, 2002.

Coordinator of Parts 2 and 4 of the School of Criminology and Criminal Justice Unit Review, 2002.

Chair, Academic Committee, School of Criminology and Criminal Justice, 2002-2003.

Director, Honors Programs, School of Criminology and Criminal Justice, 2002-present.

Member, University Promotion and Tenure Committee, Fall, 2003 to present.

Member of University Graduate Policy Committee, Fall 2003 to present.

Director of Graduate Studies, School (later College) of Criminology and Criminal Justice, April 2004 to May 2011.

Chair, Promotion and Tenure Committee, College of Criminology and Criminal Justice, 2005-2006

Served as major professor on Area Paper by Christopher Rosbough, completed in 2012.

Served as member of dissertation committee of Kristen Lavin, dissertation completed in 2012.

Served as member of dissertation committee of Elizabeth Stupi, dissertation completed in 2013.

Served as outside member on two dissertation committees in 2014-2015: Brian Meehan

in the Department of Economics and Adam Weinstein in the English Department. Both dissertations were completed.

Served as major professor on Area Paper on legalization of marijuana for Pedro Juan Matos Silva, Spring 2015. Paper completed.

Currently serving as major professor for two doctoral students, Moonki Hong and Sergio Garduno. Hong is scheduled to finish his dissertation by December 2015, and Garduno will be starting his dissertation in Spring 2016.

PUBLIC SERVICE

Television, radio, newspaper, magazine, and Internet interviews concerning gun control, racial bias in sentencing, crime statistics, and the death penalty. Interviews and other kinds of news media contacts include Newsweek, Time, U.S. News and World Report, New York Times, Washington Post, Chicago Tribune, Los Angeles Times, USA Today, Boston Globe, Wall Street Journal, Kansas City Star, Philadelphia Inquirer, Philadelphia News, Atlanta Constitution, Atlanta Journal, Arizona Republican, San Antonio Express-News, Dallas Morning News, Miami Herald, Tampa Tribune, Jacksonville Times-Union, Womens' Day, Harper's Bazaar, Playboy, CBS-TV (60 Minutes; Street Stories) ABC-TV (World News Tonight; Nightline), NBC-TV (Nightly News), Cable News Network, Canadian Broadcasting Company, National Public Radio, Huffington Post, PolitiFact.com, and many others.

Resource person, Subcommittee on Crime and Justice, (Florida House) Speaker's Advisory Committee on the Future, February 6-7, 1986, Florida State Capitol.

Testimony before the U.S. Congress, House Select Committee on Children, Youth and Families, June 15, 1989.

Discussant, National Research Council/National Academy of Sciences Symposium on the Understanding and Control of Violent Behavior, April 1-4, 1990, Destin, Florida.

Colloquium on manipulation of statistics relevant to public policy, Statistics Department, Florida State University, October, 1992.

Speech to faculty, students, and alumni at Silver Anniversary of Northeastern University College of Criminal Justice, May 15, 1993.

Speech to faculty and students at Department of Sociology, University of New Mexico, October, 1993.

Speech on the impact of gun control laws, annual meetings of the Justice Research and Statistics Association, October, 1993, Albuquerque, New Mexico.

Testimony before the Hawaii House Judiciary Committee, Honolulu, Hawaii, March 12, 1994.

Briefing of the National Executive Institute, FBI Academy, Quantico, Virginia, March 18, 1994.

Delivered the annual Nettler Lecture at the University of Alberta, Edmonton, Canada, March 21, 1994.

Member, Drugs-Violence Task Force, U.S. Sentencing Commission, 1994-1996.

Testimony before the Pennsylvania Senate Select Committee to Investigate the Use of Automatic and Semiautomatic Firearms, Pittsburgh, Pennsylvania, August 16, 1994.

Delivered lectures in the annual Provost's Lecture Series, Bloomsburg University, Bloomsburg, Pa., September 19, 1994.

Briefing of the National Executive Institute, FBI Academy, Quantico, Virginia, June 29, 1995.

Speech to personnel in research branches of crime-related State of Florida agencies, Research and Statistics Conference, sponsored by the Office of the State Courts Administrator, October 19, 1995.

Speech to the Third Annual Legislative Workshop, sponsored by the James Madison Institute and the Foundation for Florida's Future, February 5, 1998.

Speech at the Florida Department of Law Enforcement on the state's criminal justice research agenda, December, 1998.

Briefing on news media coverage of guns and violence issues, to the Criminal Justice Journalists organization, at the American Society of Criminology annual meetings in Washington, D.C., November 12, 1998.

Briefing on gun control strategies to the Rand Corporation conference on "Effective Strategies for Reducing Gun Violence," Santa Monica, Calif., January 21, 2000.

Speech on deterrence to the faculty of the Florida State University School of Law, February 10, 2000.

Invited address on links between guns and violence to the National Research Council Committee on Improving Research Information and Data on Firearms, November 15-16, 2001, Irvine, California.

Invited address on research on guns and self-defense to the National Research Council Committee on Improving Research Information and Data on Firearms, January 16-17,

2002, Washington, D.C.

Invited address on gun control, Northern Illinois University, April 19, 2002.

Invited address to the faculty of the School of Public Health, University of Alabama, Birmingham, 2004.

Invited address to the faculty of the School of Public Health, University of Pennsylvania, March 5, 2004.

Member of Justice Quarterly Editor Selection Committee, Academy of Criminal Justice Sciences, Spring 2007

Testified before the Gubernatorial Task Force for University Campus Safety, Tallahassee, Florida, May 3, 2007.

Gave public address, "Guns & Violence: Good Guys vs. Bad Guys," Western Carolina University, Cullowhee, North Carolina, March 5, 2012.

Invited panelist, Fordham Law School Symposium, "Gun Control and the Second Amendment," New York City, March 9, 2012.

Invited panelist, community forum on "Students, Safety & the Second Amendment," sponsored by the Tallahassee Democrat.

Invited address at University of West Florida, Department of Justice Studies, titled "Guns, Self-Defense, and the Public Interest," April 12, 2013.

Member, National Research Council Committee on Priorities for a Public Health Research Agenda to Reduce the Threat of Firearm-related Violence, May 2013.

Invited address at Davidson College, Davidson, NC, April 18, 2014. Invited by the Department of Philosophy.

OTHER ITEMS

Listed in:

- Marquis Who's Who
- Marquis Who's Who in the South and Southwest
- Who's Who of Emerging Leaders in America
- Contemporary Authors
- Directory of American Scholars
- Writer's Directory

Participant in First National Workshop on the National Crime Survey, College Park, Maryland, July, 1987, co-sponsored by the Bureau of Justice Statistics and the American Statistical Association.

Participant in Second National Workshop on the National Crime Survey, Washington, D.C., July, 1988.

Participant, Seton Hall Law School Conference on Gun Control, March 3, 1989.

Debater in Intelligence Squared program, on the proposition “Guns Reduce Crime.” Rockefeller University, New York City, October 28, 2008. Podcast distributed through National Public Radio. Further details are available at <http://www.intelligencesquaredus.org/Event.aspx?Event=36>.

Subject of cover story, “America Armed,” in Florida State University Research in Review, Winter/Spring 2009.

Grants reviewer, Social Sciences and Humanities Research Council of Canada, 2010.

Named one of “25 Top Criminal Justice Professors” in the U.S. by Forensics Colleges website (<http://www.forensicscolleges.com/>), 2014.

Publications in the Last 10 Years

Book

- 2017 (with Brion Sever) Punishment and Crime: The Limits of Punitive Crime Control. NY: Routledge.

Articles in Refereed Journals

- 2009 “The worst possible case for gun control: mass shootings in schools.” American Behavioral Scientist 52(10):1447-1464.
- 2009 (with Shun-Yung Wang) “The myth of big-time gun trafficking and the overinterpretation of gun tracing data.” UCLA Law Review 56(5):1233-1294.
- 2009 (with Tomislav Kovandzic) “City-level characteristics and individual handgun ownership: effects of collective security and homicide.” Journal of Contemporary Criminal Justice 25(1):45-66.
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- 2011 "Mass killings aren't the real gun problem --- how to tailor gun-control

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2017.

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2018.

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Association Of New Jersey Rifle & Pistol Clubs, Inc., et al. v. Grewel et al., United States
District Court District Of New Jersey. Deposed August 2, 2018.

EXHIBIT 52

Supplemented Expert Witness Report of William English, PhD

Rupp, et al. v. Becerra

United States District Court

Central District of California, Southern Division

Case No.: 8:17-cv-00746-JLS-JDE

October 25, 2018

ASSIGNMENT

I have been asked by counsel for the plaintiffs in the above described matter to provide my opinion on the ownership and use rate by the law-abiding American public of semiautomatic, centerfire rifles with detachable magazines, having pistol grips, flash suppressors, and/or adjustable stocks. This report sets forth my qualifications and foundation for my opinions on that question, which I offer to a reasonable degree of scientific certainty. I am willing and able to testify as to the contents of this report.

COMPENSATION

I am not being compensated for my work on this case other than reimbursement for any reasonably necessary travel costs I might incur as a direct result of that work.

BACKGROUND AND QUALIFICATIONS

I am currently employed as an Assistant Professor of Strategy, Economics, Ethics, and Public Policy at the McDonough School of Business at Georgetown University, a position I have held since 2016. Prior to that I was employed at Harvard University for five years, first as a research fellow and later as the research director of the Edmond J Safra Center for Ethics. I also served as research associate with the Harvard Initiative for Learning and Teaching and as the executive director of The Abigail Adams Institute, an educational non-profit located in Cambridge, MA from 2014-2016. Before coming to Harvard I held a one-year postdoctoral research fellowship at Brown University with the Political Theory Project. I received my PhD in Political Science from Duke University in 2010 and an MSt in ethics from Oxford University in 2004. In 2003, I graduated Duke University with a Bachelors of Science in Economics and a Bachelors of Arts in Mathematics. For two summers I was employed as a laboratory technician with the Office of Law Enforcement Standards at the National Institute of Standards and Technology, where I assisted with the revision of standards for body armor and autoloading pistols for police officers issued by the National Institute of Justice. Throughout high school and college I was involved with competitive shooting sports and I have followed developments in the firearms industry and recreational shooting sports closely for over 20 years.

My scholarly research has focused on empirical methods in the social sciences, behavioral economics, and regulatory policy. I am in the process of conducting research on the impact of various firearms laws within the United States. I have authored or co-authored the following publications:

- "Varieties of Citizenship and the Moral Foundations of Politics" in *The Ethics of Citizenship in the 21st Century*, David Thunder (Eds): Springer International Publishing, 2017 DOI:10.1007/978-3-319-50415-5
- "Paying People to Make Healthy Choices" *eLS*, John Wiley & Sons Ltd, February, 2017.
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- "The Demographic Challenge to Entitlements: A Comment, Criticism, and Caveat" in *Science, Virtue, and the Future of Humanity*, Peter Augustine Lawler and Marc D. Guerra (Eds), Lexington Books: 2015.
- "Economic and Ideological Corruptions of the Regulatory State" *Society*, May/June, 2014: Volume 51, Issue 3.
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- "Locke, Hegel, and the Economy" *Society*, October, 2013: Volume 50, Issue 6.
- "Corruption in Bioethics" *Compendium of Global Bioethics*. Edited by ten-Have and Gordijn. Springer, 2013. (with Jennifer Miller).
- "Genopolitics and the Science of Genetics" *American Political Science Review*. April 2013: Vol 107 (2), 382-395. (with Evan Charney)
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- "Can Neuroscience Tell Us Anything About Virtue?" review of *The Social Animal: The Hidden Sources of Love, Character, and Achievement* by David Books in *Public Discourse*, Sept 23, 2011.

- "Unlocking the Secrets of Human Biology: Implications for Diplomacy, Security, and War" in Rose McDermott and Peter K. Hatemi, eds. H-Diplo ISSF Roundtable on "Biology and Security", *H-Diplo ISSF Roundtable Reviews* Volume I, Number 2 (April 2010) (p. 6-34).
- "Illiberal Arguments" review of James Kalb's *The Tyranny of Liberalism* (part of a larger symposium) in *First Principles* May 13, 2009.
- "The Compartmentalization of Moral Inspiration," Proceedings of the 36th St. Gallen Symposium, Switzerland: St. Gallen Press, 2006. (p. 103-107).

OPINIONS AND ANALYSIS:

Because the National Shooting Sports Foundation (NSSF)—which is a nationwide firearms industry trade association that produces reports and conducts surveys on which I rely, in part, in formulating my opinions herein—uses the term "Modern Sporting Rifle" or "MSR" to describe a range of semiautomatic rifles, most of which are based on the AR-15 and AK-47 designs—both of which virtually always are equipped with a vertical pistol grip and often have a flash suppressor and/or an adjustable stock—I use that term throughout this report in analyzing that general category of rifles but use more specific language when analyzing a more specific category of rifle.

A semiautomatic firearm, also known as a self-loading firearm, uses the energy produced by firing a cartridge to cycle a gun's action and reload the firearm each time the trigger is pulled and released. Note that when the trigger of a semiautomatic firearm is pulled, the gun fires once and only once, and the trigger must be released and pulled again in order to fire the reloaded gun. Modern sporting rifles are typically able to accept a detachable magazine and often have modular components allowing them to be customized for a variety of applications. Although the most common calibers for the AR-15 and AK-47 have traditionally been .223 Remington/ 5.56 NATO and 7.62×39mm respectively, modern sporting rifles are available in a range of calibers. For the purpose of this report, modern sporting rifles will often be referred to as "AR style rifles," because the AR platform is the most prevalent design in the United States.

AR-15's have been available to the public for over 50 years. Early details regarding the firearm were reported in an article entitled "The Armalite AR-15 Rifle" in the June 1959 issue of *The American Rifleman*, one of the most widely circulated firearms magazines. The article noted that a "Firing trial by several members of The Rifleman staff showed the AR-15 to be easy, pleasant, and accurate to shoot." Three years later, in May of 1962, *The American Rifleman*, published an extensive review of the first Colt AR-15 rifle, concluding: "In every instance the AR-15 has functioned well and there is no doubt it is a fine little weapon."

In 2010, a survey of 2,547 hunters and shooters conducted by the NSSF found that 18.1% of respondents owned an AR-platform modern sporting rifle. By 2012, a subsequent NSSF survey of 5,342 hunters and shooters found that this percentage had increased to 26.3%. The most recent and largest survey conducted in 2015 of 6,521 hunters and shooters found that 47.1%

respondents owned an AR platform modern sporting rifle, suggesting that roughly one of every two active hunters and shooters now owns an AR style rifle.

For its “Modern Sporting Rifle (MSR) Comprehensive Consumer Report 2013,” the NSSF conducted a survey of 21,942 owners of MSRs. This survey found that owners consider accuracy and reliability to be the most important characteristics of these rifles. Many also cited low recoil, light weight, ergonomics, and ease of shooting as reasons for their purchase. Recreational target shooting was the most prevalent reason cited for owning a MSR, followed by home defense. Additional reasons for owning these firearms include, but are not limited to, hunting, pest control, competitive shooting sports, and gun collecting.

A large number of Americans participate in shooting sports. A nationally representative survey of 24,143 respondents conducted by The Outdoor Foundation for the “2017 Outdoor Participation Report” estimates that in 2016 about 14 million people participated in rifle target shooting, about 16 million participated in handgun target shooting, about 5 million participated in trap/skeet shooting, and about 5 million participated in sport/clays shooting. In aggregate, these numbers compare favorably to those who participate in golf (~24 million), basketball (~22 million), baseball (~14), or soccer (~17 million). An independent telephone survey of 3,050 respondents conducted by the NSSF in 2016 estimated that 49.4 million individuals participated in any target shooting or shooting sports in 2016. That same report also estimated that about 14 million people used modern sporting rifles for target shooting at some point that year.

The “2017 Edition Firearms Retailer Survey Report” published by the NSSF found that of 226 firearms retailers surveyed from across the United States, 92.9% sell new AR’s/modern sporting rifles. Moreover, modern sporting rifles were reported to be the most popular selling long gun, accounting for 17.9% of overall gun sales, while traditional rifles accounted for 11.3% and shotguns for 11.5%.

The precise number of MSRs in circulation is difficult to know with certainty because, while rifle sales are tracked by the Bureau of Alcohol, Tobacco, Firearms and Explosives (BATF), the type of rifle sold is not. However, by drawing on publicly available government records, industry reports, and survey responses we can estimate general levels of ownership with some degree of confidence. One of the best examples of this approach can be found in a research paper co-authored by Nick Clossman and Chris Long entitled “A Business Case Analysis of the M4/AR-15 Market,” which was published in September of 2015 as a Joint Applied Project of the Naval Postgraduate School. In what follows, I describe their methodology, estimates, and conclusions.

Clossman and Long first examine the Annual Firearms Manufacturing and Exportation Report (AFMER) compiled by the BATF to obtain records regarding how many rifles were manufactured each year (note that AFMER does **not** include firearms produced for the U.S. military). The AFMER also reports how many rifles were manufactured by each individual company. Clossman and Long examined every reporting company to determine which ones primarily or exclusively manufacture AR-15’s. Because many large companies, such as Ruger and Remington, manufacture various types of rifles in addition to AR-15’s, these companies

were excluded, as were any small manufacturers who made fewer than 100 rifles per year or who primarily manufactured other modern sporting rifle variants such as AK-47's, AR-15 style lower receivers, or AR-15 style pistols. Following this approach, Clossman and Long conclude that between 2004 and 2013 approximately 4.6 million AR-15s were manufactured in the U.S.

This methodology means that Clossman and Long's estimates are conservative and likely to significantly underestimate the total number of AR style rifles that entered into circulation during this period. For example, although excluded from the count, large companies such as Ruger—one of only a few publicly traded firearm manufacturers in the country—and Remington both manufacture AR style rifles. Indeed, Remington's 2016 annual report suggests that the company is one of the largest commercial producers of these rifles. Also excluded from Clossman and Long's estimates are sales of so-called "80% lowers," which are blocks of metal or polymer in the basic size and shape of an AR-15 style lower receiver that are not fully machined and thus do not qualify as "firearms" as defined by the BATF. Individuals may legally purchase and finish machining these parts on their own in order to produce a fully functional AR style rifle for personal use. Although sales numbers are hard to come by, a simple internet search reveals that there are many companies that sell "80% lowers" and some have reported that they sell over 30,000 per year.

There are two further caveats regarding Clossman and Long's estimates that deserve mention, although the net effect is likely to again incline their estimates to be conservative. First, the AFMER data that Clossman and Long draw on includes AR style rifles that are sold to law enforcement agencies. Although the precise number of law enforcement sales are not recorded, we can estimate an upper bound for these sales. According to the FBI/US Bureau of Justice Statistics "Crime in the United States 2017" report, there are approximately 700,000 full time law enforcement officers in the United States. Since not every officer is issued an AR style rifle, we expect that the number possessed by law enforcement agencies will be less, and perhaps far less, than 700,000. Second, Clossman and Long estimate that between 2004-2013 an average of about 8,750 AR style rifles were exported per year. Thus, both law enforcement sales and exports should decrease the estimate of AR style rifles in circulation amongst the general public. However, Clossman and Long do not account for modern sporting rifles that were imported during this period (AFMER reports do not include imports). According to other BATF records, the number of rifles imported each year of this period greatly exceeded the number of rifles exported, sometimes by an order of magnitude. For example, in 2013 the BATF reported that 131,718 rifles were exported from the United States, while 1,507,776 were imported (military import licenses accounted for a small fraction, 319 total in 2013). If the ratios of modern sporting rifles imported are similar to the ratios exported, we would expect another ~170,000 modern sporting rifles to have entered the U.S. market in 2013 alone. Between 2004 and 2013 aggregate imports of modern sporting rifles are likely to have more than offset both exports and domestic law enforcement sales.

Finally, it is important to note that Clossman and Long's data further suggests that the number of AR-15's manufactured per year have increased significantly in recent years, going from an estimated 88,730 rifles in 2004 to 1,182,609 in 2013. Industry reports appear to corroborate

these growth estimates. For example, Remington Outdoor Company Inc.'s 2016 annual report notes, "We believe we are one of the largest producers of commercial MSRs, a category that has grown at a 14.9% CAGR from 2010 through 2014." Based on AFMER reports of the total number of rifles sold, Clossman and Long estimate that by 2013 AR-15 rifles accounted for 19% of all guns manufactured in the United States and 29% of all rifles manufactured in the United States. Note that the 19% estimate corresponds closely to the 17.9% estimate mentioned above that was derived independently from the 2017 Firearms Retailer Survey Report published by the NSSF.

Even if production remained flat at 2013 levels, one would expect that from 2014-2018 another ~4.7 million would have entered circulation, in addition to the 4.6 million estimated from 2004-2013, plus how ever many entered circulation between 1960-2004. This leads to a plausible minimum estimate of over 9 million AR style rifles in aggregate circulation in 2018. However, the number could be even higher if production and sales have continued to grow since 2013. Indeed, if one looks at the number of background checks conducted for firearm sales, which are logged by the FBI in the National Instant Criminal Background Check System, and corrects for the number that correspond to a firearm's transfer rather than a permit check, which NSSF does in their "NSSF-Adjusted NICS" data, there were approximately 14,244,000 firearms sold nationwide in 2015. If modern sporting rifles do constitute 17.9-19% of overall sales, then annual sales may be as high as 2,549,676 to 2,706,360 rifles in recent years. This would lead to an estimate of around 15 million AR style rifles in circulation by the end of 2018.

Based on the statistics, research, and estimates listed above, it is my opinion that semiautomatic, centerfire rifles with detachable magazines and a pistol grip, flash suppressor, and/or adjustable stock, such as the AR-15 design, are commonly owned and used by millions of law-abiding Americans for a variety of lawful purposes. Moreover, it is my opinion that the lawful use and ownership of these rifles has increased in commonality over the years.

 10/25/18

William E. English

Report supplemented on 12/10/18.



William E. English

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