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11 TODD NIELSEN, THE CALGUNS FOUNDATION,
FIREARMS POLICY COALITION,
12 FIREARMS POLICY FOUNDATION,
and SECOND AMENDMENT FOUNDATION

13 UNITED STATES DISTRICT COURT

14 FOR THE EASTERN DISTRICT OF CALIFORNIA

15 WILLIAM WIESE, et al.

16 Plaintiffs,

17 vs.

18 XAVIER BECERRA, in his official capacity as
19 Attorney General of California, et al.,

20 Defendants.

Case No. 2:17-cv-00903-WBS-KJN

**DECLARATION OF CARLISLE E. MOODY IN
SUPPORT OF PLAINTIFFS' MOTION FOR
ISSUANCE OF A TEMPORARY RESTRAINING
ORDER AND PRELIMINARY INJUNCTION**

Date: TBD

Time: TBD

Courtroom 5

Judge: Hon. William B. Shubb

21 DECLARATION OF CARLISLE E. MOODY

22 I, Carlisle E. Moody, declare as follows:

23 1. I am a Professor of Economics at the College of William and Mary in Virginia. I
24 graduated from Colby College in 1965 with a major in Economics. I received my graduate

1 training from the University of Connecticut, earning a Master of Economics degree in 1966 and a
2 Ph.D. in Economics in 1970, with fields in mathematical economics and econometrics.

3 2. I began my academic career in 1968 as Lecturer in Econometrics at the University
4 of Leeds, Leeds, England. In 1970 I joined the Economics Department at William and Mary as
5 an Assistant Professor, I was promoted to Associate Professor in 1975 and to full Professor in
6 1989. I was Chair of the Economics Department from 1997-2003. I am still teaching full time at
7 William and Mary. I teach undergraduate and graduate courses in Econometrics, Mathematical
8 Economics, and Time Series Analysis.

9 3. I have published over 40 refereed journal articles and several articles in law
10 journals and elsewhere. Nearly all of these articles analyze government policies of various sorts.
11 I have consulted for a variety of private and public entities including the United States
12 Department of Energy, U.S. General Accountability Office, Washington Consulting Group,
13 Decision Analysis Corporation of Virginia, SAIC Corporation, and the Independence Institute. I
14 have been doing research in guns, crime, and gun policy since 2000. I have published 11 articles
15 directly related to guns and gun policy. A full list of my qualifications, and a list of these
16 publications, is attached hereto as **Exhibit A**.

17 4. I have been retained by the plaintiffs to render expert opinions in this case. I
18 make this declaration on the basis of my training in Economics, Econometrics, and policy
19 analysis, my expertise relevant to gun policy, including bans of large capacity magazines, the
20 research discussed herein, and the work that I have done in this case to date. I am being
21 compensated at the rate of \$350 per hour. In the past four years I have been retained as an expert
22 witness in two large capacity magazine cases: *John B. Cooke, et al v. John W. Hickenlooper,*
23 *Governor, US District Court, District of Colorado, October 25, 2013;* and testified in one: *Rocky*
24 *Mountain Gun Owners v. Hickenlooper, District Court City and County of Denver, Case No.*
25 *2013CV33897, May 1, 2017.*

26 5. This declaration is executed in support of plaintiffs' motion for the issuance of a
27 temporary restraining order, and/or issuance of a preliminary injunction. I have personal
28

1 knowledge of the facts stated in this declaration, and if called as a witness, could competently
2 testify thereto.

3 6. The opinions I offer within this declaration are generally on two topics: (1) the
4 reported use of “pre-ban” (i.e., pre-2000) large-capacity magazines within the incidence of “mass
5 shootings” in California generally, and (2) the effectiveness of large-capacity magazine bans on
6 crime rates overall. On both topics, I conclude that a retroactive large-capacity magazine ban
7 prohibiting the continued possession of pre-ban magazines would have no discernible effect on
8 the incidence or effectiveness of mass shootings, or violent crime rates in general.

9
10 **California Mass Shootings Since 2000 Have Not Involved Pre-Ban Magazines**

11 7. It is my understanding, and I have assumed for the purposes of this study, that the
12 manufacture, importation, purchase or receipt of large-capacity magazines has been prohibited
13 by California law, since the enactment of Senate Bill 23 in 1999, which is codified at California
14 Penal Code § 32310, subdiv. (a). I am further informed and believe that the prohibition on such
15 manufacture, importation, purchase or receipt of such large-capacity magazines commenced on
16 January 1, 2000. Under California law, the definition of large-capacity magazines includes any
17 ammunition feeding device with the capacity to accept more than 10 rounds generally. See Pen.
18 Code § 16740.

19
20 8. I am further informed, moreover, that up until enactment of the laws at issue, the
21 law did not prohibit the possession of such large-capacity magazines. Therefore, an
22 indeterminate but substantial number of gun owners in California have owned, and continued to
23 own what are commonly referred to as “pre-ban” or “grandfathered” large capacity magazines.
24 My reference to such “pre-ban” or “grandfathered” magazines within this declaration shall
25 therefore refer to those large-capacity magazines, as defined by statute, which were lawfully
26 possessed in California since before January 1, 2000.

27 9. The stated reason for the change in the law, reflected in the laws at issue, are the
28 incidents and prevalence of what are known as “mass shootings” in modern society. See, e.g.,

1 the “Safety for All Act” (Proposition 63), Section 2, Findings and Declarations, in which the
2 drafters of Proposition 63 stated:

3 [11.] Military–style large-capacity ammunition magazines—some capable of holding
4 more than 100 rounds of ammunition—significantly increase a shooter's ability to kill a
5 lot of people in a short amount of time. That is why these large capacity ammunition
6 magazines are common in many of America's most horrific mass shootings, from the
7 killings at 101 California Street in San Francisco in 1993 to Columbine High School in
8 1999 to the massacre at Sandy Hook Elementary School in Newtown, Connecticut in
9 2012.

10 We recognize at the outset that these events, while statistically rare, are nevertheless certainly
11 tragic and terrifying events for those involved. However, in my prior studies of mass shootings
12 using data from many different sources, including a 2016 book from Louis Klaveras, a *Mother*
13 *Jones* database involving 89 mass-shooting incidents from 1982-2016, and a study by the FBI on
14 what they call “active shooter” incidents, I have concluded that bans concerning large-capacity
15 magazines have no effect on the prevalence or lethality of these incidents.

16 10. As to the specific issue presented by the plaintiffs’ motion, I have also concluded
17 that pre-ban large-capacity magazines have simply not been used in California mass shootings as
18 reported. Using data and information compiled by staff members at Firearms Policy Coalition
19 (FPC), I have embarked on a study of California mass shooter incidents using three different
20 sources: (1) data found at <https://www.massshootingtracker.org/data>, which represents an
21 exhaustive list of mass shooting incidents, as they define it,¹ from 2013-present; (2) *Mother*
22 *Jones*’s data found at [http://www.motherjones.com/politics/2012/12/mass-shootings-mother-](http://www.motherjones.com/politics/2012/12/mass-shootings-mother-jones-full-data)
23 [jones-full-data](http://www.motherjones.com/politics/2012/12/mass-shootings-mother-jones-full-data) (“US Mass Shootings, 1982-2017: Data From Mother Jones' Investigation”); and
24 (3) the FBI list of what they call “active shooter” incidents, found at [https://www.fbi.gov/file-](https://www.fbi.gov/file-repository/activeshooter_incidents_2001-2016.pdf/view)
25 [repository/activeshooter_incidents_2001-2016.pdf/view](https://www.fbi.gov/file-repository/activeshooter_incidents_2001-2016.pdf/view). (Each database may have used
26 differing definitions, depending on the time frame.) Among these three data sets, we are
27 presented with an accurate picture of post-2000 California mass shooting/active shooter incidents

28 ¹Massshootingtracker.org defines mass shootings within its database as “a single outburst of violence in which four or more people are shot,” including the perpetrator.

1 and are able to determine that pre-ban magazines are simply not used in such incidents.

2 11. First, of the 185 reported California mass shootings found within the
3 massshootingtracker.org data set since 2013, only three of the accompanying media reports
4 reported the use of large-capacity magazines. These are:

- 5 • **6/7/13 Santa Monica Shooting:** The perpetrator used a .223 rifle which he
6 assembled from parts. The parts were legally acquired, however the finished rifle
7 was illegal as configured. He was reported to have 40 large-capacity magazines
8 with him during the incident. However, given the age of the shooter (23) and the
9 recent assembly of the rifle, it is highly unlikely that he had acquired the large-
10 capacity magazines before 2000.
- 11 • **11/3/13 LAX Shooting:** The perpetrator killed one, wounded several others at
12 Los Angeles Int'l Airport, and was reported to have used large-capacity
13 magazines. However, given the age of the shooter (23), he would have been 10 at
14 the time SB23 went into effect and was also living in another state at the time, it
15 is highly unlikely that he acquired such magazines legally.
- 16 • **12/2/15 San Bernardino Mass Shooting:** The perpetrators were reported to have
17 used large capacity magazines. Given the ages of the shooters, however, and their
18 history pertaining to the specific planning and execution of this terrorist attack
19 i.e., obtaining weapons through straw purchases in recent proximity to the
20 shootings, it is a reasonable inference that the large-capacity magazines were
21 either imported from out of state, or manufactured here illegally.

22
23 Of those three incidents, it is a reasonable inference that these incidents did not involve
24 pre-ban magazines, which we are able to reasonably infer given media reports involving (1) the
25 age of the shooter, and (2) the illegal assembly of weapons; (3) the illegal acquisition of weapons
26 generally from out of state. And in these three incidents, the shooter would have ignored or
27 flouted existing California law that already prohibit the manufacture or import of large-capacity
28 magazines. It is therefore reasonable to infer that an additional ban on the mere *possession* of

1 such firearm parts would not have further deterred or prevented the perpetrator from carrying out
2 the shootings.

3 12. The *Mother Jones* compilation uses a more selective criteria than the
4 massshootingtracker.org data. Specifically, *Mother Jones* focuses on “indiscriminate rampages
5 in public places resulting in four or more victims killed by the attacker,” and which excludes
6 shootings “stemming from more conventional crimes such as armed robbery or gang violence.”
7 Within this data set, there are eight mass shooting incidents that meet our criteria, i.e., post-2000,
8 California mass shooting incidents. In furtherance of the instant motion, therefore, we would
9 highlight the following facts associated with those incidents:

- 10 • **1/30/06 Goleta Postal Shootings, Goleta, California:** The perpetrator used
11 large-capacity magazines that were illegally imported from New Mexico.
- 12 • **10/14/11 Seal Beach Shootings, Seal Beach, California:** The perpetrator used
13 three handguns, including one revolver. Unreported whether the perpetrator had
14 or used any large-capacity magazines.
- 15 • **4/2/12 Oikos University Killings, Oakland, California:** The perpetrator used
16 ten-round magazines to perpetrate a school killing.
- 17 • **6/7/13 Santa Monica Rampage, Santa Monica, California:** (Discussed above).
- 18 • **2/20/14 Alturas Tribal Shootings, Alturas, California:** Perpetrator used two
19 handguns and a butcher knife; unreported whether the perpetrator had or used any
20 large-capacity magazines.
- 21 • **5/23/14 Isla Vista Mass Murder:** Perpetrator used three handguns, legally
22 obtained. All handguns had ten-round magazines.
- 23 • **12/2/15 San Bernardino Mass Shooting:** (Discussed above).
- 24 • **4/18/17 Fresno Downtown Shooting:** The perpetrator used a revolver (capable of
25 carrying six rounds).

26
27 13. The following incident does not appear in the Mother Jones data set, presumably
28 because the killings occurred in two locations, one of which was not a public place (i.e., the

1 shooter's sister's apartment):

- 2 • **2009 Oakland Shooting:** Lovell Mixon killed four people using a handgun and
3 rifle. Two police officers were killed with the handgun and two persons with the
4 rifle. The shooter, however was a prohibited person, who acquired both the
5 handgun and the rifle illegally. Although it is unclear where he obtained
6 magazines for the rifle, as a prohibited person (felon), he was not a lawful owner
7 of a pre-ban large capacity magazine.

8 14. The FBI's "active shooter" data list which uses the definition of "active shooter"
9 as "an individual actively engaged in killing or attempting to kill people in a confined and
10 populated area," did not include any post-2000 California shootings not already identified above,
11 and which involved the use of large-capacity magazines.

12 15. In sum, based on merging these three data sources, first starting with the
13 massshootingtracker.org data, we reasonably conclude that there is little or no data that supports
14 any conclusion that pre-SB 23 grandfathered large-capacity magazines were used in a California
15 mass shooting from 2013 to the present. And in looking at the *Mother Jones* and FBI data, we
16 believe that the high-profile California mass shootings that occurred since 2000 were unlikely to
17 have used such pre-ban magazines as well. To the extent that large-capacity magazines were
18 used at all in conjunction with these attacks, e.g., San Bernardino, given the demographics and
19 ages of the shooters, it is equally unlikely that they were acquired and held lawfully, i.e., before
20 2000.

21 16. Therefore, it would be my professional opinion that there is no evidence that
22 legally-possessed pre-ban large-capacity magazines were involved in any mass shooting incident
23 in California since 2000. Further, examination of California mass shooting incidents since 2000
24 in which large capacity magazines were used indicates that the probability that any of them were
25 grandfathered LCMs is extremely low. Thus, there is virtually no benefit to be gained to ban
26 possession of LCMs that have been legally and peaceably owned since 2000.

27 17. This not to say that it is impossible that some of these events may have involved
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1 the use of pre-ban large-capacity magazines, of course. Indeed, some instances may be found.
2 However, the data as reported show a general trend that would not disturb this thesis: that
3 lawfully-held pre-ban magazines are not used in these types of shootings generally. And
4 moreover, as more time progresses, with seventeen years now passing since enactment of the
5 original LCM acquisition ban, the use of lawfully-held pre-ban magazines decreases.

6
7 **Effect of LCM Bans on Crime Rates Overall**

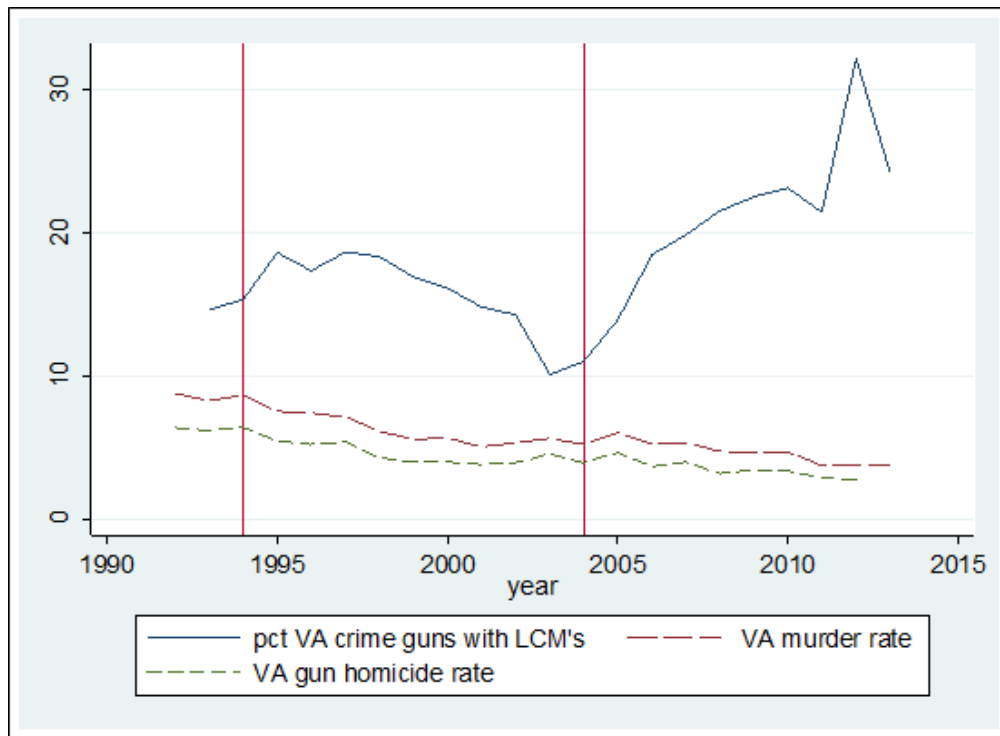
8 18. In a study done in 2015, measuring the effect that large-capacity magazine bans
9 may have had on homicide rates in general, I concluded that large-capacity magazines appear to
10 have little to do with homicide, public or private, and laws banning these products apparently
11 had no effect. In 2011 the Washington Post published the results of its study of a little-known
12 database on weapons recovered by local law enforcement officers in Virginia. The Criminal
13 Firearms Clearinghouse, maintained by the Virginia State Police, contains detailed information
14 on the circumstances of each firearm's recovery and each firearm's physical characteristics,
15 including magazine capacity. The study found that, 'The number of guns with high-capacity
16 magazines seized by Virginia police dropped during a decade-long federal prohibition on assault
17 weapons, but the rate has rebounded sharply since the ban was lifted in late 2004....'

18
19 'Maybe the federal ban was finally starting to make a dent in the market by the time it
20 ended,' said Christopher Koper, head of research at the Police Executive Research Forum,
21 who studied the assault weapons ban for the National Institute of Justice, the research arm of the
22 Justice Department. Also, 'The pattern in Virginia 'may be a pivotal piece of evidence' that the
23 assault weapons ban eventually had an impact on the proliferation of high-capacity magazines on
24 the streets,' said Garen Wintemute, head of the Violence Prevention Research Program at the
25 University of California at Davis. 'Many people, me included, were skeptical about the chances
26 that the magazine ban would make a difference back in 1994,' Wintemute said. 'But what I am
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28

1 seeing here is that after a few years' lag time the prevalence of high-capacity magazines was
 2 declining. The increase since the ban's repeal is quite striking.’²

3 20. Wintemute’s comment is somewhat alarming. Is the striking increase in LCM’s
 4 among crime guns associated with increasing homicide rates in Virginia? The proportion of
 5 recovered firearms in the Criminal Firearms Clearinghouse with magazine capacity greater than
 6 10 is shown below along with the corresponding murder and gun murder rate for Virginia from
 7 1993 to 2013.³

8 21. Figure 1



22 The proportion of crime guns with LCM’s initially rose from 1994-1997, the first three years of
 23 the ban, then declined steadily to 2004, only to rise again after the ban was lifted. On the other
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 26
 27 ² <http://www.washingtonpost.com/wp-dyn/content/story/2010/12/14/ST2010121406431.html?sid=ST2010121406431>

28 ³ Murder data is taken from the Uniform Crime Reports. Gun homicide is taken from the CDC Wonder data base.

1 hand the murder rate and the gun homicide rate in Virginia have both declined steadily, revealing
 2 no apparent connection between gun homicides and the use of LCM’s by criminals.

3 22. This observation can be tested by regressing the Virginia gun homicide rate and
 4 overall murder rate on the proportion of crime guns with LCM’s and a trend term for 1993-2013.
 5 Because the dependent variable could be a random walk, which could lead to a spurious
 6 regression, I also used first differences. The results are reported below.

7 Table 1⁴

8 Gun homicide rate

gun_hom_rate	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
pctlcm	-.0060742	.0058958	-1.03	0.317	-.0185132	.0063648
trend	-.0332869	.0048528	-6.86	0.000	-.0435255	-.0230483
_cons	1.947032	.0916205	21.25	0.000	1.75373	2.140335

15 First differences

D.		Newey-West				
gun_hom_rate	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
D.pctlcm	-.0062635	.0084435	-0.74	0.468	-.0240778	.0115508
_cons	-.0374536	.0224824	-1.67	0.114	-.0848873	.0099801

murder_rate	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
pctlcm	-.0002804	.0050943	-0.06	0.957	-.0109831	.0104223

25
 26 4 Notes for Table 3. The dependent variable is in logs, so the coefficients are percent
 27 changes. We tested for unit roots and could not reject the null hypothesis for either the
 28 murder or gun murder rate. However, we found no significant serial correlation in the
 regressions in levels indicating that the t-ratios are not biased. The regressions in first
 differences are estimated using Newey-West heteroscedasticity and autocorrelation standard
 errors because of significant negative serial correlation in the residuals.

1	trend	-.0359031	.0040542	-8.86	0.000	-.0444205	-.0273856
2	_cons	2.185345	.0775751	28.17	0.000	2.022365	2.348324

3 -----

4
5 First differences

6	D.						Newey-West
7	murder_rate	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
8	-----+-----						
9	D.pctlcm	.0005721	.0046124	0.12	0.903	-.0091182	.0102623
10	_cons	-.0388827	.0167536	-2.32	0.032	-.0740808	-.0036846

11 -----

12 23. The proportion of LCM’s among crime guns Virginia is never significant,
13 indicating that more LCM’s do not cause more murder or more gun murder. We could not
14 estimate a model for mass shootings because Virginia had only one mass shooting incident
15 during the sample period.

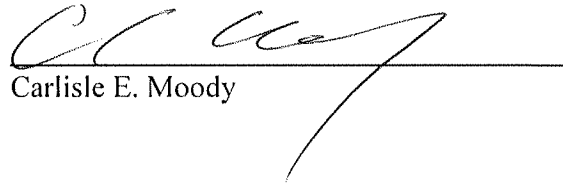
16 24. Thus, data from the Virginia Firearms Clearinghouse, which actually counts the
17 number of confiscated crime guns with large capacity magazines, fails to show any effect of
18 LCM’s or the LCM ban on murders or gun homicides. More criminals using more guns with
19 large capacity magazines do not cause more homicides.

20 25. In my opinion, the evidence shows that large capacity magazines have nothing to
21 do with murder in general or gun murder in particular. Consequently, seventeen year-old
22 grandfathered large capacity magazines cannot be expected to have any effect on gun homicides
23 or homicides in general.

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SEILER EPSTEIN ZIEGLER & APPEGATE LLP
Attorneys at Law

1 I declare under penalty of perjury that the foregoing is true and correct. Executed on June 10
2 2017.

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5 Carlisle E. Moody

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EXHIBIT A

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Education

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M.A., University of Connecticut, Storrs, Connecticut, 1966 (Economics)
Ph.D., University of Connecticut, Storrs, Connecticut, 1970 (Economics)

Experience

Professor of Economics, College of William and Mary, 1989-
Chair of the Department of Economics, College of William and Mary 1997- 2003
Associate Professor of Economics, College of William and Mary, 1975-1989.
Assistant Professor of Economics, College of William and Mary, 1970-1975.
Lecturer in Econometrics, University of Leeds, Leeds, England, 1968-1970.

Consultant

Stanford Research Institute
Virginia Marine Resources Commission
U.S. General Accounting Office
U.S. Department of Transportation
U.S. Department of Energy
National Center for State Courts
Oak Ridge National Laboratory
Justec Research.
The Orkand Corporation
Washington Consulting Group
Decision Analysis Corporation of Virginia
SAIC Corporation
West Publishing Group
Independence Institute

Research and Teaching Fields

Law and Economics
Econometrics
Time Series Analysis

Honors

National Defense Education Act Fellow, University of Connecticut, 1965-1968.
Bredin Fellow, College of William and Mary, 1982.
Member, Methodology Review Panel, Prison Population Forecast, Virginia Department of Planning and Budget,

Notable Individuals, Micro Computer Industry, 1983.

Speaker, Institute of Medicine and National Research Council Committee of Priorities for a Public Health Research Agenda to Reduce the Threat of Firearm-related Violence, National Academies of Science, Washington, DC, April 23, 2013

Refereed Publications

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