

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 VIII 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

MICHEL & ASSOCIATES, P.C.

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 VIII 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

MICHEL & ASSOCIATES, P.C.

s/ Sean A. Brady

Sean A. Brady

Attorneys for Plaintiffs-Appellants

Steven Rupp, et al.

EXHIBIT 57

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

STEVEN RUPP; et all,

Plaintiff,

vs.

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

Defendants.

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

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DEPOSITION OF MICHAEL MERSEREAU

Long Beach, California

Tuesday, December 4, 2018

Volume I

Reported by:

KATY BONNETT

CSR No. 13315

Job No. 3135706

PAGES 1 - 142

Page 1

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

STEVEN RUPP; et al.,

Plaintiff,

vs.

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

Defendants.

Deposition of MICHAEL MERSEREAU, Volume I, taken
on behalf of Plaintiff, at 180 East Ocean Boulevard,
Suite 200, Long Beach, California, beginning at 1:12
p.m. and ending at 6:05 p.m. on Tuesday,
December 4, 2018, before KATY BONNETT, Certified
Shorthand Reporter No. 13315.

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11
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15
16
17
18
19
20
21
22
23
24
25

INDEX

WITNESS

EXAMINATION

MICHAEL MERSEREAU

Volume I

BY MR. BRADY

5

BY MR. CHANG

133

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

EXHIBITS

NUMBER	DESCRIPTION	PAGE
Exhibit 1	Expert Report and Declaration of Detective Michael Mersereau	7
Exhibit 2	California Penal Code Section 30510	18
Exhibit 3	ATF Data Analysis of 233 Caliber Ammunition	100

1 Long Beach, California, Tuesday, December 4, 2018

2 1:12 p.m.

3
4 MICHAEL MERSEREAU,

5 having been administered an oath, was examined and
6 testified as follows:

7
8 EXAMINATION

9 BY MR. BRADY:

10 Q Good morning. Can you state your full name for
11 the record, please.

12 A Michael Mersereau. That's M-e-r-s-e-r-e-a-u.

13 Q And, Mr. Mersereau, you are here today for your
14 deposition in the matter of Rupp, R-u-p-p, versus
15 Becerra; is that correct?

16 A Yes.

17 Q And you are here as a designated expert witness
18 on behalf of the California Attorney General's Office in
19 this matter; is that correct?

20 A Yes.

21 Q Have you ever had your deposition taken before?

22 A Yes.

23 Q How many times?

24 A Maybe three, four.

25 Q How long ago was the last time you had your

Page 6

1 deposition taken?

2 A Two weeks ago.

3 Q Two weeks ago?

4 A By your office.

5 Q By our office?

6 A In another matter.

7 Q Okay. How did that one go?

8 A It was fine.

9 Q So is there any reason you can't give your best
10 testimony today?

11 A No.

12 Q You're not suffering from any pain or had a late
13 night last night?

14 A No.

15 Q Okay. So I'm basically going to ask you
16 questions, as you know, and I'm entitled to your best
17 answer, truthful answer. You're under oath, as you
18 just saw. Does that make sense?

19 A Yes.

20 Q Okay. And I appreciate you saying yes. I need
21 verbal responses so that the court reporter can
22 transcribe everything. So if you do say uh-huh or
23 huh-uh, something to that effect, I will likely be
24 asking you to make a verbal response. I don't mean to
25 be rude. That's just what needs to be done. Does that

Page 7

1 understand --

2 A Yes. Understood.

3 Q -- does that make sense? All right.

4 So I would like to start out by marking an
5 Exhibit 1.

6 (Exhibit 1 was marked for identification by
7 the court reporter and is attached hereto.)

8 BY MR. BRADY:

9 Q Do you recognize this document?

10 A I do.

11 Q You do. And can you tell me what it is.

12 A This is my declaration in this matter.

13 Q Okay. And you prepared this for the attorney
14 general's office in this matter?

15 A I did.

16 Q Okay.

17 You know what, can we go off the record for one
18 second?

19 (Interruption in the proceedings.)

20 MR. BRADY: We are now back on the record.

21 Q I have my notes in front of me. We're looking at
22 Exhibit 1, which you have confirmed is your expert
23 report that the attorney general's office had you submit
24 in this matter; is that correct?

25 A Yes.

1 Q And in your paragraph 1, you indicate that you
2 are a detective employed by the LAPD. Is that still the
3 case?

4 A Yes.

5 Q And you've worked at the LAPD for 22 years?

6 A Plus change.

7 Q Plus change. And you're currently assigned to
8 the LAPD Gun Unit?

9 A I am.

10 Q And you have been there for approximately
11 15 years?

12 A Yes.

13 Q Have you been in any other unit or department at
14 the LAPD during those 15 years?

15 A No.

16 Q Exclusively at the gun unit?

17 A Yes.

18 Q So no missing person's unit or anything to that
19 effect?

20 A No.

21 Q Okay. What do you do at the LAPD Gun Unit? What
22 is your primary task?

23 A At this time I'm a supervisor, so I supervise
24 less-tenured officers in their investigations. I also,
25 when I can find the time between my supervisory duties,

1 which include a lot of admin duties, I conduct the
2 occasional gun investigation myself.

3 Q And are you still out in the streets, if you
4 will, carrying a gun yourself?

5 A Yes.

6 Q Okay. And what types of crimes are you -- is
7 your unit primarily tasked with?

8 A We're tasked with investigating gun trafficking,
9 prohibited possessors. I -- I'm consulted and sometimes
10 write things for the command staff regarding the
11 proposed legislation, firearms-related legislation. We
12 also do gun store inspections. That's the bulk of it.

13 Q Did you provide any input on the most recent
14 piece of assault weapon legislation?

15 A On the Bullet Button?

16 Q Correct. On the Senate Bill 880.

17 MR. CHANG: Objection. Vague.

18 BY MR. BRADY:

19 Q Sorry. Let me start over.

20 So as far as the ground rules for a deposition,
21 you might want to wait to hear if Mr. Chang is going to
22 interpose an objection before you answer, and then
23 I'll -- then you can -- he'll tell you to go ahead and
24 answer or tell you to refrain from answering subject to
25 some privilege.

Page 10

1 And if you don't understand any question that I
2 ask, please ask that I repeat it, restate it, or that
3 you didn't hear it, or clarify, because I will assume
4 that you understood the way I understood the question to
5 be asked later on. Does that make sense?

6 A Okay.

7 Q So let me see if I can rephrase the question in
8 an unvague way.

9 Were you -- did you have any input in the Senate
10 Bill 880, which addressed the assault weapon Bullet
11 Button Law?

12 A I did not.

13 Q You said that you also do gun store inspections;
14 is that correct?

15 A I do not do gun store inspections. One of my
16 subordinates is tasked with that.

17 Q And is that limited to gun stores within the city
18 of L.A.?

19 A Yes.

20 Q Does your subordinate provide you with reports
21 from these gun stores based on what they saw there?

22 A Not to me.

23 Q To whom would they give those reports?

24 A I don't know what kind of reports, if any, that
25 this individual generates, but it would be given to our

Page 11

1 supervisor, my supervisor, Detective Ben Meda.

2 Q Okay. Would it be fair to say you wouldn't have
3 any personal knowledge about what's going on in the gun
4 stores in the city of L.A.?

5 A Well, given that I have shut two of them down and
6 prosecuted the owners, I don't know if that's an
7 accurate statement. But now, these days, I -- you know,
8 I don't really know.

9 Q What -- you -- so you said you shut down two guns
10 stores in L.A. What were the circumstances under those
11 situations -- under those two cases?

12 A Trafficking in assault weapons and machine guns.

13 Q Do you recall the names of the cases?

14 A Sajer, and the -- the store was L.A. Guns in West
15 Hollywood.

16 Q And what were the circumstances of that case?

17 A Confidential informant had advised us that he was
18 involved in illegal gun sales. I sent one of my
19 confidential informants in there with machine guns and
20 assault weapons and he purchased them.

21 Q Did he -- is it Mr. Sajer?

22 A Yes.

23 Q You sold -- undercover you sold firearms to
24 Mr. Sajer?

25 A Not I. The confidential informant.

1 Q Do you know whether Mr. Sajer contacted law
2 enforcement during that exchange?

3 A No. I don't know that at all. I know he
4 asserted that he did.

5 Q Did you ever receive contact from 911 about
6 whether he was trying to contact them?

7 A I did not.

8 Q Okay. All right. Do you still do -- or, I guess
9 instead of saying still, I imagine as a peace officer
10 you have done firearms training.

11 A I don't understand the question.

12 Q Okay. I assume that as somebody who carries a
13 firearm for a living that you were required to undergo
14 some training to carry that firearm; is that correct?

15 A Yes.

16 Q Can you describe the training that you have
17 received in order to carry your firearm?

18 A It starts in the academy. There's extensive
19 firearms training on the service pistol that was issued
20 to us, and that's changed over the years. Past that,
21 we're required to qualify periodically with that firearm
22 or any other firearm that we subsequently acquire on a
23 private purchase basis.

24 If an officer wants to carry a long gun, either a
25 shotgun or a police rifle, they have to go through

1 additional schools and recertify, I think every other
2 month, from those weapons systems.

3 In addition, because we're in the gun unit, our
4 training cadre scheduled periodic shooting days at
5 various locations, some live fire, some simunitions,
6 which, you know, isn't strictly firearms. It's -- a lot
7 of it is also tactics.

8 Q And it involves long guns as well as handguns?

9 A No. Because only a small percentage of the unit
10 have chosen to get trained in and carry long guns.

11 Q Have you?

12 A No.

13 Q So you have not undergone LAPD's training for
14 long guns?

15 A No.

16 Q And you don't carry a long gun on duty?

17 A I do not.

18 Q How many of your fellow gun unit members do?

19 A This is only an estimate, but six.

20 Q And how many gun unit members are there?

21 A 15.

22 Q So you indicate in your report that you have
23 discharged, fired assault weapons; is that correct?

24 A Yes.

25 Q If it -- if you weren't doing that as part of

1 your training, in what capacity were you shooting these
2 assault weapons?

3 A You asked, specifically, about LAPD training. I
4 have had occasion to fire assault rifles as part of
5 multi-agency training day, and I also have, on occasion,
6 fired assault rifles to establish that they, in fact,
7 operate the semiautomatic or full autofunction so that I
8 can then testify in court that they are, in fact,
9 assault weapons or machine guns.

10 Q And so that is in your capacity as an
11 investigator?

12 A Yes.

13 Q Not in your capacity as tactics for engaging a
14 suspect; is that correct?

15 A That's correct.

16 Q Also in your report, you indicate that you've
17 received training from the ATF on various topics, one of
18 which is assault weapons; is that correct?

19 A That's correct.

20 Q What did that ATF assault weapon training entail?

21 A The identification of assault weapons under the
22 then, now nonexistent, federal assault weapons laws.

23 Q So this, I imagine, was before 2004?

24 A Yes.

25 Q Okay. So any other besides -- you testified that

1 you received firearms training in the academy, some
2 interdepartmental shooting training. Are there any
3 other trainings that you received for your personal use
4 of a firearm?

5 A Not that I can think of at this time.

6 Q Do you have instructors at these trainings?

7 A Yes.

8 Q Are you one of those instructors?

9 A I am not.

10 Q You're not. Do you know the credentials that
11 those instructors need to have in order to train?

12 A I believe that they have to have a SITS or a HITS
13 qualification to train in shotgun, which is SITS, and
14 handguns, which is HITS. There's also one for the
15 rifle, police rifle, which, I believe, the acronym is
16 RITS.

17 Q Makes sense.

18 MR. CUBEIRO: Sorry, can you spell out what those
19 are? Are these acronyms?

20 THE WITNESS: Yes.

21 MR. CUBEIRO: Can you --

22 THE WITNESS: I don't know.

23 BY MR. BRADY:

24 Q Do you know whether any of the instructors are
25 NRA-certified?

1 A I don't know.

2 Q Do you know if it's common for NRA to be
3 certified?

4 A I have no knowledge one way or the other.

5 Q So you have no knowledge about instructor
6 certification for -- for firearm training?

7 A None whatsoever.

8 Q Understood. Have you received any ballistics
9 training?

10 A Not that I recall, formally. I have educated
11 myself to some degree.

12 Q What did that education entail?

13 A Internet searches primarily. The Urex Ballistics
14 Expert report about the FBI and ATF would be an example
15 of some of that.

16 Q Are you referring to Buford Boone?

17 A Yes.

18 Q So you read his report?

19 A Yes, I did.

20 Q Did you read his rebuttal of your report?

21 A I did.

22 Q Okay. Can you turn to page 5 of your report,
23 paragraph 8.

24 A Okay.

25 Q I'm going to read a portion of it, and you tell

1 me if I have accurately stated your writing here, okay?

2 A (No audible response.)

3 Q "It is my opinion, based on my training and
4 experience, that assault rifles (as defined by
5 California Penal Code sections 30510 and 30515) pose a
6 greater danger to both police officers and the public
7 than other unrestricted semi-automatic, centerfire
8 rifles with detachable (non-fixed) magazines?"

9 Did I state that correctly?

10 A Yes.

11 Q Can you explain what an assault -- how assault
12 rifles is defined by California Penal Code Section
13 30510?

14 A It's defined by name and what's known as category
15 1 and category 2 assault weapons, and then there's a
16 category 3 where the rifle is defined by its generic
17 characters.

18 Q Just so I'm clear, you say assault rifles here,
19 and you just said assault weapons in explaining. Is
20 there a difference between assault rifles and assault
21 weapons?

22 A Yes.

23 Q Can you explain that different, please.

24 A There are non-rifles that are categorized as
25 assault weapons.

Page 18

1 Q Is the term "assault rifle" -- or let me restate.
2 Does the term "assault rifle" appear in the
3 California Penal Code?

4 A I believe it does.

5 (Exhibit 2 was marked for identification by
6 the court reporter and is attached hereto.)

7 BY MR. BRADY:

8 Q I would like to mark as Exhibit 2 what I
9 represent to you is a copy of California Penal Code
10 Section 30510, which you indicated in your report that
11 is -- defines assault rifles. Could you look through
12 this and let me know if you see the term "assault rifle"
13 anywhere, please.

14 A Well, I think it's quite obvious.

15 MR. CHANG: Objection. Assumes facts not in
16 evidence.

17 THE WITNESS: It's -- 30510 is entitled "Assault
18 Weapon Defined." And in the first paragraph under that
19 heading is says that "means the following designated
20 semiautomatic firearms:" "All the following specified
21 rifles:" So in my estimation they're talking about, and
22 stating specifically and defining specifically, assault
23 rifles.

24 BY MR. BRADY:

25 Q But the term "assault rifles" doesn't appear

1 anywhere, correct?

2 A I just told you my opinion. I don't agree with
3 that statement. There's assault, there's rifle.

4 Q Okay. I'm -- I'm looking just for clarity, not
5 to trying to trip you up. I want to know if, when you
6 say assault rifles, you're simply saying assault weapons
7 that are rifles, or if you're talking about something
8 else.

9 So are you saying -- when you say assault rifles,
10 are you simply saying assault weapons that are rifles,
11 rifles that meet the definition of assault weapon?

12 A I'm distinguishing rifles that are defined by
13 name or by generic features as assault weapons as
14 assault rifles. I'm not talking about pistols that are
15 also defined by a different set of criteria or shotguns
16 that are also defined by different sets of criteria in
17 names as assault rifles.

18 Q So to be clear, you're simply using the term
19 "assault rifle" as shorthand for a rifle that meets the
20 definition of assault weapon. Is that fair to say?

21 A Yes.

22 Q Okay. Now, getting back to paragraph 8 and your
23 statement that assault rifles and -- let's -- let's set
24 a ground rule about the use of the term "assault rifle"
25 since we just demonstrated that it can be confusing.

1 From now on, if we use the term "assault rifle," that
2 will mean a rifle that meets the definition of assault
3 weapon under California law; is that fair?

4 A Yes.

5 Q Okay. So you indicated that it can be -- an
6 assault rifle can be defined as an assault weapon under
7 California law by make and model or by features; is that
8 correct?

9 A That's correct.

10 MR. CHANG: Objection. Misstates -- misstates
11 the testimony.

12 BY MR. BRADY:

13 Q Can you identify what features would make a rifle
14 an assault rifle?

15 A Beyond --

16 MR. CHANG: Objection. Vague and ambiguous. Are
17 you asking about the -- what's in the law or his
18 opinion?

19 BY MR. BRADY:

20 Q As -- let me rephrase.

21 As defined in the California Penal Code
22 Section 30510 that you identified in your report, what
23 features would make a rifle an assault weapon?

24 A A rifle has to be centerfire, it has to be
25 capable -- and mind you, this definition has changed

1 recently. It used to say capable of accepting a
2 detachable magazine. Now it states that it's a
3 non-fixed magazine, and one feature. California is a
4 one-feature state.

5 That could include a pistol grip, a thumbhole
6 stock, a telescoping stock, a flash suppressor, a flare
7 or grenade launcher, a forward pistol grip.

8 Q And in paragraph 8, you opine that a rifle, a
9 semiautomatic, centerfire rifle, with one of the
10 features you just indicated, poses a greater danger to
11 both police officers and the public than other
12 unrestricted semiautomatic, centerfire rifles with
13 detachable non-fixed magazines; is that correct?

14 A That's correct.

15 Q So when you say an unrestricted semiautomatic,
16 centerfire rifle, you're simply saying a rifle that does
17 not have one of the features that you just listed from
18 Penal Code Section 30515; is that correct?

19 A Yes. Leaving aside the named firearms.

20 Q So a named firearm, you're referring to the list
21 of rifles in Penal Code Section 30510?

22 A Yes.

23 Q And it is your opinion that a rifle that does not
24 have any of the features would still be an assault rifle
25 if it is listed in 30510?

1 A Let me clarify my answer. The detachable
2 magazine requirement or non-fixed magazine requirement
3 and the centerfire requirement are not considered
4 features.

5 If you look at the list of named assault weapons,
6 each and every one of them is semiautomatic, centerfire
7 and is capable accepting a detachable magazine or has a
8 non-fixed magazine, but not all of them have the -- a
9 feature.

10 For instance, the SKS that's listed there, it has
11 centerfire, semiautomatic, it has a detachable magazine,
12 but there's no pistol grip, unless they retrofit them
13 with a different stock or thumbhole stock or a pistol
14 grip or something like that. They, in and of
15 themselves, out of the factory don't have a feature.

16 Q So for clarification, a rifle that's listed as an
17 assault weapon in Penal Code Section 30510 does not --
18 it is irrelevant whether it has a pistol grip, a flash
19 suppressor or an adjustable stock. It just has to have
20 a certain make and model; is that correct?

21 MR. CHANG: Objection. You're -- this is --
22 assumes -- it assumes -- it lacks foundation, and this
23 is beyond the scope of his report. You're asking him
24 about the -- what the law -- are you asking about what
25 his law provides or what his opinion is? Because he's

1 not a lawyer, so I just want to be clear whether you're
2 asking about the contours of the law or his opinion.

3 BY MR. BRADY:

4 Q Well, in this report, Mr. Mersereau, you are
5 putting yourself out as an expert on assault weapons; is
6 that correct?

7 A That's correct.

8 Q Could you be an expert on assault weapons without
9 understanding what an assault weapon is?

10 A No.

11 Q Do you understand my question when I ask whether
12 it is relevant if a firearm has a pistol grip, a flash
13 suppressor or an adjustable stock to qualify as an
14 assault weapon by make and model under Penal Code
15 Section 30510?

16 A As I said, a feature is not a necessity under the
17 named category 1, category 2. Almost all of them have a
18 feature, and specifically, the pistol grip.

19 But there is one exception that doesn't have --
20 doesn't have to have a feature on it because it's still
21 an assault rifle because it was named as such.

22 Q So if a rifle on that list had a pistol grip,
23 when the pistol grip was removed, would it still be an
24 assault weapon under the definition of Section 30510?

25 A My belief is yes.

1 Q What if it was converted into a
2 non-semiautomatic, for example, a bolt action, would it
3 still be an assault weapon?

4 A In my opinion, it would be. There's disagreement
5 with that, and I haven't seen court cases to, you know,
6 make a decision one way or the other.

7 Q Got it. So it's -- correct me if I'm wrong, but
8 it's unclear what attributes could affect the definition
9 of an assault weapon in Penal Code Section 30510?

10 A I didn't say it's unclear. There's disagreement.
11 I think -- in my opinion, the way I interpret that
12 statute is that if the receiver of the rifle -- and that
13 is the gun, that is the firearm, not the stocks, not the
14 features, the firearm is the receiver -- if it's etched
15 on it, the make and model, which is in that list, it is
16 an assault weapon until, I guess, some court decides
17 not.

18 Q So even the bare receiver would be an assault
19 weapon?

20 A Yes. Even the stripped receiver.

21 Q So going back to 30510, which is marked as
22 Exhibit 2, can you read for me the first line in that
23 statute at -- starting "As used in"?

24 A "As used in this chapter in Sections 16780,
25 17000, 27,555 'assault weapon' means the following

1 designated semiautomatic rifles."

2 Q Does it say rifles or firearms?

3 A I'm sorry. Firearms.

4 Q So it says, "the following designated
5 semiautomatic firearms," correct?

6 A Yes.

7 Q Can -- is a receiver semiautomatic?

8 A No.

9 Q And semiautomatic is preconditioned to being an
10 assault weapon in Penal Code Section 30510; is that
11 correct?

12 A That's correct.

13 Q Does that at all change your opinion on whether a
14 receiver is an assault weapon under this code section?

15 A No, it doesn't. You've put the spotlight on the
16 area of disagreement among people on this subject. I
17 look at it and I say, what's the purpose of this
18 statute? If I've got those receivers in a stripped
19 condition, I can go out with cash, no ID, and I can buy
20 all the parts necessary to build that out into a
21 complete firearm. I accept the fact that you could
22 build it out to be a single shot. I accept that you
23 could modify it in a way that it no longer accepts a
24 detachable magazine.

25 But the intent here, I believe by the

1 legislature, is to keep these firearms as they came out
2 of the factory and could be restored to that factory
3 condition, to keep those off the streets, out of the
4 hands of the general public. Because when they're in
5 that configuration as how they were meant to be, they
6 were meant to be semiautomatic firearms. They were
7 meant to be -- have their various configurations. That
8 those would present, ultimately, the same danger to the
9 public and the police that the legislatures were trying
10 to mitigate.

11 Q Is there any functional difference between the
12 receivers on the rifles listed in Penal Code
13 Section 30510, and the receivers for assault rifles that
14 might be defined under Penal Code Section 30515?

15 A No.

16 Q So they're functionally identically?

17 A Yeah. With, you know, minor variations.

18 Q Sure. What would those variations be?

19 A You can have different -- you can have different
20 sorts of gas impingement systems or direct impingement,
21 or -- or all kinds of different ways to -- roller locks
22 systems. There's just a lot of ways to reach the same
23 point, which is that you've got a semiautomatic rifle
24 that does not have a fixed magazine. That, in the end,
25 functions like any other semiautomatic rifle without a

1 fixed magazine, and then thus represents the same threat
2 level.

3 Q Are any of those variables you just identified
4 for a lower, unique to the lowers that are listed in
5 Section 30510? Or could they also be present on the
6 lowers for rifles defined under 30515?

7 A Yes. They could, but specifically, the AR15
8 platforms that are named versus the unnamed AR15
9 platforms that are defined by their generic features,
10 that's pretty much standard receiver. The variation
11 being how is that receiver built out, and what is etched
12 on that receiver.

13 Q So you said that those receivers are -- can be
14 functionally identical?

15 A Yeah.

16 Q With some variations, correct?

17 A Well, functionally, they're the same.

18 Q Okay. And any variation is not unique to those
19 guns listed on -- in Penal Code Section 30510; is that
20 correct? Is that fair to say?

21 A Only to the extent that some of these named
22 firearms aren't necessarily Cat 3s by generic feature as
23 I -- the SKS being the example.

24 Q Yeah. When you say Cat 3s, you're referring
25 to firearms that meet the definition of assault weapons

1 under 30515 for having certain features; is that
2 correct?

3 A That's correct.

4 Q So focusing, just to make it easy, on the AR15
5 platform, the -- the difference between a lower on a
6 rifle listed in Section 30510 and a Cat 3 rifle is
7 nothing more than the name etched -- the name and model
8 etched on the -- the receiver; is that accurate?

9 A If you're talking about a stripped receiver,
10 that's accurate. But, ultimately, it depends on how
11 it's built out.

12 Q And a lower from -- a lower that's listed on
13 30510, and a lower that is not listed on Section 30510,
14 could be built up with the same features; is that
15 correct?

16 A That's correct.

17 Q Same barrel?

18 A Correct.

19 Q Same grip?

20 A Correct.

21 Q Same stock?

22 A Correct.

23 Q So getting back to paragraph 8 of your report
24 where you lay out your opinion that assault rifles we've
25 already defined, pose a greater danger than non-assault

1 rifles because of the features. Is that accurate to
2 say? Is that why you believe that assault weapons
3 are -- or assault rifles, sorry -- are -- pose greater
4 risks to public health than do non-assault rifles,
5 because of the features?

6 A Yes.

7 Q So you mentioned the SKS being on -- listed in
8 Penal Code Section 30510. And you noted that it does
9 not have these features; is that correct?

10 A That's correct.

11 Q So would you consider it, other than it legally
12 being an assault weapon, we will stipulate that it is
13 legally defined as an assault weapon, would you consider
14 it a assault weapon in your analysis?

15 A I don't make that difference. I'm following the
16 law, and the law defines it by name as an assault
17 weapon, so it's an assault weapon.

18 MR. CHANG: I'm going to interpose an objection.
19 I'm always a little late, but I'm going to interpose an
20 objection that it assumes facts not in evidence. The
21 penal code does not -- it just isn't SKS.

22 MR. BRADY: Okay. Let's get to that.

23 Q It is an SKS with a detachable magazine. So in
24 other words, it's essentially a featureless rifle, as
25 they say; is that correct?

1 A That's one way to view it, yes.

2 Q The reason I'm asking you about this is, I simply
3 want to clarify whether you are including the SKS with a
4 detachable magazine in your description of assault
5 rifles in your report.

6 A To the extent that I'm only discussing Cat 3
7 rifles by generic feature, and to the extent that, as I
8 said, all the other named rifles, in fact, have
9 features, yes.

10 Q So would it be fair to say you're limiting your
11 analysis here to Cat 3 rifles and Cat 1 rifles, those on
12 -- listed out on Penal Code Section 30510, that have the
13 features of Cat 3 rifles; is that fair to say?

14 A I think what I'm -- the point I'm trying to make
15 is that all those Cat 1 and Cat 2 rifles with the
16 exception of SKS are, in fact, also Category 3 rifles.

17 Q I believe --

18 A And as I pointed out, the SKS is the exception to
19 that pattern.

20 Q Correct. So all I'm trying to determine is
21 whether that -- so you're not considering the SKS with a
22 detachable magazine in your analysis here; is that
23 correct?

24 A To the extent that I'm focused on 30515 as
25 opposed to 30510, yes.

Page 31

1 Q Okay. So it's your -- is it fair to say that
2 your general premise is that a semiautomatic centerfire
3 rifle with the features, is a bigger threat to public
4 safety than a rifle without the -- the semiautomatic
5 centerfire rifle without features; is that your basic
6 premise?

7 A Yes.

8 Q And so an SKS rifle with a detachable magazine,
9 does not have those features; is that correct?

10 A That's correct.

11 Q So is it your opinion that a Cat 3 rifle with the
12 features poses a more serious threat to public safety
13 than does an SKS rifle with a detachable magazine that
14 does not have the features?

15 A Both Cat 1, Cat 2 and Cat 3 with the features
16 poses more of a threat than a semiautomatic rifle with a
17 non-fixed magazine does.

18 Q And why is that?

19 A It's the degree of control that the -- the pistol
20 grips and the thumbhole stock provide to the shooter,
21 allowing them to fire more rounds more rapidly with
22 greater accuracy than your garden variety rifle.

23 Q So then is it your opinion that the operator of a
24 firearm having more control over the firearm is a bad
25 thing?

1 A The -- it's a very bad thing if it's in the hands
2 of somebody who wants to use it in a unlawful way, as we
3 see with all the mass shootings that involve AR15s.

4 Q What about in the hands of a good guy, is control
5 a good thing or bad thing?

6 MR. CHANG: Objection. Vague and ambiguous as to
7 good guy.

8 BY MR. BRADY:

9 Q A cop?

10 A Police officers are not allowed to carry patrol
11 rifles without extensive training and constant
12 retraining in the use of those weapons platforms. It's
13 highly unlikely that a civilian is going to have that
14 degree of training, and is going to continuously renew
15 their training on that platform. And thus, when you
16 place a -- a rifle that -- that fires a round that's
17 particularly devastating and allows them to do it with
18 great rapidity, it definitely makes the public less safe
19 and police officers less safe.

20 Q I understand that's your position.

21 A Yeah.

22 Q But that wasn't the question I asked. I was
23 asking about whether control of a firearm is a good
24 thing or bad thing, regardless of what the firearm is.
25 Isn't it a good thing for somebody to have control over

1 a firearm that they are using?

2 MR. CHANG: Objection. Vague and ambiguous.

3 Are we still talking about the cop or someone
4 else?

5 BY MR. BRADY:

6 Q Is there any reason that a person who is properly
7 using a firearm should have less control over that
8 firearm, is there any benefit?

9 A I think --

10 MR. CHANG: Objection. Vague and ambiguous.

11 THE WITNESS: Control is a good thing, but it all
12 comes down to how that firearm is being used. In some
13 instances that control just leads to more death and
14 destruction.

15 BY MR. BRADY:

16 Q But when you choose a firearm for your own use,
17 you would choose one that you control well; is that --
18 would that be fair to say?

19 A Yes.

20 Q Would you ever choose a firearm that you felt did
21 not fit you well?

22 A I'd choose a firearm specifically as a tool for
23 circumstances that I believe I may encounter.

24 Q Have you ever encountered circumstances where you
25 had to use your firearm, discharge your firearm?

Page 34

1 A Yes.

2 Q How many times?

3 A Once.

4 Q When was that?

5 A In 2014.

6 Q Can you describe the circumstances?

7 A I was attacked off duty by a gun-welding gang
8 member, and I discharged my handgun twice at the
9 individual, knocking him down to the ground and causing
10 him to drop his weapon.

11 Q I assume you had a pistol?

12 A I did.

13 Q A semiautomatic pistol?

14 A Yes.

15 Q Does that semiautomatic pistol shoot at a
16 different rate than an assault rifle?

17 A I've never studied that.

18 Q Fair enough. But, generally, does a -- not
19 counting for nanoseconds or splitting hairs with slow
20 motion cameras, but generally, is it fair to say that a
21 semiautomatic firearm can be fired at the same rate as
22 any other semiautomatic firearm?

23 A For any given shooter and whatever their skill
24 levels are, I imagine they're pretty comparable.

25 Q Can you recall how quickly you discharged two

1 rounds at the assailant in the time you had to use your
2 weapon?

3 A I'd estimate maybe three to four seconds.

4 Q So you discharged one round, evaluated the
5 situation and discharged the second round?

6 A That's correct.

7 Q So we talked about pistol grips giving the user
8 more control, and I believe -- and correct me if I'm
9 wrong -- your testimony was that that control is a bad
10 thing in the hands of somebody misusing the firearm, but
11 is a good thing in the hands of somebody properly using
12 that firearm; is that fair to say?

13 A I don't know if that accurately reflects what I
14 said, but yes, that's fair to say.

15 Q So the next feature that you discussed in your
16 report as being problematic is an adjustable stock; is
17 that correct?

18 A Yes.

19 Q And what is your concern about adjustable stocks?

20 A It's the same concern as with the pistol grips --

21 Q And what concern?

22 A -- that hold stocks, the increased control of the
23 firearm.

24 Q So, again, it's control?

25 A Yes.

1 Q How does a telescoping stock increase control?

2 A Everybody's built differently. They have
3 different arm lengths. If you took a given shooter and
4 handed him a fixed stock rifle, it might not be optimum
5 for their particular physical build. And that could
6 reduce their control, thus their ability to fire
7 accurately and rapidly. The adjustable stock allows the
8 shooter to adjust that stock to the optimum length of
9 the rifle, so that they can more comfortably and more
10 accurately control the firearm, and fire it with more
11 rapidity.

12 Q And that's bad thing?

13 A Again, it depends on who's shooting it, why
14 they're shooting it.

15 Q So then, again, proper stock fit on the shooter's
16 shoulder is a bad thing if a -- for a bad guy, but a
17 good thing for somebody who's properly using the
18 firearm. Is that fair to say?

19 MR. CHANG: Objection. Vague and ambiguous as to
20 properly.

21 BY MR. BRADY:

22 Q Not trying to kill anybody.

23 MR. CHANG: Improperly using.

24 BY MR. BRADY:

25 Q Who has no ill intent, a person who has no ill

1 intent, there is -- is there any reason why a person who
2 has no ill intent should not have a firearm that
3 properly fits their shoulder?

4 A I think it's more than that, and this goes back
5 to my previous answer in regards to the pistol grips.
6 Even if you have no bad intent, on the one hand
7 increased control sound reasonable, you want that, but
8 it also allows you to fire more rapidly. And that can
9 lead to all kinds of issues. If you're cranking out
10 rounds at a rapid rate, you're going to eventually come
11 off target and send those rounds down range to hit
12 whoever.

13 So even if they're not, you know, they don't have
14 evil intention when they fire their -- their rifle, just
15 given that few people have the kind of training and
16 experience to manipulate those firearms properly under
17 different circumstances, particularly under rapid fire
18 circumstance, that's a bad thing.

19 Q So how does stock fit, does how the stock fits
20 somebody's shoulder affect the rate of fire of the
21 firearm?

22 A If you take a rifle and you fire it, and it's not
23 at your optimal position of your hand to the trigger, to
24 the pistol grip, it's going to affect your ability to
25 control that firearm.

1 Q So --

2 A Unless it's going to necessitate you to either
3 fire wildly, because you don't have full control over
4 it, or to slow down, so -- to the point where you can
5 manage that firearm even though everything isn't optimal
6 in terms of how you're shouldering that weapon.

7 Q Wouldn't you want somebody to have control and
8 not fire wildly?

9 A I wouldn't want a mass shooter to have control.

10 Q Let's -- granted, nobody want a mass shooter to
11 have a weapon at all, we'll stipulate to that. But when
12 we're talking about a person shooting a firearm for
13 self-defense, for target practice, for hunting, wouldn't
14 you want them to have a stock that fits their shoulder
15 for the very reason you just indicated, that they can be
16 more accurate and have more control of the firearm?

17 A I think I've answered that question. It depends
18 on who's shooting and who they're shooting at or what
19 they're shooting at. And it can be a mass shooter or it
20 can be somebody who doesn't have the training, doesn't
21 have the skill to manipulate that weapon safely.

22 Q So you need skill to have -- to shoot a firearm
23 with the proper shoulder fit?

24 A With any firearm.

25 Q But what I'm asking is, why would having a proper

1 shoulder fit require more training for the person using
2 the firearm?

3 A Can you repeat that question?

4 Q Why would the proper shoulder fit of a firearm --
5 why would somebody need more training to use a firearm
6 that fits them better, that they have more control over,
7 that they're more accurate with?

8 A I don't believe I said that.

9 Q Okay. I guess we need a to back up. Is it your
10 opinion that an adjustable stock makes it so that the
11 user has more control?

12 A Yes, potentially.

13 Q And that an adjustable stock allows the user to
14 be more accurate?

15 A If they're properly trained and experienced, and
16 depending on whether they stay within their capabilities
17 in terms of rapidity of fire.

18 Q Granted. But why would a properly fitting
19 firearm require more training than a not properly
20 fitting firearm?

21 A That's your statement. I haven't made that
22 statement.

23 Q I guess we're -- you're saying that people need
24 more training to have these adjustable stocks; is that
25 correct?

1 A No.

2 Q You didn't say that?

3 A No.

4 Q Okay. So if you don't need more training for an
5 adjustable -- to use a rifle with an adjustable stock,
6 and proper stock fit -- let me ask you this, would you
7 agree that proper stock fit is -- makes a legitimately
8 used firearm safer?

9 A No.

10 Q Why not?

11 A First of all, the intent of the shooter would
12 make it more dangerous.

13 Q Let me back up, because that's not what I'm
14 asking you. A noncriminal use, okay? We're -- we're
15 also stipulating that nobody wants mass shooters to have
16 any gun to shoot, to be able to have any advantage.
17 What I'm specifically asking about is stock fit for a
18 noncriminal; does that make sense?

19 A I appreciate your stipulating that nobody wants
20 mass shooters to have a greater capability to slaughter
21 innocent civilians. I don't agree with that. I think
22 there's plenty of people that don't care whether the
23 mass shooter picks up their favorite weapons platform
24 and massacres a bunch of school children.

25 Q And who are those people?

Page 41

1 A They're out there. They're the people that don't
2 want to acknowledge the dangers to the public, the
3 enhanced danger to the public safety of these types of
4 firearms. They're -- they're more concerned about
5 having their access too. So they may not say it out
6 loud, but by their actions, they're basically saying, I
7 don't care if -- whether these -- if this weapon is out
8 there and it gets in the hands of the wrong person, oh,
9 well.

10 Q So what I'm trying to get at is the enhanced
11 danger of allowing people to have a stock on a rifle
12 that fits their shoulder.

13 A Well, I'm not talking about it in a vacuum. I'm
14 talking about it as being a feature of a weapon's
15 platform that is already going to have characteristics
16 that make it more dangerous, more lethal.

17 Q And an adjustable stock in and of itself is not
18 problematic?

19 A If you want to put it on a bolt action hunting
20 rifle, no; if you want to slap it on a AR15 platform,
21 yes.

22 Q And that is because the adjustable stock allows
23 for proper shoulder fit, is that why?

24 A It allows greater control of a weapon's system
25 that already has the potential for great lethality. And

1 anything that enhances the shooter's ability to fire
2 more rounds, more accurately in the wrong situation, and
3 that's the only reason I'm here, and that's the only
4 issue on the table here, is not whether some
5 hypothetical good guy would benefit from a telescoping
6 stock. It's about what happens when these firearms are
7 made available to the general public and somebody goes
8 off the rails.

9 Q Okay.

10 A As we see over and over again.

11 Q To be clear, the adjustable stock makes it more
12 comfortable for the shooter, because it will -- they can
13 get the stock to be in the length that is best for that
14 particular shooter; is that correct?

15 A Well, I don't know if I would say comfortable,
16 but it optimizes, it allows them to optimize the
17 shouldering of that weapon, so that they can fire that
18 weapon more rapidly.

19 Q Do you need an adjustable stock to put the stock
20 in a optimized position?

21 A If you're working with a fixed stock and it's not
22 right for you, I don't know how you make that
23 adjustment.

24 Q You can't get a new stock that fits your shoulder
25 already?

1 A I guess you could spend a fortune having a custom
2 stock made for you, but we're dealing in the real world
3 with factory stocks that come pretty standard.

4 Q So couldn't --

5 A Without regard to the particular needs of any
6 particular shooter.

7 Q So but a person could shorten or lengthen a stock
8 to their -- to their desired length, is that correct,
9 without -- without a telescoping stock?

10 A Well, I don't know about lengthening, but yeah,
11 you could shorten it. But then, again, you could end up
12 running afoul the legal limits on minimum length.

13 Q Why wouldn't you be able to lengthen it? You
14 couldn't put a butt stock extender on it?

15 A I don't see that out there. I don't know how
16 that necessarily works, but I haven't really given that
17 a lot of thought.

18 Q Okay.

19 A But if, in fact, you're right, then that option's
20 available to people, then they don't need adjustable
21 stocks, do they?

22 Q I think that's my point. We'll agree, why
23 would -- do you need an adjustable stock to get the
24 stock to the proper fit?

25 A Because it's cheaper, more practical, easier, and

1 there's the cool factor that's always part of this
2 equation.

3 Q How is the cool factor part of the equation?

4 A People that want these firearms, in my
5 experience, generally, want a military-type firearm.
6 And in the firearms community, that's considered cool.
7 That's why they're -- they're becoming so popular in a
8 certain segment of society.

9 MR. CHANG: Shawn, I don't want to interrupt your
10 line of questioning, but after you finish this line of
11 questioning, can we take a short break?

12 MR. BRADY: Of course. I think right after this,
13 I will -- it will be a perfect time actually.

14 Q So you indicated that shortening the stock could
15 run afoul of short barrel rifle laws. What did you mean
16 by that?

17 Actually, you know what? Before you say that, I
18 think now -- now could be a good time to take a break.

19 MR. CHANG: Sure.

20 MR. BRADY: Because that's going to go a little
21 bit longer than I thought. Off the record.

22 (Recess.)

23 MR. BRADY: We're back on the record. We took a
24 short break.

25 Q Before we left we were talking about adjustable

1 stocks, and I indicated or I asked you whether it's
2 possible for somebody to simply alter a fixed stock such
3 that it would fit their shoulder optimally. And you
4 indicated, I believe, you didn't know whether that was
5 the case; is that correct?

6 A No. Not exactly. What I think I said is, you
7 know, I don't see that. And I've been involved in the
8 seizure of tens of thousands of firearms. And I
9 don't -- I can't recall anybody with the exception of a
10 sawed-off shotgun or sawed-off rifle, that altered the
11 stock that way.

12 It pretty much, particularly within an AR15-type
13 weapon or an AK47, I don't think I've ever seen anybody
14 do something like that. You know, I'm sure there's --
15 there's workarounds to alter the length, extend the
16 length of the stock, and it's not a very elegant or
17 common phenomenon from my experience.

18 And as long as we're still on the subject of
19 telescoping stocks, is that another concern about them
20 is the -- is the same concern that law enforcement has
21 about short-barreled rifles or shotguns. In that if you
22 shorten the length of the rifle, whether you saw off the
23 stock or you collapse the adjustable stock, it's going
24 to make it more concealable, harder to detect. If
25 somebody with ill intent wants to introduce it into a

1 school or a concert venue or wherever they might be
2 targeting, a nightclub in Miami.

3 Q And you're saying a telescoping stock allows an
4 AR15 to become a short-barrel rifle?

5 A No. What I'm saying is that you're not going to
6 put a telescoping stock on an AR15, because you want to
7 shoot it from its most collapsed position. You're going
8 to want to extend it. That's the whole purpose of it.
9 Not to -- not to put it up, because there would be no
10 point to putting it on, just leave the fixed stock on.
11 So it allows you to not necessarily break the law, not
12 necessarily to collapse it to a length that's not legal,
13 but it can take a number of inches off.

14 Q How many inches?

15 A I don't know, it depends on the stock.

16 Q In your experience, what's a standard -- what's a
17 common telescoping stock variation of inches?

18 A I have never measured it. I don't even want to
19 guess.

20 Q So inspecting assault weapons, how many assault
21 weapons do you think you've inspected in your career?

22 A I would only be guessing. Many hundreds, if not
23 thousands.

24 Q Okay. So in looking at those hundreds,
25 potentially thousands of assault weapons, are they all

1 assault rifles?

2 A No.

3 Q How many of those, what percentage, more or less,
4 are we talking about assault rifles?

5 A Again, I couldn't even estimate.

6 Q Are they more common?

7 A Rifles are more common --

8 Q Okay.

9 A -- in my experience, than non-rifles.

10 Q And AR platform rifles?

11 A Very common, one of the most common.

12 Q Okay. And do those ARs commonly have adjustable
13 stocks on them?

14 A No.

15 Q They usually do not have adjustable --
16 telescoping stocks?

17 A Yeah. As far as my recollection, I wouldn't say
18 the majority. I wouldn't say they're uncommon. I
19 wouldn't say the majority had adjustable stocks.

20 Q Are they common enough that you're familiar with
21 seeing adjustable stocks?

22 A Yeah. But my only interest in them is if they're
23 adjustable, it's not how adjustable they are. And I
24 would imagine there may be some variation among
25 manufacturers in terms of how much you can extend them.

Page 48

1 Q If they only extended 3 to 4 inches, would that
2 be problematic in your eyes as far as making it more
3 concealable?

4 A No. The extended length is not problematic.
5 It's the collapsed length. And if you have a 28-inch-
6 long rifle or a 30-inch-long rifle, when it's extended
7 and you collapse it down to 26, which would be the legal
8 minimum, a 26-inch rifle is more concealable than a
9 30-inch rifle.

10 Q And first, a short-barrel rifle law is 26 inches,
11 overall length is the limit?

12 A Yes.

13 Q Are you aware whether an AR15 can get down to
14 26 inches, just based on -- just as a result of
15 shortening the stock?

16 A I can't say that I've measured the length of
17 AR15s. Most of them, I think, have fixed stocks which
18 are clearly well over 26 inches. And even the
19 collapsable stocks, just visually don't -- never
20 appeared to me to be less than 26 inches. But I've
21 never measured it.

22 Q My question is a little bit different in that I'm
23 asking could you get even 26 inches with an AR simply by
24 shortening the stock?

25 A I don't know the answer to that. I have never

1 measured it.

2 Q Okay. Would it -- would it alleviate your
3 concerns about the concealability of an AR15 with a
4 adjustable stock, if it could not be shortened less than
5 30 inches?

6 A That's nice.

7 Q Via the adjustable stock?

8 A Any shortening -- the ability to an individual to
9 shortened the length of any long gun, makes it more
10 concealable. And concealability is a concern.

11 Q Are you --

12 A So I wouldn't say that even if it was not down to
13 26, I wouldn't still be concerned.

14 Q Are you aware of any instances where a criminal
15 concealed an AR15 with an adjustable stock in order to
16 gain entry to where they committed their crime?

17 A I don't recall any instances.

18 Q If it is the case, and remember this is a
19 hypothetical, I'm not suggesting that this is the case.
20 But if it were the case that an adjustable stock
21 generally only changes the length of the rifle 3 to 4
22 inches, and the rifle remains in the 30-ish inch range,
23 is that going to be a significant difference in its
24 concealability, 3 to 4 inches?

25 MR. CHANG: I'm going to object. Lacks

1 foundation, incomplete hypothetical.

2 MR. BRADY: Good objection.

3 THE WITNESS: To me, yes, that would be
4 significant. Any reduction in the length increases the
5 concealability. I have arrested gang members with
6 28-inch or longer shotguns stuffed down their pants and
7 concealed with a jacket. So, yeah, any shortening of a
8 gun makes it more concealable, and concealability is a
9 concern.

10 BY MR. BRADY:

11 Q It's a concern in the abstract, though, right?
12 Because you're not aware of any specific instances where
13 somebody used the shortening of an AR via a telescoping
14 stock to conceal it and gain entry; is that correct?

15 A Well, as you said, this is a hypothetical, and
16 I've already stated I don't recollect an instance that I
17 know of where somebody took a collapsable stock gun and
18 concealed it.

19 Q Wouldn't a guitar case serve the same purpose
20 as -- in order to conceal an AR15 of any length?

21 MR. CHANG: Same objection. Incomplete
22 hypothetical.

23 THE WITNESS: I think there's a difference in
24 terms of accessibility of a firearm to the individual.
25 If it's concealed under your jacket or down your pants,

Page 51

1 you have more rapid access to the firearm than you would
2 having to put down a -- the case, unsnap it and pull it
3 out.

4 BY MR. BRADY:

5 Q But with an adjustable stock, they're going to
6 have to manipulate -- take time to manipulate the stock
7 to put it in the ideal position, right?

8 MR. CHANG: Objection. Incomplete, assumes facts
9 not in evidence.

10 BY MR. BRADY:

11 Q Well, let me ask you this. Your concern is
12 that -- correct me if I'm wrong -- the bad guy shortens
13 the stock as much as possible to make it as concealable
14 as possible to gain entry undetected, then deploy that
15 firearm, put it in the length of stock that the
16 person -- the bad guy wants it to be at. Is that what
17 your concern is generally?

18 A Well, you're making an assumption that the
19 optimum length for that particular shooter, that the
20 stock isn't already in that position, and that that
21 position is shorter than full extension of the stock.

22 And I'm not saying that there -- it's the only
23 way to conceal a firearm. To me, that doesn't matter.
24 It is a way to shorten the length, and thus make it more
25 concealable.

1 Q So any way to make a rifle more concealable is a
2 threat to public safety?

3 A Not -- not out of context. Within the context of
4 the weapons that we are discussing today, combined with
5 other matters, other features, other characteristics of
6 those weapons, the concealability isn't the number one
7 concern. It's a concern.

8 Q Have you ever disassembled an AR15?

9 A Yes.

10 Q How many times?

11 A Dozens.

12 Q So you're familiar with the process?

13 A Yes.

14 Q How long does it take to remove a pin to take the
15 upper off the lower?

16 A Seconds.

17 Q Seconds? If you were to take -- an upper of an
18 AR15 is attached to a lower by two pins; is that
19 correct?

20 A That's correct.

21 Q If you were to pop out the front pin, how long
22 would that take you?

23 A Well, it depends on how stiff it is. It depends
24 on whether you have equipped it with a quick release
25 ring.

1 Q How quickly could you remove that pin?

2 A Again, in seconds, mere seconds.

3 Q And that would cause the upper to fold down onto
4 the lower, right, so that it would -- the rifle would
5 basically be half of its length?

6 A I wouldn't -- I don't know that it's half, but,
7 yes, it would shorten it. At the same time it would
8 widen it considerably. That would affect it's
9 concealability. Unless you're going to remove both pins
10 or pull both pins, you don't actually remove them.

11 And put them together, you would have a little
12 less width that you have to deal with and be
13 considerably shorter, but now you've got to spend the
14 time to reassemble that weapon.

15 So I think I want to -- not that it couldn't --
16 that technique couldn't be done as an alternative to a
17 collapsable stock.

18 Q Well, it would make it more concealable in a
19 collapsable stock, right?

20 A With, as I said, the offsetting problems of now
21 you've got to reassemble your weapon.

22 Q Correct. But it would make it significantly more
23 concealable, correct?

24 A I've never tried to. I don't know that that's
25 true.

1 Q Okay. So I want to just wrap up the discussion
2 about adjustable stocks by asking you, essentially, your
3 concern about adjustable stocks is with respect to
4 concealability. Not the -- not the control factor, but
5 with respect to concealability, your concern with the
6 adjustable stock is that a -- an evildoer might be able
7 to somewhat better conceal the firearm to go undetected;
8 is that accurate?

9 A Yes.

10 MR. CHANG: If you're moving to another subject,
11 can we go off the record for a second?

12 MR. BRADY: Sure.

13 (Interruption in the proceedings.)

14 MR. BRADY: We're back on the record.

15 Yeah. We are back on the record after a short
16 water break.

17 Q So moving on down your report to paragraph 11, it
18 talks about flash suppressors. You state, "Flash
19 suppressors also contribute to the potential lethality
20 of the rifle. Flash suppressors function to reduce the
21 flash signature in the shooter's field of vision in low
22 light conditions." Is that accurate?

23 A Yes.

24 Q You go on to say, "By reducing the effect of the
25 muzzle flash on the shooter's night vision, the shooter

1 can get back on target quicker." Is that accurate?

2 A Yes.

3 Q So is it your position that a flash suppressor is
4 only relevant in low light situations?

5 A I believe that that's the purpose of it, yes. I
6 don't know how effective it would be in daylight.

7 Q And a flash suppressor -- does a flash suppressor
8 hide the flash from -- from the viewpoint down range?
9 In other words, does somebody on the wrong end of the
10 muzzle, does it change their view of the flash?

11 A It depends on the particular flash suppressor and
12 how it functions, but not to any great degree, I don't
13 think.

14 Q So the purpose of a flash suppressor is not to
15 hide the flash from somebody on the wrong end of the
16 gun, it is to divert the flash from the shooter's field
17 of vision; is that correct?

18 A Yes.

19 Q And that is, like you say in your report, to
20 lessen the impact of the flash on the person's night
21 vision in low light conditions, because their pupils
22 will be dilated, right?

23 A Yes.

24 Q Does a flash suppressor affect a rifle's rate of
25 fire at all?

1 A No.

2 Q Does it --

3 A Only -- only -- excuse me. Only to the degree
4 that the shooter is trying to reacquire their target
5 without the flash suppressor might take them longer.

6 Q In low light conditions?

7 A Yeah. And that would reduce their -- either
8 reduce their rate of fire or reduce the accuracy of --

9 Q Okay. So if somebody -- so if somebody
10 discharges a firearm in low light conditions in self-
11 defense, would it be a good thing that they not lose
12 their night vision if, like you said, they wouldn't be
13 able to stay on target?

14 A I don't know how you're defining self-defense.

15 Q A legitimate self-defense shooting.

16 A In a legally justifiable use of that firearm in
17 self-defense, a flash suppressor may provide some degree
18 of increased accuracy for them, which would, presumably,
19 be a good thing.

20 But I don't know, in an enclosed environment
21 where -- such as a house, where your typical self-
22 defense scenario for civilians occurs, at least legally
23 justifiable ones, I'm not sure it would benefit them
24 that much.

25 Because you're -- you've got the flash bouncing

1 off the walls and -- but I've never tested that theory.
2 So it could be a good thing, but to what degree, I can't
3 say.

4 Q Okay. So just to be clear, as far as mere
5 mechanics, a flash suppressor does not affect the
6 mechanical rate of fire of a rifle, right?

7 A In terms of pure mechanics, no.

8 Q Okay. And does a flash suppressor affect a
9 rifle's capacity for firepower?

10 A Yeah. They --

11 MR. CHANG: Objection. Vague and ambiguous to
12 the term "capacity."

13 THE WITNESS: I believe I understand your
14 question. And in a strictly -- the sense of the
15 mechanics of it, no; in terms of the -- the shooter's
16 ability to reacquire their target quickly, yes.

17 BY MR. BRADY:

18 Q All right. Again, pure mechanics, no?

19 A No.

20 Q Okay. Does a flash suppressor affect a rifle's
21 ammunition capacity?

22 A No.

23 Q So before we leave the features discussion, I'd
24 actually like to ask you about the other features in
25 those same questions. Does a pistol grip affect a

1 rifle's rate of fire?

2 A Absolutely.

3 Q Mechanically?

4 A Absolutely.

5 Q How is that?

6 A It allows the shooter to maintain a firm grip on
7 the firearm to keep it on target more effectively, more
8 accurately. At the same time it aligns the trigger
9 finger with the trigger in a manner that allows a more
10 straight backward trigger pull, which is what a shooter
11 wants in terms of accuracy and speed.

12 Q Are you familiar with the rifle, a Ruger Mini-14?

13 A I am.

14 Q That rifle is not in its stock form, in its
15 standard form, is not an assault weapon under California
16 law; is that correct?

17 A That's correct.

18 Q That's because it lacks a pistol grip -- it lacks
19 the features, right?

20 A Correct.

21 Q It shoots the same ammo as -- basically as the
22 AR15, generally 223, right?

23 A Yes.

24 Q So is it your opinion that you can discharge an
25 AR15 at a higher rate of fire than you can a Mini-14?

1 A It's my opinion that you can discharge the AR15
2 more accurately given a specific rate of fire than you
3 could a Mini-14. And --

4 Q But -- go ahead, I'll let you finish.

5 A It's my opinion that the more you fire a stock
6 Mini-14, the more problematic it becomes, because you
7 have less control over that firearm of staying on
8 target.

9 Q Okay. But remember, and correct me if I'm wrong,
10 but I asked does the pistol grip affect a rifle's rate
11 at a mechanical level, not at a capability of the
12 shooter level, at pure mechanics. And I believe you
13 said, yes. Is that still your --

14 A It's still my answer. I don't --

15 Q So then a -- a Mini-14 -- an AR15 is shot at a
16 higher -- at a faster rate than a Mini-14, necessarily?

17 A Well, you can't discuss that issue out of
18 context. And, again, accuracy is important. And as I
19 said, maybe you can crank off rounds as fast with a
20 Mini-14 as you can with a AR15, but you're not going to
21 have the accuracy, the ability to control that weapon as
22 much as you do when you have a pistol grip.

23 Q On what do you base that opinion?

24 A On having fired both weapons, and just the
25 general experience of firing both semiautomatic and

1 fully-automatic firearms with pistol grips. They
2 definitely provide a greater degree of control, and thus
3 accuracy, than one without.

4 Q Have you ever conducted any field tests comparing
5 the AR15 side by side with the Mini-14 as far as
6 accuracy?

7 A No.

8 Q You said you've fired both semiautomatic and
9 fully automatic rifles with pistol grips and without
10 noting the difference. Is there a difference between
11 the control of a semiautomatic firearm versus a machine
12 gun?

13 A Yes.

14 Q Which one -- what is the difference?

15 A Well, the machine gun typically is firing at a
16 much rapid rate -- much more rapid rate than a
17 semiautomatic firearm, and that leads to issues of
18 control. That's why I'm not sure I know any submachine
19 gun, any machine gun used by the military, that doesn't
20 have a pistol grip for that very reason. It's to give a
21 shooter control over what would be really dangerous if
22 it was out of control.

23 Q So a machine gun is less controllable than a
24 semiautomatic?

25 A Generally speaking, yes.

1 Q So then under your logic, wouldn't it be less
2 dangerous to the public if it's less controllable for
3 the shooter?

4 MR. CHANG: Objection. Argumentative.

5 BY MR. BRADY:

6 Q Your -- your position is that the controllability
7 of an AR15, of an assault rifle, makes it more dangerous
8 to public safety; is that correct?

9 A Again, it's the context of the situation. As we
10 saw in the Vegas shooting, that individual only needed
11 to hold on target a huge mass of humanity to inflict
12 incredible damage and death on that crowd. Had he had a
13 single target that he was trying to hit, and that target
14 were moving like the crowd began to move, he would have
15 had a lot more difficulty striking his target if he was
16 shooting rapid fire.

17 Which is part of the reason the military trains
18 their soldiers extensively in the use of their M4s, M16s
19 in semiautomatic mode. And if I'm correct, I believe
20 they equip most soldiers with a select fire M4 that
21 fires a three-round burst as opposed to a full auto, as
22 long as you hold the trigger rounds go down range. In
23 part to preserve ammunition, but also in part that they
24 recognize that you start to lose accuracy, because
25 you're losing control as that -- that rapid recoil of

Page 62

1 the firearm you experience through -- through the full
2 auto mode.

3 Q So then full auto is less controllable than
4 semiauto, right?

5 A Yes.

6 Q And your concern is that mass shooters will have
7 more control over their firearms? Isn't that your
8 premise for not wanting features on these rifles?

9 A Yes.

10 Q So then by your logic, going back to my previous
11 question, wouldn't machine guns be preferable for public
12 safety over assault weapons?

13 MR. CHANG: Objection. Argumentative.

14 THE WITNESS: No, not at all.

15 BY MR. BRADY:

16 Q Why not?

17 A Because of the -- again, you can't address the
18 issue out of context. And if we're talking about mass
19 shootings, typically they're conducted against group --
20 significant groupings of individuals. They're not
21 necessarily targeting individual targets. So -- but
22 they want to inflict as much carnage as they can, so
23 they are going to want to fire rapidly. So the more
24 control they have over their weapon, the more
25 potentially lethal that weapon is.

Page 63

1 Q On what do you base your statement that mass
2 shooters don't have deliberate targets?

3 A I'm not saying they don't have deliberate
4 targets. I'm saying that in a number of shootings,
5 Vegas being the most recent example of that, is that he
6 didn't need -- he equipped his AR15s with bump stocks,
7 which mimic the rate of fire of some machine guns, which
8 allowed him to put many more rounds down range in a
9 given amount of time. But he wouldn't have been
10 concerned about accuracy, because what he was firing at
11 was a huge mass of people, not at individual targets.

12 Q So then the features in that situation made no
13 different in the Vegas shooting; is that correct?

14 A Well, if he had put a bump stock on a Mini-14 and
15 tried to do that, there's degrees of control. And he
16 might have been shooting at the sky as the burst of
17 gunfire raised the barrel of his gun upwards, which is
18 typical of machine guns and rapid fire.

19 And if he had it equipped -- you know, unless he
20 had it -- equipped his firearms, and I don't know that
21 he did, but with a hybrid muzzle rate flash suppressor,
22 which would have been an attempt to regain and retain
23 some control over that weapon. But in his case, he
24 didn't need accuracy. He just needed to hit the broad
25 side of a barn, essentially.

1 Q And so it's your opinion that the features played
2 a role in that case, because he was able to just keep
3 the muzzle down on the crowd?

4 A He was able to control the firearm better than
5 without the pistol grip, and thus keep his targets in --
6 aligned with his firearm.

7 Q You don't think that he could have inflicted the
8 same amount of harm without a pistol grip? Is that your
9 opinion?

10 A Yes.

11 Q And that's solely based on that he was able to
12 keep the firearm more controlled?

13 A Yeah. His -- his greater control of the firearm
14 through the use of features --

15 Q Was that --

16 A -- typically the -- the pistol grip.

17 Q Was that in any of the reports that you read
18 about the shooting that you indicated in your report?

19 A Yes.

20 Q It mentioned the pistol grip playing a role in
21 that shooting?

22 A I'm don't -- I'm not saying it mentioned it. I'm
23 aware, I've seen photographs from the scene, and his
24 weapons were equipped with pistol grips.

25 Q That wasn't my question, though. My question was

1 did the report reference whether the pistol grip made a
2 difference in the amount of victims he was able to make.

3 A I think I just said no, it didn't. This is my
4 opinion having seen the photographs that show that his
5 weapons were equipped with pistol grips, that that would
6 have afforded him -- based on my experience with pistol
7 grip weapons -- to better control his weapon when he was
8 in this extremely rapid fire simulation of a machine gun
9 scenario.

10 Q So if he had a machine gun, let's say a
11 featureless machine gun, a Mini-14, fully automatic, he
12 would not have been able to sustain the amount of injury
13 that he did? Is that your opinion?

14 A I believe that it would have been less, because
15 he would have lacked as much control over that firearm.

16 Q Have you ever shot a machine gun that did not
17 have a pistol grip?

18 A I don't think so, no.

19 Q So you don't have any personal experience with
20 how a featureless machine gun would operate? Is that
21 fair to say?

22 A That's fair to say. It's -- but I would also say
23 that I have experience with featureless semiautomatic
24 rifles as well as semiautomatic and fully automatic
25 rifles that have pistol grips. And I know what a fully

1 auto AK47 does. It wants to climb to the sky. And it's
2 that pistol grip, primarily, that allows you to stay on
3 target.

4 The military doesn't equip its soldiers with
5 featureless rifles. There's a reason that they have
6 pistol grips on their rifles. There's a reason the
7 police department, even if they use the Mini-14, they --
8 which some agencies do, they equip those with
9 alternative stocks that have pistol grips on them. And
10 it's all about being -- the controllability of the
11 firearm.

12 And the police and the military are all about
13 being effective with those firearms in putting down the
14 threat. And they wouldn't bother with pistol grips if
15 that didn't enhance their ability to stop the threat.

16 Q So if we were to concede that a pistol grip makes
17 a firearm more controllable, do you have any -- have you
18 formed any opinions to what extent the pistol grip
19 enhanced controllability?

20 A You mean have I quantified it?

21 Q Yes. So in other words, obviously, there's no
22 metric to say, yeah, it's 3 inches' different. But my
23 question is, even assuming that a pistol grip does make
24 a rifle more controllable, does it make that big of a
25 difference such that the Vegas shooter would not have

1 been able to do exactly what he did without a pistol
2 grip?

3 A As I said, I believe the pistol grip allowed him
4 to inflict more damage on that crowd. I can't quantify
5 it. And, again, it's going to depend on the shooter and
6 the scenario to what degree it's going to make a
7 difference.

8 Q All right. So we're still talking about pistol
9 grips and how they increase -- whether they mechanically
10 increase the rate of fire, whether they affect a rifle's
11 capacity for firepower. Does a pistol grip affect a
12 rifle's capacity for firepower?

13 A I don't know what you mean by that statement,
14 "capacity."

15 Q What if I told you that the California Penal Code
16 uses the term "capacity" for firepower, would you
17 recognize that term?

18 A Again, I don't know what you mean by capacity.

19 Q So you've never seen the term "capacity" for
20 firepower?

21 A I wouldn't say that.

22 Q Have you seen the term "capacity" for firepower?

23 A I may have. I don't recall.

24 Q But you don't have any understanding for what
25 that term means as you sit here today?

1 A I don't know what you mean.

2 Q I mean as used in the California Penal Code --

3 A Well --

4 Q -- and the Assault Weapon Control Act.

5 A I think it's referring to the ability of the --
6 of the shooter to do more damage with the firearm than
7 if it weren't similarly configured.

8 Q That's your interpretation of capacity for
9 firepower, ability to do more damage?

10 A Yes.

11 Q And so with that understanding in mind, do you
12 think a rifle -- a pistol grip affects a rifle's
13 capacity for firepower?

14 A Absolutely.

15 Q Okay. And that is because, as you've indicated,
16 it gives the shooter more contro, is that correct, and
17 makes them more accurate?

18 A It allows them to fire more rapidly accurately.

19 Q Got it. Does a pistol grip affect a rifle's
20 ammunition capacity?

21 A No.

22 Q Okay. Let's go back to -- okay. Going back to
23 your report about your role at the LAPD Gun Unit, in
24 paragraph 3 you indicate, "I have seized or participated
25 in the seizure of hundreds of assault rifles." Is that

Page 69

1 an accurate statement?

2 A It's probably an underestimate.

3 Q An underestimate, okay. An assault rifle, again,
4 means a rifle meeting the definition of an assault
5 weapon; is that correct?

6 A In the California Penal Code, yes.

7 Q How many of these, more or less a percentage,
8 were AR15s?

9 A I don't want to guess, but a -- a high -- high
10 percentage I'd -- I'd say.

11 Q So on pages 3 and 4 of your report, you -- looks
12 like you put together some tables laying out the
13 firearm-related statistics for LAPD; is that correct?

14 A I didn't put them together. I was provided them.

15 Q Who provided them to you?

16 A We're talking about on 3 and 4? My understanding
17 is if you -- are you talking about these on -- on 3 or
18 are you talking about the ones that are directly related
19 to the gun unit?

20 Q Let's start with the tables on page 3 of
21 Exhibit 1.

22 A Okay. Those --

23 Q Who put those tables together?

24 A I only have a vague understanding of who put it
25 together, that they were other department entities,

Page 70

1 including robbery/homicide. They were provided to me by
2 my then lieutenant. I don't -- I didn't -- I don't have
3 the source documents for this, these figures. I didn't
4 put them together. I didn't add them up.

5 Q So you're relying on their accuracy from a source
6 that you did not have any direct input on? Is that fair
7 to say?

8 A That's correct.

9 Q You said "then lieutenant," your then lieutenant
10 provided you these tables. When did he or she provide
11 that to you?

12 A I don't know. It was --

13 Q Was it some time ago, if you said then --

14 A Months -- months ago. I say then lieutenant,
15 it's he's subsequently promoted to captain and left the
16 division.

17 Q Okay. And that -- that happened months ago, you
18 said?

19 A Yes.

20 Q Okay. So this was a relatively recent provision
21 of this information, right?

22 A Yeah.

23 Q Okay. So you don't -- you have no personal
24 knowledge about the process, about how these numbers
25 were put together, right?

1 A No.

2 Q Okay. So you don't know, on page 3, the first
3 table that says "Total Number of Gun Shot Victims," do
4 you have any idea how many of those were from assault
5 weapons?

6 A None whatsoever. I have no idea.

7 Q You have no idea. It's not that it's none --

8 A Yeah.

9 Q -- you have no idea. It could be all. It could
10 be none. It could be some.

11 A Right. And my understanding is that the
12 department does not keep those kind of records. In
13 order to figure that out, you'd have to pull every
14 report of gunshot victims and -- by hand, and calculate
15 how many were from what kind of firearm.

16 Q And you did not do that for this report; is that
17 right?

18 A No, I did not.

19 Q Going to the second table, "Total Number of Shots
20 Fired Calls," same thing, you don't know how many are
21 assault weapons, right?

22 A Same thing.

23 Q "Total Number of Firearms Related Arrests,"
24 again, you don't know how many were assault weapon-
25 related crimes?

1 A No, I don't.

2 Q Okay. So you say in paragraph 5 that you're
3 providing statistics for the past five years regarding
4 gun-related seizures. Why did you limit to it five
5 years?

6 A I limited it simply because that was what was
7 provided to me.

8 Q Okay. So you just asked for what records they
9 have, and they sent you these tables with -- of five
10 years of -- of data?

11 A Well, they sent them to my lieutenant, yes.

12 Q Got it. So you didn't make a decision to limit
13 it to five. That's just how the information was kept?

14 A Yes.

15 Q Got it. So you state in your report that
16 statistics regarding assault weapons are provided
17 because these guns typically use large-capacity
18 magazines. Can you explain what you mean by that?

19 A The --

20 MR. CHANG: I just object to mischaracterizes the
21 statement. You left out "and machines."

22 MR. BRADY: I did, I know I did.

23 MR. CHANG: That's fine.

24 MR. BRADY: No, no. That's fine. I was trying
25 to shorten -- you're right.

1 MR. CHANG: Right.

2 MR. BRADY: Let the record reflect I was just
3 trying to shorten it to talk about assault weapons.
4 Didn't mean to misconstrue.

5 But let me strike that question, though, just for
6 clarity and a clean record.

7 Q Let me start, before we go there, with the table
8 at the top of page 4.

9 A Uh-huh.

10 Q "Total Number of Firearms Booked Citywide."

11 A Uh-huh.

12 Q I don't think I asked you, but I think I know the
13 answer. You don't know how many of those are assault
14 weapons, right?

15 A I have no idea.

16 Q Okay. And that was another table provided to
17 your lieutenant?

18 A Yes.

19 Q Okay. So going back to paragraph 6, you say that
20 you're providing statistics regarding assault weapons
21 and machine guns, because these guns typically use
22 large-capacity magazines. Is that a correct statement?

23 A Yes.

24 Q Okay. What -- can you explain what that means,
25 please?

Page 74

1 A Well, the context of these tables is the
2 assertion that we have a lot of gun violence in the city
3 of Los Angeles, and we have a lot of firearms in the
4 city of Los Angeles, including assault weapons and
5 machine guns. Those seem to be the relevant issues,
6 assault weapons in particular, to your lawsuit.

7 And in demonstrating -- trying to demonstrate
8 that some numbers of assault weapons and machine guns,
9 that it seemed logical to accumulate those statistics as
10 well, simply to make the point that -- that gun violence
11 is a problem in the -- in the city, and assault weapons
12 and machine guns are a problem in the city.

13 Q Okay. But the reason I'm asking is it says that
14 you provided these statistics about assault weapons and
15 machine guns because these guns typically use
16 large-capacity magazines.

17 A Because the detachable or non-fixed magazine is
18 part of the equation in terms of lethality of these
19 firearms. It's not the sole -- and I can anticipate
20 that you're going to point out a Mini-14 can accept a
21 large-capacity magazine. That's absolutely true. All
22 these features and characteristics that we're discussing
23 today have to be taken as a whole, not -- not piecemeal.
24 And that's what I base my opinions about the lethality
25 of these weapons on.

1 Q You don't think that the ammunition a rifle uses
2 is -- is more relevant to its lethality than the
3 features?

4 MR. CHANG: Objection. Argumentative.

5 THE WITNESS: I think that if you want to open up
6 that can of worms, so are -- semiautomatic firearms, in
7 general, are more lethal and have more lethality than a
8 revolver. A rifle round has more lethality than a
9 handgun. I would rather be shot with a 9-millimeter
10 than with a 223.

11 BY MR. BRADY:

12 Q Why is that?

13 A Because my understanding, based on my research,
14 is that the 223 is a particular -- is meant for the sole
15 purpose -- was invented, was designed by the military
16 for the sole purpose of killing human beings.

17 And it -- studies have shown that -- that 223,
18 556, 762, that they do extensive damage compared to --
19 much more extensive damage and life-threatening injuries
20 as opposed to a handgun round, the velocities, the
21 masses, the bullets, et cetera.

22 And I'm not a ballistics expert, but I think that
23 research would support that -- that rifle ammunition is
24 more lethal given -- given a -- where the shot placement
25 is, than a handgun round.

Page 76

1 Q Coming out of a rifle or just generally? So
2 if -- is -- would it be fair to say that a round coming
3 out of a rifle is going to be at a higher velocity than
4 a round coming out of a handgun, generally?

5 A Generally speaking, yes.

6 Q So it's not really unique to the 223 or the 762,
7 that that have -- that they're being fired at high
8 velocity, right?

9 A I don't -- I'm sorry, I don't --

10 MR. CHANG: Go ahead. I'm just going to say --
11 I'm just making an objection here. This is beyond the
12 scope of his report, and he said he's not an expert on
13 ballistics. If you want to pursue the line of
14 questioning, you can go ahead, but I think at some point
15 we should take it-- take it back.

16 MR. BRADY: Noted.

17 Q So, for example, you said you looked at studies,
18 but you have no ballistics background, as you previously
19 testified to, correct?

20 A Correct.

21 Q So you were just reading the study, just as if
22 somebody else who was familiar with firearms would read
23 the study, right?

24 A Yes. Anybody who was curious, including your own
25 ballistics expert's report.

Page 77

1 Q We'll get to that in a minute. And were those
2 studies specifically looking at 223 and 556 rounds,
3 specifically about, you know, depicting those rounds, or
4 were they comparing them to various rifle rounds?

5 A I think they were mostly focused on the round
6 itself.

7 Q Okay. So there was no comparison of lethality of
8 different rifle cartridges? Is that fair to say?

9 A No. And I'm not making a distinction between
10 rifle rounds. I'm making a distinction between rifle
11 rounds and handgun rounds.

12 Q Got it.

13 A And, of course, there's a lot of variabilities
14 that go into making that assessment, including shot
15 placement. But I think it's a general consensus that a
16 rifle round would deliver a greater kinetic energy to
17 its target than a handgun round. And I know that my
18 vest will not stop a 223. It will not stop a 762 x 39.
19 It will stop a 9-millimeter or a 45, typical handgun
20 rounds.

21 Q Does a pistol grip have any impact on the
22 velocity at which the round comes out of the rifle?

23 A No.

24 Q Does a flash suppressor have any impact on the
25 velocity at which the round comes out of the rifle?

1 A I don't know. I would imagine not, but maybe it
2 has some minimal effect.

3 Q Does an adjustable stock have any impact on
4 the -- the speed over the round coming out of a rifle?

5 A No.

6 Q So when you talk about the velocity of the 223,
7 the 556, the 762 rounds, that is a product of them being
8 shot out of a rifle, not necessarily out of an assault
9 weapon, correct?

10 A That's correct.

11 Q So same rifle has features as one rifle, no
12 features, shoots the identical ammo, identical barrel
13 length, same exact kinetic energy is hitting the target,
14 right?

15 A I would say --

16 MR. CHANG: Objection. Lacks foundation, beyond
17 the scope of the expert report.

18 THE WITNESS: Using your example of the Mini-14,
19 the Mini-14, the stock configuration out of the factory,
20 would have exactly the same effect on its target as a
21 pistol grip-equipped Mini-14. I can't say that a
22 Mini-14 has the same ballistic effect as the same round
23 fired out of an AR15 or some other, because there's
24 different -- in particular the barrel length that
25 affects the muzzle velocity.

Page 79

1 BY MR. BRADY:

2 Q Yes. That's fair. I think I said identical
3 rifles with identical -- assuming identical rifles,
4 identical barrel lengths -- I think you put it
5 perfectly -- Mini-14, one has a pistol grip, adjustable
6 stock, flash suppressor, one does not, same barrel
7 length, they're going to have identical kinetic energy
8 at the target, right?

9 A Yes. That's my understanding.

10 Q Assuming the same ammunition too?

11 A Yeah.

12 Q I forgot to add that.

13 A Yeah.

14 Q So in paragraph 6 you say that the LAPD does not
15 keep statistics on the number of assault weapons and
16 machine guns recovered citywide due to the expertise
17 needed to determine whether a weapon is actually an
18 assault weapon or a machine gun. Can you explain what
19 that means?

20 A The figures for citywide firearms booked is the
21 result of the 21 areas of patrol divisions and the
22 officers who seize firearms, the -- some specialized
23 units that also seize firearms. We don't see all those
24 seizures. We have no way of knowing, out of that, for
25 instance, 2016, the 1,500 firearms booked, how many are

Page 80

1 pistols, how many are rifles, how many are shotguns, how
2 many meet the criteria for assault weapons.

3 Q So -- but, I guess, let me hone in on what I'm
4 trying to ask about, and that is your statement that
5 they don't have those statistics due to the expertise
6 needed to determine whether a weapon is actually an
7 assault weapon or a machine gun. What expertise do you
8 need to determine whether a weapon is an assault weapon?

9 A You need to understand what the penal code says.
10 There's a description of the -- of the firearm. It's
11 not unknown that officers have booked semiautomatic
12 pistols resembling a MAC-10 as machine guns when, in
13 fact, they're a semiautomatic firearm, because they
14 don't have any training to know. It's not unusual for
15 them to -- to book assault weapons not realizing they're
16 assault weapons.

17 And we know this because on occasion we -- a
18 seizure out in the field by patrol officers or other
19 specialized units comes to our attention and they're
20 booked as -- assault weapons have been booked as garden
21 variety rifles. And when we go look at them, it's like,
22 whoa, wait a second, that is an assault weapon.

23 And to give you an example, several months ago I
24 had -- an additional auxiliary function of our unit is
25 whenever the department is releasing a firearm to

1 somebody, that they have to get their law enforcement
2 gun release, which is, essentially, a background check,
3 just like you were going to a dealer and buying a gun.
4 And they get that letter, and then they have -- it's
5 good for 30 days.

6 And, typically, they come in on the 25th, 27th
7 day that that letter is still good, because it expires
8 after the 30 days. And we're required to run a final
9 background check on them, because they could have picked
10 up an arrest, a conviction, a restraining order, a
11 mental health commitment in those 30 days. So as a
12 failsafe, a backstop, the gun unit runs a final
13 background check and gives the okay on -- on the gun
14 release.

15 On -- on this particular occasion, I'm looking at
16 the gun that they're trying to release to this guy, and
17 it's an AK47, a named AK47. It was booked as just a
18 rifle. So we know it goes on, and -- and records
19 clerks, patrol officers, property officers, they don't
20 necessarily have the knowledge and training to look at a
21 firearm and realize it's a machine gun or it's an
22 assault weapon.

23 Q Okay. So --

24 A It was booked as an ordinary firearm.

25 Q So -- so you -- is it your opinion that one needs

1 training to know how to determine whether a gun is an
2 assault weapon?

3 A You have to have some level of knowledge, and
4 whether that's full training or your own self-training,
5 there are plenty of patrol officers out there that are
6 capable of identifying a firearm as an assault weapon,
7 but there's also a lot of them out there that don't have
8 that training. That's why we try to get out to the
9 divisions on a regular basis -- regular schedule and
10 present them with that information.

11 But, of course, personnel is constantly changing,
12 shifting, new officers coming in, et cetera. So
13 consequently you -- you can't know in this raw numbers
14 whether they're rifles, shotguns, assault weapons, et
15 cetera, machine guns. You really have to go and look at
16 each report.

17 Q And you didn't do that for those guns --

18 A No.

19 Q -- in the top table --

20 A No.

21 Q -- for this report, right?

22 A No.

23 Q I'm sorry. Let me just ask the question so we
24 have a clean record. I'm sorry. I know you're being
25 conversational.

1 So on page 4, at the top table about the total
2 number of firearms booked citywide, you did not do what
3 you just suggested would need to be done to determine
4 how many of those are assault weapons, which is review
5 every report individually, right?

6 A Correct.

7 Q So going to the next table down, the second table
8 on page 4, these are -- it says, "The number of assault
9 rifles/machine guns recovered by the gun unit." Can you
10 explain what recovered means?

11 A They could have been seized in a search warrant.
12 They could have been seized during an arrest. But
13 basically recovered means seized and booked by us.

14 Q Okay. And that would normally be pursuant to a
15 crime that you're taking, you're seizing the rifle from
16 an individual who is suspected of committing a crime
17 generally?

18 A Yeah. Typically, that they're prohibited from
19 owning any kind of firearms, our investigation suggests
20 that they do, in fact, have possession of firearms. We
21 go in there not knowing what -- necessarily what
22 firearms, or if we know that they're, you know, handguns
23 or shotguns or whatever. And we get into the location,
24 we discover they also have assault weapons or machine
25 guns.

1 Q Do you have any idea of how -- what percentage of
2 these figures would be unlawful possession of an assault
3 weapons?

4 A I don't know.

5 Q So you don't really know how, specifically, these
6 numbers are broken down, as to how they came into the
7 LAPD gun unit's possession, right?

8 A Correct. It's going to be more than likely an
9 unlawful possession, either because they're prohibited
10 or because we, you know, identified them as unregistered
11 assault weapons.

12 Q Would these include assault weapons that were
13 seized because they were used in a shooting?

14 A Not typically. That is not one of our areas of
15 effort. We're -- we're not generally called to a
16 shooting scene. On the rare occasion, through the use
17 of ballistics testing, a firearm is connected to a
18 shooting, but that is not a focus of our mission.

19 Q So that's why you say most of these are likely --
20 most of these assault weapons are -- mostly come into
21 your possession as a result of illegal possession
22 because you're investigating unlawful possession of
23 firearms generally?

24 A Yes.

25 Q All right. Do you have a table with a number of

1 firearms, generally, that are recovered by the gun unit?

2 A I wasn't provided with one.

3 Q Okay. So you don't know?

4 A It would certainly be possible to compile one.

5 Q It would be possible to compile one?

6 A Using the same sources that I'm assuming they
7 used to compile these.

8 Q Okay. So you don't know what percentage of the
9 number of guns recovered by the LAPD Gun Unit are
10 assault weapons, based on this table, right?

11 A I do not know.

12 Q Okay. The table indicates that these are --
13 these numbers include both assault rifles and machine
14 guns; is that correct?

15 A That's correct.

16 Q Is there a reason that you, or whoever put this
17 table together -- let me ask you.

18 Did you -- you did not put this table together,
19 right?

20 A No, I did not.

21 Q You were provided this table?

22 A Yes.

23 Q Do you know why this person who put this table
24 together did not just aggregate assault rifles from
25 machine guns?

1 A I don't know why they chose to do that.

2 Q So we don't know what percentage of these figures
3 were assault weapons versus machine guns; is that right?

4 A Well, I can say with certainty that the vast
5 majority of those numbers are assault weapons, not
6 machine guns.

7 Q How can you say that with certainty?

8 A Because I see what we seize, and the vast
9 majority of them are assault weapons, not machine guns.

10 Q And how do you make that determination?

11 A In the field we function-test them, and
12 ultimately, if we believe they're machine guns, we
13 either shoot them or we have our firearms analysis unit
14 shoot them and confirm that they are, in fact, machine
15 guns.

16 Q Would you have any idea of whether the number of
17 guns recovered by the gun unit overall is smaller,
18 similar or bigger than the total number of firearms
19 booked citywide, or do those numbers include the gun
20 unit's seizures?

21 A I don't know for certain, but I'm assuming that
22 the number of firearms booked citywide is probably
23 generated by property division, that that's about as far
24 down as they can filter it.

25 Q And would that include the --

1 A And that would include what we booked.

2 Q Okay. Okay. So then the -- so the number of
3 guns, in general, recovered by the gun unit would not be
4 higher than the number of guns booked citywide. Is that
5 fair to say?

6 A That -- that's correct.

7 Q Okay. An assault rifle does not necessarily need
8 a large-capacity magazine to function. Is that fair to
9 say?

10 A That's fair to say.

11 Q Would your concerns about the lethality of
12 assault rifles be mitigated if magazine capacity was
13 restricted?

14 A Absolutely.

15 Q Which of the two, an assault rifle or a
16 large-capacity magazine, is more concerning from a
17 public safety standpoint in your opinion?

18 A I don't know that I can answer that question.

19 Q Can I provide a scenario and maybe it will help
20 you?

21 A Sure.

22 Q So you have a Mini -- stock Mini-14 featureless
23 rifle with a 30-round magazine, and you have an AR15
24 with all the bells and whistles, pistol grip, adjustable
25 stock, flash suppressor, and it's got a fixed

1 10-round -- let's leave -- a detachable, a detachable
2 10-round magazine, which would you think is a bigger
3 threat, if any, to the public safety?

4 MR. CHANG: Objection. Lacks foundation,
5 incomplete hypothetical.

6 THE WITNESS: If you're going to leave the -- the
7 AR15 with a detachable magazine, the fact that they've
8 inserted a 10-round magazine, that -- you don't -- you
9 can't make a choice.

10 BY MR. BRADY:

11 Q Okay.

12 A You can't make a choice.

13 Q Okay. Let's fix -- let's fix the AR15's
14 magazine. So Mini-14, 30-round -- let's fix them both.
15 Let's fix both magazines. So Mini -- an SKS -- or I'll
16 use a different cartridge -- strike that.

17 A Mini-14 with a fixed 30-round magazine, and an
18 AR15 with all the features, with a fixed 10-round
19 magazine, which one, in your opinion, would pose a
20 bigger threat to public safety?

21 MR. CHANG: Objection. Lacks foundation,
22 incomplete hypothetical.

23 THE WITNESS: I think that the greater the
24 ammunition capacity, the greater the potential of
25 lethality of a firearm. So the fixed 30-round magazine

1 would present a greater threat to public safety. But
2 that's a hypothetical. That's not what we're dealing
3 with here.

4 BY MR. BRADY:

5 Q Agreed. I'm just trying to figure out a way to
6 isolate which -- which item, with respect to firearms,
7 is more problematic as far as lethality. Is it the
8 magazine capacity, or is it the controllability and
9 accuracy of the rifle? And I think, correct me if I'm
10 wrong, my understanding of your opinion is that the
11 increased amount of ammunition would be the bigger
12 problem. Is that fair to say?

13 A I think the two biggest threats to public safety
14 are semiauto combined with detachable magazines,
15 particularly large-capacity magazines.

16 Q But the assault weapon law doesn't account for --
17 it doesn't restrict that combination, correct?

18 A I understand that. But you're opening up the can
19 of worms of public safety, and I think any reasonable
20 discussion has to look at the semiautomatic function as
21 well.

22 Like I said before, it's a combination of factors
23 that make assault weapons more lethal, more dangerous to
24 public safety. And you can't separate the semiautomatic
25 from the detachable magazine as well as the features

Page 90

1 that provide the shooter with greater control.

2 Q Correct me if I'm wrong, but what I hear you
3 saying is that semiautomatic center-fire rifles with
4 detachable magazines are problematic in and of
5 themselves, despite the features.

6 A Yes.

7 Q And the features are just simply icing on the
8 cake as far as making them that much more lethal?

9 MR. CHANG: Objection.

10 BY MR. BRADY:

11 Q Is that you're -- is that, generally, what you're
12 saying?

13 MR. CHANG: Mischaracterizes the expert's
14 testimony.

15 MR. BRADY: I'm asking what his testimony is.

16 THE WITNESS: No. It's not icing on the cake.
17 It's very significant. If you take a semiautomatic
18 rifle capable of accepting a detachable magazine, and
19 you add those features, it makes it even more lethal for
20 all the reasons that we've been discussing for the last
21 several hours.

22 MR. BRADY: Does anybody need a break?

23 MR. CHANG: I could use a good break.

24 MR. BRADY: Yeah. Let's go off the record a
25 second.

1 (Recess.)

2 MR. BRADY: Back on the record.

3 Q In your report on page 10, you state that -- at
4 line 9, "The purpose of deploying a rifle as opposed to
5 a handgun should be based on the fact that the target is
6 beyond the reasonable effective range of a handgun."
7 Did I accurately quote you?

8 A I'll check the context of that.

9 Q Well, is there any context in which that
10 statement would not be accurate or would not reflect
11 your opinion?

12 A No. It's just that the context was that I was
13 talking about how the LAPD deploys a rifle. I should
14 have put that paragraph or that sentence before my
15 statement about the purpose.

16 Q Then let's talk about that before we get into the
17 purpose. How do you know how the LAPD deploys these
18 rifles if you yourself do not carry one and haven't had
19 the training to carry one?

20 A Because the department issues special orders
21 describing the appropriate circumstances in which rifles
22 should be deployed, how they should be carried in the
23 car, et cetera, et cetera.

24 Q And do you know --

25 A Those are -- those are disseminated among

Page 92

1 everybody, not just the rifle cadre.

2 Q And you reviewed those?

3 A Yes.

4 Q And you can recall that some of the instances in
5 which deploying a rifle is appropriate?

6 A Yes.

7 Q And can you name some of those?

8 A Again, I think I've listed them here, that
9 basically a -- the police department doesn't view rifles
10 as self-defense weapons. Firearms that are used by our
11 agency are tools to address certain circumstances.
12 That's why you don't see officers walking around with
13 AR15s slung over their shoulders when they're writing a
14 traffic ticket.

15 Our handguns are defensive weapons. They're
16 meant for that sudden unexpected circumstance in which
17 lethal force is necessary to address the threat.
18 Rifles, I would characterize, and I don't know that the
19 department would use this terminology, but they're more
20 of a offensive weapon in the sense that you generally
21 deploy them when you're -- you know you're going to a
22 possible gunfight.

23 Q Does that -- is it fair to say, then --

24 MR. CHANG: Objection. He was still -- could you
25 let him finish.

1 BY MR. BRADY:

2 Q I didn't realize. If you wanted to add to that,
3 go ahead.

4 A I've lost the original question at this point.

5 Q Okay. So I believe you ended the sentence --
6 before I rudely interrupted, according to counsel, you
7 were saying that when they know -- when officers know
8 they're going into a potential gunfight, that they opt
9 for the rifle rather than the pistol. Is that -- does
10 that accurately reflect your testimony?

11 A Oh, up to that point. What I was going to
12 continue saying is that the rifle is deployed in
13 circumstances where the suspect is believed to have a
14 position of advantage. Usually meaning the high ground,
15 say a second-story window, or is it a barricaded armored
16 position where handgun rounds won't penetrate, or
17 individuals wearing a ballistic vest which will stop
18 handgun rounds, but will not stop rifle rounds.

19 Q So if none of those situations is present, is it
20 your testimony that an officer will not deploy a rifle
21 unless those conditions are present?

22 A Typically, no.

23 Q So do officers ever bring rifles with them when
24 executing search warrants?

25 A We always do, but not every officer. We deploy

1 one or two, depending on the circumstances. The people
2 that we deal with, we often find them possessing
3 ballistic vests, where, by definition, because we're the
4 gun unit, we know that they possess firearms.

5 Again, we're on the offense. We're going to
6 find, hunt down and deal with the suspect. That's not
7 something civilians are supposed to be doing. They
8 don't have the same need for the rifle that police
9 officers do.

10 Q Well, are police officers subject to the same
11 laws for justified use of force as civilians?

12 A Generally speaking, I would say yes.

13 Q So when you say on the offensive, you mean that
14 they go towards a potential fight affirmatively, but
15 they're not going to go use force in a way that would
16 not be legal self-defense, is that accurate, or defense
17 of another, defense of life?

18 MR. CHANG: Objection. Lacks foundation, vague
19 and ambiguous.

20 THE WITNESS: The rifle is used for self-defense
21 in the same sense that a soldier on a battlefield is
22 using his rifle for self-defense. But it's not
23 equivalent to the scenarios that civilians typically
24 find themselves in or in scenarios that would be legally
25 defensible for them. They can't go out and hunt people

1 down.

2 BY MR. BRADY:

3 Q And police officers can?

4 A Yes.

5 Q Police officers can do clandestine raids and
6 shoot people who are unarmed like military soldiers
7 would?

8 A No. That's not what I said.

9 Q I can have your testimony read back.

10 A We are tasked with pursuing suspects, engaging
11 suspects. By law the penal code authorizes us to do it
12 and the citizenry expects us to do that. Nobody is
13 authorized to run around -- any non-police officer is
14 authorized to run around the streets of Los Angeles or
15 California or wherever, and hunt down people that they
16 think need to be dealt with, and -- and apply lethal
17 force to those people.

18 Defense in a civilian context is about the threat
19 coming to you. The use of a rifle by a police officer
20 is in the context of the police officer going to deal
21 with the threat.

22 Q Understood. But -- and that's generally speaking
23 because -- are you familiar with the Southernland
24 Springs incident where the gentleman, Mr. Willeford,
25 engaged the shooter after he shot at the church in

Page 96

1 Southernland Springs, Texas?

2 A I'm only concerned about California.

3 Q Okay. But --

4 A I'm only addressing California.

5 Q Okay. Fair enough. But -- so civilians can go
6 on the so-called offensive in defense of life, can they
7 not?

8 A Certainly.

9 Q Okay. And when either an officer or a civilian
10 decides to go on the offensive, as you put it, they are
11 still limited in discharging that firearm to the rules
12 of lawful use of force, which requires that they have
13 a -- that there be a threat to their life or the threat
14 of others, correct?

15 A That's correct.

16 Q And that standard is the same for civilians and
17 law enforcement officers, correct?

18 A Yes.

19 Q So while a police officer may be more likely to
20 be put in that position, once put in that position, the
21 two are fairly identical with respect to self-defense
22 needs. Is that fair to say?

23 A No.

24 Q Why not?

25 A As I explained, we aren't put in that position

1 all the time. And if we are put in that position, more
2 likely than not, more often than not, we are going to
3 draw our handgun and deal with the threat. When we
4 deploy rifles, the problem is not coming to us, we are
5 going to the problem, and that's an important
6 distinction in terms of the scenarios that civilians
7 typically face.

8 Q Why chose a rifle to go to the fight?

9 A Because if you know there's a high likelihood of
10 lethal resistance because you know the individual has
11 firearms, you know the individual has a position of
12 advantage, has body armor or there's a likelihood of it,
13 you need the rifle to deal with that limited set of
14 circumstances.

15 Like I said, you don't see officers walking
16 around the streets with AR15s slung over their
17 shoulders. You don't see them stopping a motorist for a
18 traffic violation and walking up with their AR15 at the
19 low ready or slung over their shoulder. They walk up
20 with a handgun. Handguns are for defense, rifles
21 typically used by officers for, as I said, to seek out a
22 threat and -- and deal with it.

23 Q And the officers choose rifles when they can,
24 because they are superior in a fight than a handgun. Is
25 that fair to say?

1 A No, it's not fair to say.

2 Q Then why would they choose rifles over a handgun
3 if they know they're going into a fight?

4 A Again, if you know -- if you -- you believe,
5 reasonably believe that those circumstances I just
6 described earlier about positions of advantage and body
7 armor, things like that, and that -- the fact that they
8 have firearms and that you're there to arrest them and
9 that's an increased threat to the officers --

10 Q That a rifle is superior to dealing with than a
11 handgun, correct?

12 A No. It all depends on what are the circumstances
13 of each individual event. If somebody pops up in a
14 upstairs window, you would like a rifle to deal with
15 that. But if you're inside the house, it's more likely
16 that the shotgun or the handgun is going to be the
17 instrument that deals with the threat.

18 Q And is that LAPD training that taught you that?

19 A It's common sense.

20 Q So you haven't had -- received any training that
21 taught you that -- what you just said about you would
22 prefer a shotgun or a handgun over a rifle upon entry of
23 a home?

24 A Certainly I have been told that by more tenured
25 officers and by -- and during training in the academy.

1 Q Do you do --

2 A That -- but that was, of course, before we were
3 authorized to carry rifles. It was -- the common
4 statement was, "If you know or believe you're going to a
5 gunfight, you need to take a shotgun."

6 Q And what year was that?

7 A 1996.

8 Q So have you received any training, personally, on
9 entering a home with suspects in it?

10 A Yes. Extensively.

11 Q Extensively? And none of those -- none of that
12 training explained that you should use a rifle when
13 entering homes?

14 A No. It's -- it's -- it's completely up to the
15 circumstances of the situation. That decision has to be
16 made based on the unique facts surrounding the event.

17 Q Have you received training from anybody other
18 than the LAPD on the appropriate firearm use for
19 entering a home?

20 A No.

21 Q Are you familiar with the views of other agencies
22 on that topic?

23 A No.

24 Q You said you read plaintiff's expert's report,
25 Buford Boone. Did you not read the attachment that he

Page 100

1 provided from the ATF?

2 MR. BRADY: Mark this as Exhibit 3.

3 (Exhibit 3 was marked for identification by
4 the court reporter and is attached hereto.)

5 THE WITNESS: Yes, I read this.

6 BY MR. BRADY:

7 Q And what was your impression of what its findings
8 were?

9 A My understanding of this study is not that
10 they're recommending the carrying of a rifle, they've
11 made the decision that they're going to carry a rifle,
12 and this study is meant to say, well, what's the best
13 choice.

14 Q The best choice of --

15 A Rifle.

16 Q -- rifle? So, unfortunately, these pages are
17 not -- they're -- the pages aren't numbered, but let's
18 see if I can --

19 A If you don't mind, mine is numbered. I numbered
20 them because I got annoyed.

21 Q There you go. I apologize for that. So why
22 don't you tell me what number it is and we'll go from --
23 well, you know what, we're going to mark that as Exhibit
24 4, if you don't mind. I can copy it and give it back to
25 you, if you want, or does it have your notes and

Page 101

1 impression?

2 MR. CHANG: Yes, it does.

3 MR. BRADY: Well, I guess it does, you just
4 pulled it out. So are you objecting to me --

5 MR. CHANG: I am. If you want to question him
6 about it --

7 MR. BRADY: If he's going to look at his notes
8 and impressions, I'm entitled to see those anyway.

9 THE WITNESS: Then I won't. I just thought, for
10 convenience sake, since I took the time to put
11 numbers -- page numbers on it, that would help move this
12 along.

13 BY MR. BRADY:

14 Q So it's -- it's your impression that they are
15 comparing rifles in this study?

16 A I think that they're looking at rifles and the
17 type of ammunition that's used to address concerns, I
18 think, primarily over the stopping power and the
19 overpenetration issues.

20 Q So if you'll go to the FBI Bare Gelatin Test
21 page, which is, I don't know, ten pages, it's the first
22 graph. It says, "FBI Bare Gelatin Test."

23 A Okay.

24 Q I know. It looks like this.

25 A Yeah. I found that page. Now I don't know where

Page 102

1 that goes in the stack.

2 MR. CHANG: That's okay. There's no page numbers
3 anyway. It's all the same.

4 BY MR. BRADY:

5 Q Okay. So the FBI Bare Gelatin Test.

6 A Yes.

7 Q Do you see on the left-hand side, 9-millimeter?

8 A Yes.

9 Q Okay. Is it your understanding they were
10 shooting 9-millimeter out of a rifle in this test?

11 A No.

12 Q So they're shooting it out of a handgun?

13 A Yes.

14 Q 40 Smith & Wesson. Is it your understanding
15 they're shooting that out of a rifle or a handgun?

16 A I believe a handgun.

17 Q Okay. And then the 223 62-grain bonded, is that
18 out of a rifle or handgun?

19 A That would be a rifle.

20 Q Okay. And the 223 55-grain SP, is that out of a
21 handgun or a rifle?

22 A Rifle.

23 Q Okay. So if they're shooting handguns and
24 testing the penetration of a round coming out of a
25 handgun versus the penetration of rounds coming out of

1 rifles, how are they comparing rifles -- or just
2 comparing rifles?

3 A I don't know that they are. I'm not a ballistics
4 expert.

5 Q Okay. I just want to clarify. I'm not trying to
6 like trick you. You said that your belief was that they
7 were comparing rifles in this report, right?

8 A No. They were trying to decide on which rifle.

9 Q Were they trying to decide which rifle or were
10 they trying to decide which round would be superior
11 in -- in an AR platform rifle?

12 A Maybe that's what they were doing. I read it
13 with interest. I might have misinterpreted that graph.
14 But, I mean, it's pretty clear to me they're talking --
15 they're trying to figure out the relative stopping power
16 of those various rounds. I -- I didn't -- I don't
17 know -- I don't know if anywhere in here they say what
18 they're shooting.

19 On one page they talked about, you know,
20 effective range of a shotgun. You know, so if I'm wrong
21 about them talking about shooting 9-millimeter out of a
22 rifle versus a 223, then I'm wrong.

23 MR. CHANG: I'm going to object to this line of
24 questioning as -- based on its irrelevant, it lacks
25 foundation as to the expert's knowledge of the test

1 conducted, it's outside the scope of this expert's
2 report.

3 THE WITNESS: I will say that what led me to that
4 assumption is that I'm not completely unfamiliar with
5 the issues of overpenetration. And the debate that I've
6 seen generally talks about rifle versus handgun. So I
7 may have erroneously leaped to the conclusion that
8 9-millimeter, 40 caliber Smith & Wesson, which are
9 calibers that our department uses, was comparing the
10 relative overpenetration issues of handguns of those
11 calibers versus a rifle and 223.

12 Because, I mean, I think it's commonly
13 misunderstood, you know, that -- the effective issue of
14 overpenetration between handguns and rifles. But maybe
15 they're debating whether those calibers shot out of a
16 rifle are less or more than the 223 out of the rifle.

17 BY MR. BRADY:

18 Q Okay. Just to be clear, I didn't make any
19 representations one way or the other. I was asking you
20 how you understood it.

21 A Right.

22 Q And your understanding was that the 9-millimeter
23 and the 40 Smith & Wesson were handguns, and the 223s
24 were rifles, correct?

25 A That's correct. And like I also said, I'm not a

1 ballistics expert. I read this with great interest, but
2 I don't have the background to really --

3 Q The basis for -- okay. The basis for showing you
4 this report was your testimony that you weren't aware of
5 an agency choosing a rifle as the weapon of choice to
6 enter a home; is that correct?

7 MR. CHANG: Objection. Lacks foundation,
8 misstates witness's testimony.

9 THE WITNESS: Well, there's absolutely nothing in
10 this report that's tells you what they were considering,
11 other than a choice of rounds and a choice of rifle.

12 BY MR. BRADY:

13 Q And they found that a 223 round is less likely to
14 penetrate a common barrier than is a round coming out
15 of -- a 9-millimeter 40 Smith & Wesson round coming out
16 of a handgun; is that correct?

17 A Well --

18 MR. CHANG: Objection. Lacks foundation.

19 THE WITNESS: Again -- again, I don't know if
20 they're talking about a handgun or a rifle.

21 BY MR. BRADY:

22 Q Okay.

23 A Either way it looks like 55-grain 223, which is,
24 I believe, what our department uses, it's less likely to
25 penetrate beyond wall 7 than some of the other calibers.

1 Whether they are fired out of a rifle or a handgun, I
2 don't know.

3 Q So getting back to -- now that we have context, I
4 believe, and if not, we'll develop context -- the
5 original statement that I asked you about in your
6 report, on page 10, line 9, "The purpose of deploying a
7 rifle as opposed to a handgun should be based on the
8 fact that the target is beyond the reasonable effective
9 range of a handgun." Did I accurately quote you?

10 A Yes. And, by and large, that's true, because
11 there's downsides to long guns in confined spaces. The
12 barrel precedes the -- the individual carrying that
13 rifle, and it runs the risk of a suspect reaching out
14 and grabbing that barrel.

15 It also, in my opinion, requires you to expose
16 yourself at a greater angle, and in -- in confined
17 spaces it can be difficult to shoulder that weapon. You
18 run more -- more risk of being obstructed with items.

19 I've seen officers have to, basically, sling
20 their rifle or their shotgun and draw their pistol,
21 because the confines were getting in the way of
22 maneuvering with that long gun.

23 Q Okay. I understand all that, but -- and I
24 understand that that might be a caveat to your
25 statement, but your statement doesn't mention anything

1 about the things you just mentioned. It says, simply,
2 that deploying a rifle as opposed to a handgun should be
3 based on the fact that the target is beyond the
4 reasonable effective range of a handgun.

5 A That is not -- that's out of context. You're not
6 reading the additional information. I might -- I might
7 not have articulated it clearly, but there are a number
8 of conditions.

9 Q Okay. Well, let's focus on --

10 A And -- and an important one is the body armor
11 issue. If you go into a location, it would be nice to
12 have a rifle -- and we usually never deploy more than
13 one inside a structure -- to defeat that body armor, or
14 to defeat that person that's up in the rafters, or to
15 defeat that person that's behind an armored barricade.

16 Q It would be nice. I believe that. So does
17 deploying a rifle have to do -- does the decision on
18 whether to deploy a rifle have to do with the range at
19 which you're engaging the bad guy?

20 A In some circumstances, it does.

21 Q Okay. So -- so -- and I'm not trying to put
22 words in your mouth. So you would qualify your sentence
23 here about that you should deploy a rifle as opposed to
24 handgun only when the target is beyond the reasonable
25 effective range of a handgun?

1 A What I should have said was a -- one of the
2 purposes or a purpose, and then other considerations,
3 which is what I went on to say.

4 Q So are there legitimate uses for a rifle within
5 effective handgun range?

6 A Yes.

7 Q Okay. What is effective handgun range, by the
8 way? What would you say effective handgun range is?

9 A I think if you get beyond 100 feet, you're
10 starting to get beyond most shooters' ability to hit
11 their target.

12 Q And a rifle would not suffer from that same loss
13 of accuracy after 100 feet?

14 A No.

15 Q So --

16 A Particularly given that rifles are typically
17 equipped with optics. Handguns are not.

18 Q So a rifle is generally more accurate than a
19 handgun?

20 MR. CHANG: Objection. Mischaracterizes the
21 witness's testimony.

22 THE WITNESS: It depends on the shooter's
23 abilities, but also, it depends on the physical
24 circumstances. If you're at 150, 200 feet, you would
25 probably want a rifle to deal with the threat, a rifle

1 equipped with optics. But if you're a few feet away
2 from the suspect, a rifle will work fine if you've
3 managed to maneuver your yourself in a position where
4 you can react quickly. But a handgun will do the same
5 job, unless the person is wearing body armor.

6 BY MR. BRADY:

7 Q And your testimony is you have seen more
8 criminals wearing body armor recently; is that true?

9 A Not wearing it, in possession of it. We
10 typically hit our locations in the early, early hours.
11 We do that for a reason. We do it to catch the suspects
12 asleep, catch -- it makes them less likely to be able to
13 think clearly, to armor up, to grab their rifle or
14 whatever and take us on. I mean, I think anybody can
15 relate to that if they've been woken up in the middle of
16 the night by some sort of intrusion, pounding on your
17 door, whatever.

18 Q You say there's no -- on page 9, paragraph 23 of
19 your report you say there's no evidence that assault
20 rifles are commonly used for self-defense. Do you see
21 that?

22 A Yes.

23 Q Is that your opinion today?

24 A Yes.

25 Q What do you mean by used?

1 A First of all, one has to define what one means by
2 self-defense.

3 Q What do you mean by self-defense in this
4 sentence?

5 A As I -- as I said later on in that, I'm talking
6 about civilians. I'm talking about legally sanctioned
7 self-defense, which typically requires the threat to be
8 immediate and proximate to the individual, as well as
9 circumstances that would justify lethal force versus
10 some other form of force. And that's not the typical
11 self-defense circumstances that -- that civilians
12 experience.

13 So my objection is with the word "commonly." I
14 don't think it's commonly -- I don't think it's
15 commonly -- it's not unheard of, but it's not common.
16 Common is the use of handguns and shotguns.

17 Q I just want to get clarification on the word
18 "used" in that sentence. What do you mean by assault
19 rifles? There's no evidence that assault rifles are
20 commonly used for self-defense?

21 A Meaning that they're brandished or that they're
22 fired, whether at the suspect or as a warning shot or
23 whatever.

24 Q Okay. And you're saying that -- do you have any
25 evidence that they are not common? Let me restate that.

Page 111

1 Do you have any evidence that assault rifles are
2 not commonly used for self-defense in the way that you
3 just defined or used?

4 A In the way that I define self-defense?

5 Q In the way you just defined "used."

6 A I've done research, and I can't find any study
7 that provides a scientific study that shows that they
8 are commonly used. Basically, proponents of that idea
9 are forced to rely on anecdote, not some sort of
10 methodology, scientific investigation of that
11 phenomenon.

12 Q Have you found -- have you found any scientific
13 methodical study that shows that they are not commonly
14 used?

15 A No.

16 Q That assault rifles are not commonly used for
17 self-defense?

18 A That would be proving the negative, of course,
19 which you can't do. But the other aspect of it is I've
20 been doing this for over 23 years. I hear of instances.
21 I also read newspapers, news reports, police reports. I
22 talk to other officers. I talk to a whole slew of
23 people, and I am convinced that rifles are seldom used
24 in the circumstances of self-defense as I've described
25 them. It's a common -- most common is a handgun

Page 112

1 followed by shotguns. Just like I can say with
2 confidence that 50-caliber rifles are not used commonly
3 in -- in self-defense scenarios faced by civilians,
4 typically faced by civilians.

5 Q And you based your opinion on the uncommon use of
6 assault rifles for self-defense on the anecdotes that
7 you just mentioned. Anything else, anything other than
8 the anecdotes?

9 A Again, the lack of studies showing it, supporting
10 it, and my own personal exposure to reports of
11 self-defense using handguns.

12 Q Does self- -- sorry. Do self-defense reports
13 usually talk about what type of firearm the victim
14 possessed?

15 A Some of them do, yes.

16 Q Is that -- is that often? Is that -- is that
17 usually the case, that the type of firearm that the
18 person defending themselves used is indicated in the
19 report?

20 A I think it is. I think that many of those
21 reports quote the victim, and the victim states, I
22 grabbed my shotgun, I grabbed my handgun. I don't
23 remember ever seeing one -- a report, directly, that I
24 grabbed my assault rifle, I grabbed my AR15. I have
25 seen them anecdotally reported secondhand by other

1 parties, but not very many.

2 Q How many self-defense reports have you evaluated
3 in that manner?

4 A Again, I don't know. I couldn't even guess, and
5 I wouldn't want to guess.

6 Q I'm asking you --

7 A But like I said, I've been more aware maybe
8 than -- and interested in that than your average citizen
9 because of the -- my line of work. And I've -- most of
10 this stuff is -- it's not coming out of scientific
11 studies. Again, it's coming out of articles, news
12 articles, TV reports and that sort of stuff that I've
13 encountered over the course of years.

14 And I firmly believe that my opinion here is
15 accurate, that without being able to say what percentage
16 handguns are used, what percentage of shotguns are used,
17 what percentage of -- of AR15 or assault rifles are
18 used, it is not common. There's no supporting evidence
19 to support that statement that it's common.

20 Q Is criminal use of assault rifles common?

21 A It's getting more common.

22 Q On what do you base that?

23 A The increase in the use of assault weapons in
24 mass shootings.

25 Q How do you -- how do you know that there's been

Page 114

1 an increase in the use of assault weapons in mass
2 shootings?

3 A Again, it's readily available information out
4 there if you're interested in it.

5 Q Can you name a report or recall anything that you
6 read that suggested that?

7 A Not specifically.

8 Q Are you --

9 A But -- but I can tell you that -- that the
10 Stoneman Douglas shooting was with an AR15. The Sandy
11 Hook was with an AR15. The -- I believe the recent
12 shootings in the temple were with a AR15. The Pulse
13 nightclub mass shooting was with an AR15-type rifle.

14 And these are -- these are -- the use of assault
15 rifles, the AR15s, is clearly accelerating. It's
16 clearly become the weapon of choice for mass shooters,
17 not that other weapons aren't used in some of the mass
18 shootings.

19 The guy in Texas that shot up the church, killed
20 20-some people, I mean, it just goes on and on. And I'm
21 also aware of studies that show that the use of assault
22 weapons to murder police officers is on the rise. It
23 has been increasing over the last eight to ten years.

24 Q Are you aware of any reports that refute those
25 or -- let me strike that.

1 Are you aware of any reports taking the opposite
2 view or taking issue with those reports that you cite
3 to?

4 A That an AR15 wasn't used, a Bushmaster --

5 Q No.

6 A -- an X15 wasn't used to murder those children in
7 Sandy Hook?

8 Q No, that's not what I asked. Your statement was
9 that the use of assault rifles in these crimes is on the
10 rise, and you referenced reports to support your
11 assertion to that point.

12 My question is have you read any reports that say
13 otherwise, that say that those are wrong, or do you
14 think that that is the undisputed view of things?

15 A I can't say that I've read reports that dispute
16 it. I've read opinions that dispute everything I'm
17 testifying to today.

18 Q What -- what have you read?

19 A That this pump is commonly used. I see that
20 repeated, mostly by gun advocacy groups, including the
21 NRA, saying that they're commonly used. So it's not
22 surprising to see that terminology in the plaintiff's
23 briefs, but I can't find support for that view.

24 Q Did you look for it?

25 A Yes.

1 Q Did you read any of the other experts' reports,
2 other of plaintiff's expert reports, other than
3 Mr. Boone's?

4 A No.

5 Q Okay. But your statement that the use of assault
6 rifles in crime is on the rise is based on your
7 assumption that the reports you've read are accurate?
8 Is that fair to say?

9 A Yes.

10 Q You haven't done any personal studies or
11 investigations to get to the bottom of it yourself? Is
12 that fair to say?

13 A No. Other than --

14 Q It is fair to say?

15 A Yes.

16 Q Okay.

17 A Other than researching it on the Internet, I'm
18 not in a position to conduct studies, scientific
19 studies. I am in a position to read news reports, to
20 read firsthand accounts on the Internet.

21 Q So then is it fair to say that you have no
22 personal knowledge about whether assault-rifle crime is
23 on the increase or decrease?

24 A I think --

25 MR. CHANG: Objection. Vague and ambiguous.

Page 117

1 THE WITNESS: As I've stated, I consider that to
2 be personal knowledge.

3 BY MR. BRADY:

4 Q But you're relying on the knowledge of others?

5 A I would be relying on the knowledge of others who
6 had done a scientific report, and including your
7 expert -- ballistics expert here, I'm relying on his
8 analysis. That's -- you know, to me, that's personal
9 knowledge, having read this report. It makes it my
10 personal knowledge. The fact that I didn't do the
11 research, irrelevant.

12 Q That would be your opinion too?

13 A Yeah.

14 Q But do you have personal knowledge about crimes
15 involving assault rifles that LAPD is tasked with?

16 A I'm sorry, I don't understand.

17 Q Okay. Let me -- let me -- do you have any
18 personal knowledge about how common the use of assault
19 rifles in crime is with respect to crimes falling under
20 the jurisdiction of the LAPD?

21 A I seize assault weapons all the time, and they're
22 in substantial numbers, and those are criminal
23 possessions of assault weapons.

24 Q Agreed. Can we segregate mere possession as a
25 different sort of crime than the use of an assault

Page 118

1 weapons for these purposes; is that fair?

2 A Okay.

3 Q Is -- do you have personal knowledge about the
4 criminal use of assault rifles with respect to crimes
5 under LAPD's jurisdiction?

6 A Only anecdotally.

7 Q So you wouldn't be able to say from personal
8 knowledge whether criminals using assault rifles in
9 crimes is on the increase or decrease at this point?

10 A I review a lot of reports that are forwarded to
11 the gun unit involving crimes involving firearms, and
12 it's my impression -- and it's not a study, it's just my
13 impression -- that we're seeing more and more assault
14 weapons being used in crime in Los Angeles.

15 Q Assault rifles?

16 A Assault rifles, assault pistols.

17 Q In shootings or non-shootings?

18 A In shootings, based on, oftentimes, cases
19 recovered from the scene, or in the arrest of suspects
20 in various crimes who are in possession of the assault
21 rifle.

22 Q So on page -- beginning on page 7 of your report,
23 paragraph 14 --

24 A Uh-huh.

25 Q -- going through page 8, paragraph 18.

Page 119

1 A Uh-huh.

2 Q You identify several incidents in which you
3 represent an assault weapon was used in a shooting where
4 there was victims. Is that fair to say?

5 A That's fair to say.

6 Q Okay. In paragraph 19 you say, "It is my opinion
7 based on my training and expertise, that the above
8 described attacks would have been less deadly had the
9 shooters not been armed with assault rifles." For the
10 record, I'm cutting off "or assault weapons converted to
11 machine guns," unless you object to me doing that. Does
12 that make a difference if I cut off the "or assault
13 rifles converted to machine guns"?

14 A Well, it covers one of the incidents. That's why
15 it's there.

16 Q Okay. Would it be fair to say that your focus is
17 on the fact that those rifles, whether they are
18 semiautomatic assault rifles or fully automatic machine
19 guns, your focus was on the fact that they had features
20 in choosing these incidents to point out?

21 A In part, as well as their capacity to --
22 detachable magazines, including large-capacity
23 magazines.

24 Q Okay. You say that it's your opinion that these
25 attacks would have been less deadly had the shooters not

1 been armed, is that correct, with those -- with assault
2 weapons and machine guns; is that correct?

3 A Yes.

4 Q So turning to the first incident, the
5 Hollywood -- the North Hollywood bank robbery --

6 A Uh-huh.

7 Q -- how many people were killed in that incident?

8 A I believe the two suspects.

9 Q The two suspects were killed? Do you know how
10 they were killed, by the way?

11 A One shot himself at the very moment that an
12 officer's bullet penetrated his neck. And the second
13 one engaged in a shootout with SWAT officers. He was
14 armed with a machine gun, they were armed with machine
15 guns, and they prevailed.

16 Q Do you know whether the accounts of officers
17 going to gun stores to acquire AR15s to return fire on
18 the suspects are true or not?

19 A I believe them to be true. I don't have any
20 firsthand knowledge. I don't know the officers
21 involved.

22 Q Have you heard --

23 A I wasn't there.

24 Q Have you heard that account before?

25 A Yes.

1 Q Is there any reason to disbelieve that that
2 happened?

3 A No.

4 Q You haven't spoken with any LAPD officers that
5 were there that said that they did that, though?

6 A That's correct.

7 Q Okay. But other than the two suspects, how many
8 victims were killed in that shootout? You can refer to
9 your report if you need to refresh your memory.

10 A Like I said, I -- just the two suspects. There's
11 a lot of wounded, including police officers.

12 Q Okay. So you indicate that the incident would
13 have been less deadly had they not had those guns, but
14 there were no deaths in this incident, right?

15 A Well, are we going to ignore life-changing
16 gunshot injuries to police officers?

17 Q Of course not.

18 A Are we going to ignore the -- the horrendous
19 experience of these other officers and civilians who
20 were struck by gunfire by these -- from these suspects.

21 Q Not at all. I'm looking at the word "deadly,"
22 your word saying it would have been less deadly. If you
23 want to say I might have -- should have put less
24 traumatic injuries would have resulted, then I wouldn't
25 have asked you that question. But you used the word

Page 122

1 less "deadly," so I'm just asking.

2 A And to me, that's deadly. You inflict life-
3 threatening injuries on people, and they were life-
4 threatening injuries, that's deadly. The fact that
5 these people were saved by, you know, good medical care
6 doesn't make it any less deadly.

7 Q Okay. Going to the incident in paragraph 16, the
8 shooting at Santa Monica College --

9 A Right.

10 Q -- five people were killed and four people were
11 injured. Is it your opinion that, but for the shooter
12 having an assault rifle, the -- that shooting would have
13 been less deadly?

14 A I believe it would have been.

15 Q And on what do you base that belief?

16 A If -- if he had had a firearm that was less
17 controllable, if he had a firearm that wasn't equipped
18 with high-capacity magazines, and he had quite a few of
19 them, I believe that it would have been less deadly.

20 Q Can you explain how, exactly, a pistol grip made
21 a difference in the Santa Monica shooting?

22 A The pistol grip provided the shooter the ability
23 to fire more rounds at his targets more rapidly. And
24 adding to that, the fact that they were equipped with
25 high-capacity magazines, it just logically makes that

Page 123

1 scenario more lethal, more deadly.

2 Q Was that stated in the report that you reviewed
3 about the incident?

4 A I didn't review a report on the incident, but
5 I've read enough to know that he was equipped with an
6 AR15. I believe it was a ghost gun, a manufactured
7 AR15.

8 Q So you're basing your opinion that the shooting
9 would have been less deadly solely on the fact that an
10 AR15 and large-capacity magazines were present?

11 A No. An AR15 that had those features that it had,
12 and was capable of accepting the large-capacity
13 magazines, which was also present.

14 Q So is it your opinion that had the shooter had a
15 stock Mini-14, he would not have had as many victims?

16 A I think potentially, yes.

17 Q Potentially?

18 A Yeah.

19 Q But that's pure speculation based on your belief
20 about the lethality of features, right?

21 A Well, it's not speculation. It's an educated
22 conclusion based on the factors of controllability,
23 large-capacity magazines, the ability to fire rounds
24 more rapidly under control.

25 Q So walk me through how you think a Mini-14 would

1 fail to achieve the horrendous acts of the shooter?

2 A I'm not saying --

3 MR. CHANG: Objection. Asked and answered.

4 You can answer, but, I mean, we're getting to be
5 very repetitive. But you can answer one more time.

6 THE WITNESS: I'm not saying that a Mini-14
7 couldn't have effected the same kind of damage and
8 death. But all that does is raise the question of
9 whether that type of firearm should also be controlled
10 and restricted like AR15s. Having said that --

11 BY MR. BRADY:

12 Q It also raises the question as to the
13 effectiveness of the features, in your opinion, that the
14 features made a difference in the deadliness of this
15 incident?

16 A Yes. And --

17 MR. CHANG: Objection. Argumentative.

18 THE WITNESS: I continue to hold that view based
19 on what I've repeatedly stated. The better control you
20 have of that weapon, the faster you can pull that
21 trigger and stay on target -- which is what the pistol
22 grip provides the shooter with -- combined with
23 large-capacity magazines, makes it more deadly.

24 BY MR. BRADY:

25 Q Do you know how close in proximity the shooter

Page 125

1 was when shooting the victims?

2 A I do not know that. I believe one was shot while
3 they were in their car, but the distance, I don't know.
4 Others were killed on the campus. And, again, I don't
5 know how close he was.

6 Q So you don't know the details of how close the
7 shooter was to the victims?

8 A I don't recall them, no.

9 Q You don't know what the victims were doing, if
10 they knew whether they were about to be shot or not?

11 A I don't know.

12 Q Okay. So without knowing most of the details
13 about the specific victims, how can you make a
14 determination that the controllability of the rifle made
15 a difference in how many victims there were?

16 A Again, it's my opinion, based on the things that
17 I've reiterated about, and it's an educated conclusion
18 on my part, that the more control you have over that
19 firearm, the faster you can fire under control, and your
20 accessibility to large quantities of ammunition, not
21 having to break off your attack to reload as you would
22 if you had, say, a 10-round fixed magazine, that that
23 just logically leads to the conclusion that the shooter
24 had more capability to murder his victims than if he had
25 been equipped with a different type of firearm, a

Page 126

1 non-assault weapon.

2 Q So you're applying your general premise that --
3 that assault rifles are more lethal to a specific set of
4 facts, and you're assuming that your premise is -- is
5 what controls the amount of victims in those specific
6 circumstances; is that correct?

7 A The reason we're having this discussion today is
8 that it's not incidental that part of the generic
9 features of assault weapons are pistol grips, stocks, et
10 cetera, that provide the shooter with greater control,
11 so --

12 Q But aren't you speculating that that control made
13 a difference?

14 A I'm not --

15 Q In this specific incident, you're applying your
16 general premise and -- to conclude that it made a
17 difference when it's possible that it did not make a
18 difference. Is that fair to say?

19 A Of course it's possible that it didn't make a
20 difference, but, again, I'm not speculating. This is an
21 educated conclusion based on all the factors that I've
22 already described.

23 Q Based on your general view and premise of assault
24 rifles, right? You're not basing it on anything
25 specific in the Santa Monica shooting? Is that fair to

Page 127

1 say?

2 A No.

3 Q What, specifically, in the Santa Monica shooting
4 are you saying that an assault rifle made a difference?

5 A I don't think that it's a general conclusion
6 about assault weapons. It's a general conclusion about
7 the features of the assault weapons. And in this
8 particular case the -- the ability to accept high
9 capacity magazines and the pistol grip, that leads to
10 the increased capability of the shooter to cause more
11 carnage than he might have been able to with a different
12 sort of firearm.

13 Q How do you know that the shooter needed the
14 increased capability of an assault rifle, as you put it,
15 to inflict the injuries and deaths that he did in the
16 Santa Monica shooting? What, specifically, from that
17 incident?

18 A I don't understand that question at all.

19 Q What specific fact in this Santa Monica shooting,
20 that you're aware of, tells you that the increased
21 capability of a shooter with -- with an assault rifle
22 made a difference in how many victims there were, other
23 than your general premise that assault rifles are better
24 for that purpose?

25 A Again, it's a logical, educated conclusion. I

Page 128

1 would refer to your own moving papers where you -- or
2 plaintiff asserted that -- exactly what I'm saying, that
3 pistol grips provide the shooter with more control and
4 accuracy of the weapon.

5 Q That's a general premise?

6 A And, logically, that would increase one's
7 ability, and it's all keeping everything else constant
8 to deliver more rounds down range with more accuracy.
9 And that, combined with access to large quantities of
10 ammunition, logically leads to the conclusion that the
11 shooter's capacity to kill is enhanced.

12 And I don't think it's -- I don't -- I can't -- I
13 don't know, in the sense of I can prove it to the
14 scientific certainty. But I have no doubt that had he
15 been equipped with a different sort of firearm, there's
16 an excellent chance that he would not have killed or
17 injured as many people as he did.

18 Q With a Mini-14?

19 A Again, a stock factory Mini-14, he would
20 certainly have had the capacity to kill people, but I
21 think it would have been more difficult for him to
22 accomplish what he accomplished.

23 Q Do you know how many rounds he fired in the Santa
24 Monica shooting?

25 A I don't.

1 Q So without knowing how many rounds he fired, how
2 do you know that he needed the increased ability to put
3 lots of rounds down range and on target?

4 A I never said he needed them. I said it provided
5 him with the capacity.

6 Q But if he didn't need that, then it might not
7 have made a difference in the overall deadliness of the
8 shooting. Is that fair to say?

9 A No.

10 MR. CHANG: Objection. Argumentative.

11 THE WITNESS: No. I don't understand the value
12 of talking about whether he needed them or not. He did
13 what he did with the rifle that he came with. And,
14 again, the logical conclusion is that that rifle
15 enhanced his capability to deliver more rounds down
16 range with more accuracy than had he been using a
17 different firearm.

18 BY MR. BRADY:

19 Q Or it can be that he intended to shoot certain
20 victims at close range, chose these victims and chose an
21 AR15 because of its, quote, cool factor, as you
22 previously indicated, and it didn't matter what rifle he
23 had, he was going to shoot the same amount of people.
24 Isn't that a possibility?

25 MR. CHANG: Objection. Lacks foundation.

1 THE WITNESS: Yeah. Now, you're completely
2 asking me to speculate on your scenario, and I'm not
3 willing to do that.

4 BY MR. BRADY:

5 Q Well, you've been willing to speculate as to
6 whether your general premise about the effectiveness of
7 assault weapons from mass shooters made a difference in
8 the shooting despite knowing the details, so I thought
9 you would play along with a hypothetical that I posed,
10 but --

11 MR. CHANG: Objection. Argumentative.

12 THE WITNESS: And, again, I don't consider my
13 opinions --

14 MR. CHANG: There's no question, no pending
15 question.

16 THE WITNESS: Okay.

17 BY MR. BRADY:

18 Q Do you know the details of the shooting at LAX in
19 paragraph 17, other than what's stated in the -- the
20 report?

21 A No.

22 Q Do you know the details of the San Bernardino
23 County shooting indicated in paragraph 18, other than
24 what's provided in the report?

25 A No.

1 Q All right.

2 Let's take a five-minute break. I'm going to see
3 if I can get my questions lined up so we can wrap it up.

4 Go off the record.

5 (Recess.)

6 (Mr. Cubeiro left the proceedings.)

7 MR. BRADY: Matt is leaving. He has a class.

8 All right. Back on the record.

9 Q On page 10 of your report, the last paragraph,
10 you state that "I do not believe, based on my training
11 and experience, that there are frequent occasions when a
12 member of the public would face threat by an armed
13 suspect wearing body armor or concealed behind a barrier
14 that would defeat handgun ammunition. Absent these
15 factors, a handgun, shotgun or nonlethal options should
16 suffice in dealing with the vast majority of self-
17 defence scenarios where force is legally justified."
18 Did I accurately quote you?

19 A Yes.

20 Q In your opinion, would a handgun, shotgun or
21 nonlethal option be sufficient in dealing with the vast
22 majority of scenarios that law enforcement officers
23 face?

24 A Yes.

25 Q Do you have any personal knowledge about how many

1 officer-involved shootings LAPD has in a given year,
2 where the officer shoots, hopefully?

3 A I did, but I couldn't recall it today.

4 Q So you wouldn't be able to estimate whether it's
5 dozens, scores, single digits, by the hundreds? I don't
6 want you to guess, so if you don't know.

7 A I would be guessing.

8 Q Okay. Are you familiar with an LAPD officer ever
9 discharging an assault rifle in the line of duty?

10 A I know it's happened. I couldn't tell you the
11 incidents.

12 Q Would it be fair to say that it's relatively
13 rare?

14 A Yeah.

15 Q Okay. How did you become a witness, an expert
16 witness in this matter?

17 A I was contacted by the Department of Justice,
18 Peter Chang -- or, actually, he contacted the department
19 and the department knows me as an expert on these
20 subjects, and they reached out to me and asked if I
21 would be willing to work with Peter Chang on this.

22 Q So are you working on behalf of the LAPD in this
23 matter or are you working on your own?

24 A I'm being paid by the department, so I guess, in
25 some respects, I'm here as a employee of the LAPD.

1 Q Was that voluntary for you to take on this task
2 as an expert witness in this case, or were you ordered
3 to by the LAPD?

4 A It's volunteer. I could have refused.

5 MR. BRADY: All right. I think we are finished.

6 MR. CHANG: I do you have some matters on
7 redirect.

8 MR. BRADY: Unless - oh, unless Peter wants
9 to --

10 Mr. Chang, feel free.

11 MR. CHANG: Okay.

12 EXAMINATION

13 BY MR. CHANG:

14 Q So Detective Mersereau, earlier you said that
15 you're not a ballistics expert. But you also stated
16 that you -- you know that your vest, your department-
17 issue vest, would stop a 9-millimeter round but not a
18 223 rifle round. How do you know that?

19 A Well, first and foremost, I know it because it
20 says it right on the vest. And we wear a vest that's
21 pretty standard for most police departments. In fact,
22 it won't stop any rifle rounds.

23 Q Okay. Do you know one way or the other if it's
24 LAPD's standard practice, if they receive someone
25 calling in a home break-in, whether it's LAPD's practice

Page 134

1 to send officers armed with assault rifles or officers
2 with pistols?

3 A That decision is made by the responding officers.
4 If they're part of the rifle cadre, they're already
5 carrying their rifles, then they -- depending on the
6 specific set of the circumstances, they could opt to
7 deploy the rifle.

8 And I'm making an assumption here in your
9 scenario, so that it makes any sense at all, is that
10 it's an ongoing break-in, home invasion sort of
11 scenario, not that they're responding after the fact.
12 Because if they're responding after the fact, they're
13 not going to deploy their rifles.

14 Q Okay.

15 A If they don't have a rifle, they can request one.
16 A unit with a rifle or a shotgun or less lethal or
17 whatever they think the scenario requires.

18 Q Okay. So it just depends on the specific
19 scenario, is what you're saying?

20 A Yes.

21 Q Now, you know, there were some questions earlier
22 about your personal knowledge of whether and how
23 frequently assault rifles are used in self-defense
24 situations. And, you know, is it -- and earlier you had
25 already testified that you have reviewed self-defense

1 reports; is that correct?

2 A No. I reviewed -- I've reviewed news articles,
3 primarily, or news broadcasts, that sort of thing.

4 Q I thought earlier you had testified that you
5 reviewed some sort of reports where people talked about
6 what weapons they used for self-defense?

7 A Yeah. In the news.

8 Q Oh, in news reports?

9 A Yes.

10 Q Not -- not any kind of special LAPD --

11 A Right. Right.

12 Q Okay. You had testified earlier that -- and
13 correct me if you didn't -- but my understanding, my
14 belief -- I believe that you testified earlier that
15 civilians do not commonly use assault rifles, but they
16 more commonly use handguns or shotguns. Based on your
17 knowledge and experience, why do you think that is the
18 case?

19 A Because there's, number one, no evidence that
20 those assault rifles are used in legal justified
21 self-defense scenarios by the public. And, secondly,
22 reviewing those, reading those articles that we just
23 referred to, I can't recall any that I read where the
24 person said I broke out my AR15 and shot the guy or
25 scared the guy away.

Page 136

1 The only evidence that's been presented to me via
2 the -- my research on the Internet is anecdotal
3 evidence. I believe that it probably happened. But
4 even in those anecdotal scenarios, the individual
5 didn't -- in many cases, did not shoot the suspect, did
6 not even shoot at the suspect. They brandished an
7 assault weapon, the suspect saw it and ran away, or they
8 fired a warning shot and the suspect ran away. That
9 could have been accomplished with a handgun or a shotgun
10 as well.

11 Q Okay. I want you to -- moving on to the next
12 subject, I want you to take a look at Exhibit 3. So
13 prior to -- I think you said you reviewed it because
14 it's part of Mr. Boone's report. Prior to reviewing it
15 as part of Mr. Boone's rebuttal report, have you seen --
16 had you seen this report?

17 A No.

18 Q How long did you review this report prior to
19 today or prior to this deposition?

20 A Probably the end of last week.

21 Q How long -- how long -- how much time did you
22 spend looking at this?

23 A How much did I spend, 15, 20 minutes.

24 Q Okay. Do you know when the test was conducted?

25 A No. I don't know if it says here.

1 Q Do you know what the ATF's criteria were for
2 selecting -- or for conducting this test or for
3 selecting a weapon?

4 A Well, they state in here that, you know, they're
5 concerned about the stopping power of the rounds, the
6 different rounds, and also the overpenetration
7 potential.

8 Q But you're just reading what's on the slides?

9 A Yeah. Yeah.

10 Q But you have no personal knowledge?

11 A No. No personal knowledge, except the review.

12 Q Okay. And the weaponage, are you familiar with
13 the N4?

14 A Yes.

15 Q And is it correct that that's a selector, select
16 fire weapon?

17 A Not the civilian version, not the police version.
18 I don't know if the ATF carries a select 4 or not --

19 Q Okay.

20 A -- a select fire or not, but it's possible, given
21 they're federal agents.

22 Q And, you know, earlier -- I'm moving to a
23 different subject now. We talked about sometimes -- or
24 you had talked -- you had testified that sometimes you
25 see LAPD patrol officers would book a gun and classify

1 it as a non-assault rifle and you would identify it as
2 an assault rifle. Does it take a special knowledge to
3 identify the weapon or does it take just, you know, a --
4 a -- a diligent patrol officer to take the time to
5 review the weapon and the law?

6 A If -- if you don't know how the penal code
7 defines an assault weapon, you're not necessarily going
8 to know that you have an assault weapon.

9 Q Right. But --

10 A It's down to that. So, minimally, you have to
11 know that.

12 Q Right. But if the officer is aware of the law,
13 could he just compare the features on the gun, and then
14 look at the law to decide if it's an assault weapon --
15 assault rifle under the penal code sections?

16 A Certainly. And so could any civilian who cared
17 to review the law and familiarize themselves with the
18 features, or the names that are listed, and could
19 examine the firearm and reach the same conclusion.

20 Q Thank you.

21 I have no more questions.

22 MR. BRADY: Okay. You want to do the stipulation
23 or stipulate as to the code or what are we doing?

24 ///

25 ///

1 MR. CHANG: Sure.

2 MR. BRADY: Stipulate as to code.

3 (TIME NOTED: 6:05 p.m.)

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5 I, MICHAEL MERSEREAU, do hereby declare under
6 penalty of perjury that I have read the foregoing
7 transcript; that I have made any corrections as appear
8 noted, in ink, initialed by me, or attached hereto; that
9 my testimony as contained herein, as corrected, is true
10 and correct.

11 EXECUTED this ____ day of _____,
12 2015, at _____, _____.
(City) (State)

13
14
15
16
17
18 _____
MICHAEL MERSEREAU
Volume I

1 I, the undersigned, a Certified Shorthand
2 Reporter of the State of California, do hereby certify:

3 That the foregoing proceedings were taken
4 before me at the time and place herein set forth; that
5 any witnesses in the foregoing proceedings, prior to
6 testifying, were administered an oath; that a record of
7 the proceedings was made by me using machine shorthand
8 which was thereafter transcribed under my direction;
9 that the foregoing transcript is a true record of the
10 testimony given.

11 Further, that if the foregoing pertains to the
12 original transcript of a deposition in a Federal Case,
13 before completion of the proceedings, review of the
14 transcript [] was [] was not requested.

15 I further certify I am neither financially
16 interested in the action nor a relative or employee
17 of any attorney or any party to this action.

18 IN WITNESS WHEREOF, I have this date subscribed
19 my name.

20 Dated: December 19, 2018

21
22 
23

24 KATY BONNETT

25 CSR No. 13315

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After completing your review, please sign the last page of the errata sheet, above the designated "Signature" line.

ERRATA SHEET

Page Line

35 5

Change: "IN 2014" TO "IN 2016"

Reason: _____

15 7

Change: "OPERATE IN SEMI-AUTOMATIC OR FULL AUTO MOD"

Reason: FOR CLARITY

17 13

Change: "INTERNET SEARCHES PRIMARILY, YOUR BALLISTIC..."

Reason: FOR CLARITY

42 24

Change: "IT ALLOWS GREATER CONTROL OF A WEAPON SYSTEM..."

Reason: FOR CLARITY

Change: _____
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MM Subject to the above changes, I certify that the transcript is true and correct.

_____ No changes have been made. I certify that the transcript is true and correct.

Michael Mercereau
Signature

1/18/19
Date

[& - absolutely]

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14 59:12,25 60:3,6 60:15,16,20 61:5 64:14 66:11 67:7 75:20 79:18,19,21 79:22 80:5 88:22 89:14,17 119:23 124:15,25 125:6 129:18,19	223s 105:23 23 110:18 112:20 233 5:9 25th 82:6 26 49:7,8,10,14,18 49:20,23 50:13 27,555 25:25 27th 82:6 28 49:5 51:6	4 1:17 2:18 6:1 49:1 50:21,24 70:11,16 74:8 84:1,8 101:24 138:18 40 103:14 105:8,23 106:15 415 3:20 45 78:19 455 3:18	a
142 1:25 15 9:11,14 14:21 137:23 150 109:24 16 123:7 16780 25:24 17 131:19 17000 25:25 18 5:7 119:25 131:23 180 2:15 3:8	3	5	abilities 109:23 ability 37:6 38:24 43:1 50:8 58:16 60:21 67:15 69:5 69:9 109:10 123:22 124:23 128:8 129:7 130:2 able 41:16 44:13 55:6 57:13 65:2,4 65:11 66:2,12 68:1 110:12 114:15 119:7 128:11 133:4 absent 132:14 absolutely 59:2,4 69:14 75:21 88:14 106:9
	3 5:9 18:16 29:6 31:6,11,13,16 32:11,15 49:1 50:21,24 67:22 69:24 70:11,16,17 70:20 72:2 101:2	5 4:7 17:22 73:2 50 113:2 510-3776 3:20 55 103:20 106:23 556 76:18 78:2 79:7 562 3:10	
		6	
		6 74:19 80:14 62 103:17	

[abstract - anyway]

<p>abstract 51:11</p> <p>academy 13:18 16:1 99:25</p> <p>accelerating 115:15</p> <p>accept 26:21,22 75:20 128:8</p> <p>accepting 22:1 23:7 91:18 124:12</p> <p>accepts 26:23</p> <p>access 42:5 52:1 129:9</p> <p>accessibility 51:24 126:20</p> <p>accomplish 129:22</p> <p>accomplished 129:22 137:9</p> <p>account 90:16 121:24</p> <p>accounts 117:20 121:16</p> <p>accumulate 75:9</p> <p>accuracy 32:22 57:8,18 59:11 60:18,21 61:3,6 62:24 64:10,24 71:5 90:9 109:13 129:4,8 130:16</p> <p>accurate 12:7 29:8 29:10 30:1 39:16 40:7,14 55:8,22 56:1 69:17 70:1 92:10 95:16 109:18 114:15 117:7</p> <p>accurately 18:1 36:13 37:7,10 43:2 59:8 60:2 69:18 92:7 94:10 107:9 132:18</p>	<p>achieve 125:1</p> <p>acknowledge 42:2</p> <p>acquire 13:22 121:17</p> <p>acronym 16:15</p> <p>acronyms 16:19</p> <p>act 69:4</p> <p>action 25:2 42:19 142:15,16</p> <p>actions 42:6</p> <p>acts 125:1</p> <p>add 71:4 80:12 91:19 94:2</p> <p>adding 123:24</p> <p>addition 14:3</p> <p>additional 14:1 81:24 108:6</p> <p>address 63:17 93:11,17 102:17</p> <p>addressed 11:10</p> <p>addressing 97:4</p> <p>adjust 37:8</p> <p>adjustable 23:19 24:13 36:16,19 37:7 40:10,13,24 41:5,5 42:17,22 43:11,19 44:20,23 45:25 46:23 48:12 48:15,19,21,23,23 50:4,7,15,20 52:5 55:2,3,6 79:3 80:5 88:24</p> <p>adjustment 43:23</p> <p>admin 10:1</p> <p>administered 6:5 142:6</p> <p>advantage 41:16 94:14 98:12 99:6</p> <p>advised 12:17</p> <p>advocacy 116:20</p>	<p>affect 25:8 38:20 38:24 54:8 56:24 58:5,8,20,25 60:10 68:10,11 69:19</p> <p>affirmatively 95:14</p> <p>afforded 66:6</p> <p>afoul 44:12 45:15</p> <p>agencies 67:8 100:21</p> <p>agency 15:5 93:11 106:5</p> <p>agents 138:21</p> <p>aggregate 86:24</p> <p>ago 6:25 7:2,3 71:13,14,17 81:23</p> <p>agree 20:2 41:7,21 44:22</p> <p>agreed 90:5 118:24</p> <p>ahead 10:23 60:4 77:10,14 94:3</p> <p>ak47 46:13 67:1 82:17,17</p> <p>al 1:9 2:9</p> <p>aligned 65:6</p> <p>aligns 59:8</p> <p>alleviate 50:2</p> <p>allowed 33:10 64:8 68:3</p> <p>allowing 32:21 42:11</p> <p>allows 33:17 37:7 38:8 40:13 42:22 42:24 43:16 47:3 47:11 59:6,9 67:2 69:18</p> <p>alter 46:2,15</p> <p>altered 46:10</p> <p>alternative 54:16 67:9</p>	<p>ambiguous 21:16 33:6 34:2,10 37:19 58:11 95:19 117:25</p> <p>ammo 59:21 79:12</p> <p>ammunition 5:10 58:21 62:23 69:20 76:1,23 80:10 89:24 90:11 102:17 126:20 129:10 132:14</p> <p>amount 64:9 65:8 66:2,12 90:11 127:5 130:23</p> <p>analysis 5:9 30:14 31:11,22 87:13 118:8</p> <p>anecdotal 137:2,4</p> <p>anecdotally 113:25 119:6</p> <p>anecdote 112:9</p> <p>anecdotes 113:6,8</p> <p>angeles 75:3,4 96:14 119:14</p> <p>angle 107:16</p> <p>annoyed 101:20</p> <p>answer 7:17,17 10:22,24 23:1 38:5 49:25 60:14 74:13 88:18 125:4 125:5</p> <p>answered 39:17 125:3</p> <p>answering 10:24</p> <p>anticipate 75:19</p> <p>anybody 37:22 46:9,13 77:24 91:22 100:17 110:14</p> <p>anyway 102:8 103:3</p>
---	---	---	---

[apologize - autofunction]

apologize 101:21	armed 120:9	20:19,20,23,24	assertion 75:2
appear 19:2,25	121:1,14,14	21:1,2,6,6,14,23	116:11
141:7	132:12 135:1	22:24 23:5,17	assessment 78:14
appearances 3:1	armor 98:12 99:7	24:5,8,9,14,21,24	assigned 9:7
appeared 49:20	108:10,13 110:5,8	25:3,9,16,18,25	associates 3:4
apply 96:16	110:13 132:13	26:10,14 27:13	assume 11:3 13:12
applying 127:2,15	armored 94:15	28:25 29:24,25	35:11
appreciate 7:20	108:15	30:2,3,4,12,13,14	assumes 19:15
41:19	arrest 82:10 84:12	30:16,17 31:4	23:22,22 30:20
appropriate 92:21	99:8 119:19	35:16 47:20,20,25	52:8
93:5 100:18	arrested 51:5	48:1,4 59:15 62:7	assuming 67:23
approximately	arrests 72:23	63:12 69:4,25	80:3,10 86:6
9:10	ars 48:12	70:3,4 72:4,21,24	87:21 127:4
ar 48:10 49:23	articles 114:11,12	73:16 74:3,13,20	assumption 52:18
51:13 104:11	136:2,22	75:4,6,8,11,14	105:4 117:7 135:8
ar15 28:7,8 29:4	articulated 108:7	79:8 80:15,18	atf 5:9 15:17,20
42:20 46:12 47:4	aside 22:19	81:2,7,8,15,16,20	17:14 101:1
47:6 49:13 50:3	asked 11:5 15:3	81:22 82:22 83:2	138:18
50:15 51:20 53:8	33:22 46:1 60:10	83:6,14 84:4,8,24	atf's 138:1
53:18 59:22,25	73:8 74:12 107:5	85:2,11,12,20	attached 8:7 19:6
60:1,15,20 61:5	116:8 122:25	86:10,13,24 87:3,5	53:18 101:4 141:8
62:7 79:23 88:23	125:3 133:20	87:9 88:7,12,15	attachment
89:7,18 98:18	asking 7:24 21:17	90:16,23 110:19	100:25
113:24 114:17	23:23,24 24:2	111:18,19 112:1	attack 126:21
115:10,11,12,13	31:2 33:23 39:25	112:16 113:6,24	attacked 35:7
116:4 124:6,7,10	41:14,17 49:23	114:17,20,23	attacks 120:8,25
124:11 130:21	55:2 75:13 91:15	115:1,14,21 116:9	attempt 64:22
136:24	105:19 114:6	117:5,22 118:15	attention 81:19
ar15's 89:13	123:1 131:2	118:18,21,23,25	attorney 1:8 2:8
ar15s 33:3 49:17	asleep 110:12	119:4,8,13,15,16	3:17 6:18 8:13,23
64:6 70:8 93:13	aspect 112:19	119:16,20 120:3,9	142:16
98:16 115:15	assailant 36:1	120:10,12,18	attorneys 3:7
121:17 125:10	assault 10:14	121:1 123:12	attributes 25:8
area 26:16	11:10 12:12,20	127:1,3,9,23 128:4	audible 18:2
areas 80:21 85:14	14:23 15:2,4,6,9	128:6,7,14,21,23	authorized 96:13
argumentative	15:18,20,21,22	131:7 133:9 135:1	96:14 100:3
62:4 63:13 76:4	18:4,11,11,15,18	135:23 136:15,20	authorizes 96:11
125:17 130:10	18:19,20,20,25	137:7 139:1,2,7,8	auto 62:21 63:2,3
131:11	19:1,2,11,12,17,22	139:14,15	67:1
arm 37:3	19:25 20:3,6,6,9	asserted 13:4	autofunction 15:7
	20:10,11,13,14,17	129:2	

[automatic - brady]

<p>automatic 18:7 61:1,9 66:11,24 120:18 auxiliary 81:24 available 43:7 44:20 115:3 avenue 3:18 average 114:8 aware 49:13 50:14 51:12 65:23 106:4 114:7 115:21,24 116:1 128:20 139:12</p>	<p>barrel 29:17 45:15 47:4 49:10 64:17 79:12,24 80:4,6 107:12,14 barreled 46:21 barricade 108:15 barricaded 94:15 barrier 106:14 132:13 base 60:23 64:1 75:24 114:22 123:15 based 11:21 18:3 49:14 65:11 66:6 76:13 86:10 92:5 100:16 104:24 107:7 108:3 113:5 117:6 119:18 120:7 124:19,22 125:18 126:16 127:21,23 132:10 136:16 basic 32:5 basically 7:15 42:6 54:5 59:21 84:13 93:9 107:19 112:8 basing 124:8 127:24 basis 13:23 83:9 106:3,3 battlefield 95:21 beach 1:16 2:16 3:9 6:1 becerra 1:8 2:8 6:15 becoming 45:7 began 62:14 beginning 2:16 119:22 behalf 2:15 6:18 133:22</p>	<p>beings 76:16 belief 24:25 104:6 123:15 124:19 136:14 believe 16:12,15 19:4 26:25 30:2 31:17 34:23 36:8 40:8 46:4 56:5 58:13 60:12 62:19 66:14 68:3 87:12 94:5 99:4,5 100:4 103:16 106:24 107:4 108:16 114:14 115:11 121:8,19 123:14 123:19 124:6 126:2 132:10 136:14 137:3 believed 94:13 bells 88:24 ben 12:1 benefit 34:8 43:5 57:23 bernardino 131:22 best 7:9,16 43:13 101:12,14 better 40:6 55:7 65:4 66:7 125:19 128:23 beyond 21:15 23:23 77:11 79:16 92:6 106:25 107:8 108:3,24 109:9,10 big 67:24 bigger 32:3 87:18 89:2,20 90:11 biggest 90:13 bill 10:16 11:10 bit 45:21 49:22</p>	<p>body 98:12 99:6 108:10,13 110:5,8 132:13 bolt 25:2 42:19 bonded 103:17 bonnett 1:22 2:18 142:24 book 81:15 138:25 booked 74:10 80:20,25 81:11,20 81:20 82:17,24 84:2,13 87:19,22 88:1,4 boone 17:16 100:25 boone's 117:3 137:14,15 bother 67:14 bottom 117:11 boulevard 2:15 3:8 bouncing 57:25 brady 3:5 4:7 6:9 8:8,20 10:18 16:23 19:7,24 21:12,19 24:3 30:22 33:8 34:5 34:15 37:21,24 45:12,20,23 51:2 51:10 52:4,10 55:12,14 58:17 62:5 63:15 73:22 73:24 74:2 76:11 77:16 80:1 89:10 90:4 91:10,15,22 91:24 92:2 94:1 96:2 101:2,6 102:3,7,13 103:4 105:17 106:12,21 110:6 118:3 125:11,24 130:18</p>
<p>b</p>			
<p>back 8:20 20:22 25:21 29:23 38:4 40:9 41:13 45:23 55:14,15 56:1 63:10 69:22,22 74:19 77:15 92:2 96:9 101:24 107:3 132:8 background 77:18 82:2,9,13 106:2 backstop 82:12 backward 59:10 bad 32:24 33:1,5 33:24 36:9 37:12 37:16,16 38:6,18 52:12,16 108:19 ballistic 79:22 94:17 95:3 ballistics 17:8,13 76:22 77:13,18,25 85:17 104:3 106:1 118:7 134:15 bank 121:5 bare 25:18 102:20 102:22 103:5 barn 64:25</p>			

[brady - changed]

131:4,17 132:7 134:5,8 139:22 140:2 brandished 111:21 137:6 break 45:11,18,24 47:11 55:16 91:22 91:23 126:21 132:2 134:25 135:10 briefs 116:23 bring 94:23 broad 64:24 broadcasts 136:3 broke 136:24 broken 85:6 buford 17:16 100:25 build 26:20,22 37:5 built 28:11 29:11 29:14 37:2 bulk 10:12 bullet 10:15 11:10 121:12 bullets 76:21 bump 64:6,14 bunch 41:24 burst 62:21 64:16 bushmaster 116:4 butt 44:14 button 10:15 11:11 buy 26:19 buying 82:3	caliber 5:9 105:8 113:2 calibers 105:9,11 105:15 106:25 california 1:2,9,16 2:2,9,16 3:9,14,19 5:7 6:1,18 18:5,12 19:3,9 21:3,7,21 22:3 59:15 68:15 69:2 70:6 96:15 97:2,4 142:2 called 85:15 97:6 calling 134:25 calls 72:20 cameras 35:20 campus 126:4 capabilities 40:16 capability 41:20 60:11 126:24 128:10,14,21 130:15 capable 21:25 22:1 23:7 83:6 91:18 124:12 capacity 1:8 2:8 15:1,10,13 58:9,12 58:21 68:11,12,14 68:16,18,19,22 69:8,13,20 73:17 74:22 75:16,21 88:8,12,16 89:24 90:8,15 120:21,22 123:18,25 124:10 124:12,23 125:23 128:9 129:11,20 130:5 captain 71:15 car 92:23 126:3 care 41:22 42:7 123:5	cared 139:16 career 47:21 carnage 63:22 128:11 carried 92:22 carries 13:12 138:18 carry 13:14,17,24 14:10,16 33:10 92:18,19 100:3 101:11 carrying 10:4 101:10 107:12 135:5 cartridge 89:16 cartridges 78:8 case 9:3 12:16 46:5 50:18,19,20 51:19 52:2 64:23 65:2 113:17 128:8 134:2 136:18 142:11 cases 12:11,13 25:5 119:18 137:5 cash 26:19 cat 28:22,24 29:6 31:6,11,11,13,15 31:15 32:11,15,15 32:15 catch 110:11,12 categorized 18:24 category 18:14,15 18:16 24:17,17 31:16 cause 54:3 128:10 causing 35:9 caveat 107:24 center 91:3 centerfire 18:7 21:24 22:9,12,16 23:3,6,11 32:2,5	certain 23:20 29:1 45:8 87:21 93:11 130:19 certainly 86:4 97:8 99:24 129:20 139:16 certainty 87:4,7 129:14 certification 17:6 certified 2:18 16:25 17:3 142:1 certify 142:2,14 cetera 76:21 83:12 83:15 92:23,23 127:10 chance 129:16 chang 3:16 4:8 10:17,21 19:15 21:10,16 23:21 30:18 33:6 34:2 34:10 37:19,23 45:9,19 50:25 51:21 52:8 55:10 58:11 62:4 63:13 73:20,23 74:1 76:4 77:10 79:16 89:4,21 91:9,13,23 93:24 95:18 102:2 102:5 103:2 104:23 106:7,18 109:20 117:25 125:3,17 130:10 130:25 131:11,14 133:18,21 134:6 134:10,11,13 140:1 change 9:6,7 26:13 56:10 changed 13:20 21:25
c			
cadre 14:4 93:1 135:4 cake 91:8,16 calculate 72:14			

[changes - concert]

changes 50:21	city 11:17 12:4	139:6,15,23 140:2	112:2,8,13,16
changing 83:11	75:2,4,11,12	collapsable 49:19	113:2 116:19,21
122:15	141:12	51:17 54:17,19	136:15,16
chapter 25:24	citywide 74:10	collapse 46:23	community 45:6
characteristics	80:16,20 84:2	47:12 49:7	comparable 35:24
42:15 53:5 75:22	87:19,22 88:4	collapsed 47:7	compare 139:13
characterize 93:18	civilian 33:13	49:5	compared 76:18
characters 18:17	96:18 97:9 138:17	college 123:8	comparing 61:4
cheaper 44:25	139:16	combination	78:4 102:15 104:1
check 82:2,9,13	civilians 41:21	90:17,22	104:2,7 105:9
92:8	57:22 95:7,11,23	combined 53:4	comparison 78:7
children 41:24	97:5,16 98:6	90:14 125:22	compile 86:4,5,7
116:6	111:6,11 113:3,4	129:9	complete 26:21
choice 89:9,12	122:19 136:15	come 38:10 44:3	completely 100:14
101:13,14 106:5	clandestine 96:5	82:6 85:20	105:4 131:1
106:11,11 115:16	clarification 23:16	comes 34:12 78:22	completion 142:12
choose 34:16,17	111:17	78:25 81:19	conceal 51:14,20
34:20,22 98:23	clarify 11:3 23:1	comfortable 43:12	52:23 55:7
99:2	31:3 104:5	43:15	concealability
choosing 106:5	clarity 20:4 74:6	comfortably 37:9	50:3,10,24 51:5,8
120:20	class 132:7	coming 77:1,2,4	53:6 54:9 55:4,5
chose 87:1 98:8	classify 138:25	79:4 83:12 96:19	concealable 46:24
130:20,20	clean 74:6 83:24	98:4 103:24,25	49:3,8 50:10 51:8
chosen 14:10	clear 18:18 20:18	106:14,15 114:10	52:13,25 53:1
church 96:25	24:1 43:11 58:4	114:11	54:18,23
115:19	104:14 105:18	command 10:10	concealed 50:15
circumstance	clearly 49:18	commitment	51:7,18,25 132:13
38:18 93:16	108:7 110:13	82:11	concede 67:16
circumstances	115:15,16	committed 50:16	concern 36:19,20
12:10,16 34:23,24	clerks 82:19	committing 84:16	36:21 46:19,20
35:6 38:17 92:21	climb 67:1	common 17:2	50:10 51:9,11
93:11 94:13 95:1	close 125:25 126:5	46:17 47:17 48:6	52:11,17 53:7,7
98:14 99:5,12	126:6 130:20	48:7,11,11,20	55:3,5 63:6
100:15 108:20	code 5:7 18:5,12	99:19 100:3	concerned 42:4
109:24 111:9,11	19:3,9 21:21	106:14 111:15,16	50:13 64:10 97:2
112:24 127:6	22:18,21 23:17	111:25 112:25,25	138:5
135:6	24:14 25:9 26:10	114:18,19,20,21	concerning 88:16
cite 116:2	26:14 27:12,14	118:18	concerns 50:3
citizen 114:8	28:19 30:8,21	commonly 48:12	88:11 102:17
citizenry 96:12	31:12 68:15 69:2	105:12 110:20	concert 47:1
	70:6 81:9 96:11	111:13,14,15,20	

[conclude - cubeiro]

conclude 127:16	considered 23:3	126:14	97:15,17 99:11
conclusion 105:7	45:6	controllable 61:23	105:24,25 106:6
124:22 126:17,23	considering 31:21	62:2 63:3 67:17	106:16 121:1,2
127:21 128:5,6,25	106:10	67:24 123:17	122:6 127:6 136:1
129:10 130:14	constant 33:11	controlled 65:12	136:13 138:15
139:19	129:7	125:9	141:10
condition 26:19	constantly 83:11	controls 127:5	corrected 141:9
27:3	consulted 10:9	convenience	corrections 141:7
conditions 55:22	contact 13:5,6	102:10	correctly 18:9
56:21 57:6,10	contacted 13:1	conversational	counsel 94:6
94:21 108:8	133:17,18	83:25	counting 35:19
conduct 10:1	contained 141:9	converted 25:1	county 131:23
117:18	context 53:3,3	120:10,13	course 45:12
conducted 61:4	60:18 62:9 63:18	conviction 82:10	78:13 83:11 100:2
63:19 105:1	75:1 92:8,9,12	convinced 112:23	112:18 114:13
137:24	96:18,20 107:3,4	cool 45:1,3,6	122:17 127:19
conducting 138:2	108:5	130:21	court 1:1 2:1 7:21
confidence 113:2	continue 94:12	cop 33:9 34:3	8:7 15:8 19:6 25:5
confidential 12:17	125:18	copy 19:9 101:24	25:16 101:4
12:19,25	continuously	correct 6:15,19	covers 120:14
configuration 27:5	33:14	8:24 10:16 11:14	crank 60:19
79:19	contours 24:2	13:14 14:23 15:14	cranking 38:9
configurations	contribute 55:19	15:15,18,19 20:1	credentials 16:10
27:7	contro 69:16	21:8,9 22:13,14,18	crime 50:16 84:15
configured 69:7	control 32:19,24	23:20 24:6,7 25:7	84:16 117:6,22
confined 107:11	33:4,23,25 34:7,11	26:5,11,12 28:16	118:19,25 119:14
107:16	34:13,17 36:8,9,22	28:20 29:2,3,15,16	crimes 10:6 72:25
confines 107:21	36:24 37:1,6,10	29:18,20,22 30:9	116:9 118:14,19
confirm 87:14	38:7,25 39:3,7,9	30:10,25 31:20,23	119:4,9,11,20
confirmed 8:22	39:16 40:6,11	32:9,10 36:6,8,17	criminal 50:14
confusing 20:25	42:24 55:4 60:7	40:25 43:14 44:8	114:20 118:22
connected 85:17	60:21 61:2,11,18	46:5 51:14 52:12	119:4
consensus 78:15	61:21,22 62:25	53:19,20 54:22,23	criminals 110:8
consequently	63:7,24 64:15,23	56:17 59:16,17,20	119:8
83:13	65:4,13 66:7,15	60:9 62:8,19	criteria 20:15,16
consider 30:11,13	69:4 91:1 124:24	64:13 69:16 70:5	81:2 138:1
118:1 131:12	125:19 126:18,19	70:13 71:8 74:22	crowd 62:12,14
considerably 54:8	127:10,12 129:3	77:19,20 79:9,10	65:3 68:4
54:13	controllability	84:6 85:8 86:14	csr 1:23 142:25
considerations	62:6 67:10,19	86:15 88:6 90:9	cubeiro 3:6 16:18
109:2	90:8 124:22	90:17 91:2 97:14	16:21 132:6

[curious - detachable]

curious 77:24	death 34:13 62:12	define 111:1 112:4	depends 29:10
currently 9:7	125:8	defined 18:4,12,14	37:13 39:17 47:15
custom 44:1	deaths 122:14	18:16 19:18 20:12	53:23,23 56:11
cut 120:12	128:15	20:15,16 21:6,21	99:12 109:22,23
cutting 120:10	debate 105:5	27:14 28:6,9	135:18
cv 1:7 2:7	debating 105:15	29:25 30:13 112:3	depicting 78:3
d	december 1:17	112:5	deploy 52:14
d 3:6	2:18 6:1 142:19	defines 19:11	93:21 94:20,25
damage 62:12	decide 104:8,9,10	30:16 139:7	98:4 108:12,18,23
68:4 69:6,9 76:18	139:14	defining 19:22	135:7,13
76:19 125:7	decides 25:16	57:14	deployed 92:22
danger 18:6 22:10	97:10	definitely 33:18	94:12
27:8 29:25 42:3	decision 25:6	61:2	deploying 92:4
42:11	73:12 100:15	definition 20:11	93:5 107:6 108:2
dangerous 41:12	101:11 108:17	20:20 21:2,25	108:17
42:16 61:21 62:2	135:3	24:24 25:8 28:25	deploys 92:13,17
62:7 90:23	declaration 5:4	70:4 95:3	deposition 1:15
dangers 42:2	8:12	degree 17:11	2:14 6:14,21 7:1
data 5:9 73:10	declare 141:5	32:19 33:14 56:12	10:20 137:19
date 142:17	decrease 117:23	57:3,17 58:2 61:2	142:11
dated 142:19	119:9	68:6	describe 13:16
day 15:5 82:7	defeat 108:13,14	degrees 64:15	35:6
141:11	108:15 132:14	deliberate 64:2,3	described 99:6
daylight 56:6	defence 132:17	deliver 78:16	112:24 120:8
days 12:7 14:4	defendants 1:10	129:8 130:15	127:22
82:5,8,11	2:10 3:13	demonstrate 75:7	describing 92:21
deadliness 125:14	defending 113:18	demonstrated	description 5:3
130:7	defense 39:13	20:25	31:4 81:10
deadly 120:8,25	57:11,14,15,17,22	demonstrating	designated 6:17
122:13,21,22	93:10 95:16,16,17	75:7	19:19 26:1,4
123:1,2,4,6,13,19	95:20,22 96:18	department 3:15	designed 76:15
124:1,9 125:23	97:6,21 98:20	9:13 67:7 70:25	desired 44:8
deal 54:12 95:2,6	110:20 111:2,3,7	72:12 81:25 92:20	despite 91:5 131:8
96:20 98:3,13,22	111:11,20 112:2,4	93:9,19 105:9	destruction 34:14
99:14 109:25	112:17,24 113:3,6	106:24 133:17,18	detachable 18:8
dealer 82:3	113:11,12 114:2	133:19,24 134:16	22:2,13 23:1,7,11
dealing 44:2 90:2	135:23,25 136:6	departments	26:24 30:23 31:4
99:10 132:16,21	136:21	134:21	31:22 32:8,13
deals 99:17	defensible 95:25	depend 68:5	75:17 89:1,1,7
dealt 96:16	defensive 93:15	depending 40:16	90:14,25 91:4,18
		95:1 135:5	120:22

[details - equipped]

details 126:6,12 131:8,18,22 detect 46:24 detective 5:5 9:2 12:1 134:14 determination 87:10 126:14 determine 31:20 80:17 81:6,8 83:1 84:3 devastating 33:17 develop 107:4 difference 18:20 27:11 29:5 30:15 50:23 51:23 61:10 61:10,14 66:2 67:25 68:7 120:12 123:21 125:14 126:15 127:13,17 127:18,20 128:4 128:22 130:7 131:7 different 18:23 20:15,16 23:13 27:19,19,21 35:16 37:3 38:17 49:22 64:13 67:22 78:8 79:24 89:16 118:25 126:25 128:11 129:15 130:17 138:6,23 differently 37:2 difficult 107:17 129:21 difficulty 62:15 digits 133:5 dilated 56:22 diligent 139:4 direct 27:20 71:6 direction 142:8	directly 70:18 113:23 disagreement 25:4 25:10 26:16 disassembled 53:8 disbelieve 122:1 discharge 34:25 59:24 60:1 discharged 14:23 35:8,25 36:4,5 discharges 57:10 discharging 97:11 133:9 discover 84:24 discuss 60:17 discussed 36:15 discussing 31:6 53:4 75:22 91:20 discussion 55:1 58:23 90:20 127:7 dispute 116:15,16 disseminated 92:25 distance 126:3 distinction 78:9,10 98:6 distinguishing 20:12 district 1:1,2 2:1,2 divert 56:16 division 71:16 87:23 divisions 80:21 83:9 document 8:9 documents 71:3 doing 14:25 95:7 104:12 112:20 120:11 126:9 139:23	doj.ca.gov 3:21 door 110:17 doubt 129:14 douglas 115:10 downsides 107:11 dozens 53:11 133:5 draw 98:3 107:20 drop 35:10 due 80:16 81:5 duties 9:25 10:1 duty 14:16 35:7 133:9 e e 6:12,12,12 earlier 99:6 134:14 135:21,24 136:4,12,14 138:22 early 110:10,10 easier 44:25 east 2:15 3:8 easy 29:4 educated 17:10 124:21 126:17 127:21 128:25 education 17:12 effect 7:23 9:19 55:24 79:2,20,22 effected 125:7 effective 56:6 67:13 92:6 104:20 105:13 107:8 108:4,25 109:5,7,8 effectively 59:7 effectiveness 125:13 131:6 effort 85:15 eight 115:23 either 13:24 39:2 57:7 85:9 87:13	97:9 106:23 elegant 46:16 employed 9:2 employee 133:25 142:15 enclosed 57:20 encounter 34:23 encountered 34:24 114:13 ended 94:5 energy 78:16 79:13 80:7 enforcement 13:2 46:20 82:1 97:17 132:22 engaged 96:25 121:13 engaging 15:13 96:10 108:19 enhance 67:15 enhanced 42:3,10 67:19 129:11 130:15 enhances 43:1 entail 15:20 17:12 enter 106:6 entering 100:9,13 100:19 entities 70:25 entitled 7:16 19:17 102:8 entry 50:16 51:14 52:14 99:22 environment 57:20 equation 45:2,3 75:18 equip 62:20 67:8 equipped 53:24 64:6,19,20 65:24 66:5 79:21 109:17
--	---	---	---

[equipped - features]

110:1 123:17,24 124:5 126:25 129:15 equivalent 95:23 erroneously 105:7 essentially 30:24 55:2 64:25 82:2 establish 15:6 estimate 14:19 36:3 48:5 133:4 estimation 19:21 et 1:5,9 2:5,9 76:21 83:12,14 92:23,23 127:9 etched 25:14 28:11 29:7,8 evaluated 36:4 114:2 event 99:13 100:16 eventually 38:10 everybody 93:1 everybody's 37:2 evidence 19:16 30:20 52:9 110:19 111:19,25 112:1 114:18 136:19 137:1,3 evil 38:14 evildoer 55:6 exact 79:13 exactly 46:6 68:1 79:20 123:20 129:2 examination 4:3 6:8 134:12 examine 139:19 examined 6:5 example 17:14 25:2 28:23 64:5 77:17 79:18 81:23	excellent 129:16 exception 24:19 31:16,18 46:9 exchange 13:2 exclusively 9:16 excuse 57:3 executed 141:11 executing 94:24 exhibit 5:4,7,9 8:5 8:6,22 19:5,8 25:22 70:21 101:2 101:3,23 137:12 exhibits 5:1 expects 96:12 experience 18:4 38:16 45:5 46:17 47:16 48:9 60:25 63:1 66:6,19,23 111:12 122:19 132:11 136:17 experienced 40:15 expert 5:4 6:17 8:22 17:14 24:5,8 76:22 77:12 79:17 104:4 106:1 117:2 118:7,7 133:15,19 134:2,15 expert's 77:25 91:13 100:24 104:25 105:1 expertise 80:16 81:5,7 120:7 experts 117:1 expires 82:7 explain 18:11,23 73:18 74:24 80:18 84:10 123:20 explained 97:25 100:12 explaining 18:19	expose 107:15 exposure 113:10 extend 46:15 47:8 48:25 extended 49:1,4,6 extender 44:14 extension 52:21 extensive 13:18 33:11 76:18,19 extensively 62:18 100:10,11 extent 28:21 31:6 31:7,24 67:18 extremely 66:8 eyes 49:2	fair 12:2 20:20 21:3 28:20 31:10 31:13 32:1 34:18 35:18,20 36:12,14 37:18 66:21,22 71:6 77:2 78:8 80:2 88:5,8,10 90:12 93:23 97:5 97:22 98:25 99:1 117:8,12,14,21 119:1 120:4,5,16 127:18,25 130:8 133:12 fairly 97:21 falling 118:19 familiar 48:20 53:12 59:12 77:22 96:23 100:21 133:8 138:12 familiarize 139:17 far 10:20 48:17 49:2 58:4 61:5 87:23 90:7 91:8 fast 60:19 faster 60:16 125:20 126:19 favorite 41:23 fbi 17:14 102:20 102:22 103:5 feature 22:3,4 23:9,15 24:16,18 24:20 28:22 31:7 36:15 42:14 featureless 30:24 66:11,20,23 67:5 88:22 features 20:13 21:7,13,23 22:10 22:17,24 23:4 25:14 28:9 29:1 29:14 30:1,5,9
---	---	---	---

[features - forwarded]

31:9,13 32:3,5,9 32:12,14,15 53:5 58:23,24 59:19 63:8 64:12 65:1 65:14 75:22 76:3 79:11,12 89:18 90:25 91:5,7,19 120:19 124:11,20 125:13,14 127:9 128:7 139:13,18 federal 15:22 138:21 142:11 feel 134:10 feet 109:9,13,24 110:1 fellow 14:18 felt 34:20 field 55:21 56:16 61:4 81:18 87:11 fight 95:14 98:8,24 99:3 figure 72:13 90:5 104:15 figures 71:3 80:20 85:2 87:2 filter 87:24 final 82:8,12 financially 142:14 find 9:25 95:2,6,24 112:6 116:23 findings 101:7 fine 7:8 73:23,24 110:2 finger 59:9 finish 45:10 60:4 93:25 finished 134:5 fire 14:5 15:4 32:21 37:6,10 38:8,14,17,20,22 39:3,8 40:17 43:1	43:17 56:25 57:8 58:6 59:1,25 60:2 60:5 62:16,20 63:23 64:7,18 66:8 68:10 69:18 91:3 121:17 123:23 124:23 126:19 138:16,20 firearm 13:13,14 13:17,21,22 16:4 17:6 22:20 24:12 25:13,14 26:21 32:24,24 33:23,24 34:1,7,8,12,16,20 34:22,25,25 35:21 35:22 36:10,12,23 37:10,18 38:2,21 38:25 39:5,12,16 39:22,24 40:2,4,5 40:19,20 41:8 45:5 51:24 52:1 52:15,23 55:7 57:10,16 59:7 60:7 61:11,17 63:1 65:4,6,12,13 66:15 67:11,17 69:6 70:13 72:15 81:10,13,25 82:21 82:24 83:6 85:17 89:25 97:11 100:18 113:13,17 123:16,17 125:9 126:19,25 128:12 129:15 130:17 139:19 firearms 10:11 12:23 13:10,19 14:6 16:1 19:20 22:19 26:2,3,5 27:1,6 28:22,25 38:16 42:4 43:6	45:4,6 46:8 61:1 63:7 64:20 67:13 72:23 74:10 75:3 75:19 76:6 77:22 80:20,22,23,25 84:2,19,20,22 85:23 86:1 87:13 87:18,22 90:6 93:10 95:4 98:11 99:8 119:11 fired 14:23 15:6 35:21 60:24 61:8 72:20 77:7 79:23 107:1 111:22 129:23 130:1 137:8 firepower 58:9 68:11,12,16,20,22 69:9,13 fires 33:16 62:21 firing 60:25 61:15 64:10 firm 59:6 firmly 114:14 first 19:18 25:22 41:11 49:10 72:2 102:21 111:1 121:4 134:19 firsthand 117:20 121:20 fit 34:21 37:15 38:19 39:23 40:1 40:4 41:6,7,17 42:23 44:24 46:3 fits 38:3,19 39:14 40:6 42:12 43:24 fitting 40:18,20 five 73:3,4,9,13 123:10 132:2 fix 89:13,13,14,15	fixed 18:8 22:3,13 23:2,8 27:24 28:1 32:17 37:4 43:21 46:2 47:10 49:17 75:17 88:25 89:17 89:18,25 126:22 flare 22:6 flash 22:6 23:18 24:12 55:18,18,20 55:21,25 56:3,7,7 56:8,10,11,14,15 56:16,20,24 57:5 57:17,25 58:5,8,20 64:21 78:24 80:6 88:25 focus 85:18 108:9 120:16,19 focused 31:24 78:5 focusing 29:4 fold 54:3 followed 113:1 following 19:19,20 25:25 26:4 30:15 follows 6:6 force 93:17 95:11 95:15 96:17 97:12 111:9,10 132:17 forced 112:9 foregoing 141:6 142:3,5,9,10 foremost 134:19 forgot 80:12 form 59:14,15 111:10 formally 17:10 formed 67:18 forth 142:4 fortune 44:1 forward 22:7 forwarded 119:10
--	---	---	--

[found - guess]

found 102:25 106:13 112:12,12 foundation 23:22 51:1 79:16 89:4 89:21 95:18 104:25 106:7,18 130:25 four 6:24 36:3 123:10 francisco 3:19 free 134:10 frequent 132:11 frequently 135:23 front 8:21 53:21 full 6:10 15:7 39:3 52:21 62:21 63:1 63:3 83:4 fully 61:1,9 66:11 66:24,25 120:18 function 55:20 81:24 87:11 88:8 90:20 functional 27:11 functionally 27:16 28:14,17 functions 27:25 56:12 further 142:10,14	88:3 127:2,16,23 128:5,6,23 129:5 131:6 general's 6:18 8:14,23 generally 35:18,20 45:5 50:21 52:17 59:22 61:25 77:1 77:4,5 84:17 85:15,23 86:1 91:11 93:20 95:12 96:22 105:6 109:18 generated 87:23 generates 11:25 generic 18:16 20:13 28:9,22 31:7 127:8 gentleman 96:24 getting 20:22 29:23 107:3,21 114:21 125:4 ghost 124:6 give 7:9 11:23 61:20 81:23 101:24 given 11:25 12:5 35:23 37:3 38:15 44:16 60:2 64:9 76:24,24 109:16 133:1 138:20 142:10 gives 69:16 82:13 giving 36:7 go 7:7 8:17 10:23 13:25 26:19 45:20 55:7,11,24 60:4 62:22 69:22 74:7 77:10,14 78:14 81:21 83:15 84:21 91:24 94:3 95:14	95:15,25 97:5,10 98:8 101:21,22 102:20 108:11 132:4 goes 38:4 43:7 82:18 103:1 115:20 going 7:15 10:21 12:3 17:25 25:21 30:18,19 33:13,14 38:10,24 39:2 42:15 45:20 46:23 47:5,7 50:23,25 52:5 54:9 60:20 63:10,23 68:5,6 69:22 72:19 74:19 75:20 77:3,10 80:7 82:3 84:7 85:8 89:6 93:21 94:8,11 95:5,15 96:20 98:2,5 99:3 99:16 100:4 101:11,23 102:7 104:23 119:25 121:17 122:15,18 123:7 130:23 132:2 135:13 139:7 golden 3:18 good 6:10 33:4,5,7 33:23,25 34:11 36:11 37:17 43:5 45:18 51:2 57:11 57:19 58:2 82:5,7 91:23 123:5 grab 110:13 grabbed 113:22 113:22,24,24 grabbing 107:14 grain 103:17,20 106:23	granted 39:10 40:18 graph 102:22 104:13 great 33:18 42:25 56:12 106:1 greater 18:6 22:10 29:25 30:3 32:22 41:20 42:24 61:2 65:13 78:16 89:23 89:24 90:1 91:1 107:16 127:10 grenade 22:7 grip 22:5,7 23:12 23:14,18 24:12,18 24:22,23 29:19 38:24 58:25 59:6 59:18 60:10,22 61:20 65:5,8,16,20 66:1,7,17 67:2,16 67:18,23 68:2,3,11 69:12,19 78:21 79:21 80:5 88:24 123:20,22 125:22 128:9 grips 32:20 36:7 36:20 38:5 61:1,9 65:24 66:5,25 67:6,9,14 68:9 127:9 129:3 ground 10:20 20:24 35:9 94:14 group 63:19 groupings 63:20 groups 116:20 guess 13:8 25:16 40:9,23 44:1 47:19 70:9 81:3 102:3 114:4,5 133:6,24
g			
gain 50:16 51:14 52:14 gang 35:7 51:5 garden 32:22 81:20 gas 27:20 gate 3:18 gelatin 102:20,22 103:5 general 1:9 2:9 27:4 32:2 43:7 60:25 76:7 78:15			

[guessing - impingement]

<p>guessing 47:22 133:7</p> <p>guitar 51:19</p> <p>gun 9:8,16,21 10:2 10:4,8,12 11:13,15 11:17,21 12:3,18 13:24 14:3,16,18 14:20 25:13 35:7 41:16 50:9 51:8 51:17 56:16 61:12 61:15,19,19,23 64:17 66:8,10,11 66:16,20 69:23 70:19 72:3 73:4 75:2,10 80:18 81:7 82:2,3,12,13 82:16,21 83:1 84:9 85:7 86:1,9 87:17,19 88:3 95:4 107:22 116:20 119:11 121:14,17 124:6 138:25 139:13</p> <p>gunfight 93:22 94:8 100:5</p> <p>gunfire 64:17 122:20</p> <p>guns 12:9,12,14,19 14:8,10,14 15:9 28:19 63:11 64:7 64:18 73:17 74:21 74:21 75:5,8,12,15 75:15 80:16 81:12 83:15,17 84:9,25 86:9,14,25 87:3,6 87:9,12,15,17 88:3 88:4 107:11 120:11,13,19 121:2,15 122:13</p> <p>gunshot 72:14 122:16</p>	<p>guy 33:4,7 37:16 43:5 52:12,16 82:16 108:19 115:19 136:24,25</p> <p>h</p> <p>h 3:16</p> <p>hairs 35:19</p> <p>half 54:5,6</p> <p>hand 38:6,23 72:14 103:7</p> <p>handed 37:4</p> <p>handgun 35:8 76:9,20,25 77:4 78:11,17,19 92:5,6 94:16,18 98:3,20 98:24 99:2,11,16 99:22 103:12,15 103:16,18,21,25 105:6 106:16,20 107:1,7,9 108:2,4 108:24,25 109:5,7 109:8,19 110:4 112:25 113:22 132:14,15,20 137:9</p> <p>handguns 14:8 16:14 84:22 93:15 98:20 103:23 105:10,14,23 109:17 111:16 113:11 114:16 136:16</p> <p>hands 27:4 33:1,4 36:10,11 42:8</p> <p>happened 71:17 122:2 133:10 137:3</p> <p>happens 43:6</p> <p>harder 46:24</p> <p>harm 65:8</p>	<p>he'll 10:23</p> <p>heading 19:19</p> <p>health 30:4 82:11</p> <p>hear 10:21 11:3 91:2 112:20</p> <p>heard 121:22,24</p> <p>help 88:19 102:11</p> <p>hereto 8:7 19:6 101:4 141:8</p> <p>hide 56:8,15</p> <p>high 70:9,9 77:7 94:14 98:9 123:18 123:25 128:8</p> <p>higher 59:25 60:16 77:3 88:4</p> <p>highly 33:13</p> <p>hit 38:11 62:13 64:24 109:10 110:10</p> <p>hits 16:12,14</p> <p>hitting 79:13</p> <p>hold 36:22 62:11 62:22 125:18</p> <p>hollywood 12:15 121:5,5</p> <p>home 99:23 100:9 100:19 106:6 134:25 135:10</p> <p>homes 100:13</p> <p>homicide 71:1</p> <p>hone 81:3</p> <p>hook 115:11 116:7</p> <p>hopefully 133:2</p> <p>horrendous 122:18 125:1</p> <p>hours 91:21 110:10</p> <p>house 57:21 99:15</p> <p>huge 62:11 64:11</p> <p>huh 7:22,23 74:9 74:11 119:24</p>	<p>120:1 121:6</p> <p>human 76:16</p> <p>humanity 62:11</p> <p>hundreds 47:22 47:24 69:25 133:5</p> <p>hunt 95:6,25 96:15</p> <p>hunting 39:13 42:19</p> <p>hybrid 64:21</p> <p>hypothetical 43:5 50:19 51:1,15,22 89:5,22 90:2 131:9</p> <p>i</p> <p>icing 91:7,16</p> <p>idea 72:4,6,7,9 74:15 85:1 87:16 112:8</p> <p>ideal 52:7</p> <p>identical 28:14 79:12,12 80:2,3,3 80:4,7 97:21</p> <p>identically 27:16</p> <p>identification 8:6 15:21 19:5 101:3</p> <p>identified 21:22 28:3 85:10</p> <p>identify 21:13 120:2 139:1,3</p> <p>identifying 83:6</p> <p>ignore 122:15,18</p> <p>illegal 12:18 85:21</p> <p>imagine 13:9 15:23 35:24 48:24 79:1</p> <p>immediate 111:8</p> <p>impact 56:20 78:21,24 79:3</p> <p>impingement 27:20,20</p>
--	---	---	--

[important - justice]

important 60:18 98:5 108:10 impression 101:7 102:1,14 119:12 119:13 impressions 102:8 improperly 37:23 inch 49:5,6,8,9 50:22 51:6 inches 47:13,14,17 49:1,10,14,18,20 49:23 50:5,22,24 67:22 incident 96:24 121:4,7 122:12,14 123:7 124:3,4 125:15 127:15 128:17 incidental 127:8 incidents 120:2,14 120:20 133:11 include 10:1 22:5 85:12 86:13 87:19 87:25 88:1 including 31:3 71:1 75:4 77:24 78:14 116:20 118:6 120:22 122:11 incomplete 51:1 51:21 52:8 89:5 89:22 increase 37:1 68:9 68:10 114:23 115:1 117:23 119:9 129:6 increased 36:22 38:7 57:18 90:11 99:9 128:10,14,20 130:2	increases 51:4 increasing 115:23 incredible 62:12 index 4:1 indicate 9:1 14:22 15:16 69:24 122:12 indicated 19:10 21:5 22:10 39:15 45:14 46:1,4 65:18 69:15 113:18 130:22 131:23 indicates 86:12 individual 11:25 35:9 50:8 51:24 62:10 63:21 64:11 84:16 98:10,11 99:13 107:12 111:8 137:4 individually 84:5 individuals 63:20 94:17 inflict 62:11 63:22 68:4 123:2 128:15 inflicted 65:7 informant 12:17 12:25 informants 12:19 information 71:21 73:13 83:10 108:6 115:3 initialed 141:8 injured 123:11 129:17 injuries 76:19 122:16,24 123:3,4 128:15 injury 66:12 ink 141:8	innocent 41:21 input 10:13 11:9 71:6 inserted 89:8 inside 99:15 108:13 inspected 47:21 inspecting 47:20 inspections 10:12 11:13,15 instance 23:10 51:16 80:25 instances 34:13 50:14,17 51:12 93:4 112:20 instructor 17:5 instructors 16:6,8 16:11,24 instrument 99:17 intended 130:19 intent 26:25 37:25 38:1,2,6 41:11 46:25 intention 38:14 interdepartmental 16:2 interest 48:22 104:13 106:1 interested 114:8 115:4 142:15 internet 17:13 117:17,20 137:2 interpose 10:22 30:18,19 interpret 25:11 interpretation 69:8 interrupt 45:9 interrupted 94:6 interruption 8:19 55:13	introduce 46:25 intrusion 110:16 invasion 135:10 invented 76:15 investigating 10:8 85:22 investigation 10:2 84:19 112:10 investigations 9:24 117:11 investigator 15:11 involve 33:3 involved 12:18 46:7 121:21 133:1 involves 14:8 involving 118:15 119:11,11 irrelevant 23:18 104:24 118:11 ish 50:22 isolate 90:6 issue 43:4 60:17 63:18 105:13 108:11 116:2 134:17 issued 13:19 issues 38:9 61:17 75:5 92:20 102:19 105:5,10 item 90:6 items 107:18
j			
jacket 51:7,25 jde 1:7 2:7 jls 1:7 2:7 job 1:24 110:5 jurisdiction 118:20 119:5 justice 3:15 133:17			

[justifiable - lessen]

justifiable 57:16 57:23 justified 95:11 132:17 136:20 justify 111:9	71:12 72:2,20,24 73:22 74:12,13 78:3,17 79:1 81:14,17 82:18 83:1,13,24 84:22 84:22 85:4,5,10 86:3,8,11,23 87:1 87:2,21 88:18 92:17,24 93:18,21 94:7,7 95:4 98:9 98:10,11 99:3,4 100:4 101:23 102:21,24,25 104:3,17,17,19,20 105:13 106:19 107:2 114:4,25 118:8 121:9,16,20 123:5 124:5 125:25 126:2,3,5,6 126:9,11 128:13 129:13,23 130:2 131:18,22 133:6 133:10 134:16,18 134:19,23 135:21 135:24 137:24,25 138:1,4,18,22 139:3,6,8,11	knows 133:19	75:6 24:1 131:18 29:24 70:12 38:9 34:13 61:17 126:23 128:9 129:10 105:7 47:10 58:23 89:1,6 22:19 132:7 105:3 45:25 71:15 73:21 103:7 132:6 44:12 47:12 49:7 95:16 136:20 30:11,13 57:16,22 95:24 111:6 132:17 10:11 10:11,14 27:1 27:9 57:15 109:4 41:7 37:8 43:13 44:8,12 46:15,16 46:22 47:12 49:4 49:5,11,16 50:9,21 51:4,20 52:15,19 52:24 54:5 79:13 79:24 80:7 44:7,13 44:10 37:3 80:4 56:20
k		I	
katy 1:22 2:18 142:24 keep 27:1,3 59:7 65:2,5,12 72:12 80:15 keeping 129:7 kept 73:13 kill 37:22 129:11 129:20 killed 115:19 121:7,9,10 122:8 123:10 126:4 129:16 killling 76:16 kind 11:24 38:15 72:12,15 84:19 125:7 136:10 kinds 27:21 38:9 kinetic 78:16 79:13 80:7 knew 126:10 knocking 35:9 know 7:16 8:17 11:24 12:6,7,8 13:1,3,3 14:6 16:10,22,24 17:1,2 19:12 20:5 25:5 27:17 36:13 38:13 43:15,22 44:10,15 45:17 46:4,7,14 47:15 49:25 51:17 54:6,24 56:6 57:14,20 61:18 64:19,20 66:25 68:13,18 69:1	80:24 84:21 126:12 130:1 131:8 knowledge 12:3 17:4,5 71:24 82:20 83:3 104:25 117:22 118:2,4,5,9 118:10,14,18 119:3,8 121:20 132:25 135:22 136:17 138:10,11 139:2 known 18:14	la. 11:18 12:4,10 12:14 lack 113:9 lacked 66:15 lacks 23:22 50:25 59:18,18 79:16 89:4,21 95:18 104:24 106:7,18 130:25 lapd 9:2,5,8,14,21 15:3 69:23 70:13 80:14 85:7 86:9 92:13,17 99:18 100:18 118:15,20 122:4 133:1,8,22 133:25 134:3 136:10 138:25 lapd's 14:13 119:5 134:24,25 large 73:17 74:22 75:16,21 88:8,16 90:15 107:10 120:22 124:10,12 124:23 125:23 126:20 129:9 late 7:12 30:19 launcher 22:7 law 3:7,17 11:11 13:1 21:3,7,17 23:24,25 24:2 30:16,16 46:20 47:11 49:10 59:16 82:1 90:16 96:11 97:17 132:22 139:5,12,14,17 lawful 97:12 laws 15:22 45:15 95:11	

[lethal - masses]

<p>lethal 42:16 63:25 76:7,24 90:23 91:8,19 93:17 96:16 98:10 111:9 124:1 127:3 135:16 lethality 42:25 55:19 75:18,24 76:2,7,8 78:7 88:11 89:25 90:7 124:20 letter 82:4,7 level 28:2 60:11,12 83:3 levels 35:24 lieutenant 71:2,9,9 71:14 73:11 74:17 life 76:19 95:17 97:6,13 122:15 123:2,3 light 55:22 56:4,21 57:6,10 likelihood 98:9,12 limit 49:11 73:4,12 limited 11:17 73:6 97:11 98:13 limiting 31:10 limits 44:12 line 25:22 45:10 45:10 77:13 92:4 104:23 107:6 114:9 133:9 lined 132:3 list 22:20 23:5 24:22 25:15 listed 22:17,25 23:10,16 27:12 28:4,19 29:6,12,13 30:7 31:12 93:8 139:18</p>	<p>little 30:19 45:20 49:22 54:11 live 14:5 living 13:13 location 84:23 108:11 locations 14:5 110:10 locks 27:21 logic 62:1 63:10 logical 75:9 128:25 130:14 logically 123:25 126:23 129:6,10 long 1:16 2:16 3:9 6:1,25 13:24 14:8 14:10,14,16 46:18 49:6,6 50:9 53:14 53:21 62:22 107:11,22 137:18 137:21,21 longer 26:23 45:21 51:6 57:5 look 19:11 23:5 26:17 81:21 82:20 83:15 90:20 102:7 116:24 137:12 139:14 looked 77:17 looking 8:21 20:4 47:24 78:2 82:15 102:16 122:21 137:22 looks 70:11 102:24 106:23 los 75:3,4 96:14 119:14 lose 57:11 62:24 losing 62:25 loss 109:12</p>	<p>lost 94:4 lot 10:1 14:6 27:22 44:17 62:15 75:2 75:3 78:13 83:7 119:10 122:11 lots 130:3 loud 42:6 low 55:21 56:4,21 57:6,10 98:19 lower 28:4 29:5,12 29:12,13 53:15,18 54:4 lowers 28:4,6 m m 6:12 m16s 62:18 m4 62:20 m4s 62:18 mac 81:12 machine 12:12,19 15:9 61:11,15,19 61:23 63:11 64:7 64:18 66:8,10,11 66:16,20 74:21 75:5,8,12,15 80:16 80:18 81:7,12 82:21 83:15 84:9 84:24 86:13,25 87:3,6,9,12,14 120:11,13,18 121:2,14,14 142:7 machines 73:21 magazine 22:2,3 23:2,2,7,8,11 26:24 27:24 28:1 30:23 31:4,22 32:8,13,17 75:17 75:21 88:8,12,16 88:23 89:2,7,8,14 89:17,19,25 90:8 90:25 91:18</p>	<p>126:22 magazines 18:8 22:13 73:18 74:22 75:16 89:15 90:14 90:15 91:4 120:22 120:23 123:18,25 124:10,13,23 125:23 128:9 maintain 59:6 majority 48:18,19 87:5,9 132:16,22 making 49:2 52:18 77:11 78:9,10,14 91:8 135:8 manage 39:5 managed 110:3 maneuver 110:3 maneuvering 107:22 manipulate 38:16 39:21 52:6,6 manner 59:9 114:3 manufactured 124:6 manufacturers 48:25 mark 19:8 101:2 101:23 marked 8:6 19:5 25:21 101:3 marking 8:4 mass 33:3 39:9,10 39:19 41:15,20,23 62:11 63:6,18 64:1,11 114:24 115:1,13,16,17 131:7 massacres 41:24 masses 76:21</p>
--	---	--	---

[matt - need]

<p>matt 132:7</p> <p>matter 6:14,19 7:6 8:12,14,24 52:23 130:22 133:16,23</p> <p>matters 53:5 134:6</p> <p>matthew 3:6</p> <p>mean 7:24 21:2 45:15 67:20 68:13 68:18 69:1,2 73:18 74:4 95:13 104:14 105:12 110:14,25 111:3 111:18 115:20 125:4</p> <p>meaning 94:14 111:21</p> <p>means 19:19 25:25 68:25 70:4 74:24 80:19 84:10,13 111:1</p> <p>meant 27:5,6,7 76:14 93:16 101:12</p> <p>measured 47:18 49:16,21 50:1</p> <p>mechanical 58:6 60:11</p> <p>mechanically 59:3 68:9</p> <p>mechanics 58:5,7 58:15,18 60:12</p> <p>meda 12:1</p> <p>medical 123:5</p> <p>meet 20:11 28:25 81:2</p> <p>meeting 70:4</p> <p>meets 20:19 21:2</p> <p>member 35:8 132:12</p>	<p>members 14:18,20 51:5</p> <p>memory 122:9</p> <p>mental 82:11</p> <p>mention 107:25</p> <p>mentioned 30:7 65:20,22 108:1 113:7</p> <p>mere 54:2 58:4 118:24</p> <p>mersereau 1:15 2:14 4:4 5:5 6:4 6:12,13 24:4 134:14 141:5,18</p> <p>methodical 112:13</p> <p>methodology 112:10</p> <p>metric 67:22</p> <p>miami 47:2</p> <p>michael 1:15 2:14 4:4 5:5 6:4,12 141:5,18</p> <p>micel 3:4</p> <p>michellawyers.c... 3:11</p> <p>middle 110:15</p> <p>military 45:5 61:19 62:17 67:4 67:12 76:15 96:6</p> <p>millimeter 76:9 78:19 103:7,10 104:21 105:8,22 106:15 134:17</p> <p>mimic 64:7</p> <p>mind 21:25 69:11 101:19,24</p> <p>mine 101:19</p> <p>mini 59:12,25 60:3 60:6,15,16,20 61:5 64:14 66:11 67:7 75:20 79:18,19,21</p>	<p>79:22 80:5 88:22 88:22 89:14,15,17 124:15,25 125:6 129:18,19</p> <p>minimal 79:2</p> <p>minimally 139:10</p> <p>minimum 44:12 49:8</p> <p>minor 27:17</p> <p>minute 78:1 132:2</p> <p>minutes 137:23</p> <p>mischaracterizes 73:20 91:13 109:20</p> <p>misconstrue 74:4</p> <p>misinterpreted 104:13</p> <p>missing 9:18</p> <p>mission 85:18</p> <p>misstates 21:10,10 106:8</p> <p>misunderstood 105:13</p> <p>misusing 36:10</p> <p>mitigate 27:10</p> <p>mitigated 88:12</p> <p>mode 62:19 63:2</p> <p>model 21:7 23:20 24:14 25:15 29:7</p> <p>modify 26:23</p> <p>moment 121:11</p> <p>monica 123:8,21 127:25 128:3,16 128:19 129:24</p> <p>month 14:2</p> <p>months 71:14,14 71:17 81:23</p> <p>morning 6:10</p> <p>motion 35:20</p> <p>motorist 98:17</p>	<p>mouth 108:22</p> <p>move 62:14 102:11</p> <p>moving 55:10,17 62:14 129:1 137:11 138:22</p> <p>multi 15:5</p> <p>murder 115:22 116:6 126:24</p> <p>muzzle 55:25 56:10 64:21 65:3 79:25</p> <tr> <th colspan="2">n</th><td></td><td></td></tr> <tr> <td></td><td></td><td>n4 138:13</td><td></td></tr> <tr> <td></td><td></td><td>name 6:10 18:14 20:13 29:7,7 30:16 93:7 115:5 142:18</td><td></td></tr> <tr> <td></td><td></td><td>named 22:19,20 23:5 24:17,21 28:8,21 31:8 82:17</td><td></td></tr> <tr> <td></td><td></td><td>names 12:13 20:17 139:18</td><td></td></tr> <tr> <td></td><td></td><td>nanoseconds 35:19</td><td></td></tr> <tr> <td></td><td></td><td>necessarily 28:22 44:16 47:11,12 60:16 63:21 79:8 82:20 84:21 88:7 139:7</td><td></td></tr> <tr> <td></td><td></td><td>necessary 26:20 93:17</td><td></td></tr> <tr> <td></td><td></td><td>necessitate 39:2</td><td></td></tr> <tr> <td></td><td></td><td>necessity 24:16</td><td></td></tr> <tr> <td></td><td></td><td>neck 121:12</td><td></td></tr> <tr> <td></td><td></td><td>need 7:20 16:11 39:22 40:5,9,23 41:4 43:19 44:20 44:23 64:6,24 81:8,9 84:3 88:7</td><td></td></tr>	n						n4 138:13				name 6:10 18:14 20:13 29:7,7 30:16 93:7 115:5 142:18				named 22:19,20 23:5 24:17,21 28:8,21 31:8 82:17				names 12:13 20:17 139:18				nanoseconds 35:19				necessarily 28:22 44:16 47:11,12 60:16 63:21 79:8 82:20 84:21 88:7 139:7				necessary 26:20 93:17				necessitate 39:2				necessity 24:16				neck 121:12				need 7:20 16:11 39:22 40:5,9,23 41:4 43:19 44:20 44:23 64:6,24 81:8,9 84:3 88:7	
n																																																			
		n4 138:13																																																	
		name 6:10 18:14 20:13 29:7,7 30:16 93:7 115:5 142:18																																																	
		named 22:19,20 23:5 24:17,21 28:8,21 31:8 82:17																																																	
		names 12:13 20:17 139:18																																																	
		nanoseconds 35:19																																																	
		necessarily 28:22 44:16 47:11,12 60:16 63:21 79:8 82:20 84:21 88:7 139:7																																																	
		necessary 26:20 93:17																																																	
		necessitate 39:2																																																	
		necessity 24:16																																																	
		neck 121:12																																																	
		need 7:20 16:11 39:22 40:5,9,23 41:4 43:19 44:20 44:23 64:6,24 81:8,9 84:3 88:7																																																	

[need - opinion]

<p>91:22 95:8 96:16 98:13 100:5 122:9 130:6 needed 62:10 64:24 80:17 81:6 128:13 130:2,4,12 needs 7:25 44:5 82:25 97:22 negative 112:18 neither 142:14 never 35:17 47:18 49:19,21,25 54:24 58:1 68:19 108:12 130:4 new 43:24 83:12 news 112:21 114:11 117:19 136:2,3,7,8 newspapers 112:21 nice 50:6 108:11 108:16 night 7:13,13 55:25 56:20 57:12 110:16 nightclub 47:2 115:13 non 18:8,24 22:3 22:13 23:2,8 25:2 29:25 30:4 32:17 48:9 75:17 96:13 119:17 127:1 139:1 noncriminal 41:14 41:18 nonexistent 15:22 nonlethal 132:15 132:21 normally 84:14 north 121:5</p>	<p>noted 30:8 77:16 140:3 141:8 notes 8:21 101:25 102:7 noting 61:10 nra 16:25 17:2 116:21 number 5:3 47:13 53:6 64:4 72:3,19 72:23 74:10 80:15 84:2,8 85:25 86:9 87:16,18,22 88:2,4 101:22 108:7 136:19 numbered 101:17 101:19,19 numbers 71:24 75:8 83:13 85:6 86:13 87:5,19 102:11,11 103:2 118:22</p>	<p>obstructed 107:18 obvious 19:14 obviously 67:21 occasion 15:4,5 81:17 82:15 85:16 occasional 10:2 occasions 132:11 occurs 57:22 ocean 2:15 3:8 offense 95:5 offensive 93:20 95:13 97:6,10 office 6:18 7:4,5 8:14,23 officer 13:9,24 94:20,25 96:13,19 96:20 97:9,19 133:1,2,8 139:4,12 officer's 121:12 officers 9:24 18:6 22:11 33:10,19 80:22 81:11,18 82:19,19 83:5,12 93:12 94:7,23 95:9,10 96:3,5 97:17 98:15,21,23 99:9,25 107:19 112:22 115:22 121:13,16,20 122:4,11,16,19 132:22 135:1,1,3 138:25 official 1:8 2:8 offsetting 54:20 oftentimes 119:18 oh 42:8 94:11 134:8 136:8 okay 7:7,15,20 8:13,16 9:21 10:6 11:6 12:2 13:8,12 15:25 17:22,24</p>	<p>18:1 20:4,22 21:5 28:18 30:22 32:1 40:9 41:4,14 43:9 44:18 47:24 48:8 48:12 50:2 55:1 57:9 58:4,8,20 60:9 69:15,22,22 70:3,22 71:17,20 71:23 72:2 73:2,8 74:16,19,24 75:13 78:7 82:13,23 84:14 86:3,8,12 88:2,2,7 89:11,13 94:5 97:3,5,9 102:23 103:2,5,9 103:17,20,23 104:5 105:18 106:3,22 107:23 108:9,21 109:7 111:24 117:5,16 118:17 119:2 120:6,16,24 122:7 122:12 123:7 126:12 131:16 133:8,15 134:11 134:23 135:14,18 136:12 137:11,24 138:12,19 139:22 once 35:3 97:20 one's 129:6 ones 57:23 70:18 ongoing 135:10 open 76:5 opening 90:18 operate 15:7 66:20 operator 32:23 opine 22:8 opinion 18:3 20:2 21:18 22:23 23:25 24:2 25:4,11 26:13 29:24 32:11</p>
	<p>o</p>		
	<p>oath 6:5 7:17 142:6 object 50:25 73:20 104:23 120:11 objecting 102:4 objection 10:17,22 19:15 21:10,16 23:21 30:18,20 33:6 34:2,10 37:19 51:2,21 52:8 58:11 62:4 63:13 76:4 77:11 79:16 89:4,21 91:9 93:24 95:18 106:7,18 109:20 111:13 117:25 125:3,17 130:10 130:25 131:11</p>		

[opinion - pin]

32:23 40:10 59:24 60:1,5,23 65:1,9 66:4,13 82:25 88:17 89:19 90:10 92:11 107:15 110:23 113:5 114:14 118:12 120:6,24 123:11 124:8,14 125:13 126:16 132:20 opinions 67:18 75:24 116:16 131:13 opposed 31:25 62:21 76:20 92:4 107:7 108:2,23 opposite 116:1 opt 94:8 135:6 optics 109:17 110:1 optimal 38:23 39:5 optimally 46:3 optimize 43:16 optimized 43:20 optimizes 43:16 optimum 37:4,8 52:19 option 132:21 option's 44:19 options 132:15 order 13:17 16:11 50:15 51:20 72:13 82:10 ordered 134:2 orders 92:20 ordinary 82:24 original 94:4 107:5 142:11 outside 105:1	overall 49:11 87:17 130:7 overpenetration 102:19 105:5,10 105:14 138:6 owners 12:6 owning 84:19 p p 6:14,14 p.m. 2:17,17 6:2 140:3 page 5:3 17:22 70:20 72:2 74:8 84:1,8 92:3 102:11,21,25 103:2 104:19 107:6 110:18 119:22,22,25 132:9 pages 1:25 70:11 101:16,17 102:21 paid 133:24 pain 7:12 pants 51:6,25 papers 129:1 paragraph 9:1 17:23 19:18 20:22 22:8 29:23 55:17 69:24 73:2 74:19 80:14 92:14 110:18 119:23,25 120:6 123:7 131:19,23 132:9 part 14:25 15:4 45:1,3 62:17,23,23 75:18 120:21 126:18 127:8 135:4 137:14,15 participated 69:24 particular 37:5 43:14 44:5,6	52:19 56:11 75:6 76:14 79:24 82:15 128:8 particularly 33:17 38:17 46:12 90:15 109:16 parties 114:1 parts 26:20 party 142:16 patrol 33:10 80:21 81:18 82:19 83:5 138:25 139:4 pattern 31:19 pc 3:4 peace 13:9 penal 5:7 18:5,12 19:3,9 21:21 22:18,21 23:17 24:14 25:9 26:10 27:12,14 28:19 30:8,21 31:12 68:15 69:2 70:6 81:9 96:11 139:6 139:15 penalty 141:6 pending 131:14 penetrate 94:16 106:14,25 penetrated 121:12 penetration 103:24,25 people 26:16 38:15 40:23 41:22 41:25 42:1,11 44:20 45:4 64:11 95:1,25 96:6,15,17 112:23 115:20 121:7 123:3,5,10 123:10 129:17,20 130:23 136:5	percentage 14:9 48:3 70:7,10 85:1 86:8 87:2 114:15 114:16,17 perfect 45:13 perfectly 80:5 periodic 14:4 periodically 13:21 perjury 141:6 person 34:6 37:25 38:1 39:12 40:1 42:8 44:7 52:16 86:23 108:14,15 110:5 113:18 136:24 person's 9:18 56:20 personal 12:3 16:3 66:19 71:23 113:10 117:10,22 118:2,8,10,14,18 119:3,7 132:25 135:22 138:10,11 personally 100:8 personnel 83:11 pertains 142:10 peter 3:16 133:18 133:21 134:8 peter.chang 3:21 phenomenon 46:17 112:11 photographs 65:23 66:4 physical 37:5 109:23 picked 82:9 picks 41:23 piece 10:14 piecemeal 75:23 pin 53:14,21 54:1
---	---	---	---

[pins - prove]

<p>pins 53:18 54:9,10 pistol 13:19 22:5,7 23:12,13,18 24:12 24:18,22,23 32:19 35:11,13,15 36:7 36:20 38:5,24 58:25 59:18 60:10 60:22 61:1,9,20 65:5,8,16,20,24 66:1,5,6,17,25 67:2,6,9,14,16,18 67:23 68:1,3,8,11 69:12,19 78:21 79:21 80:5 88:24 94:9 107:20 123:20,22 125:21 127:9 128:9 129:3 pistols 20:14 81:1 81:12 119:16 135:2 place 33:16 142:4 placement 76:24 78:15 plaintiff 1:6 2:6,15 3:3 129:2 plaintiff's 100:24 116:22 117:2 platform 29:5 33:15 41:23 42:15 42:20 48:10 104:11 platforms 28:8,9 33:12 play 131:9 played 65:1 playing 65:20 please 6:11 11:2 18:23 19:13 74:25 plenty 41:22 83:5 plus 9:6,7</p>	<p>point 27:23 31:14 39:4 44:22 47:10 75:10,20 77:14 94:4,11 116:11 119:9 120:20 pointed 31:18 police 13:25 16:15 18:6 22:11 27:9 33:10,19 67:7,12 93:9 95:8,10 96:3 96:5,13,19,20 97:19 112:21 115:22 122:11,16 134:21 138:17 pop 53:21 pops 99:13 popular 45:7 portion 17:25 pose 18:5 29:25 30:3 89:19 posed 131:9 poses 22:10 32:12 32:16 position 33:20 38:23 43:20 47:7 52:7,20,21 56:3 62:6 94:14,16 97:20,20,25 98:1 98:11 110:3 117:18,19 positions 99:6 possess 95:4 possessed 113:14 possessing 95:2 possession 84:20 85:2,7,9,21,21,22 110:9 118:24 119:20 possessions 118:23 possessors 10:9</p>	<p>possibility 130:24 possible 46:2 52:13,14 86:4,5 93:22 127:17,19 138:20 potential 42:25 55:19 89:24 94:8 95:14 138:7 potentially 40:12 47:25 63:25 124:16,17 pounding 110:16 power 102:18 104:15 138:5 practical 44:25 practice 39:13 134:24,25 precedes 107:12 preconditioned 26:9 prefer 99:22 preferable 63:11 premise 32:2,6 63:8 127:2,4,16,23 128:23 129:5 131:6 prepared 8:13 present 27:8 28:5 83:10 90:1 94:19 94:21 124:10,13 presented 137:1 preserve 62:23 presumably 57:18 pretty 28:10 35:24 44:3 46:12 104:14 134:21 prevailed 121:15 previous 38:5 63:10 previously 77:18 130:22</p>	<p>primarily 10:7 17:13 67:2 102:18 136:3 primary 9:22 prior 137:13,14,18 137:19 142:5 private 13:23 privilege 10:25 probably 70:2 87:22 109:25 137:3,20 problem 75:11,12 90:12 98:4,5 problematic 36:16 42:18 49:2,4 60:6 90:7 91:4 problems 54:20 proceedings 8:19 55:13 132:6 142:3 142:5,7,12 process 53:12 71:24 product 79:7 prohibited 10:9 84:18 85:9 promoted 71:15 proper 37:15 39:23,25 40:4 41:6,7 42:23 44:24 properly 34:6 36:11 37:17,20 38:3,16 40:15,18 40:19 property 82:19 87:23 proponents 112:8 proposed 10:11 prosecuted 12:6 prove 129:13</p>
--	--	---	--

[provide - reasonable]

provide 10:13 11:20 32:20 57:17 61:2 71:10 88:19 91:1 127:10 129:3 provided 70:14,15 71:1,10 73:7,16 74:16 75:14 86:2 86:21 101:1 123:22 130:4 131:24 provides 23:25 112:7 125:22 providing 73:3 74:20 proving 112:18 provision 71:20 proximate 111:8 proximity 125:25 public 18:6 22:11 27:4,9 30:4 32:3 32:12 33:18 42:2 42:3 43:7 53:2 62:2,8 63:11 88:17 89:3,20 90:1,13,19,24 132:12 136:21 pull 52:2 54:10 59:10 72:13 125:20 pulled 102:4 pulse 115:12 pump 116:19 pupils 56:21 purchase 13:23 purchased 12:20 pure 58:7,18 60:12 124:19 purpose 26:17 47:8 51:19 56:5 56:14 76:15,16 92:4,15,17 107:6	109:2 128:24 purposes 109:2 119:1 pursuant 84:14 pursue 77:13 pursuing 96:10 put 26:15 42:19 43:19 44:14 47:6 47:9 52:2,7,15 54:11 64:8,14 70:12,14,23,24 71:4,25 80:4 86:16,18,23 92:14 97:10,20,20,25 98:1 102:10 108:21 122:23 128:14 130:2 putting 24:5 47:10 67:13	questions 7:16 58:25 132:3 135:21 139:21 quick 53:24 quicker 56:1 quickly 35:25 54:1 58:16 110:4 quip 67:4 quite 19:14 123:18 quote 92:7 107:9 113:21 130:21 132:18	60:2,10,16 61:16 61:16 64:7,21 68:10 raw 83:13 reach 27:22 139:19 reached 133:20 reaching 107:13 reacquire 57:4 58:16 react 110:4 read 17:18,20,25 25:22 65:17 77:22 96:9 100:24,25 101:5 104:12 106:1 112:21 115:6 116:12,15 116:16,18 117:1,7 117:19,20 118:9 124:5 136:23 141:6 readily 115:3 reading 77:21 108:6 136:22 138:8 ready 98:19 real 44:2 realize 82:21 94:2 realizing 81:15 really 12:8 44:16 61:21 77:6 83:15 85:5 106:2 reason 7:9 31:2 34:6 38:1 39:15 43:3 61:20 62:17 67:5,6 75:13 86:16 110:11 122:1 127:7 reasonable 38:7 90:19 92:6 107:8 108:4,24
		r	
	qualification 16:13 qualify 13:21 24:13 108:22 quantified 67:20 quantify 68:4 quantities 126:20 129:9 question 11:1,4,7 13:11 24:11 33:22 39:17 40:3 49:22 58:14 63:11 65:25 65:25 67:23 74:5 83:23 88:18 94:4 102:5 116:12 122:25 125:8,12 128:18 131:14,15 questioning 45:10 45:11 77:14 104:24	r 6:12,12,14 rafters 108:14 raids 96:5 rails 43:8 raise 125:8 raised 64:17 raises 125:12 ran 137:7,8 range 38:11 50:22 56:8 62:22 64:8 92:6 104:20 107:9 108:4,18,25 109:5 109:7,8 129:8 130:3,16,20 rapid 38:10,17 52:1 61:16,16 62:16,25 64:18 66:8 rapidity 33:18 37:11 40:17 rapidly 32:21 37:7 38:8 43:18 63:23 69:18 123:23 124:24 rare 85:16 133:13 rate 35:16,21 38:10,20 56:24 57:8 58:6 59:1,25	

[reasonably - restate]

reasonably 99:5 reasons 91:20 reassemble 54:14 54:21 rebuttal 17:20 137:15 recall 12:13 17:10 35:25 46:9 50:17 68:23 93:4 115:5 126:8 133:3 136:23 receive 13:5 134:24 received 13:17 15:17 16:1,3 17:8 99:20 100:8,17 receiver 25:12,14 25:18,20 26:7,14 28:10,11,12 29:8,9 receivers 26:18 27:12,13 28:13 recertify 14:1 recess 45:22 92:1 132:5 recognize 8:9 62:24 68:17 recoil 62:25 recollect 51:16 recollection 48:17 recommending 101:10 record 6:11 8:17 8:20 45:21,23 55:11,14,15 74:2,6 83:24 91:24 92:2 120:10 132:4,8 142:6,9 records 72:12 73:8 82:18 recovered 80:16 84:9,10,13 86:1,9	87:17 88:3 119:19 redirect 134:7 reduce 37:6 55:20 57:7,8,8 reducing 55:24 reduction 51:4 refer 122:8 129:1 reference 66:1 referenced 116:10 referred 136:23 referring 17:16 22:20 28:24 69:5 reflect 74:2 92:10 94:10 reflects 36:13 refrain 10:24 refresh 122:9 refused 134:4 refute 115:24 regain 64:22 regard 44:5 regarding 10:10 73:3,16 74:20 regardless 33:24 regards 38:5 regular 83:9,9 reiterated 126:17 relate 110:15 related 10:11 70:13,18 72:23,25 73:4 relative 104:15 105:10 142:15 relatively 71:20 133:12 release 53:24 82:2 82:14,16 releasing 81:25 relevant 24:12 56:4 75:5 76:2	reload 126:21 rely 112:9 relying 71:5 118:4 118:5,7 remains 50:22 remember 50:18 60:9 113:23 remove 53:14 54:1 54:9,10 removed 24:23 renew 33:14 repeat 11:2 40:3 repeated 116:20 repeatedly 125:19 repetitive 125:5 rephrase 11:7 21:20 report 5:4 8:23 14:22 15:16 17:14 17:18,20,22 19:10 21:22 23:23 24:4 29:23 31:5 36:16 55:17 56:19 65:18 66:1 69:23 70:11 72:14,16 73:15 77:12,25 79:17 83:16,21 84:5 92:3 100:24 104:7 105:2 106:4,10 107:6 110:19 113:19,23 115:5 118:6,9 119:22 122:9 124:2,4 131:20,24 132:9 137:14,15,16,18 reported 1:22 113:25 reporter 2:19 7:21 8:7 19:6 101:4 142:2	reports 11:20,23 11:24 65:17 112:21,21 113:10 113:12,21 114:2 114:12 115:24 116:1,2,10,12,15 117:1,2,7,19 119:10 136:1,5,8 represent 19:9 120:3 representations 105:19 represents 28:1 request 135:15 requested 142:13 require 40:1,19 required 13:13,21 82:8 requirement 23:2 23:2,3 requires 97:12 107:15 111:7 135:17 research 76:13,23 112:6 118:11 137:2 researching 117:17 resembling 81:12 resistance 98:10 respect 55:3,5 90:6 97:21 118:19 119:4 respects 133:25 responding 135:3 135:11,12 response 7:24 18:2 responses 7:21 restate 11:2 19:1 111:25
--	--	--	--

[restored - runs]

restored 27:2	70:4 76:1,8,23	31:15,16 33:11	ring 53:25
restraining 82:10	77:1,3 78:4,8,10	46:21 48:1,4,7,9	rise 115:22 116:10
restrict 90:17	78:10,16,22,25	48:10 61:9 63:8	117:6
restricted 88:13	79:4,8,11,11 82:18	66:24,25 67:5,6	risk 107:13,18
125:10	84:15 88:7,15,23	69:25 80:3,3 81:1	risks 30:4
result 49:14 80:21	90:9 91:18 92:4	81:21 83:14 84:9	rits 16:16
85:21	92:13 93:1,5 94:9	86:13,24 88:12	robbery 71:1
resulted 122:24	94:12,18,20 95:8	91:3 92:18,21	121:5
retain 64:22	95:20,22 96:19	93:9,18 94:23	role 65:2,20 69:23
retraining 33:12	98:8,13 99:10,14	98:4,20,23 99:2	roller 27:21
retrofit 23:12	99:22 100:12	100:3 102:15,16	round 33:16 36:4
return 121:17	101:10,11,15,16	104:1,1,2,7 105:14	36:5 62:21 76:8
review 84:4	103:10,15,18,19	105:24 109:16	76:20,25 77:2,4
119:10 124:4	103:21,22 104:8,9	110:20 111:19,19	78:5,16,17,22,25
137:18 138:11	104:11,22 105:6	112:1,16,23 113:2	79:4,22 88:23
139:5,17 142:12	105:11,16,16	113:6 114:17,20	89:1,2,8,14,17,18
reviewed 93:2	106:5,11,20 107:1	115:15 116:9	89:25 103:24
124:2 135:25	107:7,13,20 108:2	117:6 118:15,19	104:10 106:13,14
136:2,2,5 137:13	108:12,17,18,23	119:4,8,15,16	106:15 126:22
reviewing 136:22	109:4,12,18,25,25	120:9,13,17,18	134:17,18
137:14	110:2,13 113:24	127:3,24 128:23	rounds 32:21 36:1
revolver 76:8	115:13 117:22	135:1,5,13,23	38:10,11 43:2
rifle 13:25 16:15	119:21 123:12	136:15,20	60:19 62:22 64:8
16:15 18:16 19:1	126:14 128:4,14	right 8:3 13:8	78:2,3,4,10,11,11
19:2,12 20:3,19,19	128:21 130:13,14	43:22 44:19 45:12	78:20 79:7 94:16
20:24 21:1,2,6,13	130:22 133:9	51:11 52:7 54:4	94:18,18 103:25
21:14,23,24 22:8,9	134:18,22 135:4,7	54:19 56:22 58:6	104:16 106:11
22:16,16,23,24	135:15,16 139:1,2	58:18 59:19,22	123:23 124:23
23:16 24:21,22	139:15	63:4 68:8 71:21	129:8,23 130:1,3
25:12 27:23,25	rifle's 56:24 58:9	71:25 72:11,17,21	130:15 134:22
29:6,6 30:24 32:3	58:20 59:1 60:10	73:25 74:1,14	138:5,6
32:4,5,8,11,13,16	68:10,12 69:12,19	77:8,23 79:14	rude 7:25
32:22 33:16 35:16	rifles 15:4,6 18:4,8	80:8 83:21 84:5	rudely 94:6
37:4,9 38:14,22	18:12,18,20,24	85:7,25 86:10,19	ruger 59:12
41:5 42:11,20	19:11,21,23,25	87:3 104:7 105:21	rule 20:24
45:15 46:10,22	20:6,7,9,10,11,12	122:14 123:9	rules 10:20 97:11
47:4 49:6,6,8,9,10	20:14,17,23 22:12	124:20 127:24	run 45:15 82:8
50:21,22 53:1	22:21 26:1,2	132:1,8 134:5,20	96:13,14 107:18
54:4 55:20 58:6	27:12,13 28:6	136:11,11 139:9	running 44:12
59:12,14 62:7	29:24 30:1,3,4	139:12	runs 82:12 107:13
67:24 69:12 70:3	31:5,7,8,11,11,13		

[rupp - shoot]

rupp 1:5 2:5 6:14	scared 136:25	30:8 31:12	113:3,6,11,12,12
s	scenario 57:22	sections 18:5	114:2 132:16
s 6:12	66:9 68:6 88:19	25:24 139:15	135:23,25 136:6
safe 33:18,19	124:1 131:2 135:9	see 11:7 19:12	136:21
safely 39:21	135:11,17,19	33:3 43:10 44:15	semi 18:7
safer 41:8	scenarios 95:23,24	46:7 80:23 87:8	semiauto 63:4
safety 32:4,12	98:6 113:3 132:17	93:12 98:15,17	90:14
42:3 53:2 62:8	132:22 136:21	101:18 102:8	semiautomatic
63:12 88:17 89:3	137:4	103:7 110:20	15:7 19:20 22:9
89:20 90:1,13,19	scene 65:23 85:16	116:19,22 132:2	22:12,15 23:6,11
90:24	119:19	138:25	25:2 26:1,5,7,9
sajer 12:14,21,24	schedule 83:9	seeing 48:21	27:6,23,25 32:2,4
13:1	scheduled 14:4	113:23 119:13	32:16 35:13,15,21
sake 102:10	school 41:24 47:1	seek 98:21	35:22 60:25 61:8
sales 12:18	schools 14:1	seen 25:5 46:13	61:11,17,24 62:19
san 3:19 131:22	scientific 112:7,10	65:23 66:4 68:19	66:23,24 76:6
sanctioned 111:6	112:12 114:10	68:22 105:6	81:11,13 90:20,24
sandy 115:10	117:18 118:6	107:19 110:7	91:3,17 120:18
116:7	129:14	113:25 137:15,16	senate 10:16 11:9
santa 123:8,21	scope 23:23 77:12	segment 45:8	send 38:11 135:1
127:25 128:3,16	79:17 105:1	segregate 118:24	sense 7:18 8:3 11:5
128:19 129:23	scores 133:5	seize 80:22,23 87:8	16:17 41:18 58:14
saved 123:5	sean 3:5	118:21	93:20 95:21 99:19
saw 7:18 11:21	search 84:11	seized 69:24 84:11	129:13 135:9
46:22 62:10 137:7	94:24	84:12,13 85:13	sent 12:18 73:9,11
sawed 46:10,10	searches 17:13	seizing 84:15	sentence 92:14
saying 7:20 13:9	second 8:18 36:5	seizure 46:8 69:25	94:5 108:22 111:4
20:6,9,10 22:16	55:11 72:19 81:22	81:18	111:18
40:23 42:6 47:3,5	84:7 91:25 94:15	seizures 73:4	separate 90:24
52:22 64:3,4	121:12	80:24 87:20	serious 32:12
65:22 91:3,12	secondhand	seldom 112:23	serve 51:19
94:7,12 111:24	113:25	select 62:20	service 13:19
116:21 122:22	secondly 136:21	138:15,18,20	set 20:15,23 98:13
125:2,6 128:4	seconds 36:3	selecting 138:2,3	127:3 135:6 142:4
129:2 135:19	53:16,17 54:2,2	selector 138:15	sets 20:16
says 19:19 26:4	section 5:7 18:12	self 39:13 57:10,14	shawn 45:9
72:3 75:13 81:9	19:10 21:22 22:18	57:15,17,21 83:4	shifting 83:12
84:8 102:22 108:1	22:21 23:17 24:15	93:10 95:16,20,22	shoot 35:15 39:22
134:20 137:25	24:24 25:9 26:10	97:21 110:20	41:16 47:7 87:13
sbrady 3:11	26:14 27:13,14	111:2,3,7,11,20	87:14 96:6 130:19
	28:5,19 29:6,13	112:2,4,17,24	130:23 137:5,6

[shooter - sorts]

<p>shooter 32:20 35:23 37:3,8 39:9 39:10,19 41:11,23 43:12,14 44:6 52:19 55:25 57:4 59:6,10 60:12 61:21 62:3 67:25 68:5 69:6,16 91:1 96:25 123:11,22 124:14 125:1,22 125:25 126:7,23 127:10 128:10,13 128:21 129:3 shooter's 37:15 43:1 55:21,25 56:16 58:15 109:22 129:11 shooters 41:15,20 63:6 64:2 109:10 115:16 120:9,25 131:7 shooting 14:4 15:1 16:2 37:13,14 39:12,18,18,19 57:15 62:10,16 64:13,16 65:18,21 85:13,16,18 103:10,12,15,23 104:18,21 115:10 115:13 120:3 123:8,12,21 124:8 126:1 127:25 128:3,16,19 129:24 130:8 131:8,18,23 shootings 33:3 63:19 64:4 114:24 115:2,12,18 119:17,17,18 133:1</p>	<p>shootout 121:13 122:8 shoots 59:21 79:12 133:2 short 45:11,15,24 46:21 47:4 49:10 55:15 shorten 44:7,11 46:22 52:24 54:7 73:25 74:3 shortened 50:4,9 shortening 45:14 49:15,24 50:8 51:7,13 shortens 52:12 shorter 52:21 54:13 shorthand 2:19 20:19 142:1,7 shot 26:22 60:15 66:16 72:3 76:9 76:24 78:14 79:8 96:25 105:15 111:22 115:19 121:11 126:2,10 136:24 137:8 shotgun 13:25 16:13 46:10 99:16 99:22 100:5 104:20 107:20 113:22 132:15,20 135:16 137:9 shotguns 20:15 46:21 51:6 81:1 83:14 84:23 111:16 113:1 114:16 136:16 shots 72:19 shoulder 37:16 38:3,20 39:14,23 40:1,4 42:12,23</p>	<p>43:24 46:3 98:19 107:17 shouldering 39:6 43:17 shoulders 93:13 98:17 show 66:4 115:21 showing 106:3 113:9 shown 76:17 shows 112:7,13 shut 12:5,9 side 61:5,5 64:25 103:7 signature 55:21 142:23 significant 50:23 51:4 63:20 91:17 significantly 54:22 similar 87:18 similarly 69:7 simply 20:6,10,18 22:16 31:2 46:2 49:23 73:6 75:10 91:7 108:1 simulation 66:8 simunitions 14:5 single 26:22 62:13 133:5 sit 68:25 sits 16:12,13 situation 36:5 43:2 62:9 64:12 100:15 situations 12:11 56:4 94:19 135:24 six 14:19 skill 35:23 39:21 39:22 sks 23:10 28:23 30:7,21,23 31:3,16 31:18,21 32:8,13</p>	<p>89:15 sky 64:16 67:1 slap 42:20 slaughter 41:20 slew 112:22 slides 138:8 sling 107:19 slow 35:19 39:4 slung 93:13 98:16 98:19 small 14:9 smaller 87:17 smith 103:14 105:8,23 106:15 society 45:8 sold 12:23,23 soldier 95:21 soldiers 62:18,20 67:4 96:6 sole 75:19 76:14 76:16 solely 65:11 124:9 somebody 13:12 33:2,25 36:10,11 37:17 39:7,20 40:5 43:7 46:2,25 51:13,17 56:9,15 57:9,9 77:22 82:1 99:13 somebody's 38:20 somewhat 55:7 sorry 10:19 16:18 26:3 30:3 77:9 83:23,24 113:12 118:16 sort 110:16 112:9 114:12 118:25 128:12 129:15 135:10 136:3,5 sorts 27:20</p>
---	--	---	---

[sound - suffice]

sound 38:7	97:16 134:21,24	stipulating 41:15	story 94:15
source 71:3,5	standpoint 88:17	41:19	straight 59:10
sources 86:6	start 8:4 10:19	stipulation 139:22	streets 10:3 27:3
southern 1:2 2:2	62:24 70:20 74:7	stock 22:6,6 23:13	96:14 98:16
southernland	starting 25:23	23:13,19 24:13	strictly 14:6 58:14
96:23 97:1	109:10	29:21 32:20 36:16	strike 74:5 89:16
sp 103:20	starts 13:18	37:1,4,7,8,15	115:25
spaces 107:11,17	state 1:9 2:9 3:14	38:19,19 39:14	striking 62:15
speaking 61:25	6:10 18:9 22:4	40:10,13 41:5,6,7	stripped 25:20
77:5 95:12 96:22	55:18 73:15 92:3	41:17 42:11,17,22	26:18 29:9
special 92:20	132:10 138:4	43:6,11,13,19,19	struck 122:20
136:10 139:2	141:12 142:2	43:21,24 44:2,7,9	structure 108:13
specialized 80:22	stated 18:1 51:16	44:14,23,24 45:14	studied 35:17
81:19	118:1 124:2	46:2,11,16,23,23	studies 76:17
specific 51:12 60:2	125:19 131:19	47:3,6,10,15,17	77:17 78:2 113:9
126:13 127:3,5,15	134:15	49:15,24 50:4,7,15	114:11 115:21
127:25 128:19	statement 12:7	50:20 51:14,17	117:10,18,19
135:6,18	20:3,23 40:21,22	52:5,6,13,15,20,21	study 77:21,23
specifically 15:3	64:1 68:13 70:1	54:17,19 55:6	101:9,12 102:15
19:22,22 24:18	73:21 74:22 81:4	59:14 60:5 64:14	112:6,7,13 119:12
28:7 34:22 41:17	92:10,15 100:4	79:3,19 80:6	stuff 114:10,12
78:2,3 85:5 115:7	107:5,25,25	88:22,25 124:15	stuffed 51:6
128:3,16	114:19 116:8	129:19	subject 10:24
specified 19:20	117:5	stocks 25:13 36:19	26:16 46:18 55:10
speculate 131:2,5	states 1:1 2:1 22:2	36:22 40:24 44:3	95:10 137:12
speculating	113:21	44:21 46:1,19	138:23
127:12,20	stating 19:22	48:13,16,19,21	subjects 133:20
speculation	statistics 70:13	49:17,19 55:2,3	submachine 61:18
124:19,21	73:3,16 74:20	64:6 67:9 127:9	submit 8:23
speed 59:11 79:4	75:9,14 80:15	stoneman 115:10	subordinate 11:20
spell 16:18	81:5	stop 67:15 78:18	subordinates
spend 44:1 54:13	statute 25:12,23	78:18,19 94:17,18	11:16
137:22,23	26:18	134:17,22	subscribed 142:17
splitting 35:19	stay 40:16 57:13	stopping 98:17	subsequently
spoken 122:4	67:2 125:21	102:18 104:15	13:22 71:15
spotlight 26:15	staying 60:7	138:5	substantial 118:22
springs 96:24 97:1	steven 1:5 2:5	store 10:12 11:13	sudden 93:16
stack 103:1	stiff 53:23	11:15 12:14	suffer 109:12
staff 10:10	stipulate 30:12	stores 11:17,21	suffering 7:12
standard 28:10	39:11 139:23	12:4,10 121:17	suffice 132:16
44:3 47:16 59:15	140:2		

[sufficient - think]

<p>sufficient 132:21</p> <p>suggested 84:3 115:6</p> <p>suggesting 50:19</p> <p>suggests 84:19</p> <p>suite 2:16 3:8,18</p> <p>superior 98:24 99:10 104:10</p> <p>supervise 9:23</p> <p>supervisor 9:23 12:1,1</p> <p>supervisory 9:25</p> <p>support 76:23 114:19 116:10,23</p> <p>supporting 113:9 114:18</p> <p>supposed 95:7</p> <p>suppressor 22:6 23:19 24:13 56:3 56:7,7,11,14,24 57:5,17 58:5,8,20 64:21 78:24 80:6 88:25</p> <p>suppressors 55:18 55:19,20</p> <p>sure 27:18 45:19 46:14 55:12 57:23 61:18 88:21 140:1</p> <p>surprising 116:22</p> <p>surrounding 100:16</p> <p>suspect 15:14 94:13 95:6 107:13 110:2 111:22 132:13 137:5,6,7,8</p> <p>suspected 84:16</p> <p>suspects 96:10,11 100:9 110:11 119:19 121:8,9,18 122:7,10,20</p>	<p>sustain 66:12</p> <p>swat 121:13</p> <p>system 42:24</p> <p>systems 14:2 27:20,22</p> <p>t</p> <p>table 43:4 72:3,19 74:7,16 83:19 84:1,7,7 85:25 86:10,12,17,18,21 86:23</p> <p>tables 70:12,20,23 71:10 73:9 75:1</p> <p>tactics 14:7 15:13</p> <p>take 38:22 45:11 45:18 47:13 52:6 53:14,14,17,22 57:5 77:15,15 91:17 100:5 110:14 132:2 134:1 137:12 139:2,3,4</p> <p>taken 2:14 6:21 7:1 75:23 142:3</p> <p>talk 74:3 79:6 92:16 112:22,22 113:13</p> <p>talked 36:7 104:19 136:5 138:23,24</p> <p>talking 19:21 20:7 20:14 29:9 34:3 39:12 42:13,14 45:25 48:4 63:18 68:8 70:16,17,18 92:13 104:14,21 106:20 111:5,6 130:12</p> <p>talks 55:18 105:6</p> <p>target 38:11 39:13 56:1 57:4,13 58:16 59:7 60:8</p>	<p>62:11,13,13,15 67:3 78:17 79:13 79:20 80:8 92:5 107:8 108:3,24 109:11 125:21 130:3</p> <p>targeting 47:2 63:21</p> <p>targets 63:21 64:2 64:4,11 65:5 123:23</p> <p>task 9:22 134:1</p> <p>tasked 10:7,8 11:16 96:10 118:15</p> <p>taught 99:18,21</p> <p>technique 54:16</p> <p>telescoping 22:6 37:1 43:5 44:9 46:19 47:3,6,17 48:16 51:13</p> <p>tell 8:11 10:23,24 17:25 101:22 115:9 133:10</p> <p>tells 106:10 128:20</p> <p>temple 115:12</p> <p>ten 102:21 115:23</p> <p>tens 46:8</p> <p>tenured 9:24 99:24</p> <p>term 19:1,2,12,25 20:18,24 21:1 58:12 68:16,17,19 68:22,25</p> <p>terminology 93:19 116:22</p> <p>terms 39:6 40:17 48:25 51:24 58:7 58:15 59:11 75:18 98:6</p>	<p>test 87:11 102:20 102:22 103:5,10 104:25 137:24 138:2</p> <p>tested 58:1</p> <p>testified 6:6 15:25 77:19 135:25 136:4,12,14 138:24</p> <p>testify 15:8</p> <p>testifying 116:17 142:6</p> <p>testimony 7:10 21:11 36:9 91:14 91:15 94:10,20 96:9 106:4,8 109:21 110:7 141:9 142:10</p> <p>testing 85:17 103:24</p> <p>tests 61:4</p> <p>texas 97:1 115:19</p> <p>thank 139:20</p> <p>theory 58:1</p> <p>thing 32:25 33:1,5 33:5,24,24,25 34:11 36:10,11 37:12,16,17 38:18 57:11,19 58:2 72:20,22 136:3</p> <p>things 10:10 99:7 108:1 116:14 126:16</p> <p>think 14:1 16:5 19:14 25:11 31:14 34:9 38:4 39:17 41:21 44:22 45:12 45:18 46:6,13 47:21 49:17 51:23 54:15 56:13 65:7 66:3,18 69:5,12</p>
--	--	---	---

[think - undisputed]

74:12,12 76:1,5,22 77:14 78:5,15 80:2,4 89:2,23 90:9,13,19 93:8 96:16 102:16,18 105:12 109:9 110:13,14 111:14 111:14 113:20,20 116:14 117:24 124:16,25 128:5 129:12,21 134:5 135:17 136:17 137:13 thought 44:17 45:21 102:9 131:8 136:4 thousands 46:8 47:23,25 threat 28:1 32:3 32:12,16 53:2 67:14,15 89:3,20 90:1 93:17 96:18 96:21 97:13,13 98:3,22 99:9,17 109:25 111:7 132:12 threatening 76:19 123:3,4 threats 90:13 three 6:24 36:3 62:21 thumbhole 22:5 23:13 32:20 ticket 93:14 time 6:25 9:23,25 16:5 36:1 45:13 45:18 52:6 54:7 54:14 59:8 64:9 71:13 98:1 102:10 118:21 125:5 137:21 139:4	140:3 142:4 times 6:23 35:2 53:10 today 6:13 7:10 53:4 68:25 75:23 110:23 116:17 127:7 133:3 137:19 told 20:2 68:15 99:24 tool 34:22 tools 93:11 top 74:8 83:19 84:1 topic 100:22 topics 15:17 total 72:3,19,23 74:10 84:1 87:18 traffic 93:14 98:18 trafficking 10:8 12:12 train 16:11,13 trained 14:10 40:15 training 13:10,14 13:16,19 14:4,13 15:1,3,5,17,20 16:1,2 17:6,9 18:3 33:11,14,15 38:15 39:20 40:1,5,19,24 41:4 81:14 82:20 83:1,4,4,8 92:19 99:18,20,25 100:8 100:12,17 120:7 132:10 trainings 16:3,6 trains 62:17 transcribe 7:22 transcribed 142:8 transcript 141:7 142:9,11,13	traumatic 122:24 trick 104:6 tried 54:24 64:15 trigger 38:23 59:8 59:9,10 62:22 125:21 trip 20:5 true 54:25 75:21 107:10 110:8 121:18,19 141:9 142:9 truthful 7:17 try 83:8 trying 13:6 20:5 27:9 31:14,20 37:22 42:10 57:4 62:13 73:24 74:3 75:7 81:4 82:16 90:5 104:5,8,9,10 104:15 108:21 tuesday 1:17 2:17 6:1 turn 17:22 turning 121:4 tv 114:12 twice 35:8 two 7:2,3 12:5,9 12:11 35:25 53:18 88:15 90:13 95:1 97:21 121:8,9 122:7,10 type 45:5 46:12 102:17 113:13,17 115:13 125:9 126:25 types 10:6 42:3 typical 57:21 64:18 78:19 111:10 typically 61:15 63:19 65:16 73:17	74:21 75:15 82:6 84:18 85:14 94:22 95:23 98:7,21 109:16 110:10 111:7 113:4 u u 6:12,14 uh 7:22,23 74:9,11 119:24 120:1 121:6 ultimately 27:8 29:10 87:12 unarmed 96:6 unclear 25:8,10 uncommon 48:18 113:5 undercover 12:23 underestimate 70:2,3 undergo 13:13 undergone 14:13 undersigned 142:1 understand 8:1 11:1 13:11 24:11 33:20 58:13 81:9 90:18 107:23,24 118:16 128:18 130:11 understanding 24:9 68:24 69:11 70:16,24 72:11 76:13 80:9 90:10 101:9 103:9,14 105:22 136:13 understood 8:2 11:4,4 17:8 96:22 105:20 undetected 52:14 55:7 undisputed 116:14
--	---	--	--

[unexpected - weapon]

<p>unexpected 93:16</p> <p>unfamiliar 105:4</p> <p>unfortunately 101:16</p> <p>unheard 111:15</p> <p>unique 28:4,18 77:6 100:16</p> <p>unit 9:8,13,16,18 9:21 10:7 14:3,9 14:18,20 69:23 70:19 81:24 82:12 84:9 86:1,9 87:13 87:17 88:3 95:4 119:11 135:16</p> <p>unit's 85:7 87:20</p> <p>units 80:23 81:19</p> <p>unknown 81:11</p> <p>unlawful 33:2 85:2,9,22</p> <p>unnamed 28:8</p> <p>unregistered 85:10</p> <p>unrestricted 18:7 22:12,15</p> <p>unsnap 52:2</p> <p>untied 1:1 2:1</p> <p>unusual 81:14</p> <p>unvague 11:8</p> <p>upper 53:15,17 54:3</p> <p>upstairs 99:14</p> <p>upwards 64:17</p> <p>urex 17:13</p> <p>use 16:3 20:24 21:1 33:2,12 34:16,25 36:1 40:5 41:5,14 57:16 62:18 65:14 67:7 73:17 74:21 75:15 85:16 89:16 91:23 93:19 95:11</p>	<p>95:15 96:19 97:12 100:12,18 111:16 113:5 114:20,23 115:1,14,21 116:9 117:5 118:18,25 119:4 136:15,16</p> <p>user 36:7 40:11,13</p> <p>uses 68:16 76:1 105:9 106:24 109:4</p> <p>usually 48:15 94:14 108:12 113:13,17</p> <tr> <td>v</td><td></td></tr> <tr> <td> <p>vacuum 42:13</p> <p>vague 10:17 21:16 33:6 34:2,10 37:19 58:11 70:24 95:18 117:25</p> <p>value 130:11</p> <p>variabilities 78:13</p> <p>variables 28:3</p> <p>variation 28:10,18 47:17 48:24</p> <p>variations 27:17 27:18 28:16</p> <p>variety 32:22 81:21</p> <p>various 14:5 15:17 27:7 78:4 104:16 119:20</p> <p>vast 87:4,8 132:16 132:21</p> <p>vegas 62:10 64:5 64:13 67:25</p> <p>velocities 76:20</p> <p>velocity 77:3,8 78:22,25 79:6,25</p> <p>venue 47:1</p> <p>verbal 7:21,24</p> </td><td></td></tr> <tr> <td></td><td> <p>version 138:17,17</p> <p>versus 6:14 28:8 61:11 87:3 103:25 104:22 105:6,11 111:9</p> <p>vest 78:18 94:17 134:16,17,20,20</p> <p>vests 95:3</p> <p>victim 113:13,21 113:21</p> <p>victims 66:2 72:3 72:14 120:4 122:8 124:15 126:1,7,9 126:13,15,24 127:5 128:22 130:20,20</p> <p>view 31:1 56:10 93:9 116:2,14,23 125:18 127:23</p> <p>viewpoint 56:8</p> <p>views 100:21</p> <p>violation 98:18</p> <p>violence 75:2,10</p> <p>vision 55:21,25 56:17,21 57:12</p> <p>visually 49:19</p> <p>volume 1:18 2:14 4:5 141:18</p> <p>voluntary 134:1</p> <p>volunteer 134:4</p> <p>vs 1:7 2:7</p> <tr> <td>w</td><td></td></tr> <tr> <td> <p>wait 10:21 81:22</p> <p>walk 98:19 124:25</p> <p>walking 93:12 98:15,18</p> <p>wall 106:25</p> <p>walls 58:1</p> <p>want 10:21 20:5 24:1 31:3 38:7 39:7,9,10,14 42:2</p> </td><td></td></tr> </td></tr>	v		<p>vacuum 42:13</p> <p>vague 10:17 21:16 33:6 34:2,10 37:19 58:11 70:24 95:18 117:25</p> <p>value 130:11</p> <p>variabilities 78:13</p> <p>variables 28:3</p> <p>variation 28:10,18 47:17 48:24</p> <p>variations 27:17 27:18 28:16</p> <p>variety 32:22 81:21</p> <p>various 14:5 15:17 27:7 78:4 104:16 119:20</p> <p>vast 87:4,8 132:16 132:21</p> <p>vegas 62:10 64:5 64:13 67:25</p> <p>velocities 76:20</p> <p>velocity 77:3,8 78:22,25 79:6,25</p> <p>venue 47:1</p> <p>verbal 7:21,24</p>			<p>version 138:17,17</p> <p>versus 6:14 28:8 61:11 87:3 103:25 104:22 105:6,11 111:9</p> <p>vest 78:18 94:17 134:16,17,20,20</p> <p>vests 95:3</p> <p>victim 113:13,21 113:21</p> <p>victims 66:2 72:3 72:14 120:4 122:8 124:15 126:1,7,9 126:13,15,24 127:5 128:22 130:20,20</p> <p>view 31:1 56:10 93:9 116:2,14,23 125:18 127:23</p> <p>viewpoint 56:8</p> <p>views 100:21</p> <p>violation 98:18</p> <p>violence 75:2,10</p> <p>vision 55:21,25 56:17,21 57:12</p> <p>visually 49:19</p> <p>volume 1:18 2:14 4:5 141:18</p> <p>voluntary 134:1</p> <p>volunteer 134:4</p> <p>vs 1:7 2:7</p> <tr> <td>w</td><td></td></tr> <tr> <td> <p>wait 10:21 81:22</p> <p>walk 98:19 124:25</p> <p>walking 93:12 98:15,18</p> <p>wall 106:25</p> <p>walls 58:1</p> <p>want 10:21 20:5 24:1 31:3 38:7 39:7,9,10,14 42:2</p> </td><td></td></tr>	w		<p>wait 10:21 81:22</p> <p>walk 98:19 124:25</p> <p>walking 93:12 98:15,18</p> <p>wall 106:25</p> <p>walls 58:1</p> <p>want 10:21 20:5 24:1 31:3 38:7 39:7,9,10,14 42:2</p>	
v											
<p>vacuum 42:13</p> <p>vague 10:17 21:16 33:6 34:2,10 37:19 58:11 70:24 95:18 117:25</p> <p>value 130:11</p> <p>variabilities 78:13</p> <p>variables 28:3</p> <p>variation 28:10,18 47:17 48:24</p> <p>variations 27:17 27:18 28:16</p> <p>variety 32:22 81:21</p> <p>various 14:5 15:17 27:7 78:4 104:16 119:20</p> <p>vast 87:4,8 132:16 132:21</p> <p>vegas 62:10 64:5 64:13 67:25</p> <p>velocities 76:20</p> <p>velocity 77:3,8 78:22,25 79:6,25</p> <p>venue 47:1</p> <p>verbal 7:21,24</p>											
	<p>version 138:17,17</p> <p>versus 6:14 28:8 61:11 87:3 103:25 104:22 105:6,11 111:9</p> <p>vest 78:18 94:17 134:16,17,20,20</p> <p>vests 95:3</p> <p>victim 113:13,21 113:21</p> <p>victims 66:2 72:3 72:14 120:4 122:8 124:15 126:1,7,9 126:13,15,24 127:5 128:22 130:20,20</p> <p>view 31:1 56:10 93:9 116:2,14,23 125:18 127:23</p> <p>viewpoint 56:8</p> <p>views 100:21</p> <p>violation 98:18</p> <p>violence 75:2,10</p> <p>vision 55:21,25 56:17,21 57:12</p> <p>visually 49:19</p> <p>volume 1:18 2:14 4:5 141:18</p> <p>voluntary 134:1</p> <p>volunteer 134:4</p> <p>vs 1:7 2:7</p> <tr> <td>w</td><td></td></tr> <tr> <td> <p>wait 10:21 81:22</p> <p>walk 98:19 124:25</p> <p>walking 93:12 98:15,18</p> <p>wall 106:25</p> <p>walls 58:1</p> <p>want 10:21 20:5 24:1 31:3 38:7 39:7,9,10,14 42:2</p> </td><td></td></tr>	w		<p>wait 10:21 81:22</p> <p>walk 98:19 124:25</p> <p>walking 93:12 98:15,18</p> <p>wall 106:25</p> <p>walls 58:1</p> <p>want 10:21 20:5 24:1 31:3 38:7 39:7,9,10,14 42:2</p>							
w											
<p>wait 10:21 81:22</p> <p>walk 98:19 124:25</p> <p>walking 93:12 98:15,18</p> <p>wall 106:25</p> <p>walls 58:1</p> <p>want 10:21 20:5 24:1 31:3 38:7 39:7,9,10,14 42:2</p>											

 42:19,20 45:4,5,9 47:6,8,18 54:15 55:1 63:22,23 70:9 76:5 77:13 101:25 102:5 104:5 109:25 111:17 114:5 122:23 133:6 137:11,12 139:22 **wanted** 94:2 **wanting** 63:8 **wants** 13:24 33:2 41:15,19 46:25 52:16 59:11 67:1 134:8 **warning** 111:22 137:8 **warrant** 84:11 **warrants** 94:24 **water** 55:16 **way** 11:4,8 17:4 25:6,11 26:23 31:1 33:2 46:11 52:23,24 53:1 80:24 90:5 95:15 105:19 106:23 107:21 109:8 112:2,4,5 121:10 134:23 **ways** 27:21,22 **we've** 29:24 91:20 **weapon** 10:14 11:10 15:20 19:18 20:11,20 21:3,6,23 23:17 24:9,14,24 25:3,9,16,19,25 26:10,14 30:12,13 30:14,17,17 35:10 36:2 39:6,11,21 42:7 43:17,18 46:13 54:14,21 |

[weapon - years]

59:15 60:21 63:24 63:25 64:23 66:7 69:4 70:5 72:24 79:9 80:17,18 81:6,7,8,8,22 82:22 83:2,6 90:16 93:20 106:5 107:17 115:16 120:3 125:20 127:1 129:4 137:7 138:3,16 139:3,5,7 139:8,14 weapon's 42:14,24 weaponage 138:12 weapons 12:12,20 14:2,23 15:2,9,18 15:21,22 18:15,19 18:21,25 20:6,10 20:13 23:5 24:5,8 28:25 30:2 33:12 41:23 47:20,21,25 53:4,6 60:24 63:12 65:24 66:5 66:7 72:5,21 73:16 74:3,14,20 75:4,6,8,11,14,25 80:15 81:2,15,16 81:20 83:14 84:4 84:24 85:3,11,12 85:20 86:10 87:3 87:5,9 90:23 93:10,15 114:23 115:1,17,22 118:21,23 119:1 119:14 120:10 121:2 127:9 128:6 128:7 131:7 136:6 wear 134:20 wearing 94:17 110:5,8,9 132:13	week 137:20 weeks 7:2,3 welding 35:7 went 109:3 wesson 103:14 105:8,23 106:15 west 12:14 whatsoever 17:7 72:6 whereof 142:17 whistles 88:24 whoa 81:22 widen 54:8 width 54:12 wildly 39:3,8 willeford 96:24 willing 131:3,5 133:21 window 94:15 99:14 witness 4:3 6:17 16:20,22 19:17 34:11 51:3,23 58:13 63:14 76:5 79:18 89:6,23 91:16 95:20 101:5 102:9 105:3 106:9 106:19 109:22 118:1 125:6,18 130:11 131:1,12 131:16 133:15,16 134:2 142:17 witness's 106:8 109:21 witnesses 142:5 woken 110:15 word 111:13,17 122:21,22,25 words 30:24 56:9 67:21 108:22	work 110:2 114:9 133:21 workarounds 46:15 worked 9:5 working 43:21 133:22,23 works 44:16 world 44:2 worms 76:6 90:19 wounded 122:11 wrap 55:1 132:3 write 10:10 writing 18:1 93:13 wrong 25:7 36:9 42:8 43:2 52:12 56:9,15 60:9 90:10 91:2 104:20 104:22 116:13
		x
		x 78:18 x15 116:6 xavier 1:8 2:8
		y
		yeah 27:17 28:15 28:24 33:21 44:10 48:17,22 51:7 55:15 57:7 58:10 65:13 67:22 71:22 72:8 80:11,13 84:18 91:24 102:25 118:13 124:18 131:1 133:14 136:7 138:9,9 year 100:6 133:1 years 9:5,11,14 13:20 73:3,5,10 112:20 114:13 115:23

Federal Rules of Civil Procedure

Rule 30

(e) Review By the Witness; Changes.

(1) Review; Statement of Changes. On request by the deponent or a party before the deposition is completed, the deponent must be allowed 30 days after being notified by the officer that the transcript or recording is available in which:

(A) to review the transcript or recording; and

(B) if there are changes in form or substance, to sign a statement listing the changes and the reasons for making them.

(2) Changes Indicated in the Officer's Certificate. The officer must note in the certificate prescribed by Rule 30(f)(1) whether a review was requested and, if so, must attach any changes the deponent makes during the 30-day period.

DISCLAIMER: THE FOREGOING FEDERAL PROCEDURE RULES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.

THE ABOVE RULES ARE CURRENT AS OF SEPTEMBER 1, 2016. PLEASE REFER TO THE APPLICABLE FEDERAL RULES OF CIVIL PROCEDURE FOR UP-TO-DATE INFORMATION.

VERITEXT LEGAL SOLUTIONS
COMPANY CERTIFICATE AND DISCLOSURE STATEMENT

Veritext Legal Solutions represents that the foregoing transcript is a true, correct and complete transcript of the colloquies, questions and answers as submitted by the court reporter. Veritext Legal Solutions further represents that the attached exhibits, if any, are true, correct and complete documents as submitted by the court reporter and/or attorneys in relation to this deposition and that the documents were processed in accordance with our litigation support and production standards.

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EXHIBIT 58

NewsOK: Oklahoma City News, Sports, Weather & Entertainment

Oklahoma beheading: Murder defendant confessed, attempted second beheading



by [JANE GLENN CANNON](#) & [NOLAN CLAY](#)
Published: Tue, September 30, 2014 12:00 AM | Updated: Tue, September 30, 2014 9:58 PM

- >>[Read the affidavit](#)
- >>[Read the charges](#)
- >>[Fallin says residents should remain alert after beheading](#)
- >>[Oklahoma House caucus claims Moore beheading was terrorism, not workplace violence](#)
- >>[Oklahoma beheading: 5 new facts we learned about the attack today](#)
- >>[Timeline of events](#)

NORMAN — A disciplined worker charged Tuesday in the Moore food plant attack “openly admitted to beheading the first victim with a knife and cutting and attempting to behead the second victim,” Moore police wrote in a court affidavit.

Cleveland County District Attorney Greg Mashburn said it is “highly likely” the death penalty will be sought against Alton Alexander Nolen, 30. Mashburn said Nolen, a Muslim convert, yelled Arabic phrases during the attack.

Mashburn said he will visit with the family of beheading victim Colleen Hufford before making a decision on the death penalty. Hufford, 54, of Moore, was killed Thursday afternoon at the Vaughan Foods plant.

Nolen was charged with three felony counts — first-degree murder, assault and battery with a deadly weapon, and assault with a deadly weapon.

Mashburn said more counts may be added later, as witness interviews continue. He said other Vaughan Foods employees may have been injured as they tried to thwart the attack.

“They threw chairs, kicked at him,” Mashburn said at a news conference. “There were a lot of people trying to protect their co-workers and stop the attacks. There may have been more employees that suffered injuries ...we can always add counts.”

The FBI is continuing to investigate Nolen’s background, Mashburn said. If a terrorism charge is appropriate, it most likely would be a federal charge, he said.

At the news conference, Mashburn said the state had no anti-terrorism statute. He later clarified his remark, saying the state’s statute does not fit the evidence in the case.

“Oklahoma’s anti-terrorism statute is directed towards people who desire to coerce a civilian population or government into granting illegal, political or economic demands,” he said. “At this time, murder in the first degree is the most appropriate charge. We plan to vigorously prosecute this case.”

Nolen goes by the name Jah’Keem Yisrael on Facebook. The attack sparked concerns of religious extremism after police revealed Nolen had tried to convert workers at the food plant to Islam. On his Facebook page, Nolen posted terrorism-related photos, and a graphic image of a beheading.

“Obviously, there was some sort of infatuation with beheading,” Mashburn said.

Mashburn said Tuesday he believes the attack was more about race than religion. He said it was “triggered” by a complaint lodged by the second victim, Traci Johnson, 43, to the Vaughan Food human resources department.

Johnson, of Oklahoma City, was treated at OU Medical Center with injuries to her neck and chest Saturday, authorities said.

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Mashburn said Nolen was suspended from work after the complaint, which was prompted by an altercation earlier in the day between Nolen and Johnson, who is white.

“Nolen made remarks indicating he didn’t like white people,” the district attorney said.

Nolen was called to the company’s human resources office, where he was told he was being suspended from his job, the district attorney said.

Police initially had said Nolen was terminated.

Mashburn said Nolen left the business, went to his apartment and retrieved a large kitchen knife. Police in a court affidavit said he hid it in his shoe before returning to the plant.

When Nolen returned, he attacked Hufford from behind and then grabbed and cut Johnson, the prosecutor said. Johnson was one of three employees targeted for revenge because Nolen claimed they “oppressed him,” Mashburn said.

Hufford, a grandmother, was not one of the three. Her memorial service is set for Friday.

Johnson is traumatized and does not want to make any public statements while the investigation is ongoing, an aunt said Tuesday.

Mashburn said he has no doubt Nolen intended to behead Johnson but was stopped when Vaughan Foods Chief Operating Officer Mark Vaughan fired shots at Nolen as he was attacking her.

Vaughan is a reserve Oklahoma County sheriff’s deputy. Police said he shot Nolen with an AR-15 rifle as Nolen turned and began charging at him with the knife. Mashburn said he believed the company executive kept the weapon at the plant.

The district attorney said Vaughan fired three shots, but two missed. One shot went through Nolen’s arm and entered his abdomen.

The murder count against Nolen involves the beheading. The first assault count involves the injuries to Johnson. The second assault count involves the threat of harm to Vaughan.

Nolen was at OU Medical Center in Oklahoma City on Tuesday. Moore police Sgt. Jeremy Lewis said he will be moved to the Cleveland County jail.

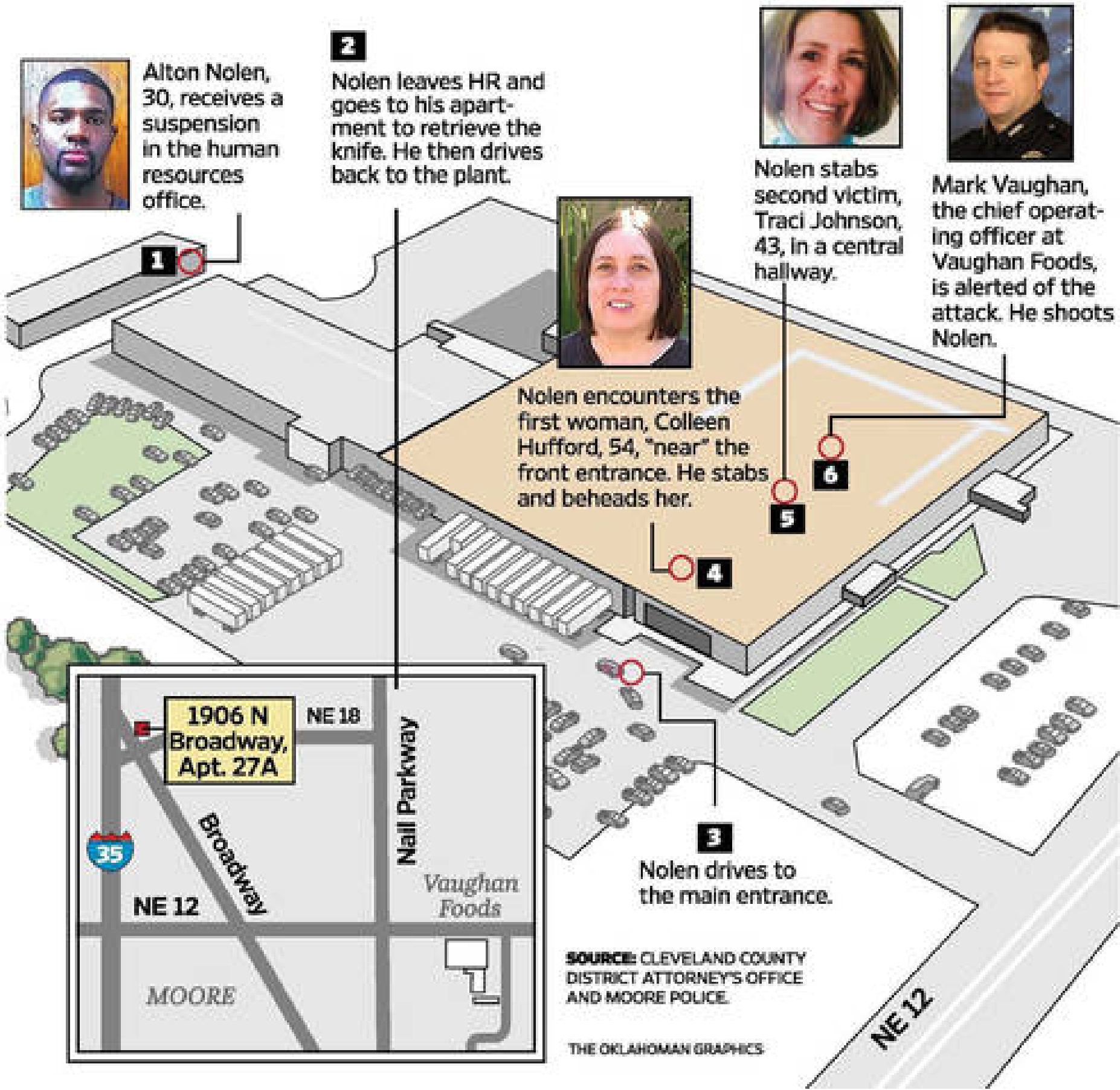
“He was up walking around today, so we are working on getting him released,” Lewis said.

Police interviewed him at the hospital after he regained consciousness. He agreed to talk to detectives, admitting he went to his apartment to retrieve the knife used in the attack, according to the court affidavit filed with the charge.

Nolen lived in an apartment a few blocks away from the plant.

More details in deadly attack

According to officials, this is the path Alton Nolen took Thursday from the human resources office at Vaughan Foods, 216 NE 12, to his home and back to the plant.



According to officials, this is the path Alton Nolen took Thursday from the human resources office at Vaughan Foods, 216 NE 12, to his home and back to the plant.

Nolen began working at Vaughan Foods for \$8 an hour on Jan. 15, 2013, as part of a work-release program at a halfway house for felons completing their prison sentences, Corrections Department records show.

He has convictions in three cases — for possessing cocaine, possessing marijuana and assaulting and escaping from a highway patrol trooper. He was released on March 22, 2013, after being incarcerated for two years.


Danielle Katcher, a spokeswoman for Vaughan Foods, said Monday that employees are returning to work. Each shift begins with group gatherings to allow the employees to discuss what has happened “and come together as a team and draw strength from each other.”

Company leadership and crisis counselors are helping them deal with the loss of their co-worker, she said.

Contributing: Staff Writer Nolan Clay

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TIMELINE OF EVENTS



JANE GLENN CANNON

A native of Oklahoma, Jane Glenn Cannon is an award-winning reporter who has covered everything from crime, courts and government to entertainment and features. She wrote a popular personal column for many years. She is a former associate writer...

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NOLAN CLAY

Nolan Clay was born in Oklahoma and has worked as a reporter for The Oklahoman since 1985. He covered the Oklahoma City bombing trials and witnessed bomber Tim McVeigh's execution. His investigative reports have brought down public officials,...

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EXHIBIT 59



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Texas homeowner, 20, shoots and kills three men and injures two more while 'defending himself' during an early morning home invasion

- A Texas homeowner, 20, fatally shot three men and wounded two others
- The male homeowner is believed to have been defending himself from a home invasion that occurred in East Houston at around 1am Central on Saturday
- The homeowner said that he believed he was targeted by the suspects for money and jewelry, and that he was familiar with more than one of the suspects
- An investigation into the incident remains ongoing, authorities said
- Names of the men involved have not been released at this time

By [STEPHANIE HANEY FOR DAILYMIL.COM](#)
PUBLISHED: 02:08 EDT, 22 January 2019 | UPDATED: 02:17 EDT, 22 January 2019

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A **Texas** homeowner, 20, fatally shot three men and wounded two others, a whom are suspects in an alleged home invasion against the shooter, autho said.

Suspects forced their way into a home in East Houston at around 1am Cent and a shootout ensued, police said.

'The homeowner it appears have defended himself,' Houston Police Depart homicide detective Travis Miller told **ABC News**.

#:6259

A photograph of a residential building entrance. A yellow caution tape with the text "CRIME SCENE DO NOT ENTER" is stretched across the scene. In the foreground, a black chair is partially visible. The building has a white door and a window with a black frame. The address "7043" is visible above the door. A black mailbox is mounted on the wall. A red fire hydrant is visible on the right side of the image. The image is watermarked with "© ABC13" in the bottom left corner and "4" in the bottom right corner.

© ABC13



'The homeowner it appears have defended himself,' Houston Police Department homicide detective Travis Miller said

Two men wearing ski masks broke into the home demanding cash, the male homeowner said, at which point he grabbed his firearm and started shooting.

The homeowner said that he used a 'fully-loaded AK-47' to take down the alleged assailants, saying that the two men were shooting back at him as they fled to the outdoors.

'We have multiple, multiple shell casings from several different types of guns,' Miller said.

One neighbor said he had to come outside to be sure he wasn't dreaming as the shots rang out.

'I hear about five or six gunshots,' he said. 'I'm sure there more before that.'

People near the scene were crying and embracing in the street, amongst police caution tape and evidence markers.



People near the scene were crying and embracing in the street, amongst police caution tape and evidence markers

#6261



The homeowner said that he believed he was targeted by the suspects for money and jewelry

One suspect was found dead in front of the home. The others fled the scene in an SUV, as well as on foot.

The SUV crashed into a pole, and one suspect was found dead inside of it.

A third suspect got out of the SUV, attempted to run, but collapsed, and died later at a hospital.

The two remaining suspects were taken to a hospital, as well, with injuries.

The homeowner said that he believed he was targeted by the suspects for money and jewelry.

The home where the incident occurred is located on Sherman Street near 71st Street, Click2Houston reported.

An investigation into the incident remains ongoing, police said.

Read more:

3 dead after East Houston home invasion triggers shootout - Houston Chronicle

Texas homeowner shoots, kills 3 men and injures 2 during home invasion, officials say | Fox News

At least 3 people killed following shooting in east Houston | abc13.com

Share or comment on this article: Texas homeowner, 20, shoots and kills three men and injures two more during home invasion

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EXHIBIT 60

Science & Tech

Who Has Guns—Not *Which* Guns—Linked to Murder Rates

BU researchers analyzed the impact of different gun laws in all 50 states



SPH Professor Michael Siegel and a team of researchers have found that states with gun laws requiring universal background checks for all gun sales resulted in homicide rates 15 percent lower than states without such laws. Photo by Cydney Scott

03.29.2019

By Jessica Colarossi

7

Universal background checks have long been a top priority for gun control advocates and policymakers in the United States. Although there has been a push for federal gun regulations in recent years, the power to legislate gun sales and gun ownership largely belongs to the states. Now, new evidence from a School of Public Health study shows just how much impact background-check laws can have.

SPH researchers, analyzing 25 years of data from across the United States, have discovered a link between state laws restricting who can access guns—not what types of guns people have—and significantly lower rates of gun-related deaths. Their findings, which suggest that *who* owns guns matters more than *which* guns people own, were published March 28, 2019, in the *Journal of General Internal Medicine*.

The team of researchers, led by Michael Siegel, an SPH professor of community health sciences, examined the relationship between 10 different types of state laws and the number of deaths by homicide and suicide in all 50 states. They found that state gun laws requiring universal background checks for all gun sales resulted in homicide rates 15 percent lower than states without such laws. They also found that laws prohibiting the possession of firearms by people who have been convicted of a violent crime were associated with an 18 percent reduction in homicide rates. In contrast, regulating the type of firearms people have access to—such as assault weapon bans and large capacity ammunition magazine bans—and “stand your ground” laws have no effect on the rate of firearm-related homicide. None of the state gun laws studied were found to be related to overall suicide rates.

According to Siegel, the average firearm homicide rate in states without background checks is 58 percent higher than the average in states with background-check laws in place. As of 2017, only 13 states, including Massachusetts, had laws requiring universal background checks.

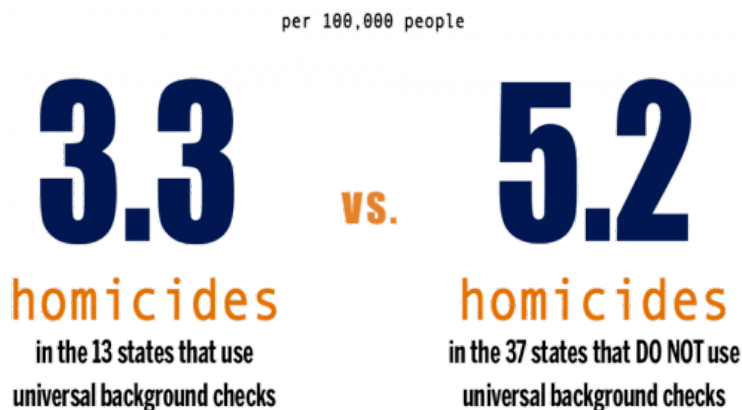
BU Today asked Siegel to walk us through the details of the study and his take on the findings.

***BU Today:* What’s different about the design of this study?**

Michael Siegel: There are numerous studies that have examined the effect of particular state firearm laws, but there are few studies, until now, that have investigated the impact of multiple state firearm laws at the same time, using the same statistical model. Our goal was to assess the impact of multiple state laws using a single statistical model, while controlling for the presence of each of the other laws. It’s important to recognize that states that have one law in place are more likely to have other laws in place as well. One must examine the impact of each law while controlling for the presence of other laws.

Which part of your findings are particularly striking to you?

Tight regulation of who has access to firearms, rather than the type of firearms that are allowed, differentiates states with the lowest rates of homicides. What surprised us the most was that in states that enacted a combination of universal background-check laws, laws prohibiting the sale of guns to people with violent misdemeanors, and concealed carry permit laws, the homicide rates were 35 percent lower than in states with none of those three kinds of laws. The practice of keeping guns out of the hands of people who are at the greatest risk for violence—based on a history of violence—appears to be the most closely associated with decreased rates of firearm homicide.



Why do you think laws regulating the “who” have a substantial impact on firearm homicide, as opposed to laws regulating the “what”?

Laws regulating the sale of assault weapons are unlikely to have a large impact on homicide rates, because these weapons are used in only a very small proportion of homicides. The vast majority of firearm homicides in the United States are committed with handguns. In contrast, laws that restrict access to firearms among those people who are at the greatest risk for violence—namely, people with a history of violence—are intervening among a subpopulation of people who are likely to commit crimes. In other words, you are intervening in the most focused way possible—that is, in high-risk situations. That appears to give you the greatest bang for your buck, so to speak.

Can you explain the relationship between the two types of laws found to reduce homicide rates: universal background checks and laws prohibiting possession of firearms by people with past records of violence?

In a sense, universal background checks are the basic platform upon which you can effectively implement restrictions on who has access to a gun. States need to have two types of laws to be effective: first, restrictions on who can access a gun; and second, universal background checks so that you know whether a prospective buyer is subject to those restrictions.

What's your take on advocates pushing for both universal background checks and bans on assault weapons?

Although I completely understand the desire to ban assault weapons, I just don't see empirical evidence that such bans have any substantial impact on homicide rates. These bans are most often based on characteristics of guns that are not directly tied to their lethality. In contrast, requiring universal background checks in all 50 states could have a substantial impact on gun violence because it would essentially set a minimum standard across the nation—that standard being very simply that people purchasing a gun need to be checked to see if they have a history that puts them at high risk for violence.

Public health advocates need to set priorities in terms of what policies are the most critical to enact. In fact, the primary purpose of our policy brief was to review the existing research and provide data on multiple laws in order to inform public health advocates and policymakers on this issue.

After the recent tragedy in Christchurch, New Zealand, the country's prime minister announced a national ban on all semiautomatic weapons, high-capacity magazines, and parts that allow weapons to be modified; how do you think this will impact the country?

These policy reforms will likely reduce casualties from mass shootings. One needs to remember, however, that the gun stock in New Zealand is much lower than it is in the United States. About 99.9 percent of all [gun-related deaths] in the United States are either suicides, unintentional shootings, or non-mass shooting homicides—none of which will be eliminated by getting rid of assault weapons.

How, in your opinion, can lawmakers effectively reduce gun violence in their home states?

I believe that the three most important things that lawmakers can do to reduce gun violence in their home states are to pass laws that: one, require universal background checks; two, prohibit gun purchase or possession by anyone with a history of violence, whether it be a felony or a misdemeanor; and three, provide a mechanism, called red flag laws, to address people who are at an extreme risk of committing violence, not only to other people but to themselves.

This conversation was edited for content and clarity. The research was funded by the Robert Wood Johnson Foundation Evidence for Action program.

Jessica Colarossi can be reached at jrcola@bu.edu.

EXHIBIT 61

SOCIETY COMMENTARY

8 Times Law-Abiding Citizens Saved Lives With an AR-15

Amy Swearer / @AmySwearer / March 14, 2018

COMMENTARY BY



Amy Swearer @AmySwearer

Amy Swearer is a legal policy analyst at the Meese Center for Legal and Judicial Studies at The Heritage Foundation.

“Why would any law-abiding citizen need an AR-15?”

This question has been a favorite talking point of gun control activists in recent months, grating the ears of many lawful owners of the popular semi-automatic rifle.

Never mind that rifles of any kind account for only a fraction of gun deaths every year, or that some of the worst public mass shootings in American history have taken place with nothing more than handguns.

Never mind that the gun has been readily available to civilians since 1963, and yet has only recently been considered a serious public safety threat worthy of a complete ban.

The liberal Left continue to push their radical agenda against American values. The good news is there is a solution. Find out more >>

Never mind that the AR-15 is not an automatic rifle, that it is not particularly powerful compared to other “less scary looking” rifles, or that prohibitions on it have shown no

1303

The reality is that law-abiding citizens purchase millions of AR-15s (and similar rifles) for one very important overriding reason—the same reason, in fact, that law enforcement officers often use them: They are great for self-defense.

In the words of Andrew Napolitano, the Second Amendment is an extension of the natural right of self-defense that “protects the right to shoot tyrants, and it protects the right to shoot at them effectively, with the same instruments they would use upon us.”

The AR-15 is a preferred weapon of law-abiding citizens because it does precisely that: It effectively confronts the violent threats from tyrants, oppressors, and—most often in post-Revolution America—criminals.

Unlike handguns, the AR-15 is braced against the shoulder and has two separate points of contact for the shooter’s hands. This means the firearm is much more stable, making it easier to handle and fire accurately for smaller or less-experienced gun owners—or for any gun owner facing a life-or-death situation. They are easy to use, easy to maintain, and reliable.

On many occasions where armed self-defense is necessary, simply brandishing a firearm will be enough to deter criminals. But sometimes there is more severe need for the average law-abiding citizen to gain an advantage over multiple or heavily armed attackers.

Those situations, though infrequent, do occur—and when they do, the AR-15 can be the difference between living and dying. Consider these recent cases where the AR-15 made all the difference.

1. Harris County, Texas (2013)

A 15-year-old boy saved both his life and the life of his 12-year-old sister by fending off a pair of home invaders with his father’s AR-15.

2. Rochester, New York (2013)

Two armed burglars retreated from a college student’s apartment after coming face-to-face with an unloaded AR-15. The rifle itself instilled enough fear to cause them to flee.

3. Ferguson, Missouri (2014)

During the Ferguson, Missouri, riots, nearly all businesses within a particular 2-square-mile area of the city were looted or destroyed—except for one. African-American men guarded the gas station and convenience store of a white friend from looters and rioters. They did so armed with an AR-15, a MAC-10 “machine pistol,” and a variety of handguns.

4. Houston, Texas (2017)

A target of a drive-by shooting successfully fended off the attack by using his legally owned AR-15 against his three armed attackers. He was able to hit all three men in the moving vehicle.

5. Broken Arrow, Oklahoma (2017)

A homeowner’s 19-year-old son used an AR-15 to defend himself against three would-be burglars who broke into the home in broad daylight. The 19-year-old was later determined to have acted in justifiable self-defense.

6. Sutherland Springs, Texas (2017)

After a gunman opened fire on congregants inside First Baptist Church, a man living near the place of worship grabbed his AR-15 and engaged the shooter. The shooter subsequently dropped his own firearm and fled the scene as the courageous neighbor pursued him.

7. Oswego, Illinois (2018)

A man with an AR-15 intervened to stop a neighbor’s knife attack on a pregnant woman. The rifle’s “intimidation factor” was credited as a reason why the attacker dropped his knife.

8. Catawba County, Illinois (2018)

After his 17-year-old relative successfully used his own firearm to fend off three would-be robbers who attacked him in the driveway of his home, a man used his AR-15 to stop a threat from one of the would-be robber’s upset family members.

Law-abiding Americans regularly choose the AR-15 to defend themselves, their families, and their communities against threats of violence. These Americans hope they never have to use that AR-15 on another human being. But they also know that, should the situation arise, they will have one of the best self-defense firearms to level the playing field against any attacker.

Dear Readers:

With the recent conservative victories related to tax cuts, the Supreme Court, and other major issues, it is easy to become complacent.

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EXHIBIT 62



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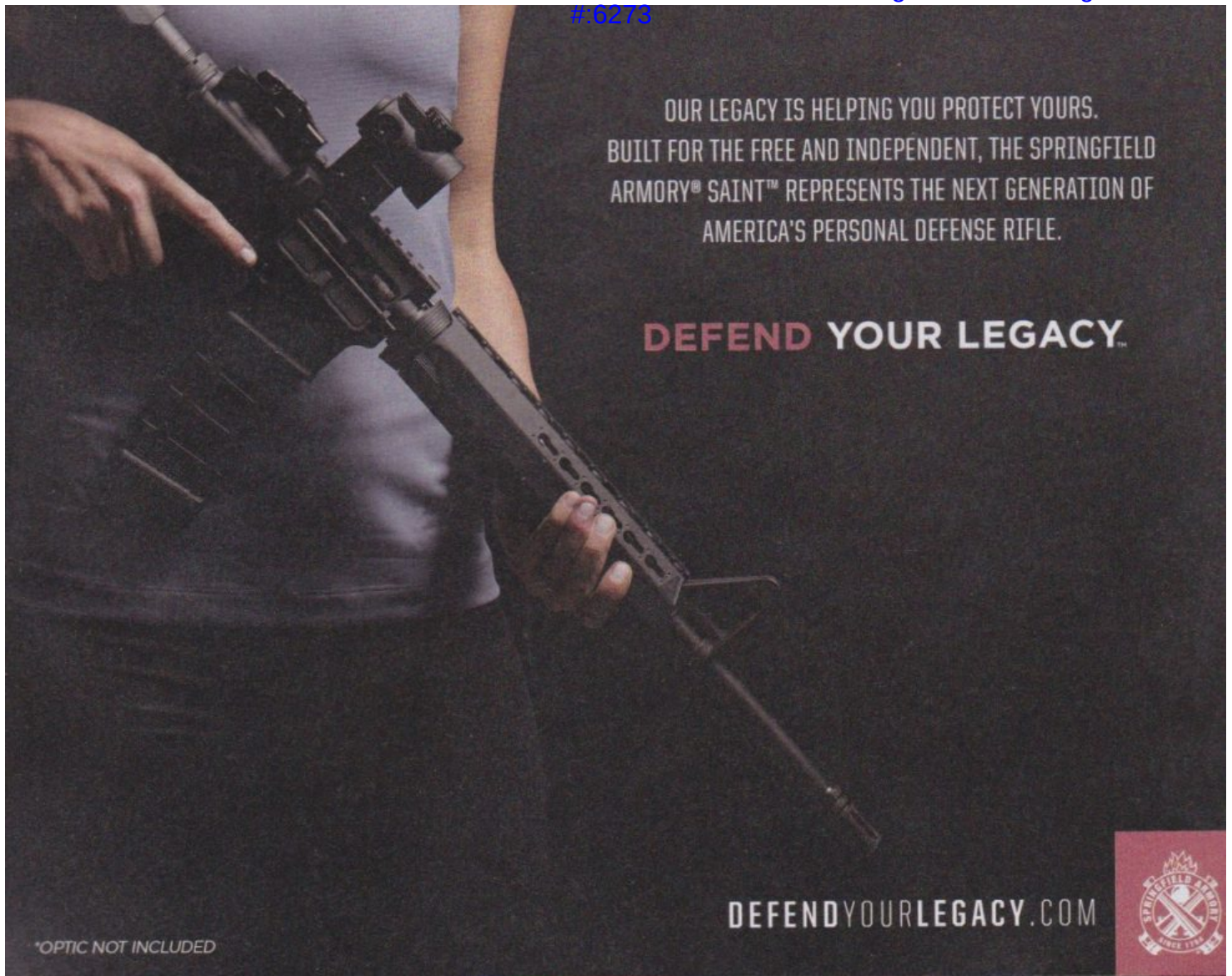
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EXHIBIT 63

“ASSAULT WEAPON” MYTHS

E. Gregory Wallace*

Scary black rifles that spray bullets like machine guns. Military arms designed solely for killing on the battlefield. Weapons of choice for mass shooters. These are common descriptions of so-called “assault weapons,” a favorite target for those who want to eliminate gun violence by eliminating guns. Several states and localities currently ban “assault weapons,” as did the federal government from 1994-2004. In response to recent mass shootings, bills have been introduced in Congress to create a new national ban. Lawmakers and judges often use these descriptions to justify such bans. But are the descriptions factual? If not, what does that say about the laws and court decisions that rely on them?

While there is no generally agreed-upon definition of “assault weapon,” laws banning such weapons typically criminalize possession or transfer of semiautomatic rifles with detachable magazines and at least one specified feature such as a pistol grip, telescoping stock, flash suppressor, barrel shroud, bayonet mount, or grenade launcher.¹ Other “assault weapon” bans prohibit certain semiautomatic rifles, shotguns, and pistols by name and by features, along with any copies, duplicates, or variants.² The main target of these bans is the AR-15 rifle, the most popular rifle in America, owned by millions for lawful purposes including self-defense.³ The AR-15 looks like a fully automatic military M4 carbine or M16 rifle, but it has a semiautomatic firing system like most modern handguns. Legislatures imposing “assault

* Professor of Law, Campbell University School of Law. Professor Wallace is a competitive shooter and certified firearms instructor.

¹ See, e.g., D.C. CODE § 7-2501.01(3A)(A) (2018) (defining assault weapons under D.C. code); N.Y. PENAL LAW § 265.00(22) (2018) (defining assault weapons under N.Y. law).

² See, e.g., CONN. GEN. STAT. § 53-202a (2013); MD. CODE ANN., CRIM. LAW § 4-301(d) (LexisNexis 2018) (banning specific “assault long guns” listed under MD. CODE ANN., PUB. SAFETY § 5-10(r)(2) (LexisNexis 2018) and “copycat weapons” as defined by certain features listed in the code). The scope of this article is limited to semiautomatic rifles and does not include semiautomatic pistols and shotguns included in most “assault weapons” bans.

³ See Jon Schuppe, *America's rifle: Why so many people love the AR-15*, NBC NEWS (Dec. 27, 2017, 1:19 PM), https://www.nbcnews.com/news/us-news/america-s-rifle-why-so-many-people-love-ar-15-n831171?cid=public-rss_20171228 (noting that that Americans own an estimated 15 million AR-15s and that “the AR-15 remains a jewel of the gun industry, the country’s most popular rifle, irreversibly lodged into American culture”); *‘AR’ Stands for ArmaLite*, NATIONAL SHOOTING SPORTS FOUND., <https://www.nssf.org/ar-stands-for-armalite/> (last visited July 3, 2018) (noting that the “AR” does not stand for “assault rifle” but rather for “ArmaLite,” the company that developed the prototype rifle that later became the military M16 and the civilian AR-15). This article uses “AR-15” as a shorthand term for all AR-15 variants.

weapon” bans nevertheless have concluded that the AR-15 is just as lethal as its military counterparts, and federal courts have agreed.

Since the Supreme Court’s landmark decision in *District of Columbia v. Heller*,⁴ four federal circuit courts have rejected Second Amendment challenges to “assault weapon” bans.⁵ Two courts—the District of Columbia Circuit in *Heller v. District of Columbia (Heller II)* and the Second Circuit in *New York State Rifle and Pistol Association v. Cuomo (NYSRPA)*—applied a weak form of intermediate scrutiny with no serious requirement of narrow tailoring to uphold the challenged bans.⁶ The Seventh Circuit in *Friedman v. City of Highland Park* declined to apply traditional levels of scrutiny, but rather considered whether the banned firearms “have some reasonable relationship to the preservation or efficiency of a well regulated militia, and whether law-abiding citizens retain adequate means of self defense.”⁷ The court ultimately upheld the ban, concluding that law-abiding citizens can find substitute weapons for self-defense and the ban may reduce casualties in mass shootings and other gun-related crime.⁸ Most recently, in a 10-4 en banc decision, the Fourth Circuit in *Kolbe v. Hogan* took the unprecedented step of upholding the challenged ban on the ground that AR-15s are not protected arms under the Second Amendment.⁹ It declared that the civilian AR-15 is an “exceptionally lethal weapon of war” that is “like” the fully automatic military M16, and therefore not constitutionally protected.¹⁰ Never mind that no national military force actually uses the AR-15 on the battlefield.

Before courts can resolve constitutional questions regarding “assault weapon” bans, they must establish certain facts about the banned weapons. How do “assault weapons” operate? Are they any different from military weapons? Are they exceptionally dangerous when compared to other firearms? Answering these questions accurately is critical to determining both whether “assault weapons” are protected arms under the Second

⁴ *District of Columbia v. Heller*, 554 U.S. 570, 599 (2008) (holding that the Second Amendment protects the individual right to keep and bear arms for self-defense, whether against a tyrannical government or common criminal).

⁵ *See Kolbe v. Hogan*, 849 F.3d 114 (4th Cir. 2017); *N.Y. State Rifle & Pistol Ass’n v. Cuomo*, 804 F.3d 242 (2d Cir. 2015); *Friedman v. City of Highland Park*, 784 F.3d 406 (7th Cir. 2015); *Heller v. District of Columbia (Heller II)*, 670 F.3d 1244 (D.C. Cir. 2011). The First Circuit currently is reviewing a Second Amendment challenge to Massachusetts’ “assault weapons” ban. *See Worman v. Healey*, 293 F. Supp. 3d 251 (D. Mass. 2018), *appeal docketed* No. 18-1545 (1st Cir. June 19, 2018).

⁶ *N.Y. State Rifle & Pistol Ass’n*, 804 F.3d at 257-61; *Heller II*, 670 F.3d at 1262-64.

⁷ *Friedman*, 784 F.3d at 410 (internal quotations and citations omitted).

⁸ *Id.* at 411-12. The court noted that even if the ban’s public safety goals are not realized, making the public “feel safer” was a substantial benefit. *Id.* at 412.

⁹ *Kolbe*, 849 F.3d at 130-37, 141-46.

¹⁰ *Id.* at 124, 135. *Kolbe* alternatively held that Maryland’s “assault weapon” ban survived intermediate scrutiny. *Id.* at 138-41.

Amendment and whether broad bans of such weapons are effective in achieving the government’s public safety goals.

The federal circuit court decisions provide a useful lens to view how lower courts have disregarded the Supreme Court’s decision in *Heller*, and how that disregard extends even to factual determinations about the specific firearms involved. Despite considering whether “assault weapon” bans violate a constitutional right, these courts have showed little interest in seriously examining the underlying facts about the operation and use of “assault weapons.” They instead rely on an amalgam of reports more than two decades old from federal agencies justifying their policy decisions, outdated crime data, skewed claims and statistics from gun-control advocates, non-scientific “studies,” opinions from non-experts, and speculation offered by experts.

The Fourth Circuit in *Kolbe*, for example, cited no firearms or ballistics experts to support its multiple conclusions about how the AR-15 is functionally equivalent to the M16, but rather relied on a 1989 Bureau of Alcohol, Tobacco, and Firearms (BATF) report justifying its ban on imported “assault weapons,” a 1994 congressional report citing multiple non-expert statements in support of the federal “assault weapon” ban, and statements from four Maryland police chiefs, who all conceded that they were not firearms experts, including one who admitted that he had fired an AR-15 only once.¹¹ The *Kolbe* plaintiffs produced contrary evidence from firearms and ballistic experts, but the Fourth Circuit mostly ignored it, falsely claiming that the state’s evidence was “uncontroverted.”¹² I doubt the court would have shown similar indifference to basic facts had *Kolbe* been a First or Fourth Amendment case.

¹¹ *Id.* at 125, 127, 137, 144 (citing Bureau of Alcohol, Tobacco, and Firearms, REPORT AND RECOMMENDATION OF THE ATF WORKING GROUP ON THE IMPORTABILITY OF CERTAIN SEMIAUTOMATIC RIFLES (1989) [hereinafter ATF REPORT] at Joint Appendix [hereinafter “J.A.”] 735; H.R. REPORT No. 103-489 (1994) at J.A. 1120-22; Marcus Brown Decl. at J.A. 206 (Superintendent of Maryland State Police); James W. Johnson Decl. at J.A. 227 (Chief of Baltimore County Police Dept.); Henry Swawinski Decl. at J.A. 279 (Deputy Chief of Prince George County Police Dept.); Anthony Batts Decl. at J.A. 265 (Commissioner of Baltimore Police Dept.); see Marcus Brown Dep. at J.A. 2470, *Kolbe v. Hogan*, 849 F.3d 114 (4th Cir. 2017) (No. 14-1945) (“I’m not sort of a firearms expert”); James Johnson Dep. at J.A. 2446, *id.* (“I am not a ballistics expert” and subsequently agreeing that he is not a firearms expert); Anthony Batts Dep. at J.A. 2400, 2418, *id.* (“I am not an expert”); Henry Stawinski Dep. at J.A. 2487-88, *id.* (admitting he has not been trained in the use of any of the banned firearms and has fired an AR-15 on only one occasion)).

¹² *Id.* at 124, 144. The *Kolbe* plaintiffs submitted declarations and reports from Gary Roberts, a firearms and ballistics expert, Roberts Decl. at J.A. 2086, *Kolbe*, 849 F.3d 114 (No. 14-1945), Guy Rossi, a firearms and tactics expert, Rossi Decl. at J.A. 2119, *id.*, Buford Boone, a firearms and ballistics expert who formerly directed the FBI Ballistic Research Facility for 15 years, Boone Decl. at J.A. 2163, *id.*, and Jim Supica, a firearms historian, Supica Decl. at J.A. 2245, *id.*. These experts specifically controverted much of the state’s evidence regarding the features and functions of the AR-15.

No one wants to see guns in the hands of terrorists, criminals, or the dangerously mentally ill. Mass shootings are unspeakable tragedies that result in the loss of innocent lives, heartbroken families, and devastated communities. But court decisions based on false or misleading claims about “assault weapons” have questionable legitimacy. No doubt many judges (and their law clerks) don’t know how modern semiautomatic firearms operate—like many people, they have never fired a gun or only used a hunting rifle or shotgun on occasion. Courts nevertheless have a duty to “get it right” when it comes to the facts upon which their decisions are based.

This article critically examines several factual claims about “assault weapons” found in these four federal appellate court decisions. Part I introduces the problem by showing how gun-control advocates have disseminated false and misleading information about “assault weapons.” Part II identifies three common myths about “assault weapons” based on this disinformation that repeatedly appear in the four decisions and drive their outcomes. It shows how these myths are perpetuated by the courts’ refusal to take seriously readily-available evidence about the operation and use of these weapons, with a special focus on *Kolbe*’s conclusion that the civilian AR-15 is functionally equivalent to the military M16. Part III briefly concludes with some thoughts on how having accurate facts about the operation and use of “assault weapons” can affect the broader discussion about the constitutionality of banning such firearms.

I. “ASSAULT WEAPON” DISINFORMATION

Anti-gun groups have done an effective job of demonizing “assault weapons” with very little evidence to support their descriptions. The “assault weapons” debate began in the late 1980s when handgun-ban activists like Josh Sugarman realized that the vast majority of legislators, the public, and the media simply were not interested handgun bans.¹³ Sugarman wrote a policy memo for the Violence Policy Center (VPC) arguing that “assault weapon” bans would be novel and appealing, and eventually strengthen the case for banning handguns.¹⁴ Pro-ban advocates, he urged, could win support by emphasizing the firearms’ scary-looking features and by exploiting widespread public ignorance about how they function.

Assault weapons—just like armor-piercing bullets, machine guns, and plastic firearms—are a new topic. The weapons’ menacing looks, coupled with the public’s confusion over fully automatic machine guns versus semi-automatic assault weapons—anything

¹³ Josh Sugarman, *Assault Weapons and Accessories in America*, Conclusion, VIOLENCE POLICY CENTER (1988), <http://www.vpc.org/studies/awaconc.htm>.

¹⁴ *Id.*

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.¹⁵

Gun-control advocates have pressed this tactic by using machine-gun language to describe semiautomatic “assault weapons,” even though they are not machine guns. For example, the VPC published a 2003 report entitled *Bullet Hoses: Semiautomatic Assault Weapons—What Are They? What’s So Bad About Them?*,¹⁶ which depicts such weapons as “bullet hoses” that “enable shooters to spray (‘hose down’) a large number of bullets over a broad killing zone, without having to aim at each individual target.”¹⁷ The report claims there are no functional differences between civilian semiautomatic rifles and the fully automatic rifles used by the military:

All assault weapons—military and civilian alike—incorporate specific features that were designed to provide a specific military combat function. That military function is *laying down a high volume of fire over a wide killing zone*, also known as “hosing down” an area. Civilian assault weapons keep the specific design features that make this deadly spray-firing easy.¹⁸

The problem with these descriptions is simple: they are false. Semiautomatic “assault weapons” such as the popular AR-15 do not “spray fire,” as that term is commonly understood.¹⁹

Even the term “assault weapon” reinforces the misperception that the AR-15 is a military firearm. It’s a variation on “assault rifle,” a historical term describing lightweight military rifles that fire in both automatic and semiautomatic modes.²⁰ While gun-control advocates and the media use the two terms interchangeably, they actually do not refer to the same weapons. Various militaries created assault rifles in the mid-twentieth century to bridge the gap between heavy semiautomatic combat rifles firing large rounds effective at longer ranges and smaller submachine guns firing pistol rounds

¹⁵ *Id.*

¹⁶ Tom Diaz, *Bullet Hoses: Semiautomatic Assault Weapons—What Are They? What’s So Bad About Them?*, VIOLENCE POLICY CENTER (May 2003), <http://www.vpc.org/publications/bullet-hoses>.

¹⁷ Tom Diaz, *Bullet Hoses – The “Father of All Assault Rifles,”* Chapter in Diaz, *id.*

¹⁸ Tom Diaz, *Bullet Hoses – What’s So Bad About Semiautomatic Assault Weapons*, Chapter in Diaz, *id.*

¹⁹ See Joseph Avery, *An Army Outgunned: Physics Demands a New Basic Combat Weapon*, *Military Review* 3 (July-August 2012), https://www.armyupress.army.mil/Portals/7/militaryreview/Archives/English/MilitaryReview_20120831_art004.pdf (noting that “spray fire” refers to a large volume of “not well aimed and placed shots.”).

²⁰ See ATF REPORT, *supra* note 11, at 5-6 (“True assault rifles are selective fire weapons that will fire in a fully automatic mode.”) (citing DANIEL D. MUSGRAVE & THOMAS B. NELSON, *THE WORLD’S ASSAULT RIFLES* 1 (T.B.N. Enterprises, 1967)).

effective only at shorter distances.²¹ The term “assault weapon,” on the other hand, is not part of widely-accepted technical or historical descriptions of modern rifles. It is a political and pejorative term, useful for creating mental images of military weapons capable of deadly spray fire.²²

This disinformation campaign was designed to stir passion, not dispel ignorance. It has been very effective. After the Parkland, Florida school shooting, Lawrence Tribe, a widely-respected Harvard law professor, confidently proclaimed that the semiautomatic AR-15 “easily fires over 10 rounds per second.”²³ Professor Tribe’s figure is only slightly less than the “700 rounds a minute” figure offered by Representative Alan Grayson (D-FL) after the Orlando nightclub shooting in 2016.²⁴ Try pulling a semiautomatic rifle trigger 10-12 times in *one second*—it’s impossible.²⁵ Then there’s Michael Bloomberg, former mayor of New York and prominent gun-control advocate, who asserted in a 2012 ABC-TV interview that an “assault weapon” is fully automatic like a machine gun, firing multiple rounds with one pull of the trigger.²⁶ Jacob Sullum, writing in *Reason* magazine, recently noted that a 2013 Reason-Rupe survey showed “about two-thirds of Americans mistakenly thought ‘assault weapons’ fire faster than other guns, hold more rounds, or use higher-caliber ammunition. The respondents who harbored these misconceptions were especially likely to say such guns should be banned.”²⁷

²¹ See *infra* text accompanying notes 78-80.

²² See Bruce Kobayashi & Joseph Olson, *In re 101 California Street: A Legal and Economic Analysis of Strict Liability for the Manufacture and Sale of “Assault Weapons,”* 8 STAN. L. & POL’Y REV. 41, 43 (1997) (“Prior to 1989, the term ‘assault weapon’ did not exist in the lexicon of firearms. It is a political term, developed by anti-gun publicists to expand the category of ‘assault rifles’ so as to allow an attack on as many additional firearms as possible on the basis of undefined ‘evil’ appearance.”); see also Stephen P. Halbrook, *Reality Check: The “Assault Weapon” Fantasy and Second Amendment Jurisprudence*, 14 GEO. J.L. & PUB. POL’Y 47, 49 (2016) (“The term ‘assault weapon’ . . . became a classic case of ‘an Alice-in-Wonderland world where words have no meaning.’”) (quoting *Welsh v. United States*, 398 U.S. 333, 354 (1970) (Harlan, J., concurring)).

²³ Laurence Tribe (@tribelaw), TWITTER (Feb. 24, 2018, 4:27 AM) (tweet deleted) (screen shot in possession of author). Tribe doubled down on the figure after being criticized, claiming in a subsequent tweet that “I researched it; didn’t draw the 10ps rate from thin air.” Laurence Tribe (@tribelaw), TWITTER (Feb. 24, 2018, 10:34 AM), <https://twitter.com/tribelaw/status/967467905830019072?lang=en>. He then admitted he was wrong and said it was 5 rounds per second. Laurence Tribe (@tribelaw), TWITTER (Feb. 24, 2018, 3:04 PM) <https://twitter.com/tribelaw/status/967535732624674818>. He finally edited his original tweet to say “4 to 8 rounds PER SECOND.” Laurence Tribe (@tribelaw), TWITTER (Feb. 24, 2018, 4:55 PM), <https://twitter.com/tribelaw/status/967563721810763776>.

²⁴ Washington FreeBeacon, *Alan Grayson claims AR-15 can fire 700 rounds per minute, which is ridiculous*, YOUTUBE (June 13, 2016), <https://www.youtube.com/watch?v=ThKIXcAaVNk>.

²⁵ See *infra* Part II-B for a discussion of the AR-15’s rate of fire.

²⁶ UserUnknown00, *Bloomberg Doesn’t Know SemiAuto from Auto*, YOUTUBE (Dec. 23, 2012), https://www.youtube.com/watch?time_continue=7&v=iV5E30ZY1kQ.

²⁷ Jacob Sullum, *‘Assault Weapons,’ Explained: How a scary name for an arbitrary group of firearms distorts the gun control debate*, REASON (June 2018), <https://reason.com/archives/2018/05/14/assault-weapons-explained>.

The “spray fire” myth and other falsehoods also appear in federal court decisions upholding “assault weapon” bans. Courts rely on these myths to show that “assault weapons” are exceptionally dangerous and have no legitimate civilian utility. Once these factual premises are established, it requires little serious legal analysis to hold that there is no constitutional right to possess “assault weapons” or that bans on such firearms survive intermediate scrutiny.

II. COMMON “ASSAULT WEAPON” MYTHS

The Fourth Circuit’s decision in *Kolbe* that there is no constitutional right to possess the AR-15 or any other “assault weapon” is based on a novel interpretation of *Heller* that excludes from Second Amendment protection weapons that are “like” M16 rifles—i.e., “weapons that are most useful in military service.”²⁸ The court therefore had to show that the AR-15 is virtually indistinguishable from the M16. To make this showing, the Fourth Circuit turned to three common myths about how “assault weapons” work that federal courts have accepted without rigorous factual inquiry. This section examines those myths.

A. The “Weapon of War” Myth

The “weapon of war” myth has long been part of the gun-control narrative against “assault weapons.” Barbara Lautman, a spokesperson for Handgun Control Inc. (now the Brady Center to Prevent Gun Violence) said in 1989 that “[w]e don’t see any reason why a private citizen needs access to a weapon designed solely for combat. These are weapons of war.”²⁹ Senator Charles Schumer (D-NY), an ardent gun-control advocate, chaired the House Subcommittee on Crime and Criminal Justice in April 1994 when it held hearings on the proposed federal “assault weapons” ban. In his opening statement, he asked, “We are here today to consider one simple question—do weapons of war, weapons solely designed to kill people on the battlefield, belong on America’s streets?”³⁰

When expiration of the federal “assault weapons” ban approached in 2004, Senator Christopher Dodd (D-CT), another gun-control congressman, called for renewal of the ban. “[A]ssault weapons are weapons of war . . .

²⁸ *Kolbe v. Hogan*, 849 F.3d 114, 136 (4th Cir. 2017) (quoting *District of Columbia v. Heller*, 554 U.S. 570, 627 (2008)).

²⁹ Kent Jenkins, Jr., *Calls for Ban Boost Assault Rifle Sales*, WASH. POST (Mar. 6, 1989), https://www.washingtonpost.com/archive/local/1989/03/06/calls-for-ban-boost-assault-rifle-sales/0d6c6d39-99da-4e0d-8318-a5d246762081/?utm_term=.5da5c0686193.

³⁰ *Public Safety and Recreational Firearms Use Protection Act: Hearing on H.R. 3527 Before the Subcomm. on Crime & Criminal Justice of the Comm. On the Judiciary*, 103d Cong. 1 (1994) (statement of Sen. Charles Schumer).

designed with one purpose in mind—for slaughtering human beings over a wide area,” he declared, “[t]hey belong on a faraway battlefield, not on our Nation’s streets.”³¹ The Brady Center to Prevent Gun Violence released a publication in 2008 entitled *Assault Weapons: “Mass Produced Mayhem,”* which describes “assault weapons” four separate times as “weapons of war.”³² The Law Center to Prevent Gun Violence (now the Giffords Law Center to Prevent Gun Violence) published a “fact sheet” in 2012 containing a picture of an AR-15 and asserting that “[w]eapons of war like these don’t belong in the hands of civilians.”³³

Both legislative bodies and courts have adopted this rhetoric. The District of Columbia Council banned “assault weapons” after concluding that they are “military-style weapons of war, made for offensive military use.”³⁴ The *Kolbe* court labeled civilian AR-15s “exceptionally lethal weapons of war”³⁵ that are designed “to kill or disable the enemy on the battlefield.”³⁶ Such descriptions are used to reinforce the legitimacy of “assault weapon” bans by characterizing the banned weapons as only having military utility.

1. Civilian use of “weapons of war”

The “weapons of war” refrain may be useful rhetoric, but it’s not fact. One flaw is that small arms such as long guns and handguns have never been nicely separated into distinct categories of “military firearms” designed for the battlefield and “civilian firearms” designed for hunting, target shooting, or self-defense. Historically, most popular civilian firearms were designed for military use.³⁷ Civilians have been buying and using “weapons of war” since musket days, with little if any significant differences between military and civilian versions of these firearms.

Take rifles, for example. American militiamen originally fought with the rifles they brought from home. As *Heller* recognizes, “[i]n the colonial and revolutionary era, [small arms] weapons used by militiamen and

³¹ 150 CONG. REC. S1947-09, S1953 (daily ed. Mar. 2, 2004) (statement of Sen. Dodd).

³² *Assault Weapons: “Mass Produced Mayhem”* BRADY CENTER TO PREVENT GUN VIOLENCE, (October 2008), <https://www.bradycampaign.org/sites/default/files/mass-produced-mayhem.pdf>.

³³ *Why America Needs to Get Military-Style Weapons Off Our Streets*, LAW CENTER TO PREVENT GUN VIOLENCE, <http://smartgunlaws.org/wp-content/uploads/2017/04/Assault-Weapons-Factsheet-2013.pdf> (last visited Sept. 30, 2018).

³⁴ See *Heller v. District of Columbia*, 698 F. Supp. 2d 179, 193 (D.D.C. 2010) (internal quotation omitted).

³⁵ *Kolbe v. Hogan*, 849 F.3d 114, 124 (4th Cir. 2017). See also *Cutonilli v. Maryland*, 251 F. Supp. 3d 920, 922 (D. Md. 2017) (noting that “assault weapons” are “weapons of war” restricted under Maryland’s Firearm Safety Act of 2013).

³⁶ *Kolbe*, 849 F.3d at 137 (quoting J.A. 735) (internal quotations and brackets omitted).

³⁷ GARY KLECK, POINT BLANK: GUNS AND VIOLENCE IN AMERICA 70 (1991) (“Most firearms, no matter what their current uses, derive directly or indirectly from firearms originally designed for the military”).

weapons used in defense of person and home were one and the same.”³⁸ The repeating rifles that first debuted in the Civil War evolved into the lever action rifles used by soldiers and civilians alike in the Old West, such as the iconic Winchester Model 1873.³⁹ Like the modern AR-15, these rifles had higher ammunition capacity and more rapid rates of fire than their predecessors. Lever-action rifles manufactured by Winchester, Henry, and Marlin are still popular among hunters today.⁴⁰ The Remington Model 30 bolt-action sporting rifle, first sold commercially in 1921, was derived from the M1917 Enfield rifle used by American soldiers in World War I.⁴¹ The semiautomatic M1 Garand rifle and M1 carbine were designed for military use in World War II, Korea, and Vietnam. Civilian versions are sold commercially for target shooting and hunting, and military surplus versions are available to qualified rifle clubs for competitive matches through the federal government’s Civilian Marksmanship Program.⁴² The Remington Model 700 is a classic civilian bolt-action rifle that has been used by the U.S. Army and Marines as sniper rifles in the M24 and M40 versions.⁴³

Soldiers and civilians also use the same handguns and shotguns. Popular civilian handguns such as the iconic Browning-designed 1911, the Beretta 92 FS, and the Sig Sauer P226 were all designed for and used by the United States military.⁴⁴ The Glock 17, probably the most popular civilian handgun in the world today, initially was designed for the Austrian military

³⁸ *Heller*, 554 U.S. 570, 624-25 (2008) (quoting *State v. Kessler*, 614 P.2d 94, 98 (Or. 1980) (citing G. NEUMANN, *SWORDS AND BLADES OF THE AMERICAN REVOLUTION* 6-15, 252-54 (1973)) (internal quotation omitted); see *id.* at 627 (recognizing that the founding-era militia consisted of citizens “who would bring the sorts of lawful weapons they possessed at home to militia duty”).

³⁹ See David E. Petzal, *The Rifle That Won the West*, FIELD & STREAM (Dec. 11, 2003), <https://www.fieldandstream.com/articles/guns/rifles/2003/12/rifle-won-west>.

⁴⁰ See WINCHESTER REPEATING ARMS, <http://www.winchesterguns.com/products/rifles/model-94.html>; HENRY LEVER ACTION RIFLES, <https://www.henryusa.com/firearm-category/lever-action-rifles/>; MARLIN FIREARMS, <https://www.marlinfirearms.com/lever-action>.

⁴¹ See John Lacy, *Remington Model 30 Bolt Action, High-Power Rifles: A History and Users Manual*, REMINGTON SOCIETY OF AMERICA, <https://www.remingtonsociety.org/remington-model-30-bolt-action-high-power-rifles>.

⁴² See Kennedy Hickman, *World War II: M1 Garand Rifle*, THOUGHTCO. (June 4, 2017), <https://www.thoughtco.com/world-war-ii-m1-garand-2361245/>; *M1 Garand*, CIVILIAN MARKSMANSHIP PROGRAM, http://thecmp.org/cmp_sales/rifle_sales/m1-garand/; *M1 Carbine*, CIVILIAN MARKSMANSHIP PROGRAM, http://thecmp.org/cmp_sales/rifle_sales/m1-carbine/. The federal government recently announced that 100,000 surplus M1911 handguns in storage since the 1980s will be sold to civilians through the Civilian Marksmanship Program. See Chris Eger, *How, when and where will the CMP 1911s be available?*, GUNS.COM (November 22, 2017), <http://www.guns.com/2017/11/22/how-when-and-where-will-the-cmp-1911s-be-available/>.

⁴³ See IAN V. HOGG & JOHN S. WEEKS, *MILITARY SMALL ARMS OF THE 20TH CENTURY* 220 (7th ed. 2000).

⁴⁴ See Scott Engen, *The History of the 1911 Pistol*, BROWNING (Jan. 24, 2011), <http://www.browning.com/news/articles/history-of-the-1911-pistol.html>; *92 FS*, BERETTA, <http://www.beretta.com/en-us/92-fs/> (last visited July 1, 2018); *P226*, SIG SAUER, <https://www.sigsauer.com/products/firearms/pistols/p226/> (last visited July 1, 2018).

and police.⁴⁵ The bestselling gun in Remington Arms history, the Remington 870 pump-action shotgun, is commonly used by civilians for self-defense and hunting as well as by militaries and law enforcement agencies worldwide.⁴⁶ The Benelli M4 semiautomatic shotgun was designed for the military, but is sold in the civilian market.⁴⁷ Mossberg 500 and 590 pump-action shotguns also are used by the military and civilians alike.⁴⁸

None of this should be surprising. War often drives more effective firearm designs, and civilian small arms typically incorporate advances in military weapon technology. Private citizens historically have owned guns identical or similar to military weapons because they were readily available in the civilian market. Of course, such advances have produced more lethal firearms. But lethality is a core function of a firearm, and users typically want the most effective weapon possible, whether on the battlefield, while hunting, or in lawful defense of self and others. Both military and civilian small arms have represented the state-of-the-art technology of the day. The flintlocks of the Revolutionary War, the repeaters of the Civil War, the lever-action rifles of the Old West, the bolt-action rifles of World War I, and the semiautomatic rifles of World War II all were “weapons of war” used by civilians.

Military small arms do not lose their Second Amendment protection when possessed by civilians. The Supreme Court has never held that firearms are constitutionally-protected only if they are not “weapons of war”—in fact, it’s just the opposite. In *United States v. Miller*, the Court recognized that citizens have the right to possess weapons that are part of the militia’s “ordinary military equipment” or that “could contribute to the common defense.”⁴⁹ That equipment, *Miller* explains, comprises those “arms supplied by themselves and of the kind in common use at the time.”⁵⁰ The Court could not conclude that the Second Amendment protects possession of a short-barreled shotgun because there was no evidence that its possession or use had

⁴⁵ See Robert A. Sadowski, *Glock: The Pistol that Changed Handguns*, RANGE 365 (July 17, 2017), <https://www.range365.com/history-glock>; *How The Glock Became America’s Weapon of Choice*, NPR FRESH AIR (Jan. 24, 2012), <https://www.npr.org/2012/01/24/145640473/how-the-glock-became-americas-weapon-of-choice>.

⁴⁶ Ashley Hlebnsky, *The 28 Most Notable Guns in Remington’s 200-Year History*, OUTDOOR LIFE (June 30, 2016), <https://www.outdoorlife.com/articles/guns/2016/06/28-most-notable-guns-remingtons-200-year-history>.

⁴⁷ Charles Cutshaw, *Heckler & Koch/Benelli M4 Super 90/XM1014: The US Military’s Innovative New Tactical Shotgun*, SMALL ARMS REVIEW (Dec. 25, 2015), <http://www.smallarmsreview.com/display.article.cfm?idarticles=3200>.

⁴⁸ Victor & Cheryl Havlin, *Since 1919...A Look at the Storied History of Mossberg*, MOSSBERG BLOG (June 17, 2015), <https://www.mossberg.com/since-1919-a%E2%80%88look-at-the-storied-history-of-mossberg/>.

⁴⁹ *United States v. Miller*, 307 U.S. 174, 178 (1939) (citing *Aymette v. Tennessee*, 21 Tenn. 154 (1840)).

⁵⁰ *Id.* at 179.

“some reasonable relationship to the preservation or efficiency of a well regulated militia.”⁵¹

The Supreme Court in *Heller* rejected a narrow reading of *Miller* that protects “only those weapons useful in warfare”⁵² and clarified that the “ordinary military equipment” referenced in *Miller* includes civilian small arms commonly used for lawful purposes such as self-defense.⁵³ *Heller* thus recognizes that the Second Amendment protects not only small arms useful in warfare, but also firearms “typically possessed by law-abiding citizens for lawful purposes.”⁵⁴ Taken together, *Miller* and *Heller* stand for the proposition that the Second Amendment protects certain small arms with military utility, but that protection extends beyond those weapons to civilian weapons “in common use.”⁵⁵ Both history and precedent show that one aim of the Second Amendment was to ensure that “weapons of war” would be in the hands of ordinary citizens. Even under the narrower view of the Second Amendment taken by the *Heller* dissenters, civilian-owned rifles and handguns of military utility are still protected arms.⁵⁶ If the Second Amendment protects “only a right to possess and use firearms in connection with service in a state-organized militia,”⁵⁷ as the dissenters urged, then civilians must be able to own, shoot, and train with “weapons of war.”⁵⁸

2. The AR-15 as a “weapon of war”

The “weapons of war” refrain also is problematic when applied to the modern AR-15 rifle. Any rifle can be used in war, but certain rifles are made exclusively for combat applications. The United States military has never

⁵¹ *Id.* at 178.

⁵² *District of Columbia v. Heller*, 554 U.S. 570, 624-25 (2008) (emphasis added). The Court reaffirmed this proposition in *Caetano v. Massachusetts*, 136 S. Ct. 1027 (2016) (per curiam), reversing a lower court’s denial of Second Amendment protection to stun guns on the ground that there was no evidence that they had military utility.

⁵³ *Heller*, 554 U.S. at 624.

⁵⁴ *Id.* at 625, 627.

⁵⁵ *Id.* at 627.

⁵⁶ *Id.* at 636 (Stevens, J., dissenting) (“The Second Amendment plainly does not protect the right to use a gun to rob a bank; it is equally clear that it *does* encompass the right to use weapons for certain military purposes.”) (original emphasis); *id.* at 646 (noting that the phrase “[t]o keep and bear arms” describes a “unitary right: to possess arms if needed for military purposes and to use them in conjunction with military activities”).

⁵⁷ *Id.* at 647.

⁵⁸ *See id.* at 618 (majority opinion) (“But a militia would be useless unless the citizens were enabled to exercise themselves in the use of warlike weapons.”) (quoting J. POMEROY, AN INTRODUCTION TO THE CONSTITUTIONAL LAW OF THE UNITED STATES § 239, at 152-53 (1868)) (internal quotations omitted); *id.* at 619 (“Some general knowledge of firearms is important to the public welfare; because it would be impossible, in case of war, to organize promptly an efficient force of volunteers unless the people had some familiarity with weapons of war.”) (quoting B. ABBOTT, JUDGE AND JURY: A POPULAR EXPLANATION OF THE LEADING TOPICS IN THE LAW OF THE LAND 333 (1880)) (internal quotations omitted).

used the semiautomatic-only AR-15 for combat. Its standard infantry rifles are the M16 rifle and the smaller M4 carbine.⁵⁹ These rifles are “select” or “selective” fire weapons, meaning they can be fired either in semiautomatic mode or fully automatic mode (or three-round burst mode, depending on the model) by toggling a selector switch on the side of the rifle.⁶⁰ A fully automatic weapon fires continuously so long as the shooter presses and holds the trigger.⁶¹ By contrast, a semiautomatic firearm fires one bullet (or “round”) for each pull of the trigger.⁶² The Supreme Court in *Staples v. United States* described the basic difference between the AR-15 and the M16: “The AR-15 is the civilian version of the military’s M-16 rifle, and is, unless modified, a semiautomatic weapon. The M-16, in contrast, is a selective fire rifle that allows the operator, by rotating a selector switch, to choose semiautomatic or automatic fire.”⁶³

Kolbe correctly recognizes the distinction between semiautomatic AR-15s and the military’s fully automatic rifles,⁶⁴ but declares that “[t]he difference between the fully automatic and semiautomatic versions of those firearms is *slight*.”⁶⁵ It goes on to label civilian AR-15s as “exceptionally lethal weapons of war”⁶⁶ that are designed “to kill or disable the enemy on the battlefield.”⁶⁷ They do that by functioning like machine guns. “[L]ike their fully automatic counterparts,” *Kolbe* says, “the banned assault weapons ‘are firearms designed for the battlefield, for the soldier to be able to shoot a

⁵⁹ U.S. DEP’T OF ARMY, TRAINING CIRCULAR 3-22.9, RIFLE AND CARBINE 2-1 (2016) [hereinafter ARMY RIFLE AND CARBINE TRAINING CIRCULAR]. The military is replacing the M16 with the M4A1 as its standard service weapon. See Kyle Mizokami, *M4 Carbine: The Gun the Army Loves to Go to War With*, THE NATIONAL INTEREST (May 31, 2018), <http://nationalinterest.org/blog/the-buzz/m4-carbine-the-gun-the-army-loves-go-war-26049?page=2>.

⁶⁰ U.S. DEP’T OF ARMY, FIELD MANUAL 3-22.9, RIFLE MARKSMANSHIP: M16-/M-4 SERIES WEAPONS 4-11, 4-12 (2008) [hereinafter ARMY RIFLE MARKSMANSHIP MANUAL] (explaining that M16A1/A3 rifles and M4A1 carbines fire in fully automatic mode, while M16A2/A4 rifles and M4 carbines fire in a three-round burst mode).

⁶¹ See *Staples v. United States*, 511 U.S. 600, 602 n.1 (1994) (“[T]he terms ‘automatic’ and ‘fully automatic’ refer to a weapon that fires repeatedly with a single pull of the trigger. That is, once the trigger is depressed, the weapon will automatically continue to fire until its trigger is released or the ammunition is exhausted. Such weapons are ‘machine guns’ within the meaning of the [National Firearms] Act.”); see also 26 U.S.C. § 5845(b) (2018) (defining “machine gun” to mean “any weapon which shoots . . . automatically more than one shot, without manual reloading, by a single function of the trigger.”).

⁶² See Gun Control Act of 1968, 18 U.S.C. § 921(a)(28) (defining “semiautomatic rifle” as any repeating rifle which uses a portion of the energy of a firing cartridge to extract the fired cartridge case and chamber the next round, and which requires a separate pull of the trigger to fire each cartridge); *Staples*, 511 U.S. at 602 n.1 (“We use the term ‘semiautomatic’ to designate a weapon that fires only one shot with each pull of the trigger, and which requires no manual manipulation by the operator to place another round in the chamber after each round is fired.”).

⁶³ *Staples*, 511 U.S. at 603.

⁶⁴ *Kolbe v. Hogan*, 849 F.3d 114, 124 (4th Cir. 2017).

⁶⁵ *Id.* at 126.

⁶⁶ *Id.* at 124.

⁶⁷ *Id.* at 137 (quoting J.A. 735) (internal quotations and brackets omitted).

large number of rounds across a battlefield at a high rate of speed.”⁶⁸ *Heller II* similarly concludes that “it is difficult to draw meaningful distinctions between the AR-15 and M-16.”⁶⁹

These are myths, not facts. To begin with, federal law treats fully automatic firearms (i.e., machine guns) very differently than semiautomatic firearms like the AR-15. Civilian ownership of machine guns is extensively regulated under the National Firearms Act of 1934 (NFA).⁷⁰ Federal law prohibits the possession by private citizens of any machine gun that was not registered under the NFA by May 19, 1986.⁷¹ The effect of this law is to create a de facto ban on private ownership or transfer of machine guns made after 1986. Distinguishing the “generally ‘dangerous’ character of all guns,” Justice Ginsburg pointed out in her concurring opinion in *Staples* that “[t]he Nation’s legislators chose to place under a registration requirement only a very limited class of firearms, those they considered especially dangerous.”⁷² The Fifth Circuit explained in *United States v. Kirk* that “[t]he firepower of a machine gun puts it in a quite different category from the handguns, shotguns, and rifles so popular with sportsmen. Its continuous fire puts the machine gun on a different plane from the semi-automatic.”⁷³

Kolbe fails to identify any national military force that uses the AR-15 or other semiautomatic-only rifle as its standard service rifle, nor could it. No military in the world uses a service rifle that is semiautomatic only.⁷⁴ Harold Johnson, a firearms expert, 20-year Marine veteran, and author of the Defense Intelligence Agency’s *Small Arms Identification and Operation Guide—Eurasian Communist Countries*,⁷⁵ explained in a 2009 affidavit filed in *Heller II*:

⁶⁸ *Id.* at 125 (quoting J.A. 206).

⁶⁹ *Heller v. District of Columbia (Heller II)*, 670 F.3d 1244, 1263 (D.C. Cir. 2011).

⁷⁰ 26 U.S.C. §§ 5801-5872; *see also* The Bureau of Alcohol, Tobacco, Firearms and Explosives, *National Firearms Act Handbook*, U.S. DEP’T OF JUST. (Apr. 2009), <https://www.atf.gov/firearms/docs/guide/atf-national-firearms-act-handbook-atf-p-53208/download>.

⁷¹ 18 U.S.C. § 922(o) (2018); *see also* Letter from Stephanie M. Boucher, Chief, Disclosure Div., U.S. Dept. of Justice Bureau of Alcohol, Tobacco, Firearms and Explosives to Jeffrey Folloder, Exec. Dir., Nat’l Firearms Act Trade & Collectors Ass’n (Feb. 24, 2016), http://www.nfatca.org/pubs/MG_Count_FOIA_2016.pdf (reporting that in February 2016 there were 175,977 transferrable pre-1986 machine guns in the U.S.).

⁷² *Staples v. United States*, 511 U.S. 600, 622 (1994) (Ginsburg, J., concurring).

⁷³ *United States v. Kirk*, 105 F.3d 997, 1002 (5th Cir. 1997). *See also* *United States v. Thomas*, 531 F.2d 419, 423 (9th Cir. 1976) (Hufstедler, J., dissenting) (“[O]ur society does not put hand guns and rifles in the same category of suspected dangerousness as machine guns, hand grenades, sawed-off shotguns, and other lethal hardware[.]”).

⁷⁴ *See Service Rifle*, WIKIPEDIA, https://en.wikipedia.org/wiki/Service_rifle (last visited Sept. 30, 2018) (listing service rifles from various nations).

⁷⁵ HAROLD E. JOHNSON, DEFENSE INTELLIGENCE AGENCY, *SMALL ARMS IDENTIFICATION AND OPERATION GUIDE—EURASIAN COMMUNIST COUNTRIES* (1973), <https://www.scribd.com/document/117824077/Small-Arms-Identification-and-Operation-Guide-Eurasian-Communist-Countries>.

Although firearm models used by military forces throughout the world have undergone design changes since [*Small Arms Identification*] was published, it remains the case that today's military forces throughout the world continue to utilize selective-fire rifles as their standard services rifles. They have done so since the end of World War II, and will continue to do so for the foreseeable future. Semiautomatic rifles, including all those designated by the D.C. Code as "assault weapons," are not made or designed for offensive military use. They are not used as service rifles by any military force in the world, nor are they preferred by irregular forces or terrorists . . . None of these ["assault weapons"] are designed for offensive military use and none are known to be issued to any military force in the world.⁷⁶

That is why the Supreme Court in *Staples* used a descriptor that accurately differentiates the AR-15: it is the *civilian* version of the M16 rifle.⁷⁷ The AR-15 is not a "weapon of war" and never has been.

The capability to fire in fully automatic mode is a uniquely-military feature. Military designers during World War II recognized the need for an infantry weapon that combined the accuracy and power of a rifle with the lighter weight and automatic fire of a submachine gun. Most soldiers at the time were equipped with heavy and cumbersome semiautomatic-only "battle rifles" that delivered large caliber rounds with great energy at effective ranges of 500 yards and beyond, while some soldiers used submachine guns firing low-powered pistol rounds that lost effectiveness beyond 100-150 yards. The modern "assault rifle" was developed to bridge this gap. It is a selective-fire weapon that fires intermediate-size rifle rounds powerful enough to be effective at the ranges useful for most modern warfare applications, but small enough to produce lower recoil for controllable automatic fire.⁷⁸

German engineers produced the first true "assault rifle" in 1943, the Stürmgewehr ("storm rifle") MP43/44 and StG 44, which fired a shorter, less powerful rifle round (7.92x 33mm) in full automatic mode, had a 16.5-inch barrel, and came equipped with a 30-round magazine. The Soviet Union developed its own fully automatic, lightweight assault rifle in 1947, the

⁷⁶ Harold E. Johnson Decl., *Heller v. District of Columbia*, 698 F. Supp. 2d 179 (D.D.C. Sept. 14, 2009) (No. 1:08-cv-01289); *see also* Halbrook, *supra* note 22, at 59-60 (listing Johnson's qualifications and additional statements).

⁷⁷ *Staples*, 511 U.S. at 603. *See* N.Y. State Rifle & Pistol Ass'n v. Cuomo, 804 F.3d 242, 256 (2d Cir. 2015) ("Because the AR-15 is 'the civilian version of the military's M-16 rifle,' defendants urge that it should be treated identically for Second Amendment purposes. But the Supreme Court's very choice of descriptor for the AR-15—the 'civilian version'— could instead imply that such guns 'traditionally have been widely accepted as lawful.'") (internal citations omitted).

⁷⁸ The United States Defense Intelligence Agency defines "assault rifles" as "short, compact, selective-fire weapons that fire a cartridge intermediate in power between a submachine gun and rifle cartridges. Assault rifles have mild recoil characteristics and, because of this, are capable of delivering effective full automatic fire at ranges up to 300 meters." JOHNSON, *supra* note 75, at 105.

Avtomat Kalashnikova, or AK-47. American designers were late to the assault-rifle race, but eventually produced the AR-15 assault rifle in the late 1950s and early 1960s.⁷⁹ Compared to the M1 Garand used in World War II and Korea, the AR-15 was almost three pounds lighter, had less recoil, used a 30-round magazine rather than an eight-round clip, could fire 12-rounds per second on full automatic rather than just single shots, and its small .22-caliber cartridge weighed less than the Army’s .30-caliber rounds, allowing troops to carry more ammunition.⁸⁰

Kolbe discusses the military development of the AR-15, but the military AR-15 was not the same rifle as the modern civilian AR-15. The initial AR-15 prototype was designed, as *Kolbe* recognizes, “as a selective-fire rifle,”⁸¹ offering both semiautomatic and fully automatic modes, and it was only later that the military changed its name from AR-15 to M16. Thus, the AR-15 rifle “designed for the battlefield” was a selective-fire rifle that could shoot one round at a time or many rounds with one sustained squeeze of the trigger. The military version of the AR-15, which became the M16, always has been selective fire, whereas the civilian AR-15 always has been semiautomatic only. Because the AR-15 lacks the fully automatic capabilities of its military counterpart, it was designed not for the battlefield but rather for the civilian market.

To determine whether the AR-15 is a weapon of war “like” the M16, one must consider the two rifles’ intended applications. There is a reason why no military in the world uses a semiautomatic-only rifle as its standard service weapon. Certain tactical conditions may require automatic fire, making selective-fire assault rifles superior for military use over semiautomatic-only rifles like the civilian AR-15. The 2008 United States Army Field Manual on Rifle Marksmanship explains that “[i]n some combat situations, the use of automatic or burst fire can improve survivability and enhance mission accomplishment.”⁸² Automatic rifle fire can be used for

⁷⁹ For more extensive discussions of the historical development of military assault rifles, see Duncan Long, *The Complete AR-15/M16 Sourcebook: What Every Shooter Needs to Know* 3-61 (2002); Hogg, *supra* note 43, at 243, 271, 286-87, 291-92; Thomas L. McNaugher, *Marksmanship, McNamara, and the M16 Rifle: Organizations, Analysis and Weapons Acquisition* (Rand Corp. Paper Series 1979), <https://www.rand.org/pubs/papers/P6306.html>; Joe Poyer, *The M16/AR15 Rifle: A Shooter’s and Collector’s Guide* 13-20 (2013). McNaugher’s paper, a condensation of his 1977 Ph.D. dissertation at Harvard, provides one of the best short histories on the philosophy behind the development of the M16 rifle.

⁸⁰ See Edward Clinton Ezell, *Small Arms of the World* 784 (1983); Hogg, *supra* note 43 at 287, 292; James Fallows, *M-16: A Bureaucratic Horror Story*, *The Atlantic* (June 1981), <https://www.theatlantic.com/magazine/archive/1981/06/m-16-a-bureaucratic-horror-story/545153/>.

⁸¹ *Kolbe v. Hogan*, 849 F.3d 114, 124 (4th Cir. 2017).

⁸² Army Rifle Marksmanship Manual, *supra* note 60, at 7-13; see also Dennis Chapman, *The ‘Weapons of War’ Myth*, LinkedIn (Dec. 7, 2015), <https://www.linkedin.com/pulse/weapons-war-myth-dennis-chapman> (explaining that “[w]hether burst or full auto, selective fire serves one function in combat—to gain fire superiority over an enemy force. Fire superiority is achieved when

gaining initial fire superiority over an enemy force, suppressive fire, engaging area targets, breaking contact in close terrain, effecting ambushes, executing certain close-quarters-battle (CQB) situations such as clearing a room or bunker, engaging closely-spaced multiple targets, and providing final protective fire (FPF) against an overwhelming enemy attack.⁸³ Sometimes the military's need to fire many rounds downrange quickly is more important than precisely-aimed fire. By contrast, the inability of the AR-15 to fire in fully automatic mode makes it best-suited for civilian rather than military use. Full-automatic capability is not available on civilian AR-15s because there is typically no need for automatic fire in civilian self-defense and sporting applications.

When measured by intended applications, the AR-15 is not a weapon of war “like” the M16. Both the AR-15 and the M16 can fire in semiautomatic mode used in the vast majority of military applications, but only the M16 can fire in the fully automatic mode required for certain exceptional military operations.⁸⁴ The civilian AR-15 is neither designed nor suited for such applications. That is why the military does not use the civilian AR-15 on the battlefield. Dennis Chapman, an attorney, 25-year military veteran, and former infantry officer, points out that selective-fire capability “is the single, essential feature that makes a military firearm more useful in combat than its civilian counterpart.”⁸⁵

Kolbe never explains how the semiautomatic AR-15 can be a weapon “designed for the battlefield” and “most useful in military service” when it lacks the capability for military applications requiring automatic fire. Instead, *Kolbe* downplays this distinction by asserting that any difference between the fully automatic M16 and the semiautomatic AR-15 is “slight.”⁸⁶ It confidently declares that the AR-15's semiautomatic rate of fire is “nearly identical” to the M16's fully automatic fire and that the AR-15 has the same “military features . . . that make the M16 a devastating and lethal weapon of war.”⁸⁷ As discussed in the two myths that follow, the AR-15's rate of fire

the enemy has been suppressed—which is to say, when one side is placing such a high volume of fire into the enemy's general vicinity that the enemy is forced to seek cover and is thereby prevented from returning effective fire (they may still shoot back, but not very well.”).

⁸³ See ARMY RIFLE MARKSMANSHIP MANUAL, *supra* note 60, at 7-13, 7-16, 7-19, 7-47 (2008); cf. Arthur D. Osborne & Seward Smith, *Analysis of M16A2 Rifle Characteristics and Recommended Improvements* 7-8, 11 (Feb. 1986), <http://www.dtic.mil/dtic/tr/fulltext/u2/a168577.pdf> (noting that fully automatic fire is useful “to clear and defend buildings, to conduct final assaults on enemy positions, to defend against an enemy final assault, to conduct an ambush,” and “to react to an enemy ambush” and explaining that high-volume suppressive fire is more useful at close-range when closing in on an enemy position).

⁸⁴ See Hognose, *Burst Selector: An Idea Whose Time Has Come and Gone*, WEAPONSMAN (March 21, 2016) <http://weaponsman.com/?p=30530> (“anyone who's been well trained uses an assault rifle in semi auto mode well over 90% of the time”).

⁸⁵ Chapman, *supra* note 82.

⁸⁶ *Kolbe v. Hogan*, 849 F.3d 114, 125 (4th Cir. 2017).

⁸⁷ *Id.* at 136.

is comparable to semiautomatic handguns, not machine guns, and its “military features” typically address ergonomics and safety in a way common to most civilian rifles—they do not make the AR-15 far more dangerous than other firearms. *Kolbe* identifies one additional point of comparison: “in many situations, the semiautomatic fire of an AR-15 is more accurate and lethal than the automatic fire of an M16.”⁸⁸ No one disputes that semiautomatic fire is more accurate and typically preferred over fully automatic fire (the M16 also fires in semiautomatic mode), but this is a red herring. The AR-15’s semiautomatic fire capability does not offset its lack of fully automatic fire capability.

If the AR-15 and M16 are virtually interchangeable “weapons of war,” as *Kolbe* contends, one wonders why the military uses more complex selective-fire weapons when cheaper, simpler AR-15s will do. The Fourth Circuit twice cited with approval the *Kolbe* district court’s finding that “assault rifles like the AR-15 are essentially the functional equivalent of M-16s—and arguably more effective”⁸⁹ Neither the Fourth Circuit nor the district court explained how a weapon capable of *only* semiautomatic fire can be more effective on the battlefield than a selective-fire weapon, which has the capability for *both* semiautomatic and fully automatic fire. These judges apparently think our military is using inferior assault rifles and instead should supply its troops with weapons purchased from local gun stores.

Kolbe’s deliberate disregard for the military’s exclusive use of selective-fire assault rifles cannot be reconciled with its own “military use” test for Second Amendment protection. When the dissenters pointed out that the military does not use semiautomatic-only rifles, the Fourth Circuit majority responded that the relevant inquiry is not whether a weapon is used by a military, but whether it is “most useful in military service.”⁹⁰ That distinction makes little sense—the military will use the weapon it determines to be most useful in military service. The military has decided that selective-fire M16 and M4 rifles are most useful in war, not the less-capable AR-15.

Faced with the lack of evidence that the civilian AR-15 is a “weapon of war” by design or function, the Fourth Circuit simply made that evidence up. Three times *Kolbe* describes the civilian AR-15 as being designed to kill or

⁸⁸ *Id.*

⁸⁹ *Id.* at 134, 143 (quoting *Kolbe v. O’Malley*, 42 F. Supp. 3d 768, 789 n.29 (D. Md. 2014)) (emphasis added). This bizarre observation echoes the Violence Policy Center’s claim that “[c]ivilian semiautomatic assault weapons . . . are arguably more deadly than military versions, because most experts agree that semiautomatic fire is more accurate—and thus more lethal—than automatic fire.” Tom Diaz, *Bullet Hoses – Ten Key Points about What Assault Weapons Are and Why They are So Deadly*, Chapter in Diaz, *supra* note 16 (emphasis added).

⁹⁰ *Kolbe*, 849 F.3d at 144 (“The relevant question is not whether they are themselves M16s or other arms used by a military; or whether they are useful at all or only useful in military service; or whether they have this or that single feature in common with a non-banned firearm. Rather, the issue is whether the banned assault weapons and large-capacity magazines possess an amalgam of features that render those weapons and magazines like M16s and most useful in military service.”).

disable the enemy on the battlefield, citing a 1989 ATF report at page 735 in the joint appendix:

The AR-15, semiautomatic AK-47, and other assault weapons banned by the [Maryland act] have a number of features designed to achieve their principal purpose—“*killing or disabling the enemy*” on the battlefield. See J.A. 735⁹¹

Whatever their other potential uses—including self defense—the AR-15, other assault weapons, and large-capacity magazines prohibited by the [Maryland act] are unquestionably most useful in military service. That is, the banned assault weapons are designed to “*kill[] or disabl[e] the enemy*” on the battlefield. See J.A. 735⁹²

[T]he issue is whether the banned assault weapons . . . possess an amalgam of features that render those weapons and magazines like M16s and most useful in military service. The uncontroverted evidence here is that they do. See, e.g., J.A. 735 . . . (reflecting that the banned assault weapons are designed to “*kill[] or disabl[e] the enemy*” on the battlefield)⁹³

The quoted words in the joint appendix come from this sentence in the 1989 ATF report: “The modern military assault rifle, such as the U.S. M16, German G3, Belgian FN/FAL, and Soviet AK47, is a weapon designed for killing or disabling the enemy.”⁹⁴ The same report makes clear that a civilian AR-15 is not a “modern military assault rifle” because it lacks fully automatic capability.⁹⁵ The *Kolbe* majority took part of a sentence describing the design of the fully automatic military assault rifle and used it repeatedly to describe the semiautomatic-only civilian AR-15, without acknowledging or explaining the discrepancy.

The civilian AR-15 is not a “weapon of war” like the M16. Despite *Kolbe*’s claim that it is “most useful for military service,” it has never been used in war by the United States military and is not currently in use by any national military as a standard service rifle. The civilian AR-15 is not “designed for the battlefield” because it lacks the capability for fully automatic fire useful in certain combat applications. Because the civilian AR-15 is incapable of performing those applications, it is not “like” the selective-fire M16.

⁹¹ *Id.* at 125 (emphasis added).

⁹² *Id.* at 137 (emphasis added).

⁹³ *Id.* at 144 (emphasis added).

⁹⁴ ATF REPORT, *supra* note 11, at 6 (1989) (emphasis added) (found at J.A. 734-35).

⁹⁵ See *id.* at 5-6 (noting that “[t]rue assault rifles are selective fire weapons that will fire in a fully automatic mode.”) (citing DANIEL D. MUSGRAVE & THOMAS B. NELSON, *THE WORLD’S ASSAULT RIFLES* 1 (T.B.N. Enterprises, 1967)).

By trying to make the civilian AR-15 appear “like” a machine gun, the Fourth Circuit neglected a more appropriate comparison: there is no significant difference in combat effectiveness between the military M16 and the civilian AR-15 when both are fired in semiautomatic mode.⁹⁶ But the Fourth Circuit’s legal argument for why the AR-15 is not protected under the Second Amendment turns entirely on there being no meaningful difference between the AR-15 when fired in *semiautomatic* mode and the M16 when fired in *fully automatic* mode. Comparing the two rifles when fired in semiautomatic mode obscures the critical difference between them: the M16 is a machine gun, while the AR-15 is not. *Kolbe* thus must compare the AR-15 in semiautomatic mode to the M16 in fully automatic mode for its argument to work. That is why *Kolbe* asserts that the AR-15’s rate of fire is “nearly identical” to the M16 in automatic mode⁹⁷ and that AR-15s “are firearms designed . . . to shoot a large number of rounds across a battlefield at a high rate of speed.”⁹⁸ That also is why *Kolbe* compares the two rifles’ “combat features,” which it says give the AR-15 a lethal capability “far beyond” that of other firearms.⁹⁹ The correctness of these comparisons are discussed in the next two myths.

B. The “Spray Fire” Myth

A second myth propagated by gun-control advocates and relied on by courts is that the semiautomatic AR-15 is designed to “spray” a high volume of bullets almost as rapidly as a machine gun, typically without aiming. This myth is associated with mistaken or misleading assertions about the AR-15’s design and rate of fire, as well as certain “combat features” the AR-15 has in common with the M16, such as a “barrel shroud” and pistol grip, both of which are said to enable “spray firing” from the hip. The AR-15’s comparative rate of fire is discussed here, while the barrel shroud and pistol grip features are addressed in the third myth.

“Spray fire” imagery repeatedly is used by advocates of “assault weapons” bans. As discussed above, this is part of their strategy to exploit confusion surrounding “assault weapons” and make courts, lawmakers, and the public think that such weapons operate like machine guns and are therefore more dangerous than other rifles.¹⁰⁰ For example, the Council on Scientific Affairs of the American Medical Association called for a ban on “assault weapons” in 1994, asserting that “[s]emiautomatic hunting rifles are precisely aimed and fired from the shoulder, while assault weapons are meant

⁹⁶ Of course, the combat effectiveness of a weapon ultimately will depend on the skill of the shooter.

⁹⁷ *Kolbe*, 849 F.3d at 136.

⁹⁸ *Id.* at 125 (quoting J.A. 206) (internal quotation omitted) (emphasis added).

⁹⁹ *Id.* at 137.

¹⁰⁰ See *supra* Part I.

to be spray-fired from the hip.”¹⁰¹ According to a 2003 Violence Policy Center report calling semiautomatic AR-15s “bullet hoses,”¹⁰² both military and civilian “assault weapons” were developed specifically for the purpose of “spray and pray” firing:

From the STG-44 “storm gun” [a selective-fire military assault rifle] to the Bushmaster XM-15 [a semiautomatic-only civilian AR-15 style rifle], assault weapons have incorporated into their design *specific* features that enable shooters to spray (“hose down”) a large number of bullets over a broad killing zone, without having to aim at each individual target. These features not only give assault weapons a distinctive appearance, they make it easy to simply point the gun while rapidly pulling the trigger—including firing from the hip, a procedure seldom used in hunting anything but human beings . . . “spray and pray” was exactly the point of developing assault weapons.¹⁰³

The Legal Community Against Violence (now the Giffords Law Center to Prevent Gun Violence) declared in 2004 that “[a]ssault weapons are semi-automatic firearms designed with military features to allow rapid and accurate spray firing. They are not designed for ‘sport;’ they are designed to kill humans quickly and efficiently.”¹⁰⁴ The organization further claimed that “assault weapons” are designed to “mak[e] spray firing easy”¹⁰⁵ and have the ability “to spray large amounts of ammunition rapidly and accurately.”¹⁰⁶ These are only a few examples. The “spray fire” canard has been repeated so often that it has become a cliché among pro-ban advocates.

Courts readily have accepted the “spray fire” myth as fact, despite it being both counterintuitive and unsupported by reliable evidence. The Seventh Circuit in *Friedman*, without citation, described the banned “assault weapons” as being “designed to spray fire rather than to be aimed carefully.”¹⁰⁷ In *Heller II* the D.C. Circuit credited the statement of Brian

¹⁰¹ Yank D. Coble, Jr, MD et al., Assault Weapons as a Public Health Hazard in the United States, 267 J. AM. MED. ASS’N 3067, 3067 (1992). In support of this statement, the article cited a 1990 publication by Handgun Control, Inc. (now the Brady Campaign) entitled Assault Weapons Questions & Answers.

¹⁰² Diaz, *supra* note 16.

¹⁰³ Tom Diaz, Bullet Hoses – The “Father of All Assault Rifles,” Chapter in Diaz, id.; Tom Diaz, Bullet Hoses – The Gun Industry’s Lies, Chapter in Diaz, id.

¹⁰⁴ Banning Assault Weapons—A Legal Primer for State and Local Action 1, LEGAL CMTY. AGAINST VIOLENCE 1 (2004), http://lawcenter.giffords.org/wp-content/uploads/2012/05/Banning_Assault_Weapons_A_Legal_Primer_8.05_entire.pdf (last visited Sept. 30, 2018). It’s unclear what the LCAV meant by “rapid and accurate,” since “spray” firing is notoriously inaccurate.

¹⁰⁵ *Id.* at 2.

¹⁰⁶ *Id.* at 4.

¹⁰⁷ *Friedman v. City of Highland Park*, 784 F.3d 406, 409 (7th Cir. 2015). This description appears in a “what we know” section of the court’s opinion. Judge Easterbrook cited no evidence supporting the claim.

2018]

“Assault Weapon” Myths

213

Siebel, a gun-control advocate, that “assault weapons” are capable of spray-firing:

The [District of Columbia] Committee on Public Safety relied upon a report by the ATF, which described assault weapons as creating “mass produced mayhem.” *Assault Weapons Profile* 19 (1994). This description is elaborated in the Siebel testimony for the Brady Center: “the military features of semiautomatic assault weapons are designed to enhance their capacity to shoot multiple human targets very rapidly” and “[p]istol grips on assault rifles help stabilize the weapon during rapid fire and allow the shooter to spray-fire from the hip position.”¹⁰⁸

Again, this is myth, not fact. High-volume “spray fire” historically has been associated with the design and function of modern selective-fire military assault rifles and not with semiautomatic-only military rifles such as the M1 Garand and civilian rifles such as the AR-15. If the military’s semiautomatic-only rifles could produce high-volume “spray fire,” then development of the modern selective-fire assault rifle with fully automatic capability would have been unnecessary. Pro-ban supporters have created this “spray fire” myth by falsely attributing to the semiautomatic AR-15 a function exclusive to the selective-fire M16. No military documents or historical accounts of the development of modern military assault rifles describe semiautomatic-only rifles (or the M16 in semiautomatic mode) as having the design or capability to “spray” bullets on the battlefield.

“Spray and pray” was not the point of developing “assault weapons,” as the Violence Policy Center (VPC) falsely claimed.¹⁰⁹ The term “spray and pray” originally described a method of fire employed in Vietnam that *abused* the M16’s fully automatic capability. The M16 was effective in producing a large volume of fire over shorter distances.¹¹⁰ But fully automatic point shooting in combat quickly became undisciplined “spray and pray” fire for inexperienced American riflemen.¹¹¹ “Aimed fire was seldom used. Volume

¹⁰⁸ *Heller v. District of Columbia (Heller II)*, 670 F.3d 1244, 1262-63 (D.C. Cir. 2011). The D.C. Committee on Public Safety asserted that “assault weapons” are “military-style weapons made for offensive military use. They are designed with military features to allow rapid and accurate spray firing. They are not designed for sport, but to kill people quickly and efficiently.” Council of D.C., Comm. on Pub. Safety & the Judiciary, *Rep. on Bill 17-843, Firearms Control Amendment Act of 2008* (2008).

¹⁰⁹ See Tom Diaz, *Bullet Hoses – The Gun Industry’s Lies*, Chapter in Diaz, *supra* note 16.

¹¹⁰ See POYER, *supra* note 79, at 19 (“The M16A1 rifle served with distinction during the war in Vietnam and helped to prove the theory that massive amounts of firepower at ranges of up to 300 meters were more effective than aimed fire at the same distances—the thick rain forest and high grass of Vietnam often prevented soldiers from identifying targets at distances beyond 100 to 200 meters.”).

¹¹¹ *Id.* at 14 (“‘Spray and pray’ would become the practice on the future battlefields of Vietnam.”); *id.* at 19 (“[T]oo much firepower [in Vietnam] was as bad as not enough. Soldiers under fire had the tendency to . . . switch[] to full automatic and spray an area, often with little or no effect.”).

automatic fire became the rule. Typically, soldiers sprayed bullets at the enemy in hopes that *some* of the rounds would hit him. More often than not, they *all* missed.”¹¹² The “spray and pray” method of fire was extremely inaccurate, wasted ammunition, and led to weapon malfunctions.¹¹³ There is no reason to design a firearm for “spray and pray” gunfire.

1. *Comparative rates of fire: Semiautomatic handgun, AR-15, and M16*

Because the AR-15 and other “assault weapons” do not fire in fully automatic mode like the M16, they do not have such “spray fire” capability. *Heller II*, however, declares that “semi-automatics . . . fire almost as rapidly as automatics,” citing Siebel’s testimony that a 30-round magazine from an UZI assault pistol “was emptied in slightly less than two seconds on full automatic, while the same magazine was emptied in just five seconds on semi-automatic.”¹¹⁴ *Kolbe* similarly compares rates of fire of the M16 and AR-15:

[T]he automatic firing of all the ammunition in a large-capacity thirty-round magazine takes about two seconds, whereas a semiautomatic rifle can empty the same magazine in as little as five seconds. See, e.g., J.A. 1120 (“[S]emiautomatic weapons can be fired at rates of 300 to 500 rounds per minute, making them virtually indistinguishable in practical effect from machine guns.”)¹¹⁵

Although an M16 rifle is capable of fully automatic fire and the AR-15 is limited to semiautomatic fire, their rates of fire (two seconds and as little as five seconds, respectively, to empty a thirty-round magazine) *are nearly identical*.¹¹⁶

¹¹² CHARLES SASSER & CRAIG ROBERTS, ONE SHOT–ONE KILL 135 (1990).

¹¹³ To minimize “spray and pray,” the M16A2, developed in 1983, substituted a three-round burst mode for the fully automatic mode in the M16A1. But the burst mode reduced accuracy due to inconsistent trigger pull and was rarely used. Special forces and other select units began using the smaller selective-fire M4A1 carbine in the 1990s with its fully automatic mode. Over the last several years, the military has been replacing the M16 with the M4A1 in infantry units, thus doing away with the burst mode and returning to the fully automatic mode in its standard service rifles. See Christian Beekman, *Here’s why the US military is replacing the M16*, BUSINESS INSIDER (Oct. 28, 2015), <http://www.businessinsider.com/heres-why-the-us-military-is-replacing-the-m16-2015-10>; Kyle Jahner, *Army continues rollout of more durable, full auto M4A1*, ARMYTIMES (July 4, 2015), <https://www.armytimes.com/news/your-army/2015/07/04/army-continues-rollout-of-more-durable-full-auto-m4a1/>.

¹¹⁴ *Heller v. District of Columbia (Heller II)*, 670 F.3d 1244, 1263 (D.C. Cir. 2011) (quoting Testimony of Brian J. Siebel, Brady Center to Prevent Gun Violence, at 1 (Oct. 1, 2008)) (internal quotations omitted).

¹¹⁵ *Kolbe v. Hogan*, 849 F.3d 114, 125 (4th Cir. 2017).

¹¹⁶ *Id.* at 136 (emphasis added).

Before examining the accuracy of these claims, it is necessary to establish a baseline for comparing rates of fire. That baseline is the semiautomatic handgun, which *Heller* recognizes as a firearm protected by the Second Amendment. Semiautomatic handguns and semiautomatic rifles operate the same way: one round fired for each trigger pull with automatic loading of the next round. The average shooter can fire a semiautomatic handgun at a rate of about 2-3 rounds per second while pointing at a single stationary target. A Force Science Research Center 2007 study on police-attacker shooting performance showed that a large majority of inexperienced handgun shooters in the test group could fire three rounds from a semiautomatic handgun in 1.5 seconds (2 rounds per second), and some were able to fire three rounds in one second.¹¹⁷ In *Rampage Nation: Securing America from Mass Shootings*, Louis Klarevas says the average shooter’s rate of fire for a semiautomatic handgun is two rounds per second, while the expert shooter can fire three rounds per second.¹¹⁸ As shown below, the rate of fire for semiautomatic AR-15 rifle is nearly identical to the semiautomatic handgun. If AR-15s are capable of “spray firing,” then so are the handguns protected by *Heller*.¹¹⁹

Determining comparative rates of fire is more complicated than federal court decisions suggest. There are two ways to measure a weapon’s rate of fire. One method measures the total time from the first shot to the last shot, breaking that time into “splits” or time intervals between each shot. This typically is used when measuring cyclic (mechanical) rate of fire. The other

¹¹⁷ Force Science Ins., *New Tests Show Deadly Accuracy & Startling Speed Even Inexperienced Shooters Can Achieve in Shooting Cops*, FORCE SCIENCE (Feb. 27, 2007), <http://www.forcescience.org/fsnews/66.html>. The result includes reaction time. The report summary states:

The shooters were told that at the sound of a timer they should “shoot as fast as you can, as well as you can, trying to hit the target with every shot but not slowing down in an attempt to gain accuracy,” [Ron] Avery said [Avery is an FSRC technical advisor]. “We wanted them to get the first round off in under 1 second and to complete 3 shots within 1.7 seconds. That’s similar to a real assailant bringing a gun out and firing as rapidly as he can.” They were not told what part of the target to try to hit, just “wherever you feel is best.”

Id. A summary of the test and results appears in Force Science Institute, *New reaction-time study addresses what’s ‘reasonable’ in armed-suspect encounters*, POLICEONE.COM (May 26, 2011), <https://www.policeone.com/Officer-Safety/articles/3705348-New-reaction-time-study-addresses-whats-reasonable-in-armed-suspect-encounters/>.

¹¹⁸ LOUIS KLAREVAS, *RAMPAGE NATION: SECURING AMERICA FROM MASS SHOOTINGS* 211-12 (2016).

¹¹⁹ See Eugene Volokh, *Implementing the Right to Keep and Bear Arms for Self-Defense: An Analytical Framework and a Research Agenda*, 56 UCLA L. REV. 1443, 1484 (2009) (“The laws generally define assault weapons to be a set of semiautomatic weapons (fully automatic weapons have long been heavily regulated, and lawfully owned fully automatics are very rare and very expensive) that are little different from semiautomatic pistols and rifles that are commonly owned by tens of millions of law-abiding citizens. ‘Assault weapons’ are no more ‘high power’ than many other pistols and rifles that are not covered by the bans.”) (footnote omitted).

method adds the shooter's reaction time, which is the time interval between the shooter hearing the start signal and firing the first round. The latter method provides a more realistic measurement for real-world scenarios.

With a cyclic (mechanical) rate of fire of 700-900 rounds per minute in full automatic mode,¹²⁰ an M16 can empty a standard 30-round magazine in 2 to 2.5 seconds. But the M16's cyclic rate of fire becomes theoretical after the first magazine is emptied. It does not account for magazine changes to reload or the fact that firing multiple rounds without pause will cause the barrel to overheat. To fire that rapidly over a sustained period, the shooter would have to reload every two seconds, which would add another two-to-five seconds per 30-round magazine, depending on the shooter's proficiency.¹²¹ Additionally, because the M16's barrel is not intended for sustained fully automatic fire, it will overheat and eventually rupture around 500 rounds.¹²²

Federal court claims that the semiautomatic AR-15 is capable of high rates of fire "almost as rapid"¹²³ or "nearly identical"¹²⁴ to the fully automatic M16 are inaccurate. *Kolbe* cites evidence that "semiautomatic weapons can be fired at rates of 300 to 500 rounds per minute, making them virtually indistinguishable in practical effect from machine guns."¹²⁵ Aside from the fact that *Kolbe*'s data indicates that semiautomatics fire at only half the rate of fully automatics, anyone familiar with the operation of the civilian AR-15 knows that it does not fire 300 to 500 rounds per minute. To begin with, a cyclic rate of fire for a semiautomatic firearm is meaningless. Because a semiautomatic firearm fires only one round with each pull of the trigger, it can fire only as fast as the individual shooter can pull the trigger. How fast the shooter can pull the trigger will depend on the shooter's skill and endurance as well as the weapon's firing mechanism (weight of trigger pull, trigger reset distance, buffer spring, etc.). Even if a shooter can fire multiple

¹²⁰ ARMY RIFLE MARKSMANSHIP MANUAL, *supra* note 60, at 2-1. A cyclic rate of fire measures how fast the weapon can fire mechanically and does not consider operator factors such as reaction time, reloading, and aiming.

¹²¹ See Maddhatter111111, *Marine speed reloading m4 2*, YOUTUBE (Mar. 5, 2009), <https://www.youtube.com/watch?v=Hx0JzYcwUiY> (showing U.S. Marine speed reload at 2.6 seconds).

¹²² Fire to destruction testing of the M16A2 at the Rock Island Arsenal in 1996 showed that the barrel ruptured at 491 rounds. Jeff Windham, *Fire to Destruction Test of 5.56mm M4A1 Carbine and M16A2 Rifle Barrels*, ENGINEERING SUPPORT DIRECTORATE ROCK ISLAND ARSENAL, ILLINOIS 1-2 (Sept. 1996), www.dtic.mil/get-tr-doc/pdf?AD=ADA317929. For more sustained automatic fire, the military uses the Squad Automatic Weapon (SAW) as well as larger caliber machine guns, all of which have heavier barrels that can be readily replaced when degraded. See, e.g., Capt. JT Elder & Patricia Herndon, *Harnessing the Power of Technology for the Warfighter—USSOCOM S&T MK48 MOD1 Machinegun—Sustained Fire Upgrade*, NAVSEA WARFARE CENTERS (April 2016), https://ndiastorage.blob.core.usgovcloudapi.net/ndia/2016/armament/18355_Armstrong.pdf.

¹²³ *Heller v. District of Columbia (Heller II)*, 670 F.3d 1244, 1263 (D.C. Cir. 2011).

¹²⁴ *Kolbe v. Hogan*, 849 F.3d 114, 136 (4th Cir. 2017).

¹²⁵ *Id.* at 125 (citing *J.A.* 1120).

2018]

“Assault Weapon” Myths

217

rounds in a single second, that does not mean he or she can maintain that rate of fire for a longer period. To fire 300 to 500 rounds per minute, a shooter would have to pull the trigger five to eight times *a second* for 60 seconds. The shooter also would need to reload, which adds an additional two to five seconds (or more, depending on proficiency) for each magazine used.

To further show that a semiautomatic AR-15 fires almost as rapidly as the fully automatic M16, both *Kolbe* and *Heller II* declare that a semiautomatic rifle can empty a 30-round magazine “in as little as five seconds.”¹²⁶ While *Kolbe* sourced this assertion with the flawed “300 to 500 rounds per minute” figure,¹²⁷ the D.C. Circuit in *Heller II* relied on a statement from gun-control advocate Brian J. Siebel, who made the “five seconds” claim:

Although semi-automatic firearms, unlike automatic M-16s, fire “only one shot with each pull of the trigger,” . . . semi-automatics still fire almost as rapidly as automatics. *See* Testimony of Brian J. Siebel, Brady Center to Prevent Gun Violence, at 1 (Oct. 1, 2008) (“30-round magazine” of UZI “was emptied in slightly less than two seconds on full automatic, while the same magazine was emptied in just five seconds on semi-automatic”). Indeed, it is difficult to draw meaningful distinctions between the AR-15 and the M-16.¹²⁸

You can empty a 30-round magazine on a semiautomatic AR-15 in five seconds—if you are Jerry Miculek. Many consider Miculek to be the world’s fastest shooter.¹²⁹ He has fired five rounds from an AR-15 in .96 seconds and emptied a 30-round magazine with an AR-15 in 5.3 seconds.¹³⁰ If you are not Jerry Miculek, it will take longer. I asked Jeff Gurwitch, a Special Forces veteran, firearms expert, and competitive shooter, to see how fast he could empty a 30-round magazine using a semiautomatic AR-15. It took him

¹²⁶ *Id.* at 125, 136; *Heller II*, 670 F.3d at 1263.

¹²⁷ *Kolbe*, 849 F.3d at 125.

¹²⁸ *Heller II*, 670 F.3d at 1263. The district court in *Kolbe* cited Siebel’s statement when concluding that the difference in rate of fire between a semiautomatic and fully automatic weapon is “minimal,” 42 F. Supp. 3d 768, 793-94 (D. Md. 2014), *aff’d en banc sub nom.* *Kolbe v. Hogan*, 849 F.3d 114 (4th Cir. 2017), and that statement was in the *Kolbe* record before the Fourth Circuit at J.A. 1150.

¹²⁹ For a montage of Miculek’s speed shooting, see Miculek.com-The Leaders in Gun Control!, *Fastest Shooter OF ALL TIME! Jerry Miculek Incredible Shooting Montage*, YOUTUBE (July 28, 2014), <https://www.youtube.com/watch?v=WYIq9FdTgwM>.

¹³⁰ See the Miculek videos at Miculek.com-The Leaders in Gun Control!, *AR-15 5 shots in 1 second with fastest shooter ever, Jerry Miculek (Shoot Fast!)*, YOUTUBE (June 20, 2013), https://www.youtube.com/watch?v=v3gf_5MR4tE (5 rounds); Miculek.com-The Leaders in Gun Control!, *30 Caliber Magazine Clip in a Half Second! (With the world’s FASTEST shooter, Jerry Miculek)*, YOUTUBE (Feb. 6, 2014), <https://www.youtube.com/watch?v=REdjjLBaiOs> (30 rounds with a “clip” spoof). Both of Miculek’s times include reaction time. Miculek typically uses a trigger with a light pull and very short reset. *See* Miculek.com-The Leaders in Gun Control!, *Jerry Miculek’s Gear*, <https://miculek.com/guns-gear/jerry-miculeks-gear/> (last visited Sept. 18, 2018) (indicating that Miculek uses the American Gold trigger).

6.4 seconds.¹³¹ Being an avid civilian shooter, I have fired thousands of rounds through an AR-15. My best time was slower at almost seven seconds.¹³²

These rates of fire are not “nearly identical” to an M16 firing in automatic mode. Adding half-a-second reaction time to the cyclic rate, a fully automatic M16 can empty a 30-round magazine in 2.5 seconds, which is 12 rounds per second.¹³³ By contrast, only the world’s fastest shooters can empty a 30-round magazine in “as little as five seconds,” which is twice as slow as the M16. The average shooter likely will take at least eight-to-ten seconds to empty a 30-round magazine with an AR-15, which is almost four times slower than the M16.¹³⁴ Few shooters will retain that rate of fire for an entire minute, probably slowing closer to one or two rounds per second at the end. The rate for an inexperienced shooter will be even less.

Such rates of fire, of course, do not occur in real-world situations. Besides reloading, the shooter will be aiming at a target or multiple targets that likely are moving and the weapon’s accuracy will be affected as recoil impulses move the barrel upwards after each shot. Dave Kopel rightly has pointed out that “the only meaningful rate of fire for a weapon is how fast a person, shooting at actual targets, can hit those targets.”¹³⁵ Automatic fire is notoriously inaccurate. That is why the military specifies that the maximum *effective* rate of fire for an M16/M4 in fully automatic mode is 150-200 rounds per minute, even though its cyclic rate is five times higher.¹³⁶ Rapid semiautomatic fire likewise can be inaccurate. The military’s maximum *effective* rate of fire for an M16/M4 in semiautomatic mode is only 45 rounds per minute, about four times slower the fully automatic rate.¹³⁷ Accurate semiautomatic fire thus results in only about four rounds in five seconds, not

¹³¹ Video in possession of the author. The result includes reaction time.

¹³² Video in possession of the author. I used a LaRue OBR 5.56 rifle with a Geissele SSA-E trigger and PACT Club shot timer. The result includes reaction time.

¹³³ See *supra* text accompanying note 121.

¹³⁴ This figure is an extrapolation from the times discussed *supra* in text accompanying notes 130-32. It may take even longer. Klarevas says that an average shooter can fire two rounds per second from an AR-15, which would require as many as 15 seconds to empty a 30-round magazine. See KLAREVAS, *supra* note 118, at 211-12.

¹³⁵ Dave Kopel, *Rational Basis Analysis of “Assault Weapon” Prohibition*, 20 J. CONTEMP. L. 381, 389 (1994). The U.S. Army’s 2016 Rifle and Carbine Training Circular explains:

[t]he rifleman’s primary role is to engage the enemy with well-aimed shots In this capacity, the rate of fire for the M4 rifle is not based on how fast the Soldier can pull the trigger. Rather, it is based on how fast the Soldier can consistently acquire and engage the enemy with accuracy and precision.

ARMY RIFLE AND CARBINE TRAINING CIRCULAR, *supra* note 59, at 5-1.

¹³⁶ ARMY RIFLE MARKSMANSHIP MANUAL, *supra* note 60, at 2-1. Another Army manual puts the maximum effective rate of fire for the M4/M16 on full automatic at 90 rounds per minute. See U.S. DEP’T OF ARMY, TRAINING MANUAL 9-1005-319-10, OPERATORS MANUAL, at 0002 00-1 to 0002 00-2 (June 2010), https://www.sterlingarsenal.com/uploads/TM_9-1005_M16_Operator_Manual_-_2010.pdf [hereinafter ARMY OPERATORS MANUAL].

¹³⁷ ARMY RIFLE MARKSMANSHIP MANUAL, *supra* note 60, at 2-1.

30 rounds as *Kolbe* claims. Additionally, the maximum *sustained* rate of fire for the M4/M16—the rate at which the weapon can continue to be fired indefinitely without overheating—is even lower at 12-15 rounds per minute.¹³⁸ Even with sustained suppressive fire, military training is designed to produce rapid semiautomatic fire that “will result in a well-aimed shot every one or two seconds.”¹³⁹ Citing several expert declarations in *Robertson v. Denver*,¹⁴⁰ Kopel notes that “[i]t is nearly impossible for even trained shooters to fire on a target at much faster than one shot per second.”¹⁴¹

Even if *Kolbe*’s “nearly identical” claim is understood as proximate rather than proportional—that is, the rates of fire are “nearly identical” because they differ only by a few seconds—the attempt to favorably compare the semiautomatic AR-15 with the fully automatic M16 still fails. Using semiautomatic handguns as a baseline, the rate of fire for the AR-15 is “nearly identical” to the handgun, not the M16. As previously noted, the Force Science Research Center study showed that inexperienced shooters could fire two-to-three rounds per second from a semiautomatic handgun at a single stationary target.¹⁴² My own testing showed that I was able to fire three rounds from a semiautomatic handgun in .93 seconds and to empty a 15-round magazine in 3.9 seconds.¹⁴³ That rate is less than a second longer than it took me to empty a 30-round magazine with my AR-15. Louis Klarevas in *Rampage Nation: Securing America from Mass Shootings* sets the average shooter’s rates of fire for a semiautomatic handgun and semiautomatic “assault rifle” at an identical two rounds per second, while the expert shooter can fire both weapons at three rounds per second.¹⁴⁴ Well-aimed fire at multiple targets will be even slower. The AR-15 is no more dangerous in its rate of fire than the vast majority of handguns.

Further evidence that “assault weapons” have not been used in real-life for achieving rates of fire comparable to fully automatic weapons comes from a *New York Times* article comparing audio recordings of the Las Vegas shooting, the Pulse nightclub shooting in Orlando, and the firing of a pre-1986 fully automatic Colt AR-15.¹⁴⁵ During the periods captured in the three audio recordings, the Orlando shooter fires 24 shots in nine seconds, the Las Vegas shooter fires 90 shots in ten seconds, and a fully automatic weapon

¹³⁸ ARMY OPERATORS MANUAL, *supra* note 136, at 0002-01 to 0002-02.

¹³⁹ ARMY RIFLE MARKSMANSHIP MANUAL, *supra* note 60, at 7-9. This belies claims by gun-control advocates that AR-15s can be fired rapidly and accurately.

¹⁴⁰ *Robertson v. City & Cty. of Denver*, No. 90CV603 (Denver Dist. Ct. Feb. 26, 1993).

¹⁴¹ Kopel, *supra* note 135, at 390.

¹⁴² Force Science Inst., *supra* note 117.

¹⁴³ I used a Sig Sauer P226 Legion 9mm SAO (single action only) handgun and PACT Club shot timer. The results include reaction time.

¹⁴⁴ KLAREVAS, *supra* note 118, at 211-12.

¹⁴⁵ Larry Buchanan et al., *Nine Rounds a Second: How the Las Vegas Gunman Outfitted a Rifle to Fire Faster*, N.Y. TIMES (Oct. 5, 2017), <https://www.nytimes.com/interactive/2017/10/02/us/vegas-guns.html>.

fires 98 shots in seven seconds.¹⁴⁶ The Orlando shooter fired at a rate of 2.7 rounds per second during the recording, which is comparable to the rate-of-fire results for AR-15s and semiautomatic handguns described above.¹⁴⁷ By contrast, the Las Vegas shooter, apparently assisted by a bump-fire stock, fired at a rate of 9 rounds per second, and the fully automatic rifle fired at an even higher rate of 14 rounds per second.

Some may argue that semiautomatic rates of fire are irrelevant when add-ons like bump stocks or trigger cranks can increase the AR-15's rate of fire almost to the fully automatic rate. Until the tragic mass shooting in Las Vegas in September 2017, such devices had not been used in any mass shooting, and there is no evidence that they play any significant part in gun crimes. They are not used by the military or law enforcement, they are notoriously inaccurate and prone to misfiring, and they are not particularly useful for target shooting or self-defense. Since they are accessories and not part of the AR-15's original configuration, they can be regulated or banned separately.¹⁴⁸ The whole point of these devices is to make the semiautomatic AR-15 fire almost as rapidly as the fully automatic M16. If the two weapons' rates of fire are "nearly identical," as *Kolbe* claims,¹⁴⁹ these devices would be unnecessary.

The attempt by *Kolbe* and *Heller II* to depict "assault weapons" as having rates of fire virtually indistinguishable from fully automatic military assault rifles is both counterintuitive and lacks any reliable evidentiary support. The AR-15 does not "spray" rounds like the fully automatic M16. Nelson Lund correctly observes that "if the rate of fire in both modes were virtually identical, one wonders why the military would bother making all of its battle rifles capable of automatic fire."¹⁵⁰ The simple fact that the M16 and M4 have two separate modes of fire—semiautomatic and fully automatic (or burst)—indicates that the rates of fire in both modes are not "nearly identical."

So where did the Fourth and D.C. Circuits get their "facts"? The Fourth Circuit's "300 to 500 rounds per minute" figure comes from the 1994 United States House of Representatives Committee on the Judiciary Report on the proposed federal "assault weapons" ban.¹⁵¹ The committee report cites earlier testimony from Dewey R. Stokes, who at the time was national president of the Fraternal Order of Police and a leading proponent of gun

¹⁴⁶ *Id.*

¹⁴⁷ The Orlando shooter used a semiautomatic Sig Sauer MCX carbine, which is similar to an AR-15.

¹⁴⁸ On March 23, 2018, the Justice Department has issued proposed administrative rule banning bump stocks. *See* Bump-Stock-Type Devices, 83 Fed. Reg. 13, 456 (proposed Mar. 29, 2018).

¹⁴⁹ *Kolbe v. Hogan*, 849 F.3d 114, 136 (4th Cir. 2017).

¹⁵⁰ Nelson Lund, Fourth Circuit Shootout: "Assault Weapons" and the Second Amendment, 24 GEO. MASON L. REV. 1233, 1239 n.40 (2017).

¹⁵¹ H.R. REP. NO. 103-489, at 18 (1994) (appearing in the *Kolbe* Joint Appendix at J.A. 1120).

control.¹⁵² Stokes had testified before a June 1991 House subcommittee hearing on “assault weapons,” where he stated that “[a]ssault weapons dramatically escalate the firepower of the user. Some technical documents on the firing rate of these weapons is at 300 or even 500 rounds per minute.”¹⁵³ Stokes neither identified nor produced those “technical documents,” and there is nothing to indicate that he was a firearms expert or personally observed that rate of fire from a semiautomatic AR-15 or any other “assault weapon.” The Fourth Circuit’s conclusion that the semiautomatic AR-15 has a rate of fire “nearly identical” to a fully automatic M16 was based on a single unsubstantiated claim made by a gun-control advocate 26 years ago.

Siebel’s “testimony” cited by the D.C. Circuit was an unsworn statement made before the District of Columbia’s Committee on Public Safety, which urged enactment of the District’s “assault weapons” ban. Siebel is not a firearms expert—at the time, he was an attorney and lobbyist with the Brady Center, a gun-control advocacy group. His statement refers to an earlier police test: “When San Jose, California, police test-fired an UZI, a 30-round magazine was emptied in slightly less than two seconds on full automatic, while the same magazine was emptied in just five seconds on semiautomatic.”¹⁵⁴ This test originally was mentioned in a 1988 magazine article by Chief Joseph D. McNamara of the San Diego Police Department, also a gun-control advocate.¹⁵⁵ McNamara explained that

[a]fter a San Jose officer was shot with an Uzi, we tested it on our police firing range. Fully automatic, the weapon is illegal; it fired a 30-round clip in slightly less than two seconds. On semiautomatic, it fired the same clip

¹⁵² Garry Lee, Taking the Fight Against Gun Control to the Police, WASHINGTON POST (Aug. 15, 1991), https://www.washingtonpost.com/archive/politics/1991/08/15/taking-the-fight-against-gun-control-to-the-police/c1de803d-9213-4bad-9892-c9055836508f/?utm_term=.0af9cd585be3; see also OSHA GRAY DAVIDSON, UNDER FIRE: THE NRA AND THE BATTLE FOR GUN CONTROL 274-75 (1998).

¹⁵³ Hearing on Selected Crime Issues: Prevention and Punishment Before the Subcomm. on Crime & Criminal Justice of the H. Comm. on the Judiciary, 102nd Cong., 1st Sess. (May 23, 29, June 12, 26, July 10, 17, and 25, 1991) at 299 (statement of Dewey R. Stokes, National President, Fraternal Order of Police) (Semiautomatic Assault Weapons hearing on June 12, 1991), http://njlaw.rutgers.edu/collections/gdoc/hearings/9/92164661/92164661_2.pdf.

¹⁵⁴ Council of D.C., Comm. on Pub. Safety & the Judiciary, Rep. on Bill 17-843, “Firearms Registration Amendment Act of 2008” (2008) (attachment of testimony of Brian J. Siebel, October 1, 2008), <http://dcclims1.dccouncil.us/images/00001/20090513152155.pdf> [hereinafter Report on Bill 17-843].

¹⁵⁵ Joseph D. McNamara, *The Need for Gun Control: Developing a Rational, National Firearms Policy*, THE POLICE CHIEF 26 (Mar. 1988). Siebel provided no source citation for the referenced police test in his written statements to the council, but he earlier had referred to the test in his publication *Assault Weapons: “Mass Produced Mayhem”* (2008), which in turn cited a reference to the test in a 1992 article by Judith Bonderman entitled *In Search of Justice: Compensation for Victims of Assault Weapon Violence*, 20 PRODUCT SAFETY & LIABILITY REP. 622 (June 26, 1992). The Bonderman article cited McNamara’s piece in *The Police Chief* magazine.

in five seconds. These weapons are defined as rifles and purchased legally

.....¹⁵⁶

McNamara did not specify the model of the Uzi, nor did he provide any information about the skill of the shooter, type of timing device used (stopwatch or digital shot timer), or whether the results included reaction time;¹⁵⁷ in short, there is no way to verify the accuracy of McNamara's results. Yet the results of this one unconfirmed "test," reported in three sentences in trade magazine almost 30 years ago, has become anti-gun advocates' oft-repeated agitprop and a key piece of evidence in federal appellate court decisions upholding broad bans on popular firearms.

2. *Comparative rates of fire: Mass shootings*

Other than the 2017 Las Vegas shooting, mass shooters have not used AR-15s or other "assault weapons" to produce rates of fire higher than those attainable with semiautomatic handguns in incidents for which average rates of fire can be determined. I am not suggesting that the mass shooters discussed below actually fired at the rates specified; rather, my point is that the same number of rounds could have been fired by semiautomatic handguns within the time elapsed for the shootings. Having a semiautomatic rifle rather than a semiautomatic handgun apparently did not result in any significant rate-of-fire advantage. Of course, any discussion of mass shootings solely from a rate-of-fire perspective will seem detached from the tragic loss of life involved. Such analysis must be performed, however, if courts are going to rely on rate-of-fire comparisons to reach legal conclusions about the constitutionality of "assault weapon" bans.

One of the first modern mass shooting tragedies occurred in 1989 at Cleveland Elementary School in Stockton, California. The shooter used a semiautomatic AK-47-style rifle to kill five children and injure 31 on the school playground. He fired 105 rounds during the shooting, which lasted three minutes.¹⁵⁸ According to the California Attorney General's Report on

¹⁵⁶ McNamara, *supra* note 155, at 1.

¹⁵⁷ The standard police timing device in 1988 was a stopwatch. Richard Mann, *Shot Timers – The Time of Your Life*, NRA SHOOTING ILLUSTRATED (Aug. 2, 2016), <https://www.shootingillustrated.com/articles/2016/8/2/shot-timers-the-time-of-your-life/>. Results were imprecise and dependent on the reaction time of the person running the stopwatch. *Id.*

¹⁵⁸ There is some uncertainty as to exactly how long the shooting lasted. Most reports agree it was three minutes. See, e.g., Mark Emmons & Josh Richman, *Stockton shooting: 25 years later, city can't forget its worst day*, THE MERCURY NEWS (Aug. 12, 2016) <http://www.mercurynews.com/2014/01/16/stockton-shooting-25-years-later-city-cant-forget-its-worst-day/> ("Purdy's three-minute shooting rampage left five children dead and 30 teachers and students wounded"); Joshua Logan, *The Stockton Schoolyard Shooting*, OFFICER.COM (June 7, 2016) <https://www.officer.com/tactical/article/12211156/the-stockton-schoolyard-shooting> ("The attack lasted for three minutes from 11:59 am to 12:02 p.m. Pacific Time."); Tim O'Rourke, *Chronicle*

the shooting, the shooter’s AK-47 variant “was capable of firing those bullets at about two rounds per second.”¹⁵⁹ To fire 105 rounds in three minutes would require about 35 rounds per minute, well within the rate of fire for semiautomatic handguns.

Using an AR-15, the Newtown shooter, according to *Kolbe*, “fired at least 155 rounds within five minutes,” which tragically killed 20 first-graders and six adults.¹⁶⁰ Assuming he made five magazine changes that took five seconds each, that would be about 34 rounds per minute, again within the rate of fire for semiautomatic handguns. The Aurora movie theater shooter killed 12 and wounded at least 58 in six minutes.¹⁶¹ He fired 76 rounds total: 65 rounds from an AR-15 rifle before it jammed, six shotgun rounds (with multiple pellets per round), and five .40 caliber handgun rounds.¹⁶² Sounds of at least 30 shots can be heard in a recorded 27-second call to 911.¹⁶³ That is about one round per second, again a rate easily attainable with a semiautomatic handgun. The off-duty sheriff’s deputy who used his police-issued AR-15 semiautomatic rifle to kill six and wound one in Crandon, Wisconsin, fired 30 rounds in about one minute, also about one round every two seconds.¹⁶⁴ The Parkland school shooter reportedly fired 150 rounds in six-and-one-half minutes, killing 17 and wounding 17 more.¹⁶⁵ There are conflicting reports about whether he used 10-round or 30-round

Covers: A bloody, horrific school day in Stockton, SAN FRANCISCO CHRONICLE (Jan. 18, 2016), <http://www.sfchronicle.com/news/article/Chronicle-Covers-A-bloody-horrific-school-day-6751921.php> (“He went through more than 100 rounds in three minutes”). *But see Slaughter in a School Yard*, TIME MAGAZINE (June 24, 2001), <http://content.time.com/time/printout/0,8816,151105,00.html> (describing the assault as lasting four minutes).

¹⁵⁹ Nelson Kempsey et al., *A Report to Attorney General John K. Van de Kamp on Patrick Edward Purdy and the Cleveland School Killings* 18 (Oct. 1989) <https://schoolshooters.info/sites/default/files/Purdy%20-%20official%20report.pdf>.

¹⁶⁰ *Kolbe v. Hogan*, 849 F.3d 114, 120 (4th Cir. 2017). *See generally* Office of the State’s Attorney, Judicial District of Danbury, REPORT OF THE STATE’S ATTORNEY FOR THE JUDICIAL DISTRICT OF DANBURY ON THE SHOOTINGS AT SANDY HOOK ELEMENTARY SCHOOL AND 36 YOGANANDA STREET, NEWTOWN, CONNECTICUT ON DECEMBER 14, 2012 (2013) [hereinafter SANDY HOOK REPORT].

¹⁶¹ *Aurora, Colo. theater shooting timeline, facts*, ABC7 (July 26, 2012), <http://abc7.com/archive/8743134>.

¹⁶² Casey Wian et al., “*He intended to kill them all*,” prosecutor in theater shooting says, CNN NEWS (Jan. 9, 2013), [http://www.cnn.com/2013/01/09/justice/colorado-theater-shooting/index.html?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+rss%2Fenn_latest+\(RSS%3A+Most+Recent\)](http://www.cnn.com/2013/01/09/justice/colorado-theater-shooting/index.html?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+rss%2Fenn_latest+(RSS%3A+Most+Recent)); Phil Tenser, “*Aurora police testify in James Holmes’ trial: 240 ballistic impacts found after theater shooting*,” KJRH NEWS (May 14, 2015), <http://www.kjrh.com/news/national/aurora-police-testify-in-james-holmes-trial-240-ballistic-impacts-found-after-theater-shooting>.

¹⁶³ Wian, *supra* note 162.

¹⁶⁴ *Statement of Attorney General Van Hollen on Crandon Multiple Homicides*, WISCONSIN DEPT. OF JUSTICE (Oct. 9, 2007), <https://www.doj.state.wi.us/news-releases/statement-attorney-general-van-hollen-crandon-multiple-homicides>.

¹⁶⁵ Evan Perez, *Florida school shooter could have fired many more bullets*, CNN (Feb. 27, 2018), <https://www.cnn.com/2018/02/27/us/florida-school-shooter-ammunition-left/index.html>.

magazines.¹⁶⁶ Assuming five seconds for each magazine change, that averages between 23 to 28 rounds per minute depending on magazine size, again well within the capability of a semiautomatic handgun.

Perhaps the highest rate of fire in a mass shooting occurred at the First Baptist Church in Sutherland Springs, Texas. The shooter tragically killed 26 and wounded 20, using 15 30-round magazines to fire 450 rounds in seven minutes.¹⁶⁷ The rate of fire likely was higher was due to multiple stationary victims in very close proximity to the shooter. Assuming five seconds for each magazine change, this would have reduced his total shooting time to six minutes. That results in an average rate of fire of 77 rounds a minute or 1.28 rounds per second. By comparison, a shooter with semiautomatic handgun firing two rounds per second and using standard 15-round magazines could fire about 80 rounds a minute with magazine changes.

Other mass shootings show that semiautomatic handguns can be fired at rates or volumes comparable to the “assault weapons” used in the Stockton, Newtown, Aurora, Orlando, Sutherland Springs, and Parkland shootings. Using a Glock 19 semiautomatic handgun with a 33-round magazine, the Tucson shooter fired 33 rounds in 15 seconds, some two rounds per second.¹⁶⁸ The shooter at Virginia Tech used two semiautomatic handguns, a 9mm Glock 19 and a .22 caliber Walther P22.¹⁶⁹ At the Norris Hall location, he fired 174 rounds from the two handguns in about 10 minutes, walking back and forth among classrooms while killing 30 and wounding 17.¹⁷⁰ The Fort Hood shooter used an FN 5.7 semiautomatic handgun to kill

¹⁶⁶ Compare Nicholas Nehamas & David Smiley, *Florida school shooter's AR-15 may have jammed, saving lives, report says*, MIAMI HERALD (Feb. 27, 2018), <https://www.miamiherald.com/news/local/community/broward/article202486304.html> (stating the shooter used 10 round magazines) with Alex Daugherty & Mary Ellen Klas, *Limiting gun-magazine size poses a problem for Marco Rubio*, TAMPA BAY TIMES (Mar. 29), <http://www.tampabay.com/florida-politics/buzz/2018/03/29/limiting-gun-magazine-size-poses-a-problem-for-marco-rubio/> (stating the shooter used 30 round magazines).

¹⁶⁷ Adam Goldman et al., *Texas Church Shooting Video Shows Gunman's Methodical Attack, Official Says*, THE NEW YORK TIMES (Nov. 8, 2017), <https://www.nytimes.com/2017/11/08/us/texas-shooting-video-devin-kelley.html>; Holly Yan, *“Be quiet! It's him!” Survivors say shooter walked pew by pew looking for people to shoot*, CNN (Nov. 9, 2017), <https://www.cnn.com/2017/11/07/us/texas-church-shooting-scene/index.html>.

¹⁶⁸ KLAREVAS, *supra* note 118, at 209; David Nakamura et al, *Videos show details of Tucson shooting*, WASH. POST (Jan. 19, 2011), <http://www.washingtonpost.com/wp-dyn/content/article/2011/01/18/AR2011011801155.html>; Press Release, James Turgal, *Jared Lee Loughner Sentenced in Arizona on Federal Charges in Tucson Shooting*, FBI PHOENIX DIVISION (Nov. 8, 2012), <https://archives.fbi.gov/archives/phoenix/press-releases/2012/jared-lee-loughner-sentenced-in-arizona-on-federal-charges-in-tucson-shooting>.

¹⁶⁹ TriData Division, *Mass Shootings at Virginia Tech: Addendum to the Report of the Review Panel* 71 (Nov. 2009), <https://schoolshooters.info/sites/default/files/Virginia%20Tech%20Addendum%20to%20the%20Official%20Report.pdf>.

¹⁷⁰ *Id.* at 92. The shooter also killed two students at West Ambler Johnston Hall two hours before entering Norris Hall.

2018]

“Assault Weapon” Myths

225

13 and wound 30. He fired 214 rounds in 10 minutes.¹⁷¹ The Wisconsin church shooter fired 22 rounds from a 9mm Beretta semiautomatic handgun in less than a minute.¹⁷²

With the sole exception of the Las Vegas shooter who apparently used a bump stock, there is no evidence that any mass shooter has fired at AR-15’s maximum rate of fire.¹⁷³ Criminologist Gary Kleck, whose research is cited in *Heller*,¹⁷⁴ made the following observations about mass shootings involving large-capacity magazines from 1994-2013 with known rates of fire:

In the 25 incidents for which average rates of fire could be determined, shooters never maintained an average rate of fire anywhere as fast as that at which their firearms were capable of firing. Shooters firing as fast as the gun allows can easily fire three rounds per second with a typical semiautomatic firearm, that is, with only about one third of a second between rounds. In only three incidents were mass shooters know to have averaged less than 2 s between rounds. This is no more than one sixth of the maximum rate of fire of which semiautomatic guns are capable . . .

¹⁷⁵

The three incidents Kleck identifies as having an average rate of fire of less than two seconds per shot involved one semiautomatic handgun (Tucson), one semiautomatic AR-15 (Newtown), and one semiautomatic AK-47 variant illegally modified to fire automatically (Carson City).¹⁷⁶

The claim that AR-15s are capable of “spray firing” like machine guns is myth, not fact. Accurate rate-of-fire comparisons prove false *Kolbe*’s

¹⁷¹ Rick Jervis, *Fort Hood massacre trial: Hasan goes on the defense*, USA TODAY (July 8, 2013), <https://www.usatoday.com/story/news/nation/2013/07/08/fort-hood-shooting-trial-hasan-court-martial/2427095/>; Charley Keyes, *Fort Hood witness says he feared there were more gunmen*, CNN (Oct. 20, 2010), <http://www.cnn.com/2010/CRIME/10/20/texas.fort.hood.shootings/index.html?hpt=T1>.

¹⁷² Chris Hawke, *Church, Police Probe 7 Murders*, CBS NEWS (Mar. 14, 2005), <https://www.cbsnews.com/news/church-police-probe-7-murders/>; Associated Press, *Officials end investigation of deadly church shooting*, STARNEWS ONLINE (Aug. 3, 2005), <http://www.starnewsonline.com/news/20050803/officials-end-investigation-of-deadly-church-shooting>.

¹⁷³ The high casualty rate in the Las Vegas shooting likely is attributable not only to the use of a bump stock, but also to crowd density and shooter elevation, making it difficult for victims to find cover. The significant loss of accuracy with the use of a bump stock may explain the much higher ratio of injuries to fatalities (9:1) in the Las Vegas shooting when compared to the next four deadliest mass shootings (2:1). See Jacob Sullum, *Did Bump Stocks Make the Las Vegas Shooting Deadlier?*, REASON HIT & RUN BLOG (Oct. 3, 2017), <http://reason.com/blog/2017/10/03/did-bump-stocks-make-the-las-vegas-shoot>.

¹⁷⁴ District of Columbia v. Heller, 554 U.S. 570, 701, 704 (2008).

¹⁷⁵ Gary Kleck, Large-Capacity Magazines and the Casualty Counts in Mass Shootings: The Plausibility of Linkages, 17 JUST. RES. & POL’Y 28, 44 (2016).

¹⁷⁶ *Id.* at 43.

assertion that the semiautomatic-only AR-15 can fire at a rate “nearly identical” to the military’s fully automatic M16. The semiautomatic AR-15’s rate of fire actually is much more “like” the semiautomatic handgun, which *Heller* describes as the “quintessential self-defense weapon” and a firearm protected under the Second Amendment.¹⁷⁷

C. The “combat features” myth

Another “assault weapon” myth is that the AR-15 shares certain military combat features with its M16 counterpart that make it much more lethal than other civilian firearms. This myth is reflected in “assault weapons” statutes that define the banned firearms based not on how powerfully they strike, how fast they fire, and how accurately they shoot, but rather on having certain features such as flash suppressors, barrel shrouds, folding and telescoping stocks, pistol grips, grenade launchers, night sights, bayonet lugs, and detachable magazines.¹⁷⁸

The combat features myth appears widely in pro-gun control advocacy and typically supports the “spray-fire” falsehood. For example, Brian Siebel testified before the D.C. Council that unlike hunting rifles designed for aimed fire from the shoulder, semiautomatic “assault weapons” are designed to “shoot multiple human targets very rapidly,” that these weapons have pistol grips to “help stabilize the weapon during rapid fire and allow the shooter to spray-fire from the hip position,” that barrel shrouds “protect the shooter’s hands from the heat generated by firing many rounds in rapid succession.”¹⁷⁹ Siebel summed up by claiming that “[f]ar from being simply ‘cosmetic,’ these features all contribute to the unique function of any assault weapon to deliver extraordinary firepower. They are uniquely military features, with no sporting purpose whatsoever.”¹⁸⁰

Heller II relies on Siebel’s testimony about these features in upholding the District’s “assault weapons” ban.¹⁸¹ *Kolbe* and *New York State Rifle & Pistol Ass’n* likewise embrace the myth. According to *Kolbe*, the AR-15 and other “assault weapons” possess military features designed for combat:

¹⁷⁷ *Heller*, 554 U.S. at 629; see *Kolbe v. Hogan*, 849 F.3d 114, 158 (4th Cir. 2017) (Traxler, J., dissenting) (“[I]f the majority is correct that the semiautomatic AR-15’s rate of fire makes it a weapon of war outside the scope of the Second Amendment, then all semiautomatic firearms—including the vast majority of semiautomatic handguns—enjoy no constitutional protection since the rate of fire for any semiautomatic firearm is determined by how fast the shooter can squeeze the trigger. Such a conclusion obviously flies in the face of *Heller*, which never mentions rate of fire as a relevant consideration.”).

¹⁷⁸ See *Kolbe*, 849 F.3d at 137 (discussing statutory defining features). For additional discussion of these features and other features, see Kopel, *supra* note 135, at 388-400.

¹⁷⁹ See, e.g., *Report on Bill 17-843*, *supra* note 154 (attachment of testimony of Brian J. Siebel, Oct. 1, 2008), <http://dcclims1.dccouncil.us/images/00001/20090513152155.pdf>.

¹⁸⁰ *Id.*

¹⁸¹ *Heller v. District of Columbia (Heller II)*, 670 F.3d 1244, 1262-63 (D.C. Cir. 2011).

[S]ome of the banned assault weapons incorporate flash suppressors, which are designed to help conceal a shooter’s position by dispersing muzzle flash. Others possess barrel shrouds, which enable “spray-firing” by cooling the barrel and providing the shooter a “convenient grip.” Additional military features include folding and telescoping stocks, pistol grips, grenade launchers, night sights, and the ability to accept bayonets and large-capacity magazines.¹⁸²

Both *Kolbe* and *New York State Rifle & Pistol Ass’n* conclude that such features give the AR-15 a lethal capability “far beyond” that of other firearms.¹⁸³ But none of these courts seriously considered whether these claims are factual. They took decades-old statements from pro-ban advocates at face value without scrutinizing them for accuracy. They assumed when they should have examined.

Only two features from *Kolbe*’s list have strictly military applications: the grenade launcher and the bayonet mount. Neither are sold on civilian AR-15s and can be added only as accessories. Grenade launchers, such as the 40mm Colt M203, and high explosive rounds are considered “destructive devices” under the National Firearms Act (NFA) and therefore highly regulated. Assuming they are legal in the purchaser’s state, they require a separate ATF registration and \$200 tax stamp for each item (i.e., the launcher and each separate round), as is required for machine guns, short-barrel rifles, and suppressors.¹⁸⁴ Few manufacturers sell 40mm grenade launchers for AR-15 rifles and they are very expensive—the launcher itself sells for around \$2000 plus the tax stamp, and each high explosive round, if you can find one for sale, sells for \$400-500 and requires a tax stamp. Manufacturers stopped affixing bayonet mounts on civilian AR-15s in the 1990s, but they still can be installed as accessories. While both features can enhance the AR-15’s lethality, no one has ever used a rifle-mounted grenade launcher or bayonet to commit mass murder in the United States. Moreover, like bump stocks, if the accessory makes the rifle unusually lethal, then the state’s interests in public safety can be met by regulating or banning the accessory, not the entire rifle. Banning the rifle to eliminate a single accessory is not “narrowly tailored” under heightened constitutional scrutiny.

The remaining features—flash suppressors, barrel shrouds, adjustable stocks, pistol grips, night sights, and large-capacity magazines—do not have exclusively military uses. They reflect advances in modern firearm technology that make the rifle more ergonomic and functional as a firearm in

¹⁸² *Kolbe*, 849 F.3d at 125 (citing J.A. 1121) (1994 United States House of Representatives Committee on the Judiciary Report No. 103-489 favoring H.R. 4298, the proposed federal “assault weapons” ban (citing testimony from John McGaw, Director of BATF, and John Pitta, National Executive Vice President, Federal Law Enforcement Officers Association, both of whom supported the ban)).

¹⁸³ *Id.* at 137; *N.Y. State Rifle & Pistol Ass’n v. Cuomo*, 804 F.3d 242, 262 (2d Cir. 2015).

¹⁸⁴ *See* 26 U.S.C. § 5845(f) (2018).

both military and civilian applications. Of course, enhancing a firearm's functionality can increase its lethality, as lethality is a core function of any firearm. When presented with evidence that these features improve the AR-15's accuracy, comfort, and utility, the Second Circuit in *New York State Rifle & Pistol Ass'n* observed that "[t]his circumlocution is . . . a milder way of saying that these features make the weapons more deadly."¹⁸⁵ But how much more deadly? None of the circuits have attempted to answer that question. If they had, they would have learned that pistol grips, barrel shrouds, adjustable stocks, and flash hiders only marginally affect the AR-15's lethality, if at all. There is no evidence that such features give the AR-15 a lethal capability "far beyond" other civilian long guns.¹⁸⁶ The only feature that has the potential to make the AR-15 deadlier than other firearms is its capability to use larger capacity magazines. However, as discussed below, the lethal effect of large-capacity magazines in real-world scenarios is difficult to measure.

1. Pistol grips

Courts repeatedly have made the false claim that pistol grips enable spray firing from the hip. In *Richmond Boro Gun Club, Inc. v. City of New York*, a pre-Heller case challenging the constitutionality of a local ordinance banning "assault weapons," the Second Circuit observed that a pistol grip "is favored in military weapons because it aids in 'one-handed firing' at the hip level" and that the law "aims to identify those rifles whose pistol grips are designed to make such spray firing from the hip particularly easy."¹⁸⁷ *Heller II* approvingly quotes Brian Siebel's statement that "[p]istol grips on assault rifles help stabilize the weapon during rapid fire and allow the shooter to spray-fire from the hip position."¹⁸⁸ The district court in *New York State Rifle & Pistol Ass'n* noted that in defending the ban New York "points to evidence that these features aid shooters when 'spray firing' from the hip."¹⁸⁹

The pistol grip is designed to help stabilize the rifle when firing from the shoulder, not the hip. When a rifle fires, recoil from the bullet and propellant gases exiting the muzzle of the barrel moves the rifle back along

¹⁸⁵ *N.Y. State Rifle & Pistol Ass'n*, 804 F.3d at 262.

¹⁸⁶ See Christopher Koper, *An Updated Assessment of the Federal Assault Weapons Ban: Impacts on Gun Markets and Gun Violence, 1994-2003* 80 n.94 (June 2004) ("While it is conceivable that changing features of AWs other than their magazines might prevent some gunshot victimizations, available data provide little if any empirical basis for judging the likely size of such effects."). Koper was an expert witness for the state in *Kolbe* and submitted this report as an exhibit to his declaration.

¹⁸⁷ *Richmond Boro Gun Club, Inc. v. City of New York*, 97 F.3d 681, 695 (2d Cir. 1996).

¹⁸⁸ *Heller v. District of Columbia*, 670 F.3d 1244, 1262-63 (D.C. Cir. 2011) (*Heller II*) (internal quotations omitted).

¹⁸⁹ *N.Y. State Rifle & Pistol Ass'n, Inc. v. Cuomo*, 990 F. Supp. 2d 349, 370 (W.D.N.Y. 2013), *aff'd in part, rev'd in part*, 804 F.3d 242 (2d Cir. 2015).

the centerline of the barrel. With many hunting rifles and shotguns, the centerline of the barrel is higher than the shooter’s shoulder because the buttstock of the rifle is angled lower than the barrel. Recoil thus causes the barrel of the rifle to move back and up (“muzzle rise”). This effect is multiplied when using fully automatic fire, potentially causing all but the first one or two shots to go high. Selective-fire M16 rifles were designed to reduce muzzle rise by moving the buttstock in line with the barrel so that the rifle’s recoil will push straight back against the shooter’s shoulder.¹⁹⁰ With this straight-line design, the shooter can more quickly return to the point of aim, allowing faster follow-up shots.

The straight-line design requires a pistol grip separate from the buttstock because it is too awkward to pull the trigger while gripping the raised buttstock when firing the rifle from the shoulder, whether standing, kneeling, or prone. The Department of Defense’s Advanced Research Projects Agency (ARPA), in its 1962 final report on testing of the military’s AR-15/M16 in Vietnam, described the rifle as having “a plastic stock with a rubber butt, assembled in line with the bore. This, in conjunction with its high line of sight and *separate hand grip*, is designed to minimize rotation *about the shoulder* during firing.”¹⁹¹ The ARPA report refers to the military AR-15/M16 six times as a “shoulder weapon.”¹⁹² The pistol grip thus allows for accurate firing from the shoulder, which is how the rifle was designed to shoot.

Firing a weapon from the hip is something seen in Hollywood movies, not in firearms training courses. No competent military, law enforcement, or civilian trainer teaches people to shoot a semiautomatic rifle from the hip as the preferred method of fire.¹⁹³ Assertions by pro-ban groups and courts that AR-15 pistol grips are “designed” to give the shooter greater control with unaimed “spray-firing” from the hip are simply false. They have not produced any design report, field test, military documentation, or other impartial source to substantiate this claim—it is myth masquerading as fact.

¹⁹⁰ See Armalite Technical Note 54, <https://web.archive.org/web/20120905024032/http://www.armalite.com/images/Tech%20Notes%5CTech%20Note%2054,%20Gas%20vs%20Op%20Rod%20Drive,%20020815.pdf> (“The Stoner system provides a very symmetric design that allows straight line movement of the operating components. This allows recoil forces to drive straight to the rear.”); POYER, *supra* note 80 at 15-16 (“Stoner added a straight-line stock . . . that allowed the barrel, receiver, bolt and bolt carrier and recoil spring to operate in a straight line from the muzzle to the shooter’s shoulder to produce less muzzle jump and felt recoil.”).

¹⁹¹ United States Department of Defense, Advanced Research Projects Agency (ARPA), *Report of Task No. 13A, Test of Armalite Rifle, AR-15* at 2 (1962), <http://www.dtic.mil/dtic/tr/fulltext/u2/343778.pdf> (emphasis added).

¹⁹² *Id.* at iii, 2, 3, 9.

¹⁹³ The U.S. Army teaches a pointed “quick fire” technique while holding the weapon at the soldier’s side when confronted with “close, suddenly appearing, surprise enemy targets; or when close engagement is imminent,” but “only when a target cannot be engaged fast enough using the sights in a normal manner.” ARMY RIFLE MARKSMANSHIP MANUAL, *supra* note 60, at 7-19 to 7-21.

A pistol grip separate from the stock does not give the shooter any ergonomic advantage when firing from the hip; in fact, holding a rifle at the hip with a pistol grip can be more difficult than with a non-pistol grip stock. The pistol grip is designed for shooting from the shoulder.

Even if the AR-15 were capable of “spray firing,” gun-control advocates have not explained why anyone would want to shoot it unaimed from the hip. The AR-15 is far less accurate when fired from the hip without a backstop like the shoulder to aid in controlling recoil. Because the shooter is not aiming with the gun’s sights and has less recoil control, “spray-firing” from the hip results in highly-inaccurate fire and makes the gun *less* lethal to the intended target. Professor Eugene Volokh explains:

People “spray firing” a semi-automatic from the hip are thus making themselves *less dangerous* to the people they’re shooting at (compared to normal firing when one is actually sighting down the barrel). Nor are they making it easier to fire a lot of rounds quickly; one can fire just as quickly in the normal shooting position as when firing from the hip

Another way of thinking about this is to consider a pistol —an ordinary handgun. Those pistols, unsurprisingly, have pistol grips. But only someone who is either extraordinarily skillful or pretty stupid would want to try to “spray fir[e]” a pistol from the hip. Instead, people who shoot pistols raise them up to eye level, so that they can actually aim by looking down the barrel. There’s a reason that the expression “shoot from the hip” tends to refer to actions that are less effective because they are less deliberate

[T]he concern that pistol-grip semiautomatic rifles are somehow more dangerous because they facilitate “‘spray firing’ from the hip” strikes me as a red herring. If you could wave a magic wand that makes all criminals shoot semiautomatics from the hip rather than from eye level, you’d probably save lives.¹⁹⁴

There is no evidence that the use of pistol grips makes AR-15s more lethal than other firearms. Christopher Koper, who studied the effects of the 1994-2004 federal “assault weapons” ban, observed that “it is unknown whether civilian attacks with semiautomatic rifles having pistols grips claim more victims per attack than do those with other semiautomatic rifles.”¹⁹⁵ The “spray firing from the hip” myth is just another attempt by gun-control

¹⁹⁴ Eugene Volokh, “Do Pistol Grips Make Semi-Automatic Rifles More Dangerous, Because They ‘Aid Shooters when “Spray Firing” from the Hip’?”, *The Volokh Conspiracy*, THE WASHINGTON POST (Jan. 2, 2014), <http://volokh.com/2014/01/02/pistol-grips-make-semi-automatic-rifles-dangerous-aid-shooters-spray-firing-hip/>.

¹⁹⁵ Koper, *supra* note 186, at 80 n.94.

advocates to convince courts that semiautomatic AR-15 rifles are no different than military machine guns and just as dangerous.

2. *Barrel shrouds*

The conventional term for barrel shroud is “handguard.” It is the metal or plastic enclosure that covers typically all but a few inches of the barrel. The AR-15 handguard has multiple functions: (1) it provides the shooter with a forward grip on the rifle using the non-trigger hand; (2) it protects the shooter’s hand from a hot barrel; (3) it protects the barrel and gas tube or piston from damage;¹⁹⁶ (4) it helps ventilate and cool the barrel; and (5) it provides a base for attaching accessories to the rifle such as sights, slings, flashlights, forward vertical grips, and bipods. None of these functions make the AR-15 exceptionally lethal, especially when compared to non-banned rifles.

The AR-15 handguard provides a stable and safe forward grip on the rifle, but this function is common to long guns. Every long gun has a place where the shooter can grip the firearm forward of the rifle’s trigger and chamber. The AR-15 handguard works like the forward part of a wooden or synthetic stock on a bolt-action rifle or shotgun—it allows the shooter to grip the firearm with the off hand and stabilize the weapon while aiming. It also protects the shooter’s off hand from being burned by directly touching the barrel. Firing more than three or four rounds consecutively through any long gun can make the barrel too hot to touch. For safety reasons, no long gun requires the shooter to hold the barrel directly with the off hand—they all have some protective mechanism.

Kolbe says that barrel shrouds on AR-15s “enable ‘spray-firing’ by cooling the barrel and providing the shooter a ‘convenient grip.’”¹⁹⁷ One function of the AR-15 and M4/M16 handguard is to help cool the barrel. Heat buildup in the rifle barrel degrades the weapon’s accuracy. Due to barrel mass, lightweight rifles like the military M16/M4 and civilian AR-15 tolerate thermal stress less efficiently than heavier firearms. The handguard helps cool the barrel through convection cooling.¹⁹⁸ But *Kolbe* overstates the

¹⁹⁶ The vast majority of AR-15s have a gas-impingement system, which uses a small stainless steel gas tube running over the top of the barrel to force some of the pressurized gases pushing the projectile out of the barrel back into the upper receiver to cycle the action. Some AR-15s use a piston-driven system, which forces the pressurized gases to drive a piston located above the barrel that cycles the action. The handguard provides a protective cover for both of these systems.

¹⁹⁷ *Kolbe*, 849 F.3d at 125 (quoting J.A. 1121).

¹⁹⁸ The U.S. Army Training Circular 3-22.9 describes the process as follows:

Convection cooling . . . requires the presence of a moving air current. The moving air has greater potential to carry away heat. The hand guards and ARS [adaptive rail system] of the rifle and carbine are designed to facilitate air movement. The heat shield [in the handguard] reflects heat energy away from the hand guard and back towards the barrel.

effect of handguard cooling. Such cooling does not enable rapid “spray firing.” Even with handguard cooling, military M16/4 rifles and civilian AR-15 rifles cannot be fired rapidly without loss of accuracy and potential barrel damage due to heat buildup. The maximum sustained rate of fire is the rate at which the weapon can continue to be fired indefinitely without serious overheating. For M16/M4 rifles, the military has set that rate at only 12-15 rounds *per minute*, which hardly qualifies as “spray firing.”¹⁹⁹ Handguards function mostly as ergonomic and safety devices, and only secondarily to provide some slight additional cooling to the barrel. They do not enable rapid spray firing or increase the lethality of AR-15s beyond other rifles.

3. *Adjustable stocks*

Adjustable stocks are ergonomic improvements over earlier fixed-stock rifle configurations. They are designed to allow adjustments in the rifle’s length of pull, making the firearm more comfortable to shoot in both military and civilian applications. A telescoping stock makes a rifle easier to shoulder properly for different users, or for one user when shooting from different positions or wearing different thicknesses of clothing. The military M16 has a fixed stock, while the military M4 and the civilian AR-15 have telescoping rather than folding stocks.²⁰⁰ Adjustable stocks are ubiquitous on civilian rifles. My precision bolt-action rifle, for example, has a stock that adjusts both for length and for height of the cheek rest.

Kolbe neither identifies the combat-specific function of folding or telescoping stocks nor explains how such stocks help make the AR-15 much more lethal than other semiautomatic rifles. A firearm more comfortable to shoot may increase accuracy, but only slightly so. A telescoping stock can make the weapon somewhat easier to stow and manage in military aircraft or vehicle operations,²⁰¹ but it does not significantly increase the weapon’s lethality. Switching from the fixed-stock M16 to the telescoping stock M4 did not suddenly make our soldiers far more accurate on the battlefield.

The district court in *N.Y. State Rifle & Pistol Ass’n* stated that “[f]olding and telescoping stocks aid concealability and portability.”²⁰² Daniel Webster, a professor of health policy and gun violence researcher, submitted a sworn statement in *Kolbe* asserting that folding or telescoping rifle stocks

The net effect is an updraft that brings the cooler air in from the bottom. This process establishes a convection style as heated air is continually replaced by cooler air.

ARMY RIFLE AND CARBINE TRAINING CIRCULAR, *supra* note 59, at 2-13.

¹⁹⁹ ARMY OPERATORS MANUAL, *supra* note 136, at 0002 00-1 to 002 00-2.

²⁰⁰ The buttstock of these rifles contains a buffer and recoil spring necessary for the action to cycle. AR-15s are almost never sold with folding stocks because they cannot fire more than one round with the stock folded.

²⁰¹ Chris Beekman, *supra* note 113.

²⁰² *N.Y. State Rifle & Pistol Ass’n v. Cuomo*, 990 F. Supp. 2d 349, 370 (W.D.N.Y. 2013).

“enhance a weapon’s utility in carrying out criminal assaults, especially mass shootings” because they “make it easier to conceal powerful rifles.”²⁰³ Once again, this is myth, not fact. “Concealment” is not a typical combat-function with military service rifles. There is no reason to conceal infantry small arms like the M16 and M4 on the battlefield. The M16 rifle has always had a fixed stock, but that did not disqualify it as a battlefield weapon. The smaller M4 carbine uses a telescoping stock for ergonomic and storage reasons, not for concealment. Moreover, the adjustment range for telescoping stocks is small, typically about three inches. The telescoping stock on my AR-15, for example, shortens the rifle’s overall length from 37 to 34 inches. A three-inch adjustment is hardly enough to make the rifle concealable for mass shootings and criminal assaults, as Webster claimed.

4. *Flash hidiers*

Flash suppressors or hidiers are attached to the end of the barrel and typically come standard on civilian AR-15s. They reduce but do not eliminate the rifle’s visible signature (muzzle flash) during firing. With the M16/4 and AR-15, burning powder and reigniting hot gases create a ball of flame at the end of the muzzle. The flash hider disperses the exploding gases, helping hide the shooter’s location and preserve the shooter’s low-light or night vision.²⁰⁴ Some flash hidiers, such as the popular A2, which comes as standard equipment on military M16/4 rifles and many civilian AR-15s, also function as a compensator that can slightly reduce vertical movement of the barrel (muzzle rise) by dispersing the gases upward and to each side.²⁰⁵

Flash suppressors do not make rifles shoot faster, fire with much greater accuracy, or impact with more power.²⁰⁶ Civilian applications for flash

²⁰³ Daniel Webster Decl. at J.A. 288, *Kolbe v. Hogan*, 849 F.3d 114 (4th Cir. 2017) (No. 14-1945); *see also* James Johnson Decl. at J.A. 224, *id.* (sworn declaration from James Johnson, Baltimore County police chief, stating that “[c]ollapsible or folding stocks aid in the concealment of high-powered assault weapons”).

²⁰⁴ Flash suppressors are not very effective in reducing flash seen by night vision optics. *See* PATRICK SWEENEY, *GUNSMITHING THE AR-15* 92-93 (2010) (“the heat is still released, and even the most effective flash hider does little to decrease the flash seen by night vision optics”) (“[N]ight vision gear is very sensitive to near-IR and IR frequencies. Even the best flash hidiers show a lot of flash to night vision gear.”).

²⁰⁵ *See id.* at 92 (“[C]alling the A2 a compensator, to dampen the felt recoil of the AR, is like saying opening your car’s door and pressing your shoe against the pavement is a braking system. It can work, but at most speeds you aren’t going to notice much decrease in your vehicle’s velocity. In most shooting situations you aren’t going to notice much, if any, decrease in muzzle movement due to the A2 flash hider.”).

²⁰⁶ *See, e.g., AR 15 Muzzle Brake vs. Flash Hider vs. Compensator – What is the Best Muzzle Device?*, AT3TACTICAL (Sept. 19, 2018 8:31 AM), <https://www.at3tactical.com/blogs/news/10797809-what-is-the-best-muzzle-device-for-my-ar-15-muzzle-brake-vs-flash-hider-vs-compensator> (noting that flash suppressors provide “[n]o recoil or accuracy increasing benefits”).

hiders include hunting in low light or at night.²⁰⁷ Probably the greatest practical benefit of a flash hider for civilians is that it protects the crown of the barrel from dirt and other obstructions.²⁰⁸ There is no evidence that flash hiders have given terrorists or criminals any advantage in mass shootings or other crimes involving “assault weapons.” Even pro-ban advocates agree that flash suppressors do not make AR-15s more lethal than other firearms. Calling them “bells and whistles,” the Violence Policy Center (VPC) conceded that flash suppressors “have nothing to do with why assault weapons are so deadly.”²⁰⁹

5. Magazine capacity

One feature that may give the shooter an advantage is magazine capacity. Both the military M16/M4 and the civilian AR-15 use a standard 30-round detachable magazine. This capacity is larger than standard semiautomatic handguns (15-18 rounds), bolt-action rifles (5-10 rounds), lever-action rifles (5-8 rounds), revolvers (5-6 rounds), and typical hunting shotguns (2-5 rounds).²¹⁰ Christopher Koper, in his study of the effects of the federal “assault weapons” ban, observed that “an LCM [large-capacity magazine] is arguably the most important feature of an AW [assault weapon]. Hence, use of guns with LCMs is probably more consequential than use of guns with other military-style features, such as flash hiders, folding rifle stocks, threaded barrels for attaching a silencer, and so on.”²¹¹

The ability to accept detachable magazines is not a unique military feature.²¹² Civilian semiautomatic rifles and handguns are designed to use detachable magazines, as are most modern bolt-action rifles. The critical feature is the *size* of the magazine. Since an AR-15 does not require standard 30-round magazines to function, any lethal effects of larger-capacity magazines can be addressed by banning certain-sized magazines. There are good reasons to be skeptical that magazine capacity makes a difference in

²⁰⁷ Steve Felgenhauer, *Flash Hiders & Compensators*, MILITARY.COM (2018), <https://www.military.com/outdoor-guide/flash-hiders-and-compensators.html>.

²⁰⁸ See LONG, *supra* note 79, at 261 (“A flash hider . . . has an added plus of protecting a barrel from dings and damage; this is important because damage to the muzzle can quickly ruin accuracy. Consequently, even sport shooters who don’t need to reduce flash will discover that a flash hider . . . makes good sense on an AR-15.”).

²⁰⁹ Tom Diaz, *Bullet Hoses – The Gun Industry’s Lies*, Chapter in Diaz, *supra* note 16.

²¹⁰ Aftermarket manufacturers sell 60-round and 100-round magazines for civilian AR-15s. They come in box and drum versions, the latter being highly prone to jamming. The weight and size of these larger magazines can degrade the AR-15’s accuracy by making it more difficult to handle effectively.

²¹¹ Koper, *supra* note 186, at 80.

²¹² See generally David B. Kopel, *The History of Firearms Magazines and Magazine Prohibitions*, 88 ALBANY L. REV. 849 (2015).

mass shootings,²¹³ but even if it does, the narrowly-tailored solution—which should be required under heightened judicial scrutiny—is to ban the larger-capacity magazine rather than the entire firearm. *Kolbe*’s inclusion of the ability to accept larger-capacity magazines in its list of military features disqualifying the AR-15 from Second Amendment protection proves too much.²¹⁴ As Judge Traxler pointed out in his *Kolbe* dissent, “the [majority’s] suggestion that the ability to accept large-capacity magazines facilitates a firearm’s military usefulness applies to all semiautomatic weapons, including constitutionally-protected handguns, since any firearm that can hold a magazine can theoretically hold one of any size.”²¹⁵

Identifying the magazine with the firearm is a favorite tactic of gun-control advocates. They inflate the number of mass shootings involving “assault weapons” by adding shootings involving large-capacity magazines (LCMs), even if the LCMs are not used in “assault weapons.” One example is the Citizens Crime Commission of New York City’s 2016 report on *Mayhem Multiplied: Mass Shooters and Assault Weapons*.²¹⁶ The report claims that from 1984-2016 there were 301 percent more injuries and fatalities in mass shootings with assault weapons and LCMs than with other firearms.²¹⁷ While the report identifies 46 mass shootings during this period, only 18 involved “assault weapons.”²¹⁸ The remaining 28 involved other firearms with LCMs, including handguns, but the report never mentions this fact.²¹⁹ The report title and internal graphs leave the impression that all the incidents involved “assault weapons.”

Kolbe says that LCMs “are ‘designed to enhance’ a shooter’s ‘capacity to shoot multiple human targets very rapidly.’”²²⁰ It further declares that LCMs “depriv[e] victims and law enforcement officers of opportunities to escape or overwhelm the shooters while they reload their weapons” and that

²¹³ See David B. Kopel, *The Cost and Consequences of Gun Control*, CATO INSTITUTE POLICY ANALYSIS 6-9 (No. 784) (Dec. 1, 2015), <https://www.cato.org/publications/policy-analysis/costs-consequences-gun-control>; Tomislav Kovandzic & Gary Kleck, *Banning Large Capacity Magazines: A Solution to a Nonexistent Problem*, <https://www.utdallas.edu/~tvk071000/Banning%20Large%20Capacity%20Magazines%20Will%20Not%20Reduce%20Crime.pdf> (last visited July 3, 2018).

²¹⁴ *Kolbe v. Hogan*, 849 F.3d 114, 125 (4th Cir. 2017) (citing J.A. 1121 (1994 United States House of Representatives Committee on the Judiciary Report No. 103-489 favoring H.R. 4298, the proposed federal “assault weapons” ban) (testimony from John McGaw, Director of BATF, and John Pitta, National Executive Vice President, Federal Law Enforcement Officers Association, both of whom supported the ban)).

²¹⁵ *Id.* at 158 (Traxler, J., dissenting).

²¹⁶ Ashley Cannon, *Mayhem Multiplied: Mass Shooters and Assault Weapons*, CITIZENS CRIME COMMISSION OF NEW YORK CITY (2016), <http://www.nycrimecommission.org/pdfs/CCC-MayhemMultiplied-June2016.pdf>.

²¹⁷ *Id.*

²¹⁸ *Id.*

²¹⁹ *Id.*

²²⁰ *Kolbe*, 849 F.3d at 125 (quoting the Brady Center’s Brian Siebel at J.A. 1151).

“reducing the number of rounds that can be fired without reloading increases the odds that lives will be spared in a mass shooting.”²²¹ Smaller magazines presumably will force the shooter to make additional magazine changes, thus slowing the shooter’s rate of fire and giving bystanders more opportunities to subdue the shooter or escape the scene while the shooter is reloading. The Fourth Circuit cited no empirical evidence to support this conclusion, but rather relied on simple arithmetic: if a shooter uses 10-round magazines instead of 30, 50, or 100-round magazines, for every 100 rounds fired, that would afford six to nine more chances for bystanders to subdue or escape the shooter.²²²

While *Kolbe*’s arithmetic is true in theory, it is not as simple in fact. Determining the extent to which larger magazine capacity increases the AR-15’s lethality in actual shootings beyond other firearms depends on several variables. The AR-15 does not fire any faster mechanically with a 30-round magazine than with a 10-round magazine, nor does the size of the magazine affect how powerfully the AR-15’s bullets strike or how accurately it shoots.²²³ Magazine changes do not pause firing by much. An experienced shooter can perform a speed reload in as little as two or three seconds.²²⁴ Inexperienced shooters will take a few seconds longer. Everything else being equal, a larger-capacity magazine will allow the shooter to stay on target longer because the shooter will less frequently need to pause and reload. But everything else rarely is equal in actual shootings. A variety of factors must be considered, including the shooter’s determination to injure or kill, the shooter’s rate of fire, whether the shooter needs to change magazines, how fast the shooter can change magazines, how many magazines (or alternate weapons) are readily available to the shooter, the location of bystanders, and whether they are in a posture to overpower or escape the shooter. A shooter may even reload before his magazines are empty.²²⁵ These factors make it difficult to determine whether smaller magazines will have any measurable effect on mass shootings.

²²¹ *Id.* at 127, 128.

²²² *Id.* at 128 (citing Batts Decl. ¶ 49 at J.A. 266).

²²³ See Aaron Bandler, *Debunking Top 5 Myths About the AR-15*, THE DAILY WIRE, (June 20, 2016), <https://www.dailywire.com/news/6749/debunking-top-5-myths-about-ar-15-aaron-bandler> (explaining that since an AR-15 is a semi-automatic, it can only fire the amount of times somebody pulls the trigger).

²²⁴ See, e.g., T.Rex Arms, *2 Second Rifle Speed Reload Standard*, <https://www.youtube.com/watch?v=2Q-QVBQVYTA>; Milspec_Mojo, *How I Like to Speed Reload an AR-15*, https://www.youtube.com/watch?v=aT_bSGJ8j9o; maddhatter111111, *Marine speed reloading M4 2*, <https://www.youtube.com/watch?v=Hx0JzYcwUiY&frags=pl%2Cwn>.

²²⁵ See, e.g., SANDY HOOK REPORT, *supra* note 160, at 21-22, (explaining that the Newtown shooter emptied three 30-round magazines but did not wait until two other 30-round magazines were empty to change them).

Criminologist Gary Kleck recently studied whether LCMs directly contribute to the number of injuries and deaths in mass shootings.²²⁶ He wanted to know whether there was evidence that (1) significant numbers of mass shootings were disrupted by bystanders when the shooters paused to reload and (2) magazine changes increase the intervals between shots fired, giving victims time to escape to safety.²²⁷ Out of all mass shootings in the United States from 1994-2013 in which a shooter was using a semiautomatic firearm and detachable magazines (with or without LCMs), he found only one case—the 2011 Tucson shooting that critically injured Representative Gabrielle Giffords—in which the shooter was tackled by bystanders, while the shooter purportedly was trying to reload.²²⁸ Kleck acknowledged that the absence of an LCM in this one case might have prevented several casualties.²²⁹

Kleck identified 23 mass shootings in the United States from 1994-2013 in which more than six persons were shot, either fatally or non-fatally, and one or more LCMs were known to have been used.²³⁰ In all of these incidents, the shooter possessed multiple magazines and, in 17 cases, the shooter possessed multiple firearms.²³¹ Even if magazine sizes were limited to 10 rounds, Kleck explained, the shooters either could have switched guns or reloaded in a few seconds and continued shooting—in fact, in 14 of the 23 incidents, the shooters did reload without bystander interference, so smaller magazines would not have made any difference.²³² The shooters did not reload in two incidents and it was not known whether the shooters reloaded in the remaining seven incidents.²³³

To determine whether more magazine changes would allow potential victims to escape, Kleck looked at the average rates of fire that mass shooters typically maintain.²³⁴ If a shooter fires faster than the 2-4 seconds it takes to change magazines, then smaller magazines could slow the rate of fire and potentially allow more victims to escape between shots; if the shooters fire

²²⁶ Kleck, *supra* note 175. Kleck defined LCMs as magazines holding more than 10 rounds. *Id.* at 33.

²²⁷ *Id.* at 32.

²²⁸ *Id.* at 39-40. Kleck noted that there were conflicting eyewitness reports about whether the Tucson shooter was trying to reload or his gun had jammed. *Id.*

²²⁹ *Id.* at 40.

²³⁰ *Id.* at 37. Kleck used the six-victim cutoff because a shooter could shoot as many as six persons with a six-shot revolver. Since the rationale for LCM bans is that they enable the shooter to fire more rounds without reloading and thus kill or injure more victims, Kleck explained, a lower numerical cutoff would have included more incidents in which the LCM likely had no effect on the number of victims. *Id.* at 33.

²³¹ *Id.* at 40-42.

²³² *Id.* at 42.

²³³ *Id.*

²³⁴ *Id.* at 42-44. Kleck's list of mass shootings involving known rates of fire included 17 of 23 incidents from his prior list in which information was available on the duration and number of rounds fired, plus an additional eight mass shootings that did not involve known LCM use for which such information was available. *Id.* at 43.

with average between-shot intervals lasting more than the 2-4 seconds it takes to change a magazine, the pauses due to magazine changes would not be any longer than the pauses between shots when not reloading, and thus additional magazine changes would not provide any greater opportunity to escape.²³⁵ In the 25 shootings in which rates of fire could be determined, Kleck found only three occasions in which shooters fired more rapidly, averaging less than two seconds between rounds. In two of the three shootings, the shooters possessed multiple guns and simply could have switched guns with little or no pause in their shooting.²³⁶ The one remaining incident in the 20-year study period involved the Tucson shooting, where the shooter fired rapidly, had only a single weapon, and was stopped when tackled by bystanders.²³⁷

Kleck concluded because that shooters' rates of fire typically are not slowed by changing magazines, LCM bans are unlikely to provide any significant benefit to mass shooting victims. Shooters still can fire equally large numbers of rounds using smaller capacity magazines.²³⁸ Kleck attributed any increase in lethality more to the shooter's intention than to the LCM:

[T]he larger number of rounds fired by LCM-using shooters is more likely to reflect the more lethal intentions prevailing among such shooters, just as their planned use of multiple guns and multiple magazines, and the unusually high fatality rate (deaths over total woundings) of their attacks are outward indications of a desire to shoot many people. Unfortunately, there are no known methods for reliably measuring the lethality of shooters' intentions independent of the outcomes of their crimes, making it impossible to statistically control for this factor in a multivariate statistical analysis and thereby isolate the effects of LCM use.²³⁹

While Kleck's analysis is not conclusive, it highlights the difficulties in determining the extent to which magazine size makes a difference in mass shootings. The matter is far more complicated—and thus demands more proof—than *Kolbe*'s simple arithmetic.²⁴⁰

²³⁵ *Id.* at 42-44.

²³⁶ *Id.* at 44.

²³⁷ *Id.*

²³⁸ *Id.* at 44-45. See Volokh, *supra* note 119, at 1489 (“[M]ass shootings . . . usually progress over the span of several minutes or more. Given that removing a magazine and inserting a new one takes only a few seconds, a mass murderer—especially one armed with a backup gun—would hardly be stymied by the magazine size limit. It’s thus hard to see large magazines as materially more dangerous than magazines of normal size.”).

²³⁹ Kleck, *supra* note 175, at 45.

²⁴⁰ The district court in *Duncan v. Becerra*, 265 F. Supp. 3d 1106, 1122, 1129-30 (S.D. Cal. 2017), noted how several state experts defending the LCM ban conceded that supporting data is missing. For example, Daniel Webster, a professor of public health and gun violence researcher who also submitted an affidavit in *Kolbe*, stated that “[t]o date, there are no studies that have examined separately the effects of an assault weapons ban, on the one hand, and an LCM ban, on the other

Kolbe also relies on “lesson[s] learned” from Newtown, Tucson, and Aurora shootings that purportedly show how smaller magazines will save lives.²⁴¹ But the Fourth Circuit’s descriptions of these shootings are misleading. The court twice claimed without citation that during the Newtown shooting nine children were able to run from classroom while the gunman paused to change a 30-round magazine.²⁴² While reported in a few media accounts,²⁴³ this fact was never confirmed. The final report of the State’s Attorney on the shooting states only that “[n]ine children had run out [Ms. Soto’s] room and survived,” without giving any details about why they were able escape.²⁴⁴ The Hartford Current reported that six children ran past the shooter to safety when his gun jammed.²⁴⁵ An earlier Hartford Current article stated that the children escaped because the shooter “stopped firing briefly, perhaps either to reload his rifle or because it jammed.”²⁴⁶ The article goes on to say that while it was possible the shooter mishandled or dropped a magazine while reloading, it also was possible that the gun jammed or that the children escaped while the shooter was firing at others in the room.²⁴⁷ The article indicated that the children’s statements about the incident were “not entirely consistent.”²⁴⁸

Kolbe further declares says that during the Aurora movie shooting “a 100-round drum magazine was emptied without any significant break in the firing.”²⁴⁹ This never happened. Multiple sources, including the city’s official after action report, state that the Aurora shooter fired 65 rounds from his AR-15 before the magazine jammed.²⁵⁰ Even deposition testimony of

hand” *Id.* at 1129 (quoting ¶ 25 in Webster’s declaration) (internal quotations and emphasis omitted).

²⁴¹ *Kolbe v. Hogan*, 849 F.3d 114, 128 (4th Cir. 2017).

²⁴² *Id.* at 120 (“Nine terrified children ran from one of the classrooms when the gunman paused to reload”); *id.* at 128 (“[N]ine children were able to run from a targeted classroom while the gunman paused to change out a large-capacity thirty-round magazine.”).

²⁴³ See, e.g., Associated Press, *Little hero of Sandy Hook saved his pals*, NEW YORK POST (Oct. 19, 2013), <https://nypost.com/2013/10/19/sandy-hooks-littlest-hero-slain-kid-urged-others-to-run/> (noting that the story was based on statements from the mother of the child who heroically urged his classmates to run when the shooter paused).

²⁴⁴ SANDY HOOK REPORT, *supra* note 160, at 10.

²⁴⁵ Dave Altimari & Steven Goode, *Details Emerge on Sandy Hook Shooting, Items Found In Lanza Rooms*, THE HARTFORD CURRANT (Oct. 19, 2013), <http://www.courant.com/news/connecticut/hc-sandy-hook-shooting-details-20131018-story.html>. See also Corinne Lestch, *Slain Newtown boy Jessie Lewis, 6, yelled ‘run!’ when Adam Lanza’s gun jammed, allowing six classmates to run to safety*, NEW YORK DAILY NEWS (Oct. 19, 2013), <http://www.nydailynews.com/news/national/slain-newton-boy-yelled-classmates-run-6-escaped-article-1.1490325>.

²⁴⁶ Edmund H. Mahony, et al. *Sandy Hook Shooter’s Pause May Have Aided Students’ Escape*, THE HARTFORD CURRANT (Dec. 23, 2012), <http://www.courant.com/news/connecticut/newtown-sandy-hook-school-shooting/hc-lanza-gunjam-20121222-story.html>.

²⁴⁷ *Id.*

²⁴⁸ *Id.*

²⁴⁹ *Kolbe v. Hogan*, 849 F.3d 114, 128 (4th Cir. 2017).

²⁵⁰ See *Aurora Century 16 Theater Shooting: After Action Report for the City of Aurora* 12-13, TRI DATA DIVISION, (April 2014), <https://justiceclearinghouse.com/wp-content/uploads/2017/10/>

one of the state's experts in *Kolbe* acknowledges that the shooter's gun jammed and the magazine was not emptied.²⁵¹ *Kolbe* also says that the Tucson shooter "was finally tackled and restrained by bystanders while reloading his firearm."²⁵² But this fact is disputed. Eyewitness reports of the shooting are conflicting as to whether the gunman was subdued by bystanders when his handgun jammed or while reloading.²⁵³

This is not about whether shooters have been stopped while reloading—they have on multiple occasions.²⁵⁴ But that proves nothing about whether the size of the magazine affected the outcome. Here, the question is whether the ability to accept larger-capacity magazines makes the AR-15 and other "assault weapons" much more dangerous than other semiautomatic firearms. That requires some credible proof that reducing magazine capacity will significantly reduce casualties in mass shootings or other crimes. Simple arithmetic and misleading anecdotal evidence are not enough.

Pistol grips, barrel shrouds, adjustable stocks, flash hiders, and the ability to accept 30-round magazines do not transform the civilian AR-15 into the functional equivalent of an M16, nor do they somehow make the AR-15 far more lethal than other civilian firearms. The combined effects of judicial ignorance about such features, anti-gun disinformation, and a failure to seriously examine the facts have driven the courts' conclusions to the contrary.

III. CONCLUSION

My purpose here is to demonstrate the importance of judges having accurate facts when making decisions about the constitutionality of "assault

C16-AAR.pdf (indicating that the shooter fired 65 rounds from the rifle until it jammed); *see also* James Dao, *Aurora Gunman's Arsenal: Shotgun, Semiautomatic Rifle and, at the End, a Pistol*, THE NEW YORK TIMES (July 23, 2012), <https://www.nytimes.com/2012/07/24/us/aurora-gunmans-lethal-arsenal.html>; Susan Candiotti, *Source: Colorado shooter's rifle jammed during rampage*, CNN (July 22, 2012), <https://www.cnn.com/2012/07/22/us/colorado-shooting-investigation/>; Phil Tenser, *Aurora police testify in James Holmes' trial: 240 ballistic impacts found after theater shooting*, ABC 7 DENVER (May 12, 2015), <https://www.thedenverchannel.com/news/movie-theater-shooting/aurora-police-department-crime-scene-investigators-found-76-spent-rounds-after-theater-shooting>.

²⁵¹ Johnson Dep. at J.A. 2442, *Kolbe*, 849 F.3d 114 (No. 14-1945).

²⁵² *Kolbe*, 849 F.3d at 128.

²⁵³ For reports that the Tucson shooter's handgun jammed, *see* Sam Quinones & Michael Muskal, *Jared Loughner to be charged in Arizona shootings targeting Gabrielle Giffords*, LOS ANGELES TIMES (Jan. 9, 2011), <http://articles.latimes.com/2011/jan/09/nation/la-na-0110-gabrielle-giffords-20110110>; Joseph A. W. Fitzgerald, *Sheriff Releases Photos of '11 Tucson Shooting*, THE NEW YORK TIMES STUDENT JOURNALISM INSTITUTE (May 23, 2013), <http://tucson13.nytimes-institute.com/2013/05/23/sheriff-releases-photos-of-11-tucson-shooting/>.

²⁵⁴ The state in *Kolbe* presented news reports of multiple incidents in which shooters were stopped while reloading. *See* Brief of Defendant in Support of Motion for Summary Judgment Ex. 40 at J.A. 1326-67, *Kolbe*, 849 F.3d 114 (No. 14-1945).

weapon” bans. No one expects judges to be firearms experts, competitive shooters, or even occasional range visitors. But judges should be serious arbiters of facts, especially on a topic as susceptible to widely-disseminated disinformation and myths as “assault weapon” bans. Judges should not let honest unfamiliarity become willful ignorance, lest their judicial decisions become political narrative. Regrettably, this already seems to have happened in some cases.

Still, there are greater tragedies here than judicial incompetence or bias. By blessing simplistic and ineffective legislative attempts to reduce gun violence,²⁵⁵ these court decisions obscure the complexities surrounding the actual causes of such violence. Reducing violence perpetrated by persons with guns—especially mass shooters—is much more complicated than banning “assault weapons.” It requires effective and narrowly-tailored laws, mental health reform, media self-restraint, proper family guidance and supervision, enhanced security measures, and law enforcement competence. Judges also should not exaggerate the relative dangerousness of the AR-15 to justify their decisions when the civil rights of millions of law-abiding persons depend on those decisions. While public safety is a paramount concern, so is the freedom of responsible citizens to choose for themselves the firearms best suited to their self-defense needs.

²⁵⁵ See Andrew R. Morral, et al., *The Science of Gun Policy: A Critical Synthesis of Research Evidence on the Effects of Gun Policies in the United States*, Rand Corporation 61-72 (2018) (concluding that available evidence is inconclusive that “assault weapon” bans have any effect on mass shootings or firearm homicides).