14-0319-cv

United States Court of Appeals

for the

Second Circuit

JUNE SHEW, STEPHANIE CYPHER, PETER OWENS, BRIAN MCCLAIN, HILLER SPORTS, LLC, MD SHOOTING SPORTS, LLC, CONNECTICUT CITIZENS' DEFENSE LEAGUE, COALITION OF CONNECTICUT SPORTSMEN, RABBI MITCHELL ROCKLIN, STEPHEN HOLLY,

Plaintiffs-Appellants,

– v. –

DANNEL P. MALLOY, in his official capacity as Governor of the State of Connecticut, KEVIN T. KANE, in his official capacity as Chief State's Attorney of the State of Connecticut, REUBEN F. BRADFORD, in his official capacity as Commissioner of the Connecticut Department of Emergency Services and Public

(For Continuation of Caption See Inside Cover)

ON APPEAL FROM THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF CONNECTICUT

JOINT APPENDIX
Volume 2 of 10 (Pages A-295 to A-580)

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Protection, DAVID I. COHEN, in his official capacity as State's Attorney for the Stamford/Norwalk Judicial District, Geographic Areas Nos. 1 and 20, JOHN C. SMRIGA, in his official capacity as State's Attorney for the Fairfield Judicial District, Geographical Area No. 2, MAUREEN PLATT, in her official capacity as State's Attorney for the Waterbury Judicial District, Geographical Area No. 4, KEVIN D. LAWLOR, in his official capacity as State's Attorney for the Ansonia/Milford Judicial District, Geographical Areas Nos. 5 and 22, MICHAEL DEARINGTON, in his official capacity as State's Attorney for the New Haven Judicial District, Geographical Area Nos. 7 and 23, PETER A. MCSHANE, in his official capacity as State's Attorney for the Middlesex Judicial District, Geographical Area No. 9, MICHAEL L. REGAN, in his official capacity as State's Attorney for the New London Judicial District, Geographical Area Nos. 10 and 21, PATRICIA M. FROEHLICH, GAIL P. HARDY, in her official capacity as State's Attorney for the Hartford Judicial District, Geographical Areas Nos. 12, 13, and 14, BRIAN PRELESKI, in his official capacity as State's Attorney for the New Britain Judicial District, Geographic Area Nos. 15 and 17, DAVID SHEPACK, in his official capacity as State's Attorney for the Litchfield Judicial District, Geographical Area No. 18, MATTHEW C. GEDANSKY, in his official capacity as State's Attorney for the Tolland Judicial District, Geographic Area No. 19, STEPHEN J. SEDENSKY, III, in his official capacity as State's Attorney for the Danbury Judicial District, Geographical Area No. 3,

Defendants-Appellees.

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* Exhibits B – I and L of the Counter-Statement are reproduced on CD-Rom

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EXHIBIT L

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF CONNECTICUT

JUNE SHEW, et al, Plaintiffs,	:	
-against-	:	Civil No. 3:13-cv-739-AVC
DANNEL P. MALLOY, et al,	:	**DECLARATION**
Defendants.	:	

MICHELE DeLUCA hereby declares the following pursuant to 28 U.S.C. §1746 under penalties of perjury.

1. I am over the age of 18 and believe in the nature of an oath.

2. I am submitting this affidavit in support of a motion for preliminary injunction filed by the plaintiffs herein.

3. I am a resident of the State of Connecticut, and a citizen of the United States. I have never been arrested or convicted of any crime. I currently possess a permit to carry firearms issued by the State of Connecticut. This permit has never been suspended or revoked.

4. I am the General Manager and co-owner of MD Shooting Sports LLC located at 230 Roosevelt Drive in Monroe, CT. ("the Store"). The Store is the holder of a Federal Firearms License ("FFL") that permits it to buy, sell, import and manufacture firearms both within and without the State of Connecticut. Pursuant to this license, the Store buys, sells, and re-purchases firearms within and without the State of Connecticut. The Store sells ammunition, as well as magazines that hold ammunition. The Store also engages in the business of gunsmithing firearms.

5. The firearms sold by the Store include rifles, pistols and shotguns. Several models of these firearms are semi-automatic, and are capable of accepting detachable magazines. Several models are AR-15 type modern sporting rifles. Several of these same models also have characteristics such as pistol grips, forward grips, telescoping stocks, thumbhole stocks, and threaded barrels. Threaded barrels permit the firearm to accept popular accessories such as shrouds and flash hiders.

6. On April 4, 2013, the Governor of Connecticut signed into law An Act Concerning Gun Violence Prevention and Children's Safety ("the Act"). Effective April 4, 2013, the Act bans the sale of "large capacity magazines" (i.e., magazines that can accept more than 10 rounds of ammunition). With certain exceptions, the Act bans the possession of "large capacity magazines." I understand that, starting January 1, 2014, possession of a "large capacity magazine" is a Class D felony. If the "large capacity magazine" was obtained before the Act's

passage, a first offense for possessing it is an infraction subject to a fine, but any subsequent offense is a Class D felony.

7. The Act bans "assault weapons," the definition of which includes a semiautomatic rifle that has an ability to accept a detachable magazine, and which also has: a folding or telescoping stock; or a thumbhole stock; or any other stock which would allow an individual to grip the weapon, resulting in any finger on the trigger hand in addition to the trigger finger being directly below any portion of the action of the weapon when firing; or a forward pistol grip.

8. Since the passage of the Act, the Store's business has been directly and adversely impacted. Prior to enactment of the Act, the Store typically did $2,000-$2,500 in business each weekday and $5,000 to $7,000 in business on Saturdays. After enactment of the Act, however, the Store is only generally earning about $1,000 per weekday and $2,000 to $2,500 on Saturdays.

9. The loss in business threatens the financial viability of the Store and has caused me and my co-owner to consider relocating the Store out of state.

10. As mentioned above, the Act outlaws semi-automatic rifles that can accept detachable magazines, and also have a thumbhole stock, a telescoping stock, a forward grip, or any grip that permits the fingers of the trigger hand to rest below the firearm's action when firing. These features are commonly found (either individually or in combination) on AR-15 type modern sporting rifles.

11. Prior to enactment of the Act, one segment of the Store's business involved the purchase of "AR"-type firearms from out-of-state distributors and the sale of these "AR"-type firearms to customers. Since the passage of the Act, the Store's out-of-state distributors have stopped altogether the shipment of "AR"-type firearms to the Store due to concern and confusion over whether these types of arms can legally be shipped to, received by and/or sold by the holder of an FFL. These reductions and stoppages have caused actual harm to Store's sales and overall business.

12. One segment of the Store's business involves the sale of ammunition magazines. Since the passage of the Act, the Store's sales of magazines has declined significantly. This decline involves magazines that hold more than ten rounds and those that hold less than ten rounds. This decline has caused actual harm to the Store's sales and overall business.

13. One segment of the Store's business involves the receipt and transfer of firearms pursuant to the FFL the Store holds. Since the passage of the Act, the volume of firearms that the Store received and transfers has declined significantly. Before enactment of the Act, the Store regularly received 5-7 used firearms per week that would be resold. Now, however, the Store only receives 1-2 used firearms per week. This decline has caused actual harm to the Store's sales and overall business.

14. Since the passage of the Act, the Store's overall sales of rifles, pistols, and shotguns has declined significantly. I have observed that this decline in sales involves firearms that contain some of the individual features that are banned by the Act (e.g., pistol grips,

telescoping stocks, etc.), but also firearms that are not characterized by the Act as "assault weapons." This decline is due, in large part, to customer confusion over which kinds of firearms are banned and which are not, as well as customer concern that purchasing a firearm will subject the customer to criminal prosecution.

15. In one recent incident, a customer who had come into the Store for the purchase of a bolt action rifle ultimately refused to make the purchase because he incorrectly believed that it was illegal under the Act.

16. Moreover, Connecticut law enforcement also appears to be confused over what is covered by the Act. For example, I personally spoke with a detective in the State Police Special Licensing and Firearms Unit in an effort to determine whether the Store could continue to sell Smith & Wesson AR-10 firearms in Connecticut after the enactment of the Act. While the detective told me that Smith & Wesson AR-10 firearms could continue to be sold in Connecticut, I later learned that this was simply incorrect.

17. There is also significant confusion on my behalf over which firearms can, and cannot, be sold according to the Act.

18. I understand that the Act lists over 160 different models of firearms as "assault weapons." The act outlaws "copies or duplicates" of 88 of these firearms, provided that they have the same "capability" of the listed rifle and "were in production prior to or on the effective date" of the Act. I also understand that the Act also defines 67 different kinds of "assault weapons" as "any combination of parts from which an assault weapon may be rapidly assembled."

19. I am unfamiliar with many of the 88 different models of firearms the Act calls "assault weapons." I have no reasonable way of knowing which ones may have been in production prior to or on the effective date of the Act, and I know of no source to research their production histories. I have no reasonable way of knowing what would be a "duplicate" or "copy" of a listed firearm, or what it means to have "the capability of any such" firearm, which may or may not refer to rate of fire, caliber, ballistics, range, durability, accuracy, barrel length, barrel diameter, sights, internal parts and operation (such as disconnector, firing pin, bolt, etc.), trigger pull, or some entirely different factor altogether. Because the meanings of these terms are so unclear, I am dissuaded from selling virtually any semiautomatic rifle.

20. I am unfamiliar with each of the individual parts or components that comprise the 67 different firearms the Act calls "assault weapons." I don't know which "combination of parts" could "rapidly be assembled" into a banned firearm.

21. I am afraid that if I were to sell a firearm that is later determined to be a "duplicate or copy" of a banned firearm I would be criminally prosecuted or imprisoned. I am likewise afraid that I could sell a "combination" of illegal parts for which I could prosecuted and jailed. But I have no reasonable way of knowing what the State deems to be an illegal "duplicate" or "copy," what the term "capability" means, or which parts comprise so many different kinds of firearms.

22. I have reviewed a diagram of a rifle that is being submitted as an exhibit in support of the plaintiffs' Motion for Preliminary Injunction. The diagram depicts an AR-style firearm commonly known as a "varmint rifle." "Varmint rifles" are hunting rifles commonly used to shoot small game such as woodchucks, coyotes, prairie dogs, etc., at long range. Since the depicted hunting rifle is semi-automatic, can accept a detachable magazine, and has a pistol grip, it is now banned under the Act as an "assault weapon."

23. I have reviewed the foregoing statements, and declare pursuant to 28 U.S.C. §1746 they are true, accurate and complete to the best of my knowledge, information and belief.

/s/ MICHELE DeLUCA

UNITED STATES DISTRICT COURT
DISTRICT OF CONNECTICUT

JUNE SHEW, et al.	:	**No. 3:13-CV-0739 (AVC)**
Plaintiffs,	:	
	:	
v.	:	
	:	
DANNEL P. MALLOY, et al.	:	
Defendants.	:	**AUGUST 9, 2013**

DEFENDANTS' ANSWER AND DEFENSES TO FIRST AMENDED COMPLAINT

The Defendants hereby submit their answer and defenses to Plaintiffs' First Amended Complaint.

Paragraph 1 – This paragraph is a legal statement to which no answer is necessary, and the Defendants leave the plaintiffs to their proof.

Paragraph 2 – Defendants admit in part as to the first sentence of the paragraph. Defendants deny the remainder of the paragraph.

Paragraph 3 – Deny.

Paragraph 4 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 5 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 6 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 7 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 8 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 9 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 10 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 11 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 12 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 13 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 14 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 15 – Defendants admit the first three sentences of this paragraph. Defendants deny the remainder of the paragraph.

Paragraph 16 – Admit.

Paragraph 17 – This paragraph is a legal statement to which no answer is necessary, and the Defendants leave the plaintiffs to their proof.

Paragraph 18 – Admit.

Paragraph 19 – This paragraph is a legal statement to which no answer is necessary, and the Defendants leave the plaintiffs to their proof.

Paragraph 20 – Admit.

Paragraph 21 – Admit.

Paragraph 23 – Admit.

Paragraph 24 – Admit.

Paragraph 25 – Admit.

Paragraph 26 – Admit.

Paragraph 27 – Admit.

Paragraph 28 – Admit.

Paragraph 29 – Admit.

Paragraph 30 – Admit.

Paragraph 31 – Admit.

Paragraph 32 – Admit.

Paragraph 33 – This paragraph is a legal statement to which no answer is necessary, and the Defendants leave the plaintiffs to their proof.

Paragraph 34 – This paragraph is a legal statement to which no answer is necessary, and the Defendants leave the plaintiffs to their proof.

Paragraph 35 – This paragraph is a legal statement to which no answer is necessary, and the Defendants leave the plaintiffs to their proof.

Paragraph 36 – This paragraph is a legal statement to which no answer is necessary, and the Defendants leave the plaintiffs to their proof.

Paragraph 37 – This paragraph is a legal statement to which no answer is necessary, and the Defendants leave the plaintiffs to their proof.

Paragraph 38 – Defendants admit in part as to the first and second sentences of the paragraph, except for the use of the term "so-called." Defendants deny the remainder of the paragraph.

Paragraph 39 – Admit.

Paragraph 40 – Deny.

Paragraph 41 – Defendants deny as to the first sentence of the paragraph. The second sentence of this paragraph is a legal statement to which no answer is necessary.

Paragraph 42 – This paragraph is a legal statement to which no answer is necessary, and the Defendants leave the plaintiffs to their proof.

Paragraph 43 – This paragraph is unclear and contains legal statements to which no answer is necessary, and the Defendants leave the plaintiffs to their proof.

Paragraph 44 – This paragraph is unclear and contains legal statements to which no answer is necessary, and the Defendants leave the plaintiffs to their proof.

Paragraph 45 – Defendants deny as to the first two sentences and leave plaintiffs to their proof on the legal conclusions contained therein. Defendants admit as to the last two sentences of this paragraph.

Paragraph 46 – This paragraph is a legal statement to which no answer is necessary, and the Defendants leave the plaintiffs to their proof.

Paragraph 47 – This paragraph is a legal statement to which no answer is necessary, and the Defendants leave the plaintiffs to their proof.

Paragraph 48 – This paragraph is a legal statement to which no answer is necessary, and the Defendants leave the plaintiffs to their proof.

Paragraph 49 – This paragraph is a legal statement to which no answer is necessary, and the Defendants leave the plaintiffs to their proof.

Paragraph 50 – Admit in part and deny in part. Admit legality of continued possession, the remainder of the paragraph and the legal conclusions therein are denied.

Paragraph 51 – This paragraph is a legal statement to which no answer is necessary, and the Defendants leave the plaintiffs to their proof.

Paragraph 52 – Admit.

Paragraph 53 – Defendants admit the first sentence of this paragraph. As to the second sentence, Defendants admit that Public Act 13-3 removed rimfire rifles from the definition of assault weapons, deny that it removed rimfire pistols from the definition of assault weapons, and

leave plaintiffs to their proof on the primary uses of such firearms. Defendants admit the third sentence of this paragraph. With regard to the fourth sentence, Defendants admit as to rimfire rifles but deny as to rimfire pistols.

Paragraph 54 – Deny.

Paragraph 55 – Deny.

Paragraph 56 – Deny.

Paragraph 57 – Deny.

Paragraph 58 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 59 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 60 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 61 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 62 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 63 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 64 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 65 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 66 – Defendants admit the first sentence only insofar as it relates to centerfire rifles. Defendants admit the second sentence of the paragraph except for the reference to "commonly found," for which Defendants leave the plaintiffs to their proof.

Paragraph 67 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 68 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 69 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 70 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 71 – Denied as to the first sentence of this paragraph. Defendants lack sufficient information at this time to admit or deny the contentions in the remainder of this paragraph, and leave the plaintiffs to their proof.

Paragraph 72 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 73 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

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Paragraph 81 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

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Paragraph 87 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 88 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 89 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 90 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 91 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 92 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 93 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 94 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 95 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 96 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 97 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 98 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 99 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 100 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 101 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 102 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 103 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 104 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 105 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 106 – Deny.

Paragraph 107 – Deny.

Paragraph 108 – Deny.

Paragraph 109 – Deny.

Paragraph 110 – Deny.

Paragraph 111 – Deny.

Paragraph 112 – Deny.

Paragraph 113 – Deny.

Paragraph 114 – Deny.

Paragraph 115 – Deny.

Paragraph 116 – The answers to the preceding paragraphs are reaffirmed and incorporated by reference.

Paragraph 117 – Deny.

Paragraph 118 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 119 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 120 – Defendants deny that the large capacity magazine ban is a ban on firearms, and lack sufficient information at this time to admit or deny the contentions in remainder of this paragraph and thus leave the plaintiffs to their proof.

Paragraph 121 – Deny.

Paragraph 122 – Defendants deny the first sentence of this paragraph and lack sufficient information at this time to admit or deny the contentions in the remainder of this paragraph, and leave the plaintiffs to their proof.

Paragraph 123 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 124 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 125 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 126 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 127 – Deny.

Paragraph 128 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 129 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 130 – This paragraph is a legal statement to which no answer is necessary, and the Defendants leave the plaintiffs to their proof.

Paragraph 131 – The first sentence of this paragraph is a legal statement to which no answer is necessary, and the Defendants leave the plaintiffs to their proof. Defendants lack sufficient information at this time to admit or deny the contentions in the second sentence of this paragraph, and leave the plaintiffs to their proof as to the allegations contained therein.

Paragraph 132 – Deny.

Paragraph 133 – The answers to the preceding paragraphs are reaffirmed and incorporated by reference.

Paragraph 134 – Defendants deny the characterization of Connecticut law as being pejorative. The rest of this paragraph is a legal statement to which no answer is necessary, and the Defendants leave the plaintiffs to their proof.

Paragraph 135 – Defendants deny that the Act's assault weapons definition is radical and that the banned weapons are "commonly used". The rest of this paragraph is a legal statement to which no answer is necessary, and the Defendants leave the plaintiffs to their proof.

Paragraph 136 – This paragraph is a legal statement to which no answer is necessary, and the Defendants leave the plaintiffs to their proof.

Paragraph 137 – Defendants deny and leave the plaintiffs to their proof as to the factual allegations and conclusions contained in this paragraph.

Paragraph 138 – Defendants deny and leave the plaintiffs to their proof as to the factual allegations and conclusions contained in this paragraph.

Paragraph 139 – Defendants deny and leave the plaintiffs to their proof as to the factual allegations and characterizations contained in this paragraph.

Paragraph 140 – Defendants deny and leave the plaintiffs to their proof as to the factual allegations and characterizations contained in this paragraph.

Paragraph 141 – Defendants deny and leave the plaintiffs to their proof as to the factual allegations and characterizations contained in this paragraph.

Paragraph 142 – Defendants admit that a shroud prevents one's hand from being burned while shooting a firearm, but deny the plaintiffs' characterization of a shroud as a "safety feature" and leave them to their proof.

Paragraph 143 – Defendants deny and leave the plaintiffs to their proof as to the factual allegations and characterizations contained in this paragraph.

Paragraph 144 – The first sentence of this paragraph is a legal statement to which no answer is necessary. Defendants deny and leave the plaintiffs to their proof as to the factual allegations and characterizations contained in the second sentence of this paragraph.

Paragraph 145 – Deny.

Paragraph 146 – The first three sentences of this paragraph are legal statements to which no answer is necessary. Defendants deny the last two sentences of this paragraph.

Paragraph 147 – Defendants admit the first and third sentences of this paragraph. With regard to the second sentence, Defendants deny that the term AR-15 is vague, and lack sufficient information at this time to admit or deny the remaining contentions in that sentence and leave the plaintiffs to their proof. Defendants admit that the list includes the pump action Remington

Tactical Rifle Model 7615, but lack sufficient information at this time to admit or deny the remaining contentions in the fourth sentence of this paragraph and leave the plaintiffs to their proof. Defendants admit that the list includes all IZHMASH Saiga 12 shotguns, but lack sufficient information at this time to admit or deny the remaining contentions in the fifth sentence and leave the plaintiffs to their proof.

Paragraph 148 – The first sentence of this paragraph is a legal statement to which no answer is necessary. Defendants deny the last sentence of this paragraph.

Paragraph 149 – Defendants lack sufficient information at this time to admit or deny the contentions in this paragraph, and leave the plaintiffs to their proof as to the allegations contained in this paragraph.

Paragraph 150 – This paragraph is a legal statement to which no answer is necessary, and the Defendants leave the plaintiffs to their proof.

Paragraph 151 – Deny.

Paragraph 152 – The answers to the preceding paragraphs are reaffirmed and incorporated by reference.

Paragraph 153 – Defendants deny the first two sentences of this paragraph. The third sentence of this paragraph is a legal statement to which no answer is necessary.

Paragraph 154 – Defendants admit as to the first sentence. Defendants deny as to the second sentence and leave plaintiffs to their proof on the factual allegations and legal conclusions contained in this sentence.

Paragraph 155 – Admit.

Paragraph 156 – Deny.

Paragraph 157 – Deny.

Paragraph 158 – The answers to the preceding paragraphs are reaffirmed and incorporated by reference.

Paragraph 159 – This paragraph is a legal statement to which no answer is necessary, and the Defendants leave the plaintiffs to their proof.

Paragraph 160 – Admit.

Paragraph 161 – Deny.

Paragraph 162 – Deny.

Paragraph 163 – The answers to the preceding paragraphs are reaffirmed and incorporated by reference.

Paragraph 164 – Deny.

Paragraph 165 – This paragraph is a legal statement to which no answer is necessary, and the Defendants leave the plaintiffs to their proof.

Paragraph 166 – Admit.

Paragraph 167 – Deny.

Paragraph 168 – Deny.

Paragraph 169 – Defendants deny the first sentence of this paragraph. Defendants lack sufficient information to admit or deny the remaining contentions in this paragraph as written, and therefore leave the plaintiffs to their proof.

Paragraph 170 – Deny.

Paragraph 171 – Defendants deny the first and third sentences of this paragraph. The second sentence of this paragraph is a legal statement to which no answer is necessary.

Paragraph 172 – Defendants deny and leave the plaintiffs to their proof as to the factual allegations and characterizations contained in this paragraph.

Paragraph 173 – Deny.

Paragraph 174 – Deny.

Paragraph 175 – Deny.

Paragraph 176 – Defendants admit that the list of assault weapons includes the Remington Tactical Rifle Model 7615 and that that rifle is a pump action rifle, but deny the remaining allegations in this paragraph.

Paragraph 177 – Defendants deny the first, third and fourth sentences of this paragraph. Defendants admit the second sentence of this paragraph.

Paragraph 178 – The first two sentences of this paragraph are legal statements to which no answer is necessary, and the Defendants leave the plaintiffs to their proof. Defendants deny the last sentence of this paragraph.

Paragraph 179 – Deny.

Paragraph 180 – Deny.

Paragraph 181 – Deny.

Paragraph 182 – Deny.

Paragraph 183 – This paragraph is a legal statement to which no answer is necessary, and the Defendants leave the plaintiffs to their proof.

Paragraph 184 – Deny.

Paragraph 185 – The first sentence of this paragraph is a legal statement to which no answer is necessary. With regard to the second and fourth sentences, Defendants lack sufficient information at this time to admit or deny the contentions in these sentences, and leave the plaintiffs to their proof. With regard to the third sentence, Defendants admit that the Beretta

BM59 would not be a copy or duplicate of the Springfield Armory BM59, but deny that the Beretta BM59 would not be a prohibited assault weapon.

Paragraph 186 – Deny.

Paragraph 187 – Deny.

Paragraph 188 – Deny.

Paragraph 189 – This paragraph is a legal statement to which no answer is necessary, and the Defendants leave the plaintiffs to their proof.

Paragraph 190 – Deny.

Paragraph 191 – Deny.

Paragraph 192 – The first sentence of this paragraph is a legal statement to which no answer is necessary, and the Defendants leave the plaintiffs to their proof. Defendants deny the last sentence of this paragraph.

Paragraph 193 – Deny.

Paragraph 194 – This paragraph is a legal statement to which no answer is necessary, and the Defendants leave the plaintiffs to their proof.

Paragraph 195 – Deny.

FIRST DEFENSE

Plaintiffs fail to state a claim upon which relief may be granted.

SECOND DEFENSE

Plaintiffs' claims are barred because some or all of the plaintiffs lack standing.

THIRD DEFENSE

Defendants reserve the right to add or rescind defenses after further investigation and discovery.

Respectfully Submitted,

DEFENDANTS,
DANNEL P. MALLOY, et al.

GEORGE JEPSEN
ATTORNEY GENERAL

BY:/s/ *Maura Murphy Osborne*
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CERTIFICATION

I hereby certify that on August 9, 2013, a copy of the foregoing Defendants' Answer and Defenses to the First Amended Complaint was filed electronically. Notice of this filing was sent by e-mail to all parties by operation of the Court's electronic filing system. Parties may access this filing through the Court's system.

/s/ *Maura Murphy Osborne*
Maura Murphy Osborne

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF CONNECTICUT

JUNE SHEW, *et al.*,	:	
Plaintiffs,	:	Case No. 3:13-cv-00739-AVC
v.	:	
DANNEL P. MALLOY, *et al.*,	:	
Defendants.	:	August 23, 2013

PLAINTIFFS' MOTION FOR SUMMARY JUDGMENT

Plaintiffs, by and through their attorneys, respectfully move this Court pursuant to Fed.R.Civ.P. 56 for an Order: (1) granting declaratory judgment that Connecticut's Act Concerning Gun Violence Prevention and Children's Safety ("the Act") is unconstitutional as it violates of the Second Amendment and the Equal Protection Clause of the U.S. Constitution; and (2) permanently enjoining the implementation and enforcement of the Act. Specifically, Plaintiffs seek to permanently enjoin the enforcement of and/or the prosecution of citizens under the following sections of the Connecticut General Statutes (as amended or created by corresponding sections of the Act):

1. CONN. GEN. STAT. §§ 53-202p(a)(1), 53-202p(e)(3), and 53-202q(f)-(g), which make it unlawful to possess an ammunition feeding device containing more than ten rounds of ammunition.

ORAL ARGUMENT REQUESTED ON AN EXPEDITED BASIS
TESTIMONY REQUIRED

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2. CONN. GEN. STAT. § 53-202p(c), which makes it unlawful to possess, and CONN. GEN. STAT. § 53-202p(b), which makes it unlawful to transport, ship, or dispose of, a large capacity ammunition feeding device.

3. CONN. GEN. STAT. § 53-202b(a)(1), which makes it unlawful to distribute, transport or import into the state, keep for sale, or offer or expose for sale, or give any "assault weapon."

4. CONN. GEN. STAT. § 53-202c(a), which makes it unlawful to possess any "assault weapon."

5. CONN. GEN. STAT. § 53-202p(a)(1), in referring to any device "that can be readily restored or converted to accept" more than ten rounds of ammunition.

6. CONN. GEN. STAT. § 53-202p(a)(1), in referring to any device that "has a capacity of, or that can be readily restored or converted to accept, more than" ten rounds of ammunition, as applied to tubular magazines for other than .22 caliber firearms.

7. CONN. GEN. STAT. § 53-202a(1)(E)(i) and (vi), defining "assault weapon" in part as certain rifles and shotguns as having "a folding or telescoping stock" or "a pistol grip, a thumbhole stock, or any other stock, the use of which would allow an individual to grip the weapon, resulting in any finger on the trigger hand in addition to the trigger finger being directly below any portion of the action of the weapon when firing," or certain shotguns having both such features.

8. CONN. GEN. STAT. § 53-202a(1)(E)(vii), which defines an "assault weapon" as a semiautomatic shotgun with "an ability to accept a detachable magazine."

9. CONN. GEN. STAT. § 53-202a(1)(A)(i), which names as "assault weapons" 67 separate firearms, and CONN. GEN. STAT § 53-202a(1)(A)(ii), which describes an "assault weapon" as "a part or combination of parts designed or intended to convert a firearm into an assault weapon,

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as defined in subparagraph (A)(i) of this subdivision, or any combination of parts from which an assault weapon, as defined in subparagraph (A)(i) of this subdivision, may be rapidly assembled if those parts are in the possession or under the control of the same person."

10. CONN. GEN. STAT. § 53-202a(1)(B), which names as "assault weapons" 88 "specified semiautomatic centerfire rifles, or copies or duplicates thereof with the capability of any such rifles, that were in production prior to or on the effective date of this section."

11. CONN. GEN. STAT. § 53-202a(1)(C), which names as "assault weapons" 27 semiautomatic pistols "or copies or duplicates thereof with the capability of any such pistols, that were in production prior to or on the effective date of this section."

12. CONN. GEN. STAT. § 53-202a(1)(D), which names as an "assault weapon" one shotgun "or copies or duplicates thereof with the capability of any such shotguns, that were in production prior to or on the effective date of this section."

13. CONN. GEN. STAT. § 53-202a(1)(F), which describes as an "assault weapon" a "part or combination of parts designed or intended to convert a firearm into an assault weapon, as defined in any provision of subparagraphs (B) to (E), inclusive, of this subdivision, or any combination of parts from which an assault weapon, as defined in any provision of subparagraphs (B) to (E), inclusive, of this subdivision, may be assembled if those parts are in the possession or under the control of the same person."

14. As is set forth in the accompanying Memorandum of Law, the Act violates the plaintiffs' rights under the Second Amendment to the United States Constitution, denies the plaintiffs the Equal Protection of the laws, and is unconstitutionally vague and ambiguous.

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15. The plaintiffs are likely to succeed on the merits of their claims against the defendants, and the plaintiffs are suffering irreparable harm by the passage, implementation and enforcement of this unconstitutional legislation. In addition, neither the public interest nor the defendants' interests justify the implementation and enforcement of the Act. This Court should therefore issue a preliminary injunction against the Act's implementation and enforcement.

16. The facts and law supporting this motion are fully set out in the Memorandum of Law that accompanies this motion.

17. The plaintiffs respectfully request that the Court hear oral argument on this motion on an expedited basis. Good cause for expedited argument exists in that the Act has criminalized the sale and possession of previously-legal firearms now classified as "assault weapons" and standard magazines now classified as "large capacity feeding devices." These items are currently possessed by plaintiffs and thousands of other law-abiding Connecticut citizens. The Act's ban, and the ill-defined vagueness of its terms, not only violate the constitutional rights of the plaintiffs, but have caused widespread confusion throughout Connecticut as to how the Act is to be implemented and obeyed. The Act has also created fear of immediate felony prosecution and imprisonment in the minds of the plaintiffs and law-abiding citizens throughout Connecticut.

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18. Expedited argument on and resolution of this Motion for Summary Judgment is required to rectify the Act's ongoing constitutional violations and to provide clarity as to the implementation and enforcement of the Act.

Dated: August 23, 2013

Respectfully Submitted,

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CERTIFICATION

I hereby certify that on August 23, 2013, a copy of the foregoing MOTION FOR SUMMARY JUDGMENT was filed electronically and served by mail upon anyone unable to accept electronic filing. Notice of this filing was will be sent by e-mail to all parties by operation of the Court's electronic filing system or by mail to anyone unable to accept electronic filing as indicated on the Notice of Electronic Filing. Parties may access this filing through the Court's CM/ECF System.

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IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF CONNECTICUT

JUNE SHEW, *et al.*,	:	
Plaintiffs,	:	Case No. 3:13-cv-00739-AVC
v.	:	
DANNEL P. MALLOY, *et al.*,	:	
Defendants.	:	August 23, 2013

PLAINTIFFS' LOCAL RULE 56(a)1 STATEMENT

Plaintiffs, by and through counsel and pursuant to D.Conn.L.Civ.R. 56(a)1, hereby submit this Statement of Undisputed Material Facts in support of their Motion for Summary Judgment dated August 23, 2013 (Doc. # 60) seeking declaratory judgment that Connecticut's Act Concerning Gun Violence Prevention and Children's Safety ("the Act") is unconstitutional, and also an immediate and permanent injunction against the Act's enforcement.

Gun Deaths In The United States

1. The leading cause of death by firearm in the U.S. is suicide. *See* Pew Research Center, *Gun Homicide Rate Down 49% Since 1993 Peak; Public Unaware* (May 2013) ("Pew Report"), at 2. [A copy of the Pew Report is attached hereto as **"Exhibit A"**].

2. Gun suicides now account for six out of every ten firearm deaths in this country. *Id.*

3. The gun suicide rate has been higher than the gun homicide rate since at least 1981. *Id.* at 4.

4. There were 31,672 firearm deaths in the U.S. in 2010; 61% of these were caused by suicide, versus 35% being caused by homicide. Pew Report at 4. In 2010, firearm suicide was the

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fourth leading cause of violent-injury death in the U.S., behind motor vehicle accidents, unintentional poisoning, and falls. *Id.* at 16.

Gun Homicides In The United States

5. National rates of gun homicide and other violent gun crimes are "strikingly lower" now than during their peak in the mid-1990s. Pew Report at 1. *See also* U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics, *Special Report – Firearm Violence, 1993-2011* (May 2013) ("BJS Report") at 1. [A copy of the BJS Report is attached hereto as **"Exhibit B"**].

6. The firearm homicide rate in the late 2000s has not been this low since the early 1960s. Pew Report at 2.

7. The firearm homicide rate in 2010 was 49% lower than it was in 1993. *Id. See also* BJS Report at 1.

Non-Fatal Gun Crimes In The United States

8. The victimization rate for other violent crimes committed with a firearm (i.e., assaults, robberies and sex crimes) was 75% lower in 2011 than in 1993. Pew Report at 1. *See also* BJS Report at 1.

9. In 1993, the rate of non-fatal violent gun crime amongst people aged 12 and over was 725.3 per 100,000 people. Pew Report at 17. By 2011, that rate had plunged 75% to 181.5 per 100,000 people. *Id.*

10. During this same period, the victimization rate for aggravated assault with firearms declined 75%, and the rate for robbery with firearms declined 70%. *Id.*

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Public Knowledge Of The Dropping Gun Crime Rate

11. Despite the widespread media attention given to gun violence recently, most Americans are unaware that gun crime is markedly lower than it was two decades ago. Pew Report at 4.

12. A national survey taken between March 14-17 of 2013 found that 56% of Americans believe the number of gun crimes is higher than it was 20 years ago; 26% say it stayed the same, and only 12% say it is lower. *Id.*

Mass Shootings

13. Mass shootings, while a matter of great public interest and concern, account for only a very small share of shootings overall. Pew Report at 4. Homicides that claimed the lives of three or more people accounted for less than 1% of all homicide deaths between 1980 and 2008. *Id.*

14. Most scholarly and expert sources conclude that mass shootings are rare violent crimes. *See* Congressional Research Service, *Public Mass Shootings in the United States: Selected Implications for Federal Public Health and Safety Policy* (March 2013) ("CRS Report"). [A copy of the CRS Report is attached hereto as **"Exhibit C"**].

15. One study has described mass shootings as "very low-frequency and high intensity events." *Id.* [citing J. Reid Meloy, *et al*, "A Comparative Analysis of North American Adolescent and Adult Mass Murders," *BEHAVIORAL SCIENCES AND THE LAW*, vol. 22, no. 3 (2004) at 307].

The Prevalence Of Handgun Use In Gun Crimes

16. Approximately 90% of all non-fatal firearm crimes in the U.S. between 1993 and 2011 were committed with a handgun. BJS Report at 1, 3.

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17. Approximately 80% of all gun homicides in the U.S. between 1991 and 2011 were committed with a handgun. *See* U.S. Department of Justice, Federal Bureau of Investigation, *Crime in the United States – Uniform Crime Report* ("FBI UCRs"), 1995 to 2011. [Complete copies of the FBI UCRs for the years 1995 through 2012 can be accessed at: www.fbi.gov/about-us/cjis/usc/usc-publications. True, complete and accurate summaries of the gun homicide data provided by the FBI UCRs are attached hereto as **"Exhibit D"**]. *See also* BJS Report at 1, 3.

18. In contrast, only 6% of the gun homicides committed between 1991 and 2011 involved a shotgun, and even less (4.6%) involved a rifle. FBI UCRs, 1995 to 2011.

19. In Connecticut: 77% of the gun homicides between 1995 and 2010 were committed with a handgun. *Id.* Just 3% of these involved a shotgun, and 2% involved a rifle. *Id.*

The Prevalence of Illegal Guns Used In Crimes

20. Between 1997 and 2004, more state inmates who used guns during crimes (40%) obtained those guns illegally than from any other source. BJS Report at 13.

21. Almost as many (37%) obtained guns from family or friends. *Id.*

22. A very small number of state inmates (10%) purchased their guns at retail stores or pawn shops, and even fewer (less than 2%) bought their guns at gun shows or flea markets. *Id.*

The Prevalence of "Assault Weapons" Used In Crimes

23. Numerous studies have examined the use of firearms characterized as "assault weapons" ("AWs") both before and after the implementation of Title XI of the Violent Crime Control and Law Enforcement Act of 1994 (the federal assault weapons ban) ("the Ban"). *See e.g.*, Christopher Koper, Daniel Woods and Jeffrey Roth, *An Updated Assessment of the Federal Assault Weapons Ban: Impacts on Gun Markets and Gun Violence, 1994-2003* (June 2004) ("Koper 2004");

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Christopher Koper and Jeffrey Roth, *Impact Evaluation of the Public Safety and Recreational Firearms Use Protection Act of 1994 – Final Report* (March 1997) ("Koper 1997"). [The Koper 2004 Report is attached here as **"Exhibit E."** The Koper 1997 Report is attached here as **"Exhibit F."**].

24. The "overwhelming weight" of evidence produced by these studies indicates that AWs are used in a only a very small percentage of gun crimes overall. Koper 2004 at 17. According to most studies, AWs are used in approximately 2% of all gun crimes, Koper 2004 at 2, 14, 19.

25. The inclusion of AWs among crime guns is "rare." Koper 1997 at 69.

26. Even the highest estimates of AW use in gun crime, which correspond to "particularly rare" events such mass shootings and police murders, are no higher than 13%. Koper 2004 at 15-16.

27. AWs (including so-called assault pistols ("APs") and assault rifles ("ARs")) and ammunition magazines that can accept more than ten rounds of ammunition (so-called "Large Capacity Magazines" or "LCMs") are not used disproportionately in crimes. Koper 2004 at 17; Koper 1997 at 65, 70, 96.

28. Prior to the Ban, AWs (as defined by the federal law) accounted for about 2.5% of guns produced from 1989 through 1993. Koper 2004 at 17. This figure is consistent with the fact that AWs are used in just 2% of all gun crimes. *Id.*

29. Prior to the Ban, LCMs accounted for 14% to 26% of guns used in crime. Koper 2004 at 2, 18. This range is consistent with the national survey estimates indicating approximately

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18% of all civilian-owned guns and 21% of civilian-owned handguns were equipped with LCMs as of 1994. Koper 2004 at 18.

30. Post-Ban analysis of ATF[1] trace requests for AWs involved in violent and drug-related crime between 1994 and 1996 show that, on average, the monthly number of assault weapon traces associated with violent crimes across the entire nation ranged from approximately 30 in 1995 to 44 in 1996. Koper 1997 at 65. For drug crimes, the monthly averages ranged from 34 in 1995 to 50 in 1994. *Id.*

31. These trace ranges represent a "strikingly small" magnitude. Koper 1997 at 65.

32. ATF trace figures from 1996 show that assault weapons accounted for 3% of all trace requests. *Id.* Analysis of trace requests for AR15, Intratec and SWD types of domestic firearms (i.e., those not impacted by pre-Ban legislation (Koper 1997 at 63)), and also those arms characterized as "assault weapons" that were most frequently sold at the enactment of the Ban (Koper 1997 at 63), showed that AWs associated with violent and drug-related crimes represented only 2.5% of all traces. Koper 1997 at 70. Traces for this select AW group accounted for 2.6% of traces for guns associated with violent crimes and 3.5% of traces for guns associated with drug crimes. *Id.*

33. According to Koper, "these numbers reinforce the conclusion that assault weapons are rare among crime guns." *Id.*

34. Koper also analyzed all guns confiscated by police in various jurisdictions to obtain "a more complete and less biased" picture of weapons used in crime that that presented by ATF

[1] "ATF" refers to the Bureau of Alcohol, Tobacco, and Firearms, which was renamed the Bureau of Alcohol, Tobacco, and Firearms and Explosives in 2003.

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trace requests. Koper 1997 at 71. Data collected from police departments in Boston and St. Louis confirmed that AWs are not overrepresented in violent crime relative to other guns. *Id.* at 72, 75.

35. Overall, assault weapons accounted for about 1% of guns associated with homicides, aggravated assaults, and robberies. *Id.* at 75.

The Prevalence of "Assault Weapons" Used in the Murder of Police Officers

36. Police officers are rarely murdered with assault weapons. Koper 1997 at 99.

37. The fraction of police gun murders perpetrated with AWs is only slightly higher than that for civilian gun murders. *Id.*

38. The argument that assault weapons pose a unique, disproportionate danger to police officers is contradicted by FBI data. *See* LAW ENFORCEMENT OFFICERS KILLED & ASSAULTED ("LEOKA") [www.fbi.gov/about-us/cjis/ucr/leoka/2010]. The LEOKA data show that, in 2010, a law enforcement officer was eight times more likely to be murdered with a revolver than with an AW or LCM, eight times more likely to be killed with his own service pistol, three times as likely to be killed by a "firearms mishap" during police training (whether by his own hand or that of a fellow officer), and 72 times as likely to be killed in the line of duty accidentally—usually by being run over by another motorist while the officer was standing on a roadside to issue somebody a traffic ticket. The LEOKA statistics for 2011 are similar. *See* www.fbi.gov/about-us/cjis/ucr/leoka/2011.

The Impact of the Federal Assault Weapons Ban

The Impact of the Ban on "Assault Weapon" and "Large Capacity Magazine" Market Scarcity

39. Repeated statistical analysis of the Ban's impact on primary market prices for AWs and LCMs showed that primary-market prices of the banned guns and magazines rose by upwards of 50% during 1993 and 1994, while the Ban was being debated and as gun distributors, dealers,

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and collectors speculated that the banned weapons would become expensive collectors' items. Koper 1997 at 1, 3. *Cf.,* Koper 2004 at 23-29. However, production of the banned guns also surged, so that more than an extra year's normal supply of assault weapons and legal substitutes was manufactured during 1994. *Id.* at 1. After the Ban took effect, primary-market prices of the banned guns and most large-capacity magazines fell to nearly pre-Ban levels and remained there at least through mid-1996, reflecting both the oversupply of grandfathered guns and the variety of legal substitutes that emerged around the time of the Ban. *Id.* at 1-3. *Cf.*, Koper 2004 at 2.

The Ban's Impact on the Consequences of "Assault Weapon" Use

Total Gun Murders

40. The percentage of violent gun crimes resulting in death has been very stable since 1990. Koper 2004 at 92. In fact, the percentage of gun crimes resulting in death during 2001 and 2002 (2.94%) was slightly higher than that during 1992 and 1993 (2.9%). *Id.*

41. Similarly, neither medical nor criminological data have shown any post-Ban reduction in the percentage of crime-related gunshot victims who die. Koper 2004 at 92. If anything, this percentage has been higher since the Ban. *Id.*

42. According to medical examiners' reports and hospitalization estimates, about 20% of gunshot victims died nationwide in 1993. *Id.* This figure rose to 23% in 1996, before declining to 21% in 1998. 92. *Id.* Estimates derived from the FBI UCRs and the Bureau of Justice Statistics' annual National Crime Victimization Survey ("NCVS") follow a similar pattern from 1992 to 1999, and also show a considerable increase in the percentage of gunshot victims who died in 2000 and 2001. *Id.*

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43. Overall, the statistical evidence is not strong enough to conclude that the Ban had any meaningful effect on the rate of gun murders (i.e., that the effect was different from zero). Koper 1997 at 6.

Gun Homicides Associated With AWs
(multiple victims in a single incident, or multiple bullet wounds per victim)

44. The Ban failed to reduce both multiple-victims and multiple-bullet-wounds-per-victim murders. Koper 1997 at 2.

45. Using a variety of national and local data sources, Koper found no statistical evidence of post-Ban decreases in either the number of victims per gun homicide incident, the number of gunshot wounds per victim, or the proportion of gunshot victims with multiple wounds. Koper 1997 at 6. Nor did he find assault weapons to be overrepresented in a sample of mass murders involving guns *Id.*

Multiple-Victim Gun Homicides

46. Examination of the FBI's Supplemental Homicide Report ("SHR") data produced no evidence of short term decreases in the lethality of gun violence as measured by the mean number of victims killed in gun homicide incidents. Koper 1997 at 86.

47. The number of victims-per-incident gun murders increased very slightly (less than 1 percent) after the Ban. *Id.* Multiple-victim gun homicides remained at relatively high levels through at least 1998, based on the national average of victims killed per gun murder incident. Koper 2004 at 93. If anything, then, gun attacks appear to have been more lethal and injurious since the Ban. *Id.* at 96.

48. An interrupted time series analysis failed to produce any evidence that the Ban reduced multiple-victims gun homicides. *Id.*

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Multiple-Wound-Per-Victim Gun Homicides

49. Multiple wound shootings were elevated over pre-Ban levels during 1995 and 1996 in four of five localities examined during Koper's first AW study, though most of the differences were not statistically significant. Koper 2004 at 93.

50. If attacks with AWs and LCMs result in more shots fired and victims hit than attacks with other guns and magazines, Koper expected a decline in crimes with AWs and LCMs to reduce the share of gunfire incidents resulting in victims wounded or killed. Koper 2004 at 93. Yet, when measured nationally with UCR and NCVS data, this indicator was relatively stable at around 30% from 1992 to 1997, before rising to about 40% from 1998 through 2000. *Id.*

51. Analysis of the number of wounds inflicted in both fatal and non-fatal gunshot cases in Milwaukee, Seattle, Jersey City, San Diego, and Boston failed to produce evidence of a post-Ban reduction in the average number of gunshot wounds per case, or the proportion of cases involving multiple wounds. Koper 1997 at 97.

The Role of LCMs in Increased Gunshot Victimization

52. There is very little empirical evidence on the direct role of ammunition capacity in determining the outcomes of criminal gun attacks. Koper 1997 at 10. Specific data on shots fired in gun attacks are quite fragmentary and often inferred indirectly, but they suggest that relatively few attacks involve more than 10 shots fired. Koper 2004 at 90. The limited data which do exist suggest that criminal gun attacks involve three or fewer shots on average. Koper 1997 at 10.

53. Based on national data compiled by the FBI, there were only about 19 gun murder incidents a year involving four or more victims from 1976 through 1995 (for a total of 375), and

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only about one a year involving six or more victims from 1976 through 1992 (for a total of 17). Koper 2004 at 90.

54. Similarly, gun murder victims are shot two to three times on average (according to a number of sources), and a study at a Washington, DC trauma center reported that only 8% of all gunshot victims treated from 1988 through 1990 had five or more wounds. Koper 2004 at 90.

55. The few available studies on shots fired show collectively that assailants fire less than four shots on average, a number well within the 10-round magazine limit imposed by the AW-LCM ban. Koper 2004 at 90.

56. A study of mass shootings (defined therein as incidents in which six or more victims were killed with a gun, or twelve or more were wounded) from 1984 to 1993 found that "for those incidents where the number of rounds fired and the duration of the shooting were both reported, the rate of fire never was faster than about one round every two seconds, and was usually much slower than that." *See* Kleck, TARGETING GUNS at 124-25. Thus, "[n]one of the mass killers maintained a sustained rate of fire that could not also have been maintained—even taking reloading time into account—with either multiple guns or with an ordinary six-shot revolver and the common loading devices known as 'speedloaders.'" *Id.* at 125.

57. There is no evidence comparing the fatality rate of attacks perpetrated with guns having large-capacity magazines to those involving guns without large-capacity magazines. Koper 2004 at 90. Indeed, there is no evidence comparing the fatality rate of attacks with semiautomatics to those with other firearms. *Id.*

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Summary of Past and Future Impacts of the Ban

58. The Ban cannot clearly be credited with any of the nation's recent drop in gun violence. Koper 2004 at 2, 96.

59. The Ban has produced no discernible reduction in the lethality and injuriousness of gun violence, based on indicators like the percentage of gun crimes resulting in death or the share of gunfire incidents resulting in injury. *Id.* at 96. *See also* NATIONAL RESEARCH COUNCIL, FIREARMS AND VIOLENCE: A CRITICAL REVIEW 97 (Charles F. Wellford *et al*. eds., 2005) ("[G]iven the nature of the [1994 assault weapons ban], the maximum potential effect of the ban on gun violence outcomes would be very small and, if there were any observable effects, very difficult to disentangle from chance yearly variation and other state and local gun violence initiatives that took place simultaneously"); Centers for Disease Control, *Recommendations To Reduce Violence Through Early Childhood Home Visitation, Therapeutic Foster Care, and Firearms Laws*, 28 AM. J. PREV. MED. 6, 7 (2005) (With respect to "bans on specified firearms or ammunition," the CDC Task Force found that "[e]vidence was insufficient to determine the effectiveness of bans . . . for the prevention of violence."); *see also* Robert A. Hahn *et al*., *Firearms Laws and the Reduction of Violence: A Systematic Review*, 28 AM. J. PREV. MED. 40, 49 (2005) ("available evidence is insufficient to determine the effectiveness or ineffectiveness on violent outcomes of banning the acquisition and possession of [particular] firearms").

60. If the AW ban were to be renewed, its effects on gun violence would likely to be small at best and perhaps too small for reliable measurement. Koper 2004 at 3. AWs were rarely used in gun crimes even before the ban. *Id.* at 3, 97. LCMs are involved in a more substantial share of gun crimes, but it is not clear how often the outcomes of gun attacks depend on the ability of

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offenders to fire more than ten shots (the current magazine capacity limit) without reloading. Koper 2004 at 3, 19, 97.

The Impact of the Act

Plaintiffs

61. Members of Organization Plaintiffs Connecticut Citizens Defense League ("CCDL") and the Coalition of Connecticut Sportsmen ("CCS"), as well as the individual plaintiffs and business plaintiffs, possess and wish to acquire rifles, handguns, shotguns, and ammunition feeding devices, but are prevented from doing so by the Act's restrictions on "assault weapons," and "large capacity ammunition feeding devices." *See* Declaration of the CCDL's Scott Wilson ("Wilson Decl.") [attached hereto as **"Exhibit G"**]; Affidavit of June Shew ("Shew Aff.") [Ms. Shew's affidavit was originally filed with the Court on 06/26/13 as "Exhibit D" (Doc. #15-6) in support of Plaintiffs' Motion for Preliminary Injunction]; Affidavit of Brian McClain ("McClain Aff.") [Mr. McClain's affidavit was originally filed with the Court on 06/26/13 as "Exhibit E" (Doc. #15-7) in support of Plaintiffs' Motion for Preliminary Injunction]; Affidavit of Stephanie Cypher ("Cypher Aff.") [Ms. Cypher's affidavit was originally filed with the Court on 06/26/13 as "Exhibit F" (Doc. #15-8) in support of Plaintiffs' Motion for Preliminary Injunction]; Affidavit of Mitchell Rocklin ("Rocklin Aff.") [Rabbi Rocklin's affidavit was originally filed with the Court on 06/26/13 as "Exhibit G" (Doc. #15-9) in support of Plaintiffs' Motion for Preliminary Injunction]; Affidavit of Peter Owens ("Owens Aff.") [Mr. Owens' affidavit was originally filed with the Court on 06/26/13 as "Exhibit H" (Doc. #15-10) in support of Plaintiffs' Motion for Preliminary Injunction]; Affidavit of Andrew Mueller ("Mueller Aff.") [Mr. Mueller's affidavit was originally filed with the Court on 06/26/13 as "Exhibit I" (Doc. #15-11) in support of Plaintiffs' Motion for Preliminary Injunction];

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Affidavit of Michele DeLuca ("DeLuca Aff.") [Mr. DeLuca's affidavit was originally filed with the Court on 06/26/13 as "Exhibit L" (Doc. #15-14) in support of Plaintiffs' Motion for Preliminary Injunction]; and Declaration of Paul Hiller ("Hiller Decl.") [attached hereto as **"Exhibit H"**]. *See also*, Supplemental Decl. of June Shew ("Shew Supp'l Decl.") [attached hereto as **"Exhibit I"**].

62. Some members, individual plaintiffs, and business plaintiffs possess magazines with a capacity of more than ten rounds that are now criminalized by the Act. *See, e.g.,* Wilson Decl. at 2; Rocklin Aff. at 1; DeLuca Aff at 1. Other members and individual plaintiffs do not possess magazines with a capacity of more than ten rounds, but would possess those magazines forthwith but for the Act. Wilson Decl. at 2; Mueller Aff. at 1. Many members and individual plaintiffs would load more than ten rounds in their magazines for use in firearms kept in the home for self-protection, but cannot do so because of the Act. *See, e.g.,* Wilson Decl. at 2; Rocklin Aff. at 1; Mueller Aff. at 1; DeLuca Aff. at 1-3. Members, individual plaintiffs, and business plaintiffs are unaware how to modify magazines so they cannot "readily be restored or converted to accept" more than ten rounds. *See, e.g.,* Wilson Decl. at 2; Rocklin Aff. at 3.

63. Some members, individual plaintiffs, and business plaintiffs possess arms now prohibited by the Act as "assault weapons" that were lawfully possessed prior to the passage of the Act. *See, e.g.,* Wilson Decl. at 2; Rocklin Aff. at 1; DeLuca Aff. at 1-3. But for the Act, still other members, individual plaintiffs, and business plaintiffs would forthwith obtain and possess "assault weapons" under the Act's new definitions. *See, e.g.,* Wilson Decl. at 2; Rocklin Aff. at 4-5; DeLuca Aff. at 1-3.

64. As examples, some members, individual plaintiffs, and business plaintiffs possess, and other members, individual plaintiffs, and business plaintiffs would possess but for the Act,

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semiautomatic rifles that have an ability to accept a detachable magazine with a folding or telescoping stock, or a thumbhole stock; or any other stock which would allow an individual to grip the weapon, resulting in any finger on the trigger hand in addition to the trigger finger being directly below any portion of the action of the weapon when firing; or a forward pistol grip. *See, e.g.,* Wilson Decl. at 2-3; Owens Aff. at 4-5; DeLuca Aff. at 2.

65. Further, some members, individual plaintiffs, and business plaintiffs possess semiautomatic rifles with detachable magazines and with a thumbhole stock. *See, e.g.,* Wilson Decl. at 3; DeLuca Aff. at 2. Such rifles are commonly used for hunting game and for target shooting. Wilson Decl. at 3; Shew Supp'l Decl. at 2. A thumbhole stock allows the rifle to be held more comfortably and fired more accurately, but it causes the rifle to be defined as an "assault weapon." Wilson Decl. at 3.

66. But for the Act, other members, individual plaintiffs, and business plaintiffs would forthwith obtain and possess identical or similar rifles but may not do so in that they are now considered illegal "assault weapons." *See, e.g.,* Wilson Decl. at 3; Rocklin Aff. at 4; Mueller Aff. at 2-3;

67. Being in possession of, or wishing to acquire, "assault weapons" and "large capacity ammunition feeding devices," members of the CCDL, the CCS, and other plaintiffs are subject to the Act's requirements regarding registration and converting magazines, and to the Act's serious criminal penalties, including incarceration, fines, forfeitures, and cancellation of licenses. *See, e.g.,* Wilson Decl. at 3; Rocklin Aff. at 1-2; Owens Aff. at 4-5; DeLuca Aff. at 3.

68. Members, individual plaintiffs and business plaintiffs are unaware of how to convert "large capacity ammunition feeding devices" so that they will hold only ten rounds. *See, e.g.,*

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Wilson Decl. at 3; Rocklin Aff. at 3; Owens Aff. at 4. Other members, individual plaintiffs and business plaintiffs might possess the technical ability to attempt such conversions, but are unaware of the definition of "readily converted or restored" or "permanent" that the State of Connecticut would apply to such conversions. *Id.* The Act contains no guidance in this regard, nor does it refer gun or magazine owners to other resources that can provide adequate guidance.

69. Plaintiff MD SHOOTING SPORTS ("MD") is in the business of gunsmithing, and buying and selling firearms and ammunition within and without the State of Connecticut. DeLuca Aff. at 1. MD's business has been harmed by the Act's restrictions on "assault weapons," and "large capacity ammunition feeding devices." *Id.* at 2.

70. Prior to enactment of the Act, one segment of MD's business involved the purchase of "AR"-type firearms from out-of-state distributors and the sale of these "AR"-type firearms to customers. *Id.* at 1-2. Since the passage of the Act, MD's out-of-state distributors have stopped altogether the shipment of "AR"-type firearms to the Store due to concern and confusion over whether these types of arms can legally be shipped to, received by and/or sold by the holder of an FFL. *Id.* at 2. These reductions and stoppages have caused actual harm to MD's sales and overall business. *Id.*

71. Another segment of MD's business involves the sale of ammunition magazines. Since the passage of the Act, MD's sales of magazines have declined significantly. *Id.* at 2.This decline involves magazines that hold more than ten rounds and those that hold less than ten rounds. This decline has caused actual harm to MD's sales and overall business. *Id.*

72. One segment of the Store's business involves the receipt and transfer of firearms pursuant to the FFL the Store holds. *Id.* at 2. Since the passage of the Act, the volume of firearms

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that the Store received and transfers has declined significantly. *Id.* Before enactment of the Act, MD regularly received 5-7 used firearms per week that would be resold. *Id.* Now, however, MD only receives 1-2 used firearms per week. *Id.* This decline has caused actual harm to MD's sales and overall business. *Id.*

73. Since the passage of the Act, MD's overall sales of rifles, pistols, and shotguns have declined significantly. *Id.* at 3. Mr. DeLuca has observed that this decline in sales involves firearms that contain some of the individual features that are banned by the Act (e.g., pistol grips, telescoping stocks, etc.), but also firearms that are not characterized by the Act as "assault weapons." *Id.* This decline is due, in large part, to customer confusion over which kinds of firearms are banned and which are not, as well as customer concern that purchasing a firearm will subject the customer to criminal prosecution. *Id.*

74. Prior to enactment of the Act, MD typically did $2,000-$2,500 in business each weekday and $5,000 to $7,000 in business on Saturdays. After enactment of the Act, however, MD is only generally earning about $1,000 per weekday and $2,000 to $2,500 on Saturdays. *Id.* at 8.

75. Plaintiff HILLER SPORTS LLC ("Hiller") is in the business of buying and selling firearms and ammunition within and without the State of Connecticut. Hiller Decl. at 1-2. Hiller's business has been harmed by the Act's restrictions on "assault weapons," and "large capacity ammunition feeding devices." *Id.* at 2.

76. The firearms sold by Hiller include rifles, pistols and shotguns. *Id.* at 2. Several models of these firearms are semi-automatic, and are capable of accepting detachable magazines. *Id.* Several models are AR-15 type modern sporting rifles. *Id.* Several of these same models also have characteristics such as pistol grips, forward grips, telescoping stocks, thumbhole stocks, and

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threaded barrels. *Id.* at 2. Threaded barrels permit the firearm to accept popular accessories such as shrouds and flash hiders. *Id.*

77. The Act outlaws semi-automatic rifles that can accept detachable magazines, and also have a thumbhole stock, a telescoping stock, a forward grip, or any grip that permits the fingers of the trigger hand to rest below the firearm's action when firing. *Id.* at 2. These features are commonly found (either individually or in combination) on AR-15 type modern sporting rifles. *Id.*

78. One segment of Hiller's business involves the purchase of "AR"-type firearms from out-of-state distributors and the sale of these "AR"-type firearms to customers. *Id.* at 3. Since the passage of the Act, several of Hiller's out-of-state distributors have stopped altogether the shipment of "AR"-type firearms to the Store due to concern and confusion over whether these types of arms can legally be shipped to, received by and/or sold by the holder of an FFL. *Id.* In fact, Hiller had to refund $100,000 of back orders on AR-15s to its customers because the wholesaler would not ship the AR-15s to fill them. *Id.* The sale of those types of firearms was a vast majority of Hiller's sales before the passage of the Act. These stoppages have caused actual harm to Hiller's sales and overall business. *Id.*

79. One segment of Hiller's business involves the sale of accessories for "AR"-type firearms. *Id.* at 3-4. These include, among other things, slings, rails, optics/scopes, grips, and cases. Since the passage of the Act, Hiller has not sold one accessory, whereas before the passage of the Act the sale of accessories kept pace with the sale of AR-type firearms. *Id.*

80. Another segment of Hiller's business involves the sale of ammunition magazines. *Id.* at 4. Since the passage of the Act, Hiller has returned all large capacity ammunition magazines and has asked, in turn, for the manufacturers to send it magazines that hold ten rounds. *Id.* Hiller is still

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waiting to receive those magazines from the manufacturers. *Id.* This scenario has caused actual harm to Hiller's sales and overall business. *Id.*

81. Another segment of Hiller's business involves the receipt and transfer of large capacity magazines pursuant to the FFL Hiller holds. *Id.* at 4. Since the passage of the Act, Hiller no longer transfers large capacity magazines out-of-state because Hiller cannot profit from those transactions. *Id.* The supply to the out-of-state dealers is high and thus these transactions are not profitable. *Id.* This decline has caused actual harm to Hiller's sales and overall business. *Id.* Some customers who wanted to trade in their large capacity magazines have expressed dissatisfaction with Hiller's refusal to receive and transfer the magazines out-of-state. *Id.*

82. Since the passage of the Act, Hiller's overall sales of rifles, pistols, and shotguns have declined significantly. *Id.* at 5. Mr. Hiller has observed that this decline in sales involves firearms that contain some of the individual features that are banned by the Act (e.g., pistol grips, telescoping stocks, etc.), but also firearms that are not characterized by the Act as "assault weapons." *Id.* This decline is due, in large part, to customer confusion over which kinds of firearms are banned and which is not, as well as customer concern that purchasing a firearm will subject the customer to criminal prosecution. *Id.*

Ammunition Magazines

83. Magazines with a capacity of more than ten cartridges, and rifles and shotguns with telescoping stocks, pistol grips, and thumbhole stocks, are commonly possessed for lawful purposes in the millions by law-abiding citizens throughout the United States. *See* Declaration of Mark Overstreet ("Overstreet Decl.") [attached to Plaintiffs' Memorandum of Law in Support of Motion for Preliminary Injunction as Exhibit A) (Doc. #15-15)] at 4-7; the National Shooting Sports

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Foundation *2010 Modern Sporting Rifle Comprehensive Consumer Report*) ("NSSF 2010 MSR Report") [attached to Plaintiffs' Memorandum of Law in Support of Motion for Preliminary Injunction as Exhibit B (Doc. ## 15-2, 15-3, and 15-4)] at 27; Declaration of Guy Rossi ("Rossi Decl.") [attached to Plaintiffs' Memorandum of Law in Support of Motion for Preliminary Injunction as Exhibit C (Doc. #15-5)] at 2.

84. Magazines that hold more than more than ten rounds are commonplace to the point of being a standard for pistols and rifles: nationwide, most pistols are manufactured with magazines holding 10 to 17 rounds. Overstreet Decl. at 4-7; Rossi Decl. at 2. Many commonly possessed popular rifles are manufactured with magazines holding 15, 20, or 30 rounds. *Id.*

85. A review of the current edition of GUN DIGEST, a standard reference work that includes specifications of currently available firearms, reveals that about two-thirds of the distinct models of semiautomatic centerfire rifles listed are normally sold with standard magazines that hold more than ten rounds of ammunition. GUN DIGEST 2013 455-64, 497-99 (Jerry Lee ed., 67th ed. 2012). And many rifles sold with magazines of smaller capacity nonetheless accept standard magazines of twenty, thirty, or more rounds without modification. *Id.* Similarly, about one-third of distinct models of semiautomatic handguns listed—even allowing for versions sold in different calibers, which often have different ammunition capacities—are normally sold with magazines that hold more than ten rounds. *Id.* at 407-39. In both cases, but especially for handguns, these figures underestimate the ubiquity of magazines capable of holding more than ten rounds of ammunition, because they include many minor variations of lower-capacity firearms offered by low-volume manufacturers, such as those devoted to producing custom versions of the century- old Colt .45 ACP Government Model 1911.

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86. LCMs have been a familiar feature of firearms for more than 150 years. Indeed, many firearms with "large" magazines date from the era of ratification of the 14th Amendment: the Jennings rifle of 1849 had a twenty-round magazine, the Volcanic rifle of the 1850s had a thirty-round magazine, both the 1866 Winchester carbine and the 1860 Henry rifle had fifteen-round magazines, the 1892 Winchester could hold seventeen rounds, the Schmidt-Rubin Model 1889 used a detachable twelve-round magazine, the 1898 Mauser Gewehr could accept a detachable box magazine of twenty rounds, and the 1903 Springfield rifle could accept a detachable box magazine of twenty-five rounds. *See* GUN: A VISUAL HISTORY 170-71, 174-75, 180-81, 196-97 (Chris Stone ed., 2012); Military Small Arms 146-47, 149 (Graham Smith ed., 1994); WILL FOWLER AND PATRICK SWEENEY, WORLD ENCYCLOPEDIA OF RIFLES AND MACHINE GUNS 135 (2012); K.D. KIRKLAND, AMERICA'S PREMIER GUNMAKERS: BROWNING 39 (2013).

87. Annual ATF manufacturing and export statistics indicate that semiautomatic pistols rose as a percentage of total handguns made in the United States and not exported, from 50% of 1.3 million handguns in 1986, to 82% of three million handguns in 2011. Overstreet Decl. at 4-6. Standard magazines for very commonly owned semiautomatic pistols hold up to 17 rounds of ammunition. *Id.* In 2011, about 61.5% of the 2.6 million pistols made in the U.S. were in calibers typically using magazines that hold over ten rounds. *Id.*

88. In recent decades, the trend in semiautomatic pistols has been away from those designed to hold 10 rounds or fewer, to those designed to hold more than ten rounds. Overstreet Decl. at 4-6. This tracks with trends among law enforcement and military personnel. *Id.*

89. Today, police departments typically issue pistols the standard magazines for which hold more than ten rounds. Overstreet Decl. at 4-6. One such pistol is the Glock 17, the standard

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magazines for which hold 17 rounds. *Id.* The standard magazine for our military's Beretta M9 9mm service pistol holds 15 rounds. *Id.* The M9 replaced the M1911 .45 caliber pistol, the standard magazine for which holds seven rounds. *Id.*

90. Magazines holding more than ten rounds are ubiquitous in the law enforcement community: currently, the nation's nearly one million law enforcement agents at the federal, state and local levels are virtually all armed with semiautomatic handguns with magazines holding more than ten, and as many as twenty, rounds of ammunition. *See* MASSAD AYOOB, THE COMPLETE BOOK OF HANDGUNS 50 (2013) (discussing police transition from revolvers to semiautomatics with large magazines); *id.* ("For a time in the 1980s, this Sig Sauer P226 was probably the most popular police service pistol") (fifteen-round magazines); *id.* at 87 ("Known as the Glock 22, this pistol is believed to be in use by more American police departments than any other. Its standard magazine capacity is 15 rounds."); *id.* at 89 ("On the NYPD, where officers have a choice of three different 16-shot 9mm pistols for uniform carry, an estimated 20,000 of the city's estimated 35,000 sworn personnel carry the Glock 19."); *id.* at 90 ("The most popular police handgun in America, the Glock is also hugely popular for action pistol competition and home and personal defense.").

91. Beginning with the M1 Carbine, introduced in the 1940s, rifles equipped with detachable magazines holding more than ten rounds have been increasingly common: there are about two million privately owned M1 Carbines currently in existence, the standard magazines for which hold 15 or 30 rounds. Overstreet Decl. at 6-7.

92. There are approximately 4 million AR-15 type rifles currently in existence, and these are typically sold with between one and three 30-round magazines. Overstreet Decl. at 6-7. Ruger Mini-14 series rifles, which may outnumber M1 Carbines and AR-15s combined, have the capacity

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to accept magazines that hold more than ten rounds, and many are equipped with such magazines. *Id.* Numerous other rifle designs use magazines holding more than 10 rounds. *Id.* An unknown number in the millions of such rifles exist in private ownership. *Id.*

93. The actual number of magazines made or imported each year is not known, since the ATF does not require manufacturers to report magazine production. Overstreet Decl. at 6. However, estimates are set forth in the Koper 2004 report. Overstreet Decl. at 6. Koper reported that, as of 1994, 18% of civilian-owned firearms, including 21% of civilian-owned handguns, were equipped with magazines holding over ten rounds, and that 25 million guns were equipped with such magazines. *Id.* Some 4.7 million such magazines were imported during 1995-2000. *Id.*

94. Koper further reported that, as of 1994, 40% of the semiautomatic handgun models and a majority of the semiautomatic rifle models manufactured and advertised before the Ban were sold with, or had a variation that was sold with, a magazine holding over ten rounds. Overstreet Decl. at 7.

Remanufacturing of Ammunition Magazines

95. Connecticut residents who wish retain "large capacity" magazines criminalized by the Act must remanufacture them so that they cannot be "readily restored or converted" to hold more than ten rounds.

96. Remanufacturing or conversion of magazines so that they cannot be readily restored or converted to hold more than ten rounds of ammunition would require engineering know-how, parts, and equipment that are beyond the capacity of most law-abiding gun owners. Rossi Decl. at 2. *See also*, *e.g.,* McClain Aff. at 3; Rocklin Aff. at 3; Cypher Aff. at 3.

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97. No such products or services that would permit the plaintiffs to restore or convert grandfathered magazines by themselves are currently available on the market. Rossi Decl. at 2. Magazine model and design types number in the hundreds or the thousands. *Id.*

Tubular Ammunition Magazines

98. The "capacity" of tubular magazines for rifles and shotguns varies with the length of the cartridges or shells inserted therein. *Peoples Rights Org., Inc. v. City of Columbus*, 152 F.3d 522, 536 n.15 (6th Cir. 1998). They may hold no more than ten of one length, but more than ten of another length.

Common Features Banned by the Act

99. The Act defines the term "assault weapon" so as to criminalize features that are commonly found on rifles, pistols and shotguns. CONN. GEN. STAT. § 53-202a. These features include telescoping stocks, pistol grips, and thumbhole stocks. *Id.* Telescoping stocks, pistol grips, and thumbhole stocks promote the safe and comfortable use of a firearm, and also promote firing accuracy. Rossi Decl. at 2-5.

Telescoping Stocks

100. A stock is that part of a firearm a person holds against the shoulder when shooting. *See* diagram attached hereto as **"Exhibit J."** It provides a means for the shooter to support the firearm and easily aim it. Rossi Decl. at 4.

101. A "telescoping stock" allows the length of the stock to be shortened or lengthened consistent with the length of the person's arms, so that the stock fits comfortably against the shoulder and the rear hand holds the grip and controls the trigger properly. Rossi Decl. at 4-5. It simply allows the gun to fit the person's physique correctly, in the same manner as one selects the

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right size of shoe to wear. *Id.* For example, a telescoping stock allows a hunter to change the length of the stock depending on the clothing appropriate for the weather encountered. *Id.* Shooting outdoors in fall and winter require heavy clothing and a shooting vest, thus requiring shortening the stock so that the firearm can be fitted for proper access to the trigger. *Id.* The gun may be adjusted to fit the different sizes of several people in a family or home. *Id.* A gun that properly fits the shooter promotes greater shooting accuracy. *Id.*

102. A telescoping stock does not make a firearm more powerful or more deadly. *Id.*

Pistol Grips

103. A pistol grip is a grip of a shotgun or rifle shaped like a pistol stock. Exhibit J. A pistol grip allows a rifle to be held at the shoulder with more comfort and stability. Rossi Decl. at 5. Many rifles have pistol grips rather than straight grips. *Id.*

104. Pistol grips serve two basic functions. The first is assisting sight-aligned accurate fire. Rossi Decl. at 5. Positioning the rear of the stock into the pocket of the shoulder and maintaining it in that position is aided by the pistol grip, and is imperative for accurate sight alignment and thus accurate shooting with rifles of this design, due to the shoulder stock being in a straight line with the barrel. *Id.* With the forward hand holding the fore-end, the rearward hand holding the grip, and the butt securely against the shoulder, a rifle may be fired accurately. *Id.* The more consistent the shooter's eye is in relation to the line of the stock and barrel, the more accurate the shot placement. *Id.*

105. The second function of the pistol grip is firearm retention, imperative, for example, during a home invasion when assailant(s) may attempt to disarm a citizen in close quarters. Rossi Decl. at 5.

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106. A pistol grip does *not* function to allow a rifle to be fired from the hip. Rossi Decl. at 5. . (emphasis added). Sight alignment between the eye and firearm is not conducive to spray or hip fire. Rossi Decl. at 5. Conversely, a rifle with a straight grip and no pistol grip would be more conducive to firing from the hip. Rossi Decl. at 5. Firing from the hip would be highly inaccurate and is simply not a factor in crime. *Id.*

107. A pistol grip ("conspicuous" or otherwise) does not make a firearm more powerful or deadly. Rossi Decl. at 5.

Thumbhole Stocks

108. A thumbhole stock is simply a hole carved into the stock of a rifle through which a user inserts his or her thumb. Rossi Decl. at 5. Thumbhole stocks allow the rifle to be held with more comfort and stability and, thus, fired more accurately. *Id.*

109. A thumbhole stock does not make a rifle more powerful or more lethal. *Id.*

Firearms Affected By The Act's Restrictions

110. The Act's broadened definition of "assault weapon" impacts a wide range of firearms, all of which are regularly used for lawful and legitimate purposes like hunting, sporting competitions and self defense. Rossi Decl. at 2. The pistols, rifles and shotguns criminalized by these restrictions are immensely popular and have widespread use throughout the United States. *Id.*

111. One type of rifle that is directly impacted by the Act's restrictions is arguably the most popular: the AR-15 type of Modern Sporting Rifle ("MSR"). Overstreet Decl. at 2-4; NSSF 2010 MSR Report. Colt introduced the AR-15 SP-1 rifle in 1963. Overstreet Decl. at 2. Since that time, "AR-15" has become a generic term commonly used to describe the same or similar MSRs made by Colt and other manufacturers. *Id.*

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112. AR-15 model MSRs (and all other rifles called "assault weapons" under the Act) are semiautomatic, meaning that they are designed to fire only once when the trigger is pulled. Overstreet Decl. at 2. As a general matter, semiautomatic firearms are extremely common in the U.S. (Overstreet Decl. at 2-4), having flooded the handgun market for at least twenty (20) years. *See* Koper 2004 at 81 (80% of handguns produced in 1993 were semiautomatic). *See also* David B. Kopel, *Rational Basis Analysis of "Assault Weapon" Prohibition,* 20 J. CONTEMP. L. 381, 413 (1994) ("semiautomatics are more than a century old"). "Sixty percent of gun owners [own] some type of semiautomatic firearm." Nicholas J. Johnson, *Supply Restrictions at the Margins of Heller and the Abortion Analogue,* 60 HASTINGS L.J. 1285, 1293-95 (2009).

113. AR-15 MSRs are not fully automatic machine guns, which continue to fire so long as the trigger is pressed. Overstreet Decl. at 2. AR-15 model MSRs have the capacity to accept a detachable magazine. *Id.* Standard magazines for AR-15 MSRs hold 20 or 30 rounds of ammunition, but magazines of other capacities are also available. *Id.* AR-15 MSRs also have a pistol grip typically 3 ¾ to 4 inches in length that protrudes at a rearward angle beneath the action of the rifle. *Id.*

114. The AR15 is the semi-automatic civilian sporting version of the select-fire M16 rifle and M4 carbine used by the United States military and many law enforcement agencies. *See* Declaration of Gary Roberts ("Roberts Decl.") [attached hereto as **"Exhibit K"**].

115. The AR15 is extremely common in America. Roberts Decl. at 14-16. As a result of being used by the military for nearly 50 years, perhaps more Americans have been trained to safely operate the AR15 than any other firearm, as there are approximately 25 million American veterans who have been taught how to properly use an AR15 type rifle through their military training, not to

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mention in excess of 1 million American law enforcement officers who have qualified on the AR15 over the last several decades, as well as numerous civilian target shooters and hunters who routinely use AR15s. *Id.* Since so few military service members, particularly those not on active duty, get enough training and practice with their M16 or M4 service rifle, many military Reservists and National Guard personnel, as well as some active duty service members, have purchased civilian AR15s in order to train and practice on their own time with a rifle offering similar ergonomics and operating controls as the service weapon they are issued in the military. *Id.*

116. U.S. Government data sources (such as ATF manufacturing and export statistics) and nationwide market and consumer surveys (such as the National Shooting Sports Foundation ("NSSF") *Modern Sporting Rifle Comprehensive Consumer Report*) indicate that the AR-15 MSR is one of the most widely and commonly possessed rifle in the United States. Overstreet Decl. at 2-4.

117. Between 1986-2011, over 3.3 million AR-15s were made and not exported by AR-15 manufacturers whose production can be identified from government data sources. Overstreet Decl. at 2-4.

118. In 2011, there were 6,244,998 firearms (excluding fully-automatic firearms, i.e., machine guns) made in the U.S. and not exported. *Id.* Of these, 2,238,832 were rifles, including 408,139 AR-15s by manufacturers whose production figures could be discerned from the ATF reports. *Id.* Thus, AR-15s accounted for at least 7% of firearms, and 18% of rifles, made in the U.S. for the domestic market that year. *Id.*

119. From 1986 through 2011, U.S.-made firearms accounted for 69% of all new firearms available on the commercial market in the United States. *Id.* Even with the inclusion of imported

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firearms into the above calculations, AR-15s would account for a significant percentage of new firearms available in the United States. *Id.*

120. The FBI reports that background checks processed through the National Instant Criminal Background Check System (NICS), most of which are conducted for retail purchases of firearms by consumers, increased 14.2 % in 2011 as compared to 2010; 19.1 % in 2012 as compared to 2011; and 44.5 % during the first three months of 2013 as compared to the same period in 2012. Overstreet Decl. at 2-4.

121. If the 2011-2013 trend for AR-15 rifle production was identical to that for NICS checks, it would mean that nearly 660,000 AR-15s were made in the U.S. and not exported during 2012 and the first three months of 2013. *Id.* That figure, added to the over 3.3 million noted earlier, implies a conservative estimate of 3.97 million AR-15s for the period 1986-March 2013, excluding production by Remington and Sturm, Ruger. Overstreet Decl. at 2-4.

122. The NSSF 2010 MSR Report (Doc. ## 15-2, 15-3, 15-4) illustrates the lawful and legitimate reasons supporting the MSR's popularity and common use as of 2010. According to this report, 60% of MSR owners that responded to the study owned multiple MSRs. NSSF 2010 MSR Report at 7-8. Recreational target shooting and home defense were the top two reasons for owning an MSR. *Id.* Beyond this, MSR owners consider accuracy and reliability to be the two most important things to consider when buying a MSR. *Id.* Those who shoot often are much more likely to own multiple MSRs. *Id.* 3 out of 4 people who shoot twice a month or more own multiple MSRs. *Id.* 60% of MSR owners use a collapsible/folding stock. *Id.* One-third of all MSR owners use a 30-round magazine in their MSR. *Id.*

123. The firearms characterized as "assault weapons" under the Act, have been widely

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and legally used for sporting purposes (as well as for self-defense and hunting) throughout Connecticut and the United States for decades. *See* Wilson Decl. at 4; Shew Supp'l Decl. at 2.

124. There are numerous shooting competitions for non-military personnel that have taken place throughout the State of Connecticut for years that regularly and legally used the firearms now classified as "assault weapons" to compete. *See* Wilson Decl. at 4; Shew Supp'l Decl. at 2. For example, timed competitions known as "3 Gun Shoots" and "2 Gun Shoots" were regularly held at such places as the Metacon Gun Club in Weatogue, CT, and the Rockville Fish & Game Club in Vernon, CT. *Id.* These matches were and are extremely popular, have been taking place throughout Connecticut for years, and have been attended throughout the years by hundreds (and likely thousands) of individual and member plaintiffs. *Id.*

125. In this sense, the argument that the firearms now classified as "assault weapons" are not used by private citizens for sporting competitions is simply untrue. *Id.*

Suitability of the AR-15 MSR For Home Defense

126. It is widely accepted that the AR15 chambered in a .223/5.56 mm caliber is the firearm best suited for home defense use. Roberts Decl. at 14-16. *See also* J. Guthrie, *Versatile Defender: An Argument for Advanced AR Carbines in the Home*, in BOOK OF THE AR-15 134 (Eric R. Poole, ed. 2013) ("If a system is good enough for the U.S. Army's Delta and the U.S. Navy SEALs, surely it should be my weapon of choice, should I be a police officer or Mr. John Q. Public looking to defend my home"); Eric Poole, *Ready To Arm: It's Time to Rethink Home Security*, in GUNS & AMMO, BOOK OF THE AR-15 15-22 (Eric R. Poole, ed. 2013) (discussing virtues of the AR-15 platform as a home defense weapon); Mark Kayser, *AR-15 for Home & the Hunt,* In PERSONAL & HOME DEFENSE 28-29, 30-31 (2013) (advising use of AR-15 for self-defense in the home and

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recommending customizing with accessories).

127. The AR15 .223/5.56 mm caliber carbine configuration is extremely common. Roberts Decl. at 14-16. In fact, it is the carbine configuration most commonly used by law enforcement officers today. *Id.* This configuration (i.e., 5.56 mm 55 grain cartridges fired from 20" barrel M16A1 rifles) was the U.S. military standard ammunition in the 1960s and 1970s. *Id.* The roots of the .223/5.56 mm cartridge commonly used in the AR15 come from a caliber designed for small game varmint hunting and used to eliminate small furry rodents and animals up to coyote size. *Id.*

128. During defensive shooting encounters, shots that inadvertently miss the intended target in close quarter battle and urban environments can place innocent citizens in danger. Roberts Decl. at 14-16. In general, .223/5.56 mm bullets demonstrate less penetration after passing through building structural materials than other common law enforcement and civilian calibers. *Id.* All of the .223/5.56 mm bullets recommended for law enforcement use offer reduced downrange penetration hazards, resulting in less potential risk of injuring innocent citizens and reduced risk of civil litigation in situations where bullets miss their intended target and enter or exit structures compared with common handgun bullets, traditional hunting rifle ammunition, and shotgun projectiles. *Id.*

The Impact Of The Act On Crime

129. The Act's restriction on the number of rounds loaded in a magazine is unlikely to have any detectable effect on the number of homicides or violent acts committed with firearms. *See* Declaration of Gary Kleck ("Kleck Decl.") [attached to the Plaintiffs' Memorandum of Law in Support of Motion for Preliminary Injunction as "Exhibit K") (Doc. # 15-13)] at 2. Criminals will

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be even less likely to be affected by the LC magazine restriction than non-criminals. *Id.* It is the law-abiding citizens who will primarily be impacted by the restriction. *Id.*

130. The Act's limitation of the number of rounds allowable for a firearm in the home impairs a homeowner's ability to successfully defend himself or herself during a criminal attack in the home because: (a) victims often face multiple criminal adversaries; and (b) people miss with most of the rounds they fire, even when trying to shoot their opponents. Kleck Decl. at 3. In 2008, the NCVS indicated that 17.4% of violent crimes involved two or more offenders, and that nearly 800,000 crimes occurred in which the victim faced multiple offenders. *Id.*

131. Like civilians, police officers frequently miss their targets: numerous studies have been done of shootings by police officers in which the officers were trying to shoot criminal adversaries. Kleck Decl. at 3. In many of these shootings, the officers fired large numbers of rounds. *Id.* Yet, in 63% of the incidents, the officers failed to hit even a single offender with even a single round. Kleck Decl. at 3. Police officers have the experience, training, and temperament to handle stressful, dangerous situations far better than the average civilian, so it is reasonable to assume marksmanship among civilians using guns for self-protection will be still lower than that of police. *Id.*

132. Some law-abiding citizens, along with many criminals, might invest in multiple ten-round magazines in the absence of larger capacity magazines – a development which obviously defeats the purpose of the magazine capacity limit. Kleck Decl. at 3. Beyond that, however, some people will not be able to make effective use of additional magazines. *Id.*

133. The restrictions on LC magazines will have an inconsequential impact on reducing homicides and violent crimes. Kleck Decl. at 3-4. Criminals rarely fire more than ten rounds in gun

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crimes. *Id.* Indeed, they usually do not fire any at all – the gun is used only to threaten the victim, not attack him or her. *Id.* For the vast majority of gun crimes, the unavailability of LC magazines would therefore be inconsequential to deterring the criminal behavior. *Id.*

134. A ban on LC magazines will have an inconsequential effect on reducing the number of killed or injured victims in mass shootings. Kleck Decl. at 4-5. The presumption is false that an offender lacking LC magazines would be forced to reload sooner or more often, thereby giving bystanders the opportunity to tackle him and stop his attacks. *Id.* Analysis of mass shootings in the United States shows it is exceedingly rare that victims and bystanders in mass shootings have tackled shooters while they are reloading. *Id.* This is particularly true because most mass shooters bring multiple guns to the crimes and, therefore, can continue firing without reloading even after any one gun's ammunition is expended. *Id.* at 4-5. A study of every large-scale mass shooting committed in the United States in the 10-year period from 1984 through 1993 found that the killers in 13 of these 15 incidents possessed multiple guns. Kleck Decl. at 4-5.

135. The Act's restrictions on rifles and shotguns that contain so-called "Assault Weapon" characteristics will not further the goals of reducing homicides or violent crimes or improving public safety. Kleck Decl. at 6.

136. Criminals are just as likely to use non-banned firearms that function the same as firearms falling within the so-called "assault weapon" ("AW") definition under the Act. Kleck Decl. at 6-7. Under the Act, though some semi-automatic firearms are banned, other semi-automatic firearms are left legally available, including (a) unbanned models; (b) currently banned models that are redesigned to remove the features that make them AWs; and (c) firearms that would otherwise be banned as AWs but are grandfathered into lawful status because they were manufactured before

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September 13, 1994, or were lawfully possessed before January 15, 2013. *Id.* Thus, firearms will continue to be available that function in essentially identical ways as the banned firearms – i.e., they can accept detachable magazines (including LC magazines), can be fired just as fast, and can fire rounds that are, shot-for-shot, just as lethal as rounds fired from the banned firearms. *Id.* Consequently, criminals can substitute mechanically identical firearms for banned AWs, commit the same crimes they otherwise would have committed with the banned firearms, with the same number of wounded or killed victims. *Id.*

137. The Act's expanded definition and ban of "assault weapons" will make little difference on public safety by reducing crimes committed with firearms. Kleck Decl. at 6-7. Criminals who do not currently possess or use banned AWs have no need to acquire substitute weapons because they will presumably continue to use the firearms they currently possess. Kleck Decl. at 7.

138. All attributes of AWs that *do* make them more useful for criminal purposes (i.e., accuracy, the ability to fire many rounds without reloading) are present in easily-substituted, unbanned, counterpart firearms. Kleck Decl. at 7. More importantly, these same attributes increase the utility of AWs for *lawful* self-defense or various sporting uses. *Id.*.

139. In self-defense situations where it is necessary for the crime victim to shoot the criminal in order to prevent harm to the defender or others, accuracy is crucial for the victim. Kleck Decl. at 8. Where it is necessary for a crime victim to shoot the aggressor, and only lethal or incapacitating injury will stop him, the lethality of the defender's firearm is a precondition to her ability to end the criminal attack, and prevent harm to herself and other potential victims. *Id.*

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140. Where a crime victim faces multiple adversaries, the ability and need to fire many rounds without reloading is obvious. Kleck Decl. at 8. The ability to fire rapidly may be essential to either deter offenders from attacking, or failing that, to shoot those aggressors who cannot be deterred. *Id.* at 8. This is because some of the defender's shots will miss, and because the offender(s) may not allow the victim much time to shoot before incapacitating the victim. *Id.* Regardless of how an AW is defined, restricting firearms with the attributes that make them useful for criminal purposes necessarily restricts firearms possessing attributes that make them more effective for lawful self-defense. *Id.*

141. The Act's ban on firearms defined as "assault weapons" will not deter criminals from using them to commit crimes or from finding substitute firearms with the same features, and will simultaneously deny law-abiding citizens access to those weapons to defend themselves. Kleck Decl. at 8.

142. While either criminals or prospective crime victims *could* substitute alternative weapons for banned "AWs," criminals are more likely to actually do so because they are more powerfully motivated to have deadly weapons. Kleck Decl. at 8. This would be especially true of the extremely rare mass shooters, who typically plan their crimes in advance and thus are in a position to take whatever time and effort is needed to acquire substitute weapons. *Id.* Further, even ordinary criminals are strongly motivated to acquire firearms both for purposes of committing crimes and for purposes of self-defense. *Id.* at 9. Because criminals are victimized at a rate higher than non-criminals, this means that they have even stronger self-defense motivations to acquire and retain guns than non-criminals. *Id.* In contrast, many prospective crime victims do not face an imminent threat at the time they consider acquiring a gun for self-protection, have a weaker

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motivation to do whatever it takes to acquire their preferred type of firearm, and are therefore less likely to do so. *Id.*

143. It is virtually a tautology that criminals will disobey the AW ban at a higher rate than non-criminals. Kleck Decl. at 9.

The Impact Of The Act On Self-Defense

144. Limiting plaintiffs' ability to possess a magazine containing more than ten rounds of ammunition in one's home severely compromises their ability to defend themselves, their families, and their property. Rossi Decl. at 6-10.

The Ability to Aim Under Stress

145. The Act's ten-round limitation assumes that all homeowners will never need to fire more than ten rounds to defend themselves, that they own multiple firearms, or that they will be able to switch out their firearms' magazines while under criminal attack. Rossi Decl. at 6. However, a homeowner under the extreme duress of an armed and advancing attacker is likely to fire at, but miss, his or her target. *Id.* Nervousness and anxiety, lighting conditions, the presence of physical obstacles that obscure a "clean" line of sight to the target, and the mechanics of retreat are all factors which contribute to this likelihood. Rossi Decl. at 6.

146. Highly trained police officers are not immune to the stressors affecting the ability to aim well under pressure: the 2010 New York City Police Department's *Annual Firearms Discharge Report* ("NYPD AFDR") (available at http://www.nyc.gov/html/nypd/downloads/pdf/analysis_and_planning/afdr_20111116.pdf) provides detailed information on all incidents in which NYPD officers discharged their weapons in 2010. Rossi Decl. at 9. In that year there were thirty-three (33) incidents of the police intentionally

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discharging firearms in encounters of adversarial conflict. Rossi Decl. at 8; NYPD AFDR at p.8, Figure A.10. 65% of these incidents took place at a distance of less than ten (10) feet. *Id.*, NYPD AFDR at p.9, Figure A.11. In 33% of these incidents, the NYPD officer(s) involved fired more than seven (7) rounds. *Id.*, NYPD AFDR at p.8, Figure A.10. In 21% of these incidents, the NYPD officer(s) fired more than ten (10) rounds. *Id.*

147. If highly trained and experienced NYC police officers required the use of at least eight rounds in 1/3rd of their close-range encounters to subdue an aggressive assailant, it stands to reason that a "green" civilian gun owner under duress (and certainly far less experienced and trained than a NYC police officer) would need at least that many rounds to subdue an armed assailant with his or her home. *Id.* at 9.

148. Under such expected conditions and with such likely results, it is of paramount importance that a homeowner have quick and ready access to ammunition in quantities sufficient to provide a meaningful opportunity to defend herself and/or her loved ones. *Id.* at 6. It is equally important that the homeowner under attack have the capability to quickly and efficiently re-load a firearm after all of the rounds it holds are fired. *Id.* However, many homeowners cannot re-load quickly or efficiently due to such factors as age, physical limitations, and the stress/anxiety produced by a potentially life-threatening situation. *Id.*

Delayed Reaction Time Under Stress

149. Violent criminal attacks frequently occur suddenly and without warning, leaving the victim with very little time to fire the firearm to save herself. Rossi Decl. at 6. Reaction time under stress is complicated and can be attributed to many physiological, psychological and environmental factors. *Id.* The most basic premise breaks down into three factors: the ability for an individual to

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perceive a threat (Perceptual Processing), the ability to make a decision (Cognitive Processing), and lastly the ability of the brain to send messages to the muscles to react (Motor Processing). Rossi Decl. at 6-7.

150. This processing takes, minimally, several seconds without consideration to other factors such as distractions, noise, multiple assailants, lighting conditions, nervousness and fatigue. Rossi Decl. at 6-7.

Loading and Re-Loading Difficulties for the Physically Disabled

151. Loading a firearm requires two hands, and is a far more difficult task when someone is physically handicapped, or one hand is wounded during an attack. Rossi Decl. at 7-8. Having more rounds in a magazine allows the victim to better protect himself or herself without the need to reload especially if handicapped, disabled or injured. *Id.* at 8.

152. Plaintiff Peter Owens and Plaintiff Stephanie Cypher are but two examples.

153. Mr. Owens is physically disabled. Owens Aff. at 2. When he was four years old he suffered a stroke and lost the functional use of the left side of his body. *Id.* As a result, he cannot use most of his left hand or arm. *Id.* He owns several pistols and rifles with magazines having capacities over ten rounds. *Id.*

154. In order to change a magazine Mr. Owens must discard the spent magazine from his firearm, tuck the empty firearm under his left arm, pick up a new magazine with his right hand, insert the new magazine into the firearm and then continue firing. *Id.* Since he cannot use his left hand, it takes him more time to exchange an empty magazine for a full one than it does an able-bodied shooter. *Id.* The ten-round limitation will require Mr. Owens to switch out the magazines of his pistols more frequently if confronted with a sudden home invasion, robbery, or other attack. *Id.*

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Therefore, Mr. Owens' ability to defend himself and property with these pistols is substantially compromised by the ten-round limitation. *Id.*

155. Plaintiff Stephanie Cypher is similarly impacted by the limitation. *See* Cypher Aff. at 1, 2. Ms. Cypher is physically disabled, losing her right arm to cancer at 12 years old. *Id.* Ms. Cypher owns several firearms, all with magazine capacities of over ten rounds. *Id.*

164. In light of her physical limitations, the ten-round limitation increases her vulnerability during a home invasion. *Id.* at 2.

156. Since Ms. Cypher can only use her left hand, it takes her more time to exchange an empty magazine for a full one than it does an able-bodied shooter. *Id.* at 2. In order to change a spent magazine, Ms. Cypher must place her firearm down on a bench or table, press the magazine eject button, wiggle the magazine free, exchange the spent magazine for a new one, and then pick up the firearm and continue shooting. *Id.* at 2.

157. Like Mr. Owens, Ms. Cypher must switch out the magazines of her firearm more frequently under the Act if confronted with a sudden home invasion, robbery, or other attack. *Id.* Her ability to defend herself and her property is, likewise, substantially compromised by the ten-round limitation. *Id.*

Loading and Re-Loading Difficulties for All Gun Owners

158. The physiological reaction to the "stress flood" produced by an armed attack, the time delay caused by loading/re-loading a firearm, the loss of defensive use of the non-dominant arm and hand during loading/re-loading, and the attention distraction caused by loading/re-loading a firearm are factors that effect able-bodied gun owners as well as those who are handicapped. Rossi Decl. at 8-10.

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159. Under the "stress flood" of a life or death encounter the blood within one's body is re-routed to the larger muscles so as to allow a "flee or fight" response Rossi Decl. at 8-9. This physiological reaction to extreme stress causes significant reloading difficulty during an attack due to loss of fine motor control in the fingers. *Id.* Trying to push a magazine release or align a magazine with the magazine well with fingers that are shaking and weakened due to blood loss is very difficult for a seasoned veteran soldier or police officer who expects this phenomena. Rossi Decl. at 8.

160. It is far more difficult for a civilian who has never been trained that such changes will occur, or trained during realistic scenario-based training, or who is experiencing a life-threatening attack for the first time. *Id.* at 9.

161. Police and civilians who train in defensive handgun use learn to draw a loaded handgun, quickly acquire a sight picture, and place two shots on the attacker's upper center of mass. Rossi Decl. at 9. Optimally, all this can be accomplished in a little over two seconds. *Id.* The process of loading the handgun will take at least a few extra seconds. *Id.* Extensive practice can reduce how long it takes a person to load a firearm under stress, but that time cannot be reduced to zero. *Id.* Accordingly, the simple time delay of loading a spent firearm may result in the success of a violent attacker who otherwise could have been thwarted. *Id.*

162. Carrying an unloaded firearm will often not provide a viable means of self-defense and would frequently result in a situation where the assailant has closed the distance on the victim so that the assailant is on the person of the victim. Rossi Decl. at 9. The victim is left with a firearm she needs to retain so that she is not shot with her own gun. *Id.* At best then, the firearm becomes a bludgeoning tool. *Id.*

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163. The delay in loading a firearm has additional deadly implications. Rossi Decl. at 10. While the left arm and hand are being used to load the handgun, they cannot be used for anything else. *Id.* The victim is more vulnerable because both hands are occupied. *Id.* The non-gun hand becomes useless to fend off the attacker or to deflect the attacker's knife, stick, or other weapon. *Id.*

164. Further, if the victim were to be grabbed during the loading of the firearm, the sympathetic nervous system reaction of clenching one hand to retain the magazine, or simply tightening muscles under stress would further limit the victim's ability to complete the loading of the firearm. Rossi Decl. at 10.

Dated: August 23, 2013

Respectfully Submitted,

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CERTIFICATION

I hereby certify that on August 23, 2013, a copy of the foregoing **LOCAL RULE 56(a)1 STATEMENT** was filed electronically and served by mail upon anyone unable to accept electronic filing. Notice of this filing was will be sent by e-mail to all parties by operation of the Court's electronic filing system or by mail to anyone unable to accept electronic filing as indicated on the Notice of Electronic Filing. Parties may access this filing through the Court's CM/ECF System.

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May 7, 2013

Gun Homicide Rate Down 49% Since 1993 Peak; Public Unaware

Pace of Decline Slows in Past Decade

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Pace of Decline Slows in Past Decade

By D'Vera Cohn, Paul Taylor, Mark Hugo Lopez, Catherine A. Gallagher, Kim Parker and Kevin T. Maass

CHAPTER 1: OVERVIEW

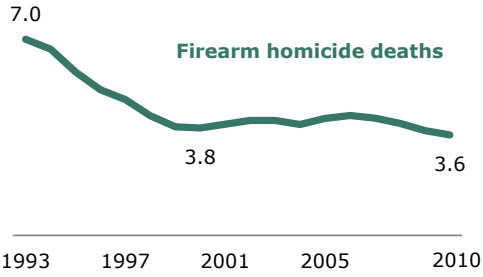
National rates of gun homicide and other violent gun crimes are strikingly lower now than during their peak in the mid-1990s, paralleling a general decline in violent crime, according to a Pew Research Center analysis of government data. Beneath the long-term trend, though, are big differences by decade: Violence plunged through the 1990s, but has declined less dramatically since 2000.

Compared with 1993, the peak of U.S. gun homicides, the firearm homicide rate was 49% lower in 2010, and there were fewer deaths, even though the nation's population grew. The victimization rate for other violent crimes with a firearm—assaults, robberies and sex crimes—was 75% lower in 2011 than in 1993. Violent non-fatal crime victimization overall (with or without a firearm) also is down markedly (72%) over two decades.

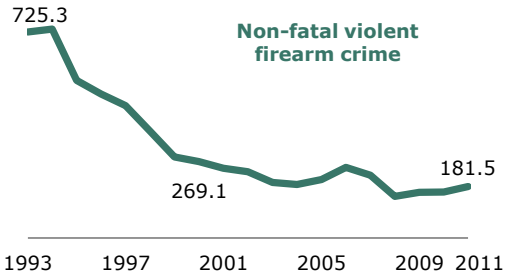
Nearly all the decline in the firearm homicide rate took place in the 1990s; the downward trend stopped in 2001 and resumed slowly in 2007. The victimization rate for other gun crimes

Crime Rates Drop in 1990s, Then Decline More Slowly

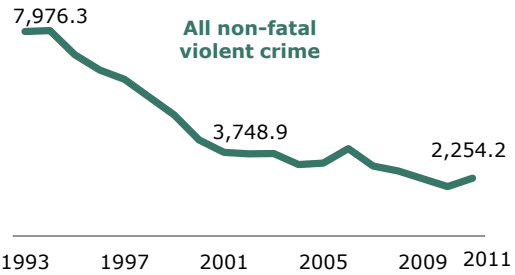
Deaths per 100,000 people (all ages)



Victimizations per 100,000 people ages 12 and older



Victimizations per 100,000 people ages 12 and older



Note: Data labels shown for 1993, 2000 and 2011. 2006 NCVS victimization estimates are not comparable with those in other years. See Methodology for details.

Sources: For firearm homicide deaths, CDC's National Center for Injury Prevention and Control Web-based Injury Statistics Query and Reporting System (WISQARS); for non-fatal victimizations, Pew Research Center tabulations of National Crime Victimization Survey, U.S. Justice Department

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plunged in the 1990s, then declined more slowly from 2000 to 2008. The rate appears to be higher in 2011 compared with 2008, but the increase is not statistically significant. Violent non-fatal crime victimization overall also dropped in the 1990s before declining more slowly from 2000 to 2010, then ticked up in 2011.

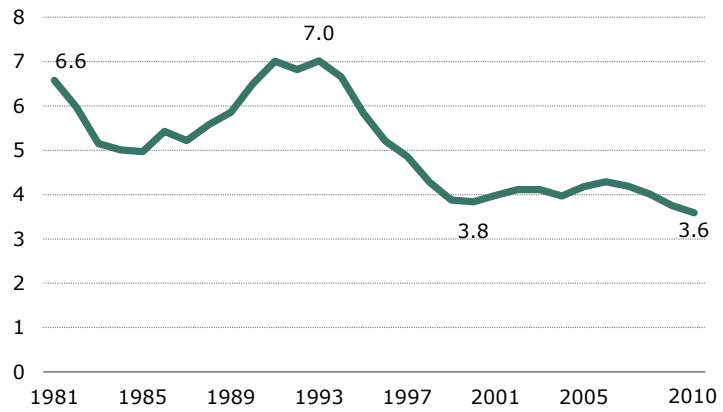
Despite national attention to the issue of firearm violence, most Americans are unaware that gun crime is lower today than it was two decades ago. According to a new Pew Research Center survey, today 56% of Americans believe gun crime is higher than 20 years ago and only 12% think it is lower.

Looking back 50 years, the U.S. gun homicide rate began rising in the 1960s, surged in the 1970s, and hit peaks in 1980 and the early 1990s. (The number of homicides peaked in the early 1990s.) The plunge in homicides after that meant that firearm homicide rates in the late 2000s were equal to those not seen since the early 1960s.[1] The sharp decline in the U.S. gun homicide rate, combined with a slower decrease in the gun suicide rate, means that gun suicides now account for six-in-ten firearms deaths, the highest share since at least 1981.

Trends for robberies followed a similar long-term trajectory as homicides (National Research Council, 2004), hitting a peak in the early 1990s before declining.

Rate of Firearm Homicide Deaths, 1981-2010

Per 100,000 people



Note: Data labels shown for 1981, 1993, 2000 and 2010.

Source: CDC's National Center for Injury Prevention and Control Web-based Injury Statistics Query and Reporting System (WISQARS)

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This report examines trends in firearm homicide, non-fatal violent gun crime victimization and non-fatal violent crime victimization overall since 1993. Its findings on firearm crime are based mainly on analysis of data from two federal agencies. Data from the Centers for Disease

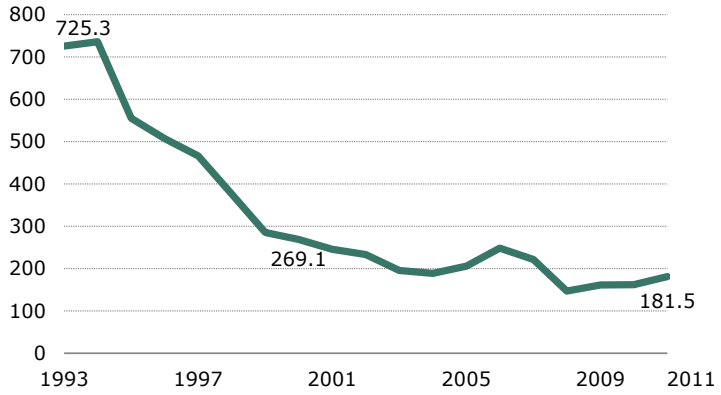
[1] See Cooper and Smith, 2011. The rate declined through at least 2010.

Control and Prevention, using information from death certificates, are the source of rates, counts and trends for all firearm deaths, homicide and suicide, unless otherwise specified. The Department of Justice's National Crime Victimization Survey, a household survey conducted by the Census Bureau, supplies annual estimates of non-fatal crime victimization, including those where firearms are used, regardless of whether the crimes were reported to police. Where relevant, this report also quotes from the FBI's Uniform Crime Reports (see text box at the end of this chapter and the Methodology appendix for more discussion about data sources).

Researchers have studied the decline in firearm crime and violent crime for many years, and though there are theories to explain the decline, there is no consensus among those who study the issue as to why it happened.

Rate of Non-fatal Firearm Crime,1993-2011

Victimizations per 100,000 people ages 12 and older



Note: Data labels shown for 1993, 2000 and 2011. 2006 NCVS estimates are not comparable with those in other years. See Methodology for details.

Source: Pew Research Center tabulations of National Crime Victimization Survey, U.S. Justice Department

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There also is debate about the extent of gun ownership in the U.S., although no disagreement that the U.S. has more civilian firearms, both total and per capita, than other nations. Compared with other developed nations, the U.S. has a higher homicide rate and higher rates of gun ownership, but not higher rates for all other crimes. (See Chapter 5 for more details.)

In the months since the mass shooting at a Newtown, Conn., elementary school in December, the public is paying close attention to the topic of firearms; according to a recent Pew Research Center survey (Pew Research Center, April 2013) no story received more public attention from mid-March to early April than the debate over gun control. Reducing crime has moved up as a priority for the public in polling this year.

Mass shootings are a matter of great public interest and concern. They also are a relatively small share of shootings overall. According to a Bureau of Justice Statistics review, homicides that claimed at least three lives accounted for less than 1% of all homicide deaths from 1980 to 2008. These homicides, most of which are shootings, increased as a share of all homicides from 0.5% in 1980 to 0.8% in 2008, according to the bureau's data. A Congressional Research Service report, using a definition of four deaths or more, counted 547 deaths from mass shootings in the U.S. from 1983 to 2012.[2]

Looking at the larger topic of firearm deaths, there were 31,672 deaths from guns in the U.S. in 2010. Most (19,392) were suicides; the gun suicide rate has been higher than the gun homicide rate since at least 1981, and the gap is wider than it was in 1981.

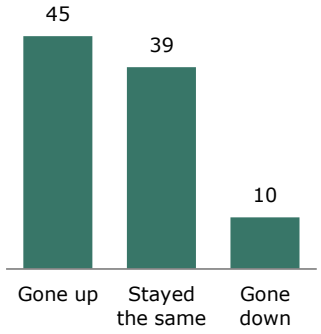
Knowledge about Crime

Despite the attention to gun violence in recent months, most Americans are unaware that gun crime is markedly lower than it was two decades ago. A new Pew Research Center survey (March 14-17) found that 56% of Americans believe the number of crimes involving a gun is higher than it was 20 years ago; only 12% say it is lower and 26% say it stayed the same. (An additional 6% did not know or did not answer.)

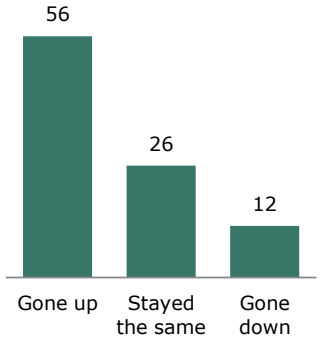
Men (46%) are less likely than women (65%) to say long-term gun crime is up. Young adults, ages 18 to 29, are markedly less likely than other adults to say long-term crime is up—44% do, compared with more than half of other adults. Minority adults are more likely than non-Hispanic whites to say that long-term gun crime is up, 62% compared with 53%.

Most Americans Unaware of Big Crime Drop Since 1990s

In recent years, has the number of gun crimes in America gone up, gone down or stayed the same? (%)



Compared with 20 years ago, has the number of gun crimes in America gone up, gone down or stayed the same? (%)



Note: "Don't know/Refused" responses not shown.

Source: Pew Research Center survey, March 14-17, 2013, N=924

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[2] A *USA Today* analysis in 2013 found that 934 people died since 2006 in mass shootings, defined as claiming at least four victims, and that most were killed by people they knew: http://www.usatoday.com/story/news/nation/2013/02/21/mass-shootings-domestic-violence-nra/1937041/

Asked about trends in the number of gun crimes "in recent years," a plurality of 45% believe the number has gone up, 39% say it is about the same and 10% say it has gone down. (An additional 5% did not know or did not answer.) As with long-term crime, women (57%) are more likely than men (32%) to say that gun crime has increased in recent years. So are non-white adults (54%) compared with whites (41%). Adults ages 50 and older (51%) are more likely than those ages 18-49 (42%) to believe gun crime is up.

What is Behind the Crime Decline?

Researchers continue to debate the key factors behind changing crime rates, which is part of a larger discussion about the predictors of crime.[3] There is consensus that demographics played some role: The outsized post-World War II baby boom, which produced a large number of people in the high-crime ages of 15 to 20 in the 1960s and 1970s, helped drive crime up in those years.

A review by the National Academy of Sciences of factors driving recent crime trends (Blumstein and Rosenfeld, 2008) cited a decline in rates in the early 1980s as the young boomers got older, then a flare-up by mid-decade in conjunction with a rising street market for crack cocaine, especially in big cities. It noted recruitment of a younger cohort of drug seller with greater willingness to use guns. By the early 1990s, crack markets withered in part because of lessened demand, and the vibrant national economy made it easier for even low-skilled young people to find jobs rather than get involved in crime.

At the same time, a rising number of people ages 30 and older were incarcerated, due in part to stricter laws, which helped restrain violence among this age group. It is less clear, researchers say, that innovative policing strategies and police crackdowns on use of guns by younger adults played a significant role in reducing crime.

Some researchers have proposed additional explanations as to why crime levels plunged so suddenly, including increased access to abortion and lessened exposure to lead. According to one hypothesis, legalization of abortion after the 1973 Supreme Court Roe v. Wade decision resulted in fewer unwanted births, and unwanted children have an increased risk of growing up to become criminals. Another theory links reduced crime to 1970s-era reductions in lead in gasoline; children's exposure to lead causes brain damage that could be associated with violent behavior. The National Academy of Sciences review said it was unlikely that either played a major role, but researchers continue to explore both factors.

[3] Much of this section draws from Blumstein and Rosenfeld, 2008.

The plateau in national violent crime rates has raised interest in the topic of how local differences might influence crime levels and trends. Crime reductions took place across the country in the 1990s, but since 2000, patterns have varied more by metropolitan area or city.[4]

One focus of interest is that gun ownership varies widely by region and locality. The National Academy of Sciences review of possible influences on crime trends said there is good evidence of a link between firearm ownership and firearm homicide at the local level; "the causal direction of this relationship remains in dispute, however, with some researchers maintaining that firearm violence elevates rates of gun ownership, but not the reverse."

There is substantial variation within and across regions and localities in a number of other realms, which complicates any attempt to find a single cause for national trends. Among the variations of interest to researchers are policing techniques, punishment policies, culture, economics and residential segregation.

Internationally, a decline in crime, especially property crime, has been documented in many countries since the mid-1990s. According to the authors of a 30-country study on criminal victimization (Van Dijk et al., 2007), there is no general agreement on all the reasons for this decline. They say there is a general consensus that demographic change—specifically, the shrinking proportion of adolescents across Europe—is a common factor causing decreases across Western countries. They also cite wider use of security measures in homes and businesses as a factor in reducing property crime.

But other potential explanations—such as better policing or increased imprisonment—do not apply in Europe, where policies vary widely, the report noted

Among the major findings of this Pew Research Center report:

U.S. Firearm Deaths

- In 2010, there were 3.6 gun homicides per 100,000 people, compared with 7.0 in 1993, according to CDC data.

- In 2010, CDC data counted 11,078 gun homicide deaths, compared with 18,253 in 1993.[5]

[4] The diversity of homicide trend by city was the topic of a recent forum, "Putting Homicide Rates in Their Place," sponsored by the Urban Institute.
[5] There were 11,101 gun homicide deaths in 2011 and the gun homicide rate remained 3.6 per 100,000 people, according to preliminary CDC data.

- Men and boys make up the vast majority (84% in 2010) of gun homicide victims. The firearm homicide rate also is more than five times as high for males of all ages (6.2 deaths per 100,000 people) as it is for females (1.1 deaths per 100,000 people).

- By age group, 69% of gun homicide victims in 2010 were ages 18 to 40, an age range that was 31% of the population that year. Gun homicide rates also are highest for adults ages 18 to 24 and 25 to 40.

- A disproportionate share of gun homicide victims are black (55% in 2010, compared with the 13% black share of the population). Whites were 25% of victims but 65% of the population in 2010. Hispanics were 17% of victims and 16% of the population in 2010.

- The firearm suicide rate (6.3 per 100,000 people) is higher than the firearm homicide rate and has come down less sharply. The number of gun suicide deaths (19,392 in 2010) outnumbered gun homicides, as has been true since at least 1981.

U.S. Firearm Crime Victimization

- In 2011, the NCVS estimated there were 181.5 gun crime victimizations for non-fatal violent crime (aggravated assault, robbery and sex crimes) per 100,000 Americans ages 12 and older, compared with 725.3 in 1993.

- In terms of numbers, the NCVS estimated there were about 1.5 million non-fatal gun crime victimizations in 1993 among U.S. residents ages 12 and older, compared with 467,000 in 2011.

U.S. Other Non-fatal Crime

- The victimization rate for all non-fatal violent crime among those ages 12 and older—simple and aggravated assaults, robberies and sex crimes, with or without firearms—dropped 53% from 1993 to 2000, and 49% from 2000 to 2010. It rose 17% from 2010 to 2011.

- Although not the topic of this report, the rate of property crimes—burglary, motor vehicle theft and theft—also declined from 1993 to 2011, by 61%. The rate for these types of crimes was 351.8 per 100,000 people ages 12 and older in 1993, 190.4 in 2000 and 138.7 in 2011.

Context

- The number of firearms available for sale to or possessed by U.S. civilians (about 310 million in 2009, according to the Congressional Research Service) has grown in recent years, and the 2009 per capita rate of one person per gun had roughly doubled since 1968. It is not clear, though, how many U.S. households own guns or whether that share has changed over time.

- Crime stories accounted for 17% of the total time devoted to news on local television broadcasts in 2012, compared with 29% in 2005, according to Pew Research Center's Project for Excellence in Journalism. Crime trails only traffic and weather as the most common type of story on these newscasts.

About the Data

Findings in this report are based on two main data sources:

Data on homicides and other deaths are from the Centers for Disease Control and Prevention, based on information from death certificates filed in state vital statistics offices, which includes causes of death reported by attending physicians, medical examiners and coroners. Data also include demographic information about decedents reported by funeral directors, who obtain that information from family members and other informants. Population data, used in constructing rates, come from the Census Bureau. Most statistics were obtained via the National Center for Injury Prevention and Control's Web-based Injury Statistics Query and Reporting System (WISQARS), available from URL: www.cdc.gov/ncipc/wisqars. Data are available beginning in 1981; suitable population data do not exist for prior years. For more details, see Appendix 4.

Estimates of crime victimization are from the National Crime Victimization Survey, a sample survey conducted for the Bureau of Justice Statistics by the Census Bureau. Although the survey began in 1973, this report uses data since 1993, the first year employing an intensive methodological redesign. The survey collects information about crimes against people and households, but not businesses. It provides estimates of victimization for the population ages 12 and older living in households and non-institutional group quarters; therefore it does not include populations such as homeless people, visiting foreign tourists and business travelers, or those living in institutions such as military barracks or mental hospitals. The survey collects information about the crimes of rape, sexual assault, personal robbery, aggravated and simple assault, household burglary, theft, and motor vehicle theft. For more details, see Appendix 4.

Roadmap to the Report

The remainder of this report is organized as follows. **Chapter 2** explores trends in firearm homicide and all firearm deaths, as well as patterns by gender, race and age. **Chapter 3** analyzes trends in non-fatal violent gun crime victimizations, as well as patterns by gender, race and age. **Chapter 4** looks at trends and subgroup patterns for non-fatal violent crime victimizations overall. **Chapter 5** examines issues related to the topic of firearms: crime news, crime as a public priority, U.S. gun ownership data, and comparison of ownership and crime rates with those in other nations. **Appendices 1-3** consist of detailed tables with annual data for firearm deaths, homicides and suicides, as well as non-fatal firearm and overall non-fatal violent crime victimization, for all groups and by subgroup. **Appendix 4** explains the report's methodology.

Notes on Terminology

All references to whites, blacks and others are to the non-Hispanic components of those populations. Hispanics can be of any race.

"Aggravated assault," as defined by the Bureau of Justice Statistics, is an attack or attempted attack with a weapon, regardless of whether an injury occurred, and an attack without a weapon when serious injury results.

The terms "firearm" and "gun" are used interchangeably.

"Homicides," which come from Centers for Disease Control and Prevention data, are fatal injuries inflicted by another person with intent to injure or kill. Deaths due to legal intervention or operations of war are excluded. Justifiable homicide is not identified.

"Robbery," as defined by the Bureau of Justice Statistics, is a completed or attempted theft, directly from a person, of property or cash by force or threat of force, with or without a weapon, and with or without injury.

"Sex crime," as defined by the Bureau of Justice Statistics, includes attempted rape, rape and sexual assault.

"Simple assault," as defined by the Bureau of Justice Statistics, is an attack (or attempted assault) without a weapon resulting either in no injury, minor injury (for example, bruises, black eyes, cuts, scratches or swelling) or in undetermined injury requiring less than two days of hospitalization.

"Victimization" is based on self-reporting in the National Crime Victimization Survey, which includes Americans ages 12 and older. For personal crimes (which in this report include assault, robbery and sex crime), it is expressed as a rate based on the number of victimizations per 100,000 U.S. residents ages 12 and older. See the Methodology appendix for more details.

Acknowledgments

Many researchers and scholars contributed to this report. Senior writer D'Vera Cohn wrote the body of the report. Paul Taylor, senior vice president of the Pew Research Center, provided editorial guidance. Mark Hugo Lopez, senior researcher and associate director of the Pew Hispanic Center, managed the report's data analysis and wrote the report's methodology appendix. Catherine A. Gallagher, director of the Cochrane Collaboration of the College for Policy at George Mason University, provided guidance on the report's data analysis and comments on earlier drafts of the report. Lopez and Kim Parker, associate director of the Center's Social & Demographic Trends project, managed the report's development and production. Kevin T. Maass, research associate at the Cochrane Collaboration at George Mason University's College for Policy, provided analysis of the FBI's Uniform Crime Reports. Research Assistants Eileen Patten and Anna Brown number-checked the report and prepared charts and tables. Patten also conducted background research on trends in crime internationally. The report was copy-edited by Marcia Kramer of Kramer Editing Services.

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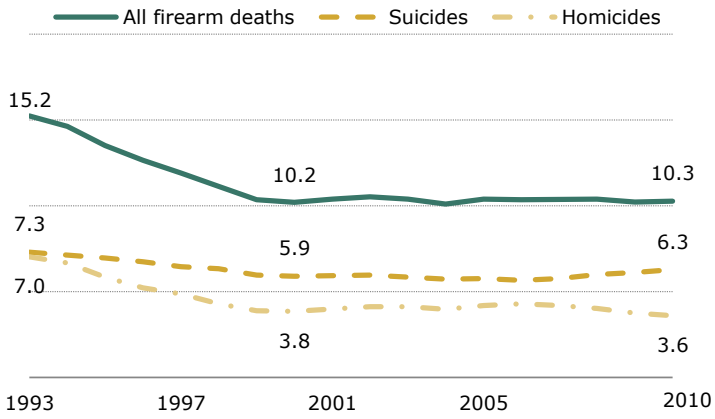
CHAPTER 2: FIREARM DEATHS

In 2010, there were 31,672 deaths in the U.S. from firearm injuries, mainly through suicide (19,392) and homicide (11,078), according to CDC compilation of data from death certificates.[6] The remaining firearm deaths were attributed to accidents, shootings by police and unknown causes. The gun homicide rate in 2010 was the lowest it had been since CDC began publishing data in 1981. Other homicide data, from the FBI's Uniform Crime Report (Cooper and Smith, 2011), indicate that homicide rates are as low now as they were in the 1960s.

Rate of Firearm Deaths, 1993-2010

Per 100,000 people



Note: Data labels shown for 1993, 2000 and 2010.

Source: Source: CDC's National Center for Injury Prevention and Control Web-based Injury Statistics Query and Reporting System (WISQARS)

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The U.S. gun homicide rate and number of homicide victims plunged during the 1990s, but there has been little change since the end of that decade. From 1993 to 2000, the death rate dropped 45%, and the number of victims killed each year fell by nearly 7,500. From 2000 to 2010, the death rate declined 7%, and the number of victims did not change much.[7]

Still, due in part to recent increases in the number of suicides, firearm homicide accounted for 35% of firearm deaths in 2010, the lowest share since 1981, the first year for which the CDC published data.

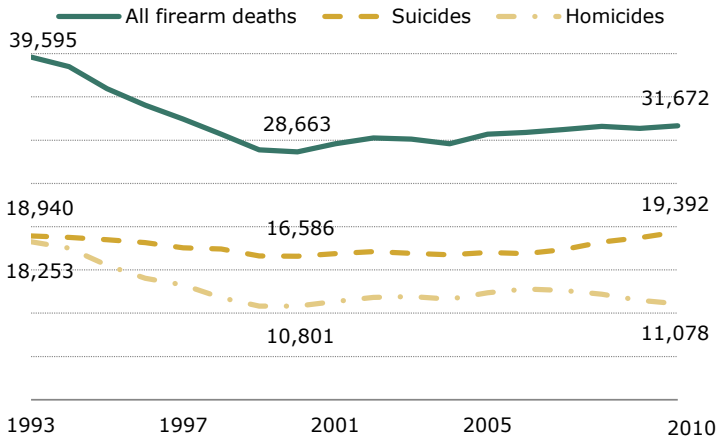
The gun suicide rate has declined far less than the gun homicide rate since the mid-1990s; the gun suicide rate began rising in recent years, and the number of victims is slightly higher than two decades ago. See the textbox at the end of this section for more detail.

[6] According to preliminary 2011 data, there were 32,163 deaths by firearms, including 11,101 homicides and 19,766 suicides. The overall rate, 10.3 per 100,000 people, was unchanged.
[7] According to preliminary 2011 CDC data, there was virtually no change from 2010 on these measures.

Firearms were used in 68% of homicides in 2010, according to CDC data. That share has ranged from 64% to 71% since the 1990s.[8] In 2010, firearm homicide was the fifth leading cause of violent death, after motor vehicle deaths, unintentional poisoning such as drug overdose, falls and suicide by firearm.

Homicide by means other than firearms also has declined, though not as much as gun homicide; the non-firearm rate declined 41% from 1993 to 2010, according to CDC data.

Number of Firearm Deaths, 1993-2010



Note: Totals not shown for residual categories of firearm death, such as accidents. Data labels shown for 1993, 2000 and 2010.

Source: CDC's National Center for Injury Prevention and Control Web-based Injury Statistics Query and Reporting System (WISQARS)

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Another way of examining firearm violence is to look at data from the CDC for firearm injuries, which comes from a survey of hospital emergency rooms. In 2011, nearly 74,000 injuries from firearms were reported in the CDC database, according to a Pew Research Center analysis. Of those, about 56,000 (75%) resulted from assaults.[9] Since 2000, the share of firearm injuries that are the result of assaults has ranged from 63% to 75%.

[8] Except for 2001, the year that terrorist attacks killed about 3,000 people, when it was 56%.
[9] Remaining injuries were unintentional, deliberately self-inflicted or the result of "legal intervention" by law enforcement officers.

Deaths from mass shootings are a relatively small share of firearm homicides. According to a recent Congressional Research Service report (Congressional Research Service, 2013), 78 public mass shootings occurred in the United States from 1983 through 2012, claiming 547 lives and injuring 476 people. (The count does not include the shooters.)

The Congressional Research Service report did not assess whether mass shootings are more or less frequent than they used to be, but noted that they are relatively uncommon. It stated: "Mass shootings are rare, high-profile events, rather than broad trends that require systematic data collection to understand."

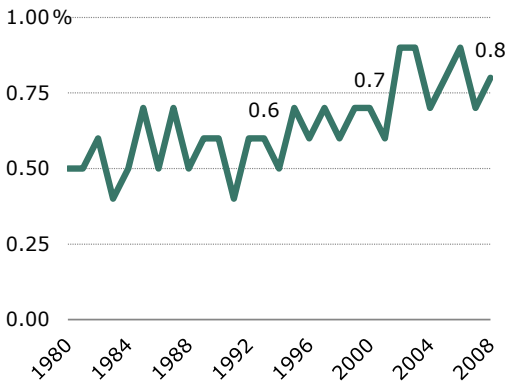
Noting that definitions differ, the report defined "public mass shootings" as those happening in relatively public places, killing at least four people (not including the shooter) and having a "somewhat indiscriminate" choice of victims. The violence in these cases counted by CRS was "not a means to an end such as robbery or terrorism."

A Bureau of Justice Statistics review of homicide trends from 1980 to 2008 (Cooper and Smith, 2011) found that homicides with multiple victims (in this case, three or more) have increased somewhat as a share of incidents, but are a small share of the total.[10] Less than 1% of homicides each year claim three or more victims. These homicides, most of which are shootings, increased as a share of all homicides from 0.5% in 1980 to 0.8% in 2008, according to the bureau's data.

Homicides with more than one victim were more likely to involve firearms than single-victim homicides, the review concluded. In 2008, 77% of homicides with two or more victims involved guns, according to the Bureau of Justice Statistics review, compared with 66% of single-victim homicides.

Multiple-victim Homicides Rise, But Are Still a Small Share of All Homicides

Homicides with three or more victims, as % of all homicides



Note: Data labels shown for 1993, 2000 and 2008.

Source: Bureau of Justice Statistics, 2011. Homicide Trends in the United States, 1980-2008. Washington, D.C.

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[10] Data in this Bureau of Justice Statistics report come from the FBI's Supplementary Homicide Reports, part of the Uniform Crime Reporting program. See Methodology for more details on differences between this source and the CDC data used elsewhere in this report.

Gender and Age Groups

Men (and boys) make up the vast majority (84% in 2010) of gun homicide victims.

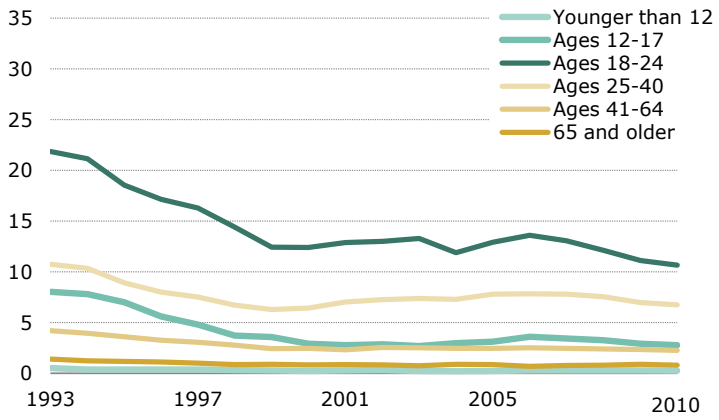
The gun homicide rates for both genders have declined by similar amounts since the mid-1990s, though the male rate is much higher—6.2 gun homicides per 100,000 people in 2010, compared with 1.1 for females.

By age group, 69% of gun homicide victims are ages 18 to 40, a proportion that has changed little since 1993. These groups also have the highest homicide rates: In 2010, there were 10.7 gun homicides per 100,000 people ages 18 to 24, compared with 6.7 among those ages 25 to 40, the next highest rate. The lowest rates are for children younger than 12 and for adults ages 65 and older.

Rates of gun homicide fell in all age groups from 1993 to 2000, most dramatically for teenagers, and leveled off or fluctuated since then. From 1993 to 2010, the gun homicide rate declined 65% for those ages 12 to 17, the largest percentage decrease among age groups. The smallest decrease, 37%, was for people ages 25 to 40.

Rate of Firearm Homicide Deaths, by Age, 1993-2010

Per 100,000 people



Note: See Appendix 1 for underlying data.

Source: CDC's National Center for Injury Prevention and Control Web-based Injury Statistics Query and Reporting System (WISQARS)

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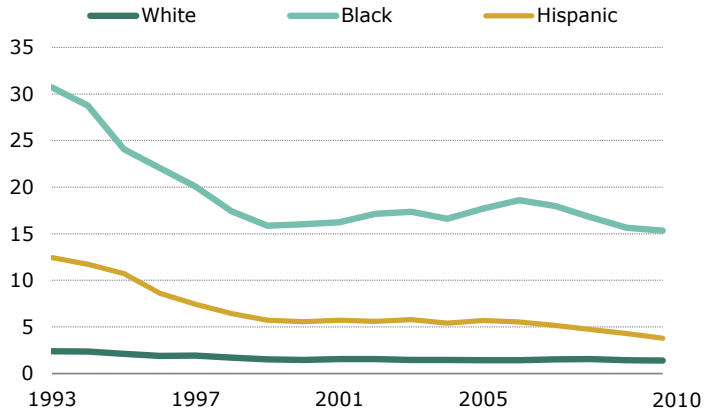
Younger adults are disproportionately likely to be firearms homicide victims. In 2010, young adults ages 18 to 24 were 30% of gun homicide victims in 2010, a higher likelihood than their 10% share of the population would suggest. Similarly, in 2010, people ages 25 to 40 accounted for 40% of gun homicide victims, though they were 21% of the population that year.

Racial and Ethnic Groups

Looked at by race, blacks are over-represented among gun homicide victims; blacks were 55% of shooting homicide victims in 2010, but 13% of the population. By contrast, whites are underrepresented; whites were 25% of the victims of gun homicide in 2010, but 65% of the population. For Hispanics, the 17% share of gun homicide victims was about equal to their 16% proportion of the total population.

Rate of Firearm Homicide Deaths, by Race/Ethnicity, 1993-2010

Per 100,000 people



Note: See Appendix 1 for underlying data. Whites and blacks include only non-Hispanics. Hispanics are of any race.

Source: CDC's National Center for Injury Prevention and Control Web-based Injury Statistics Query and Reporting System (WISQARS)

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The black homicide death rate has declined 50% since its peak in 1993, and the number of black homicide deaths fell by more than a third (37%) from 1993 to 2010. The white homicide death rate has declined by 42% over that time, and the number of white homicide deaths declined 39%. The Hispanic shooting homicide rate fell 69% from 1993 to 2000, and the number of deaths declined by 40%. From 2000 to 2010, when the overall gun homicide rate decline slowed, the Hispanic rate fell 32%, while the black and white rates declined only 4%.

The share of victims by racial or ethnic group has changed little since 1993, but the makeup of the U.S. population has altered. For example, in 1993, Hispanics were 10% of the population, blacks 12% and whites 73%. From 1993 to 2010, the Hispanic population share rose 66%, but the Hispanic share of gun homicide victims has not increased.

The larger decline in gun homicides among blacks and Hispanics, compared with whites, has had a disproportionate effect in driving down the overall gun homicide rate. If the black and Hispanic homicide rates had declined at the same rate as that of whites, the U.S. gun homicide rate would have declined by 35%, instead of 49%, from 1993 to 2010, according to a Pew Research Center analysis.

Suicide by Firearm

Based on death certificates, 19,392 people killed themselves with firearms in 2010, according to data from the Centers for Disease Control and Prevention. That is the highest annual total since the CDC began publishing data in 1981, when the suicide toll was 16,139. Firearm suicide was the fourth leading cause of violent-injury death in 2010, following motor vehicle accidents, unintentional poison (including drug overdose) and falls. Firearms accounted for 51% of suicides in 2010.

The firearm suicide rate peaked in 1990, at 7.6 per 100,000 people, before declining or leveling off for most years since then. However, in recent years, the rate has risen somewhat: From 2007 to 2010, it went up 9%. The firearm suicide rate in 2010 (6.3 per 100,000 people) was the same as it was in 1998. Preliminary 2011 data show 19,766 deaths, and no change in rates from 2010.

The number of firearm suicides has been greater than the number of firearm homicides since at least 1981. But as firearm homicides have declined sharply, suicides have become a greater share of firearm deaths. In 2010, 61% of gun deaths were due to suicide, compared with about half in the mid-1990s. (The remaining firearm deaths, in addition to suicide and homicide, are accidental, of undetermined intent or the result of what the CDC terms "legal intervention," generally a police shooting.)

Males are the vast majority of gun suicides (87% in 2010), and the suicide rate for males (11.2 deaths per 100,000 people) is more than seven times the female rate (1.5 deaths). The highest firearm suicide rate by age is among those ages 65 and older (10.6 per 100,000 people). The rate for older adults has been relatively steady in recent years; the rate is rising, though, among those ages 41-64, according to CDC data. Among the three largest racial and ethnic groups, whites have the highest suicide rate at 8.5 per 100,000, followed by blacks (2.7) and Hispanics (1.9).

Comparing homicide and suicide rates, suicide rates are higher than homicide rates for men; they are about equal for women. By age group, suicide rates are higher than homicide rates only for adults ages 41-64 and those ages 65 and older. Homicide rates are higher than suicide rates for blacks and Hispanics; for whites, the suicide rate is higher than the homicide rate. Detailed tables on gun suicide can be found in Appendix 1.

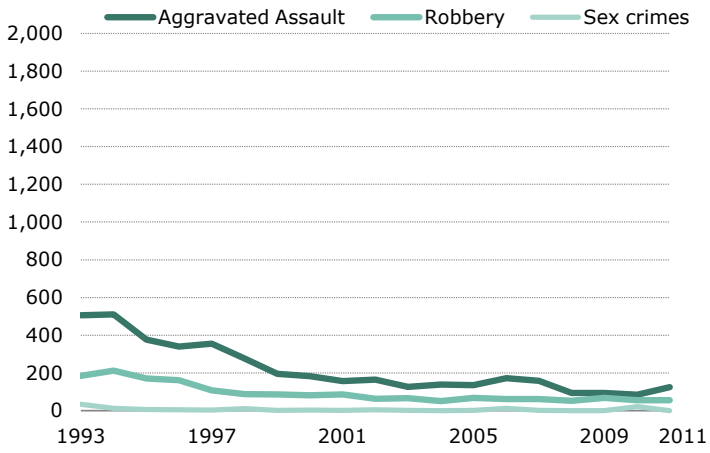
CHAPTER 3: NON-FATAL VIOLENT FIREARM CRIMES

Over the past two decades, the rate of non-fatal violent firearm crime victimizations among Americans ages 12 and older was highest in the early 1990s, and fell sharply (63%) from 1993 through 2000, according to analyses of data from the National Crime Victimization Survey. From 2000 to 2011, the rate declined 33%.

In 2009, 2010 and 2011, the rate of non-fatal firearm crime appeared to rise, compared with the prior year, but the changes are not statistically significant. In 2011, the non-fatal firearm crime rate was 75% lower than it had been in 1993.

Rate of Non-fatal Violent Firearm Crime, by Type of Crime, 1993-2011

Victimizations per 100,000 people ages 12 and older



Note: See Appendix 2 for underlying data, including cautions about small sample sizes for some years. 2006 NCVS estimates are not comparable with those in other years. See Methodology for details.

Source: Pew Research Center tabulations of National Crime Victimization Survey, U.S. Justice Department

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For non-fatal gun crimes overall, there were 725.3 victimizations per 100,000 people ages 12 and older in 1993; in 2011, it fell to 181.5 victimizations per 100,000 people.

Non-fatal firearm crimes are defined throughout this section as aggravated assault, robbery and sex crimes in which the victim saw a weapon. Aggravated assault and robbery are the main components of non-fatal firearm crime; there are too few sex crimes reported to analyze annual trends reliably.

Over the 1993-2011 period, the victimization rate for aggravated assault with firearms declined 75% and the rate for robbery with firearms declined 70%.

The rate for both gun crimes displayed the same general pattern of large declines in the 1990s. From 2000 to 2011, rates for aggravated assault declined overall. There was no clear trend for robbery with a firearm from 2000 to 2011.

Gender

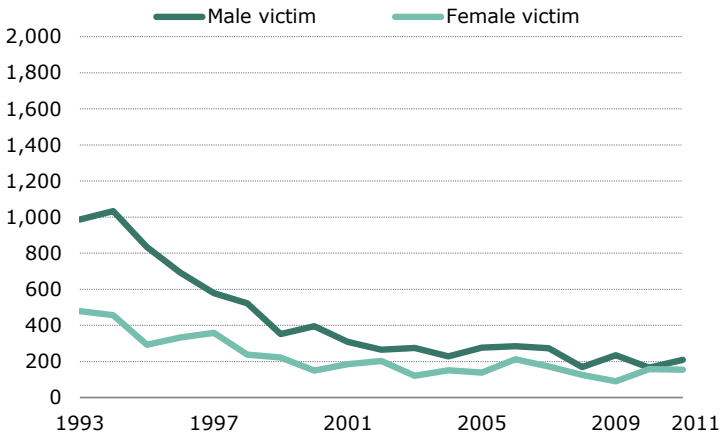
As with firearm homicide, males account for most victimizations by non-fatal violent firearm crime.[11] However, men and boys are not as large a share of non-fatal firearm crime victims as they were two decades ago.

Violent victimization rates involving firearms declined for both males and females from 1993 to 2011, with fluctuations in some years.

The male victimization rate declined somewhat more than the female rate—by 79% compared with 68%—from 1993 to 2011. As a result, the share of non-fatal firearm crime victimizations involving men and boys, 66% in 1993, declined to 56% in 2011. The 2011 share of victimizations is higher than the 49% male share of the U.S. population ages 12 and older.

Rate of Non-fatal Violent Firearm Crime, by Gender of Victim, 1993-2011

Victimizations per 100,000 people ages 12 and older



Note: See Appendix 2 for underlying data. 2006 NCVS estimates are not comparable with those in other years. See Methodology for details.

Source: Pew Research Center tabulations of National Crime Victimization Survey, U.S. Justice Department

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Girls and women made up 51% of the U.S. population ages 12 and older in 2011 but were 44% of the victims of non-fatal violent firearm crime in that age group.

[11] Firearms homicides are based on the total population and victimizations on the population ages 12 and older.

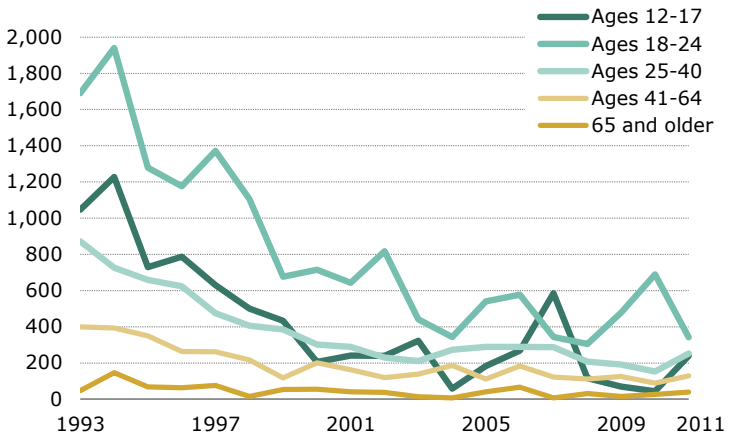
Age Groups

As with gun homicides, young adults are at higher risk than older adults of being the victim of a non-fatal gun crime.

Two decades ago, young adults ages 18 to 24 were more likely than any other age group (among the population ages 12 and older in the victimization survey) to be a victim of non-fatal firearm crime. But the victimization rate of 18- to 24-year-olds declined 80% from 1993 to 2011, compared with the 75% overall decline in non-fatal firearm victimization during those years. By 2011, the rate for this age group was only higher than rates for adults ages 41 and older, but not statistically different from the rate for 12- to 17-year-olds or 25- to 40-year-olds.

Rate of Non-fatal Violent Firearm Crime, by Age of Victim, 1993-2011

Victimizations per 100,000 people ages 12 and older



Note: See Appendix 2 for underlying data, including cautions about small sample sizes for some age groups for some years. 2006 NCVS estimates are not comparable with those in other years. See Methodology for details.

Source: Pew Research Center tabulations of National Crime Victimization Survey, U.S. Justice Department

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In both 1993 and 2011, adults ages 65 and older were less likely than other age groups to be the victim of non-fatal firearm crimes.[12] Adults ages 41 to 64 had lower victimization rates for non-fatal firearm crime in 1993 than younger age groups; in 2011, this group had lower rates than adults ages 18 to 24 and 25 to 40, but not than those ages 12 to 17.

[12] This finding should be interpreted with caution because the estimated victimization rate for adults ages 65 and older is based on a sample of fewer than 10 cases.

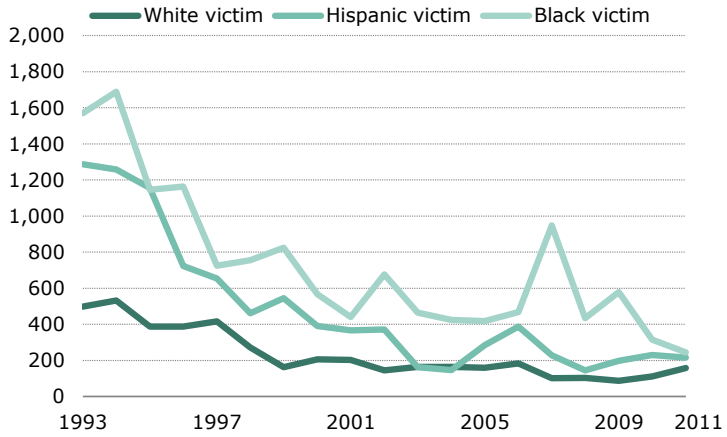
Racial and Ethnic Groups

In 2011, the white rate of non-fatal gun crime victimization appears to be somewhat lower than those of Hispanics and blacks, although the differences are not statistically significant. (Those rates were 158.7 victimizations per 100,000 people ages 12 and older for whites, 215.0 for Hispanics and 245.5 for blacks.)

That is different from the pattern for gun homicide, and represents a change from 1993, when the white victimization rate (499.1 per 100,000 people ages 12 and older) was lower than those for Hispanics (1,286.8) and blacks (1,570.0) ages 12 and older.

Rate of Non-fatal Violent Firearm Crime, by Race/Ethnicity of Victim, 1993-2011

Victimizations per 100,000 people ages 12 and older



Note: See Appendix 2 for underlying data, including cautions about small sample sizes in some years. 2006 NCVS estimates are not comparable with those in other years. See Methodology for details. Whites and blacks include only non-Hispanics. Hispanics are of any race.

Source: Pew Research Center tabulations of National Crime Victimization Survey, U.S. Justice Department

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The non-fatal firearm crime victimization rates of Hispanic and black Americans ages 12 and older fell somewhat more sharply than the white rate from 1993 to 2011: by 83% for Hispanics and 84% for blacks, compared with 68% for whites. The Hispanic population ages 12 and older has more than doubled in size since then, so its rate is a larger factor than in the past in driving the overall rate. (The black population grew 24% in that time, and the white population grew 7%).

All three groups showed a similar pattern of sharper declines from 1993 to 2000 than over the period from 2000 to 2011, for those ages 12 and older. However, in the period from 2008 to 2011, the non-fatal gun crime rate rose for whites (54%). After a single-year spike in 2007, the rate declined for blacks from 2008 to 2011 (44%).

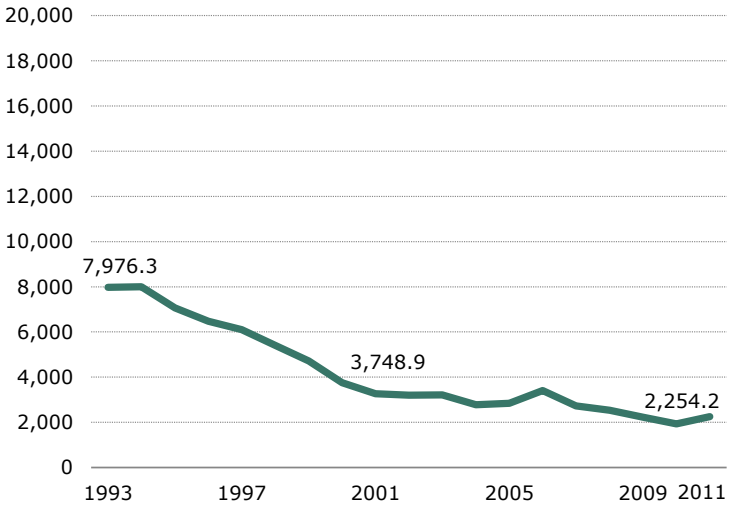
CHAPTER 4: ALL NON-FATAL VIOLENT CRIMES

As with firearm crimes, the rate of overall non-fatal violent crime—defined as aggravated or simple assault, robbery or sex crimes (with or without a gun)—also is lower than it was in the early 1990s. From 1993 to 2011, the U.S. non-fatal violent crime victimization rate for Americans ages 12 and older declined 72%.

There were 2,254 non-fatal violent crime victimizations per 100,000 Americans ages 12 and older in 2011, compared with 7,976 in 1993. The number of such victimizations in 2011—5.8 million—also was a decline from 16.8 million victimizations in 1993.

Rate of Non-fatal Violent Crime, 1993-2011

Victimizations per 100,000 people ages 12 and older



Note: Data labels shown for 1993, 2000 and 2011. 2006 NCVS estimates are not comparable with those in other years. See Methodology for details.

Source: Pew Research Center tabulations of National Crime Victimization Survey, U.S. Justice Department

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The non-fatal violent crime victimization rate declined 53% from 1993 to 2000 and decreased an additional 49% from 2000 to 2010. In 2011, the rate grew by 17%.

Looking at the main components of non-fatal violent crime, in 2011, 31% of aggravated assault victimizations involved a gun, the same share as in 1993. In 2011, 26% of robbery victimizations involved a gun, similar to the 22% share in 1993.

By gender, males accounted for 55% of non-fatal violent crime victimizations in 2011, somewhat higher than their 49% proportion of the population ages 12 and older.

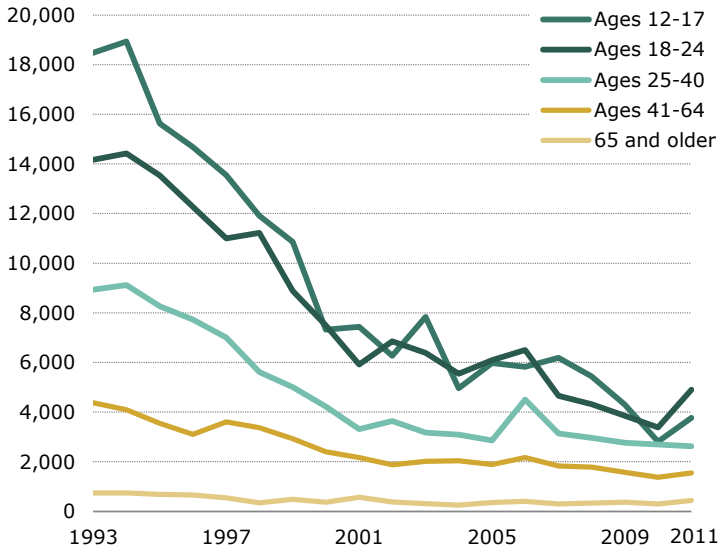
Age Groups

In terms of age, young adults have the highest victimization rates. The highest rate is among those ages 18 to 24, followed by those ages 12 to 17.

Those ages 12 to 24 are a higher share of victims (41% in 2011) than of the population ages 12 and older (21%). Adults ages 41 and older are a lower share of victims (29%) than their share of the population ages 12 and older (53%). Those ages 25 to 40 are a slightly larger share of victims (30%) than of the population ages 12 and older (26%).

Non-fatal Violent Crime Rate, by Age of Victim, 1993-2011

Victimizations per 100,000 people ages 12 and older



Note: See Appendix 3 for underlying data. 2006 NCVS estimates are not comparable with those in other years. See Methodology for details.

Source: Pew Research Center tabulations of National Crime Victimization Survey, U.S. Justice Department

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Teens ages 12 to 17, for example, are 9% of the population ages 12 and older but were 16% of the victims of non-fatal violent crime in 2011. Adults ages 65 and older are 15% of the population ages 12 and older but were 3% of the victims of non-fatal violent crime in 2011.

Racial and Ethnic Groups

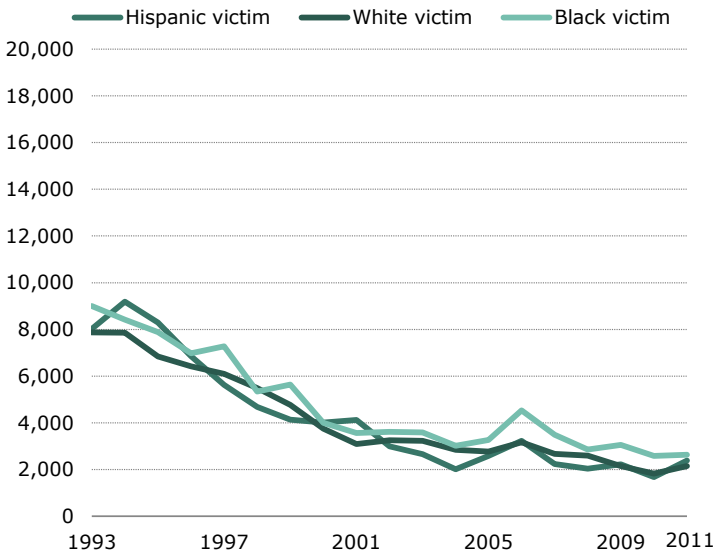
There were no statistically significant differences by racial and ethnic group in 2011 rates of non-fatal violent crime.

Non-fatal violent crime rates declined at a similar pace from 1993 to 2010 among those ages 12 and older in the nation's three largest racial and ethnic groups—77% for whites, 79% for Hispanics and 71% for blacks.

From 2010 to 2011, the non-fatal violent crime rate for Hispanics went up 42%; the rate for whites rose 18%; and the rate for blacks was essentially stable (up 2%).

Non-fatal Violent Crime Rate, by Race/Ethnicity of Victim, 1993-2011

Victimizations per 100,000 people ages 12 and older



Note: See Appendix 3 for underlying data. Whites and blacks include only non-Hispanics. Hispanics are of any race. 2006 NCVS estimates are not comparable with those in other years. See Methodology for details.

Source: Pew Research Center tabulations of National Crime Victimization Survey, U.S. Justice Department

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CHAPTER 5: CONTEXT

Crime News

Americans are hearing less about crime these days on their local television newscasts than they did a few years ago, but crime remains a common type of story on these local broadcasts, trailing only traffic and weather.

According to the "The State of the News Media 2013" report from Pew Research Center's Project for Excellence in Journalism (Pew Research Center's Project for Excellence in Journalism, 2013) crime accounted for 17% of the total time devoted to news on local broadcasts in 2012, compared with 29% in 2005. The largest component of local newscasts, traffic and weather stories, accounted for 29% of local newscast content in 2012, compared with 25% in 2005.

Looking at the national newscasts on ABC, CBS and NBC, crime news grew somewhat as a percentage of the network TV evening time devoted to news, to 9% in 2012 from 7% in 2007.

Crime coverage on the morning network shows grew to 14% of the time devoted to news in 2012, compared with 9% in 2007. This was due largely to stories about the death of Trayvon Martin, an unarmed Florida teenager who was fatally shot by a neighborhood watch volunteer. Trayvon Martin coverage also was a factor in the growth of crime coverage on the evening news.

News stories about fatal shootings were among the coverage most closely followed by the public in 2012, according to the Pew Research Center's News Interest Index. The fatal mass shooting at an elementary school in Newtown, Conn., ranked second in public attention, behind the presidential election, with 57% of Americans saying they followed the story very closely. The mass shooting in an Aurora, Colo., movie theater ranked fifth, with 48% following it very closely. The Trayvon Martin shooting ranked 11th, with 35% of Americans saying they tracked the story very closely (Pew Research Center for the People & the Press, 2012).

More recently, 39% of Americans say they followed very closely the debate about gun control in late April, the week the Senate rejected gun control legislation. It was the second most closely followed story from April 18 to 21, following the bombings at the Boston marathon (Pew Research Center for the People & the Press, 2013).

Public Priority to Crime

When it comes to the public's priorities for the president and Congress, reducing crime has rebounded as a top concern. In a Pew Research Center survey in January, the month after the mass shooting in Newtown, 55% of Americans called crime reduction a top priority for Washington (Pew Research Center, January 2013). Two years ago, in 2011, just 44% said so. However, the share is much lower than it was in Pew Research Center surveys in the early 1990s or 2000s, when three-quarters or more said reducing crime should be a top priority.

Strengthening gun control laws was rated a top priority for officials in Washington by 37% of Americans in the January Pew Research Center survey. Gun control had last been included in the annual public priorities survey in 2001; in the survey that year, 47% of Americans called it a top priority.

Gun Ownership

The number of firearms available for sale to or possessed by U.S. civilians has grown in recent years, according to the Congressional Research Service and other research. A 2012 CRS report estimated that about 310 million firearms were available to or owned by civilians in the U.S. in 2009—114 million handguns, 110 million rifles and 86 million shotguns (Congressional Research Service, 2012). The figure was derived from manufacturing, export and import data published by the Bureau of Alcohol, Tobacco, Firearms and Explosives. The 2009 per capita rate of one person per gun in the U.S. had roughly doubled since 1968, the report said.

The 2007 Small Arms Survey, conducted by the Graduate Institute of International and Development Studies in Geneva (Completing the Count, 2007), estimated that 270 million firearms were owned by private citizens in the U.S. that year,[13] or about 90 firearms per 100 people. The Small Arms Survey relied on ATF data and independent surveys.

It is not clear, however, how many U.S. households owned guns or whether the share of gun-owning U.S. households has changed over time.

According to a recent Pew Research Center survey (Pew Research Center, March 2013) 37% of adults say they or someone else in their household owns a firearm of some kind. The 2012 General Social Survey (GSS) reports 34% do. However, a Gallup survey in 2012 found that 43% of respondents said there was at least one gun in their household.

[13] The CRS report estimated that civilians had 294 million firearms available for sale or owned in 2007.

As for whether gun ownership is rising or falling, the GSS reports a long trend of decline. In 1973, about half of households (49%) owned firearms, according to GSS data. Gallup survey data indicates that the share of households with guns is the same now as in 1972 (43%), although there was a dip in gun ownership in the 1990s.

Respondent error or misstatement in surveys about gun ownership is a widely acknowledged concern of researchers. People may be reluctant to disclose ownership, especially if they are concerned that there may be future restrictions on gun possession or if they acquired their firearms illegally. For whatever reason, husbands are more likely than wives to say there is a firearm in their households (Wright et al., 2012). Household surveys do not cover all gun ownership; they include only firearms owned by people in households.

As a 2004 National Academy of Sciences review stated, "Concerns about response errors in self-reported surveys of firearms possession and use require much more systematic research before surveys can be judged to provide accurate data to address critical issues in the study of firearms and violence. ... Without systematic research on these specific matters, scientists can only speculate" (National Research Council, 2004).

International Context

How do U.S. gun ownership or gun crime compare with those in other nations? Although international data collection suffers from the same problems as gathering information about guns in the U.S., most research agrees that civilians in the United States own more firearms both total and per capita than those in any other nation.

The Small Arms Survey in 2007 found not only that U.S. civilians had more total firearms than any other nation (270 million) but also that the rate of ownership (about 90 firearms for every 100 people) was higher than in other countries. "With less than 5 percent of the world's population, the United States is home to 35-50 per cent of the world's civilian-owned guns," according to the survey, which included estimates for 178 countries.

As for gun crime, research has found that the U.S. has a higher gun homicide and overall homicide rate than most developed nations, although the U.S. does not have the world's highest rate for either. The U.S. does not outrank other developed nations for overall crime, but crimes with firearms are more likely to occur in the U.S. (Van Dijk, et al., 2007).

The United Nations Global Study on Homicide (UNODC, 2011) estimated that 199,000 homicides, or 42% of the 468,000 worldwide total in 2010, were committed by firearm.

According to U.N. statistics, the U.S. firearm homicide rate and overall homicide rate are higher than those in Canada and in Western European and Scandinavian nations, but lower than those in many Caribbean and Latin American countries for which data are available.

Where does the U.S. rank internationally in terms of gun crime of all types? A report that compared 2003-2004 victimization survey data for 30 countries, including most developed nations, found that the U.S. ranked about average in an overall index of common crimes (Van Dijk et al., 2007).

However, the report placed the U.S. among the top countries for attacks involving firearms. “Mexico, the USA and Northern Ireland stand out with the highest percentages gun-related attacks (16%, 6% and 6% respectively).” The U.S. had the highest share of sexual assault involving guns.

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APPENDIX 1: ADDITIONAL TABLES ON FIREARM DEATHS

All Firearm Deaths, Total and by Gender, 1981-2010

	All		Male		Female	
	Number	Rate (per 100,000)	Number	Rate (per 100,000)	Number	Rate (per 100,000)
Year						
2010	31,672	10.3	27,356	18.0	4,316	2.7
2009	31,347	10.2	26,921	17.9	4,426	2.8
2008	31,593	10.4	27,336	18.3	4,257	2.8
2007	31,224	10.4	27,047	18.3	4,177	2.7
2006	30,896	10.4	26,712	18.2	4,184	2.8
2005	30,694	10.4	26,657	18.4	4,037	2.7
2004	29,569	10.1	25,498	17.7	4,071	2.7
2003	30,136	10.4	26,124	18.3	4,012	2.7
2002	30,242	10.5	26,098	18.5	4,144	2.8
2001	29,573	10.4	25,480	18.2	4,093	2.8
2000	28,663	10.2	24,582	17.8	4,081	2.8
1999	28,874	10.3	24,700	18.1	4,174	2.9
1998	30,708	11.1	26,189	19.4	4,519	3.2
1997	32,436	11.9	27,756	20.8	4,680	3.4
1996	34,040	12.6	29,183	22.1	4,857	3.5
1995	35,957	13.5	30,724	23.6	5,233	3.8
1994	38,505	14.6	33,021	25.7	5,484	4.1
1993	39,595	15.2	33,711	26.6	5,884	4.4
1992	37,776	14.7	32,425	25.9	5,351	4.1
1991	38,317	15.1	32,882	26.6	5,435	4.2
1990	37,155	14.9	31,736	26.1	5,419	4.2
1989	34,776	14.1	29,596	24.6	5,180	4.1
1988	33,989	13.9	28,674	24.1	5,315	4.2
1987	32,895	13.6	27,569	23.4	5,326	4.3
1986	33,373	13.9	28,084	24.0	5,289	4.3
1985	31,566	13.3	26,382	22.8	5,184	4.2
1984	31,331	13.3	26,229	22.9	5,102	4.2
1983	31,099	13.3	25,945	22.8	5,154	4.3
1982	32,957	14.2	27,517	24.4	5,440	4.6
1981	34,050	14.8	28,343	25.4	5,707	4.8

Notes: Firearm deaths include those that are unintentional, violence-related (suicide, homicide and legal intervention) and of undetermined intent.

Source: Pew Research Center tabulations of CDC's National Center for Injury Prevention and Control Web-based Injury Statistics Query and Reporting System (WISQARS)

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All Firearm Deaths, by Age, 1981-2010

	-----Younger than 12-----		--------Ages 12-17--------		--------Ages 18-24--------	
	Number	Rate *(per 100,000)*	Number	Rate *(per 100,000)*	Number	Rate *(per 100,000)*
Year						
2010	180	0.4	1,157	4.6	5,244	17.1
2009	182	0.4	1,210	4.7	5,259	17.2
2008	192	0.4	1,283	5.0	5,586	18.5
2007	195	0.4	1,325	5.1	5,780	19.4
2006	185	0.4	1,408	5.4	5,971	20.2
2005	171	0.4	1,319	5.1	5,735	19.5
2004	147	0.3	1,238	4.8	5,513	18.8
2003	158	0.3	1,159	4.6	5,909	20.4
2002	191	0.4	1,252	5.0	5,756	20.2
2001	194	0.4	1,239	5.0	5,668	20.2
2000	176	0.4	1,368	5.7	5,467	20.1
1999	190	0.4	1,586	6.6	5,508	20.6
1998	235	0.5	1,736	7.3	6,061	23.3
1997	249	0.5	2,035	8.6	6,519	25.6
1996	264	0.6	2,259	9.8	6,936	27.5
1995	272	0.6	2,762	12.1	7,597	29.8
1994	278	0.6	3,040	13.7	8,610	33.5
1993	346	0.8	2,945	13.6	8,870	34.2
1992	308	0.7	2,740	13.0	8,353	32.0
1991	286	0.6	2,659	13.0	8,370	31.7
1990	312	0.7	2,386	11.9	7,628	28.4
1989	368	0.8	2,129	10.6	6,754	24.9
1988	331	0.8	1,998	9.7	6,278	23.0
1987	302	0.7	1,690	8.1	5,985	21.6
1986	267	0.6	1,667	7.8	6,187	21.9
1985	316	0.8	1,567	7.2	5,689	19.7
1984	302	0.7	1,464	6.7	5,771	19.6
1983	269	0.7	1,379	6.2	5,853	19.6
1982	338	0.8	1,462	6.5	6,504	21.6
1981	347	0.9	1,593	7.0	7,119	23.5

Continued on next page

All Firearm Deaths, by Age, 1981-2010 (Cont.)

	--------Ages 25-40--------		--------Ages 41-64--------		--------65 and older--------	
	Number	Rate *(per 100,000)*	Number	Rate *(per 100,000)*	Number	Rate *(per 100,000)*
Year						
2010	9,059	13.8	11,322	11.6	4,703	11.7
2009	8,918	13.6	11,047	11.4	4,723	11.9
2008	9,201	14.1	10,761	11.2	4,566	11.8
2007	9,287	14.3	10,334	10.9	4,292	11.3
2006	9,177	14.2	9,963	10.7	4,183	11.3
2005	9,237	14.3	9,897	10.8	4,325	11.8
2004	8,915	13.8	9,539	10.7	4,190	11.6
2003	9,192	14.1	9,468	10.9	4,232	11.8
2002	9,410	14.3	9,216	10.8	4,402	12.4
2001	9,416	14.2	8,673	10.5	4,364	12.4
2000	9,092	13.5	8,278	10.4	4,264	12.2
1999	9,326	13.8	7,911	10.2	4,333	12.5
1998	9,872	14.4	8,264	11.0	4,514	13.0
1997	10,778	15.6	8,331	11.4	4,497	13.1
1996	11,334	16.4	8,509	12.0	4,710	13.8
1995	12,183	17.7	8,337	12.1	4,776	14.1
1994	13,372	19.5	8,441	12.6	4,734	14.2
1993	13,716	20.0	8,749	13.5	4,935	15.0
1992	13,133	19.3	8,426	13.3	4,789	14.8
1991	13,536	20.0	8,499	13.8	4,916	15.5
1990	13,442	20.1	8,356	13.9	4,980	15.9
1989	12,560	18.9	8,077	13.7	4,852	15.8
1988	12,568	19.1	7,883	13.6	4,880	16.2
1987	11,929	18.2	8,042	14.2	4,909	16.6
1986	12,181	19.1	8,265	14.7	4,758	16.4
1985	11,385	18.3	8,139	14.6	4,443	15.6
1984	11,306	18.6	8,238	14.9	4,217	15.1
1983	11,449	19.3	8,169	15.0	3,949	14.4
1982	12,215	21.2	8,609	15.9	3,799	14.2
1981	12,630	22.6	8,950	16.6	3,377	12.9

Notes: Firearm deaths include those that are unintentional, violence-related (suicide, homicide and legal intervention) and of undetermined intent.

Source: Pew Research Center tabulations of CDC's National Center for Injury Prevention and Control Web-based Injury Statistics Query and Reporting System (WISQARS)

PEW RESEARCH CENTER

All Firearm Deaths, Total and by Race/Ethnicity, 1990-2010

	---------All---------		-------White-------		------Hispanic------		-------Black-------	
	Number	Rate *(per 100,000)*	Number	Rate *(per 100,000)*	Number	Rate *(per 100,000)*	Number	Rate *(per 100,000)*
Year								
2010	31,672	10.3	20,513	10.2	3,008	6.0	7,330	18.6
2009	31,347	10.2	19,955	10.0	3,202	6.5	7,345	18.8
2008	31,593	10.4	19,873	9.9	3,256	6.8	7,741	20.0
2007	31,224	10.4	18,861	9.5	3,492	7.6	8,133	21.3
2006	30,896	10.4	18,312	9.2	3,464	7.8	8,294	22.0
2005	30,694	10.4	18,521	9.3	3,469	8.1	7,865	21.1
2004	29,569	10.1	18,200	9.2	3,278	7.9	7,347	19.9
2003	30,136	10.4	18,457	9.3	3,319	8.3	7,566	20.8
2002	30,242	10.5	18,762	9.5	3,143	8.1	7,494	20.8
2001	29,573	10.4	18,676	9.4	3,087	8.3	7,063	19.8
2000	28,663	10.2	18,042	9.1	2,891	8.2	6,958	19.8
1999	28,874	10.3	18,260	9.3	2,878	8.5	6,933	20.0
1998	30,708	11.1	19,365	9.8	3,085	9.5	7,391	21.6
1997	32,436	11.9	19,912	10.2	3,331	10.8	8,264	24.6
1996	34,040	12.6	20,004	10.4	3,638	12.4	8,962	27.3
1995	35,957	13.5	20,764	10.8	4,204	15.0	9,435	29.3
1994	38,505	14.6	21,549	11.3	4,383	16.3	10,986	34.7
1993	39,595	15.2	21,960	11.6	4,399	17.1	11,434	36.8
1992	37,776	14.7	21,137	11.3	4,325	17.6	10,603	34.8
1991	38,317	15.1	21,629	11.6	4,205	17.9	10,678	35.8
1990	37,155	14.9	20,701	11.4	3,762	16.8	8,960	32.1

Continued on next page

All Firearm Deaths, Total and by Race/Ethnicity, 1990-2010 (Cont.)

	American Indian/ Alaskan Native		Asian/Pacific Islander	
	Number	Rate (per 100,000)	Number	Rate (per 100,000)
Year				
2010	293	11.4	383	2.4
2009	268	10.5	413	2.6
2008	256	10.1	382	2.5
2007	228	9.1	419	2.8
2006	264	10.7	459	3.2
2005	285	11.6	432	3.1
2004	261	10.7	381	2.8
2003	259	10.8	428	3.3
2002	271	11.4	417	3.3
2001	221	9.4	381	3.2
2000	226	9.6	411	3.6
1999	247	10.9	437	4.0
1998	261	11.8	442	4.2
1997	261	12.1	503	5.0
1996	223	12.2	475	5.0
1995	258	14.6	559	6.1
1994	277	16.0	549	6.3
1993	242	14.4	585	7.0
1992	199	12.2	501	6.3
1991	245	15.4	514	6.9
1990	222	14.4	401	5.7

Notes: Hispanics are of any race. White, black, American Indian/Alaskan Native, and Asian/Pacific Islander include only non-Hispanics. Data on Hispanic Origin were not gathered prior to 1990. Firearm deaths include those that are unintentional, violence-related (suicide, homicide and legal intervention) and of undetermined intent.

Source: Pew Research Center tabulations of CDC's National Center for Injury Prevention and Control Web-based Injury Statistics Query and Reporting System (WISQARS)

PEW RESEARCH CENTER

Firearm Homicide Deaths, Total and by Gender, 1981-2010

	All		Male		Female	
	Number	Rate (per 100,000)	Number	Rate (per 100,000)	Number	Rate (per 100,000)
Year						
2010	11,078	3.6	9,340	6.2	1,738	1.1
2009	11,493	3.7	9,615	6.4	1,878	1.2
2008	12,179	4.0	10,361	6.9	1,818	1.2
2007	12,632	4.2	10,767	7.3	1,865	1.2
2006	12,791	4.3	10,886	7.4	1,905	1.3
2005	12,352	4.2	10,561	7.3	1,791	1.2
2004	11,624	4.0	9,921	6.9	1,703	1.1
2003	11,920	4.1	10,126	7.1	1,794	1.2
2002	11,829	4.1	9,899	7.0	1,930	1.3
2001	11,348	4.0	9,532	6.8	1,816	1.3
2000	10,801	3.8	9,006	6.5	1,795	1.3
1999	10,828	3.9	8,944	6.5	1,884	1.3
1998	11,798	4.3	9,771	7.2	2,027	1.4
1997	13,252	4.9	11,147	8.4	2,105	1.5
1996	14,037	5.2	11,735	8.9	2,302	1.7
1995	15,551	5.8	13,021	10.0	2,530	1.9
1994	17,527	6.7	14,766	11.5	2,761	2.1
1993	18,253	7.0	15,228	12.0	3,025	2.3
1992	17,488	6.8	14,747	11.8	2,741	2.1
1991	17,746	7.0	14,926	12.1	2,820	2.2
1990	16,218	6.5	13,629	11.2	2,589	2.0
1989	14,464	5.9	12,018	10.0	2,446	1.9
1988	13,645	5.6	11,134	9.3	2,511	2.0
1987	12,657	5.2	10,202	8.6	2,455	2.0
1986	13,029	5.4	10,656	9.1	2,373	1.9
1985	11,836	5.0	9,532	8.2	2,304	1.9
1984	11,815	5.0	9,615	8.4	2,200	1.8
1983	12,040	5.1	9,863	8.7	2,177	1.8
1982	13,830	6.0	11,402	10.1	2,428	2.0
1981	15,089	6.6	12,548	11.3	2,541	2.2

Note: There were 11,101 firearm homicide deaths in 2011 and the rate of 3.6 per 100,000 people remained the same, according to preliminary Centers for Disease Control data.

Source: Pew Research Center tabulations of CDC's National Center for Injury Prevention and Control Web-based Injury Statistics Query and Reporting System (WISQARS)

PEW RESEARCH CENTER

Firearm Homicide Deaths, by Age, 1981-2010

	-----Younger than 12-----		--------Ages 12-17--------		--------Ages 18-24--------	
	Number	Rate *(per 100,000)*	Number	Rate *(per 100,000)*	Number	Rate *(per 100,000)*
Year						
2010	127	0.3	708	2.8	3,273	10.7
2009	142	0.3	745	2.9	3,398	11.1
2008	140	0.3	844	3.3	3,662	12.1
2007	140	0.3	898	3.5	3,895	13.1
2006	142	0.3	940	3.6	4,030	13.6
2005	111	0.2	810	3.1	3,808	12.9
2004	105	0.2	763	3.0	3,485	11.9
2003	121	0.3	684	2.7	3,840	13.3
2002	151	0.3	721	2.9	3,708	13.0
2001	150	0.3	685	2.8	3,611	12.9
2000	110	0.2	709	2.9	3,371	12.4
1999	142	0.3	859	3.6	3,319	12.4
1998	157	0.3	888	3.7	3,753	14.4
1997	174	0.4	1,134	4.8	4,148	16.3
1996	178	0.4	1,295	5.6	4,334	17.2
1995	183	0.4	1,597	7.0	4,726	18.6
1994	176	0.4	1,736	7.8	5,435	21.2
1993	240	0.5	1,735	8.0	5,673	21.8
1992	182	0.4	1,599	7.6	5,402	20.7
1991	167	0.4	1,509	7.4	5,386	20.4
1990	174	0.4	1,297	6.5	4,598	17.1
1989	197	0.5	1,078	5.4	3,837	14.1
1988	176	0.4	864	4.2	3,471	12.7
1987	139	0.3	704	3.4	3,181	11.5
1986	131	0.3	653	3.1	3,195	11.3
1985	149	0.4	553	2.6	2,673	9.2
1984	156	0.4	511	2.3	2,744	9.3
1983	122	0.3	503	2.3	2,775	9.3
1982	158	0.4	587	2.6	3,211	10.6
1981	149	0.4	662	2.9	3,668	12.1

Continued on next page

Firearm Homicide Deaths, by Age, 1981-2010 (Cont.)

	--------Ages 25-40--------		--------Ages 41-64--------		--------65 and older--------	
	Number	Rate *(per 100,000)*	Number	Rate *(per 100,000)*	Number	Rate *(per 100,000)*
Year						
2010	4,422	6.7	2,212	2.3	331	0.8
2009	4,564	7.0	2,277	2.3	361	0.9
2008	4,913	7.5	2,300	2.4	318	0.8
2007	5,048	7.8	2,346	2.5	296	0.8
2006	5,063	7.8	2,344	2.5	264	0.7
2005	5,047	7.8	2,245	2.5	322	0.9
2004	4,718	7.3	2,210	2.5	322	0.9
2003	4,797	7.4	2,188	2.5	272	0.8
2002	4,780	7.3	2,161	2.5	295	0.8
2001	4,664	7.0	1,920	2.3	307	0.9
2000	4,335	6.4	1,971	2.5	293	0.8
1999	4,270	6.3	1,912	2.5	311	0.9
1998	4,585	6.7	2,091	2.8	306	0.9
1997	5,183	7.5	2,245	3.1	351	1.0
1996	5,519	8.0	2,313	3.3	382	1.1
1995	6,152	8.9	2,471	3.6	398	1.2
1994	7,105	10.3	2,640	4.0	413	1.2
1993	7,371	10.8	2,743	4.2	465	1.4
1992	7,185	10.5	2,669	4.2	428	1.3
1991	7,432	11.0	2,757	4.5	454	1.4
1990	7,106	10.6	2,548	4.2	455	1.5
1989	6,427	9.7	2,434	4.1	460	1.5
1988	6,347	9.6	2,296	4.0	451	1.5
1987	5,845	8.9	2,280	4.0	478	1.6
1986	6,144	9.6	2,415	4.3	452	1.6
1985	5,525	8.9	2,448	4.4	467	1.6
1984	5,428	8.9	2,520	4.6	432	1.5
1983	5,573	9.4	2,627	4.8	415	1.5
1982	6,334	11.0	2,994	5.5	525	2.0
1981	6,719	12.0	3,373	6.3	493	1.9

Source: Pew Research Center tabulations of CDC's National Center for Injury Prevention and Control Web-based Injury Statistics Query and Reporting System (WISQARS)

PEW RESEARCH CENTER

Firearm Homicide Deaths, Total and by Race/Ethnicity, 1990-2010

	---------All---------		-------White-------		------Hispanic------		-------Black-------	
	Number	Rate *(per 100,000)*	Number	Rate *(per 100,000)*	Number	Rate *(per 100,000)*	Number	Rate *(per 100,000)*
Year								
2010	11,078	3.6	2,775	1.4	1,919	3.8	6,051	15.3
2009	11,493	3.7	2,860	1.4	2,115	4.3	6,117	15.6
2008	12,179	4.0	3,117	1.6	2,260	4.7	6,481	16.8
2007	12,632	4.2	3,053	1.5	2,385	5.2	6,867	18.0
2006	12,791	4.3	2,860	1.4	2,472	5.5	7,021	18.6
2005	12,352	4.2	2,871	1.4	2,453	5.7	6,600	17.7
2004	11,624	4.0	2,921	1.5	2,241	5.4	6,119	16.6
2003	11,920	4.1	2,883	1.5	2,316	5.8	6,319	17.3
2002	11,829	4.1	3,052	1.5	2,168	5.6	6,181	17.1
2001	11,348	4.0	3,085	1.6	2,123	5.7	5,790	16.2
2000	10,801	3.8	2,861	1.4	1,958	5.5	5,622	16.0
1999	10,828	3.9	2,995	1.5	1,939	5.7	5,508	15.9
1998	11,798	4.3	3,340	1.7	2,090	6.5	5,957	17.4
1997	13,252	4.9	3,751	1.9	2,298	7.4	6,737	20.0
1996	14,037	5.2	3,631	1.9	2,529	8.6	7,231	22.1
1995	15,551	5.8	4,054	2.1	3,008	10.7	7,765	24.1
1994	17,527	6.7	4,528	2.4	3,149	11.7	9,112	28.8
1993	18,253	7.0	4,566	2.4	3,192	12.4	9,548	30.7
1992	17,488	6.8	4,546	2.4	3,237	13.2	8,899	29.2
1991	17,746	7.0	4,679	2.5	3,103	13.2	9,039	30.3
1990	16,218	6.5	4,191	2.3	2,737	12.2	7,484	26.9

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Firearm Homicide Deaths, Total and by Race/Ethnicity, 1990-2010 (Cont.)

	American Indian/ Alaskan Native		Asian/Pacific Islander	
	Number	Rate *(per 100,000)*	Number	Rate *(per 100,000)*
Year				
2010	101	3.9	155	1.0
2009	99	3.9	199	1.3
2008	86	3.4	198	1.3
2007	83	3.3	190	1.3
2006	109	4.4	270	1.9
2005	106	4.3	258	1.9
2004	96	4.0	187	1.4
2003	101	4.2	233	1.8
2002	109	4.6	233	1.9
2001	78	3.3	181	1.5
2000	80	3.4	204	1.8
1999	94	4.1	224	2.0
1998	91	4.1	232	2.2
1997	91	4.2	289	2.9
1996	74	4.1	293	3.1
1995	107	6.0	334	3.7
1994	107	6.2	318	3.6
1993	91	5.4	392	4.7
1992	79	4.8	313	4.0
1991	92	5.8	340	4.6
1990	70	4.6	245	3.5

Notes: Hispanics are of any race. White, black, American Indian/Alaskan Native, and Asian/Pacific Islander include only non-Hispanics. Data on Hispanic origin were not gathered prior to 1990.

Source: Pew Research Center tabulations of CDC's National Center for Injury Prevention and Control Web-based Injury Statistics Query and Reporting System (WISQARS)

PEW RESEARCH CENTER

Firearm Suicide Deaths, Total and by Gender, 1981-2010

	All		Male		Female	
	Number	Rate (per 100,000)	Number	Rate (per 100,000)	Number	Rate (per 100,000)
Year						
2010	19,392	6.3	16,962	11.2	2,430	1.5
2009	18,735	6.1	16,307	10.8	2,428	1.6
2008	18,223	6.0	15,931	10.7	2,292	1.5
2007	17,352	5.8	15,181	10.3	2,171	1.4
2006	16,883	5.7	14,734	10.0	2,149	1.4
2005	17,002	5.8	14,916	10.3	2,086	1.4
2004	16,750	5.7	14,523	10.1	2,227	1.5
2003	16,907	5.8	14,827	10.4	2,080	1.4
2002	17,108	5.9	15,045	10.7	2,063	1.4
2001	16,869	5.9	14,758	10.5	2,111	1.5
2000	16,586	5.9	14,454	10.5	2,132	1.5
1999	16,599	5.9	14,479	10.6	2,120	1.5
1998	17,424	6.3	15,104	11.2	2,320	1.6
1997	17,566	6.4	15,194	11.4	2,372	1.7
1996	18,166	6.7	15,808	12.0	2,358	1.7
1995	18,503	6.9	16,060	12.3	2,443	1.8
1994	18,765	7.1	16,287	12.7	2,478	1.8
1993	18,940	7.3	16,381	12.9	2,559	1.9
1992	18,169	7.1	15,802	12.6	2,367	1.8
1991	18,526	7.3	16,120	13.1	2,406	1.9
1990	18,885	7.6	16,285	13.4	2,600	2.0
1989	18,178	7.4	15,680	13.0	2,498	2.0
1988	18,169	7.4	15,656	13.1	2,513	2.0
1987	18,136	7.5	15,539	13.2	2,597	2.1
1986	18,153	7.6	15,518	13.3	2,635	2.1
1985	17,363	7.3	14,809	12.8	2,554	2.1
1984	17,113	7.3	14,504	12.6	2,609	2.2
1983	16,600	7.1	13,959	12.3	2,641	2.2
1982	16,560	7.1	13,872	12.3	2,688	2.3
1981	16,139	7.0	13,378	12.0	2,761	2.3

Source: Pew Research Center tabulations of CDC's National Center for Injury Prevention and Control Web-based Injury Statistics Query and Reporting System (WISQARS)

PEW RESEARCH CENTER

Firearm Suicide Deaths, by Age, 1981-2010

	-----Younger than 12-----		--------Ages 12-17--------		--------Ages 18-24--------	
	Number	Rate *(per 100,000)*	Number	Rate *(per 100,000)*	Number	Rate *(per 100,000)*
Year						
2010	4	0.0	371	1.5	1,752	5.7
2009	0	0.0	401	1.6	1,665	5.5
2008	3	0.0	358	1.4	1,698	5.6
2007	2	0.0	323	1.2	1,628	5.5
2006	5	0.0	366	1.4	1,669	5.6
2005	6	0.0	406	1.6	1,634	5.5
2004	1	0.0	383	1.5	1,779	6.1
2003	5	0.0	372	1.5	1,772	6.1
2002	4	0.0	419	1.7	1,751	6.1
2001	2	0.0	449	1.8	1,769	6.3
2000	6	0.0	531	2.2	1,840	6.8
1999	6	0.0	552	2.3	1,860	7.0
1998	7	0.0	641	2.7	2,016	7.7
1997	7	0.0	672	2.9	2,035	8.0
1996	16	0.0	704	3.0	2,166	8.6
1995	9	0.0	827	3.6	2,416	9.5
1994	12	0.0	890	4.0	2,630	10.2
1993	8	0.0	824	3.8	2,568	9.9
1992	10	0.0	811	3.9	2,427	9.3
1991	7	0.0	781	3.8	2,477	9.4
1990	11	0.0	747	3.7	2,551	9.5
1989	13	0.0	703	3.5	2,439	9.0
1988	7	0.0	758	3.7	2,376	8.7
1987	10	0.0	710	3.4	2,354	8.5
1986	9	0.0	709	3.3	2,521	8.9
1985	8	0.0	688	3.2	2,524	8.7
1984	7	0.0	565	2.6	2,512	8.5
1983	7	0.0	567	2.6	2,511	8.4
1982	11	0.0	551	2.5	2,690	8.9
1981	4	0.0	572	2.5	2,764	9.1

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Firearm Suicide Deaths, by Age, 1981-2010 (Cont.)

	--------Ages 25-40--------		--------Ages 41-64--------		--------65 and older--------	
	Number	Rate *(per 100,000)*	Number	Rate *(per 100,000)*	Number	Rate *(per 100,000)*
Year						
2010	4,258	6.5	8,729	8.9	4,276	10.6
2009	4,004	6.1	8,415	8.7	4,248	10.7
2008	3,932	6.0	8,089	8.4	4,143	10.7
2007	3,859	6.0	7,643	8.1	3,895	10.3
2006	3,725	5.8	7,289	7.8	3,828	10.3
2005	3,787	5.9	7,279	8.0	3,889	10.6
2004	3,834	5.9	6,994	7.8	3,756	10.4
2003	3,962	6.1	6,942	8.0	3,854	10.7
2002	4,204	6.4	6,722	7.9	4,006	11.3
2001	4,315	6.5	6,385	7.7	3,943	11.2
2000	4,334	6.4	6,001	7.5	3,869	11.1
1999	4,576	6.8	5,679	7.3	3,921	11.3
1998	4,806	7.0	5,837	7.7	4,113	11.9
1997	5,090	7.4	5,747	7.9	4,008	11.7
1996	5,262	7.6	5,824	8.2	4,184	12.3
1995	5,457	7.9	5,530	8.1	4,258	12.6
1994	5,574	8.1	5,462	8.2	4,191	12.6
1993	5,610	8.2	5,625	8.7	4,301	13.1
1992	5,284	7.7	5,402	8.5	4,233	13.1
1991	5,519	8.2	5,406	8.8	4,329	13.6
1990	5,693	8.5	5,481	9.1	4,396	14.1
1989	5,487	8.3	5,288	8.9	4,247	13.8
1988	5,551	8.4	5,207	9.0	4,264	14.2
1987	5,380	8.2	5,386	9.5	4,294	14.5
1986	5,326	8.3	5,441	9.7	4,143	14.3
1985	5,086	8.2	5,242	9.4	3,813	13.4
1984	5,151	8.5	5,282	9.6	3,590	12.9
1983	5,056	8.5	5,088	9.3	3,366	12.3
1982	5,044	8.7	5,138	9.5	3,120	11.6
1981	5,032	9.0	5,027	9.3	2,734	10.4

Source: Pew Research Center tabulations of CDC's National Center for Injury Prevention and Control Web-based Injury Statistics Query and Reporting System (WISQARS)

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Firearm Suicide Deaths, Total and by Race/Ethnicity, 1990-2010

	---------All---------		-------White-------		------Hispanic------		-------Black-------	
	Number	Rate *(per 100,000)*	Number	Rate *(per 100,000)*	Number	Rate *(per 100,000)*	Number	Rate *(per 100,000)*
Year								
2010	19,392	6.3	16,928	8.5	962	1.9	1,057	2.7
2009	18,735	6.1	16,351	8.2	955	1.9	1,024	2.6
2008	18,223	6.0	15,968	8.0	863	1.8	1,034	2.7
2007	17,352	5.8	15,073	7.6	931	2.0	975	2.6
2006	16,883	5.7	14,721	7.4	817	1.8	994	2.6
2005	17,002	5.8	14,829	7.5	824	1.9	997	2.7
2004	16,750	5.7	14,507	7.3	888	2.1	995	2.7
2003	16,907	5.8	14,737	7.4	835	2.1	993	2.7
2002	17,108	5.9	14,865	7.5	834	2.2	1,041	2.9
2001	16,869	5.9	14,648	7.4	798	2.1	1,069	3.0
2000	16,586	5.9	14,333	7.3	813	2.3	1,073	3.1
1999	16,599	5.9	14,316	7.3	794	2.3	1,112	3.2
1998	17,424	6.3	15,081	7.7	840	2.6	1,098	3.2
1997	17,566	6.4	15,113	7.7	850	2.8	1,189	3.5
1996	18,166	6.7	15,240	7.9	923	3.1	1,288	3.9
1995	18,503	6.9	15,509	8.1	983	3.5	1,274	4.0
1994	18,765	7.1	15,653	8.2	1,021	3.8	1,353	4.3
1993	18,940	7.3	15,904	8.4	982	3.8	1,323	4.3
1992	18,169	7.1	15,249	8.1	880	3.6	1,245	4.1
1991	18,526	7.3	15,636	8.4	906	3.9	1,205	4.0
1990	18,885	7.6	15,274	8.4	840	3.8	1,113	4.0

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Firearm Suicide Deaths, Total and by Race/Ethnicity, 1990-2010 (Cont.)

	American Indian/ Alaskan Native		Asian/Pacific Islander	
	Number	Rate *(per 100,000)*	Number	Rate *(per 100,000)*
Year				
2010	169	6.6	211	1.3
2009	151	5.9	199	1.3
2008	144	5.7	172	1.1
2007	126	5.0	212	1.4
2006	139	5.6	170	1.2
2005	155	6.3	143	1.0
2004	143	5.9	178	1.3
2003	125	5.2	180	1.4
2002	140	5.9	167	1.3
2001	124	5.3	179	1.5
2000	126	5.4	185	1.6
1999	128	5.6	199	1.8
1998	143	6.5	196	1.9
1997	143	6.6	194	1.9
1996	126	6.9	170	1.8
1995	119	6.7	197	2.2
1994	140	8.1	204	2.3
1993	123	7.3	162	1.9
1992	92	5.6	163	2.1
1991	112	7.1	161	2.2
1990	120	7.8	136	1.9

Notes: Hispanics are of any race. White, black, American Indian/Alaskan Native, and Asian/Pacific Islander include only non-Hispanics. Data on Hispanic origin were not gathered prior to 1990.

Source: Pew Research Center tabulations of CDC's National Center for Injury Prevention and Control Web-based Injury Statistics Query and Reporting System (WISQARS)

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APPENDIX 2: ADDITIONAL TABLES ON NON-FATAL VIOLENT FIREARM CRIMES

Non-fatal Firearm Crimes, Total and by Gender, 1993-2011

Victimizations among people ages 12 and older

	All		Male		Female	
	Number *(in thousands)*	Rate *(per 100,000)*	Number *(in thousands)*	Rate *(per 100,000)*	Number *(in thousands)*	Rate *(per 100,000)*
Year						
2011	467	181.5	264	209.3	203	154.7
2010	415	162.1	207	166.0	208	158.5
2009	410	161.4	292	235.3	118	90.9
2008	371	147.2	208	169.2	163	126.2
2007	555	221.6	334	273.8	220	171.9
2006	614	248.5	344	285.7	270	213.2
2005	504	205.9	330	277.3	174	138.4
2004	457	188.9	269	228.9	188	151.0
2003	467	195.3	319	275.0	148	120.2
2002	540	233.2	298	265.2	242	203.0
2001	563	245.7	344	309.6	219	185.5
2000	610	269.1	434	395.2	176	150.6
1999	641	285.4	382	352.0	259	223.0
1998	835	376.5	563	522.9	273	238.8
1997	1,024	465.8	617	579.3	407	359.0
1996	1,101	506.7	728	692.8	373	332.5
1995	1,193	554.8	867	834.1	326	293.6
1994	1,568	735.8	1,066	1,034.2	502	456.2
1993	1,530	725.3	1,008	987.4	522	479.5

Notes: 2006 NCVS estimates are not comparable with those in other years. See Methodology for details. Includes aggravated assault, robbery and sex crimes committed with a firearm.

Source: Pew Research Center tabulations of National Crime Victimization Survey, U.S. Justice Department

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Non-fatal Firearm Crimes, Total and by Age, 1993-2011

Victimizations among people ages 12 and older

	All		Ages 12-17		Ages 18-24	
	Number (in thousands)	Rate (per 100,000)	Number (in thousands)	Rate (per 100,000)	Number (in thousands)	Rate (per 100,000)
Year						
2011	467	181.5	58	238.7	102	341.8
2010	415	162.1	*11	*44.2	206	689.6
2009	410	161.4	*17	*69.0	141	478.4
2008	371	147.2	*29	*116.0	89	305.3
2007	555	221.6	*149	*585.5	100	342.6
2006	614	248.5	68	268.5	164	577.7
2005	504	205.9	*46	*182.5	154	539.7
2004	457	188.9	*15	*58.9	97	343.4
2003	467	195.3	81	323.3	123	441.4
2002	540	233.2	59	238.8	224	817.0
2001	563	245.7	58	240.2	175	643.4
2000	610	269.1	49	205.5	190	714.3
1999	641	285.4	104	433.4	176	676.5
1998	835	376.5	118	500.7	281	1,105.9
1997	1,024	465.8	148	629.7	344	1,372.4
1996	1,101	506.7	183	787.9	291	1,176.7
1995	1,193	554.8	167	729.9	320	1,279.4
1994	1,568	735.8	275	1,228.0	494	1,940.9
1993	1,530	725.3	229	1,046.5	434	1,689.7

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Non-fatal Firearm Crimes, Total and by Age, 1993-2011 (Cont.)

Victimizations among people ages 12 and older

	--------Ages 25-40--------		--------Ages 41-64--------		--------65 and older--------	
	Number *(in thousands)*	Rate *(per 100,000)*	Number *(in thousands)*	Rate *(per 100,000)*	Number *(in thousands)*	Rate *(per 100,000)*
Year						
2011	166	252.5	126	128.5	*16	*39.1
2010	101	153.3	87	89.3	*10	*27.0
2009	126	191.3	121	125.8	*6	*14.5
2008	136	206.8	105	110.7	*12	*31.3
2007	189	287.5	115	122.2	*3	*7.3
2006	188	288.7	170	183.3	*24	*66.7
2005	187	289.0	101	111.8	*14	*41.2
2004	178	273.0	164	185.8	*2	*6.8
2003	139	211.1	119	138.4	*5	*13.9
2002	145	229.4	99	119.8	*12	*37.4
2001	186	289.6	131	162.3	*13	*40.2
2000	195	301.0	158	200.7	*18	*54.3
1999	253	385.5	90	118.2	*18	*54.2
1998	270	406.5	161	217.3	*5	*14.5
1997	319	474.0	189	262.2	*24	*76.5
1996	422	623.1	184	263.7	*20	*63.7
1995	448	659.3	237	350.0	*21	*67.2
1994	494	726.0	260	392.7	45	145.9
1993	595	871.8	257	399.2	*14	*47.0

Notes: *Interpret with caution. Estimate based on 10 or fewer sample cases. Figures are not available for people younger than 12. 2006 NCVS estimates are not comparable with those in other years. See Methodology for details. Includes aggravated assault, robbery and sex crimes committed with a firearm.

Source: Pew Research Center tabulations of National Crime Victimization Survey, U.S. Justice Department

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Non-fatal Firearm Crimes, Total and by Race/Ethnicity, 1993-2011

Victimizations among people ages 12 and older

	All		White		Hispanic		Black		Other	
	Number (in thousands)	Rate (per 100,000)	Number (in thousands)	Rate (per 100,000)	Number (in thousands)	Rate (per 100,000)	Number (in thousands)	Rate (per 100,000)	Number (in thousands)	Rate (per 100,000)
Year										
2011	467	181.5	274	158.7	81	215.0	76	245.5	37	223.7
2010	415	162.1	195	112.0	82	229.9	96	315.8	*42	*263.4
2009	410	161.4	151	87.0	70	198.6	172	579.6	*17	*110.4
2008	371	147.2	179	102.9	50	144.4	125	434.7	*17	*114.1
2007	555	221.6	176	102.3	79	228.2	272	948.3	*29	*188.1
2006	614	248.5	317	183.4	121	388.2	134	468.0	*43	*293.8
2005	504	205.9	274	159.6	90	284.8	117	418.2	*23	*170.0
2004	457	188.9	281	165.2	45	147.0	118	424.8	*12	*94.4
2003	467	195.3	280	165.1	49	162.2	126	464.2	*12	*96.8
2002	540	233.2	241	144.3	100	371.8	192	677.3	*7	*72.1
2001	563	245.7	337	202.3	93	366.4	123	441.1	*10	*108.2
2000	610	269.1	343	206.8	96	390.7	156	568.0	*16	*175.2
1999	641	285.4	269	162.5	125	544.6	223	824.7	*24	*262.8
1998	835	376.5	447	271.3	100	461.5	201	755.5	87	995.0
1997	1,024	465.8	683	416.0	138	654.0	190	724.5	*13	*152.8
1996	1,101	506.7	635	388.1	148	723.2	295	1,164.4	*23	*291.3
1995	1,193	554.8	631	387.3	224	1,155.4	289	1,145.6	50	659.1
1994	1,568	735.8	864	532.5	233	1,258.3	424	1,689.2	47	649.4
1993	1,530	725.3	808	499.1	220	1,286.8	389	1,570.0	113	1,572.9

Notes: *Interpret with caution. Estimate based on 10 or fewer sample cases. Hispanics are of any race. White, black and "other" include only non-Hispanics. 2006 NCVS estimates are not comparable with those in other years. See Methodology for details. Includes aggravated assault, robbery and sex crimes committed with a firearm.

Source: Pew Research Center tabulations of National Crime Victimization Survey, U.S. Justice Department

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Non-fatal Firearm Crimes, Total and by Type of Crime, 1993-2011

Victimizations among people ages 12 and older

	---------All---------		--Aggravated assault--		--------Robbery--------		------Sex crimes------	
	Number *(in thousands)*	Rate *(per 100,000)*	Number *(in thousands)*	Rate *(per 100,000)*	Number *(in thousands)*	Rate *(per 100,000)*	Number *(in thousands)*	Rate *(per 100,000)*
Year								
2011	467	181.5	322	124.9	143	55.5	*3	*1.0
2010	415	162.1	218	85.2	141	54.9	*56	*22.0
2009	410	161.4	239	93.9	172	67.5	---	---
2008	371	147.2	238	94.4	133	52.8	---	---
2007	555	221.6	397	158.5	155	61.9	*3	*1.1
2006	614	248.5	427	172.7	154	62.5	*33	*13.4
2005	504	205.9	330	134.9	168	68.7	*6	*2.4
2004	457	188.9	335	138.6	122	50.3	---	---
2003	467	195.3	302	126.4	159	66.4	*6	*2.4
2002	540	233.2	382	165.1	146	63.1	*11	*4.9
2001	563	245.7	360	157.2	197	86.0	*6	*2.4
2000	610	269.1	417	183.7	187	82.5	*7	*2.9
1999	641	285.4	440	196.0	195	87.0	*6	*2.5
1998	835	376.5	615	277.1	195	87.9	*26	*11.6
1997	1,024	465.8	781	355.1	236	107.4	*7	*3.3
1996	1,101	506.7	738	339.8	351	161.4	*12	*5.5
1995	1,193	554.8	810	376.4	368	171.1	*15	*7.2
1994	1,568	735.8	1,089	510.8	453	212.8	*26	*12.2
1993	1,530	725.3	1,068	506.4	390	185.1	71	33.8

Notes: *Interpret with caution. Estimate based on 10 or fewer sample cases. "---" means no cases available. 2006 NCVS estimates are not comparable with those in other years. See Methodology for details.

Source: Pew Research Center tabulations of National Crime Victimization Survey, U.S. Justice Department

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APPENDIX 3: ADDITIONAL TABLES ON ALL NON-FATAL VIOLENT CRIMES

All Non-fatal Violent Crimes, Total and by Gender, 1993-2011

Victimizations among people ages 12 and older

	All		Male		Female	
	Number *(in thousands)*	Rate *(per 100,000)*	Number *(in thousands)*	Rate *(per 100,000)*	Number *(in thousands)*	Rate *(per 100,000)*
Year						
2011	5,805	2,254.2	3,206	2,542.6	2,599	1,977.5
2010	4,936	1,928.4	2,511	2,008.6	2,425	1,851.9
2009	5,669	2,231.1	2,760	2,225.4	2,909	2,236.4
2008	6,393	2,534.7	3,317	2,694.9	3,077	2,382.0
2007	6,814	2,721.9	3,751	3,071.1	3,064	2,389.3
2006	8,430	3,409.9	4,482	3,720.5	3,949	3,114.8
2005	6,948	2,841.6	4,044	3,399.5	2,904	2,313.0
2004	6,726	2,782.8	3,553	3,024.6	3,173	2,554.1
2003	7,679	3,208.9	4,014	3,459.5	3,665	2,972.9
2002	7,425	3,205.9	3,756	3,346.5	3,668	3,073.7
2001	7,477	3,261.8	3,828	3,446.6	3,648	3,088.1
2000	8,503	3,748.9	4,809	4,379.0	3,694	3,157.4
1999	10,601	4,720.5	5,486	5,049.0	5,115	4,412.5
1998	12,011	5,413.1	6,835	6,352.5	5,176	4,528.6
1997	13,425	6,106.9	7,198	6,752.9	6,227	5,498.9
1996	14,060	6,472.1	7,860	7,482.3	6,199	5,526.0
1995	15,202	7,068.1	8,657	8,329.0	6,545	5,889.0
1994	17,059	8,003.8	9,522	9,236.5	7,537	6,848.9
1993	16,823	7,976.3	9,891	9,690.1	6,932	6,369.0

Notes: 2006 NCVS estimates are not comparable with those in other years. See Methodology for details. Includes aggravated and simple assault, robbery and sex crimes, committed with and without a firearm.

Source: Pew Research Center tabulations of National Crime Victimization Survey, U.S. Justice Department

PEW RESEARCH CENTER

All Non-fatal Violent Crimes, Total and by Age, 1993-2011

Victimizations among people ages 12 and older

	All		Ages 12-17		Ages 18-24	
	Number (in thousands)	Rate (per 100,000)	Number (in thousands)	Rate (per 100,000)	Number (in thousands)	Rate (per 100,000)
Year						
2011	5,805	2,254.2	915	3,765.2	1,460	4,903.4
2010	4,936	1,928.4	688	2,813.6	1,012	3,388.5
2009	5,669	2,231.1	1,059	4,295.9	1,131	3,846.9
2008	6,393	2,534.7	1,360	5,434.4	1,261	4,317.0
2007	6,814	2,721.9	1,571	6,182.9	1,356	4,661.4
2006	8,430	3,409.9	1,485	5,825.9	1,852	6,506.7
2005	6,948	2,841.6	1,518	5,978.0	1,741	6,095.4
2004	6,726	2,782.8	1,254	4,965.5	1,571	5,541.2
2003	7,679	3,208.9	1,974	7,831.0	1,779	6,382.8
2002	7,425	3,205.9	1,554	6,272.3	1,876	6,851.2
2001	7,477	3,261.8	1,802	7,442.5	1,607	5,919.8
2000	8,503	3,748.9	1,757	7,316.8	1,999	7,501.2
1999	10,601	4,720.5	2,596	10,865.5	2,313	8,886.8
1998	12,011	5,413.1	2,816	11,906.0	2,853	11,224.8
1997	13,425	6,106.9	3,189	13,549.6	2,756	10,998.8
1996	14,060	6,472.1	3,410	14,678.8	3,038	12,268.7
1995	15,202	7,068.1	3,578	15,626.3	3,386	13,538.2
1994	17,059	8,003.8	4,246	18,932.8	3,667	14,420.4
1993	16,823	7,976.3	4,043	18,480.4	3,642	14,163.3

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All Non-fatal Violent Crimes, Total and by Age, 1993-2011 (Cont.)

Victimizations among people ages 12 and older

	--------Ages 25-40--------		--------Ages 41-64--------		--------65 and older--------	
	Number *(in thousands)*	Rate *(per 100,000)*	Number *(in thousands)*	Rate *(per 100,000)*	Number *(in thousands)*	Rate *(per 100,000)*
Year						
2011	1,731	2,628.6	1,523	1,555.5	176	443.8
2010	1,784	2,700.2	1,337	1,379.6	116	299.3
2009	1,822	2,768.2	1,514	1,573.7	143	375.6
2008	1,956	2,968.1	1,691	1,780.2	125	337.3
2007	2,061	3,137.3	1,718	1,828.3	109	299.8
2006	2,938	4,510.9	2,012	2,173.5	143	402.6
2005	1,854	2,862.2	1,708	1,883.3	127	360.9
2004	2,008	3,085.9	1,807	2,043.0	86	249.1
2003	2,082	3,168.1	1,738	2,015.1	106	310.0
2002	2,307	3,644.2	1,562	1,880.7	126	379.6
2001	2,128	3,312.7	1,755	2,172.6	185	563.3
2000	2,738	4,226.3	1,887	2,398.7	122	373.6
1999	3,293	5,011.2	2,242	2,932.5	157	483.9
1998	3,731	5,617.0	2,501	3,369.5	111	344.0
1997	4,713	7,010.2	2,593	3,600.5	174	544.4
1996	5,240	7,728.3	2,162	3,101.3	211	664.1
1995	5,617	8,271.9	2,406	3,549.9	215	681.4
1994	6,209	9,122.5	2,707	4,091.0	230	740.7
1993	6,093	8,927.4	2,816	4,374.1	230	748.5

Notes: Figures are not available for people younger than 12. 2006 NCVS estimates are not comparable with those in other years. See Methodology for details. Includes aggravated and simple assault, robbery and sex crimes, committed with and without a firearm.

Source: Pew Research Center tabulations of National Crime Victimization Survey, U.S. Justice Department

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All Non-fatal Violent Crimes, Total and by Race/Ethnicity, 1993-2011

Victimizations among people ages 12 and older

	---------All---------		-------White-------		------Hispanic------		-------Black-------		--------Other--------	
	Number (in thousands)	Rate (per 100,000)	Number (in thousands)	Rate (per 100,000)	Number (in thousands)	Rate (per 100,000)	Number (in thousands)	Rate (per 100,000)	Number (in thousands)	Rate (per 100,000)
Year										
2011	5,805	2,254.2	3,715	2,152.4	895	2,384.3	811	2,636.4	384	2,309.3
2010	4,936	1,928.4	3,182	1,831.6	604	1,684.9	787	2,590.7	363	2,268.0
2009	5,669	2,231.1	3,737	2,151.8	786	2,220.7	905	3,056.4	241	1,563.3
2008	6,393	2,534.7	4,499	2,592.2	702	2,033.0	823	2,852.8	370	2,413.8
2007	6,814	2,721.9	4,607	2,676.5	772	2,242.1	998	3,485.2	438	2,885.2
2006	8,430	3,409.9	5,486	3,171.2	1,005	3,228.0	1,294	4,533.6	645	4,432.8
2005	6,948	2,841.6	4,751	2,772.5	822	2,587.1	913	3,271.9	462	3,429.1
2004	6,726	2,782.8	4,849	2,846.6	621	2,012.5	837	3,021.6	419	3,275.6
2003	7,679	3,208.9	5,490	3,232.3	805	2,657.6	976	3,586.0	409	3,412.9
2002	7,425	3,205.9	5,433	3,257.3	808	2,994.9	1,024	3,609.5	160	1,690.3
2001	7,477	3,261.8	5,159	3,095.5	1,048	4,118.1	993	3,570.3	277	2,979.0
2000	8,503	3,748.9	6,220	3,754.6	984	4,016.0	1,096	3,998.4	202	2,191.4
1999	10,601	4,720.5	7,880	4,765.4	950	4,138.2	1,524	5,638.1	245	2,669.1
1998	12,011	5,413.1	9,044	5,486.9	1,016	4,680.4	1,420	5,338.2	532	6,066.2
1997	13,425	6,106.9	10,001	6,094.8	1,190	5,623.2	1,911	7,273.3	324	3,894.6
1996	14,060	6,472.1	10,491	6,414.4	1,405	6,855.0	1,768	6,981.1	395	5,030.0
1995	15,202	7,068.1	11,144	6,838.9	1,605	8,291.2	1,985	7,881.6	467	6,168.0
1994	17,059	8,003.8	12,748	7,857.3	1,700	9,188.6	2,112	8,415.8	498	6,838.5
1993	16,823	7,976.3	12,738	7,869.6	1,371	8,019.1	2,231	9,002.4	484	6,738.9

Notes: Hispanics are of any race. White, black and "other" include only non-Hispanics. 2006 NCVS estimates are not comparable with those in other years. See Methodology for details. Includes aggravated and simple assault, robbery and sex crimes, committed with and without a firearm.

Source: Pew Research Center tabulations of National Crime Victimization Survey, U.S. Justice Department

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All Non-fatal Violent Crimes, Total and by Type of Crime, 1993-2011

Victimizations among people ages 12 and older

	---------All---------		---Aggravated--- -----assault-----		--Simple assault--		-----Robbery-----		----Sex crimes----	
	Number *(in thousands)*	Rate *(per 100,000)*	Number *(in thousands)*	Rate *(per 100,000)*	Number *(in thousands)*	Rate *(per 100,000)*	Number *(in thousands)*	Rate *(per 100,000)*	Number *(in thousands)*	Rate *(per 100,000)*
Year										
2011	5,805	2,254.2	1,052	408.5	3,953	1,534.8	557	216.2	244	94.7
2010	4,936	1,928.4	858	335.1	3,241	1,266.3	569	222.1	269	104.9
2009	5,669	2,231.1	1,029	405.1	3,699	1,455.8	635	249.9	306	120.3
2008	6,393	2,534.7	969	384.2	4,395	1,742.3	680	269.5	350	138.6
2007	6,814	2,721.9	1,219	486.9	4,571	1,826.1	776	309.8	248	99.2
2006	8,430	3,409.9	1,754	709.4	5,281	2,135.9	932	377.1	464	187.5
2005	6,948	2,841.6	1,281	524.1	4,689	1,917.9	769	314.6	208	85.0
2004	6,726	2,782.8	1,419	586.9	4,435	1,835.0	616	255.0	256	105.8
2003	7,679	3,208.9	1,362	569.3	5,283	2,207.7	708	296.0	325	135.9
2002	7,425	3,205.9	1,333	575.4	5,118	2,209.9	624	269.6	350	151.0
2001	7,477	3,261.8	1,384	603.7	4,949	2,158.9	668	291.3	477	207.9
2000	8,503	3,748.9	1,565	689.9	5,685	2,506.6	886	390.7	367	161.7
1999	10,601	4,720.5	1,962	873.6	7,028	3,129.7	1,019	453.8	591	263.4
1998	12,011	5,413.1	2,318	1,044.9	8,330	3,754.4	971	437.5	391	176.3
1997	13,425	6,106.9	2,895	1,317.0	8,788	3,997.3	1,189	540.8	554	251.8
1996	14,060	6,472.1	2,877	1,324.5	9,320	4,290.1	1,425	656.2	437	201.3
1995	15,202	7,068.1	2,894	1,345.7	10,394	4,832.6	1,351	627.9	563	261.9
1994	17,059	8,003.8	3,413	1,601.3	11,296	5,299.9	1,676	786.3	674	316.4
1993	16,823	7,976.3	3,481	1,650.5	10,691	5,068.9	1,753	831.0	898	425.9

Notes: 2006 NCVS estimates are not comparable with those in other years. See Methodology for details.

Source: Pew Research Center tabulations of National Crime Victimization Survey, U.S. Justice Department

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APPENDIX 4: METHODOLOGY

Data on Homicides, Suicides and Other Deaths and Data on Firearms Injuries

The Web-based Injury Statistics Query and Reporting System (WISQARS) is the primary source for data on deaths, homicides and suicides. WISQARS is part of the National Center for Injury Prevention and Control in the Centers for Disease Control and Prevention (CDC) and can be accessed at www.cdc.gov/ncipc/wisqars. It is also the primary source for data on non-fatal firearms related injuries.

WISQARS data on deaths are drawn from information contained in death certificates filed in state vital statistics offices. This information includes causes of death reported by attending physicians, medical examiners and coroners, including deaths due to firearms. The data also include demographic information about the deceased reported by funeral directors, who obtain that information from family members and other informants. Data on the annual number of deaths used in this report are drawn from WISQARS for 1981 through 2011.

WISQARS data on non-fatal firearms injuries come from the National Electronic Injury Surveillance System–All Injury Program (NEISS-AIP), a collaborative operation of the CDC's National Center for Injury Prevention and Control (NCIPC) and the U.S. Consumer Product Safety Commission. Information is collected from a sample of hospital emergency rooms that represent a range of hospital types and locations. Data on non-fatal injuries can be accessed at http://www.cdc.gov/ncipc/wisqars/nonfatal/datasources.htm.

For this report, homicides are defined as fatal injuries inflicted by another person with intent to injure or kill. Note that deaths due to legal intervention or operations or deaths due to war are excluded. Justifiable homicide is not identified in the WISQARS data.

Calculating Annual Death Rates

Throughout this report, annual death rates per 100,000 people are shown based on data provided by WISQARS. The annual death rate is calculated as follows:

$$Annual\ death\ rate = \left[\frac{(number\ of\ deaths\ in\ a\ year)}{(year's\ population\ estimate)}\right] \times [100{,}000]$$

WISQARS provides the number of deaths in a given year. Population data, used in constructing rates, come from the Census Bureau's annual population estimates. For 1990 through 2011, population estimates were obtained via WISQARS. For 1981 through 1989, population estimates were obtained from the Census Bureau through http://www.census.gov/popest/data/national/asrh/1980s/80s_nat_detail.html.

Data on Criminal Victimizations

Crime victimization estimates are drawn from the National Crime Victimization Survey (NCVS) of the Bureau of Justice Statistics (BJS). The NCVS provides national estimates of the levels and characteristics of criminal victimization in the U.S., including crimes not reported to police departments. The NCVS is an annual survey of some 140,000 persons ages 12 and older in about 80,000 households. A household that is selected participates in the NCVS for three years, with survey respondents interviewed every six months. In addition to persons living in households, the survey includes persons living in group quarters such as dormitories but excludes persons living in institutional settings such as military barracks, mental hospitals, or correctional facilities. The survey also excludes persons who are homeless or visiting from abroad.

The NCVS has been conducted annually since 1972 and is the primary source of information on crime victimizations in the U.S. NCVS respondents are asked about non-fatal personal crime victimizations such as rape, sexual assault, robbery, aggravated assault, simple assault and personal larceny. Respondents are also asked about household property crime victimizations such as burglary, motor vehicle theft and other thefts. Survey respondents who have been victims of a crime are then asked about details related to the crime, including whether the offender had a weapon, such as a gun. Fatal crimes such as homicides are not included in the NCVS. Respondent demographic characteristics are also collected.

NCVS data collection began in 1972. This report uses data collected from 1993, the first year employing an intensive methodological redesign, through 2011. In addition, analysis of crime victimizations is limited to those that occurred in the U.S. and criminal victimizations that occurred in a single data collection year.

This report analyzes victimizations and not incidents; more than one person may be victimized by a single incident.

Criminal Victimization Statistics and Measures

Most statistics based on the NCVS were obtained using the BJS's online NCVS Victimization Analysis Tool (NVAT). The NVAT can be accessed through http://bjs.gov/index.cfm?ty=nvat. The BJS also provided the Pew Research Center with a single data file containing concatenated incident data files from the 1993 through 2011 NCVS data collections. That file was used to tabulate crime victimization statistics for those ages 25 to 40 and ages 41 to 64.

Two measures of victimization based on the NCVS are used in this report—the estimated number of crime victimizations and the estimated crime victimization rate per 100,000 population. These measures are reported for guns, or firearms, non-fatal violent crime victimizations and for all violent crime victimizations. In some cases, crime victimization estimates based a sample size of fewer than 10 cases are reported. These estimates are denoted by an asterisk (*) in the report's appendix tables and should be interpreted with caution. For some demographic subgroups in some years, no crime victimization estimates are provided because of no sample cases were available. These instances are denoted with dashes (---) in the report's appendix tables.

Throughout the report, NCVS data from 2006 are reported but should be interpreted with caution. In 2006, several methodological changes were made to the NCVS data collection that distinguish it from other years (Truman and Planty, 2012).

Counting Series Victimizations

The analysis in this report utilizes the protocol developed by the BJS to analyze series victimizations in the NCVS. A series victimization (or repeat victimization) involves a crime in which a victim finds it difficult to distinguish multiple incidents from each other and provide details of each individual incident. Examples of such crimes include intimate partner violence or bullying by schoolmates.

Since 2012 (Lauritsen, et. al., 2012), the BJS has developed the following protocol for counting series victimizations. Today, the BJS includes series victimizations in its annual estimates of victimization. For any given series victimization over a six-month period, up to 10 incidents are counted as individual criminal victimizations. Prior to 2012, series victimizations were often excluded from BJS victimization estimates.

As a result of this change, which has been incorporated into the data analysis for this report, the number of victimizations estimated in the NCVS for years prior to 2011 is higher than

estimates published prior to 2012. For more details, see *Criminal Victimizations, 2011* (Truman and Planty, 2012).

Testing Statistical Significance

Throughout the report, comparisons of crime victimization rates between demographic subgroups or comparisons of crime rates across years were tested for statistical significance. Since the NCVS has a complex sample design, any tests of statistical significance require taking that complex design into account.

For this report, all statistical tests for the NCVS were conducted using spreadsheets provided by the BJS. These spreadsheets contain formulas for statistical tests that account for the NCVS's complex sample design.

Differences Between the NCVS and the UCR

The NCVS and the FBI's Uniform Crime Report (UCR) data are the two main components of the nation's crime reporting system. However, the two collections differ significantly in methodology and in crime definitions.

The NCVS is a survey of the general public ages 12 and older asking about crime victimizations, including those not reported to police. By comparison, the UCR covers crimes against persons and businesses known to and recorded by law enforcement agencies.

The universe of crimes measured in the NCVS and the UCR differs. For example, the UCR includes homicide, arson, and commercial crimes, while the NCVS does not.

The NCVS does not measure criminal victimizations among children under age 12, persons in institutions such as correctional institutions or nursing homes, homeless people or people from other countries who come to the U.S. for tourism, business or other temporary reasons. Victimizations among these groups may be included in the UCR.

According to the BJS (Truman and Planty, 2012), preliminary estimates from the FBI indicate that violent crimes and property crimes reported by the UCR declined from 2010 to 2011. By contrast, the NCVS reports that over the same period the number of violent crimes and property crimes increased. Even when limiting NCVS victimizations to those reported to police, the number of violent crimes and property crimes remained unchanged between 2010 and 2011.

Public Opinion Survey Methodology

The public opinion survey analysis in this report is based on a telephone survey of 924 adults ages 18 and older conducted March 14-17, 2013, in the continental U.S. Some 512 respondents were interviewed on a landline telephone and 412 were interviewed on a cellular telephone, including 197 who had no landline telephone. The survey was conducted by interviewers at Princeton Data Source and University Survey under the direction of Princeton Survey Research Associates International. Interviews were conducted in English. Respondents in the landline sample were selected by randomly asking for the youngest adult male or female who is now at home. Interviews in the cell sample were conducted with the person who answered the phone, if that person was an adult 18 years of age or older. The survey has a margin of error of plus or minus 3.9 percentage points at the 95% level of confidence.

The combined landline and cell phone sample are weighted using an iterative technique that matches gender, age, education, race, Hispanic origin and region to parameters from the 2011 Census Bureau's American Community Survey and population density to parameters from the Decennial Census. The sample also is weighted to match current patterns of telephone status, based on extrapolations from the 2012 National Health Interview Survey. The weighting procedure also accounts for the fact that respondents with both landline and cell phones have a greater probability of being included in the combined sample and adjusts for household size among respondents with a landline phone. Sampling errors and statistical tests of significance take into account the effect of weighting.

U.S. Department of Justice
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Bureau of Justice Statistics

SPECIAL REPORT

MAY 2013 NCJ 241730

Firearm Violence, 1993-2011

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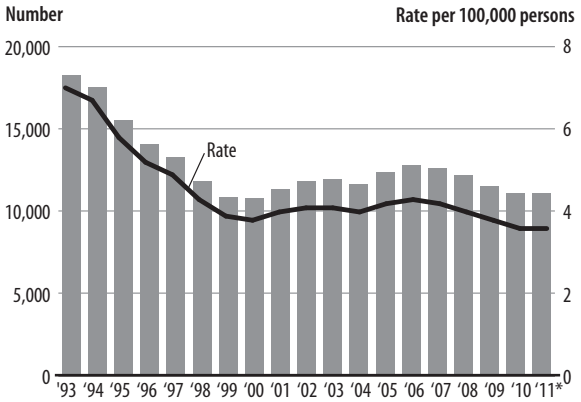
In 2011, a total of 478,400 fatal and nonfatal violent crimes were committed with a firearm **(table 1)**. Homicides made up about 2% of all firearm-related crimes. There were 11,101 firearm homicides in 2011, down by 39% from a high of 18,253 in 1993 **(figure 1)**. The majority of the decline in firearm-related homicides occurred between 1993 and 1998. Since 1999, the number of firearm homicides increased from 10,828 to 12,791 in 2006 before declining to 11,101 in 2011.

Nonfatal firearm-related violent victimizations against persons age 12 or older declined 70%, from 1.5 million in 1993 to 456,500 in 2004 **(figure 2)**. The number then fluctuated between about 400,000 to 600,000 through 2011.[1] While the number of firearm crimes declined over time, the percentage of all violence that involved a firearm did not change substantively, fluctuating between 6% and 9% over the same period. In 1993, 9% of all violence was committed with a firearm, compared to 8% in 2011.

[1]Many percentages and counts presented in this report are based on nonfatal firearm victimizations. Since firearm homicides accounted for about 2% of all firearm victimizations, when firearm homicides are included in the total firearm estimates, the findings do not change significantly.

FIGURE 1
Firearm homicides, 1993–2011



Note: Excludes homicides due to legal intervention and operations of war. See appendix table 1 for numbers and rates.

*Preliminary estimates retrieved from Hoyert DL, Xu JQ. (2012) Deaths: Preliminary data for 2011. *National Vital Statistics Reports*, 61(6).

Source: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS), 1993–2010. Retrieved March 2013 from www.cdc.gov/ncipc/wisqars.

HIGHLIGHTS

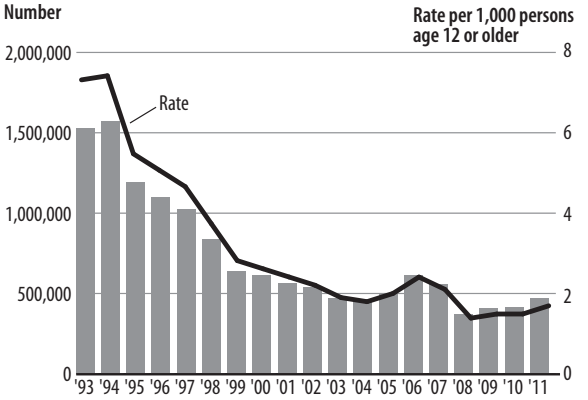
- Firearm-related homicides declined 39%, from 18,253 in 1993 to 11,101 in 2011.
- Nonfatal firearm crimes declined 69%, from 1.5 million victimizations in 1993 to 467,300 victimizations in 2011.
- For both fatal and nonfatal firearm victimizations, the majority of the decline occurred during the 10-year period from 1993 to 2002.
- Firearm violence accounted for about 70% of all homicides and less than 10% of all nonfatal violent crime from 1993 to 2011.
- About 70% to 80% of firearm homicides and 90% of nonfatal firearm victimizations were committed with a handgun from 1993 to 2011.
- From 1993 to 2010, males, blacks, and persons ages 18 to 24 had the highest rates of firearm homicide.
- In 2007-11, about 23% of victims of nonfatal firearm crime were injured.
- About 61% of nonfatal firearm violence was reported to the police in 2007-11.
- In 2007-11, less than 1% of victims in all nonfatal violent crimes reported using a firearm to defend themselves during the incident.
- In 2004, among state prison inmates who possessed a gun at the time of offense, less than 2% bought their firearm at a flea market or gun show and 40% obtained their firearm from an illegal source.

BJS

The primary source of information on firearm-related homicides was obtained from mortality data based on death certificates in the National Vital Statistics System of the National Center for Health Statistics (NCHS), Centers for Disease Control and Prevention's (CDC) Web-based Injury Statistics Query and Reporting System (WISQARS). These mortality data include causes of death reported by attending physicians, medical examiners, and coroners, and demographic information about decedents reported by funeral directors who obtain that information from family members and other informants. The NCHS collects, compiles, verifies, and prepares these data for release to the public.

The estimates of nonfatal violent victimization are based on data from the Bureau of Justice Statistics' (BJS) National Crime Victimization Survey (NCVS), which collects information on nonfatal crimes against persons age 12 or older reported and not reported to the police from a nationally representative sample of U.S. households. Homicide rates are presented per 100,000 persons and the nonfatal victimization rates are presented per 1,000 persons age 12 or older. Additional information on firearm violence in this report comes from the School-Associated Violent Deaths Surveillance Study (SAVD), the FBI's Supplemental Homicide Reports (SHR), the Survey of Inmates in State Correctional Facilities (SISCF), and the Survey of Inmates in Federal Correctional Facilities (SIFCF). Each source provides different information about victims and incident characteristics. Estimates are shown for different years based on data availability and measures of reliability. (For more information about these sources, see *Methodology*.)

FIGURE 2
Nonfatal firearm victimizations, 1993–2011



Note: See appendix table 2 for numbers, rates, and standard errors.
Source: Bureau of Justice Statistics, National Crime Victimization Survey, 1993–2011.

TABLE 1
Criminal firearm violence, 1993–2011

		Number				Percent	
Year	Total fatal and nonfatal firearm violence	Firearm homicides	Nonfatal firearm victimizations[a]	Nonfatal firearm incidents[b]	Rate of nonfatal firearm victimization[c]	All violence involving firearms	All firearm violence that was homicide
1993	1,548,000	18,253	1,529,700	1,222,700	7.3	9.2%	1.2%
1994	1,585,700	17,527	1,568,200	1,287,200	7.4	9.3	1.1
1995	1,208,800	15,551	1,193,200	1,028,900	5.5	7.9	1.3
1996	1,114,800	14,037	1,100,800	939,500	5.1	7.9	1.3
1997	1,037,300	13,252	1,024,100	882,900	4.7	7.7	1.3
1998	847,200	11,798	835,400	673,300	3.8	7.0	1.4
1999	651,700	10,828	640,900	523,600	2.9	6.1	1.7
2000	621,000	10,801	610,200	483,700	2.7	7.3	1.7
2001	574,500	11,348	563,100	507,000	2.5	7.7	2.0
2002	551,800	11,829	540,000	450,800	2.3	7.4	2.1
2003	479,300	11,920	467,300	385,000	2.0	6.2	2.5
2004	468,100	11,624	456,500	405,800	1.9	6.9	2.5
2005	515,900	12,352	503,500	446,400	2.1	7.4	2.4
2006	627,200	12,791	614,400	552,000	2.5	7.4	2.0
2007	567,400	12,632	554,800	448,400	2.2	8.3	2.2
2008	383,500	12,179	371,300	331,600	1.5	6.0	3.2
2009	421,600	11,493	410,100	383,400	1.6	7.4	2.7
2010	426,100	11,078	415,000	378,800	1.6	8.6	2.6
2011[d]	478,400	11,101	467,300	414,600	1.8	8.2	2.3

Note: See appendix table 3 for standard errors.
[a]A victimization refers to a single victim that experienced a criminal incident.
[b]An incident is a specific criminal act involving one or more victims or victimizations.
[c]Per 1,000 persons age 12 or older.
[d]Preliminary homicide estimates retrieved from Hoyert DL, Xu JQ. (2012) Deaths: Preliminary data for 2011. *National Vital Statistics Reports,* 61(6).
Sources: Bureau of Justice Statistics, National Crime Victimization Survey, 1993–2011; and Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, Web-based Injury Statistics Query and Reporting System (WISQARS), 1993–2010. Retrieved March 2013 from www.cdc.gov/ncipc/wisqars.

Trend estimates of nonfatal firearm violence are presented as annual 1-year averages or 2-year rolling averages, as noted in each table or figure. For ease of presentation, 2-year estimates are referenced according to the most recent year. For example, estimates reported for 2011 represent the average estimates for 2010 and 2011. Other tables in this report focus on a single 5-year aggregate period from 2007 through 2011. These approaches—using rolling averages and aggregating years—increase the reliability and stability of estimates, which facilitiates comparisons over time and between subgroups.

The majority of firearm crimes were committed with a handgun

From 1993 to 2011, about 60% to 70% of homicides were committed with a firearm (table 2). Over the same period, between 6% and 9% of all nonfatal violent victimizations were committed with a firearm, with about 20% to 30% of robberies and 22% to 32% of aggravated assaults involving a firearm.

Handguns accounted for the majority of both homicide and nonfatal firearm violence (table 3). A handgun was used in about 83% of all firearm homicides in 1994, compared to 73% in 2011. Other types of firearms, such as shotguns and rifles, accounted for the remainder of firearm homicides. For nonfatal firearm violence, about 9 in 10 were committed with a handgun, and this remained stable from 1994 to 2011.

TABLE 2
Percent of violence involving a firearm, by type of crime, 1993–2011

Year	Homicide	Nonfatal violence[a]	Robbery	Aggravated assault
1993	71.2%	9.1%	22.3%	30.7%
1994	71.4	9.2	27.1	31.9
1995	69.0	7.8	27.3	28.0
1996	68.0	7.8	24.6	25.7
1997	68.0	7.6	19.9	27.0
1998	65.9	7.0	20.1	26.5
1999	64.1	6.0	19.2	22.4
2000	64.4	7.2	21.1	26.6
2001[b]	55.9	7.5	29.5	26.0
2002	67.1	7.3	23.4	28.7
2003	67.2	6.1	22.4	22.2
2004	67.0	6.8	19.7	23.6
2005	68.2	7.2	21.8	25.7
2006	68.9	7.3	16.6	24.3
2007	68.8	8.1	20.0	32.6
2008	68.3	5.8	19.6	24.6
2009	68.4	7.2	27.0	23.2
2010	68.1	8.4	24.7	25.4
2011[c]	69.6	8.0	25.7	30.6

Note: See appendix table 4 for standard errors.

[a]Nonfatal violence includes rape, sexual assault, robbery, aggravated and simple assault. A small percentage of rape and sexual assaults involved firearms but are not shown in table due to small sample sizes.

[b]The homicide estimates that occurred as a result of the events of September 11, 2001, are included in the total number of homicides.

[c]Preliminary homicide estimates retrieved from Hoyert DL, Xu JQ. (2012) Deaths: Preliminary data for 2011. *National Vital Statistics Reports*, 61(6).

Sources: Bureau of Justice Statistics, National Crime Victimization Survey, 1993–2011; and Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, Web-based Injury Statistics Query and Reporting System (WISQARS), 1993–2010. Retrieved March 2013 from www.cdc.gov/ncipc/wisqars.

TABLE 3
Criminal firearm violence, by type of firearm, 1994–2011

	Homicide				Nonfatal violence					
	Handgun		Other firearm*		Handgun		Other firearm*		Gun type unknown	
Year	Annual number	Percent	Annual number	Percent	Average annual number	Percent	Average annual number	Percent	Average annual number	Percent
1994	13,510	82.7%	2,830	17.3%	1,387,100	89.5%	150,200	9.7%	11,700 !	0.8% !
1995	12,090	81.9	2,670	18.1	1,240,200	89.8	132,800	9.6	7,700 !	0.6 !
1996	10,800	81.1	2,510	18.9	999,600	87.1	141,000	12.3	6,400 !	0.6 !
1997	9,750	78.8	2,630	21.2	894,200	84.2	159,800	15.0	8,400 !	0.8 !
1998	8,870	80.4	2,160	19.6	783,400	84.3	141,100	15.2	5,300 !	0.6 !
1999	8,010	78.8	2,150	21.2	659,600	89.4	74,100	10.0	4,500 !	0.6 !
2000	8,020	78.6	2,190	21.4	555,800	88.8	65,300	10.4	4,500 !	0.7 !
2001	7,820	77.9	2,220	22.1	506,600	86.3	65,900	11.2	14,100 !	2.4 !
2002	8,230	75.8	2,620	24.2	471,600	85.5	63,200	11.5	16,700 !	3.0 !
2003	8,890	80.3	2,180	19.7	436,100	86.6	53,200	10.6	14,400 !	2.9 !
2004	8,330	78.0	2,350	22.0	391,700	84.8	53,400	11.6	16,900 !	3.7 !
2005	8,550	75.1	2,840	24.9	410,600	85.5	56,200	11.7	13,200 !	2.8 !
2006	9,060	77.0	2,700	23.0	497,400	89.0	47,600	8.5	14,000 !	2.5 !
2007	8,570	73.6	3,080	26.4	509,700	87.2	65,600	11.2	9,300 !	1.6 !
2008	7,930	71.8	3,120	28.2	400,700	86.5	57,400	12.4	5,000 !	1.1 !
2009	7,370	71.3	2,970	28.7	348,700	89.2	37,600	9.6	4,400 !	1.1 !
2010	6,920	69.6	3,030	30.4	382,100	92.6	26,700	6.5	3,800 !	0.9 !
2011	7,230	72.9	2,690	27.1	389,400	88.3	49,700	11.3	2,100 !	0.5 !

Note: Nonfatal violence data based on 2-year rolling averages beginning in 1993. Homicide data are presented as annual estimates. See appendix table 5 for standard errors.

*Includes rifle, shotgun, and other types of firearms.

! Interpret with caution. Estimate based on 10 or fewer sample cases, or coefficient of variation is greater than 50%.

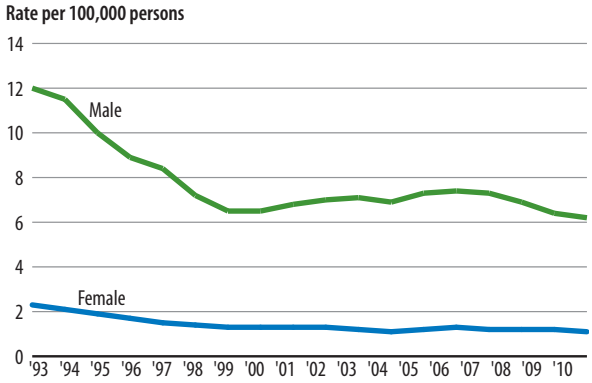
Sources: Bureau of Justice Statistics, National Crime Victimization Survey, 1993–2011; and FBI, Supplementary Homicide Reports, 1994–2011.

Males, blacks, and persons ages 18 to 24 were most likely to be victims of firearm violence

Sex

In 2010, the rate of firearm homicide for males was 6.2 per 100,000, compared to 1.1 for females (figure 3). Firearm homicide for males declined by 49% (from 12.0 per 100,000 males in 1993 to 6.2 in 2010), compared to a 51% decline for females (from 2.3 per 100,000 females in 1993 to 1.1 in 2010). The majority of the decline for both males and females occurred in the first part of the period (1993 to 2000). Over the more recent 10-year period from 2001 to 2010, the decline in firearm homicide for both males and females slowed, resulting in about a 10% decline each.

FIGURE 3
Firearm homicides, by sex, 1993–2010

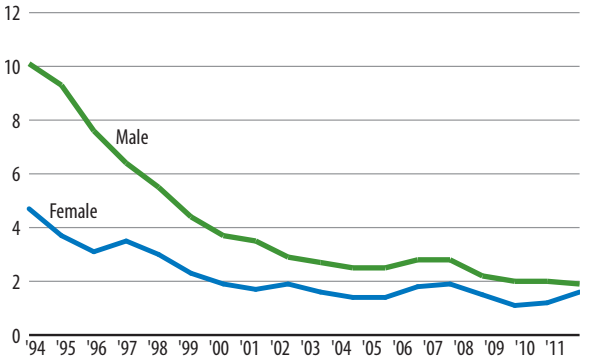


Note: See appendix table 6 for numbers and rates.

Source: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, Web-based Injury Statistics Query and Reporting System (WISQARS), 1993–2010. Retrieved March 2013 from www.cdc.gov/ncipc/wisqars.

In 2011, the rate of nonfatal firearm violence for males (1.9 per 1,000 males) was not significantly different than the rate for females (1.6 per 1,000) (figure 4). From 1994 to 2011, the rate of nonfatal firearm violence for males declined 81%, from 10.1 to 1.9 per 1,000 males. During the same period, the rate of nonfatal firearm violence against females dropped 67%, from 4.7 to 1.6 per 1,000 females. As with fatal firearm violence, the majority of the decline occurred in the first part of the period. From 2002 to 2011, the rate of nonfatal firearm violence for males declined 35%, while there was no no statistical change in the rate for females.

FIGURE 4
Nonfatal firearm violence, by sex, 1994–2011



Note: Data based on 2-year rolling averages beginning in 1993. See appendix table 7 for rates and standard errors.

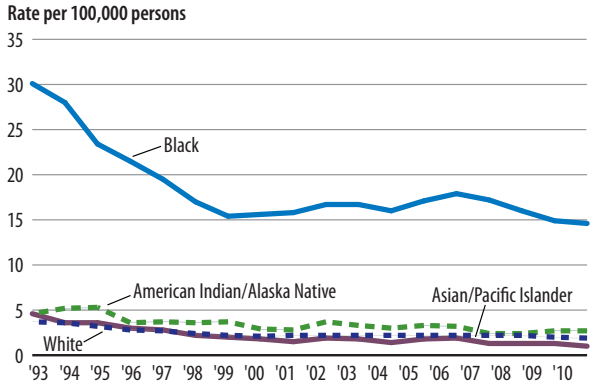
Source: Bureau of Justice Statistics, National Crime Victimization Survey, 1993–2011.

Race/Hispanic origin

In 2010, the rate of firearm homicide for blacks was 14.6 per 100,000, compared to 1.9 for whites, 2.7 for American Indians and Alaska Natives, and 1.0 for Asians and Pacific Islanders **(figure 5)**. From 1993 to 2010, the rate of firearm homicides for blacks declined by 51%, down from 30.1 per 100,000 blacks, compared to a 48% decline for whites and a 43% decline for American Indians and Alaska Natives. Asian and Pacific Islanders declined 79% over the same period, from 4.6 to 1.0 per 100,000. Although blacks experienced a decline similar to whites and American Indians and Alaska Natives, the rate of firearm homicide for blacks was 5 to 6 times higher than every other racial group in 2010. As with other demographic groups, the majority of the decline occurred in the first part of the period and slowed from 2001 to 2010.

The rate of firearm homicide for both Hispanics and non-Hispanics was about 4 per 100,000 each in 2010 **(figure 6)**. However, the Hispanic rate had a larger and more consistent decline over time. The Hispanic rate declined 54% from 1993 to 2001 and declined 34% since 2001. In comparison, the non-Hispanic rate declined more slowly, down 42% from 1993 to 2001 and down 5% since 2001.

FIGURE 5
Firearm homicides, by race, 1993–2010

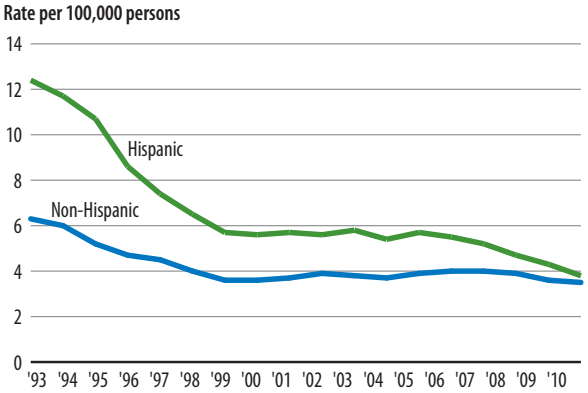


Note: See appendix table 8 for numbers and rates.

Source: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, Web-based Injury Statistics Query and Reporting System (WISQARS), 1993–2010. Retrieved March 2013 from www.cdc.gov/ncipc/wisqars.

In 2011, non-Hispanic blacks (2.8 per 1,000) and Hispanics (2.2 per 1,000) had higher rates of nonfatal firearm violence than non-Hispanic whites (1.4 per 1,000) **(figure 7)**. The rate of nonfatal firearm violence for Hispanics was not statistically different from the rate for blacks. From 1994 to 2011, the rates of nonfatal firearm violence for blacks and Hispanics both declined by 83%, compared to 74% for whites.

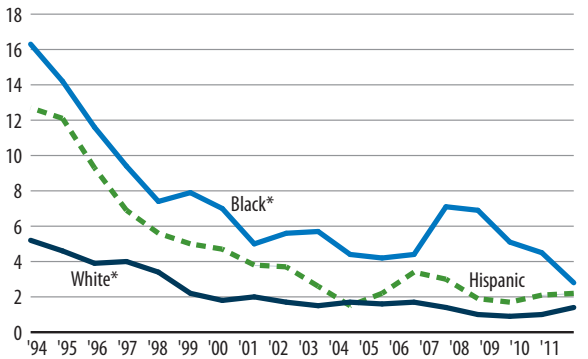
FIGURE 6
Firearm homicides, by Hispanic origin, 1993–2010



Note: See appendix table 9 for numbers and rates.

Source: Bureau of Justice Statistics, Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, Web-based Injury Statistics Query and Reporting System (WISQARS), 1993–2010. Retrieved March 2013 from www.cdc.gov/ncipc/wisqars.

FIGURE 7
Nonfatal firearm violence, by race and Hispanic origin, 1994–2011



Note: Data based on 2-year rolling averages beginning in 1993. See appendix table 10 for rates and standard errors.

*Excludes persons of Hispanic or Latino origin.

Source: Bureau of Justice Statistics, National Crime Victimization Survey, 1993–2011.

Age

In 2010, the rate of firearm homicide was 10.7 per 100,000 for persons ages 18 to 24, compared to 8.1 for persons ages 25 to 34 and 0.3 for persons age 11 or younger **(table 4)**. Firearm homicide against persons ages 18 to 34 accounted for about 30% of all firearm homicides in 2010. From 1993 to 2010, the rate of homicides for persons ages 18 to 24 declined 51%, compared to a 35% decline for persons ages 25 to 34 and 50% for persons age 11 or younger.

In 2011, persons ages 18 to 24 had the highest rate of nonfatal firearm violence (5.2 per 1,000). From 1994 to 2011, the rates of nonfatal firearm violence declined for persons ages 18 to 49, with each group declining between 72% and 77%. The rate for persons ages 12 to 17 declined 88%, from 11.4 to 1.4 per 1,000.

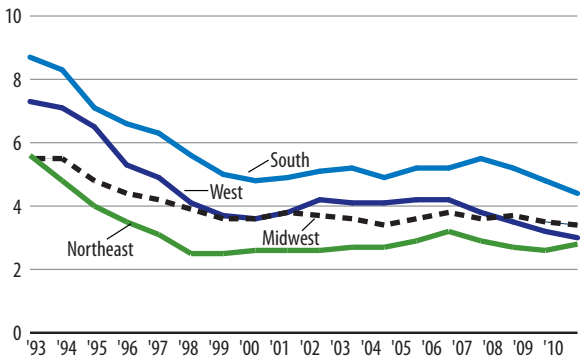
Persons living in urban areas had the highest rates of nonfatal firearm violence

Region

In 2010, the South had the highest rate of firearm homicides at 4.4 per 100,000 persons, compared to 3.4 in the Midwest, 3.0 in the West, and 2.8 in the Northeast **(figure 8)**.

From 1993 to 2010, the rate of firearm homicides in the South declined by 49%, compared to a 50% decline in the Northeast, a 37% decline in the Midwest, and a 59% decline in the West.

FIGURE 8
Firearm homicides, by region, 1993–2011



Note: See appendix table 13 for numbers and rates.

Source: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS), 1993–2010. Retrieved March 2013 from www.cdc.gov/ncipc/wisqars).

TABLE 4
Fatal and nonfatal firearm violence, by age, 1993–2011

	Firearm homicide rate per 100,000 persons						Nonfatal firearm violence rate per 1,000 persons age 12 or older				
Year	11 or younger	12–17	18–24	25–34	35–49	50 or older	12–17	18–24	25–34	35–49	50 or older
1993	0.5	8.0	21.9	12.4	6.7	2.2	~	~	~	~	~
1994	0.4	7.8	21.2	12.0	6.3	2.1	11.4	18.1	8.7	6.3	1.6
1995	0.4	7.0	18.6	10.6	5.3	2.0	9.8	16.1	7.7	5.5	1.6
1996	0.4	5.6	17.2	9.4	4.9	1.8	7.6	12.3	6.8	4.8	1.4
1997	0.4	4.8	16.3	9.0	4.6	1.6	7.1	12.8	5.4	4.5	1.2
1998	0.3	3.7	14.4	7.9	4.2	1.5	5.7	12.4	4.5	3.8	1.0
1999	0.3	3.6	12.4	7.6	3.7	1.4	4.7	8.9	4.6	2.6	0.7
2000	0.2	2.9	12.4	7.7	3.8	1.4	3.2	7.0	3.6	2.5	1.0
2001	0.3	2.8	12.9	8.4	3.9	1.3	2.2	6.8	3.1	2.4	1.0
2002	0.3	2.9	13.0	8.8	4.0	1.4	2.4	7.3	3.1	1.8	0.8
2003	0.3	2.7	13.3	9.0	4.0	1.3	2.8	6.3	2.7	1.6	0.7
2004	0.2	3.0	11.9	8.9	3.9	1.4	1.9	3.9	2.5	2.1	0.8
2005	0.2	3.1	12.9	9.6	4.1	1.3	1.2	4.4	3.1	1.8	1.0
2006	0.3	3.6	13.6	9.6	4.1	1.4	2.3	5.6	3.4	1.8	1.0
2007	0.3	3.5	13.1	9.5	4.2	1.3	4.3	4.6	3.0	2.2	0.9
2008	0.3	3.3	12.1	9.0	4.1	1.3	3.5	3.2	2.7	1.6	0.7
2009	0.3	2.9	11.1	8.1	3.9	1.4	0.9	3.9	2.3	1.5	0.6
2010	0.3	2.8	10.7	8.1	3.6	1.4	0.6 !	5.8	2.0	1.3	0.6
2011	...	...	...	...	...	...	1.4	5.2	2.2	1.4	0.7

Note: Nonfatal firearm violence data based on 2-year rolling averages beginning in 1993. Homicide data are annual estimates. See appendix table 11 for firearm homicide numbers and appendix table 12 for nonfatal firearm violence standard errors..

~Not applicable.

...Not available.

! Interpret with caution. Estimate based on 10 or fewer sample cases, or coefficient of variation is greater than 50%.

Source: Bureau of Justice Statistics, National Crime Victimization Survey, 1993–2011; and Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS), 1993–2010. Retrieved March 2013 from www.cdc.gov/ncipc/wisqars.

In 2011, residents in the South (1.9 per 1,000) had higher rates of nonfatal firearm violence than those in the Northeast (1.3 per 1,000) **(figure 9)**. Residents in the South (1.9 per 1,000), Midwest (1.7 per 1,000), and West (1.8 per 1,000) had statistically similar rates of nonfatal firearm violence.

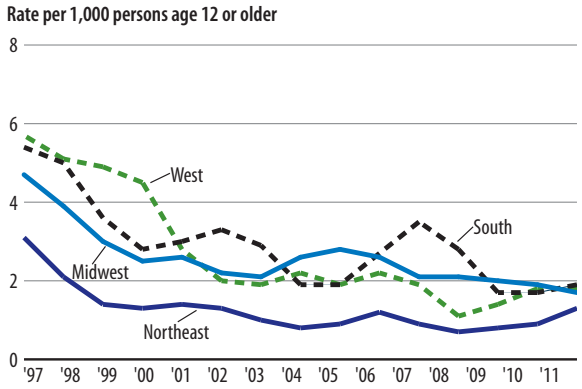
Urban-rural location

The publicly available National Vital Statistics System fatal data files do not contain information about the incident's urban-rural location or population size. This information is limited to nonfatal firearm victimizations. Urban residents generally experienced the highest rate of nonfatal firearm violence **(figure 10)**. In 2011, the rate of nonfatal firearm violence for residents in urban areas was 2.5 per 1,000, compared to 1.4 per 1,000 for suburban residents and 1.2 for rural residents. From 1994 to 2011, the rates of nonfatal firearm violence for all three locations declined between 76% and 78%.

Population size

In 2011, higher rates of nonfatal violence occurred in areas with a population of more than 250,000 residents than in areas with a population under 250,000 **(table 5)**. From 1997 to 2011, the rates of nonfatal firearm violence for populations between 250,000 and 499,999 and 1 million residents or more declined between 57% and 62%, compared to a 37% decline for residents living in populations between 500,000 and 999,999 residents.

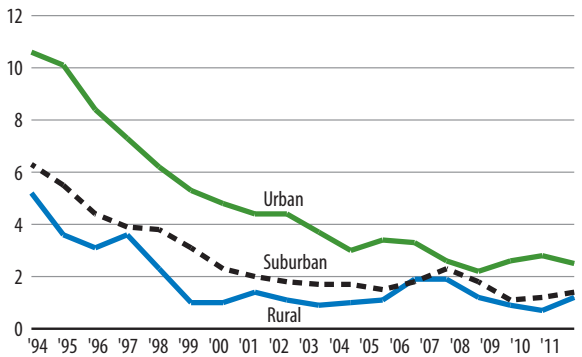
FIGURE 9
Nonfatal firearm violence, by region, 1997–2011



Note: Data based on 2-year rolling averages beginning in 1996. Region information was not available from 1993 to 1995. See appendix table 14 for rates and standard errors.

Source: Bureau of Justice Statistics, National Crime Victimization Survey, 1996–2011.

FIGURE 10
Nonfatal firearm violence, by urban-rural location, 1994–2011



Note: Data based on 2-year rolling averages beginning in 1993. See appendix table 15 for rates and standard errors.

Source: Bureau of Justice Statistics, National Crime Victimization Survey, 1993–2011.

TABLE 5
Nonfatal firearm violence, by population size, 1997–2011

	Rate per 1,000 persons age 12 or older					
Year	Not a place*	Less than 100,000	100,000–249,999	250,000–499,999	500,000–999,999	1 million or more
1997	3.9	3.8	7.0	10.3	7.3	7.3
1998	3.0	3.9	4.8	7.0	9.2	5.7
1999	1.9	3.1	3.1	5.5	9.0	6.4
2000	1.5	2.2	3.9	6.5	6.3	5.6
2001	1.4	2.1	4.1	6.1	5.5	5.1
2002	1.2	2.3	2.8	3.9	4.9	5.3
2003	1.4	2.0	2.8	3.3	5.1	3.6
2004	1.4	1.4	3.0	4.1	5.5	2.7
2005	1.2	1.6	2.9	3.6	4.5	4.6
2006	1.6	2.1	2.6	2.6	3.8	4.9
2007	1.5	2.6	2.7	2.4	5.4	2.1
2008	0.8	2.1	2.1	3.2	4.9	1.4
2009	0.9	1.1	2.2	3.0	4.0	3.5
2010	0.9	1.2	1.8	2.8	5.1	4.0
2011	1.4	1.2	1.3	3.9	4.6	3.2

Note: Data based on 2-year rolling averages beginning in 1996. Population size information was not available from 1993 to 1995. See appendix table 16 for rates and standard errors.

*A concentration of population that is not either legally bounded as an incorporated place having an active government or delineated for statistical purposes as a census designated place with definite geographic boundaries, such as a city, town, or village.

Source: Bureau of Justice Statistics, National Crime Victimization Survey, 1996–2011.

About 11% of nonfatal violence committed by a stranger involved a firearm

Intimate partners suffered about 4.7 million nonfatal violent victimizations in the 5-year period from 2007 through 2011, and the offender used a firearm in about 4% of these victimizations (about 195,700 incidents) (table 6). Similar to intimate partner violent victimizations, offenders who were either a relative or known to the victim (e.g., a friend or acquaintance) used a firearm in about 4% to 7% of these total victimizations. In comparison, persons victimized by strangers experienced about 11 million violent victimizations, and the offender used a firearm in 11% of these victimizations.[2]

In 2007-11, the majority of nonfatal firearm violence occurred in or around the victim's home (42%) or in an open area, on the street, or while on public transportation (23%) (table 7). Less than 1% of all nonfatal firearm violence occurred in schools.

[2]The fatal data from the National Vital Statistics System does not have victim-offender relationship information. The SHR victim-offender relationship data are not shown due to the large amount of missing data.

TABLE 6
Nonfatal firearm and nonfirearm violence, by victim-offender relationship, 2007–2011

		Firearm violence		Nonfirearm violence	
Relationship to victim	Total nonfatal violence	Number	Percent of total violence	Number	Percent of total violence
Total	29,611,300	2,218,500	7.5%	27,392,800	92.5%
Nonstranger	15,715,900	738,000	4.7	14,977,900	95.3
Intimate[a]	4,673,600	195,700	4.2	4,477,900	95.8
Other relative	2,157,700	158,100	7.3	1,999,500	92.7
Friend/acquaintance	8,884,600	384,100	4.3	8,500,500	95.7
Stranger	10,983,100	1,177,900	10.7	9,805,200	89.3
Unknown[b]	2,912,300	302,600	10.4	2,609,600	89.6

Note: Detail may not sum to total due to rounding. See appendix table 17 for standard errors.
[a]Includes current or former spouses, boyfriends, or girlfriends.
[b]Includes relationships unknown and number of offenders unknown.
Source: Bureau of Justice Statistics, National Crime Victimization Survey, 2007–2011.

TABLE 7
Nonfatal firearm and nonfirearm violence, by location of crime, 2007–2011

	Total nonfatal violence		Firearm violence		Nonfirearm violence	
Location	Number	Percent	Number	Percent	Number	Percent
Total	29,618,300	100%	2,218,500	100%	27,399,800	100%
Victims home or lodging	6,491,400	21.9	427,600	19.3	6,063,800	22.1
Near victim's home	4,804,700	16.2	504,500	22.7	4,300,200	15.7
In, at, or near a friend, neighbor, or relative's home	2,175,900	7.3	132,600	6.0	2,043,300	7.5
Commercial place	2,878,600	9.7	195,400	8.8	2,683,200	9.8
Parking lot or garage	1,688,400	5.7	340,600	15.4	1,347,900	4.9
School*	3,931,100	13.3	12,600 !	0.6 !	3,918,500	14.3
Open area, on street, or public transportation	4,636,900	15.7	508,400	22.9	4,128,500	15.1
Other location	3,011,200	10.2	96,800	4.4	2,914,400	10.6

! Interpret with caution. Estimate based on 10 or fewer sample cases, or coefficient of variation is greater than 50%. See appendix table 18 for standard errors.
*Includes inside a school building or on school property.
Source: Bureau of Justice Statistics, National Crime Victimization Survey, 2007–2011.

School-related homicides of youth ages 5 to 18 accounted for less than 2% of all youth homicides

The number of homicides at schools declined over time, from an average of 29 per year in the 1990s (school year 1992-93 to 1999-00) to an average of 20 per year in the 2000s (school year 2000-01 to 2009-10) (table 8). Generally, homicides in schools comprised less than 2% of all homicides of youth ages 5 to 18. During the 2000s, an average of about 1,600 homicides of youth ages 5 to 18 occurred per year. The majority of homicides against youth both at school and away from school were committed with a firearm.

TABLE 8

School-associated homicides of youth ages 5 to 18, by location and school years, 1992–93 to 2009–10

	Homicides of youth ages 5 to 18		
School year	Total homicides[a]	Homicides at school[b,c]	Percent of all homicides of youth at school
1992–93	2,719	34	1.3%
1993–94	2,911	29	1.0
1994–95	2,691	28	1.0
1995–96	2,548	32	1.3
1996–97	2,210	28	1.3
1997–98	2,104	34	1.6
1998–99	1,791	33	1.8
1999–00	1,566	14	0.9
2000–01	1,501	14	0.9
2001–02	1,494	16	1.1
2002–03	1,538	18	1.2
2003–04	1,459	23	1.6
2004–05	1,545	22	1.4
2005–06	1,687	21	1.2
2006–07	1,796	32	1.8
2007–08	1,740	21	1.2
2008–09	1,579	17	1.1
2009–10	…	17	…

Note: At school includes on school property, on the way to or from regular sessions at school, and while attending or traveling to or from a school-sponsored event.

...Not available.

[a]Youth ages 5 to 18 from July 1, 1992, through June 30, 2009.

[b]Youth ages 5 to 18 from July 1, 1992, through June 30, 2010.

[c]The data from school year 1999–00 through 2009–10 are subject to change until interviews with school and law enforcement officials have been completed. The details learned during the interviews can occasionally change the classification of a case.

Sources: Table 1.1 from Robers, S., Zhang, J., and Truman, J. (2012). *Indicators of School Crime and Safety: 2011* (NCES 2012-002/NCJ 236021). National Center for Education Statistics, U.S. Department of Education, and Bureau of Justice Statistics, Office of Justice Programs, U.S. Department of Justice. Homicide data are from: Centers for Disease Control and Prevention (CDC), 1992–2010 School-Associated Violent Deaths Surveillance Study (SAVD); FBI and Supplementary Homicide Reports (SHR), 1992–2009.

In 2007-11, about 23% of all nonfatal firearm victims were injured

In 2007-11, about 23% of all nonfatal firearm victims were physically injured during the victimization (table 9). About 7% suffered serious injuries (e.g., a gunshot wound, broken bone, or internal injuries), while 16% suffered minor injuries (e.g., bruises or cuts). Of the nonfatal firearm victims who were injured, 72% received some type of care, with about 82% receiving care in a hospital or medical office.

The victim reported that the offender had fired the weapon in 7% of all nonfatal firearm victimizations. The victim suffered a gunshot wound in 28% of these victimizations (not shown in table).

TABLE 9
Nonfatal firearm and nonfirearm violence, by injury and treatment received, 2007–2011

	Total nonfatal violence		Firearm violence		Nonfirearm violence	
Injury and treatment	Number	Percent	Number	Percent	Number	Percent
Injury	29,618,300	100%	2,218,500	100%	27,399,800	100%
Not injured	22,187,500	74.9	1,707,800	77.0	20,479,700	74.7
Injured	7,430,800	25.1	510,700	23.0	6,920,100	25.3
Serious[a]	1,249,300	4.2	148,300	6.7	1,147,000	4.2
Gun shot	46,000	0.2	46,000	2.1	~	~
Minor[b]	5,742,700	19.4	357,100	16.1	5,385,700	19.7
Rape without other injuries	374,300	1.3	5,400 !	0.2 !	368,900	1.3
Treatment for injury[c]	7,430,800	100%	510,700	100%	6,920,100	100%
No treatment	4,304,300	57.9	140,700	27.5	4,163,600	60.2
Any treatment	3,103,500	41.8	370,000	72.5	2,733,500	39.5
Treatment setting[d]	3,103,500	100%	370,000	100%	2,733,500	100%
At the scene/home of victim, neighbor, or friend/location	1,078,000	34.7	68,000	18.4	1,010,000	36.9
In doctor's office/hospital emergency room/ overnight at hospital	2,025,600	65.3	302,000	81.6	1,723,500	63.1

Note: See appendix table 19 for standard errors.

! Interpret with caution. Estimate based on 10 or fewer sample cases, or coefficient of variation is greater than 50%.

~Not applicable.

[a]Includes injuries such as gun shots, knife wounds, internal injuries, unconsciousness, and broken bones.

[b]Includes bruises, cuts, and other minor injuries.

[c]Includes only victims who were injured.

[d]Includes only victims who were injured and received treatment.

Source: Bureau of Justice Statistics, National Crime Victimization Survey, 2007–2011.

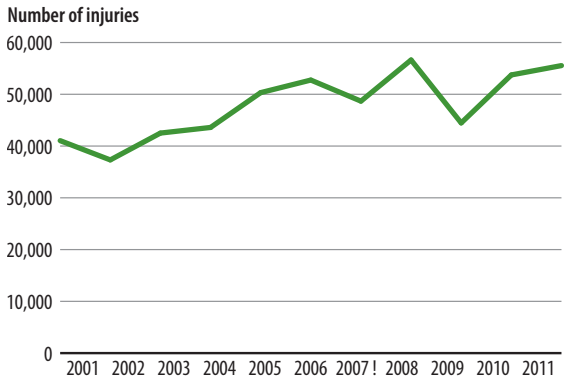
Nonfatal shooting victims

According to the NCVS, an average of about 22,000 nonfatal shooting victims occurred annually from 1993 to 2002 (not shown in table). From 2002 to 2011, the number of victims declined by about half to 12,900 per year. In the 5-year aggregate period from 2007-11, a total of 46,000 nonfatal firearm victims were wounded with a firearm and another 58,483 were victims of a firearm homicide. The total firearm nonfatal gunshot injuries and homicides accounted for 5% of all firearm violent crimes in 2007-11.

Data on nonfatal injury are also available in the National Electronic Injury Surveillance System All Injury Program (NEISS-AIP), which is operated by the U.S. Consumer Product Safety Commission (CPSC). According to these data, an average of 47,870 nonfatal assault injuries resulted from a firearm from 2001 to 2011 **(figure 11)**. In 2007-11, the average number of nonfatal injuries from a firearm increased slightly to 51,810.

The differences noted between the NCVS and NEISS-AIP firearm injury estimates are due in part to a variety of technical issues. Both estimates are generated from samples and are subject to sampling error. The NCVS is a residential household survey that does not include the homeless, persons in institutional settings such as jails, prisons, mental health facilities, and certain other group quarters. Therefore, NCVS may miss injuries that involve persons who are homeless, victims who require lengthy stays in a hospital, and offenders who are incarcerated or placed in other institutional settings after the incident.

FIGURE 11
Nonfatal firearm injuries, 2001–2011



Note: See appendix table 20 for numbers and standard errors.
! Interpret with caution. Estimate based on fewer than 20 NEISS cases (based on unweighted data), national estimates less than 1,200 (based on weighted data), or the coefficient of variation (CV) of the estimate greater than 30%.
Source: Consumer Product Safety Commission, National Electronic Injury Surveillance System All Injury Program (NEISS-AIP), 2001–2011. Accessed from the National Center for Injury Prevention and Control, CDC.

The majority of firearm violence is reported to the police

In 2007-11, about 61% of nonfatal firearm violence was reported to the police, compared to 46% of nonfirearm violence (table 10). Among the nonfatal firearm victimizations that went unreported in 2007-11, the most common reasons victims gave for not reporting the crime was fear of reprisal (31%) and that the police could not or would not do anything to help (27%).

In 2007-11, about 1% of nonfatal violent crime victims used a firearm in self defense

In 2007-11, there were 235,700 victimizations where the victim used a firearm to threaten or attack an offender (table 11). This amounted to approximately 1% of all nonfatal violent victimizations in the 5-year period. The percentage of nonfatal violent victimizations involving firearm use in self defense remained stable at under 2% from 1993 to 2011 (not shown in table). In 2007-11, about 44% of victims of nonfatal violent crime offered no resistance, 1% attacked or threatened the offender with another type of weapon, 22% attacked or threatened without a weapon (e.g., hit or kicked), and 26% used nonconfrontational methods (e.g., yelling, running, hiding, or arguing).

In instances where the victim was armed with a firearm, the offender was also armed with a gun in 32% of the victimizations, compared to 63% of victimizations where the offender was armed with a lesser weapon, such as a knife, or unarmed (not shown in table). A small number of property crime victims also used a firearm in self defense (103,000 victims or about 0.1% of all property victimizations); however, the majority of victims (86%) were not present during the incident. No information was available on the number of homicide victims that attempted to defend themselves with a firearm or by other means.

TABLE 10
Nonfatal firearm and nonfirearm violence reported and not reported to police, 2007–2011

	Total nonfatal violence	Firearm violence	Nonfirearm violence
Total	100%	100%	100%
Reported	46.9%	61.5%	45.7%
Not reported	51.7%	37.6%	52.9%
Reason not reported	100%	100%	100%
Dealt with it another way	35.0	12.1	36.4
Not important enough to respondent	18.4	6.2	19.1
Police could not or would not help	16.7	27.1	16.1
Fear of reprisal	6.5	31.3	5.1
Did not want to get offender in trouble advised not to report	5.1	4.3 !	5.1
Other/unknown/not one most important reason	18.2	19.0	18.2

Note: Detail may not sum to total due to rounding. Reasons for not reporting represent the reason the victim stated was most important. See appendix table 21 for standard errors.

!Interpret with caution. Estimate based on 10 or fewer sample cases, or coefficient of variation is greater than 50%.

Source: Bureau of Justice Statistics, National Crime Victimization Survey, 2007–2011.

TABLE 11
Self-protective behaviors, by type of crime, 2007–2011

	Violent crime		Property crime	
Self-protective behavior	Number	Percent	Number	Percent
Total	29,618,300	100%	84,495,500	100%
Offered no resistance	12,987,300	43.8	10,162,000	12.0
Threatened or attacked with a firearm	235,700	0.8	103,000	0.1
Threatened or attacked with other weapon	391,100	1.3	38,200	--
Threatened or attacked without a weapon	6,552,900	22.1	421,300	0.5
Nonconfrontational tactics[a]	7,768,700	26.2	1,187,100	1.4
Other	1,641,300	5.5	223,400	0.3
Unknown	41,300	0.1	12,200 !	--
Victim was not present[b]	~	~	72,348,200	85.6

Note: See appendix table 22 for standard errors.

! Interpret with caution. Estimate based on 10 or fewer sample cases, or coefficient of variation is greater than 50%.

~Not applicable.

--Less than 0.05%.

[a]Includes yelling, running, or arguing.

[b]Includes property crime where the victim was not present.

Source: Bureau of Justice Statistics, National Crime Victimization Survey, 2007–2011.

Firearm use by offenders

In 2004, an estimated 16% of state prison inmates and 18% of federal inmates reported that they used, carried, or possessed a firearm when they committed the crime for which they were serving a prison sentence **(table 12)**. This represented a slight change from 1997, where an estimated 18% of state prison inmates and 16% of federal inmates reported having a firearm when they committed the crime for their current sentence. During the offense that brought them to prison, 13% of state inmates and 16% of federal inmates carried a handgun. In addition, about 1% had a rifle and another 2% had a shotgun. Of inmates armed with a firearm during the offense, about 7% of state inmates and 8% of federal inmates were armed with either a single shot firearm or a conventional semiautomatic, and 2% of state inmates and 3% of federal inmates were armed with a military-style semiautomatic or fully automatic firearm **(table 13)**.

TABLE 12
Possession of firearms by state and federal prison inmates at time of offense, by type of firearm, 1997 and 2004

	1997		2004	
Type of firearm	State	Federal	State	Federal
Total	100%	100%	100%	100%
Firearm	18.3%	15.8%	15.8%	17.8%
Handgun	15.1	13.6	13.3	15.5
Rifle	1.3	1.4	1.3	1.5
Shotgun	2.3	2.1	1.7	2.0
Other	0.4	0.5	0.1	0.1
No firearm	81.7%	84.2%	84.2%	82.2%

Note: Includes only inmates with a current conviction. Estimates may differ from previously published BJS reports. To account for differences in the 1997 and 2004 inmate survey questionnaires, the analytical methodology used in 1997 was revised to ensure comparability with the 2004 survey. Detail may not sum to total as inmates may have had possessed more than one firearm.

Source: Bureau of Justice Statistics, Survey of Inmates in State and Federal Correctional Facilities, 1997 and 2004.

TABLE 13
Possession of firearms by state and federal prison inmates at time of offense, by specific type of firearm, 1997 and 2004

	1997		2004	
Specific type of firearm	State	Federal	State	Federal
Single shot	9.9%	7.6%	7.5%	8.2%
Conventional semiautomatic	7.8	8.3	6.6	7.9
Military-style semiautomatic or fully automatic	1.5	1.7	2.0	3.2
Other	0.1	0.2	0.1	0.1

Note: Includes only inmates with a current conviction. Estimates may differ from previously published BJS reports. To account for differences in the 1997 and 2004 inmate survey questionnaires, the analytical methodology used in 1997 was revised to ensure comparability with the 2004 survey.

Source: Bureau of Justice Statistics, Survey of Inmates in State and Federal Correctional Facilities, 1997 and 2004.

In 2004, among state prison inmates who possessed a gun at the time of offense, fewer than 2% bought their firearm at a flea market or gun show, about 10% purchased it from a retail store or pawnshop, 37% obtained it from family or friends, and another 40% obtained it from an illegal source **(table 14)**. This was similar to the percentage distribution in 1997.

TABLE 14
Source of firearms possessed by state prison inmates at time of offense, 1997 and 2004

	Percent of state prison inmates	
Source of firearm	1997	2004
Total	100%	100%
Purchased or traded from—	14.0%	11.3%
Retail store	8.2	7.3
Pawnshop	4.0	2.6
Flea market	1.0	0.6
Gun show	0.8	0.8
Family or friend	40.1%	37.4%
Purchased or traded	12.6	12.2
Rented or borrowed	18.9	14.1
Other	8.5	11.1
Street/illegal source	37.3%	40.0%
Theft or burglary	9.1	7.5
Drug dealer/off street	20.3	25.2
Fence/black market	8.0	7.4
Other	8.7%	11.2%

Note: Includes only inmates with a current conviction. Estimates may differ from previously published BJS reports. To account for differences in the 1997 and 2004 inmate survey questionnaires, the analytical methodology used in 1997 was revised to ensure comparability with the 2004 survey.

Source: Bureau of Justice Statistics, Survey of Inmates in State and Federal Correctional Facilities, 1997 and 2004.

Methodology

Estimates in this report are based primarily on data from the Bureau of Justice Statistics' (BJS) National Crime Victimization Survey (NCVS) and the National Center for Health Statistics' (NCHS) Centers for Disease Control and Prevention Center for Disease Control's Web-based Injury Statistics Query and Reporting System (WISQARS). Additional estimates come from the School-Associated Violent Deaths Surveillance Study (SAVD), the National Electronic Injury Surveillance System All Injury Program (NEISS-AIP) data, the FBI's Supplemental Homicide Reports (SHR), the Survey of Inmates in State Correctional Facilities (SISCF), and the Survey of Inmates in Federal Correctional Facilities (SIFCF).

The National Crime Victimization Survey (NCVS)

The NCVS is an annual data collection conducted by the U.S. Census Bureau for BJS. The NCVS is a self-report survey in which interviewed persons are asked about the number and characteristics of victimizations experienced during the prior 6 months. The NCVS collects information on nonfatal personal crimes (rape or sexual assault, robbery, aggravated assault, simple assault, and personal larceny) and household property crimes (burglary, motor vehicle theft, and other theft) both reported and not reported to police. In addition to providing annual level and change estimates on criminal victimization, the NCVS is the primary source of information on the nature of criminal victimization incidents. Survey respondents provide information about themselves (such as age, sex, race and ethnicity, marital status, education level, and income) and if they experienced a victimization. For crime victims, data are collected about each victimization incident, including information about the offender (such as age, race and ethnicity, sex, and victim-offender relationship), characteristics of the crime (including time and place of occurrence, use of weapons, nature of injury, and economic consequences), whether the crime was reported to police, reasons why the crime was or was not reported, and experiences with the criminal justice system.

The NCVS is administered to persons age 12 or older from a nationally representative sample of households in the United States. In 2011, about 143,120 persons age 12 or older from 79,800 households across the country were interviewed during the year. Once selected, households remain in the sample for 3 years, and eligible persons in these households are interviewed every 6 months for a total of seven interviews. New households rotate into the sample on an ongoing basis to replace outgoing households that have been in sample for the 3-year period. The sample includes persons living in group quarters (such as dormitories, rooming houses, and religious group dwellings) and excludes persons living in military barracks and institutional settings (such as correctional or hospital facilities) and the homeless. (For more information, see the *Survey Methodology for Criminal Victimization in the United States, 2008*, NCJ 231173, BJS website, May 2011.)

The 79,800 households that participated in the NCVS in 2011 represent a 90% household response rate. The person level response rate—the percentage of persons age 12 or older in participating households who completed an NCVS interview—was 88% in 2011.

For this report, prior to applying the weights to the data, all victimizations that occurred outside of the U.S. were excluded. From 1993 to 2011, less than 1% of the unweighted violent victimizations occurred outside of the U.S. and was excluded from the analyses.

Weighting adjustments for estimating personal victimization

Estimates in this report use data primarily from the 1993 to 2011 NCVS data files weighted to produce annual estimates for persons age 12 or older living in U.S. households. Because the NCVS relies on a sample rather than a census of the entire U.S. population, weights are designed to inflate sample point estimates to known population totals and to compensate for survey nonresponse and other aspects of the sample design.

The NCVS data files include both household and person weights. The household weight is commonly used to calculate estimates of property crimes, such as motor vehicle theft or burglary, which are identified with the household. Person weights provide an estimate of the population represented by each person in the sample. Person weights are most frequently used to compute estimates of crime victimizations of persons in the total population. Both household and person weights, after proper adjustment, are also used to form the denominator in calculations of crime rates.

The victimization weights used in this analysis account for the number of persons present during an incident and for repeat victims of series incidents. The weight counts series incidents as the actual number of incidents reported by the victim, up to a maximum of ten incidents. Series victimizations are victimizations that are similar in type but occur with such frequency that a victim is unable to recall each individual event or to describe each event in detail. Survey procedures allow NCVS interviewers to identify and classify these similar victimizations as series victimizations and collect detailed information on only the most recent incident in the series. In 2011, about 2% of all victimizations were series incidents. Weighting series incidents as the number of incidents up to a maximum of

ten produces more reliable estimates of crime levels, while the cap at ten minimizes the effect of extreme outliers on the rates. Additional information on the series enumeration is detailed in *Methods for Counting High Frequency Repeat Victimizations in the National Crime Victimization Survey*, NCJ 237308, BJS website, April 2012.

Standard error computations

When national estimates are derived from a sample, as is the case with the NCVS, caution must be taken when comparing one estimate to another estimate or when comparing estimates over time. Although one estimate may be larger than another, estimates based on a sample have some degree of sampling error. The sampling error of an estimate depends on several factors, including the amount of variation in the responses, the size of the sample, and the size of the subgroup for which the estimate is computed. When the sampling error around the estimates is taken into consideration, the estimates that appear different may, in fact, not be statistically different.

One measure of the sampling error associated with an estimate is the standard error. The standard error can vary from one estimate to the next. In general, for a given metric, an estimate with a smaller standard error provides a more reliable approximation of the true value than an estimate with a larger standard error. Estimates with relatively large standard errors are associated with less precision and reliability and should be interpreted with caution.

In order to generate standard errors around estimates from the NCVS, the Census Bureau produces generalized variance function (GVF) parameters for BJS. The GVFs take into account aspects of the NCVS complex sample design and represent the curve fitted to a selection of individual standard errors based on the Jackknife Repeated Replication technique. The GVF parameters were used to generate standard errors for each point estimate (such as counts, percentages, and rates) in the report. For average annual estimates, standard errors were based on the ratio of the sums of victimizations and respondents across years.

In this report, BJS conducted tests to determine whether differences in estimated numbers and percentages were statistically significant once sampling error was taken into account. Using statistical programs developed specifically for the NCVS, all comparisons in the text were tested for significance. The primary test procedure used was Student's t-statistic, which tests the difference between two sample estimates. To ensure that the observed differences between estimates were larger than might be expected due to sampling variation, the significance level was set at the 95% confidence level.

Data users can use the estimates and the standard errors of the estimates provided in this report to generate a confidence interval around the estimate as a measure of the margin of error. The following example illustrates how standard errors can be used to generate confidence intervals:

> According to the NCVS, in 2011, the rate of nonfatal firearm violence was 1.8 per 1,000 (see table 1). Using the GVFs, BJS determined that the estimate has a standard error of 0.2 (see appendix table 3). A confidence interval around the estimate was generated by multiplying the standard errors by ±1.96 (the t-score of a normal, two-tailed distribution that excludes 2.5% at either end of the distribution). Thus, the confidence interval around the 1.8 estimate from 2011 is 1.8 ± 0.2 (0.2 X 1.96) or (1.4 to 2.2). In other words, if different samples using the same procedures were taken from the U.S. population in 2011, 95% of the time the rate of nonfatal firearm violence was between 1.4 and 2.2 per 1,000.

In this report, BJS also calculated a coefficient of variation (CV) for all estimates, representing the ratio of the standard error to the estimate. CVs provide a measure of reliability and a means to compare the precision of estimates across measures with differing levels or metrics. If the CV was greater than 50%, or the unweighted sample had 10 or fewer cases, the estimate would have been noted with a "!" symbol (interpret data with caution; estimate is based on 10 or fewer sample cases, or the coefficient of variation exceeds 50%).

Many of the variables examined in this report may be related to one another and to other variables not included in the analyses. Complex relationships among variables were not fully explored in this report and warrant more extensive analysis. Readers are cautioned not to draw causal inferences based on the results presented.

Methodological changes to the NCVS in 2006

Methodological changes implemented in 2006 may have affected the crime estimates for that year to such an extent that they are not comparable to estimates from other years. Evaluation of 2007 and later data from the NCVS conducted by BJS and the Census Bureau found a high degree of confidence that estimates for 2007, 2008, 2009, and 2010 are consistent with and comparable to estimates for 2005 and previous years. The reports, *Criminal Victimization, 2006*, NCJ 219413, December 2007; *Criminal Victimization, 2007*, NCJ 224390, December 2008; *Criminal Victimization, 2008*, NCJ 227777, September 2009; *Criminal Victimization, 2009*, NCJ 231327, October 2010; *Criminal Victimization, 2010*, NCJ 235508, September 2011; and *Criminal Victimization, 2011*, NCJ 239437, October 2012, are available on the BJS website.

Although caution is warranted when comparing data from 2006 to other years, the aggregation of multiple years of data in this report diminishes the potential variation between 2006 and other years. In general, findings do not change significantly if data for 2006 are excluded from the analyses.

Web-based Injury Statistics Query and Reporting System Fatal (WISQARS™ Fatal)

WISQARS Fatal provides mortality data related to injury. The mortality data reported in WISQARS Fatal come from death certificate data reported to the CDC's National Center for Health Statistics (NCHS). Data include causes of death reported by attending physicians, medical examiners, and coroners. It also includes demographic information about decedents reported by funeral directors, who obtain that information from family members and other informants. NCHS collects, compiles, verifies, and prepares these data for release to the public. The data provide information about what types of injuries are leading causes of deaths, how common they are, and who they affect. These data are intended for a broad audience—the public, the media, public health practitioners and researchers, and public health officials—to increase their knowledge of injury.

WISQARS Fatal mortality reports provide tables of the total numbers of injury-related deaths and the death rates per 100,000 U.S. population. The reports list deaths according to cause (mechanism) and intent (manner) of injury by state, race, Hispanic origin, sex, and age groupings. Data in this report are provided for homicides by firearm from 1993 to 2010, including some preliminary 2011 estimates. The injury mortality data were classified based on the International Classification of Diseases (ICD)-10 classification system from 1999 and later, and the ICD-9 system for 1998 and earlier. The comparability study showed that the comparability for homicide and firearm homicide between the two systems was very high; therefore, data are shown from both periods.[3]

National Electronic Injury Surveillance System All Injury Program (NEISS-AIP)

The NEISS-AIP is operated by the U.S. Consumer Product Safety Commission (CPSC). It is a collaborative effort by the National Center for Injury Prevention and Control (NCIPC) and CPSC. The NEISS is a national probability sample of hospitals in the U.S. and its territories. Data are collected about all types and external causes of nonfatal injuries and poisonings treated in U.S. hospital emergency departments, whether or not they are associated with consumer products. This report uses the estimates on nonfatal assault injuries from a firearm. This excludes injuries that were unintentional, by legal intervention, or self-harm.

[3]National Center for Health Statistics. (2001). Comparability of cause of death between ICD-9 and ICD-10: Preliminary estimates. Retrieved from http://www.cdc.gov/nchs/data/nvsr/nvsr49/nvsr49_02.pdf.

School-Associated Violent Deaths Surveillance Study (SAVD)

The SAVD is an epidemiological study developed by the Centers for Disease Control and Prevention in conjunction with the U.S. Department of Education and the U.S. Department of Justice. SAVD seeks to describe the epidemiology of school-associated violent deaths, identify common features of these deaths, estimate the rate of school-associated violent death in the United States, and identify potential risk factors for these deaths. The surveillance system includes descriptive data on all school-associated violent deaths in the United States, including all homicides, suicides, or legal intervention in which the fatal injury occurred on the campus of a functioning elementary or secondary school; while the victim was on the way to or from regular sessions at such a school; or while attending or on the way to or from an official school-sponsored event. Victims of such incidents include nonstudents, as well as students and staff members. SAVD includes descriptive information about the school, event, victim(s), and offender(s). The SAVD Surveillance System has collected data from July 1, 1992, through the present.

SAVD uses a four-step process to identify and collect data on school-associated violent deaths. Cases are initially identified through a search of the LexisNexis newspaper and media database. Then law enforcement officials are contacted to confirm the details of the case and to determine if the event meets the case definition. Once a case is confirmed, a law enforcement official and a school official are interviewed regarding details about the school, event, victim(s), and offender(s). A copy of the full law enforcement report is also sought for each case. The information obtained on schools includes school demographics, attendance/absentee rates, suspensions/expulsions and mobility, school history of weapon-carrying incidents, security measures, violence prevention activities, school response to the event, and school policies about weapon carrying. Event information includes the location of injury, the context of injury (e.g., while classes were being held or during break), motives for injury, method of injury, and school and community events happening around the time period. Information obtained on victim(s) and offender(s) includes demographics, circumstances of the event (date/time, alcohol or drug use, and number of persons involved), types and origins of weapons, criminal history, psychological risk factors, school-related problems, extracurricular activities, and family history, including structure and stressors.

For several reasons, all data from 1999 to the present are flagged as preliminary. For some recent data, the interviews with school and law enforcement officials to verify case details have not been completed. The details learned during the interviews can occasionally change the classification of a case. Also, new cases may be identified because of the expansion of the scope of the media files used for case identification. Sometimes other cases not identified during

earlier data years using the independent case finding efforts (which focus on nonmedia sources of information) will be discovered. Also, other cases may occasionally be identified while the law enforcement and school interviews are being conducted to verify known cases.

The FBI's Uniform Crime Reporting (UCR) Program, Supplementary Homicide Reports (SHR)

The FBI's SHR were used for information about gun type used in firearm homicides. The UCR program collects and publishes criminal offense, arrest, and law enforcement personnel statistics. Under the UCR program, law enforcement agencies submit information to the FBI monthly. Offense information is collected on the eight Part I offenses: homicide, forcible rape, robbery, aggravated assault, burglary, larceny-theft, motor vehicle theft, and arson. The UCR program collects data on only those crimes that come to the attention of law enforcement.

Homicide incident information—through SHR data—is submitted with details on location, victim, and offender characteristics. Homicide is defined as murder and non-negligent manslaughter, which is the willful killing of one human being by another. The analyses excludes deaths caused by negligence, suicide, or accident; justifiable homicides; and attempts to murder. Deaths from the terrorist attacks of September 11, 2001, are not included in any of the analyses.

Not all agencies that report offense information to the FBI also submit supplemental data on homicides. About 90 percent of homicides are included in the SHR. However, adjustments can be made to the weights to correct for missing victim reports. Estimates from the SHR used in this report were generated by BJS using a weight developed by BJS that reconciles the counts of SHR homicide victims with those in the UCR for the 1992 through 2011 data years.

Surveys of Inmates in State and Federal Correctional Facilities (SISCF and SIFCF)

The SISCF and the SIFCF have provided nationally representative data on state prison inmates and sentenced federal inmates held in federally owned and operated facilities. The SISCF was conducted in 1974, 1979, 1986, 1991, 1997, and 2004, and the SIFCF in 1991, 1997, and 2004. The 2004 SISCF was conducted for BJS by the U.S. Census Bureau, which also conducted the SIFCF for BJS and the Federal Bureau of Prisons. Both surveys provide information about current offense and criminal history, family background and personal characteristics, prior drug and alcohol use and treatment, gun possession, and prison treatment, programs, and services. The surveys are the only national source of detailed information on criminal offenders, particularly special populations such as drug and alcohol users and offenders who have mental health problems. Systematic random sampling was used to select the inmates, and the 2004 surveys of state and federal inmates were administered through CAPI. In 2004, 14,499 state prisoners in 287 state prisons and 3,686 federal prisoners in 39 federal prisons were interviewed.

APPENDIX TABLE 1

Numbers and rates for figure 1: Firearm homicides, 1993–2011

Year	Number	Rate per 100,000 persons
1993	18,253	7.0
1994	17,527	6.7
1995	15,551	5.8
1996	14,037	5.2
1997	13,252	4.9
1998	11,798	4.3
1999	10,828	3.9
2000	10,801	3.8
2001	11,348	4.0
2002	11,829	4.1
2003	11,920	4.1
2004	11,624	4.0
2005	12,352	4.2
2006	12,791	4.3
2007	12,632	4.2
2008	12,179	4.0
2009	11,493	3.8
2010	11,078	3.6
2011	11,101	3.6

Source: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS), 1993–2010. Retrieved March 2013 from www.cdc.gov/ncipc/wisqars.

APPENDIX TABLE 2

Numbers, rates, and standard errors for figure 2: Nonfatal firearm victimizations, 1993–2011

	Number	Standard error	Rate per 1,000 persons age 12 or older	Standard error
1993	1,529,700	104,582	7.3	0.5
1994	1,568,200	83,431	7.4	0.4
1995	1,193,200	70,572	5.5	0.3
1996	1,100,800	68,653	5.1	0.3
1997	1,024,100	72,643	4.7	0.3
1998	835,400	69,401	3.8	0.3
1999	640,900	54,713	2.9	0.2
2000	610,200	55,220	2.7	0.2
2001	563,100	53,309	2.5	0.2
2002	540,000	50,299	2.3	0.2
2003	467,300	47,783	2.0	0.2
2004	456,500	47,513	1.9	0.2
2005	503,500	55,594	2.1	0.2
2006	614,400	61,310	2.5	0.2
2007	554,800	55,886	2.2	0.2
2008	371,300	45,794	1.5	0.2
2009	410,100	48,765	1.6	0.2
2010	415,000	47,172	1.6	0.2
2011	467,300	53,197	1.8	0.2

Source: Bureau of Justice Statistics, National Crime Victimization Survey, 1993–2011.

APPENDIX TABLE 3

Standard errors for table 1: Criminal firearm violence, 1993–2011

		Number			
Year	Total fatal and nonfatal firearm violence	Nonfatal firearm victimizations	Nonfatal firearm incidents	Rate of nonfatal firearm victimization	Percent of all violence involving firearms
1993	105,349	104,582	91,169	0.5	0.6%
1994	84,005	83,431	73,911	0.4	0.4
1995	71,131	70,572	64,501	0.3	0.4
1996	69,183	68,653	62,377	0.3	0.5
1997	73,220	72,643	66,331	0.3	0.5
1998	70,022	69,401	60,556	0.3	0.5
1999	55,268	54,713	48,457	0.2	0.5
2000	55,810	55,220	48,015	0.2	0.6
2001	53,967	53,309	49,987	0.2	0.7
2002	50,946	50,299	45,234	0.2	0.6
2003	48,494	47,783	42,668	0.2	0.6
2004	48,200	47,513	44,433	0.2	0.7
2005	56,378	55,594	51,864	0.2	0.8
2006	62,038	61,310	57,669	0.2	0.7
2007	56,652	55,886	49,166	0.2	0.8
2008	46,637	45,794	42,966	0.2	0.7
2009	49,561	48,765	46,881	0.2	0.8
2010	47,913	47,172	44,695	0.2	0.9
2011	53,942	53,197	49,563	0.2	0.8

~Not applicable.

Source: Bureau of Justice Statistics, National Crime Victimization Survey, 1993–2011.

APPENDIX TABLE 4

Standard errors for table 2: Percent of violence involving a firearm, by type of crime, 1993–2011

Year	Nonfatal violence	Robbery	Aggravated assault
1993	0.6%	2.2%	1.9%
1994	0.4	1.9	1.5
1995	0.4	2.1	1.5
1996	0.4	2.0	1.5
1997	0.5	2.2	1.7
1998	0.5	2.5	1.9
1999	0.5	2.3	1.8
2000	0.6	2.6	2.2
2001	0.6	3.4	2.3
2002	0.6	3.2	2.5
2003	0.6	3.1	2.3
2004	0.7	3.2	2.4
2005	0.8	3.3	2.8
2006	0.7	2.7	2.4
2007	0.8	2.9	2.9
2008	0.7	3.3	3.1
2009	0.8	3.8	2.9
2010	0.9	3.7	3.1
2011	0.8	4.0	3.2

Source: Bureau of Justice Statistics, National Crime Victimization Survey, 1993–2011.

APPENDIX TABLE 5

Standard errors for table 3: Criminal firearm violence, by type of firearm, 1994–2011

	Nonfatal violence					
	Handgun		Other firearm		Gun type unknown	
Year	Number	Percent	Number	Percent	Number	Percent
1994	94,313	1.8%	26,713	1.6%	6,951	0.4%
1995	77,109	1.6	21,832	1.5	4,899	0.4
1996	66,253	1.9	21,995	1.8	4,366	0.4
1997	68,335	2.3	25,950	2.2	5,534	0.5
1998	68,151	2.6	25,521	2.5	4,522	0.5
1999	63,909	2.5	18,379	2.3	4,189	0.6
2000	57,439	2.8	17,323	2.6	4,260	0.7
2001	53,625	3.1	17,115	2.7	7,586	1.3
2002	48,977	3.1	16,006	2.7	7,929	1.4
2003	46,655	3.2	14,670	2.7	7,392	1.4
2004	45,846	3.6	15,535	3.1	8,509	1.8
2005	50,621	3.8	17,269	3.3	8,153	1.7
2006	56,341	3.1	15,872	2.7	8,415	1.5
2007	56,630	3.2	18,308	2.9	6,598	1.1
2008	48,199	3.6	16,622	3.3	4,666	1.0
2009	47,110	3.7	14,157	3.4	4,688	1.2
2010	50,636	3.1	11,837	2.7	4,313	1.0
2011	43,185	3.1	13,868	2.9	2,676	0.6

Source: Bureau of Justice Statistics, National Crime Victimization Survey, 1993–2011.

APPENDIX TABLE 6

Numbers and rates for figure 3: Firearm homicides, by sex, 1993–2010

	Number		Rate per 100,000 persons	
Year	Male	Female	Male	Female
1993	15,228	3,025	12.0	2.3
1994	14,766	2,761	11.5	2.1
1995	13,021	2,530	10.0	1.9
1996	11,735	2,302	8.9	1.7
1997	11,147	2,105	8.4	1.5
1998	9,771	2,027	7.2	1.4
1999	8,944	1,884	6.5	1.3
2000	9,006	1,795	6.5	1.3
2001	9,532	1,816	6.8	1.3
2002	9,899	1,930	7.0	1.3
2003	10,126	1,794	7.1	1.2
2004	9,921	1,703	6.9	1.1
2005	10,561	1,791	7.3	1.2
2006	10,886	1,905	7.4	1.3
2007	10,767	1,865	7.3	1.2
2008	10,361	1,818	6.9	1.2
2009	9,615	1,878	6.4	1.2
2010	9,340	1,738	6.2	1.1

Source: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS), 1993–2010. Retrieved March 2013 from www.cdc.gov/ncipc/wisqars.

APPENDIX TABLE 7

Rates and standard errors for figure 4: Nonfatal firearm violence, by sex, 1994–2011

	Male		Female	
Year	Rate*	Standard error	Rate*	Standard error
1994	10.1	0.6	4.7	0.4
1995	9.3	0.5	3.7	0.3
1996	7.6	0.4	3.1	0.2
1997	6.4	0.4	3.5	0.3
1998	5.5	0.4	3.0	0.3
1999	4.4	0.4	2.3	0.2
2000	3.7	0.3	1.9	0.2
2001	3.5	0.3	1.7	0.2
2002	2.9	0.3	1.9	0.2
2003	2.7	0.2	1.6	0.2
2004	2.5	0.2	1.4	0.2
2005	2.5	0.3	1.4	0.2
2006	2.8	0.3	1.8	0.2
2007	2.8	0.3	1.9	0.2
2008	2.2	0.2	1.5	0.2
2009	2.0	0.2	1.1	0.2
2010	2.0	0.2	1.2	0.2
2011	1.9	0.2	1.6	0.2

*Per 1,000 persons age 12 or older.

Source: Bureau of Justice Statistics, National Crime Victimization Survey, 1993–2011.

APPENDIX TABLE 8

Numbers and rates for figure 5: Firearm homicides, by race, 1993–2010

	Number				Rate per 100,000 persons			
Year	White	Black	American Indian/ Alaska Native	Asian/Pacific Islander	White	Black	American Indian/ Alaska Native	Asian/Pacific Islander
1993	7,918	9,824	106	405	3.7	30.1	4.6	4.6
1994	7,774	9,302	123	328	3.6	28.0	5.2	3.6
1995	7,144	7,935	130	342	3.2	23.4	5.3	3.6
1996	6,240	7,403	90	304	2.8	21.5	3.6	3.0
1997	6,025	6,841	96	290	2.7	19.5	3.7	2.8
1998	5,412	6,053	99	234	2.4	17.0	3.6	2.2
1999	4,918	5,577	104	229	2.2	15.4	3.7	2.0
2000	4,806	5,699	86	210	2.1	15.6	2.9	1.8
2001	5,188	5,885	87	188	2.2	15.8	2.8	1.5
2002	5,185	6,285	117	242	2.2	16.7	3.7	1.9
2003	5,173	6,397	109	241	2.2	16.7	3.3	1.8
2004	5,119	6,201	104	200	2.2	16.0	3.0	1.4
2005	5,266	6,703	117	266	2.2	17.1	3.3	1.8
2006	5,279	7,113	119	280	2.2	17.9	3.2	1.9
2007	5,380	6,960	91	201	2.2	17.2	2.4	1.3
2008	5,305	6,569	97	208	2.2	16.0	2.4	1.3
2009	4,950	6,216	112	215	2.0	14.9	2.7	1.3
2010	4,647	6,151	113	167	1.9	14.6	2.7	1.0

Source: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS), 1993–2010. Retrieved March 2013 from www.cdc.gov/ncipc/wisqars.

APPENDIX TABLE 9

Numbers and rates for figure 6: Firearm homicides, by Hispanic origin, 1993–2010

	Number		Rate per 100,000 persons	
Year	Hispanic	Non-Hispanic	Hispanic	Non-Hispanic
1993	3,192	14,597	12.4	6.3
1994	3,149	14,065	11.7	6.0
1995	3,008	12,260	10.7	5.2
1996	2,529	11,229	8.6	4.7
1997	2,298	10,868	7.4	4.5
1998	2,090	9,620	6.5	4.0
1999	1,939	8,821	5.7	3.6
2000	1,958	8,767	5.6	3.6
2001	2,123	9,134	5.7	3.7
2002	2,168	9,575	5.6	3.9
2003	2,316	9,536	5.8	3.8
2004	2,241	9,323	5.4	3.7
2005	2,453	9,835	5.7	3.9
2006	2,472	10,260	5.5	4.0
2007	2,385	10,193	5.2	4.0
2008	2,260	9,882	4.7	3.9
2009	2,115	9,275	4.3	3.6
2010	1,919	9,082	3.8	3.5

Source: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS), 1993–2010. Retrieved March 2013 from www.cdc.gov/ncipc/wisqars.

APPENDIX TABLE 10

Rates and standard errors for figure 7: Nonfatal firearm violence, by race and Hispanic origin, 1994–2011

	White		Black		Hispanic		American Indian/ Alaska Native		Asian/Pacific Islander		Two or more races	
Year	Rate*	Standard error	Rate*	Standard error	Rate*	Standard error	Rate*	Standard error	Rate*	Standard error	Rate*	Standard error
1994	5.2	0.3	16.3	1.3	12.7	1.4	15.3 !	5.3	10.3	2.0	~	~
1995	4.6	0.3	14.2	1.1	12.1	1.1	16.3	4.9	4.9	1.1	~	~
1996	3.9	0.2	11.6	0.9	9.3	0.9	13.3 !	4.4	3.4	0.9	~	~
1997	4.0	0.3	9.4	0.9	6.9	0.8	3.7 !	2.6	2.0	0.7	~	~
1998	3.4	0.3	7.4	0.8	5.6	0.8	20.9 !	6.6	3.9	1.0	~	~
1999	2.2	0.2	7.9	0.9	5.0	0.8	25.1 !	7.5	4.0	1.1	~	~
2000	1.8	0.2	7.0	0.8	4.7	0.7	4.8 !	3.2	1.9	0.7	~	~
2001	2.0	0.2	5.0	0.7	3.8	0.6	1.1 !	1.5	1.5 !	0.6	~	~
2002	1.7	0.2	5.6	0.7	3.7	0.6	1.1 !	1.4	0.9 !	0.4	~	~
2003	1.5	0.2	5.7	0.7	2.6	0.4	--	~	1.0 !	0.5	~	~
2004	1.7	0.2	4.4	0.6	1.5	0.3	--	~	1.1 !	0.5	0.9 !	1.1
2005	1.6	0.2	4.2	0.7	2.2	0.4	--	~	1.2 !	0.5	2.8 !	2.0
2006	1.7	0.2	4.4	0.7	3.4	0.6	1.8 !	1.9	2.1 !	0.7	4.0 !	2.2
2007	1.4	0.2	7.1	0.9	3.0	0.5	3.3 !	2.4	1.7 !	0.6	4.7 !	2.1
2008	1.0	0.1	6.9	0.8	1.9	0.4	3.2 !	2.3	1.0 !	0.5	2.7 !	1.5
2009	0.9	0.1	5.1	0.7	1.7	0.4	2.9 !	2.3	0.9 !	0.4	1.4 !	1.2
2010	1.0	0.1	4.5	0.7	2.1	0.4	9.2 !	4.2	0.3 !	0.2	5.7 !	2.5
2011	1.4	0.1	2.8	0.4	2.2	0.4	8.6 !	3.4	0.6 !	0.3	7.6	2.3

*Per 1,000 persons age 12 or older.

! Interpret with caution. Estimate based on 10 or fewer sample cases, or coefficient of variation is greater than 50%.

~Not applicable.

--Less than 0.05.

Source: Bureau of Justice Statistics, National Crime Victimization Survey, 1993–2011.

APPENDIX TABLE 11

Numbers for table 4: Firearm homicides, by age, 1993–2011

Year	11 or younger	12–17	18–24	25–34	35–49	50 or older
1993	240	1,735	5,673	5,295	3,808	1,476
1994	176	1,736	5,435	5,059	3,700	1,399
1995	183	1,597	4,726	4,448	3,222	1,351
1996	178	1,295	4,334	3,918	3,030	1,266
1997	174	1,134	4,148	3,706	2,905	1,168
1998	157	888	3,753	3,231	2,669	1,082
1999	142	859	3,319	3,048	2,419	1,026
2000	110	709	3,371	3,074	2,488	1,037
2001	150	685	3,611	3,308	2,530	1,053
2002	151	721	3,708	3,465	2,646	1,125
2003	121	684	3,840	3,540	2,624	1,093
2004	105	763	3,485	3,503	2,533	1,214
2005	111	810	3,808	3,780	2,689	1,145
2006	142	940	4,030	3,767	2,688	1,216
2007	140	898	3,895	3,751	2,737	1,202
2008	140	844	3,662	3,612	2,655	1,264
2009	142	745	3,398	3,300	2,538	1,364
2010	127	708	3,273	3,331	2,294	1,340

Source: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS), 1993–2010. Retrieved March 2013 from www.cdc.gov/ncipc/wisqars.

APPENDIX TABLE 12

Standard errors for table 4: Nonfatal firearm violence, by age, 1994–2011

Year	12-17	18-24	25-34	35-49	50 or older
1994	1.2	1.4	0.8	0.6	0.2
1995	0.9	1.2	0.6	0.4	0.2
1996	0.8	1.0	0.6	0.4	0.2
1997	0.8	1.1	0.6	0.4	0.2
1998	0.8	1.1	0.5	0.4	0.2
1999	0.7	1.0	0.6	0.3	0.2
2000	0.6	0.8	0.5	0.3	0.2
2001	0.5	0.8	0.4	0.3	0.2
2002	0.5	0.8	0.4	0.3	0.1
2003	0.5	0.7	0.4	0.2	0.1
2004	0.4	0.6	0.4	0.3	0.2
2005	0.4	0.7	0.5	0.3	0.2
2006	0.5	0.8	0.5	0.3	0.2
2007	0.7	0.7	0.5	0.3	0.2
2008	0.6	0.5	0.4	0.3	0.1
2009	0.3	0.6	0.4	0.3	0.1
2010	0.2	0.8	0.4	0.2	0.1
2011	0.3	0.6	0.3	0.2	0.1

*Rate per 1,000 persons age 12 or older.

!Interpret with caution. Estimate based on 10 or fewer sample cases, or coefficient of variation is greater than 50%.

Source: Bureau of Justice Statistics, National Crime Victimization Survey, 1993–2011.

APPENDIX TABLE 13

Numbers and rates for figure 8: Firearm homicides, by region, 1993–2011

	Number				Rate per 100,000 persons			
Year	Northeast	South	Midwest	West	Northeast	South	Midwest	West
1993	2,918	7,863	3,365	4,107	5.6	8.7	5.5	7.3
1994	2,489	7,577	3,391	4,070	4.8	8.3	5.5	7.1
1995	2,100	6,659	2,980	3,812	4.0	7.1	4.8	6.5
1996	1,838	6,248	2,791	3,160	3.5	6.6	4.4	5.3
1997	1,641	6,020	2,661	2,930	3.1	6.3	4.2	4.9
1998	1,347	5,434	2,490	2,527	2.5	5.6	3.9	4.1
1999	1,327	4,905	2,319	2,277	2.5	5.0	3.6	3.7
2000	1,391	4,846	2,284	2,280	2.6	4.8	3.6	3.6
2001	1,407	4,989	2,477	2,475	2.6	4.9	3.8	3.8
2002	1,406	5,292	2,381	2,750	2.6	5.1	3.7	4.2
2003	1,489	5,395	2,324	2,712	2.7	5.2	3.6	4.1
2004	1,485	5,164	2,212	2,763	2.7	4.9	3.4	4.1
2005	1,554	5,536	2,387	2,875	2.9	5.2	3.6	4.2
2006	1,715	5,701	2,505	2,870	3.2	5.2	3.8	4.2
2007	1,577	6,055	2,354	2,646	2.9	5.5	3.6	3.8
2008	1,506	5,778	2,439	2,456	2.7	5.2	3.7	3.5
2009	1,440	5,438	2,359	2,256	2.6	4.8	3.5	3.2
2010	1,552	5,082	2,296	2,148	2.8	4.4	3.4	3.0

Source:Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS), 1993–2010. Retrieved March 2013 from www.cdc.gov/ncipc/wisqars.

APPENDIX TABLE 14

Rates and standard errors for figure 9: Nonfatal firearm violence, by region, 1997–2011

	Northeast		Midwest		South		West	
Year	Rate*	Standard error	Rate*	Standard error	Rate*	Standard error	Rate*	Standard error
1997	3.1	0.4	4.7	0.5	5.4	0.4	5.7	0.5
1998	2.1	0.3	3.9	0.4	5.0	0.4	5.1	0.5
1999	1.4	0.3	3.0	0.4	3.6	0.4	4.9	0.5
2000	1.3	0.3	2.5	0.3	2.8	0.3	4.5	0.5
2001	1.4	0.3	2.6	0.4	3.0	0.3	2.8	0.4
2002	1.3	0.3	2.2	0.3	3.3	0.3	2.0	0.3
2003	1.0	0.2	2.1	0.3	2.9	0.3	1.9	0.3
2004	0.8	0.2	2.6	0.3	1.9	0.2	2.2	0.3
2005	0.9	0.2	2.8	0.4	1.9	0.3	1.9	0.3
2006	1.2	0.3	2.6	0.4	2.7	0.3	2.2	0.3
2007	0.9	0.2	2.1	0.3	3.5	0.4	1.9	0.3
2008	0.7	0.2	2.1	0.3	2.8	0.3	1.1	0.2
2009	0.8	0.2	2.0	0.3	1.7	0.2	1.4	0.3
2010	0.9	0.2	1.9	0.3	1.7	0.2	1.8	0.3
2011	1.3	0.2	1.7	0.3	1.9	0.2	1.8	0.3

*Rate per 1,000 persons age 12 or older.

Source: Bureau of Justice Statistics, National Crime Victimization Survey, 1996–2011.

APPENDIX TABLE 15

Rates and standard errors for figure 10: Nonfatal firearm violence, by urban-rural location, 1994–2011

	Urban		Suburban		Rural	
Year	Rate*	Standard error	Rate*	Standard error	Rate*	Standard error
1994	10.6	0.7	6.3	0.4	5.2	0.5
1995	10.1	0.6	5.5	0.4	3.6	0.4
1996	8.4	0.5	4.4	0.3	3.1	0.4
1997	7.3	0.5	3.9	0.3	3.6	0.4
1998	6.2	0.5	3.8	0.3	2.3	0.3
1999	5.3	0.5	3.1	0.3	1.0	0.2
2000	4.8	0.5	2.3	0.2	1.0	0.2
2001	4.4	0.4	2.0	0.2	1.4	0.3
2002	4.4	0.4	1.8	0.2	1.1	0.2
2003	3.7	0.4	1.7	0.2	0.9	0.2
2004	3.0	0.3	1.7	0.2	1.0	0.2
2005	3.4	0.4	1.5	0.2	1.1	0.3
2006	3.3	0.4	1.8	0.2	1.9	0.4
2007	2.6	0.3	2.3	0.2	1.9	0.3
2008	2.2	0.3	1.8	0.2	1.2	0.3
2009	2.6	0.3	1.1	0.2	0.9	0.2
2010	2.8	0.3	1.2	0.2	0.7	0.2
2011	2.5	0.3	1.4	0.2	1.2	0.2

*Rate per 1,000 persons age 12 or older.

Source: Bureau of Justice Statistics, National Crime Victimization Survey, 1993–2011.

APPENDIX TABLE 16

Rates and standard errors for table 5: Nonfatal firearm violence, by population size, 1997–2011

	Not a place		Under 100,000		100,000–249,999		250,000–499,999		500,000–999,999		1 million or more	
Year	Rate*	Standard error	Rate*	Standard error	Rate*	Standard error	Rate*	Standard error	Rate*	Standard error	Rate*	Standard error
1997	3.9	0.4	3.8	0.3	7.0	0.9	10.3	1.3	7.3	1.3	7.3	1.0
1998	3.0	0.3	3.9	0.3	4.8	0.8	7.0	1.1	9.2	1.6	5.7	0.9
1999	1.9	0.3	3.1	0.3	3.1	0.6	5.5	1.0	9.0	1.6	6.4	1.0
2000	1.5	0.2	2.2	0.2	3.9	0.7	6.5	1.1	6.3	1.3	5.6	0.9
2001	1.4	0.2	2.1	0.2	4.1	0.7	6.1	1.1	5.5	1.2	5.1	0.9
2002	1.2	0.2	2.3	0.2	2.8	0.6	3.9	0.8	4.9	1.1	5.3	0.8
2003	1.4	0.2	2.0	0.2	2.8	0.5	3.3	0.7	5.1	1.1	3.6	0.7
2004	1.4	0.2	1.4	0.2	3.0	0.6	4.1	0.9	5.5	1.2	2.7	0.6
2005	1.2	0.2	1.6	0.2	2.9	0.6	3.6	0.9	4.5	1.2	4.6	0.9
2006	1.6	0.2	2.1	0.2	2.6	0.6	2.6	0.8	3.8	1.0	4.9	0.9
2007	1.5	0.2	2.6	0.3	2.7	0.5	2.4	0.7	5.4	1.1	2.1	0.5
2008	0.8	0.2	2.1	0.2	2.1	0.5	3.2	0.8	4.9	1.0	1.4	0.4
2009	0.9	0.2	1.1	0.2	2.2	0.5	3.0	0.8	4.0	1.0	3.5	0.7
2010	0.9	0.2	1.2	0.2	1.8	0.5	2.8	0.8	5.1	1.1	4.0	0.8
2011	1.4	0.2	1.2	0.2	1.3	0.3	3.9	0.8	4.6	0.9	3.2	0.6

*Rate per 1,000 persons age 12 or older.

Source: Bureau of Justice Statistics, National Crime Victimization Survey, 1996–2011.

APPENDIX TABLE 17

Standard errors for table 6: Nonfatal firearm and nonfirearm violence, by victim-offender relationship, 2007–2011

Relationship to victim	Total nonfatal violence	Firearm violence		Nonfirearm violence	
		Number	Percent of total violence	Number	Percent of total violence
Total	520,018	107,331	0.3%	495,683	0.4%
Nonstranger	351,653	56,980	0.3	341,349	0.4
Intimate	167,301	27,453	0.6	163,040	0.6
Other relative	105,593	24,480	1.1	100,985	1.2
Friend/acquaintance	247,394	39,620	0.4	240,775	0.5
Stranger	281,855	74,319	0.6	262,843	0.7
Unknown	126,046	34,768	1.1	118,113	1.2

Source: Bureau of Justice Statistics, National Crime Victimization Survey, 2007–2011.

APPENDIX TABLE 18

Standard errors for table 7: Nonfatal firearm and nonfirearm violence, by location of crime, 2007–2011

	Total nonfatal violence		Firearm violence		Nonfirearm violence	
Location	Number	Percent	Total number	Percent	Total number	Percent
Total	520,094	~	107,331	~	495,761	~
Victims home or lodging	204,185	0.6%	42,032	1.6%	195,889	0.6%
Near victim's home	170,118	0.5	46,062	1.8	159,113	0.5
In, at, or near a friend, neighbor, or relative's home	106,117	0.3	22,283	1.0	102,275	0.3
Commercial place	125,178	0.4	27,429	1.2	120,070	0.4
Parking lot or garage	91,497	0.3	37,086	1.5	80,309	0.3
School	150,761	0.5	6,544	0.3	150,471	0.5
Open area, on street, or public transportation	166,506	0.5	46,260	1.8	155,261	0.5
Other location	128,572	0.4	18,853	0.8	126,101	0.4

~Not applicable.

Source: Bureau of Justice Statistics, National Crime Victimization Survey, 2007–2011.

APPENDIX TABLE 19

Standard errors for table 9: Nonfatal firearm and nonfirearm violence, by injury and treatment received, 2007–2011

	Total nonfatal violence		Firearm violence		Nonfirearm violence	
Injury and treatment	Number	Percent	Total number	Percent	Total number	Percent
Injury	520,094	~	107,331	~	495,761	~
Not injured	435,239	0.7%	92,106	1.8%	414,216	0.7%
Injured	221,742	0.6	46,376	1.8	212,304	0.6
Serious injuries	76,874	0.2	23,654	1.0	73,196	0.3
Gun shot	12,758	--	12,758	0.6	~	~
Minor injuries	189,519	0.5	38,061	1.5	182,281	0.6
Rape without other injuries	39,058	0.1	4,232	0.2	38,750	0.1
Treatment for injury	221,742	~	46,376	~	212,304	~
No treatment	159,205	1.3%	22,999	3.7%	156,054	1.3%
Any treatment	130,902	1.2	38,813	3.8	121,399	1.3
Treatment setting	130,902	~	38,813	~	121,399	~
At the scene/home of victim, neighbor, or friend/ other location	70,643	1.7%	15,653	3.8%	68,065	1.9%
In doctor's office, hospital emergency room, or overnight at hospital	101,753	1.8	34,730	3.8	92,599	1.9

--Less than 0.05%.

~Not applicable.

Source: Bureau of Justice Statistics, National Crime Victimization Survey, 2007–2011.

APPENDIX TABLE 20

Numbers and standard errors for figure 11: Nonfatal firearm injuries, 2001–2011

Year	Number	Standard error
2001	41,044	10,287
2002	37,321	9,282
2003	42,505	11,558
2004	43,592	11,764
2005	50,320	14,431
2006	52,748	15,027
2007	48,676 !	15,139
2008	56,626	16,648
2009	44,466	11,767
2010	53,738	15,769
2011	55,544	15,671

! Interpret with caution. Estimate based on fewer than 20 NEISS cases (based on unweighted data), national estimates less than 1,200 (based on weighted data), or the coefficient of variation (CV) of the estimate greater than 30%.

Source: Consumer Product Safety Commission, National Electronic Injury Surveillance System All Injury Program (NEISS-AIP), 2001–2011, accessed from the National Center for Injury Prevention and Control, CDC.

APPENDIX TABLE 21

Standard errors for table 10: Nonfatal firearm and nonfirearm violence reported and not reported to police, 2007–2011

	Total nonfatal violence	Firearm violence	Nonfirearm violence
Total	~	~	~
Reported	0.7%	2.1%	0.7%
Not reported	0.7	2.1	0.8
Reason not reported	~	~	~
Dealt with it another way	0.9%	2.1%	0.9%
Not important enough to respondent	0.7	1.6	0.7
Police could not or would not do anything to help	0.7	3.0	0.7
Fear of reprisal	0.4	3.1	0.4
Did not want to get offender in trouble with law, or advised not to report	0.4	1.3	0.4
Other, unknown, or not one most important reason	0.7	2.6	0.7

~Not applicable.

Source: Bureau of Justice Statistics, National Crime Victimization Survey, 2007–2011.

APPENDIX TABLE 22

Standard errors for table 11: Self-protective behaviors, by type of crime, 2007–2011

	Violent crime		Property crime	
Self-protective behavior	Total number	Percent	Total number	Percent
Total	520,094	~	619,179	~
Offered no resistance	312,558	0.7%	295,645	0.3%
Threatened or attacked with a firearm	30,347	0.1	24,437	--
Threatened or attacked with other weapon	40,012	0.1	14,630	--
Threatened or attacked without a weapon	205,362	0.6	51,411	0.1
Nonconfrontational tactics	227,856	0.6	90,178	0.1
Other reaction	90,004	0.3	36,683	--
Unknown reaction	12,068	--	8,176	--
Victim was not present	~	~	641,196	0.4

~Not applicable.

--Less than 0.05%.

Source: Bureau of Justice Statistics, National Crime Victimization Survey, 2007–2011.

The Bureau of Justice Statistics is the statistics agency of the U.S. Department of Justice. William J. Sabol is acting director.

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Public Mass Shootings in the United States: Selected Implications for Federal Public Health and Safety Policy

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Summary

This report focuses on mass shootings and selected implications they have for federal policy in the areas of public health and safety. While such crimes most directly impact particular citizens in very specific communities, addressing these violent episodes involves officials at all levels of government and professionals from numerous disciplines.

This report does not discuss gun control and does not systematically address the broader issue of gun violence. Also, it is not intended as an exhaustive review of federal programs addressing the issue of mass shootings.

Defining Public Mass Shooting

Policy makers may confront numerous questions about shootings such as the December 2012 incident at Sandy Hook Elementary School in Newtown, CT, that claimed 27 lives (not including the shooter). Foremost, what are the parameters of this threat? How should it be defined?

There is no broadly agreed-to, specific conceptualization of this issue, so this report uses its own definition for *public mass shootings*. These are incidents occurring in relatively public places, involving four or more deaths—not including the shooter(s)—and gunmen who select victims somewhat indiscriminately. The violence in these cases is not a means to an end—the gunmen do not pursue criminal profit or kill in the name of terrorist ideologies, for example.

One Measure of the Death Toll Exacted by Public Mass Shootings. Applying this understanding of the issue, the Congressional Research Service (CRS) has identified 78 public mass shootings that have occurred in the United States since 1983. This suggests the scale of this threat and is intended as a thorough review of the phenomenon but should not be characterized as exhaustive or definitive. According to CRS estimates, over the last three decades public mass shootings have claimed 547 lives and led to an additional 476 injured victims. Significantly, while tragic and shocking, public mass shootings account for few of the murders or non-negligent homicides related to firearms that occur annually in the United States.

Policymaking Challenges in Public Health and Safety

Aside from trying to develop a sense of this phenomenon's scope, policy makers may face other challenges when addressing this topic. To help describe some of the health and safety issues public mass shootings pose, this report discusses selected policy in three areas: *law enforcement*, *public health*, and *education*. While mass shootings may occur in a number of settings, the education realm is one that has received particular attention from policy makers, officials, and the public alike—at least since the 1999 shooting at Columbine High School in Littleton, CO. The tragedy at Sandy Hook Elementary has renewed such concerns for many.

In the areas of law enforcement, public health, and education, this report discusses some key efforts to *prevent* mass shootings as well as efforts geared toward *preparedness* and *response*. Policy measures that deal with *recovery* are also discussed within the context of education and public health initiatives.

Policy Effectiveness and Outlay of Resources. Many of the policymaking challenges regarding public mass shootings boil down to two interrelated matters: (1) a need to determine the effectiveness of existing programs and (2) figuring out where to disburse limited resources.

Finally, baseline metrics related to this problem are often unclear or unavailable. This lack of clarity starts with identifying the number of shootings themselves, since no broadly agreed-to definition exists. Several questions flow from this issue. How many people have such incidents victimized? How much does prevention of, preparedness for, and response to such incidents cost the federal government? What measurements can be used to determine the effectiveness of such programs?

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Shooting incidents such as the one at Sandy Hook Elementary School in December 2012 and the one at an Aurora, CO, movie theater in July 2012 have focused attention on federal policy issues in the law enforcement, public health, and education arenas, among others. The Congressional Research Service (CRS) has identified 78 public mass shootings that have occurred in the United States since 1983. These shootings have claimed almost 550 lives according to CRS estimates.[2]

How does the death toll tied to public mass shootings compare with figures related to the preeminent threat that federal law enforcement has confronted in the last decade? CRS estimates that since the terrible events of September 11, 2001 (9/11), Al-Qaeda-inspired homegrown terrorists have killed 14 people in two incidents in the United States.[3] Since 9/11, according to CRS estimates, 281 people have died in 38 public mass shootings.[4] Arguably, the comparatively low death toll associated with Al Qaeda-inspired incidents at least partly results from a large-scale federal focus on homeland security and counterterrorism efforts.

President Obama's Plan to Reduce Gun Violence

On January 16, 2012, President Obama announced a slate of proposals aimed at reducing gun violence—not just public mass shootings, the topic of this report—in the United States.[1] The proposals focus on four areas:

- Closing background check loopholes,
- Banning military-style assault weapons and high-capacity magazines,
- Making schools safer, and
- Increasing access to mental health services.

Some of the President's proposals, such as encouraging better information sharing among and between states and federal agencies and providing incentives for police departments to use existing grants to hire school resource officers, can be addressed through executive actions. Other proposals, such as reinstating the assault weapons ban and providing funding for a range of mental health programs and services, require action by Congress. The President's proposals touch on a number of issues that public mass shootings raise for federal safety and public health policy.

It is important to caution the reader that, while tragic and shocking, public mass shootings account for few of the murders[5] related to firearms that occur annually in the United States. According to the Federal Bureau of Investigation (FBI, the Bureau), in 2011, firearms were used to murder 8,583 people.[6] To provide further context, over the last two decades, the nation has

[1] The White House, *Now Is the Time: The President's Plan to Protect Our Children and Our Communities by Reducing Gun Violence*, January 16, 2013, http://www.whitehouse.gov/sites/default/files/docs/wh_now_is_the_time_full.pdf. Hereafter: *The President's Plan.*

[2] For more information on this report's approach regarding the concept of "public mass shooting," please see the section titled "Defining and Identifying Public Mass Shootings."

[3] Incidentally, these deaths stemmed from two shooting incidents in which the gunmen were likely motivated by ideology tied to Al Qaeda. For more information, please see CRS Report R41416, *American Jihadist Terrorism: Combating a Complex Threat*, by Jerome P. Bjelopera.

[4] This count does not include shooters killed in these incidents.

[5] For this report, murder implies the willful killing of one human being by another.

[6] Federal Bureau of Investigation, *Uniform Crime Reports, Crime in the United States, 2011,* Table 8, "Expanded Homicide Data," http://www.fbi.gov/about-us/cjis/ucr/crime-in-the-u.s/2011/crime-in-the-u.s.-2011/tables/expanded-homicide-data-table-8. The Federal Bureau of Investigation (FBI, the Bureau) counts what it describes as "murder and nonnegligent manslaughter" for these statistics. Preliminary figures for 2012 suggest "an increase of 1.9 percent in the number of violent crimes ... for the first 6 months of 2012 when compared with figures reported for the same time in 2011." See Federal Bureau of Investigation, *Uniform Crime Reports, Crime in the United States, 2012, January-June Preliminary Semiannual Uniform Crime Report,* http://www.fbi.gov/about-us/cjis/ucr/crime-in-the-u.s/2012/preliminary-semiannual-uniform-crime-report-january-june-2012. It is unknown, however, whether this preliminary reported increase in violent crimes was coupled with an increase in firearm-related homicides.

experienced a general *decline* in violent crime. In 1992, 1.9 million violent crimes were reported, while 2011 saw 1.2 million.[7] In the same period, the national murder rate dropped from 9.3 to 4.7 per 100,000 inhabitants.[8]

Roadmap for the Report

As a starting point, this report delves into public mass shootings over the last three decades, exploring the nature of this threat. *Of note, this report does not focus on gun violence, writ large, nor does it discuss gun control.*[9]

In its broader discussion of related federal public health and safety issues, the report covers selected policy implications in three areas: *law enforcement*, *public health*, and *education*. While mass shootings may occur in a number of public settings, the education realm is one which has generated concern from policy makers, officials, and the public alike—at least since the 1999 shooting at Columbine High School in Littleton, CO. The tragedy at Sandy Hook Elementary has renewed such concerns for many.

In this report, discussion of each of these is further broken down into efforts geared toward

- *prevention*—actions intended to reduce the likelihood of shootings.[10]
- *preparedness*—planning how to cope with potential shootings.
- *response*—structured efforts employed to react to an actual shooting.

Policy measures that deal with recovery are also discussed within the context of education and public health initiatives. Recovery entails helping institutions, communities, and individuals cope with the aftermath of a shooting.[11] This report is not intended as an exhaustive review of specific federal programs in these areas.

Defining and Identifying Public Mass Shootings

This report attempts to refine the relatively broad concept of *mass shooting* (which could potentially involve a wide variety of actors targeting victims for any number of reasons) into a narrower formulation: *public mass shootings*. This has been done to focus discussion around a number of violent incidents that lie outside of specific crime issues such as terrorism, drug

[7] Federal Bureau of Investigation, *Uniform Crime Reports, Crime in the United States, 2011,* Table 1, "Crime in the United States by Volume and Rate per 100,000 Inhabitants, 1992–2011," http://www.fbi.gov/about-us/cjis/ucr/crime-in-the-u.s/2011/crime-in-the-u.s.-2011/tables/table-1.

[8] According to the FBI these figures include "murder and nonnegligent manslaughter." See ibid.

[9] For more information on this see CRS Report RL32842, *Gun Control Legislation*, by William J. Krouse.

[10] Some policies and programs discussed in this report may also help *mitigate* the impact of actual shootings. For example, while the presence of school resource officers may help prevent a school shooting, such an officer could feasibly mitigate the impact of a shooting by intervening after a gunman began his assault.

[11] To some degree these concepts—prevention, preparedness, response, and recovery—correspond with ideas that guide federal emergency management. In this report, these concepts are used only to help describe issues involved in devising policy related to public mass shootings. For more on federal emergency management, see CRS Report R42845, *Federal Emergency Management: A Brief Introduction*, coordinated by Bruce R. Lindsay.

trafficking, gang activity, and domestic violence that have federal policies, law enforcement structures, and laws tailored in many instances to specifically address them.

Arriving at a Definition

In order to delineate a workable understanding of *public mass shooting* for this report, CRS examined scholarly journal articles, monographs, and government reports.[12] These sources discussed a variety of terms such as mass murder, mass shooting, mass killings, massacres, and multiple homicide. Definitions of these terms varied with regard to establishing the number of victims or fatalities involved, the weapons used, the motives of the perpetrator, and the timeframes within which the casualties or injuries occurred.

This report defines public mass shootings as *incidents occurring in relatively public places, involving four or more deaths—not including the shooter(s)—and gunmen who select victims somewhat indiscriminately. The violence in these cases is not a means to an end such as robbery or terrorism.*[13]

Relatively public places. For this report, public mass shootings happen in *relatively* public circumstances. Such settings can include schools, workplaces, restaurants, parking lots, public transit, even private parties that include at least some guests who are not family members of the shooter.[14]

Tallying Fatalities. Any definition of mass shootings requires a somewhat arbitrary threshold demarcating the number of victims killed per incident. This report's threshold is based on a definition of mass murder offered by the FBI.[15]An important caveat deserves mentioning. A compilation of incidents based on any such arbitrary threshold may fail to adequately describe the

[12] James Alan Fox and Jack Levin, *Extreme Killing: Understanding Serial and Mass Murder*, 2nd ed. (Los Angeles: Sage, 2012), p. 19. Hereafter: Fox and Levin, *Extreme Killing*. James L. Knoll, IV, "The 'Pseudocommando' Mass Murderer: Part I, The Psychology of Revenge and Obliteration," *Journal of the American Academy of Psychiatry and the Law,* vol. 38, no. 1 (2010) pp. 87-89; Federal Bureau of Investigation, *Serial Murder: Multi-Disciplinary Perspectives for Investigators*, 2008, p. 8; John E. Douglas, Ann W. Burgess, and Robert K. Ressler, *Crime Classification Manual: A Standard System for Investigating and Classifying Violent Crimes,* 2nd ed. (San Francisco: Jossey-Bass, 2006) p. 96; Grant Duwe, "A Circle of Distortion: The Social Construction of Mass Murder in the United States," *Western Criminology Review,* vol. 6, no. 1 (2005) p. 59. Paul E. Mullen, "The Autogenic (Self-Generated) Massacre," *Behavioral Sciences and the Law,* vol. 22, no. 3 (2004) pp. 311-314. Hereafter: Mullen, "The Autogenic." Grant Duwe, Tomislav Kovandzic, and Carlisle E. Moody, "The Impact of Right-to-Carry Concealed Firearm Laws on Mass Public Shootings," *Homicide Studies,* vol. 6, no. 4 (2002) p. 273; Michael D. Kelleher, *Flash Point: The American Mass Murderer,* (Westport, CT: Praeger, 1997) p. 2. Hereafter: Kelleher, *Flash Point.*

[13] This report only includes incidents that occurred in the 50 states, Puerto Rico, and the District of Columbia.

[14] For a general discussion of violence in the workplace, see Federal Bureau of Investigation, *Workplace Violence: Issues in Response,* (2004). Hereafter: Federal Bureau of Investigation, *Workplace Violence.*

[15] The FBI has defined mass murder as "[a] number of murders (four or more) occurring during the same incident, with no distinctive time period between the murders. These events typically involved a single location, where the killer murdered a number of victims in an ongoing incident." This report allows for instances of mass murder to involve more than one specific location. For the FBI definition, see Federal Bureau of Investigation, *Serial Murder,* p. 8. For a different definition, see Fox and Levin, *Extreme Killing,* p. 19. While this report focuses a great deal on the timing involved in serial and mass murder to differentiate the two categories, Fox and Levin emphasize motivation. The 112th Congress passed legislation (P.L. 112-265) that formally authorizes the Attorney General to provide investigative assistance to states in instances of violent crimes in public venues, including attempted and actual mass killings. For the purposes of P.L. 112-265, the term "mass killings" means three or more killings in a single incident and relies on the definition of "place of public use" from 18 U.S.C. 2332f(e)(6).

universe of incidents to which educators, public health professionals, and law enforcement have to react and for which they have to prepare.[16] One author has stated that gunmen "injure far more victims than they kill; however, they must certainly be considered mass murderers by obvious intentions of their actions."[17] In the critical early moments of a shooting, police, teachers, and rescue personnel do not necessarily know how many people are injured versus dead. Personnel and resources are initially mobilized in response to a shooting, regardless of the number of fatalities.

Indiscriminate Selection of Victims. For this report's definition, a killer's relationship to his or her victims is important. Driven by a desire for revenge and/or power, some killers may target family members or intimate friends.[18] In the incidents described as public mass shootings for this report, the gunmen cannot solely kill such individuals. This particularly rules out cases of domestic violence—instances only involving family members either inside or outside the home—from consideration as public mass shootings. Thus, for this report, the gunmen in public mass shootings somewhat indiscriminately select their victims. For example, a student assailant involved in a public mass shooting plans on killing particular teachers, while simultaneously staging a wider assault on his school.

Violence Not a Means to an End. For this report, a public mass shooter's agenda certainly may stem from his specific personal experiences and psychological conditions. However, as implied in the above definition, the shooters who perpetrated the incidents counted in this report did not have broad socio-political objectives, such as using violence to advocate the fall of a regime.[19] Thus, gunmen acting in the name of a terrorist organization or a clearly framed philosophy of hate typically were not considered public mass shooters. Also, shootings largely motivated by criminal profit were not counted. Based on the purpose undergirding the assailant's violence, the following examples do not fit the definition of public mass shooting used for this report.

- In December 2012, Dwayne Moore was convicted of *home invasion, armed robbery*, and four counts of first-degree murder in Massachusetts. He reportedly gunned down four victims, including a child, in a September 2010 drug-related incident in Boston, MA.[20]
- A mass murder that has been widely reported as a *hate-motivated* incident occurred on the morning of August 5, 2012, when Wade Michael Page shot to death six people at the Sikh Temple of Wisconsin in Oak Creek—near Milwaukee, WI.[21] According to the FBI, police responding to the scene returned fire, wounding Page. He then took his own life by shooting himself.[22]

[16] One expert has written: "A common definition of mass murder requires the intentional death of at least four individuals in a single incident. Another interpretation of the term reduces the number of slain victims to three for the crime to be considered mass murder. Both of these definitions are obviously arbitrary and focus exclusively on the number of victims killed." Kelleher, *Flash Point,* p. 2.

[17] Ibid.

[18] See Fox and Levin, *Extreme Killing,* pp. 23-25 for a discussion.

[19] For more on terrorism-related incidents in the United States see CRS Report R41416, *American Jihadist Terrorism: Combating a Complex Threat*, by Jerome P. Bjelopera and CRS Report R42536, *The Domestic Terrorist Threat: Background and Issues for Congress*, by Jerome P. Bjelopera.

[20] Brian Ballou et al., "Dwayne Moore Convicted of Four Counts of First-Degree Murder in Mattapan Slaying Trial," *Boston Globe,* December 17, 2012, http://www.boston.com/metrodesk/2012/12/17/dwayne-moore-found-guilty-mattapan-massacre/ETijeAnjXDGR98symtVy1K/story.html.

[21] John Diedrich et al., "FBI: Seeking Second 'Person of Interest' in Oak Creek Sikh Temple Shooting," *Milwaukee*
(continued...)

- U.S. Army Major Nidal Hasan was charged in a shooting at Fort Hood, TX, on November 5, 2009. The mass murder, which has been described as a *terrorist incident*, killed 13 and injured more than 40 others.[23]

Identifying Incidents

To identify incidents of public mass shootings, CRS reviewed descriptions of mass shooting events found in scholarly journal articles, monographs, lists created by government entities and advocacy organizations, and news accounts.[24] It is important to note that while every effort was made to be thorough in reviewing the sources used, the incidents identified by CRS should not be considered as constituting an exhaustive list of public mass shootings.[25]

Readers are also cautioned against tying this report's definition of public mass shootings directly to specific federal policy responses. In other words, the policy responses discussed below are not restricted to preventing or reacting to public mass shootings as defined in this report. For instance, many of the policy measures discussed herein respond to shooting events or threats that

(...continued)

Journal Sentinel, August 6, 2012, http://www.jsonline.com/news/crime/shooter-wade-page-was-army-vet-white-supremacist-856cn28-165123946.html. Dinesh Ramde and Todd Richmond, "Motive Sought for Mass Shooting at Wis. Sikh Temple," *Associated Press,* August 6, 2012, http://news.yahoo.com/motive-sought-6-slain-wis-sikh-temple-083039570.html. A Sikh temple is also called a gurdwara.

[22] William Branigin and Michael Laris, "Wade Michael Page Committed Suicide, FBI Says," *Washington Post,* August 8, 2012, http://www.washingtonpost.com/politics/wade-michael-pages-ex-girlfriend-arrested/2012/08/08/00c99f72-e10a-11e1-a19c-fcfa365396c8_story.html.

[23] See U.S. Congress, Senate Committee on Homeland Security and Governmental Affairs, *A Ticking Time Bomb: Counterterrorism Lessons from the U.S. Government's Failure to Prevent the Fort Hood Attack*, 112th Cong., 1st sess., February 2011, p. 53, http://hsgac.senate.gov/public/_files/Fort_Hood/FortHoodReport.pdf. "Fort Hood Shooting Suspect to Remain Confined," *Associated Press State and Local Wire,* in *msnbc.com,* November 21, 2009, http://www.msnbc.msn.com/id/34084622; "Fort Hood Shooting Suspect Out of Intensive Care," *CNN.com,* December16, 2009, http://www.cnn.com/2009/CRIME/12/16/texas.fort.hood.hasan/index.html?iref=allsearch.

[24] Connecticut Office of Legislative Research, "Weapons Used in Mass Shootings," January 18, 2013, http://www.cga.ct.gov/2013/rpt/2013-R-0057.htm; Counterterrorism Bureau of the New York City Police Department, "Active Shooter: Recommendations and Analysis for Risk Mitigation," 2012 edition, http://www.nyc.gov/html/nypd/downloads/pdf/counterterrorism/ActiveShooter2012Edition.pdf; James Alan Fox and Jack Levin, "Table 19.1: Deadliest Mass Murders in the United States Since 1900," in *Extreme Killing,* p. 230; Citizens Crime Commission of New York City, "Mass Shooting Incidents in America (1984-2012)," http://www.nycrimecommission.org/initiative1-shootings.php; Brady Campaign to Prevent Gun Violence, "Mass Shootings in the United States Since 2005," December, 14, 2012, http://www.bradycampaign.org/xshare/pdf/major-shootings.pdf; Mark Follman, Gavin Aronsen, and Deanna Pan, "US Mass Shootings, 1982-2012: Data from Mother Jones' Investigation," *Mother Jones*, December 28, 2012, http://www.motherjones.com/politics/2012/12/mass-shootings-mother-jones-full-data. Mayors Against Illegal Guns, "Mass Shootings Since January 20, 2009," http://libcloud.s3.amazonaws.com/9/f8/9/1098/1/mass_shootings_2009-13_-_jan_29_12pm.pdf; Michael Kelleher, "Chapter 11: A Survey of Mass Murderers" in *Flash Point,* pp. 173-181. Searches of U.S. newspapers and wire services using LexisNexis were conducted in many instances in order to confirm information or gather more details about incidents listed in the sources consulted.

[25] While other sources and methods (relying on the FBI's Supplementary Homicide Reports, for example) can be applied in defining this issue and counting the number of incidents, the approach used for this report was selected based on a careful evaluation of this report's objectives and CRS resources. Our definition encompasses a count of fatalities along with information about motivation for a shooting and where it occurs spatially. While it would be possible to use FBI data to generate counts of incidents involving the requisite number of fatalities for inclusion in an estimate of mass shootings, the additional research needed to assess the motivational and spatial criteria that must be met for inclusion would require a very large undertaking. We expect our estimates provide a good approximation of the frequency and scale of mass shootings, but note that more comprehensive approaches could be taken to improve the precision of the estimates.

could include fewer than four deaths or shooters with specific ideologies and targets. The shooting definition offered in this report is meant to help illustrate the nature and breadth of a threat that lacks an agreed-upon conceptualization among experts, capturing some of the most extreme shooting cases over the last three decades.

Describing Public Mass Shootings

For many years, mass shootings have been of interest and concern to a variety of experts—including psychologists, sociologists, criminologists, public health experts, policy makers, and students of popular culture—who have written much on the topic. Journalists have tracked such killings for a long time as well. For example, a case involving gunman Howard B. Unruh in September 1949 received national attention.[26] There were over 50 news articles in more than a dozen major newspapers in the United States in the month after the shooting occurred.

- In what was reported at the time as the biggest mass murder in U.S. history, Unruh killed 13 people in a 20-minute-long incident in Camden, NJ. He shot people he knew as well as strangers. His victims included three children.[27]

All of this interest in such shootings has produced a wide variety of terms and concepts that address an assortment of issues. Categorizing types of murder—and mass shootings, more narrowly—can be tricky. In many cases, individual incidents involving assailants who kill one, two, or three people are described as single, double, or triple murder. However, when the number of victims rises or the case involves complicating circumstances such as the killer assailing individuals in different locations or a string of murders committed over a period of days, months, or years, efforts to define and understand murder can grow much more difficult.

Placing Them within a Broader Context

Most scholarly and expert sources suggest that mass shootings are rare violent crimes. One study has described them as "very low-frequency and high intensity event[s]."[28] The 78 public mass shootings between 1983 and 2012 that CRS has identified claimed 547 lives (see **Figure 1**).[29]

[26] Richard Goldstein, "Howard Unruh, 88, Dies; Killed 13 of His Neighbors in Camden 1949," *New York Times,* October 29, 2009. Unruh, who reportedly suffered from paranoid schizophrenia, never stood trial for the murders. He died after being confined for six decades in the Trenton Psychiatric Hospital. In 1950, reporter Meyer Berger received a Pulitzer Prize for his coverage of Unruh's mass shooting.

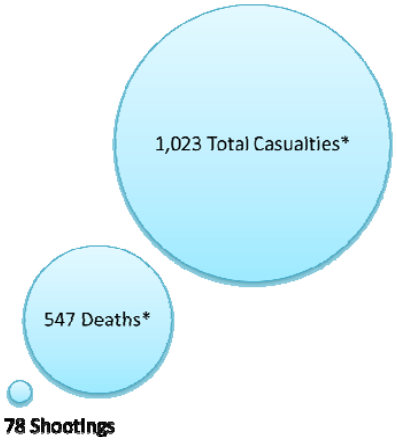
[27] Ibid. See also "N.J. Vet Killed 13 in 1949 in Biggest U.S. Mass Murder," *Boston Globe,* April 16, 1953. Meyer Berger, "Veteran Kills 12 in mad Rampage on Camden Street," *New York Times,* September 8, 1949.

[28] J. Reid Meloy, et. al., "A Comparative Analysis of North American Adolescent and Adult Mass Murderers," *Behavioral Sciences and the Law,* vol. 22, no. 3 (2004) p. 307.

[29] Not including shooters who died in the course of a shooting.

Figure 1. Public Mass Shootings in the United States 1983-2012

Deaths and Total Casualties



Source: CRS, based on analysis of mass shooting incidents identified by CRS.

Notes: * "Deaths" do not include shooters. "Total Casualties" include deaths and victims who suffered non-lethal injuries from gunshots.

A Subset of Multiple Murder

Public mass shootings, as defined by this report, can be viewed as part of the larger issue of "multiple murder." A lexicon has emerged since the 1980s to describe instances of multiple murder.[30] Qualitatively broader than cases of single, double, or triple murder, instances of multiple murder can be divided into a number of categories including serial or mass killings.[31] **Figure 2** lays out how this report frames the issue of public mass shootings. Starting at the top of **Figure 2**, *serial murders* involve multiple victims killed by the same offender or offenders in separate events over a period of days, months, or years.[32] For this report, *mass murders* involve four or more people killed—not including the shooter(s)—in less than one day by the same

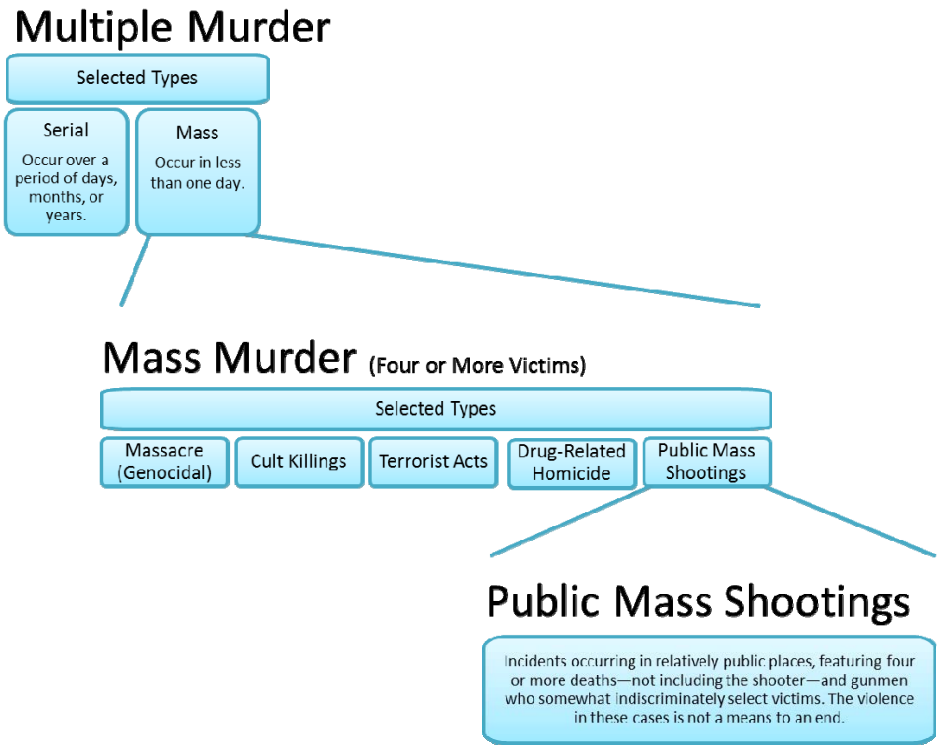
[30] There is no universally agreed to or legally codified number of victims per incident that distinguishes multiple murder from other types of murder.

[31] "Qualitatively broader" is intended to suggest that there are qualitative factors surrounding incidents of multiple murder that help to distinguish them from single, double, or triple murders. This conceptualization of multiple murder does not necessarily require multiple murders to include four or more deaths. Characterizing multiple murders involves examining some of the circumstances surrounding a killer's actions.

[32] The FBI has offered what can be seen as a broad definition of serial murder: "The unlawful killing of two or more victims by the same offender(s), in separate events." The Bureau also dismisses the key distinction between serial and spree killing. Spree killing can be defined as: "two or more murders committed by an offender or offenders, without a cooling-off period." The lack of a "cooling off period" theoretically distinguishes spree killing from serial murder. However, a majority of experts convened by the FBI in 2005 to discuss serial killing determined that the concept of a cooling off period was too vague to be useful, thus minimizing spree killing as a distinct type of murder. For this report, crimes that some may consider spree killings also can fall under the category of "public mass shooting," if the shootings occur during one day or less. See Federal Bureau of Investigation, *Serial Murder: Multi-Disciplinary Perspectives for Investigators*, 2008, p. 9. Hereafter: Federal Bureau of Investigation, *Serial Murder*. Serial killing is defined in federal law as: "a series of three or more killings, not less than one of which was committed within the United States, having common characteristics such as to suggest the reasonable possibility that the crimes were committed by the same actor or actors." See 28 U.S.C. § 540B.

offender or offenders. Mass murder can then be divided into subcategories—that may or may not involve gunmen—such as massacres perpetrated by people interested in genocide, cult killings, terrorist plots, the slaying of people during the course of drug trafficking, and, as conceptualized in this report, public mass shootings.[33]

Figure 2. Placing Public Mass Shootings into Context



Sources: Graphic constructed by CRS, adapted from concepts highlighted in: James Alan Fox and Jack Levin, *Extreme Killing: Understanding Serial and Mass Murder*, 2nd ed. (Los Angeles: Sage, 2012), p. 19; James L. Knoll, IV, "The 'Pseudocommando' Mass Murderer: Part I, The Psychology of Revenge and Obliteration," *Journal of the American Academy of Psychiatry and the Law,* vol. 38, no. 1 (2010) pp. 87-89; Federal Bureau of Investigation, *Serial Murder: Multi-Disciplinary Perspectives for Investigators*, 2008, p. 8; John E. Douglas, Ann W. Burgess, and Robert K. Ressler, *Crime Classification Manual: A Standard System for Investigating and Classifying Violent Crimes,* 2nd ed. (San Francisco: Jossey-Bass, 2006) p. 96; Grant Duwe, "A Circle of Distortion: The Social Construction of Mass Murder in the United States," *Western Criminology Review,* vol. 6, no. 1 (2005) p. 59. Paul E. Mullen, "The Autogenic (Self-Generated) Massacre," *Behavioral Sciences and the Law,* vol. 22, no. 3 (2004) pp. 311-314; Grant Duwe, Tomislav Kovandzic, and Carlisle E. Moody, "The Impact of Right-to-Carry Concealed Firearm Laws on Mass Public Shootings," *Homicide Studies,* vol. 6, no. 4 (2002) p. 273; Michael D. Kelleher, *Flash Point: The American Mass Murderer,* (Westport, CT: Praeger, 1997) p. 2.

Notes: For this graphic, "public mass shootings" involve four or more deaths from gunshot wounds, not including the perpetrator of the violence. "Murder" implies the willful killing of one human being by another.

[33] For a discussion of the variety of mass killings see Mullen, "The Autogenic" p. 313.

Public Mass Shootings—Settings

Among the 78 public mass shootings since 1983 that CRS has identified, 26 occurred at workplaces where the shooter was employed either at the time of the incident or prior to it. The next largest number of public mass shootings occurred at places of education (12).[34]

- In 2000 in Wakefield, MA, Michael McDermott took three guns to Edgewater Technology Inc., where he was employed, and shot seven coworkers.[35]
- In 2006 Charles Roberts entered a one-room Amish schoolhouse in Lancaster County, PA, where he shot and killed five students and injured five others.[36]

As the above implies, the public mass shootings identified by CRS involve a high level of localization. A mass shooter usually targets individuals in one location or, as the examples below demonstrate, in a small handful of closely clustered geographic sites.

- In 1988 Michael Hayes shot at people randomly as he roamed his neighborhood in Winston Salem, NC, killing four and injuring five.[37]
- In 2009 Michael McLendon shot his mother before driving to the nearby town of Samson, GA, where he shot five more people. He then drove to another neighboring town, Geneva, where he shot several more people before killing himself. In total McLendon killed 10 people and injured six.[38]

Public Mass Shootings—Perpetrators

Many experts agree that a workable, detailed profile of mass shooters does not exist.[39] However, there are some observations that can be made regarding public mass shooters. For instance, among the public mass shooting incidents reviewed by CRS, the gunmen generally acted alone, were usually white and male, and often died during the shooting incident. The average age of the shooters in the incidents identified by CRS was 33.5 years.

Only on rare occasions was more than one perpetrator involved in a public mass shooting. CRS has identified three such incidents since 1983.

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[34] Not all of the incidents CRS identified took place exclusively at one location. The numbers given here reflect incidents that occurred in part or in full at the type of location described.

[35] Brian MacQuarrie and Rick Klein, "Slaughter at the Office: Man Held in Deaths of 7 Colleagues in Wakefield," *Boston Globe*, December 27, 2000.

[36] Cindy Stauffer et al., "Horror in Schoolhouse: 5 Amish Girls Killed, 5 Critically Wounded in Shocking Massacre," *Lancaster New Era*, October 3, 2006.

[37] Paul Nowell, "Four Killed, Five Injured in Shooting Spree," Associated Press, July 18, 1988.

[38] Shaila Dewan, "Gunman Kills 10 in Alabama, Then Takes His Life," *New York Times*, March 10, 2009.

[39] In this instance, "workable" is intended to convey a profile with the discerning ability to proactively identify individuals planning to engage in a shooting. In the case of school shootings, the FBI has stated that, an effective profile or checklist that can predict who will become an assailant does not exist. See Mary Ellen O'Toole, *The School Shooter: A Threat Assessment Perspective,* (Federal Bureau of Investigation, 2000) p. 1. See also Federal Bureau of Investigation, *Workplace Violence,* pp. 21, 25, 26; Mullen, "The Autogenic," p. 322; Robert A. Fein et al., *Threat Assessment in Schools: A Guide to Managing Threatening Situations and to Creating Safe School Climates*, (Secret Service, Department of Education, May 2002) p. 17.

- In 1993, Juan Luna and James Degorski killed seven employees at a restaurant in Palatine, IL.[40]
- In 1998, Andrew Golden and Mitchell Johnson killed five people and injured 10 at their middle school in Jonesboro, AR.[41]
- In 1999 Dylan Klebold and Eric Harris killed 13 and injured 23 at their high school in Littleton, CO, and then killed themselves.[42]

Of the public mass shooting incidents identified by CRS for which information on the race of the perpetrator(s) was available, over half of the shooters were reportedly white.[43]

Almost always, the shooters were male. Of the incidents compiled by CRS, only one involved a female assailant. In January 2006, Jennifer Sanmarco shot to death seven individuals—six were fatally wounded in a U.S. postal facility in Goleta, CA. One death occurred near Sanmarco's condominium, also in Goleta. She killed herself as well.[44]

It was common for the gunmen involved in the shootings identified by CRS to kill themselves during their assaults. Forty-one of 81 shooters killed themselves. In 10 instances, law enforcement officers killed the gunmen involved.[45]

The shooters identified by CRS ranged in age from 11 to 66 years old. All but 10 were age 20 or older. Most of them were in their 20s, 30s, or 40s (see **Figure 3**).

[40] Jeff Coen, Eric Ferkenhoff, and Flynn McRoberts, "Brown's Suspects Charged: 'They Are People without a Soul,' Police Chief Says," *Chicago Tribune*, May 19, 2002.

[41] John Kifner et al., "From Wild Talk and Friendship to Five Deaths in a Schoolyard," *New York Times*, March 29, 1998.

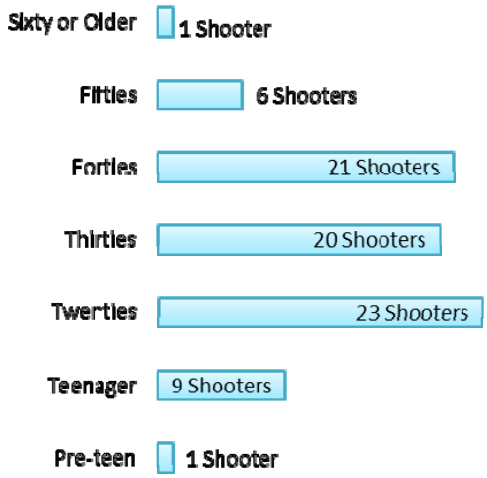
[42] Patricia Callahan, "Dream Turns to Nightmare," *Denver Post*, April 22, 1999, p. A1.

[43] While a range of demographic information on the perpetrators (including shooter gender and age) was noted in multiple sources reviewed by CRS, perpetrator race was often noted by just a single source, if at all. As such, CRS is not confident in presenting more nuanced data on the race of the shooters involved in public mass shootings identified for this report.

[44] Steve Chawkins and Jill Leovy, "7 Victims of Goleta Rampage," *Los Angeles Times,* February 2, 2006.

[45] Whether these gunmen intended to die at the hands of law enforcement (an act commonly described as "suicide by cop") is unclear. For more on this issue see Anthony J. Pinizzotto, Edward F. Davis, and Charles E. Miller III, "Suicide by Cop" *FBI Law Enforcement Bulletin,* vol. 74, no. 2 (February 2005), pp. 8-20.

Figure 3. Age of Perpetrators in Public Mass Shootings 1983-2012
Grouped in 10-Year Intervals



Source: CRS, based on analysis of mass shooting incidents identified by CRS.

Law Enforcement Implications

When considering law enforcement's role in coping with public mass shootings, policy makers and the public likely are most aware of how police forces react when they learn of an incident. Public mass shootings typically trigger a rapid police response, followed by an investigation and, potentially, prosecutions and sentencing. Also, while a shooting incident may spur an immediate law enforcement response, the *potential* for such a scenario impacts law enforcement prevention and preparedness measures. Police are not typically involved in recovery efforts.

From a law enforcement perspective, mass shootings tend to be single-jurisdiction issues involving a particular community. As such, while the federal government may not play a direct role in formulating specific state and local practices, it may influence these practices through the availability of grants. For example, the Department of Homeland Security (DHS) offers funding via its Homeland Security Grant Program to "fund a range of preparedness activities, including planning, organization, equipment purchase, training, exercises, and management and administration."[46] Although Department of Justice (DOJ) grants are not necessarily framed in terms of prevention, preparedness, or response, they can certainly address these issues regarding mass shootings.[47]

[46] The State Homeland Security Program (part of the Homeland Security Grant Program) "supports the implementation of state Homeland Security Strategies to address the identified planning, organization, equipment, training, and exercise needs to prevent, protect against, mitigate, respond to, and recover from acts of terrorism and other catastrophic events." See http://www.fema.gov/fy-2012-homeland-security-grant-program#0.

[47] A number of existing grant programs may be used as vehicles to incentivize state and local law enforcement. For more information on the history and purpose areas of the Edward Byrne Memorial Justice Assistance Grant (JAG) Program, see CRS Report RS22416, *Edward Byrne Memorial Justice Assistance Grant (JAG) Program*, by Nathan James. For information on the Community Oriented Policing Services (COPS) program, see CRS Report RL33308, (continued...)

One foundational question is what, if anything, does the federal government want to influence in the states via grant funding related to law enforcement? Should the federal government enhance interagency information sharing and coordination on procedures to evaluate and deal with shooting threats?[50] Should it increase law-enforcement-related grant funding to bolster school resource officer training or the number of metal detectors in academic settings? In this area, the Obama Administration's January 16, 2013 report, *Now Is the Time: The President's Plan to Protect Our Children and Our Communities by Reducing Gun Violence* (*The President's Plan*), included a commitment to using the Community Oriented Policing Services (COPS) program to incentivize police departments to hire more school resource officers. The plan also indicates that DOJ will develop a model—including best practices—for using school resource officers.[51]

Federal Framework for Emergency Management

U.S. emergency management is largely decentralized, potentially involving public, private, and nongovernmental agencies. Nonetheless, there exists a federal framework for managing domestic incidents. Within this framework, the National Incident Management System (NIMS) is an all-hazards, national approach to incident management.[48] It is built on

- continuous preparedness,
- flexible communications and information systems,
- standardized resource management,
- incident management and coordination (built, in part, on the Incident Command System), and
- ongoing updating of NIMS concepts and principles.

All federal departments and agencies are required to adopt NIMS.[49] In addition, state, local, and tribal organizations must adopt NIMS in order to be eligible for federal preparedness grants.

Of course, such issues potentially involve a variety of specialists—not only police officials but also public health experts and educators,

(...continued)

Community Oriented Policing Services (COPS): Background and Funding, by Nathan James. For information on the various juvenile justice grant programs, see CRS Report RL33947, *Juvenile Justice: Legislative History and Current Legislative Issues*, by Kristin M. Finklea.

[48] NIMS enables relevant entities to "prevent, protect against, respond to, recover from, and mitigate the effects of incidents, regardless of cause, size, location, or complexity, in order to reduce the loss of life and property and harm to the environment." It is a flexible system, adaptable to the spectrum of potential incidents, and one that provides standardized framework to foster coordination and cohesion between relevant agencies. Federal Emergency Management Agency, "National Incident Management System," December 2008, http://www.fema.gov/pdf/emergency/nims/NIMS_brochure.pdf. NIMS is administered by the Department of Homeland Security (DHS), and through the National Integration Center, the Secretary of DHS "publishes the standards, guidelines, and compliance protocols for determining whether a Federal, State, tribal, or local government has implemented NIMS." See Federal Emergency Management Agency, "About National Incident Management System," July 20, 2012, http://www.fema.gov/about-national-incident-management-system.

[49] This is required by Homeland Security Presidential Directive 5 (HSPD-5), issued by former President George W. Bush on February 28, 2003.

[50] Many such questions involve law enforcement as well as other experts with key roles to play in this area. As a case in point, policy makers may debate whether the federal government should encourage states to provide preventative mental health services to individuals at risk of committing violent crimes. Determining who could benefit from such services potentially involves police officers as well as medical professionals and teachers. Several juvenile justice grant programs have purpose areas that could be used to provide mental health services to at-risk youth. Congress may also consider incentivizing law enforcement training that includes a focus on mental health offender issues. The JAG program, for one, provides grant money for a variety of purpose areas, including law enforcement training broadly. Within programs such as this, funds could be utilized for specialized training.

[51] See *The President's Plan*. While resource officers may be described as a preventive law enforcement measure, this report covers them as part of prevention efforts in the realm of education. See the discussion under the heading "School Resource Officers" in this report.

among others. Grants impacting preparedness may shape first responder training, and grants influencing response could affect the development of law enforcement protocols for responding to mass shootings. Some policy makers may wish to incentivize the establishment and training of tactical emergency medical services (EMS) teams to support law enforcement during instances of mass shootings or related events. These teams could provide medical threat assessments, deliver medical care, and promote law enforcement safety, among other things. Little research has evaluated the effectiveness of such tactical EMS teams in the civilian domain, and policy makers may wish to request additional research in this arena.[52] Congress may debate which elements of law enforcement prevention, preparedness, and response—if any—the federal government could try to influence in the states and localities.[53]

In addition to providing financial assistance and incentives for certain law enforcement activities, the federal government may provide assistance in the form of manpower. Policy makers may debate whether federal law enforcement has sufficient authority and resources to assist state and local entities—if requested and if appropriate—in preparing for and responding to mass shootings and related incidents. For example, *The President's Plan* calls for additional funding for the federal government to train law enforcement, school officials, and others to respond to scenarios involving shooters.

Prevention

While law enforcement's role in crime control traditionally has been viewed as largely *reactive*, there has been a trend toward enhancing *proactive* law enforcement efforts. Thus, in the past three decades, much of the policing world has incorporated investigative strategies bent on preventing crimes in addition to solving crimes that have already occurred.[54] However, the effectiveness of proactive law enforcement techniques in preventing public mass shootings is unclear. As modern policing has evolved, several prominent philosophies and techniques—including community policing and intelligence-led policing—have focused on law enforcement preventing rather than solely responding to crime.

Community Policing

As laid out by DOJ, "[c]ommunity policing is a philosophy that promotes organizational strategies, which support the systematic use of partnerships and problem-solving techniques, to proactively address the immediate conditions that give rise to public safety issues such as crime, social disorder, and fear of crime."[55] Community policing can employ a range of techniques to

[52] See Nelson Tang and Gabor D. Kelen, "Invited Commentary: Role of Tactical EMS in Support of Public Safety and the Public Health Response to a Hostile Mass Casualty Incident," *Disaster Medicine and Public Health Preparedness*, vol. 1, suppl. 1, (2007), pp. s55-s56. See Michael J. Feldman, Brian Schwartz, and Laurie J. Morrison, "Effectiveness of Tactical Emergency Medical Support: A Systematic Review," June 6, 2006.

[53] Beyond guiding or shaping local policing, federal grant programs can also reinforce existing state and local practices or subsidize actions that state and local governments had planned to pursue on their own, among other things.

[54] These investigative strategies include community policing, problem-oriented policing, intelligence-led policing, and predictive policing. See Lois M. Davis et al., *Long-Term Effects of Law Enforcement's Post-9/11 Focus on Counterterrorism and Homeland Security*, RAND, 2010, pp. 2-4, http://www.rand.org/pubs/monographs/2010/RAND_MG1031.pdf.

[55] Department of Justice, *Community Policing Defined*, http://www.cops.usdoj.gov/default.asp?item=36. See also Bureau of Justice Assistance, "Understanding Community Policing: A Framework for Action," August 1994, https://www.ncjrs.gov/pdffiles/commp.pdf.

control crime, and these techniques can be tailored to the specific needs of individual communities. The federal government has incentivized community policing efforts through DOJ's COPS office.[56]

Research on community policing generally speaks to its impact on overall crime rates, and CRS has not identified any comprehensive research on how community policing may be used to specifically address mass shootings. Policy makers may question whether community policing efforts are useful in targeting a specific type of crime (mass shootings) in a specific setting (public places).

Intelligence-Led Policing

Based in part on community policing and problem solving efforts, intelligence-led policing initiatives, originally developed in Great Britain, have emerged throughout the nation.[59] After 9/11, intelligence operations were transformed at the federal level as well as at the state and local levels. More and more, intelligence-led policing is not a single methodology, but a framework that encompasses much of modern operational police activity.[60] Similar to community policing, intelligence-led policing relies upon information input (as the basis for intelligence analysis), two-way communications with the public, scientific data analysis (using the basic formula that information plus analysis equals intelligence), and problem solving.[61]

The impact of intelligence-led policing cannot yet be fully evaluated because "long term studies of police forces that have fully implemented and adopted intelligence-led policing have yet to be conducted."[62] Further, like research on community policing efforts,

Intelligence-Led Policing and Fusion Centers

Gunmen involved in public mass shootings may not be targets easily preempted from wrongdoing by intelligence-led policing. However, there still may be roles that fusion centers[57] can play in countering this threat. (Such centers have been highlighted as tools to enhance intelligence-led policing.) Fusion centers may be able to help contextualize this issue. For instance, the Commonwealth Fusion Center based in Massachusetts launched the "Targeting Violent Crime Initiative," sponsored by DOJ, to examine firearms offenses in Massachusetts. This effort has focused on issues such as determining the source of firearms used in gun crimes in Massachusetts; understanding potential links between the illegal gun markets; and delving into gun crime trends throughout the state.[58] As such, policy makers may be interested in whether fusion centers have anything to offer in the way of intelligence-led policing to address mass shootings.

[56] For more information on the Community Oriented Policing Services (COPS) program within DOJ, see CRS Report R40709, *Community Oriented Policing Services (COPS): Current Legislative Issues*, by Nathan James and CRS Report RL33308, *Community Oriented Policing Services (COPS): Background and Funding*, by Nathan James.

[57] Fusion centers are a "collaborative effort of two or more Federal, state, local, or tribal government agencies that combines resources, expertise, or information with the goal of maximizing the ability of such agencies to detect, prevent, investigate, apprehend, and respond to criminal or terrorist activity." See P.L. 110-53, Aug. 3, 2007, §511, 121 STAT. 322. Amends Homeland Security Act of 2002 by adding §210A(j).

[58] David Lambert, Federal Bureau of Investigation, "Intelligence-Led Policing in a Fusion Center," *FBI Law Enforcement Bulletin*, vol. 79, no. 12 (December 2010), pp. 1-6.

[59] Bureau of Justice Assistance, "Intelligence-Led Policing: The New Intelligence Architecture," September 2005, https://www.ncjrs.gov/pdffiles1/bja/210681.pdf.

[60] Jerry H. Ratcliffe, *Intelligence-Led Policing*, (Portland, OR: Willan Publishing, 2008), p. 6.

[61] Department of Justice, "Intelligence-Led Policing: The Integration of Community Policing and Law Enforcement Intelligence," *Law Enforcement Intelligence: A Guide for State, Local, and Tribal Law Enforcement Agencies*, http://www.cops.usdoj.gov/pdf/e09042536_Chapter_04.pdf.

[62] Jerry Ratcliffe, "What is Intelligence-Led Policing," http://jratcliffe.net/research/ilp.htm.

available information on intelligence-led policing does not address whether intelligence-led policing may be an effective approach to use in addressing mass shootings.

Using intelligence-led policing to thwart mass shooters may be especially challenging for a number of reasons.

- Mass shooters most often act alone and share few of their plans with others.[63] Typically, they do not engage in ongoing conspiracies that can be infiltrated by undercover police officers or monitored by informants.[64]
- There may be too few public mass shooting incidents to establish detailed geographic patterns (hot spots) for law enforcement to exploit.[65]

Offender Profiling for Public Mass Shootings: Not a Preventive Tool

Researchers and policy makers have questioned whether law enforcement can develop a profile of a mass shooter to help identify at-risk individuals before a shooting incident occurs. No effective mass shooter profile exists for law enforcement to use to proactively identify potential suspects. One researcher has succinctly noted that "the predictors [for mass murder] are invariably far more common than the event we hope to predict, and mass murder is very rare. Although mass murderers often do exhibit bizarre behavior, most people who exhibit bizarre behavior do not commit mass murder."[66] Aside from usually but not always being male, there are few other characteristics across mass murderers that would be reliable or valid for creating a general profile for individuals most likely to engage in a public mass shooting. This also holds true when examining individuals who carry out mass shootings in specific settings; for instance, "[t]here is no accurate or useful profile of 'the school shooter.'"[67]

[63] This is not meant to suggest that mass shooters are always silent regarding their plans. Rather, they may not typically involve others in orchestrating their schemes.

[64] Whereas criminal groups may engage in activities that could produce intelligence information for law enforcement to exploit, such as communicating to one another via email regarding their schemes, lone gunmen or mass shooters often do not. Minus any ideological underpinnings for their actions, public mass shooters may in some ways be likened to terrorist suspects who act alone, often described as "lone wolves." One FBI official has said, "The lone wolf is arguably one of the biggest challenges to American law enforcement. How do you get into the mind of a terrorist? The FBI does not have the capability to know when a person gets up in middle America and decides: 'I'm taking my protest poster to Washington or I'm taking my gun.'" See Gary Fields and Evan Perez, "FBI Seeks to Target Lone Extremists," *Wall Street Journal,* June 15, 2009, http://online.wsj.com/article/SB124501849215613523.html. For more on lone wolves, see CRS Report R42536, *The Domestic Terrorist Threat: Background and Issues for Congress*, by Jerome P. Bjelopera.

[65] Hot spot analysis is one technique that may be involved in intelligence-led policing. For more information about mapping crime, see National Institute of Justice, "Mapping Crime: Understanding Hot Spots," August 2005.

[66] Richard J. McNally, "Why Psychiatrists Can't Predict Mass Murderers," *Salon.com*, January 12, 2011.

[67] National Institute of Justice, "Preventing School Shootings: A Summary of a U.S. Secret Service Safe School Initiative Report," *NIJ Journal*, 2002. The notion of profiling "may be an effective strategy for limiting the field of suspects after a crime has occurred," but it is generally not considered effective for *proactively* identifying an individual who may be a greater risk for committing a targeted act of violence, including a public mass shooting. See Randy Borum, Robert Fein, Bryan Vossekuil, et al., "Threat Assessment: Defining an Approach for Evaluating Risk of Targeted Violence," *Behavioral Sciences and the Law*, vol. 17 (1999), p. 328. Hereafter: Borum et al., "Threat Assessment."

Also of note, criminal profiling is generally utilized *after* a crime has been committed, and not usually as a preventive tool.[68] In the course of investigating serial crimes by a repeat offender such as a serial murderer, it could be utilized as a proactive tool to narrow the pool of potential offenders before a subsequent crime is committed. However, because mass shooters generally do not have the opportunity to commit a second crime—they are most typically either killed or captured after the mass shooting—investigative analysis would be most commonly employed after the mass shooting to understand how it happened rather than as a tool to identify potential shooters before an incident occurs.

All of this does not mean that preventing public mass shootings is wholly beyond the scope of federal law enforcement. For instance, to enhance law enforcement efforts in the violent crime domain, DHS, DOJ, and the FBI have been working to "identify measures that could be taken to reduce the risk of mass casualty shootings."[69]

Preparedness and Prevention Combined—Threat Assessments

Alternatively, what has come to be known as "threat assessment" may be more appropriately suited to prepare for the threat of potential shooters and to prevent them from harming others. Federal law enforcement has been involved in providing threat assessment approaches to front-line professionals, such as educators, who may encounter potential shooters. Threat assessments are used after a potentially harmful individual has come to the attention of authorities. The assessment process evaluates the threat he or she poses. Certainly, threat assessments may be used to prevent a mass shooting. Law enforcement efforts to train front-line professionals in the assessment process can be seen as an effort geared toward preparing these individuals to cope with threats.

The National Threat Assessment Center (NTAC), which is part of the U.S. Secret Service, provides research on threat assessment as well as on targeted violence.[70] The threat assessment approach used by the U.S. Secret Service was developed as part of its broader intelligence activities designed to protect the President and other officials. Nonetheless, it "can be applied with some modification to evaluating risk for other forms of targeted violence."[71] It does not rely upon "profiles" of potential malicious actors (as profiles have not proven to be reliable predictors

[68] The FBI and its behavioral analysts in the Behavioral Science Unit developed what is often referred to as criminal "profiling," or criminal investigative analysis. It was advanced as an investigative technique to narrow the field of potential offenders based on analyses of the crimes committed. Today, much of the criminal investigative analysis at the FBI is conducted by agents and analysts in the Behavioral Analysis Units at the National Center for the Analysis of Violent Crime. Federal Bureau of Investigation, "Criminal Profiling Part 1 of 7," http://vault.fbi.gov/Criminal%20Profiling/Criminal%20Profiling%20Part%201%20of%207/view. The National Center for the Analysis of Violent Crime is a component of the Critical Incident Response Group at the FBI. For more information, see http://www.fbi.gov/about-us/cirg/investigations-and-operations-support/investigations-operations-support#cirg_ncavc.

[69] Components of such risk reduction involve prevention, protection, response, education, and research/evaluation. Department of Homeland Security, "Statement by Secretary Napolitano on President Obama's Proposal to Combat Gun Violence," press release, January 16, 2013, http://www.dhs.gov/news/2013/01/16/statement-secretary-napolitano-president-obama%E2%80%99s-proposal-combat-gun-violence.

[70] See Secret Service, "National Threat Assessment Center," http://www.secretservice.gov/ntac.shtml.

[71] Borum et al., "Threat Assessment," p. 327. In 1992, the Secret Service, along with the Federal Bureau of Prisons and National Institute of Justice, undertook a 5-year Exceptional Case Study Project (ECSP) to study individuals who have attacked or attempted to attack public officials and figures in the United States. For specific ECSP findings, see Robert A. Fein and Bryan Vossekuil, "Threat Assessment Investigations: A Guide for State and Local Law Enforcement Officials," July 1998.

for actual threat), nor does it depend on stated threats as a starting point for evaluating risk (because not every person who makes a threat poses a true risk, and not all persons who pose risks make threats).[72] Within this threat assessment framework, it has been suggested that information be collected relating to: (1) facts that bring the subject to the attention of authorities, (2) the subject of interest, (3) attack-related behaviors, (4) possible motives, and (5) potential targets.[73] Of note, law enforcement may not be the only authorities involved in evaluating information and conducting such a threat assessment, but the assessment framework may be one of several tools that law enforcement relies upon in an attempt to prevent targeted violence, including mass shootings. Policy makers may wonder whether threat assessment has proved to be a viable tool for law enforcement to use in preventing incidents of mass shootings. Further, they may question if the threat assessment framework could be modified to better serve law enforcement and other professionals who collaborate on efforts to prevent targeted violence.

If threat assessments can effectively identify potential mass shooters, policy makers may debate how law enforcement could use this information. One potential option could be to create a criminal watchlist, similar to the Terrorist Screening Database,[74] or terrorist watchlist, to be used in background checks for firearms, among other things.[75] Similar to questions regarding the threshold for placing a suspected individual on the terrorist watchlist, one of the relevant issues would involve establishing criteria for the addition of potential mass shooters to a violent criminal watchlist. There may also be questions about if or how law enforcement may engage with others such as mental health professionals and community leaders in decisions to place someone on such a watchlist. (For a discussion of how the federal government coordinates preparedness efforts for incidents involving mass casualties see "Preparedness" under the "Public Health Implications" section of this report).

As another means of preparing for mass shootings, some law enforcement agencies have participated in tailored trainings. DHS, for instance, sponsors preparedness courses for shootings as well as webinars, and workshops.[76] The California Highway Patrol has taken advantage of these opportunities and, between August 2012 and January 2013, "has led 18 active shooter trainings on campuses across Northern California."[77] In these two-day classes, officers participate in simulated scenarios; they are trained to respond to a reported incident, bring a shooter under control, and ensure the safety of building occupants.

Response

Federal Response to a Local Crime

From a law enforcement perspective, public mass shootings are often highly localized incidents involving lone gunmen acting near where they live. Thus, these cases largely do not involve

[72] Borum et al., "Threat Assessment," p. 372.

[73] Ibid., p. 330.

[74] For more information on the Terrorist Screening Database, see http://www.fbi.gov/about-us/nsb/tsc.

[75] For more information on terrorist watchlist screenings and background checks for firearms, see CRS Report R42336, *Terrorist Watch List Screening and Brady Background Checks for Firearms*, by William J. Krouse.

[76] See Department of Homeland Security, "Active Shooter Preparedness," http://www.dhs.gov/activeshooter.

[77] Kaci Poor, "Active Shooter Training Prepares Local Law Enforcement for Sandy Hook Situation," *The Times-Standard*, January 25, 2013.

conspiracies or the extensive crossing of jurisdictions. As such, mass shootings generally may be considered a local concern. Nonetheless, federal law enforcement—most notably the FBI—has historically provided assistance, when requested, to state and local law enforcement in the investigation of crimes that do not automatically fall under the jurisdiction of federal law enforcement.[78]

Some have expressed concerns that without official authority to respond to such incidents that fall primarily under a single state's jurisdiction, the federal response to these incidents could be slowed from questions of jurisdiction.[79] However, in practice, federal law enforcement has routinely assisted state and local law enforcement in a variety of capacities. The FBI's Office of Law Enforcement Coordination (OLEC), for one, is the liaison between the FBI and the greater law enforcement community. FBI assistance includes a variety of criminal justice information and research, background checks and security clearances, and disaster and hazardous material response teams. Of note, the 112th Congress passed legislation (P.L. 112-265) that formally authorizes the Attorney General to provide investigative assistance to states in instances of violent crimes in public venues, including attempted and actual mass killings. Some may question whether this authority will change federal law enforcement involvement in responding to and investigating instances of public mass shootings or whether it will simply formalize an already well-established practice.

Definitional Implications for Criminal Justice Process

As noted, the definition of a mass shooting is not always consistent across the scholarly, policy, and law enforcement realms. Within the law enforcement realm, a clear definition of mass shootings may be more critical during certain phases of the criminal justice process than others. Take, for instance, the question of who counts as a "victim" of a mass shooting. Is a victim

- Only someone who was killed at the scene of the crime?
- Someone who was shot and hospitalized in critical condition for an extended period of time?
- Someone who was caught in the cross-fire but not critically injured by bullets?
- Someone who died or was injured in attempting to escape the situation, but who did not die from a gunshot wound?

The individual circumstances involving victims are quite varied, but in certain steps of the criminal justice process, the need for a concrete definition may be more pressing.

The fact that law enforcement will respond to a public mass shooting may not depend on the ability to pinpoint the exact number of dead or injured victims. However, the details regarding victimization may more greatly impact how the incident is investigated and prosecuted after the conclusion of the mass shooting. Once an investigation begins, information about individuals considered "victims" may be of special interest to investigators and prosecutors. If the shooter

[78] One of the FBI's top ten priorities is to "support federal, state, local and international partners." See http://www.fbi.gov/about-us/quick-facts. Of course, other federal law enforcement agencies, such as the Bureau of Alcohol Tobacco, Firearms, and Explosives, can help local police with mass shooting investigations.

[79] Jerry Seper, "FBI Agents Back Bill Allowing Feds to Help Probe Mass Killings," *The Washington Times*, January 2, 2013.

survives the incident and is prosecuted, whether or not a victim dies as a result of the mass shooting will influence the charges brought against the shooter. These charges may include actual and attempted homicide, manslaughter, and assault, among others.[80] The charges can, in turn, influence the length of sentence a shooter may receive if convicted of the charges brought against him.

A gunman's motives influence how police investigate shootings. A shooter's motives may also drive the charges ultimately brought against him, if he survives the incident. While some cases may be instances of relatively indiscriminate killing, others involve assailants driven by particular hatreds that lead to the targeting of specific groups and can be considered hate crimes and investigated and prosecuted accordingly. Still others can involve ideologically-motivated killing, leading to terrorism-related investigations and charges.

In considering a shooter's motives and intentions, law enforcement may question whether it is the shooter's resolve to die along with his victims, either in an act of self-inflicted suicide or through "suicide-by-cop," what some have termed "suicide by mass murder."[81] When law enforcement officers respond to a report of a shooter, they are faced with multiple concerns in attempting to disarm and arrest the shooter. Will they have to use lethal force on the suspect? Will the suspect take his own life? Will the suspect try to prolong his life and his rampage through the use of body armor and other defensive tactics?

Public Health Implications[82]

From a public health policy perspective, public mass shootings are mass casualty incidents (MCI) that cause both injury and death.[83] Although public mass shootings are infrequent, the health sector[84] has considerable related experience to bring to bear on preparing for and responding to these events.

[80] Federal crimes of attempted and actual homicide and manslaughter are codified at 18 U.S.C. § 1111-1113.

[81] Rachel Kalish and Michael Kimmel, "Suicide by Mass Murder: Masculinity, Aggrieved Entitlement, and Rampage School Shootings," *Health Sociology Review*, vol. 19, no. 4 (2010).

[82] This section includes contributions from Sarah A. Lister, Specialist in Public Health and Epidemiology (public health, prevention, preparedness and response), and Elayne J. Heisler, Analyst in Health Services (emergency departments, trauma care).

[83] Casualties can include victims or responders who die from their injuries; victims or responders who survive with physical injuries (not limited to gunshot wounds); and victims, responders, bystanders, and community members who experience psychological repercussions. The most severe injuries are less common than minor injuries such as sprains and strains. See Department of Health and Human Services (HHS), Centers for Disease Control and Prevention (CDC), *Emergency Preparedness and Response: Injuries and Mass Casualty Events*, http://www.bt.cdc.gov/masscasualties/injuriespro.asp Traumatic events can have both short- and long-term consequences. See Centers for Disease Control and Prevention, *Emergency Preparedness and Response: Coping with a Traumatic Event*, http://www.bt.cdc.gov/masscasualties/copingpro.asp.

[84] According to DHS, in the context of critical national infrastructure, the health care and public health sector (referred to as "the health sector" in this report) consists of a variety of health care facilities and transportation services, products manufacture and distribution, financing and data management systems, governmental public health agencies, and non-governmental organizations. Department of Homeland Security, *Healthcare and Public Health Sector-Specific Plan: An Annex to the National Infrastructure Protection Plan*, 2010, Executive Summary, p. 1, http://www.dhs.gov/xlibrary/assets/nipp-ssp-healthcare-and-public-health-2010.pdf.

The health sector addresses mass shootings as it does any other health threat, through (1) prevention, (2) preparedness, (3) response, and (4) recovery over the long term. Prevention focuses on the perpetrators of mass shooting. The other three components of the health sector approach concentrate on the victims of such incidents.

Public health options to thwart mass shootings are likely limited. Of these four components, the effectiveness of preventive efforts may be most unclear. Fundamentally, this area likely lacks strong evidence regarding what might successfully stop potential shooters from becoming actual shooters. This evidence could come from evaluation of new or existing policies. Such efforts could help fill a gap in knowledge about what is effective.

In terms of preparedness, response, and recovery, proven approaches exist. However, policy makers may wish to consider how existing capacities (or policies to increase capacity) vary across geographic areas and populations. Also, the ability to rapidly evaluate the effectiveness of existing programs and/or deploy resources may hinge on the flexibility of funding structures.

Prevention

Public health interventions are often based on research with large-scale datasets and rigorous information collection regimens.[85] The effectiveness of this approach may be limited largely because public mass shootings are rare, *potential* perpetrators cannot be identified accurately, and no systematic means of intervening are known to be effective. Regardless, a public health-oriented discussion of prevention of mass shootings should consider the field's traditional approach to stemming any cause of injury or death, highlighting some of the ways that this approach may or may not address public mass shootings.

Public health professionals address prevention of injury and death via a three-step process focused on understanding and stemming health-related problems:

- First, systematic collection of data (*surveillance)*[86] may help define the scope of the problem, identify an outbreak of the problem, and detect trends related to the problem.
- Second, research may identify characteristics associated with higher rates of injury or death attributed to the problem (called *risk factors* and *protective factors*, respectively). Such research may be based on surveillance or other sources of information.
- Third, efforts to reduce risk factors and enhance protective factors may be developed to stem the problem. These are founded on research pursued in the previous step of this process. Called *preventive interventions* within the context of public health, such undertakings traditionally focus on victims. However, as mentioned above, in the case of public mass shootings, the focus of prevention is generally on the gunmen involved.[87]

[85] For examples of public health surveillance systems, see Centers for Disease Control and Prevention, National Center for Health Statistics, *Surveys and Data Collection Systems*, http://www.cdc.gov/nchs/surveys.htm.

[86] This does not include what may be considered surveillance within law enforcement contexts, i.e., covertly gathered information about suspects.

[87] Centers for Disease Control and Prevention, Injury Center, *Violence Prevention, The Public Health Approach to*
(continued...)

Surveillance May Not Be Necessary to Identify Public Mass Shootings

Mass shootings are rare, high-profile events, rather than broad trends that require systematic data collection to understand. The public health system does not conduct surveillance specifically for public mass shootings as defined in this report. Some broader information about shootings is collected (e.g., from death certificates[88]); however, this information is largely about victims rather than assailants, limiting its usefulness for research into the prevention of mass shootings. For example, the Centers for Disease Control and Prevention's (CDC's) National Violent Death Reporting System (NVDRS) enables participating states to supplement death certificates with information from law enforcement agencies, crime laboratories, coroner or medical examiner reports, health providers, and other state and local agencies. The NVDRS is currently in operation in fewer than half the states.[89] *The President's Plan* proposes expanding the NVDRS to all 50 states at a cost of $20 million.[90]

Difficulty in Identifying Risk and Protective Factors

According to the parameters of this CRS analysis, the victims of public mass shootings are essentially random. Thus, health research into risk and protective factors tied to these incidents would likely focus on things that would either boost or lower the chances that one might become a gunman. One obstacle in identifying such factors is the relatively small data pool available for research (several dozen tragedies over the last thirty years in the United States).

Gun violence broadly, rather than public mass shootings, accounts for many more instances of death and injury per year and yields a far larger pot of observable information. This information may be used in research to identify risk and protective factors. Therefore, potential risk and protective factors may have more utility when public health professionals confront the much

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Violence Prevention, http://www.cdc.gov/ViolencePrevention/overview/publichealthapproach.html. The approach is discussed in the context of school violence in U.S. Congress, House Committee on Education and the Workforce, Subcommittee on Early Childhood, Youth and Families, *School Violence: Protecting Our Children*, 106th Cong., 1st sess., March 1, 1999, H.Hrg.106-9 (Washington: GPO, 1999), pp. 44-58. The CDC describes a four-step process; this CRS report combines the last two steps (intervention evaluation and implementation) into one step, resulting in the three-step process described in the text.

[88] Both the legal authority for maintaining registries of deaths and the responsibility for issuing death certificates reside with individual states, territories, and two cities (Washington, DC, and New York, NY). Information collected in death certificates is aggregated at the federal level by the National Center for Health Statistics (NCHS, within CDC) in the National Vital Statistics System (NVSS); see http://www.cdc.gov/nchs/nvss.htm. NCHS extracts information from NVSS to create the National Death Index (NDI), a data set that can be combined with other data sets for research purposes; see http://www.cdc.gov/nchs/data_access/ndi/about_ndi.htm. Information about non-fatal shootings is included in the CDC's National Electronic Injury Surveillance System – All Injury Program (NEISS-AIP), which collects data from a sample of U.S. hospital emergency departments; NEISS-AIP data can be used to generate national estimates of nonfatal injuries. See Centers for Disease Control and Prevention, *Injury Prevention & Control: Data & Statistics*, http://www.cdc.gov/injury/wisqars/index.html. Additionally, the National Conference of State Legislatures reports that 40 states have statutes establishing statewide trauma registries that collect data about trauma, including both fatal and non-fatal gunshot wounds; the data collected and the source of the data (e.g., emergency medical service or trauma centers) vary by state. See Hollie Hendrikson, *The Right Patient, the Right Place, the Right Time: A Look at Trauma and Emergency Medical Services Policy in the States*, National Conference of State Legislatures, Washington, DC, September 2012, http://www.ncsl.org/documents/health/NCSLTraumaReport812.pdf.

[89] Centers for Disease Control and Prevention, *National Violent Death Reporting System*, http://www.cdc.gov/violenceprevention/nvdrs.

[90] *The President's Plan*.

broader phenomenon of gun violence, not just public mass shootings. Consequently, potential risk factors such as mental illness, substance abuse, exposure to violence, and easy access to guns are all addressed to some extent in *The President's Plan,* which covers the wider issue of gun violence.[91] *The President's Plan* also responds to the suggestion by some that health research related to gun violence has been hampered by a statutory prohibition on the use of certain funding to "advocate or promote gun control."[92] *The President's Plan* states that research into gun violence is not advocacy,[93] and a Presidential Memorandum directs the Health and Human Services (HHS) Secretary to "conduct or sponsor research into the causes of gun violence."[94]

The Effectiveness of Preventive Interventions Is Unclear

Prevention of public mass shootings in a public health context would in theory involve interventions targeted at potential perpetrators, not potential victims. These interventions would be founded on well-tested risk and protective factors, which—as noted above—do not currently exist. If relatively unproven factors were to be used in the development of preventive interventions, this would likely yield many misidentifications.

Because the number of public mass shootings in the United States may be too small to offer substantive analysis that could produce effective interventions, it may be most feasible to address gunmen involved in such incidents as a subset of violent offenders. Preventive interventions directed at potential violent offenders may target populations, at-risk subgroups, or high-risk individuals. These approaches may or may not prove effective within the broader context of gun violence, and what effect (if any) they would have on mass shootings is unclear as well. *The President's Plan* provides examples of each approach:

- Population-wide interventions include finalizing regulations for mental health parity in private health insurance and ensuring that Medicaid plans are in compliance with parity requirements.[95]
- Interventions targeting at-risk subgroups include a clarification that doctors are permitted to talk about gun safety with patients who have access to guns and efforts to make mental health and conflict resolution services available specifically for students who have been exposed to violence.[96]

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[91] *The President's Plan*.

[92] CDC appropriations from FY1997 through FY2011 included a prohibition on the use of funds "to advocate or promote gun control." This prohibition has been extended to all HHS agencies for FY2012 and FY2013. See CRS Report WSLG375, *Is Gun Violence Research Advocacy? Appropriations Restrictions on Using HHS Funds to "Advocate or Promote Gun Control,"* by Kathleen S. Swendiman, January 23, 2013. See also Jay Dickey and Mark Rosenberg, "'Senseless' is not studying gun violence," *The Washington Post*, July 29, 2012, and Michael Luo, "Sway of N.R.A. Blocks Studies, Scientists Say," *The New York Times*, January 25, 2011.

[93] *The President's Plan*.

[94] U.S. President (Obama), "Engaging in Public Health Research on the Causes and Prevention of Gun Violence," *Public Papers of the Presidents of the United States* (Washington: GPO, 2013).

[95] *The President's Plan*. See CRS Report R41768, *Mental Health Parity and Mandated Coverage of Mental Health and Substance Use Disorder Services After the ACA*, by Amanda K. Sarata. Mental health parity generally refers to the concept that health insurance coverage for mental health services should be offered on par with covered medical and surgical benefits.

[96] *The President's Plan*.

- Interventions targeting high-risk individuals include a clarification that health professionals are permitted to report to law enforcement violent threats that patients may make.[97] Also, on January 15, 2013, the HHS Office of Civil Rights issued a letter to health care providers to clarify that federal health privacy laws do not prohibit them from disclosing "necessary information about a patient to law enforcement, family members of the patient, or other persons, when [they] believe the patient presents a serious danger to himself or other people."[98] Interventions focused on high-risk individuals can also involve training law enforcement officers to work with mental health professionals to intervene with students in crisis.

Preparedness

The federal government has supported coordinated mass casualty incident (MCI) preparedness efforts in large cities since 1997[99] and in all 50 states, territories, and the District of Columbia since 2002,[100] through federal grants and contracts to public health agencies. These agencies are required to develop plans to integrate responding entities—including federal, state, and local law enforcement; emergency medical services (EMS); private sector health care facilities; and others. These federal grants and contracts support the rapid establishment of interdisciplinary communications (e.g., emergency operations centers) and periodic exercises that bring key responders together to practice before an actual incident, among other things. Although these federal grants and contracts were established in response to concerns about terrorism, they may also help local agencies prepare for MCIs such as public mass shootings. Some are concerned about whether these programs are sufficiently dispersed to enable rural areas to prepare for an MCI.[101]

Certain aspects of the health care delivery system, such as the capacity and proximity of critical facilities to a mass shooting, can affect survival from a public mass shooting. Three components of the health care delivery system contribute to MCI readiness: (1) emergency medical services (EMS), (2) hospital-based emergency departments (EDs), and (3) trauma care.

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[97] *The President's Plan*.

[98] Letter from Leon Rodriguez, Director, Health and Human Services, Office of Civil Rights, "Message to Our National Health Care Providers," January 15, 2013, http://www.hhs.gov/ocr. The letter clarifies requirements of the Health Insurance Portability and Accountability Act (HIPAA) Privacy Rule, 45 CFR § 164.512(j).

[99] Metropolitan Medical Response System contracts required more than 120 cities to establish and exercise mass casualty management plans. National Research Council, *Preparing for Terrorism: Tools for Evaluating the Metropolitan Medical Response System Program*, Washington, D.C., The National Academies Press, 2002, http://www.nap.edu/catalog.php?record_id=10412. The program, originally managed by HHS, is now a component of the Federal Emergency Management Agency (FEMA) Homeland Security Grant Program (HSGP). It received dedicated appropriations from FY1997 through FY2011. For FY2012, its purposes are allowable, but no longer required, of grantees receiving HSGP funds. Federal Emergency Management Agency, FY2012 Homeland Security Grant Program, http://www.fema.gov/fy-2012-homeland-security-grant-program.

[100] Department of Health and Human Services, Public Health Emergency, "Hospital Preparedness Program," http://www.phe.gov/preparedness/planning/hpp/pages/default.aspx.

[101] Kristin Viswanathan, Theresa Wizemann, and Bruce M. Altevogt, "Improving Rural Mass Casualty Response in the United States," in *Preparedness and Response to a Rural Mass Casualty Incident* (Washington, DC: National Academies Press, 2011), pp. 77-86.

Emergency medical services (EMS) include 911 call centers, medical care that occurs at the scene of an emergency, the transportation of victims to hospitals, and any treatment that occurs on the way. EMS systems vary by locality—some are operated by municipal or county governments, others by fire departments, and still others by private for-profit companies. This may mean that response times, quality, availability, and preparedness vary by locality. Federal responsibility for EMS is shared across the Department of Transportation, DHS, and HHS,[102] which raises potential concerns about coordination and sustainability.[103] Also, an HHS grant program administered by the Health Resources and Services Administration (HRSA) supports an effort to ensure that emergency medical services are appropriate for children.[104]

Hospital-based emergency departments (ED) vary by locality, and not all hospitals have an ED. Rural areas in particular may have both fewer hospitals overall and fewer hospitals that offer emergency care. In both urban and rural areas, some EDs may not function optimally on a day-to-day basis, which would affect their ability to respond to an MCI. EDs may be overcrowded, may "board" patients when inpatient beds are unavailable, and may divert ambulances because they are operating at capacity.[105] The federal government supports EDs through a variety of mechanisms including hospital preparedness grants, interagency coordination, and training of emergency health providers.[106] Through the Medicare and Medicaid programs, the federal government provides payments to hospitals that deliver care to uninsured patients in hospital EDs.[107] These payments (called disproportionate share payments) are an important source of a financial support for EDs.

Trauma centers are specialized hospitals with the resources and equipment needed to treat severely injured patients.[108] They provide specialized care that is beyond the capability of the typical ED. Trauma centers are classified into four levels, with lower numbers (I, II) providing

[102] Institute of Medicine, *Future of Emergency Care: Emergency Medical Services at the Crossroads* (Washington, DC: The National Academies Press, 2007).

[103] The National Conference of State Legislatures suggests that state-level organization of EMS services also impedes coordination. See Hollie Hendrikson, *The Right Patient, the Right Place, the Right Time: A Look at Trauma and Emergency Medical Services Policy in the States*, National Conference of State Legislatures, Washington, DC, September 2012, p. 9, http://www.ncsl.org/documents/health/NCSLTraumaReport812.pdf.

[104] This program is described in CRS Report R41278, *Public Health, Workforce, Quality, and Related Provisions in PPACA: Summary and Timeline*, coordinated by C. Stephen Redhead and Erin D. Williams. The funding for this program is described in CRS Report R41390, *Discretionary Spending in the Patient Protection and Affordable Care Act (ACA)*, coordinated by C. Stephen Redhead.

[105] U.S. Government Accountability Office, *Hospital Emergency Departments: Crowding Continues to Occur, and Some Patients Wait Longer than Recommended Time Frames*, 09-347, April 30, 2009, http://www.gao.gov/products/GAO-09-347; Institute of Medicine, *Emergency Medical Services at the Crossroads* (Washington, DC: The National Academies Press, 2007); and Institute of Medicine, *Hospital-Based Emergency Care: At the Breaking Point* (2007).

[106] For more information about HHS programs to train emergency providers, see CRS Report R41278, *Public Health, Workforce, Quality, and Related Provisions in PPACA: Summary and Timeline*, coordinated by C. Stephen Redhead and Erin D. Williams. For more about the Hospital Preparedness Program see Department of Health and Human Services, Public Health Emergency, "Hospital Preparedness Program," http://www.phe.gov/preparedness/planning/hpp/pages/default.aspx; and Department of Health and Human Services, Assistant Secretary for Preparedness and Response, *Healthcare Preparedness Capabilities: National Guidance for Healthcare System Preparedness*, January 2012, p. 24, http://www.phe.gov/Preparedness/planning/hpp/reports/Documents/capabilities.pdf.

[107] CRS Report R42865, *Medicaid Disproportionate Share Hospital Payments*; and CRS Report R41196, *Medicare Provisions in the Patient Protection and Affordable Care Act (PPACA): Summary and Timeline*, by Alison Mitchell.

[108] Centers for Disease Control and Prevention, "Access to Trauma Care: Getting the Right Care, at the Right Place, at the Right Time," August 24, 2010, http://www.cdc.gov/traumacare/access_trauma.html. Hereafter: Centers for Disease Control and Prevention," "Access to Trauma Care."

more specialized care. Trauma centers may play a role in responding to MCIs, but not all areas have the patient volume to support a trauma center. Distance to the nearest trauma center may be an issue in some MCIs. The federal government provides some funding for trauma centers through grants authorized under HHS, but not of all these programs have received funding.[109] In addition, the CDC is working to raise awareness of trauma centers and has produced research showing the importance of access to trauma care in surviving a severe injury.[110]

Response

The medical response to an MCI involves triage[111] and limited treatment of victims on-site, as well as the transfer of victims to appropriate health care facilities for definitive treatment. As described above, federal preparedness funding aims to ensure: (1) that the medical components of MCI response work as well as possible when needed, (2) that individual components are as capable as they can be in response, and (3) that medical responders can coordinate and communicate well with each other and with other response sectors such as law enforcement and public education. However, when an incident occurs, local authorities and health systems are largely on their own during the initial phases of a response. The federal government, through HHS (and, when needed, the Department of Defense), can support local efforts to respond to MCIs, making available mobile medical teams, mobile field hospitals, medical supply and pharmaceutical caches, and medical evacuation and transport.[112] In general, however, mass shootings resolve quickly, often before federal operational assistance can be delivered.

In the event of a public mass shooting or other MCI, as with any emergency medical situation, delaying treatment while determining a patient's insurance status or ability to pay for health care services may prove fatal. The Emergency Medical Treatment and Active Labor Act (EMTALA) protects against such a delay.[113] EMTALA requires a hospital that receives Medicare payments (as the vast majority of hospitals do) to screen a patient for emergency medical conditions without regard for the patient's ability to pay. If the screening identifies an emergency medical condition, EMTALA requires the hospital to stabilize the patient. In instances where a patient's injuries are too severe to be treated at an ED, a patient may be sent to a trauma center. EMS or local EDs may determine whether a transfer to a trauma center is needed. Trauma centers are also subject to EMTALA (if the hospitals receive Medicare payments) and are required to accept transfers when an ED has determined that the trauma center possesses the specialized services that the patient needs but the ED lacks.

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[109] For information about regional trauma programs, see CRS Report R41278, *Public Health, Workforce, Quality, and Related Provisions in PPACA: Summary and Timeline*, coordinated by C. Stephen Redhead and Erin D. Williams. For information about funding of regional trauma programs, see CRS Report R41390, *Discretionary Spending in the Patient Protection and Affordable Care Act (ACA)*, coordinated by C. Stephen Redhead.

[110] Centers for Disease Control and Prevention, "Access to Trauma Care."

[111] This involves identifying "the severity and type of injury and determin[ing] which hospital or other facility would be the most appropriate to meet the needs of the patient." See Centers for Disease Control and Prevention, "Field Triage," http://www.cdc.gov/fieldtriage/.

[112] For information, see Department of Health and Human Services, Assistant Secretary for Preparedness and Response, "Medical Assistance," http://www.phe.gov/Preparedness/support/medicalassistance/Pages/default.aspx; and Archived CRS Report RL33095, *Hurricane Katrina: DOD Disaster Response*, by Steve Bowman, Amy Belasco, and Lawrence Kapp.

[113] The Emergency Medical Treatment and Active Labor Act (EMTALA) was enacted as part of the Consolidated Omnibus Budget Reconciliation Act of 1985 (P.L. 99-272). For more information on EMTALA, see CRS Report RS22738, *EMTALA: Access to Emergency Medical Care*, by Edward C. Liu.

Recovery

Recovery of affected individuals and communities over the long term may require ongoing services to meet the physical and mental health care needs of both victims and responders. Ongoing services may involve inpatient and outpatient medical care; psychosocial interventions such as pastoral or peer counseling; and population-level interventions such as public announcements about common reactions to traumatic events (which can help normalize people's experiences and reduce anxiety around symptoms that are likely to be transient) or information about how to discuss an incident with children.[114] The availability of such services in a timely and accessible manner may also be important for reducing long-term consequences such as posttraumatic stress disorder.[115] Although federal resources generally focus on the immediate aftermath of an MCI, the federal government may fund public health interventions as well as programs that support the physician and behavioral health workforce and other infrastructure. The federal government also has a role in providing and financing health services that victims and responders may access.[116]

For an individual's long-term recovery from a public mass shooting, lack of insurance or inability to pay for health care services may limit the treatment options available (e.g., physical rehabilitation or counseling). Thus, financial support may play a key role in long-term recovery.[117]

Education Implications

Schools are unique institutions. They have a mission of great importance to our nation—they are responsible for keeping our children safe while educating them and helping prepare them to be

[114] Centers for Disease Control and Prevention, *Emergency Preparedness and Response: Mass Casualty Event Preparedness and Response*, http://www.bt.cdc.gov/masscasualties.

[115] See James Hawdon et al., "Social Solidarity and Wellbeing after Critical Incidents: Three Cases of Mass Shootings," *Journal of Critical Incident Analysis*, vol. 3, no. 1 (Fall 2012), pp. 2-25.

[116] For example, the Substance Abuse and Mental Health Services Administration (SAMHSA) has programs that may provide access to mental health services for victims (see http://www.samhsa.gov/), and the Health Resources and Services Administration trains mental health providers and has programs to place providers in rural and other underserved areas (see http://nhsc.hrsa.gov/ and http://bhpr.hrsa.gov/grants/mentalbehavioral/index.html). Under certain circumstances (e.g., if the infrastructure damage approached $1 million), the Governor might request that the President declare a major disaster area under the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1974 (the Stafford Act). Under a Stafford declaration, FEMA would be authorized to fund (among other things) a Crisis Counseling Assistance and Training Program (CCP); see 42 U.S.C. §5183. Alternatively, the President might consider a mass shooting event to be a "uniquely federal responsibility" and declare an emergency on that basis. Programs such as the CCP could be an adjustment made to the declaration under the President's authority, providing supplemental resources to state, local, and/or private mental health organizations. Such a declaration could also arguably provide assistance to safety forces (e.g., overtime pay) and provide other essential assistance requested by the state. See CRS Report RL33579, *The Public Health and Medical Response to Disasters: Federal Authority and Funding, by Sarah A. Lister*; Archived CRS Report RL33738, *Gulf Coast Hurricanes: Addressing Survivors' Mental Health and Substance Abuse Treatment Needs,* by Ramya Sundararaman, Sarah A. Lister, Erin D. Williams; and CRS Report RL33053, *Federal Stafford Act Disaster Assistance: Presidential Declarations, Eligible Activities, and Funding,* by Francis X. McCarthy.

[117] The coverage of mental health services under private health insurance plans, Medicare, and Medicaid may be particularly relevant for the long-term recovery of victims of an MCI. For more information about mental health coverage under private health insurance and Medicaid, see CRS Report R41249, *Mental Health Parity and the Patient Protection and Affordable Care Act of 2010,* by Amanda K. Sarata.

responsible and productive citizens. All levels of government are involved to some extent in this mission.[118] As mentioned earlier in this report, twelve of the 78 public mass shootings identified by CRS occurred in academic settings. Eight of these happened at primary or secondary education facilities. One incident, the December 14, 2012, shooting deaths of 20 children and 6 adults[119] at Sandy Hook Elementary School in Newtown, CT, has heightened congressional interest in school security.[120] Policy makers are examining whether school security can be further enhanced, and if so, how best to accomplish that goal.[121]

Four of the 12 public mass shootings in education settings involved high school or middle school students as assailants.[122] The federal government has supported efforts to preempt students from engaging in gun violence at school. More broadly, it has promoted policies to curb violence in schools, such as anti-bullying programs, which may or may not stem public mass shootings by student perpetrators. This section of the report focuses on those federal programs and initiatives administered by the Department of Education that may be relevant in the event of a public mass shooting in a school setting.

The President's Plan was released following the Newtown tragedy—it includes several provisions specifically related to schools.[123] However, funding for these provisions may not be sufficient to provide meaningful assistance to all schools that could potentially benefit. Difficult decisions confront policy makers. They must consider how to make the greatest possible improvements in student safety while likely being faced with limited federal resources to devote to safety initiatives. Policy makers may have to decide whether funds should be spread across many activities so that each activity gets some additional funding, or whether funding should be concentrated in fewer programs believed to be most cost effective. This decision is made even more difficult because research on effectiveness is limited for many school security programs.

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[118] States and school districts have primary responsibility for the provision of elementary and secondary education in the United States. The vast majority of funding for schools is also provided by states and localities; the federal government contributes approximately 9% to the overall funding of elementary and secondary education. Nevertheless, the United States Department of Education (Department of Education) performs numerous functions, including promoting educational standards and accountability; gathering education data; disseminating research on important education issues; and administering federal education programs and policies. One of the most important priorities for the Department of Education in elementary and secondary education is improving academic outcomes for all students; particularly disadvantaged students, students with disabilities, English language learners, Indians, Native Hawaiians, and Alaska Natives.

[119] The gunman also killed himself and his mother. She was not shot at the school.

[120] For public health resources specifically addressing the Newtown tragedy see http://www.phe.gov/emergency/events/newtown/Pages/default.aspx.

[121] In December, 2012, a group of 9 violence prevention researchers and practitioners developed a position statement on the Newtown shootings that has been endorsed by a wide variety of organizations and individuals. See http://www.ccbd.net/sites/default/files/OFFICIAL%20FOR%20DISSEMINATION-Connecticut%20School%20Shooting%20Position%20Statement%2012-19-2012-2%20pm%20ET.pdf.

[122] Of the eight remaining shootings: a) three involved non-students targeting elementary schools, b) one involved a gunman targeting people at the high school he formerly attended, c) four occurred on college campuses and involved either active or former students. CRS did not identify a public mass shooting involving a student attending elementary school who acted as an assailant in an incident at his or her own school.

[123] Schools continue to be among the safest places for children. Out of 1,579 homicides of youth ages 5-18 in the 2008-2009 year (most recent data available), approximately 1% (17), were school associated homicides. This percentage has remained consistently at less than 2% since the survey began in school year 1992-1993. These data do not indicate the weapon used. National Center for Education Statistics, Department of Education, and Bureau of Justice Statistics, Office of Justice Programs, Department of Justice, *Indicators of School Crime and Safety: 2011*, Washington, D.C. February, 2012.

This may lead to consideration of whether more funding should be provided for research into program effectiveness, and if so, whether it would restrict funding for existing school security programs.

Policy makers must also consider the importance of continuity of funds for local program success. It can be difficult for local school districts to plan, develop and implement programs if they cannot be certain of a reliable funding stream. In recent years much of the dedicated funding for school safety programs provided by the Department of Education has been cut.[124] Some programs were cut because they were perceived as too small to make a difference. Others were cut because they failed to demonstrate their effectiveness. For example, funding for the Safe and Drug Free Schools and Communities Act (SDFSCA) program, the federal government's primary program aimed at preventing drug abuse and violence in and around public schools, has declined from $435 million in FY2009 to $65 million in FY2012.[125]

Department of Education guidance has divided the crisis management process for schools into four phases. Those four phases, in sequential order are: prevention, preparedness, response, and recovery.[126] Because emergency planning at institutions of higher education occurs in a significantly different environment and context, this report focuses on emergency planning at the elementary and secondary school level.[127]

Prevention

Prevention (and mitigation) involves broadly structured efforts to help schools reduce the need to respond to crises including mass shootings. This stage of crisis management is critical for educators. If students do not feel safe at school, they will not be able to focus their energy on the most important task before them—learning. According to the Department of Education, this first stage of crisis management should include the following activities:

- connecting with community responders to identify potential hazards,

[124] One of the Safe and Drug Free Schools and Communities Act programs (SDFSCA) that is continuing to receive funding is the Safe Schools/Healthy Students (SS/HS) grant program. It is funded jointly by the Department of Education and SAMHSA. The program is administered by the Department of Education, SAMHSA, and DOJ. The SS/HS initiative is a discretionary grant program that provides schools and communities with federal funding to implement an enhanced, coordinated, comprehensive plan of activities, programs, and services that focus on healthy childhood development and the prevention of violence and alcohol and drug abuse. Grantees are required to establish partnerships with local law enforcement, public mental health, and juvenile justice agencies/entities. The program received $17 million in Department of Education funding for FY2012. These grants are awarded to state education agencies (SEAs), high-need local educational agencies (LEAs) and their partners.

[125] As authorized, the SDFSCA is divided into two major programs: State Formula Grants and National Programs. The majority of State Formula Grant funding was distributed first by formula to states and then also by formula to LEAs. However, FY2009 is the last year that funding was provided for State Formula Grants. Presently, funding is only provided for National Programs. Funding for the State Grant Formula program was eliminated in part because it was believed that the amount of money reaching LEAs was too small to implement effective programing. For more information on the SDFSCA program see CRS Report RL34496, *Safe and Drug-Free Schools and Communities Act: Program Overview and Reauthorization Issues*, by Gail McCallion.

[126] The Department of Education has a variety of resources to help schools and communities develop an emergency management plan. See http://www2.ed.gov/admins/lead/safety/emergencyplan/crisisplanning.pdf. See also http://rems.ed.gov/CreatingAndUpdatingSchoolEmergencyManagementPlans.aspx.

[127] For a discussion of school safety issues at Institutions of Higher Education, see CRS Report RL33980, *School and Campus Safety Programs and Requirements in the Elementary and Secondary Education Act and Higher Education Act*, by Gail McCallion and Rebecca R. Skinner.

- reviewing the most recent school safety audit,
- determining who is responsible for overseeing violence prevention at the school,
- soliciting staff input on the crisis plan,
- reviewing school incident data,
- determining major crime and violence problems at the school and assessing how effectively they are currently being addressed, and
- conducting an assessment to determine how existing threats may impact the school's vulnerability to particular crises.[128]

School Climate

Improving school climate is one strategy for mitigating and preventing a variety of crises, including mass shootings (if the perpetrators involved in these incidents are students). A CDC report states that a positive school climate is "characterized by caring and supportive interpersonal relationships; opportunities to participate in school activities and decision-making; and shared positive norms, goals, and values."[129] Research has indicated that one of the most important elements in a positive school climate is for students to have a feeling of school connectedness. School connectedness is defined as "the belief by students that adults and peers in the school care about their learning as well as about them as individuals."[130]

The Department of Education's Office of Special Education Programs funds a Technical Assistance Center on Positive Behavioral Interventions and Supports. The Center provides capacity-building information and technical assistance to schools, districts, and states who are implementing a school climate protocol called *School-wide Positive Behavioral Interventions and Supports* (SWPBIS). SWPBIS is a three-tiered prevention-based approach to improving school-wide disciplinary practices. According to the Center, SWPBIS is used in more than 9,000 schools across 40 states.[131] SWPBIS has been linked to reductions in student suspensions and office discipline referrals.[132]

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[128] A Secret Service study indicated that conducting threat assessments may help schools be better prepared to address potential problems. The study was based on information regarding 37 school shootings involving 41 attackers. It concluded that there is no accurate or useful 'profile' of a school shooter. In contrast, it indicated that threat assessment may be useful if it is: "a fact-based investigative and analytical approach that focuses on what a particular student is doing and saying, and not on whether the student 'looks like' those who have attacked schools in the past. Threat assessment emphasizes the importance of behavior and communications for identifying, evaluating and reducing the risk posed by a student who may be thinking about or planning for a school-based attack." Bryan Vossekuil et al., *The Final Report and Findings of the Safe School Initiative: Implications for the Prevention of School Attacks in the United States*. Department of Education and Secret Service, Washington D.C. 2004. p. 41. For more on threat assessments, see "Preparedness and Prevention Combined—Threat Assessments " in this report.

[129] Centers for Disease Control and Prevention, *School Connectedness: Strategies for Increasing Protection Factors Among Youth.* Atlanta, GA, Department of Health and Human Services, 2009, p. 7.

[130] Ibid., p. 3.

[131] *The President's Plan* requests $50 million to help 8,000 additional schools implement strategies to improve school climate. In addition to assistance provided through the Technical Assistance Center, the Department of Education is currently providing funding to 11 Safe and Supportive Schools grantees ($47.5 million in FY2012). SEAs, high-need LEAs and their partners can apply for this grant. Funding is used to develop and implement programs that measure and improve conditions for learning based on local needs.

[132] Catherine Bradshaw, et al., "Examining the Effects of Schoolwide Positive Behavioral Interventions and Supports (continued...)

Bullying prevention is also an important aspect of improving school climate. The Federal government recognizes the importance of this issue and has become increasingly involved in bullying prevention initiatives in recent years.[133]

Research indicates that both victims of bullying and those who engage in bullying behavior can experience both short and long-term effects resulting in psychological difficulties and social relationship problems. A GAO literature review of seven meta-analyses on the impact of bullying on victims found that bullying could result in psychological, physical, academic, and behavioral issues.[134] In addition, a Secret Service study on school safety and school attacks found that "Many attackers felt bullied, persecuted or injured by others prior to the attack."[135]

School Resource Officers

The SDFSCA defines school resource officers as career law enforcement officers assigned by a local law enforcement agency to work with schools and community based organizations to:

> (A) educate students in crime and illegal drug use prevention and safety; (B) develop or expand community justice initiatives for students; and (C) train students in conflict resolution, restorative justice, and crime and illegal drug use awareness.[136]

The President's Plan would provide an incentive for DOJ's Community Oriented Policing Services (COPS) grants to be used to hire more school resource officers in the current year,[137] and would seek $150 million in funding for a new *Comprehensive Safety Grants* program. This new

(...continued)

on Student Outcomes," *Journal of Positive Behavior Interventions*, vol. 12, no. 3 (July 2010).

[133] Representatives from the U.S. Departments of Agriculture, Defense, Education, Health and Human Services, the Interior, Justice, the Federal Trade Commission and the White House Initiative on Asian Americans and Pacific Islanders have come together to form a Federal Partners in Bullying Prevention Steering Committee. The Federal Partners work to coordinate policy, research, and communications on bullying topics. The Federal Partners have created a website, http://www.stopbullying.gov, which provides extensive resources on bullying, including information on how schools can address bullying. In addition, with leadership the Department of Education, the Federal Partners have sponsored three antibullying summits attended by education practitioners, policy makers, researchers, and federal officials.

[134] Government Accountability Office, School Bullying: *Extent of Legal Protections for Vulnerable groups Needs to Be More Fully Assessed*, GA0-12-349, May 2012, pp. 8-10, http://www.gao.gov/assets/600/591202.pdf.

[135] Bryan Vossekuil, et al., *The Final Report and Findings of the Safe School Initiative: Implications for the Prevention of School Attacks in the United States*, Department of Education and Secret Service, Washington D.C. 2004, p. 12.

[136] 20 USC 7161. Another version of the federal conceptualization of the role of a school resource officer is "a career law enforcement officer, with sworn authority, deployed in community-oriented policing, and assigned by the employing police department or agency to work in collaboration with schools and community-based organizations" for a variety of purpose areas. See 42 U.S.C. § 3796dd-8. Purpose areas are: "(A) to address crime and disorder problems, gangs, and drug activities affecting or occurring in or around an elementary or secondary school; (B) to develop or expand crime prevention efforts for students; (C) to educate likely school-age victims in crime prevention and safety; (D) to develop or expand community justice initiatives for students; (E) to train students in conflict resolution, restorative justice, and crime awareness; (F) to assist in the identification of physical changes in the environment that may reduce crime in or around the school; and (G) to assist in developing school policy that addresses crime and to recommend procedural changes." As such, the broad notion of a school resource officer may not be uniform across states and localities.

[137] This proposal can be implemented through executive action, it will not require congressional action. For more information on the COPS program see CRS Report R40709, *Community Oriented Policing Services (COPS): Current Legislative Issues*, by Nathan James.

grant program would provide school districts and law enforcement agencies with funding to hire new school resource officers and school psychologists. This new funding stream could also be used to purchase school safety equipment, develop or expand school safety proposals, and to train crisis intervention teams of law enforcement officers to respond and assist students in a crisis.

School resource officers are popular with the public. A recent Pew research study found that 64% of those surveyed supported having armed security guards or police in more schools.[138] However, some researchers and civil rights organizations have expressed concern about increasing the presence of school resource officers in schools, arguing that the presence of law enforcement can have a negative impact on the learning environment, and may lead to more school suspensions and referrals to the juvenile justice system.[139] On December 12, 2012, the Senate Judiciary Subcommittee on the Constitution, Civil Rights and Human Rights, held a hearing titled "Ending the School-to-Prison Pipeline." In his opening statement Chairman Richard Durbin stated that:

> For many young people, our schools are increasingly a gateway to the criminal justice system. This phenomenon is a consequence of a culture of zero tolerance that is widespread in our schools and is depriving many children of their fundamental right to an education.[140]

Preparedness and Emergency Planning

Preparedness involves marshaling the necessary resources to ensure that they are available in the event of a crisis, including shooting incidents. This involves

- confirming that the school's current emergency plan is consistent with the National Incident Management System,
- acquiring the necessary equipment and first aid resources to address a potential crisis,
- establishing procedures to account for the location of all students,
- developing procedures to communicate with staff, families and the media,
- ensuring all school staff are familiar with the school's layout, safety features, utility shutoffs, etc., and
- conducting practice drills for students and staff.[141]

One of the proposals included in *The President's Plan* would provide $30 million in one-time grants to school districts to help them develop and implement Emergency Management plans. In addition, a current SDFSCA program—Readiness and Emergency Management for schools

[138] The Pew survey was based on phone interviews with a national sample of 1,502 adults during January 9-13, 2013. The Pew Research Center for the People and the Press, *Gun Rights Proponents More Politically Active: In Gun Control Debate, Several Options Draw Majority Support,* January 14, 2013.

[139] Data indicate that suspensions for all students have been increasing over time, however, there has been a disproportionate increase for non-Whites, particularly African American students. "The Black/White gap has grown from 3 percentage points in the 1970s to over 10 percentage points in the 2000s. Blacks are now over three times more likely than Whites to be suspended." Daniel Losen and Russell Skiba, *Suspended Education: Urban Middle Schools in Crisis*, The Civil Rights Project, Los Angeles, CA, September 13, 2010, p. 3.

[140] http://durbin.senate.gov/public/index.cfm/pressreleases?ID=7dcaee2b-b40e-4199-bf20-557b4b1bc650.

[141] http://www2.ed.gov/admins/lead/safety/emergencyplan/crisisplanning.pdf.

(REMS) provides competitive grants to LEAs to strengthen and improve their emergency response and crisis plans. No grants were awarded in FY2012.[142]

The Department of Education has developed resources and training materials that are available online to help schools develop emergency plans and respond to crises.[143] However, these resources are not limited to addressing a school shooting crisis; they are intended to be applicable to a range of potential crises that could impact a school (e.g., natural disaster, pandemics, terrorism).

Indicators of School Crime and Safety data show that many schools have been increasing measures intended to improve school safety. In school year 1999-2000, 54.1% of surveyed students (ages 12-18) reported that their school had security guards and/or assigned police officers; this percentage had increased to 68.1% by school year 2009-2010. Other school security measures that have increased between school year 1999-2000 and school year 2009-2010 include the use of security cameras (from 19.4% to 61.1%); locking or monitoring doors (from 74.6% to 91.7%); and requiring faculty and staff to wear badges or IDs (from 25.4% to 62.9%).[144] *The President's Plan* would set up an interagency group to release a model set of emergency management plans for schools, houses of worship, and institutions of higher education. It would also require the Department of Education to collect and disseminate best practices for addressing school discipline.

Maintaining crisis response capacity is required of schools by 92% of states.[145] Press accounts of school shootings have provided anecdotal evidence indicating that school emergency planning (lock-down procedures and practice drills, etc.) may have minimized deaths and injuries in incidents of mass shootings. However, federal legislation does not regulate the content or quality of these plans, and the comprehensiveness and implementation of these plans vary considerably across school districts.

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[142] LEAs that receive a REMS grant are required to form partnerships and collaborate with community organizations, local law enforcement agencies, heads of local government, and offices of public safety, health, and mental health as they review and revise these plans. Plans are required to be coordinated with state or local homeland security plans and must support the implementation of NIMS (for more on NIMS please see the text box titled "Federal Framework for Emergency Management" at the beginning of the "Law Enforcement Implications" section of this report.) REMS grants may be used for training school safety teams and students, conducting facility audits, informing families about emergency response policies, implementing an Incident Command System, conducting drills and tabletop simulation exercises, preparing and distributing copies of crisis plans, and, to a limited extent, for purchasing school safety equipment. Grantees under this program may receive support in managing and implementing their projects and sustaining their efforts over time from the Readiness and Emergency Management for Schools Technical Assistance Center.

[143] The Department of Education's website includes information on all stages of crisis management: prevention/mitigation, preparedness, response, and recovery. See http://www2.ed.gov/admins/lead/safety/emergencyplan/index.html. The Department of Education emphasizes the importance of schools ensuring that their emergency plans and potential responses are coordinated and aligned with first responders and with NIMS.

[144] These data are based on responses from school principals or persons most knowledgeable about crime and safety issues at the school. National Center for Education Statistics, Department of Education, and Bureau of Justice Statistics, Office of Justice Programs, Department of Justice, *Indicators of School Crime and Safety: 2011*, Washington, D.C. February, 2012.

[145] See "Executive Summary" *Journal of School Health,* vol. 78, no. 2 (February 2008), p. 110. The federal SDFSCA State Formula Grant program required LEAs receiving funding under the program to have a comprehensive plan, including *"a crisis management plan for responding to violent or traumatic incidents on school grounds ... "* However, FY2009 was the last year that funding was provided for State Formula Grants, and as a consequence this federal requirement has lapsed.

Response

An organized and coordinated response to a crisis is based in large part on the prevention and preparedness activities that schools have adopted and implemented. According to the Department of Education, during a crisis (which can include mass shootings), schools should undertake the following activities:

- identifying the type of crisis that is occurring,
- activating the incident management system,
- identifying the appropriate response to the crisis (e.g., evacuation, shelter in place, lockdown, etc.),
- implementing the plans and procedures established in the preparation phase,
- ensuring that important information is being communicated to staff, students and parents, and
- ensuring that emergency first aid is being provided to the injured.[146]

Many school shootings last only minutes—as a consequence, teachers and school staff become the immediate responders out of necessity in many crises, sometimes heroically sacrificing their own lives to protect the children in their care. Community first responders, including law enforcement and emergency medical personnel, are also key to ending a crisis as quickly as possible. Among their many tasks, they must immediately subdue the shooter, if he is still alive; and they most coordinate all the emergency services that are required by survivors of the shooting.

Recovery

Recovery efforts are focused on returning students to the learning environment as soon as possible. These efforts include

- restoring school facilities,
- identifying the supports and services needed by students, staff, and families to help them recover from the crisis,
- connecting individuals to services, including mental health and counseling services, and
- allowing sufficient time for recovery and deciding how to commemorate the event.[147]

The primary Department of Education program available to schools to assist recovery efforts following a crisis is Project SERV (School Emergency Response to Violence). This program provides education-related services to schools that have been disrupted by a violent or traumatic crisis. Local educational agencies and institutions of higher education (IHEs) are eligible to apply

[146] See http://www2.ed.gov/admins/lead/safety/crisisplanning.pdf.

[147] See http://www2.ed.gov/admins/lead/safety/emergencyplan/crisisplanning.pdf.

for these grants.[148] Project SERV funds may be used for a wide variety of activities, including mental health assessments, referrals, and services for victims and witnesses of violence; enhanced school security; technical assistance in developing a response to the crisis; and training for teachers and staff in implementing the response.[149]

School counselors can also play an important role in facilitating a school community's recovery following a crisis. School counselors can provide an avenue for students to be heard by a caring adult, and can provide needed services or make referrals for services to community providers.[150]

The President's Plan includes several provisions that would increase student access to mental health services. It seeks $150 million in funding for a new *Comprehensive Safety Grants* program. One of the authorized uses of this program would be to hire school counselors. In addition, the proposal seeks $50 million to train 5,000 additional mental health professionals to serve youth in schools and communities, and $25 million to provide mental health services for trauma, conflict resolution, and other school-based violence prevention strategies. The proposal would also provide $55 million for a new Project AWARE which would train teachers and other adults to recognize and help youth with mental illness and work with a variety of community agencies and organizations to ensure youth who need help are connected to service providers.

Concluding Comments

When addressing public mass shootings, many of the policymaking challenges may boil down to two interrelated concerns: (1) a need to determine the effectiveness of existing programs—particularly preventive efforts—and (2) figuring out where to disburse limited resources.

[148] Project SERV provides grants of up $50,000 for short term needs (up to six months); and grants of up to $250,000 for extended services (for a period of up to 18 months). LEAs and IHEs may apply for both Immediate Services funding and Extended Services funding; however, a separate application must be submitted for each.

[149] Appropriations for this program are requested on a no-year basis, to remain available for obligation at the federal level until expended. Thus, funds can be carried over from year to year in the event that there are no school-related crises in a given year.

[150] The Elementary and Secondary School Counseling program received funding of $52 million in FY2012. It provides competitive grants to LEAs to establish or expand elementary and secondary school counseling programs. Grantees that receive funding under this program must meet several requirements, including having a program that is comprehensive in addressing the counseling and educational needs of all students; increases the range, availability, quality, and quantity of counseling services; expands services through qualified staff; involves public and private entities in collaborative efforts to enhance the program and promote integrated services; and provides appropriate staff training. The President did not request any FY2013 funding for this program, instead proposing to a fund a broader Successful, Safe, and Healthy Students program. In addition to the Elementary and Secondary School Counseling program there are two other mental health programs authorized by the Elementary and Secondary Education Act; however they are no longer receiving funding. The Grants for the Integration of Schools and Mental Health Systems program authorizes the Secretary to award competitive grants or enter into contracts or cooperative agreements with SEAs, LEAs, or Indian tribes for the purpose of increasing student access to quality mental health care by developing innovative programs to link local school systems with the local mental health system. The program last received funding of $6 million in FY2010. The second program is the Promotion of School Readiness through Early Childhood Emotional and Social Development (Foundations for Learning). The Secretary, in consultation with the Secretary of Health and Human Services, is permitted to award Foundations for Learning Grants to LEAs, local councils, community-based organizations, and other public or nonprofit private entities to assist eligible children with school readiness. The program last received funding of $1 million in FY2010.

The law enforcement and public health fields have lengthy histories of applying preventive approaches to their work. However, the utility of widely employed preventive measures in these areas to fight public mass shootings is far from clear. For example, it appears that intelligence-led policing fails to address this threat. Likewise, preventive public health approaches reliant on research drawn from large data sets, covering broad populations, and examining general trends may not adequately address relatively rare—though devastating—public mass shootings. Given this, policy makers may be interested in supporting the development of useful preventive schemes in the law enforcement and public health arenas.

In the area of education, preventive efforts may be more effective. Fostering a positive school climate can be seen as a key element in preventing shootings. Additionally, the use of school resource officers as a preventive measure is popular among Americans. Yet, there are those who question the impact of such officers on the learning environment.

Policy makers confront the task of disbursing resources among a wide assortment of programs to tackle public mass shootings. Which efforts are more important than others? For example, should prevention trump response in most cases? Should programs that have multiple uses be favored over others that may be seen as more focused (or vice versa)? For example, which should receive more support related to dealing with mass shootings: EMS or efforts to cultivate positive school climate? Which untested programs or approaches should be evaluated thoroughly? Who should evaluate them? How long should funding exist to tackle the threat of mass shootings?

All of this hints at an overarching difficulty confronting experts interested in crafting policy to address mass shootings. Essentially, baseline metrics gauging the effectiveness of policies to thwart public mass shootings are often unclear or unavailable. This lack of clarity starts with identifying the number of shootings, themselves, since no broadly agreed-to definition exists. Several questions flow from this issue. How many people have such incidents victimized? How much does prevention of, preparedness for, and response to such incidents cost the federal government? What measurements can be used to determine the effectiveness of such efforts? In other words, and most importantly, how will we measure our successes or determine our failures in fighting this problem?

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FBI UNIFORM CRIME REPORTS

The FBI Uniform Crime Reports for the years 1995 through 2012 are voluminous public documents that can be accessed at:

www.fbi.gov/about-us/cjis/usc/usc-publications

Murder Victims

Types of Weapons Used, 1991-2011
Page 1

Weapons	1991	1992	1993	1994
Total	21,676	22,716	23,180	22,084
Total fireams	14,373	15,489	16,136	15,463
Handguns	11,497	12,580	13,212	12,775
Rifles	745	706	757	724
Shotguns	1,124	1,111	1,057	953
Other guns	30	42	37	19
Firearms, not stated	977	1,050	1,073	992
Knives or cutting instruments	3,430	3,296	2,967	2,802
Blunt objects (clubs, hammers, etc.)	1,099	1,040	1,022	912
Personal weapons (hands, fists, feet, etc.)[1]	1,202	1,131	1,151	1,165
Poison	12	13	9	10
Explosives	16	19	23	10
Fire	195	203	217	196
Narcotics	22	24	22	22
Drowning	40	29	23	25
Strangulation	327	314	331	287
Asphyxiation	113	115	111	113
Other weapons or weapons not stated	847	1,043	1,168	1,079

	1991	1992	1993	1994
Murders to Firearms	66.31%	68.19%	69.61%	70.02%
Murders to Handguns	53.04%	55.38%	57.00%	57.85%
Murders to Rifles	3.44%	3.11%	3.27%	3.28%
Murders to Shotguns	5.19%	4.89%	4.56%	4.32%
MF to Handguns	79.99%	81.22%	81.88%	82.62%
MF to Rifles	5.18%	4.56%	4.69%	4.68%
MF to Shotguns	7.82%	7.17%	6.55%	6.16%

Murder Victims

Types of Weapons Used, 1991-2011
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Weapons	1995	1996	1997	1998	1999	2000
Total	20,232	16,967	15,837	14,276	13,011	13,230
Total fireams	13,790	11,453	10,729	9,257	8,480	8,661
Handguns	11,282	9,266	8,441	7,430	6,658	6,778
Rifles	654	561	638	548	400	411
Shotguns	929	685	643	633	531	485
Other guns	29	20	35	16	92	53
Firearms, not stated	896	921	972	630	799	934
Knives or cutting instruments	2,557	2,324	2,055	1,899	1,712	1,782
Blunt objects (clubs, hammers, etc.)	918	792	724	755	756	617
Personal weapons (hands, fists, feet, etc.)[1]	1,201	1,037	1,010	964	885	927
Poison	14	8	6	6	11	8
Explosives	192	15	8	10	-	9
Fire	166	170	140	132	133	134
Narcotics	22	33	37	35	26	20
Drowning	30	24	34	28	28	15
Strangulation	237	248	224	213	190	166
Asphyxiation	137	92	88	101	106	92
Other weapons or weapons not stated	968	771	782	876	684	799

	1995	1996	1997	1998	1999	2000
Murders to Firearms	68.16%	67.50%	67.75%	64.84%	65.18%	65.46%
Murders to Handguns	55.76%	54.61%	53.30%	52.05%	51.17%	51.23%
Murders to Rifles	3.23%	3.31%	4.03%	3.84%	3.07%	3.11%
Murders to Shotguns	4.59%	4.04%	4.06%	4.43%	4.08%	3.67%
MF to Handguns	81.81%	80.90%	78.67%	80.26%	78.51%	78.26%
MF to Rifles	4.74%	4.90%	5.95%	5.92%	4.72%	4.75%
MF to Shotguns	6.74%	5.98%	5.99%	6.84%	6.26%	5.60%

Murder Victims

Types of Weapons Used, 1991-2011
Page 3

Weapons	2001	2002	2003	2004	2005
Total	14,061	14,263	14,465	14,210	14,965
Total fireams	8,890	9,528	9,659	9,385	10,158
Handguns	6,931	7,294	7,745	7,286	7,565
Rifles	386	488	392	403	445
Shotguns	511	486	454	507	522
Other guns	59	75	76	117	138
Firearms, not stated	1,003	1,185	992	1,072	1,488
Knives or cutting instruments	1,831	1,776	1,828	1,866	1,920
Blunt objects (clubs, hammers, etc.)	680	681	650	667	608
Personal weapons (hands, fists, feet, etc.)[1]	961	954	962	943	905
Poison	12	23	9	13	9
Explosives	4	11	4	1	2
Fire	109	103	170	118	125
Narcotics	37	48	44	80	46
Drowning	23	20	17	16	20
Strangulation	153	145	184	156	118
Asphyxiation	116	100	131	109	96
Other weapons or weapons not stated	1,245	874	807	856	958

	2001	2002	2003	2004	2005
Murders to Firearms	63.22%	66.80%	66.77%	66.05%	67.88%
Murders to Handguns	49.29%	51.14%	53.54%	51.27%	50.55%
Murders to Rifles	2.75%	3.42%	2.71%	2.84%	2.97%
Murders to Shotguns	3.63%	3.41%	3.14%	3.57%	3.49%
MF to Handguns	77.96%	76.55%	80.18%	77.63%	74.47%
MF to Rifles	4.34%	5.12%	4.06%	4.29%	4.38%
MF to Shotguns	5.75%	5.10%	4.70%	5.40%	5.14%

Murder Victims

Types of Weapons Used, 1991-2011
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Weapons	2006	2007	2008	2009	2010	2011
Total	15,087	14,916	14,224	13,752	13,164	12,664
Total fireams	10,225	10,129	9,528	9,199	8,874	8,583
Handguns	7,836	7,398	6,800	6,501	6,115	6,220
Rifles	438	453	380	351	367	323
Shotguns	490	457	442	423	366	356
Other guns	107	116	81	96	93	97
Firearms, not stated	1,354	1,705	1,825	1,828	1,933	1,587
Knives or cutting instruments	1,830	1,817	1,888	1,836	1,732	1,694
Blunt objects (clubs, hammers, etc.)	618	647	603	623	549	496
Personal weapons (hands, fists, feet, etc.)[1]	841	869	875	817	769	728
Polson	12	10	9	7	11	5
Explosives	1	1	11	2	4	12
Fire	117	131	85	98	78	75
Narcotics	48	52	34	52	45	29
Drowning	12	12	16	8	10	15
Strangulation	137	134	89	122	122	85
Asphyxiation	106	109	87	84	98	89
Other weapons or weapons not stated	1,140	1,005	999	904	872	853

	2006	2007	2008	2009	2010	2011
Murders to Firearms	67.77%	67.91%	66.99%	66.89%	67.41%	67.77%
Murders to Handguns	51.94%	49.60%	47.81%	47.27%	46.45%	49.12%
Murders to Rifles	2.90%	3.04%	2.67%	2.55%	2.79%	2.55%
Murders to Shotguns	3.25%	3.06%	3.11%	3.08%	2.78%	2.81%
MF to Handguns	76.64%	73.04%	71.37%	70.67%	68.91%	72.47%
MF to Rifles	4.28%	4.47%	3.99%	3.82%	4.14%	3.76%
MF to Shotguns	4.79%	4.51%	4.64%	4.60%	4.12%	4.15%

Murder Victims

Types of Weapons Used, 1991-2011
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1991-2011 TOTALS	
338,980	Total
227,989	Total fireams
177,610	Handguns
10,570	Rifles
13,165	Shotguns
1,428	Other guns
25,216	Firearms, not stated
44,842	Knives or cutting instruments
15,457	Blunt objects (clubs, hammers, etc.)
20,297	Personal weapons (hands, fists, feet, etc.)[1]
217	Poison
355	Explosives
2,895	Fire
778	Narcotics
445	Drowning
3,982	Strangulation
2,193	Asphyxiation
19,530	Other weapons or weapons not stated

1991-2011	
67.26%	Murders to Firearms
52.40%	Murders to Handguns
3.12%	Murders to Rifles
3.88%	Murders to Shotguns
77.90%	MF to Handguns
4.64%	MF to Rifles
5.77%	MF to Shotguns

Murder Victims by State
Types of Weapons Used, 1995 - 2010 (1 of 2)

		Total Murders	Total Firearms	Handguns	Rifles	Shotguns	Firearms u/k	Knives	Other Weapons	Hands/Feet
1995	CT	150	102	96	2	0	4	19	17	12
	NY	1522	1012	916	22	47	27	241	156	113
1996	CT	158	109	87	3	3	16	17	18	14
	NY	305	168	125	12	19	12	72	42	23
1997	CT	124	80	70	5	0	5	18	20	6
	NY	710	408	346	15	39	8	138	108	56
1998	CT	135	79	62	5	3	9	29	17	10
	NY	898	521	473	12	31	5	156	120	101
1999	CT	107	74	66	2	4	2	16	12	5
	NY	864	487	449	10	26	2	166	125	86
2000	CT	95	62	49	4	1	8	16	9	8
	NY	926	563	522	13	25	3	164	124	75
2001	CT	105	72	53	1	3	15	16	11	6
	NY	927	532	489	16	21	6	193	104	98
2002	CT	75	45	32	1	4	8	17	6	7
	NY	860	506	463	20	16	7	181	89	84
2003	CT	78	31	23	0	1	7	14	27	6
	NY	878	545	490	13	10	32	150	105	78
2004	CT	86	47	39	0	2	6	16	18	5
	NY	864	500	419	10	25	46	173	123	68
2005	CT	91	47	27	0	2	18	14	20	10
	NY	868	500	428	10	10	52	188	107	73
2006	CT	100	65	57	0	2	6	18	12	5
	NY	921	400	308	14	8	70	141	351	29
2007	CT	95	57	37	0	4	16	14	20	4
	NY	800	500	113	12	9	366	142	124	34
2008	CT	112	71	46	1	0	24	27	11	3
	NY	835	475	107	12	20	336	184	147	29
2009	CT	107	70	51	0	2	17	17	14	6
	NY	779	481	117	8	13	343	166	109	23
2010	CT	117	65	34	0	4	27	20	21	11
	NY	860	517	135	6	12	364	173	148	22
2011	CT									
	NY									
	CT TTLS	1,735	1,076	829	24	35	188	288	253	118
	NY TTLS	13,817	8,115	5,900	205	331	1,679	2,628	2,082	992
		Total Murders	Total Firearms	Handguns	Rifles	Shotguns	Firearms u/k	Knives	Other Weapons	Hands/Feet

Murder Victims by State
Types of Weapons Used, 1995 - 2010 (2 of 2)

M/F	M/H	M/R	M/S	MF/H	MF/R	MF/S		
68%	64%	1%	0%	94%	2%	0%	CT	1995
66%	60%	1%	3%	91%	2%	5%	NY	
69%	55%	2%	2%	80%	3%	3%	CT	1996
55%	41%	4%	6%	74%	7%	11%	NY	
65%	56%	4%	0%	88%	6%	0%	CT	1997
57%	49%	2%	5%	85%	4%	10%	NY	
59%	46%	4%	2%	78%	6%	4%	CT	1998
58%	53%	1%	3%	91%	2%	6%	NY	
69%	62%	2%	4%	89%	3%	5%	CT	1999
56%	52%	1%	3%	92%	2%	5%	NY	
65%	52%	4%	1%	79%	6%	2%	CT	2000
61%	56%	1%	3%	93%	2%	4%	NY	
69%	50%	1%	3%	74%	1%	4%	CT	2001
57%	53%	2%	2%	92%	3%	4%	NY	
60%	43%	1%	5%	71%	2%	9%	CT	2002
59%	54%	2%	2%	92%	4%	3%	NY	
40%	29%	0%	1%	74%	0%	3%	CT	2003
62%	56%	1%	1%	90%	2%	2%	NY	
55%	45%	0%	2%	83%	0%	4%	CT	2004
58%	48%	1%	3%	84%	2%	5%	NY	
52%	30%	0%	2%	57%	0%	4%	CT	2005
58%	49%	1%	1%	86%	2%	2%	NY	
65%	57%	0%	2%	88%	0%	3%	CT	2006
43%	33%	2%	1%	77%	4%	2%	NY	
60%	39%	0%	4%	65%	0%	7%	CT	2007
63%	14%	2%	1%	23%	2%	2%	NY	
63%	41%	1%	0%	65%	1%	0%	CT	2008
57%	13%	1%	2%	23%	3%	4%	NY	
65%	48%	0%	2%	73%	0%	3%	CT	2009
62%	15%	1%	2%	24%	2%	3%	NY	
56%	29%	0%	3%	52%	0%	6%	CT	2010
60%	16%	1%	1%	26%	1%	2%	NY	
							CT	2011
							NY	
62%	48%	1%	2%	77%	2%	3%	CT TTLS	
59%	43%	1%	2%	73%	3%	4%	NY TTLS	

M/F	M/H	M/R	M/S	MF/H	MF/R	MF/S

An Updated Assessment of the Federal Assault Weapons Ban: Impacts on Gun Markets and Gun Violence, 1994-2003

Report to the National Institute of Justice, United States Department of Justice

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June 2004

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PREFACE

Gun violence continues to be one of America's most serious crime problems. In 2000, over 10,000 persons were murdered with firearms and almost 49,000 more were shot in the course of over 340,000 assaults and robberies with guns (see the Federal Bureau of Investigation's annual *Uniform Crime Reports* and Simon et al., 2002). The total costs of gun violence in the United States – including medical, criminal justice, and other government and private costs – are on the order of at least $6 to $12 billion per year and, by more controversial estimates, could be as high as $80 billion per year (Cook and Ludwig, 2000).

However, there has been good news in recent years. Police statistics and national victimization surveys show that since the early 1990s, gun crime has plummeted to some of the lowest levels in decades (see the *Uniform Crime Reports* and Rennison, 2001). Have gun controls contributed to this decline, and, if so, which ones?

During the last decade, the federal government has undertaken a number of initiatives to suppress gun crime. These include, among others, the establishment of a national background check system for gun buyers (through the Brady Act), reforms of the licensing system for firearms dealers, a ban on juvenile handgun possession, and Project Safe Neighborhoods, a collaborative effort between U.S. Attorneys and local authorities to attack local gun crime problems and enhance punishment for gun offenders.

Perhaps the most controversial of these federal initiatives was the ban on semiautomatic assault weapons and large capacity ammunition magazines enacted as Title XI, Subtitle A of the *Violent Crime Control and Law Enforcement Act of 1994*. This law prohibits a relatively small group of weapons considered by ban advocates to be particularly dangerous and attractive for criminal purposes. In this report, we investigate the ban's impacts on gun crime through the late 1990s and beyond. This study updates a prior report on the short-term effects of the ban (1994-1996) that members of this research team prepared for the U.S. Department of Justice and the U.S. Congress (Roth and Koper, 1997; 1999).

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1. IMPACTS OF THE FEDERAL ASSAULT WEAPONS BAN, 1994-2003: KEY FINDINGS AND CONCLUSIONS

This overview presents key findings and conclusions from a study sponsored by the National Institute of Justice to investigate the effects of the federal assault weapons ban. This study updates prior reports to the National Institute of Justice and the U.S. Congress on the assault weapons legislation.

The Ban Attempts to Limit the Use of Guns with Military Style Features and Large Ammunition Capacities

- Title XI, Subtitle A of the Violent Crime Control and Law Enforcement Act of 1994 imposed a 10-year ban on the "manufacture, transfer, and possession" of certain semiautomatic firearms designated as assault weapons (AWs). The ban is directed at semiautomatic firearms having features that appear useful in military and criminal applications but unnecessary in shooting sports or self-defense (examples include flash hiders, folding rifle stocks, and threaded barrels for attaching silencers). The law bans 18 models and variations by name, as well as revolving cylinder shotguns. It also has a "features test" provision banning other semiautomatics having two or more military-style features. In sum, the Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF) has identified 118 models and variations that are prohibited by the law. A number of the banned guns are foreign semiautomatic rifles that have been banned from importation into the U.S. since 1989.

- The ban also prohibits most ammunition feeding devices holding more than 10 rounds of ammunition (referred to as large capacity magazines, or LCMs). An LCM is arguably the most functionally important feature of most AWs, many of which have magazines holding 30 or more rounds. The LCM ban's reach is broader than that of the AW ban because many non-banned semiautomatics accept LCMs. Approximately 18% of civilian-owned firearms and 21% of civilian-owned handguns were equipped with LCMs as of 1994.

- The ban exempts AWs and LCMs manufactured before September 13, 1994. At that time, there were upwards of 1.5 million privately owned AWs in the U.S. and nearly 25 million guns equipped with LCMs. Gun industry sources estimated that there were 25 million pre-ban LCMs available in the U.S. as of 1995. An additional 4.7 million pre-ban LCMs were imported into the country from 1995 through 2000, with the largest number in 1999.

- Arguably, the AW-LCM ban is intended to reduce gunshot victimizations by limiting the national stock of semiautomatic firearms with large ammunition capacities – which enable shooters to discharge many shots rapidly – and other features conducive to criminal uses. The AW provision targets a relatively small number of weapons based on features that have little to do with the weapons'

operation, and removing those features is sufficient to make the weapons legal. The LCM provision limits the ammunition capacity of non-banned firearms.

The Banned Guns and Magazines Were Used in Up to A Quarter of Gun Crimes Prior to the Ban

- AWs were used in only a small fraction of gun crimes prior to the ban: about 2% according to most studies and no more than 8%. Most of the AWs used in crime are assault pistols rather than assault rifles.
- LCMs are used in crime much more often than AWs and accounted for 14% to 26% of guns used in crime prior to the ban.
- AWs and other guns equipped with LCMs tend to account for a higher share of guns used in murders of police and mass public shootings, though such incidents are very rare.

The Ban's Success in Reducing Criminal Use of the Banned Guns and Magazines Has Been Mixed

- Following implementation of the ban, the share of gun crimes involving AWs declined by 17% to 72% across the localities examined for this study (Baltimore, Miami, Milwaukee, Boston, St. Louis, and Anchorage), based on data covering all or portions of the 1995-2003 post-ban period. This is consistent with patterns found in national data on guns recovered by police and reported to ATF.
- The decline in the use of AWs has been due primarily to a reduction in the use of assault pistols (APs), which are used in crime more commonly than assault rifles (ARs). There has not been a clear decline in the use of ARs, though assessments are complicated by the rarity of crimes with these weapons and by substitution of post-ban rifles that are very similar to the banned AR models.
- However, the decline in AW use was offset throughout at least the late 1990s by steady or rising use of other guns equipped with LCMs in jurisdictions studied (Baltimore, Milwaukee, Louisville, and Anchorage). The failure to reduce LCM use has likely been due to the immense stock of exempted pre-ban magazines, which has been enhanced by recent imports.

It is Premature to Make Definitive Assessments of the Ban's Impact on Gun Crime

- Because the ban has not yet reduced the use of LCMs in crime, we cannot clearly credit the ban with any of the nation's recent drop in gun violence. However, the ban's exemption of millions of pre-ban AWs and LCMs ensured that the effects

of the law would occur only gradually. Those effects are still unfolding and may not be fully felt for several years into the future, particularly if foreign, pre-ban LCMs continue to be imported into the U.S. in large numbers.

The Ban's Reauthorization or Expiration Could Affect Gunshot Victimizations, But Predictions are Tenuous

- Should it be renewed, the ban's effects on gun violence are likely to be small at best and perhaps too small for reliable measurement. AWs were rarely used in gun crimes even before the ban. LCMs are involved in a more substantial share of gun crimes, but it is not clear how often the outcomes of gun attacks depend on the ability of offenders to fire more than ten shots (the current magazine capacity limit) without reloading.

- Nonetheless, reducing criminal use of AWs and especially LCMs could have non-trivial effects on gunshot victimizations. The few available studies suggest that attacks with semiautomatics – including AWs and other semiautomatics equipped with LCMs – result in more shots fired, more persons hit, and more wounds inflicted per victim than do attacks with other firearms. Further, a study of handgun attacks in one city found that 3% of the gunfire incidents resulted in more than 10 shots fired, and those attacks produced almost 5% of the gunshot victims.

- Restricting the flow of LCMs into the country from abroad may be necessary to achieve desired effects from the ban, particularly in the near future. Whether mandating further design changes in the outward features of semiautomatic weapons (such as removing all military-style features) will produce measurable benefits beyond those of restricting ammunition capacity is unknown. Past experience also suggests that Congressional discussion of broadening the AW ban to new models or features would raise prices and production of the weapons under discussion.

- If the ban is lifted, gun and magazine manufacturers may reintroduce AW models and LCMs, perhaps in substantial numbers. In addition, pre-ban AWs may lose value and novelty, prompting some of their owners to sell them in undocumented secondhand markets where they can more easily reach high-risk users, such as criminals, terrorists, and other potential mass murderers. Any resulting increase in crimes with AWs and LCMs might increase gunshot victimizations for the reasons noted above, though this effect could be difficult to measure.

2. PROVISIONS OF THE ASSAULT WEAPONS BAN

2.1. Assault Weapons

Enacted on September 13, 1994, Title XI, Subtitle A of the *Violent Crime Control and Law Enforcement Act of 1994* imposes a 10-year ban on the "manufacture, transfer, and possession" of certain semiautomatic firearms designated as assault weapons (AWs).[1] The AW ban is not a prohibition on all semiautomatics. Rather, it is directed at semiautomatics having features that appear useful in military and criminal applications but unnecessary in shooting sports or self-defense. Examples of such features include pistol grips on rifles, flash hiders, folding rifle stocks, threaded barrels for attaching silencers, and the ability to accept ammunition magazines holding large numbers of bullets.[2] Indeed, several of the banned guns (e.g., the AR-15 and Avtomat Kalashnikov models) are civilian copies of military weapons and accept ammunition magazines made for those military weapons.

As summarized in Table 2-1, the law specifically prohibits nine narrowly defined groups of pistols, rifles, and shotguns. A number of the weapons are foreign rifles that the federal government has banned from importation into the U.S. since 1989. Exact copies of the named AWs are also banned, regardless of their manufacturer. In addition, the ban contains a generic "features test" provision that generally prohibits other semiautomatic firearms having two or more military-style features, as described in Table 2-2. In sum, the federal Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF) has identified 118 model and caliber variations that meet the AW criteria established by the ban.[3]

Figures 2-1 and 2-2 illustrate a few prominent AWs and their features. Figure 2-1 displays the Intratec TEC-9 assault pistol, the AW most frequently used in crime (e.g., see Roth and Koper 1997, Chapter 2). Figure 2-2 depicts the AK-47 assault rifle, a weapon of Soviet design. There are many variations of the AK-47 produced around the world, not all of which have the full complement of features illustrated in Figure 2-2.

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[1] A semiautomatic weapon fires one bullet for each squeeze of the trigger. After each shot, the gun automatically loads the next bullet and cocks itself for the next shot, thereby permitting a somewhat faster rate of fire relative to non-automatic firearms. Semiautomatics are not to be confused with fully automatic weapons (i.e., machine guns), which fire continuously as long as the trigger is held down. Fully automatic weapons have been illegal to own in the United States without a federal permit since 1934.

[2] Ban advocates stress the importance of pistol grips on rifles and heat shrouds or forward handgrips on pistols, which in combination with large ammunition magazines enable shooters to discharge high numbers of bullets rapidly (in a "spray fire" fashion) while maintaining control of the firearm (Violence Policy Center, 2003). Ban opponents, on the other hand, argue that AW features also serve legitimate purposes for lawful gun users (e.g., see Kopel, 1995).

[3] This is based on AWs identified by ATF's Firearms Technology Branch as of December 1997.

Table 2-1. Firearms Banned by the Federal Assault Weapons Ban

Firearm	Description	1993 Blue Book Price	Pre-Ban Federal Legal Status	Examples of Legal Substitutes
Avtomat Kalashnikov (AK) (by Norinco, Mitchell, Poly Technologies)	Chinese, Russian, other foreign and domestic: .223 or 7.62x39mm caliber, semiauto. rifle; 5, 10, or 30 shot magazine, may be supplied with bayonet	$550 (generic import); add 10-15% for folding stock models	Imports banned in 1989.	Norinco NHM 90/91 [1]
Uzi, Galil	Israeli: 9mm, .41, or .45 caliber semiauto. carbine, mini-carbine, or pistol. Magazine capacity of 16, 20, or 25, depending on model and type (10 or 20 on pistols).	$550-$1050 (Uzi) $875-$1150 (Galil)	Imports banned in 1989	Uzi Sporter [2]
Beretta AR-70	Italian: .222 or .223 caliber semiauto. paramilitary design rifle; 5, 8, or 30 shot magazine.	$1050	Imports banned in 1989.	
Colt AR-15	Domestic: primarily .223 caliber paramilitary rifle or carbine; 5 shot magazines, often comes with two 5-shot detachable magazines. Exact copies by DPMS, Eagle, Olympic, and others.	$825-$1325	Legal (civilian version of military M-16)	Colt Sporter, Match H-Bar, Target models
Fabrique National FN/FAL, FN/LAR, FNC	Belgian design: .308 caliber semiauto. rifle or .223 combat carbine with 30 shot magazine. Rifle comes with flash hider, 4 position fire selector on automatic models. Discontinued in 1988.	$1100-$2500	Imports banned in 1989.	L1A1 Sporter (FN, Century) [2]
Steyr AUG	Austrian: .223/5.56mm caliber semiauto. paramilitary design rifle.	$2500	Imports banned in 1989	
SWD M-10, 11, 11/9, 12	Domestic: 9mm, .380, or .45 caliber paramilitary design semiauto. pistol; 32 shot magazine. Also available in semiauto. carbine and fully automatic variations.	$215 (M-11/9)	Legal	Cobray PM11, 12
TEC-9, DC9, 22	Domestic: 9mm caliber semiauto. paramilitary design pistol, 10 or 32 shot magazine.; .22 caliber semiauto. paramilitary design pistol, 30 shot magazine.	$145-$295	Legal	TEC-AB
Revolving Cylinder Shotguns	Domestic: 12 gauge, 12 shot rotary magazine; paramilitary configuration	$525 (Street Sweeper)	Legal	

[1] Imports were halted in 1994 under the federal embargo on the importation of firearms from China.
[2] Imports banned by federal executive order, April 1998.

Table 2-2. Features Test of the Federal Assault Weapons Ban

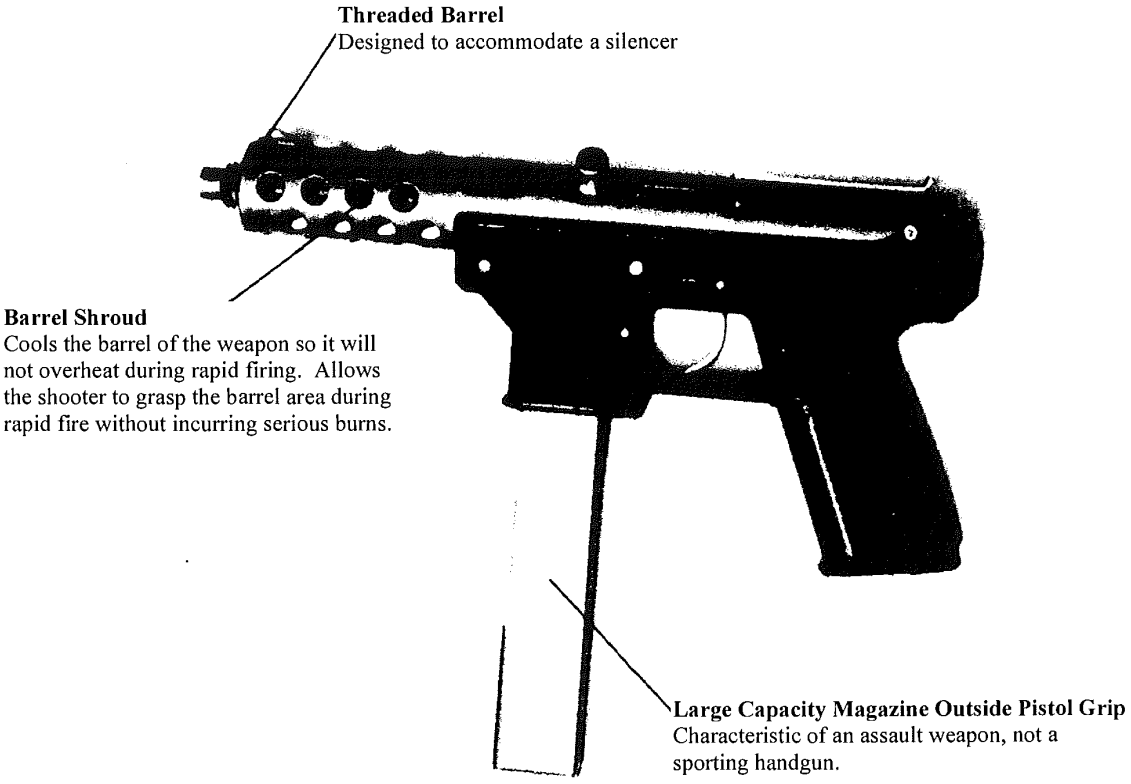
Weapon Category	Military-Style Features (Two or more qualify a firearm as an assault weapon)
Semiautomatic pistols accepting detachable magazines:	1) ammunition magazine that attaches outside the pistol grip 2) threaded barrel capable of accepting a barrel extender, flash hider, forward handgrip, or silencer 3) heat shroud attached to or encircling the barrel 4) weight of more than 50 ounces unloaded 5) semiautomatic version of a fully automatic weapon
Semiautomatic rifles accepting detachable magazines:	1) folding or telescoping stock 2) pistol grip that protrudes beneath the firing action 3) bayonet mount 4) flash hider or threaded barrel designed to accommodate one 5) grenade launcher
Semiautomatic shotguns:	1) folding or telescoping stock 2) pistol grip that protrudes beneath the firing action 3) fixed magazine capacity over 5 rounds 4) ability to accept a detachable ammunition magazine

2.2. Large Capacity Magazines

In addition, the ban prohibits most ammunition feeding devices holding more than 10 rounds of ammunition (referred to hereafter as large capacity magazines, or LCMs).[4] Most notably, this limits the capacity of detachable ammunition magazines for semiautomatic firearms. Though often overlooked in media coverage of the law, this provision impacted a larger share of the gun market than did the ban on AWs. Approximately 40 percent of the semiautomatic handgun models and a majority of the semiautomatic rifle models being manufactured and advertised prior to the ban were sold with LCMs or had a variation that was sold with an LCM (calculated from Murtz et al., 1994). Still others could accept LCMs made for other firearms and/or by other manufacturers. A national survey of gun owners found that 18% of all civilian-owned firearms and 21% of civilian-owned handguns were equipped with magazines having 10 or more rounds as of 1994 (Cook and Ludwig, 1996, p. 17). The AW provision did not affect most LCM-compatible guns, but the LCM provision limited the capacities of their magazines to 10 rounds.

[4] Technically, the ban prohibits any magazine, belt, drum, feed strip, or similar device that has the capacity to accept more than 10 rounds or ammunition, or which can be readily converted or restored to accept more than 10 rounds of ammunition. The ban exempts attached tubular devices capable of operating only with .22 caliber rimfire (i.e., low velocity) ammunition.

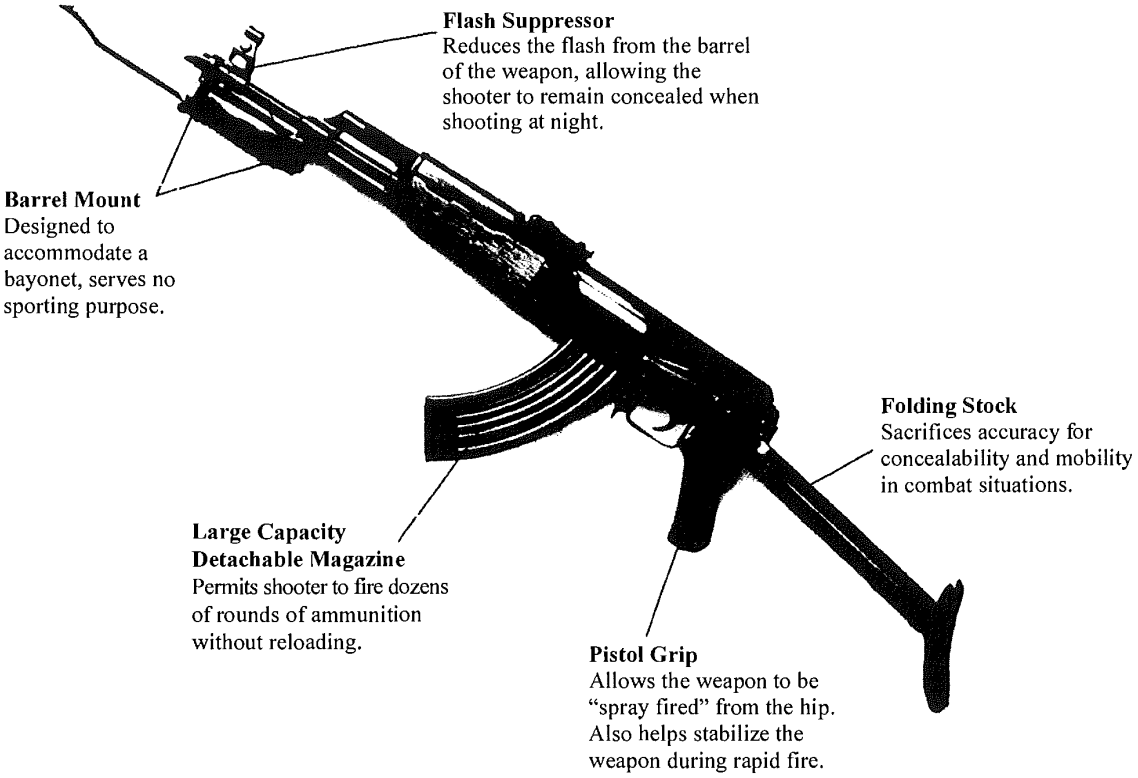
Figure 2-1. Features of Assault Weapons: The Intratec TEC-9 Assault Pistol



Adapted from exhibit of the Center to Prevent Handgun Violence.

As discussed in later chapters, an LCM is perhaps the most functionally important feature of many AWs. This point is underscored by the AW ban's exemptions for semiautomatic rifles that cannot accept a detachable magazine that holds more than five rounds of ammunition and semiautomatic shotguns that cannot hold more than five rounds in a fixed or detachable magazine. As noted by the U.S. House of Representatives, most prohibited AWs came equipped with magazines holding 30 rounds and could accept magazines holding as many as 50 or 100 rounds (U.S. Department of the Treasury, 1998, p. 14). Also, a 1998 federal executive order (discussed below) banned further importation of foreign semiautomatic rifles capable of accepting LCMs made for military rifles. Accordingly, the magazine ban plays an important role in the logic and interpretations of the analyses presented here.

Figure 2-2. Features of Assault Weapons: The AK-47 Assault Rifle



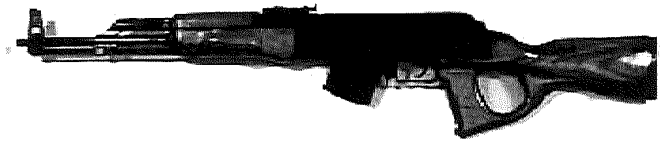
Adapted from exhibit of the Center to Prevent Handgun Violence.

2.3. Foreign Rifles Accepting Large Capacity Military Magazines

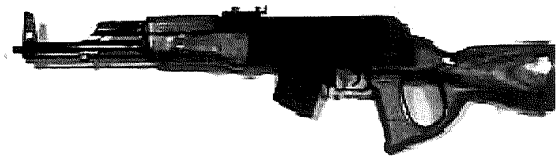
In April of 1998, the Clinton administration broadened the range of the AW ban by prohibiting importation of an additional 58 foreign semiautomatic rifles that were still legal under the 1994 law but that can accept LCMs made for military assault rifles like the AK-47 (U.S. Department of the Treasury, 1998).[5] Figure 2-3 illustrates a few such rifles (hereafter, LCMM rifles) patterned after the banned AK-47 pictured in Figure 2-2. The LCMM rifles in Figure 2-3 do not possess the military-style features incorporated into the AK-47 (such as pistol grips, flash suppressors, and bayonet mounts), but they accept LCMs made for AK-47s.[6]

[5] In the civilian context, AWs are semiautomatic firearms. Many semiautomatic AWs are patterned after military firearms, but the military versions are capable of semiautomatic and fully automatic fire.
[6] Importation of some LCMM rifles, including a number of guns patterned after the AK-47, was halted in 1994 due to trade sanctions against China (U.S. Department of the Treasury, 1998).

Figure 2-3. Foreign Semiautomatic Rifles Capable of Accepting Large Capacity Military Magazines: AK47 Copies Banned by Executive Order in 1998



MISR



ARM

MAK90

WUM 1

Taken from U.S. Department of the Treasury (1998)

2.4. Ban Exemptions

2.4.1. Guns and Magazines Manufactured Prior to the Ban

The ban contains important exemptions. AWs and LCMs manufactured before the effective date of the ban are "grandfathered" and thus legal to own and transfer. Around 1990, there were an estimated 1 million privately owned AWs in the U.S. (about 0.5% of the estimated civilian gun stock) (Cox Newspapers, 1989, p. 1; American Medical Association Council on Scientific Affairs, 1992), though those counts probably did not correspond exactly to the weapons prohibited by the 1994 ban. The leading domestic AW producers manufactured approximately half a million AWs from 1989 through 1993, representing roughly 2.5% of all guns manufactured in the U.S. during that time (see Chapter 5).

We are not aware of any precise estimates of the pre-ban stock of LCMs, but gun owners in the U.S. possessed an estimated 25 million guns that were equipped with LCMs or 10-round magazines in 1994 (Cook and Ludwig, 1996, p. 17), and gun industry sources estimated that, including aftermarket items for repairing and extending magazines, there were at least 25 million LCMs available in the United States as of 1995 (Gun Tests, 1995, p. 30). As discussed in Chapter 7, moreover, an additional 4.8 million pre-ban LCMs were imported into the U.S. from 1994 through 2000 under the grandfathering exemption.

2.4.2. Semiautomatics With Fewer or No Military Features

Although the law bans "copies or duplicates" of the named gun makes and models, federal authorities have emphasized exact copies. Relatively cosmetic changes, such as removing a flash hider or bayonet mount, are sufficient to transform a banned weapon into a legal substitute, and a number of manufacturers now produce modified, legal versions of some of the banned guns (examples are listed in Table 2-1). In general, the AW ban does not apply to semiautomatics possessing no more than one military-style feature listed under the ban's features test provision.[7] For instance, prior to going out of business, Intratec, makers of the banned TEC-9 featured in Figure 2-1, manufactured an AB-10 ("after ban") model that does not have a threaded barrel or a barrel shroud but is identical to the TEC-9 in other respects, including the ability to accept an ammunition magazine outside the pistol grip (Figure 2-4). As shown in the illustration, the AB-10 accepts grandfathered, 32-round magazines made for the TEC-9, but post-ban magazines produced for the AB-10 must be limited to 10 rounds.

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[7] Note, however, that firearms imported into the country must still meet the "sporting purposes test" established under the federal Gun Control Act of 1968. In 1989, ATF determined that foreign semiautomatic rifles having any one of a number of named military features (including those listed in the features test of the 1994 AW ban) fail the sporting purposes test and cannot be imported into the country. In 1998, the ability to accept an LCM made for a military rifle was added to the list of disqualifying features. Consequently, it is possible for foreign rifles to pass the features test of the federal AW ban but not meet the sporting purposes test for imports (U.S. Department of the Treasury, 1998).

Another example is the Colt Match Target H-Bar rifle (Figure 2-5), which is a legalized version of the banned AR-15 (see Table 2-1). AR-15 type rifles are civilian weapons patterned after the U.S. military's M-16 rifle and were the assault rifles most commonly used in crime before the ban (Roth and Koper, 1997, Chapter 2). The post-ban version shown in Figure 2-5 (one of several legalized variations on the AR-15) is essentially identical to pre-ban versions of the AR-15 but does not have accessories like a flash hider, threaded barrel, or bayonet lug. The one remaining military feature on the post-ban gun is the pistol grip. This and other post-ban AR-15 type rifles can accept LCMs made for the banned AR15, as well as those made for the U.S. military's M-16. However, post-ban magazines manufactured for these guns must hold fewer than 11 rounds.

The LCMM rifles discussed above constituted another group of legalized AW-type weapons until 1998, when their importation was prohibited by executive order. Finally, the ban includes an appendix that exempts by name several hundred models of rifles and shotguns commonly used in hunting and recreation, 86 of which are semiautomatics. While the exempted semiautomatics generally lack the military-style features common to AWs, many take detachable magazines, and some have the ability to accept LCMs.[8]

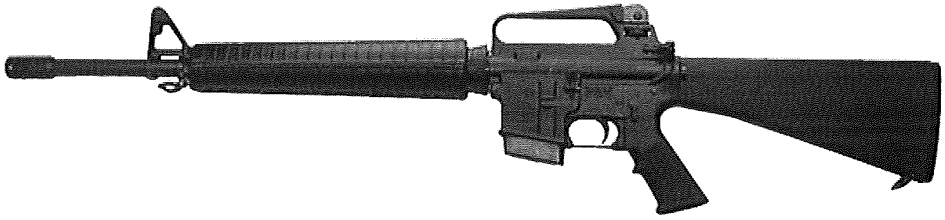
2.5. Summary

In the broadest sense, the AW-LCM ban is intended to limit crimes with semiautomatic firearms having large ammunition capacities – which enable shooters to discharge high numbers of shots rapidly – and other features conducive to criminal applications. The gun ban provision targets a relatively small number of weapons based on outward features or accessories that have little to do with the weapons' operation. Removing some or all of these features is sufficient to make the weapons legal. In other respects (e.g., type of firing mechanism, ammunition fired, and the ability to accept a detachable magazine), AWs do not differ from other legal semiautomatic weapons. The LCM provision of the law limits the ammunition capacity of non-banned firearms.

[8] Legislators inserted a number of amendments during the drafting process to broaden the consensus behind the bill (Lennett 1995). Among changes that occurred during drafting were: dropping a requirement to register post-ban sales of the grandfathered guns, dropping a ban on "substantial substitutes" as well as "exact copies" of the banned weapons, shortening the list of named makes and models covered by the ban, adding the appendix list of exempted weapons, and mandating the first impact study of the ban that is discussed below.

Figure 2-4. Post-Ban, Modified Versions of Assault Weapons: The Intratec AB ("After Ban") Model (See Featured Firearm)

Figure 2-5. Post-Ban, Modified Versions of Assault Weapons: The Colt Match Target HBAR Model



3. CRIMINAL USE OF ASSAULT WEAPONS AND LARGE CAPACITY MAGAZINES BEFORE THE BAN

During the 1980s and early 1990s, AWs and other semiautomatic firearms equipped with LCMs were involved in a number of highly publicized mass murder incidents that raised public concern about the accessibility of high powered, military-style weaponry and other guns capable of discharging high numbers of bullets in a short period of time (Cox Newspapers, 1989; Kleck, 1997, pp.124-126,144; Lenett, 1995). In one of the worst mass murders ever committed in the U.S., for example, James Huberty killed 21 persons and wounded 19 others in a San Ysidro, California MacDonald's restaurant on July 18, 1984 using an Uzi carbine, a shotgun, and another semiautomatic handgun. On September 14, 1989, Joseph Wesbecker, armed with an AK-47 rifle, two MAC-11 handguns, and a number of other firearms, killed 7 persons and wounded 15 others at his former workplace in Louisville, Kentucky before taking his own life. Another particularly notorious incident that precipitated much of the recent debate over AWs occurred on January 17, 1989 when Patrick Purdy used a civilian version of the AK-47 military rifle to open fire on a schoolyard in Stockton, California, killing 5 children and wounding 29 persons.

There were additional high profile incidents in which offenders using semiautomatic handguns with LCMs killed and wounded large numbers of persons. Armed with two handguns having LCMs (and reportedly a supply of extra LCMs), a rifle, and a shotgun, George Hennard killed 22 people and wounded another 23 in Killeen, Texas in October 1991. In a December 1993 incident, a gunman named Colin Ferguson, armed with a handgun and LCMs, opened fire on commuters on a Long Island train, killing 5 and wounding 17.

Indeed, AWs or other semiautomatics with LCMs were involved in 6, or 40%, of 15 mass shooting incidents occurring between 1984 and 1993 in which six or more persons were killed or a total of 12 or more were wounded (Kleck, 1997, pp.124-126, 144). Early studies of AWs, though sometimes based on limited and potentially unrepresentative data, also suggested that AWs recovered by police were often associated with drug trafficking and organized crime (Cox Newspapers, 1989; also see Roth and Koper, 1997, Chapter 5), fueling a perception that AWs were guns of choice among drug dealers and other particularly violent groups. All of this intensified concern over AWs and other semiautomatics with large ammunition capacities and helped spur the passage of AW bans in California, New Jersey, Connecticut, and Hawaii between 1989 and 1993, as well as the 1989 federal import ban on selected semiautomatic rifles. Maryland also passed AW legislation in 1994, just a few months prior to the passage of the 1994 federal AW ban.[9]

Looking at the nation's gun crime problem more broadly, however, AWs and LCMs were used in only a minority of gun crimes prior to the 1994 federal ban, and AWs were used in a particularly small percentage of gun crimes.

[9] A number of localities around the nation also passed AW bans during this period.

3.1. Criminal Use of Assault Weapons

Numerous studies have examined the use of AWs in crime prior to the federal ban. The definition of AWs varied across the studies and did not always correspond exactly to that of the 1994 law (in part because a number of the studies were done prior to 1994). In general, however, the studies appeared to focus on various semiautomatics with detachable magazines and military-style features. According to these accounts, AWs typically accounted for up to 8% of guns used in crime, depending on the specific AW definition and data source used (e.g., see Beck et al., 1993; Hargarten et al., 1996; Hutson et al., 1994; 1995; McGonigal et al., 1993; New York State Division of Criminal Justice Services, 1994; Roth and Koper, 1997, Chapters 2, 5, 6; Zawitz, 1995). A compilation of 38 sources indicated that AWs accounted for 2% of crime guns on average (Kleck, 1997, pp.112, 141-143).[10]

Similarly, the most common AWs prohibited by the 1994 federal ban accounted for between 1% and 6% of guns used in crime according to most of several national and local data sources examined for this and our prior study (see Chapter 6 and Roth and Koper, 1997, Chapters 5, 6):

- Baltimore (all guns recovered by police, 1992-1993): 2%
- Miami (all guns recovered by police, 1990-1993): 3%
- Milwaukee (guns recovered in murder investigations, 1991-1993): 6%
- Boston (all guns recovered by police, 1991-1993): 2%
- St. Louis (all guns recovered by police, 1991-1993): 1%
- Anchorage, Alaska (guns used in serious crimes, 1987-1993): 4%
- National (guns recovered by police and reported to ATF, 1992-1993): 5%[11]
- National (gun thefts reported to police, 1992-Aug. 1994): 2%
- National (guns used in murders of police, 1992-1994): 7-9%[12]
- National (guns used in mass murders of 4 or more persons, 1992-1994): 4-13%[13]

Although each of the sources cited above has limitations, the estimates consistently show that AWs are used in a small fraction of gun crimes. Even the highest

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[10] The source in question contains a total of 48 estimates, but our focus is on those that examined all AWs (including pistols, rifles, and shotguns) as opposed to just assault rifles.

[11] For reasons discussed in Chapter 6, the national ATF estimate likely overestimates the use of AWs in crime. Nonetheless, the ATF estimate lies within the range of other presented estimates.

[12] The minimum estimate is based on AW cases as a percentage of all gun murders of police. The maximum estimate is based on AW cases as a percentage of cases for which at least the gun manufacturer was known. Note that AWs accounted for as many as 16% of gun murders of police in 1994 (Roth and Koper, 1997, Chapter 6; also see Adler et al., 1995).

[13] These statistics are based on a sample of 28 cases found through newspaper reports (Roth and Koper, 1997, Appendix A). One case involved an AW, accounting for 3.6% of all cases and 12.5% of cases in which at least the type of gun (including whether the gun was a handgun, rifle, or shotgun and whether the gun was a semiautomatic) was known. Also see the earlier discussion of AWs and mass shootings at the beginning of this chapter.

estimates, which correspond to particularly rare events such mass murders and police murders, are no higher than 13%. Note also that the majority of AWs used in crime are assault pistols (APs) rather than assault rifles (ARs). Among AWs reported by police to ATF during 1992 and 1993, for example, APs outnumbered ARs by a ratio of 3 to 1 (see Chapter 6).

The relative rarity of AW use in crime can be attributed to a number of factors. Many AWs are long guns, which are used in crime much less often than handguns. Moreover, a number of the banned AWs are foreign weapons that were banned from importation into the U.S. in 1989. Also, AWs are more expensive (see Table 2-1) and more difficult to conceal than the types of handguns that are used most frequently in crime.

3.1.1. A Note on Survey Studies and Assault Weapons

The studies and statistics discussed above were based primarily on police information. Some survey studies have given a different impression, suggesting substantial levels of AW ownership among criminals and otherwise high-risk juvenile and adult populations, particularly urban gang members (Knox et al., 1994; Sheley and Wright, 1993a). A general problem with these studies, however, is that respondents themselves had to define terms like "military-style" and "assault rifle." Consequently, the figures from these studies may lack comparability with those from studies with police data. Further, the figures reported in some studies prompt concerns about exaggeration of AW ownership (perhaps linked to publicity over the AW issue during the early 1990s when a number of these studies were conducted), particularly among juvenile offenders, who have reported ownership levels as high as 35% just for ARs (Sheley and Wright, 1993a).[14]

Even so, most survey evidence on the actual use of AWs suggests that offenders rarely use AWs in crime. In a 1991 national survey of adult state prisoners, for example, 8% of the inmates reported possessing a "military-type" firearm at some point in the past (Beck et al., 1993, p. 19). Yet only 2% of offenders who used a firearm during their conviction offense reported using an AW for that offense (calculated from pp. 18, 33), a figure consistent with the police statistics cited above. Similarly, while 10% of adult inmates and 20% of juvenile inmates in a Virginia survey reported having owned an AR, none of the adult inmates and only 1% of the juvenile inmates reported having carried them at crime scenes (reported in Zawitz, 1995, p. 6). In contrast, 4% to 20% of inmates surveyed in eight jails across rural and urban areas of Illinois and Iowa reported having used an AR in committing crimes (Knox et al., 1994, p. 17). Nevertheless, even assuming the accuracy and honesty of the respondents' reports, it is not clear what

[14] As one example of possible exaggeration of AW ownership, a survey of incarcerated juveniles in New Mexico found that 6% reported having used a "military-style rifle" against others and 2.6% reported that someone else used such a rifle against them. However, less than 1% of guns recovered in a sample of juvenile firearms cases were "military" style guns (New Mexico Criminal Justice Statistical Analysis Center, 1998, pp. 17-19; also see Ruddell and Mays, 2003).

weapons they were counting as ARs, what percentage of their crimes were committed with ARs, or what share of all gun crimes in their respective jurisdictions were linked to their AR uses. Hence, while some surveys suggest that ownership and, to a lesser extent, use of AWs may be fairly common among certain subsets of offenders, the overwhelming weight of evidence from gun recovery and survey studies indicates that AWs are used in a small percentage of gun crimes overall.

3.1.2. Are Assault Weapons More Attractive to Criminal Users Than Other Gun Users?

Although AWs are used in a small percentage of gun crimes, some have argued that AWs are more likely to be used in crime than other guns, i.e., that AWs are more attractive to criminal than lawful gun users due to the weapons' military-style features and their particularly large ammunition magazines. Such arguments are based on data implying that AWs are more common among crime guns than among the general stock of civilian firearms. According to some estimates generated prior to the federal ban, AWs accounted for less than one percent of firearms owned by civilians but up to 11% of guns used in crime, based on firearms reported by police to ATF between 1986 and 1993 (e.g., see Cox Newspapers, 1989; Lennett, 1995). However, these estimates were problematic in a number of respects. As discussed in Chapter 6, ATF statistics are not necessarily representative of the types of guns most commonly recovered by police, and ATF statistics from the late 1980s and early 1990s in particular tended to overstate the prevalence of AWs among crime guns. Further, estimating the percentage of civilian weapons that are AWs is difficult because gun production data are not reported by model, and one must also make assumptions about the rate of attrition among the stock of civilian firearms.

Our own more recent assessment indicates that AWs accounted for about 2.5% of guns produced from 1989 through 1993 (see Chapter 5). Relative to previous estimates, this may signify that AWs accounted for a growing share of civilian firearms in the years just before the ban, though the previous estimates likely did not correspond to the exact list of weapons banned in 1994 and thus may not be entirely comparable to our estimate. At any rate, the 2.5% figure is comparable to most of the AW crime gun estimates listed above; hence, it is not clear that AWs are used disproportionately in most crimes, though AWs still seem to account for a somewhat disproportionate share of guns used in murders and other serious crimes.

Perhaps the best evidence of a criminal preference for AWs comes from a study of young adult handgun buyers in California that found buyers with minor criminal histories (i.e., arrests or misdemeanor convictions that did not disqualify them from purchasing firearms) were more than twice as likely to purchase APs than were buyers with no criminal history (4.6% to 2%, respectively) (Wintemute et al., 1998a). Those with more serious criminal histories were even more likely to purchase APs: 6.6% of those who had been charged with a gun offense bought APs, as did 10% of those who had been charged with two or more serious violent offenses. AP purchasers were also more likely to be arrested subsequent to their purchases than were other gun purchasers.

Among gun buyers with prior charges for violence, for instance, AP buyers were more than twice as likely as other handgun buyers to be charged with any new offense and three times as likely to be charged with a new violent or gun offense. To our knowledge, there have been no comparable studies contrasting AR buyers with other rifle buyers.

3.2. Criminal Use of Large Capacity Magazines

Relative to the AW issue, criminal use of LCMs has received relatively little attention. Yet the overall use of guns with LCMs, which is based on the combined use of AWs and non-banned guns with LCMs, is much greater than the use of AWs alone. Based on data examined for this and a few prior studies, guns with LCMs were used in roughly 14% to 26% of most gun crimes prior to the ban (see Chapter 8; Adler et al., 1995; Koper, 2001; New York Division of Criminal Justice Services, 1994).

- Baltimore (all guns recovered by police, 1993): 14%
- Milwaukee (guns recovered in murder investigations, 1991-1993): 21%
- Anchorage, Alaska (handguns used in serious crimes, 1992-1993): 26%
- New York City (guns recovered in murder investigations, 1993): 16-25%[15]
- Washington, DC (guns recovered from juveniles, 1991-1993): 16%[16]
- National (guns used in murders of police, 1994): 31%-41%[17]

Although based on a small number of studies, this range is generally consistent with national survey estimates indicating approximately 18% of all civilian-owned guns and 21% of civilian-owned handguns were equipped with LCMs as of 1994 (Cook and Ludwig, 1996, p. 17). The exception is that LCMs may have been used disproportionately in murders of police, though such incidents are very rare.

As with AWs and crime guns in general, most crime guns equipped with LCMs are handguns. Two handgun models manufactured with LCMs prior to the ban (the Glock 17 and Ruger P89) were among the 10 crime gun models most frequently recovered by law enforcement and reported to ATF during 1994 (ATF, 1995).

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[15] The minimum estimate is based on cases in which discharged firearms were recovered, while the maximum estimate is based on cases in which recovered firearms were positively linked to the case with ballistics evidence (New York Division of Criminal Justice Services, 1994).

[16] Note that Washington, DC prohibits semiautomatic firearms accepting magazines with more than 12 rounds (and handguns in general).

[17] The estimates are based on the sum of cases involving AWs or other guns sold with LCMs (Adler et al., 1995, p.4). The minimum estimate is based on AW-LCM cases as a percentage of all gun murders of police. The maximum estimate is based on AW-LCM cases as a percentage of cases in which the gun model was known.

3.3. Summary

In sum, AWs and LCMs were used in up to a quarter of gun crimes prior to the 1994 AW-LCM ban. By most estimates, AWs were used in less than 6% of gun crimes even before the ban. Some may have perceived their use to be more widespread, however, due to the use of AWs in particularly rare and highly publicized crimes such as mass shootings (and, to a lesser extent, murders of police), survey reports suggesting high levels of AW ownership among some groups of offenders, and evidence that some AWs are more attractive to criminal than lawful gun buyers.

In contrast, guns equipped with LCMs – of which AWs are a subset – are used in roughly 14% to 26% of gun crimes. Accordingly, the LCM ban has greater potential for affecting gun crime. However, it is not clear how often the ability to fire more than 10 shots without reloading (the current magazine capacity limit) affects the outcomes of gun attacks (see Chapter 9). All of this suggests that the ban's impact on gun violence is likely to be small.

4. OVERVIEW OF STUDY DESIGN, HYPOTHESES, AND PRIOR FINDINGS

Section 110104 of the AW-LCM ban directed the Attorney General of the United States to study the ban's impact and report the results to Congress within 30 months of the ban's enactment, a provision which was presumably motivated by a sunset provision in the legislation (section 110105) that will lift the ban in September 2004 unless Congress renews the ban. In accordance with the study requirement, the National Institute of Justice (NIJ) awarded a grant to the Urban Institute to study the ban's short-term (i.e., 1994-1996) effects. The results of that study are available in a number of reports, briefs, and articles written by members of this research team (Koper and Roth, 2001a; 2001b; 2002a; Roth and Koper, 1997; 1999).[18] In order to understand the ban's longer-term effects, NIJ provided additional funding to extend the AW research. In 2002, we delivered an interim report to NIJ based on data extending through at least the late 1990s (Koper and Roth, 2002b). This report is based largely on the 2002 interim report, but with various new and updated analyses extending as far as 2003. It is thus a compilation of analyses conducted between 1998 and 2003. The study periods vary somewhat across the analyses, depending on data availability and the time at which the data were collected.

4.1. Logical Framework for Research on the Ban

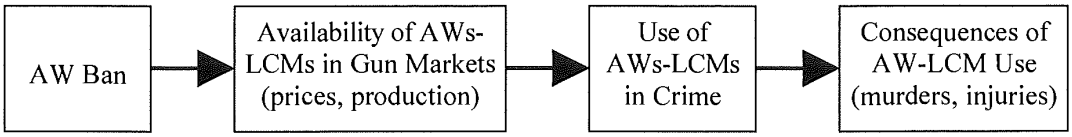
An important rationale for the AW-LCM ban is that AWs and other guns equipped with LCMs are particularly dangerous weapons because they facilitate the rapid firing of high numbers of shots, thereby potentially increasing injuries and deaths from gun violence. Although AWs and LCMs were used in only a modest share of gun crimes before the ban, it is conceivable that a decrease in their use might reduce fatal and non-fatal gunshot victimizations, even if it does not reduce the overall rate of gun crime. (In Chapter 9, we consider in more detail whether forcing offenders to substitute other guns and smaller magazines can reduce gun deaths and injuries.)

It is not clear how quickly such effects might occur, however, because the ban exempted the millions of AWs and LCMs that were manufactured prior to the ban's effective date in September 1994. This was particularly a concern for our first study, which was based on data extending through mid-1996, a period potentially too short to observe any meaningful effects. Consequently, investigation of the ban's effects on gun markets – and, most importantly, how they have affected criminal use of AWs and LCMs – has played a central role in this research. The general logic of our studies, illustrated in Figure 4-1, has been to first assess the law's impact on the availability of AWs and LCMs, examining price and production (or importation) indices in legal markets and relating them to trends in criminal use of AWs and LCMs. In turn, we can relate these market patterns to trends in the types of gun crimes most likely to be affected by changes in the use of AWs and LCMs. However, we cannot make definitive assessments of the

[18] The report to Congress was the Roth and Koper (1997) report.

ban's impact on gun violence until it is clear that the ban has indeed reduced criminal use of AWs and LCMs.

Figure 4-1. Logic Model for Research on the Assault Weapons Ban



4.2. Hypothesized Market Effects

4.2.1. A General Description of Gun Markets

Firearms are distributed in markets commonly referred to as primary and secondary markets. Illicit gun transactions occur in both markets. Primary markets include wholesale and retail transactions by federally-licensed gun dealers, referred to as federal firearm licensees. Licensed dealers are required to, among things, follow federal and state background procedures to verify the eligibility of purchasers, observe any legally required waiting period prior to making transfers, and maintain records of gun acquisitions and dispositions (though records are not required for sales of ammunition magazines).

Despite these restrictions, survey data suggest that as many as 21% of adult gun offenders obtained guns from licensed dealers in the years prior to the ban (Harlow, 2001, p. 6; also see Wright and Rossi, 1986, pp. 183,185). In more recent years, this figure has declined to 14% (Harlow, 2001, p. 6), due likely to the Brady Act, which established a national background check system for purchases from licensed dealers, and reforms of the federal firearms licensing system that have greatly reduced the number of licensed gun dealers (see ATF, 2000; Koper, 2002). Some would-be gun offenders may be legally eligible buyers at the time of their acquisitions, while others may seek out corrupt dealers or use other fraudulent or criminal means to acquire guns from retail dealers (such as recruiting a legally entitled buyer to act as a "straw purchaser" who buys a gun on behalf of a prohibited buyer).

Secondary markets encompass second-hand gun transactions made by non-licensed individuals.[19] Secondary market participants are prohibited from knowingly transferring guns to ineligible purchasers (e.g., convicted felons and drug abusers). However, secondary transfers are not subject to the federal record-keeping and background check requirements placed on licensed dealers, thus making the secondary

[19] Persons who make only occasional sales of firearms are not required to obtain a federal firearms license (ATF, 2000, p. 11).

market almost entirely unregulated and, accordingly, a better source of guns for criminal users.[20] In the secondary market, ineligible buyers may obtain guns from a wide variety of legitimate or illegitimate gun owners: relatives, friends, fences, drug dealers, drug addicts, persons selling at gun shows, or other strangers (e.g., see Wright and Rossi, 1986; Sheley and Wright, 1993a). Of course, ineligible purchasers may also steal guns from licensed gun dealers and private gun owners.

Secondary market prices are generally lower than primary market prices (because the products are used), though the former may vary substantially across a range of gun models, places, circumstances, and actors. For example, street prices of AWs and other guns can be 3 to 6 times higher than legal retail prices in jurisdictions with strict gun controls and lower levels of gun ownership (Cook et al., 1995, p. 72). Nonetheless, experts note that primary and secondary market prices correspond to one another, in that relatively expensive guns in the primary market are also relatively expensive in the secondary market. Moreover, in any given locality, trends in secondary market prices can be expected to track those in the primary market because a rise in primary market prices for new weapons will increase demand for used weapons and therefore increase secondary market prices (Cook et al., 1995, p. 71).

4.2.2. The AW-LCM Ban and Gun Markets

In the long term, we can expect prices of the banned guns and magazines to gradually rise as supplies dwindle. As prices rise, more would-be criminal users of AWs and LCMs will be unable or unwilling to pay the higher prices. Others will be discouraged by the increasing non-monetary costs (i.e., search time) of obtaining the weapons. In addition, rising legal market prices will undermine the incentive for some persons to sell AWs and LCMs to prohibited buyers for higher premiums, thereby bidding some of the weapons away from the channels through which they would otherwise reach criminal users. Finally, some would-be AW and LCM users may become less willing to risk confiscation of their AWs and LCMs as the value of the weapons increases. Therefore, we expect that over time diminishing stocks and rising prices will lead to a reduction in criminal use of AWs and LCMs.[21]

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[20] Some states require that secondary market participants notify authorities about their transactions. Even in these states, however, it is not clear how well these laws are enforced.

[21] We would expect these reductions to be apparent shortly after the price increases (an expectation that, as discussed below, was confirmed in our earlier study) because a sizeable share of guns used in crime are used within one to three years of purchase. Based on analyses of guns recovered by police in 17 cities, ATF (1997, p. 8) estimates that guns less than 3 years old (as measured by the date of first retail sale) comprise between 22% and 43% of guns seized from persons under age 18, between 30% and 54% of guns seized from persons ages 18 to 24, and between 25% and 46% of guns seized from persons over 24. In addition, guns that are one year old or less comprise the largest share of relatively new crime guns (i.e., crime guns less than three years old) (Pierce et al., 1998, p. 11). Similar data are not available for secondary market transactions, but such data would shorten the estimated time from acquisition to criminal use.

However, the expected timing of the market processes is uncertain. We can anticipate that AW and LCM prices will remain relatively stable for as long as the supply of grandfathered weapons is adequate to meet demand. If, in anticipation of the ban, gun manufacturers overestimated the demand for AWs and LCMs and produced too many of them, prices might even fall before eventually rising. Market responses can be complicated further by the continuing production of legal AW substitute models by some gun manufacturers. If potential AW buyers are content with an adequate supply of legal AW-type weapons having fewer military features, it will take longer for the grandfathered AW supply to constrict and for prices to rise. Similarly, predicting LCM price trends is complicated by the overhang of military surplus magazines that can fit civilian weapons (e.g., military M-16 rifle magazines that can be used with AR-15 type rifles) and by the market in reconditioned magazines. The "aftermarket" in gun accessories and magazine extenders that can be used to convert legal guns and magazines into banned ones introduces further complexity to the issue.

4.3. Prior Research on the Ban's Effects

To summarize the findings of our prior study, Congressional debate over the ban triggered pre-ban speculative price increases of upwards of 50% for AWs during 1994, as gun distributors, dealers, and collectors anticipated that the weapons would become valuable collectors' items. Analysis of national and local data on guns recovered by police showed reductions in criminal use of AWs during 1995 and 1996, suggesting that rising prices made the weapons less accessible to criminal users in the short-term aftermath of the ban.

However, the speculative increase in AW prices also prompted a pre-ban boost in AW production; in 1994, AW manufacturers produced more than twice their average volume for the 1989-1993 period. The oversupply of grandfathered AWs, the availability of the AW-type legal substitute models mentioned earlier, and the steady supply of other non-banned semiautomatics appeared to have saturated the legal market, causing advertised prices of AWs to fall to nearly pre-speculation levels by late 1995 or early 1996. This combination of excess supply and reduced prices implied that criminal use of AWs might rise again for some period around 1996, as the large stock of AWs would begin flowing from dealers' and speculators' gun cases to the secondary markets where ineligible purchasers may obtain guns more easily.

We were not able to gather much specific data about market trends for LCMs. However, available data did reveal speculative, pre-ban price increases for LCMs that were comparable to those for AWs (prices for some LCMs continued to climb into 1996), leading us to speculate – incorrectly, as this study will show (see Chapter 8) – that there was some reduction in LCM use after the ban.[22]

[22] To our knowledge, there have been two other studies of changes in AW and LCM use during the post-ban period. One study reported a drop in police recoveries of AWs in Baltimore during the first half of 1995 (Weil and Knox, 1995), while the other found no decline in recoveries of AWs or LCMs in Milwaukee homicide cases as of 1996 (Hargarten et al., 2000). Updated analyses for both of these cities

Determining whether the reduction in AW use (and perhaps LCM use) following the ban had an impact on gun violence was more difficult. The gun murder rate dropped more in 1995 (the first year following the ban) than would have been expected based on preexisting trends, but the short post-ban follow-up period available for the analysis precluded a definitive assessment as to whether the reduction was statistically meaningful (see especially Koper and Roth, 2001a). The reduction was also larger than would be expected from the AW-LCM ban, suggesting that other factors were at work in accelerating the decline. Using a number of national and local data sources, we also examined trends in measures of victims per gun murder incident and wounds per gunshot victim, based on the hypothesis that these measures might be more sensitive to variations in the use of AWs and LCMs. These analyses revealed no ban effects, thus failing to show confirming evidence of the mechanism through which the ban was hypothesized to affect the gun murder rate. However, newly available data presented in subsequent chapters suggest these assessments may have been premature, because any benefits from the decline in AW use were likely offset by steady or rising use of other guns equipped with LCMs, a trend that was not apparent at the time of our earlier study.

We cautioned that the short-term patterns observed in the first study might not provide a reliable guide to longer-term trends and that additional follow-up was warranted. Two key issues to be addressed were whether there had been a rebound in AW use since the 1995-1996 period and, if so, whether that rebound had yet given way to a long-term reduction in AW use. Another key issue was to seek more definitive evidence on short and long-term trends in the availability and criminal use of LCMs. These issues are critical to assessing the effectiveness of the AW-LCM ban, but they also have broader implications for other important policy concerns, namely, the establishment of reasonable timeframes for sunset and evaluation provisions in legislation. In other words, how long is long enough in evaluating policy and setting policy expiration dates?

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are presented in Chapters 6 and 8.

5. MARKET INDICATORS FOR ASSAULT WEAPONS: PRICES AND PRODUCTION

This chapter assesses the ban's impact on the availability of AWs in primary and secondary markets, as measured by trends in AW prices and post-ban production of legal AW substitute models. Understanding these trends is important because they influence the flow of grandfathered weapons to criminals and the availability of non-banned weapons that are close substitutes for banned ones. In the next chapter, we assess the impact of these trends on criminal use of AWs, as approximated by statistics on gun seizures by police. (Subsequent chapters present similar analyses for LCMs.)

Following our previous methods, we compare trends for AWs to trends for various non-banned firearms. The AW analyses generally focus on the most common AWs formerly produced in the U.S., including Intratec and SWD-type APs and AR-15-type ARs produced by Colt and others. In addition, we selected a small number of domestic pistol and rifle models made by Calico and Feather Industries that fail the features test provision of the AW legislation and that were relatively common among crime guns reported by law enforcement agencies to ATF prior to the ban (see Roth and Koper, 1997, Chapter 5). Together, this group of weapons represented over 80% of AWs used in crime and reported to ATF from 1993 through 1996, and the availability of these guns was not affected by legislation or regulations predating the AW-LCM ban.[23] We also examine substitution of legalized, post-ban versions of these weapons, including the Intratec AB-10 and Sport-22, FMJ's PM models (substitutes for the SWD group), Colt Sporters, Calico Liberty models, and others. We generally did not conduct comparative analyses of named foreign AWs (the Uzi, Galil, and AK weapons) because the 1989 federal import ban had already limited their availability, and their legal status was essentially unchanged by the 1994 ban.

The exact gun models and time periods covered vary across the analyses (based on data availability and the time at which data were collected). The details of each analysis are described in the following sections.

5.1. Price Trends for Assault Weapons and Other Firearms

To approximate trends in the prices at which AWs could be purchased throughout the 1990s, we collected annual price data for several APs, ARs, and non-banned comparison firearms from the *Blue Book of Gun Values* (Fjestad, 1990-1999). The *Blue Book* provides national average prices for an extensive list of new and used firearms based on information collected at gun shows and input provided by networks of dealers

[23] The Intratec group includes weapons made by AA Arms. The SWD group contains related models made by Military Armaments Corporation/Ingram and RPB Industries. The AR-15 group contains models made by Colt and copies made by Bushmaster, Olympic Arms, Eagle Arms, SGW Enterprises, Essential Arms, DPMS, and Sendra.

and collectors. The *Blue Book* is utilized widely in the gun industry, though prices in any given locality may differ notably from the averages appearing in the *Blue Book*.

To assess time trends in gun prices, we conducted hedonic price analyses (Berndt, 1990) in which the gun prices were regressed upon a series of year and model indicators. The coefficients for the year indicators show annual changes in the prices of the guns relative to 1994 (the year the ban went into effect), controlling for time-stable differences in the prices of various gun models. Since manufacturers' suggested retail prices (MSRP) were not available for banned AWs during post-ban years, we utilized prices for AWs in 100% condition for all years.[24] For non-banned firearms, we used MSRP.[25] For all models, we divided the gun prices by annual values of the gross domestic product price deflator provided in the December 2001 and 2000 issues of *Economic Indicators* and logged these adjusted prices.

Each model presented below is based on data pooled across a number of firearm models and years, so that observation P_{jt} represents the price of gun model j during year t. We weighted each observation, P_{jt}, based on cumulative estimates of the production of model j from 1985 or 1986 (depending on data availability) through year t using data provided by gun manufacturers to ATF and published by the Violence Policy Center (1999).[26, 27]

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[24] Project staff also collected prices of weapons in 80% condition. However, the levels and annual changes of the 80% prices were very highly correlated (0.86 to 0.99) with those of the 100% condition prices. Therefore, we limited the analysis to the 100% prices.

[25] We utilized prices for the base model of each AW and comparison firearm (in contrast to model variations with special features or accessories).

[26] The regression models are based on equal numbers of observations for each gun model. Hence, unweighted regressions would give equal weight to each gun model. This does not seem appropriate, however, because some guns are produced in much larger numbers than are other guns. Weighting the regression models by production estimates should therefore give us a better sense of what one could "typically" expect to pay for a generic gun in each study category (e.g., a generic assault pistol).

[27] Several of the selected weapons began production in 1985 or later. In other cases, available production data extended back to only the mid-1980s. Published production figures for handguns are broken down by type (semiautomatic, revolver) and caliber and thus provide perfect or very good approximations of production for the handgun models examined in this study. Rifle production data, however, are not disaggregated by gun type, caliber, or model. For the ARs under study, the production counts should be reasonable approximations of AR production because most of the rifles made by the companies in question prior to the ban were ARs. The rifles used in the comparison (i.e., non-banned) rifle analysis are made by companies (Sturm Ruger, Remington, and Marlin) that produce numerous semiautomatic and non-semiautomatic rifle models. However, the overall rifle production counts for these companies should provide some indication of differences in the availability of the comparison rifles relative to one another. Because production data were available through only 1997 at the time this particular analysis was conducted (Violence Policy Center, 1999), we used cumulative production through 1997 to weight the 1998 and 1999 observations for the comparison handgun and comparison rifle models. This was not a consideration for AWs since their production ceased in 1994 (note that the AW production figures for 1994 may include some post-ban legal substitute models manufactured after September 13, 1994). Nonetheless, weighting had very little effect on the inferences from either of the comparison gun models.

5.1.1. Assault Pistol Prices

The analysis of AP prices focuses on the Intratec TEC-9/DC-9, TEC-22, SWD M-11/9, and Calico M950 models. Regression results are shown in Table 5-1, while Figure 5-1 graphically depicts the annual trend in prices for the period 1990 through 1999. None of the yearly coefficients in Table 5-1 is statistically significant, thus indicating that average annual AP prices did not change during the 1990s after adjusting for inflation. Although the model is based on a modest number of observations (n=40) that may limit its statistical power (i.e., its ability to detect real effects), the size of the yearly coefficients confirm that prices changed very little from year to year. The largest yearly coefficient is for 1990, and it indicates that AP prices were only 4% higher in 1990 than in 1994.[28]

This stands in contrast to our earlier finding (Roth and Koper, 1997, Chapter 4) that prices for SWD APs may have risen by as much as 47% around the time of the ban. However, the earlier analyses were based on semi-annual or quarterly analyses advertised by gun distributors and were intended to capture short-term fluctuations in price that assumed greater importance in the context of the first AW study, which could examine only short-term ban outcomes. *Blue Book* editions released close in time to the ban (e.g., 1995) also cautioned that prices for some AWs were volatile at that time. This study emphasizes longer-term price trends, which appear to have been more stable.[29]

[28] To interpret the coefficient of each indicator variable in terms of a percentage change in the dependent variable, we exponentiate the coefficient, subtract 1 from the exponentiated value, and multiply the difference by 100.

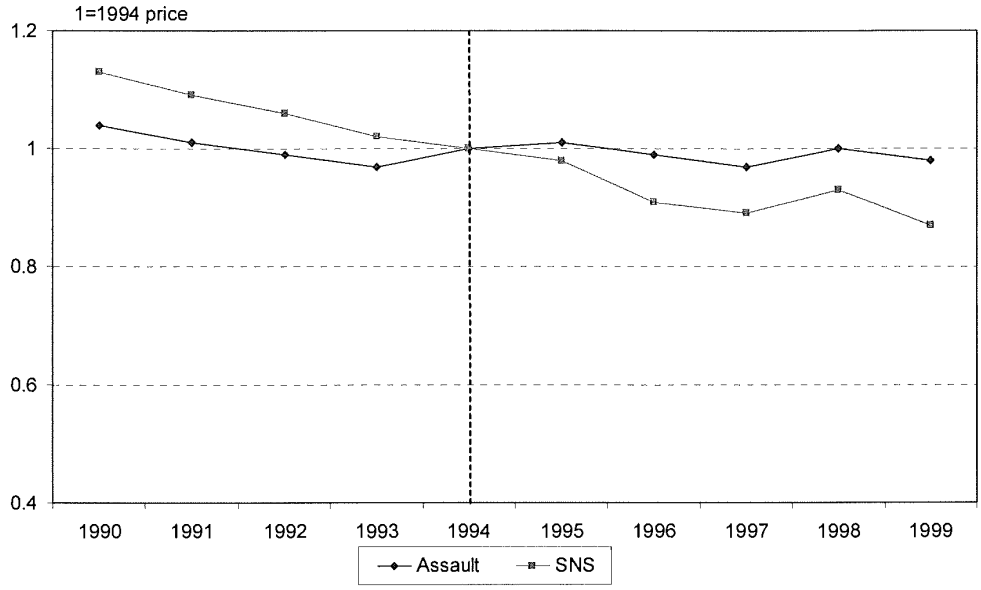
[29] Although the earlier analysis of AP prices focused on the greatest variations observed in semi-annual prices, the results also provide indications that longer-term trends were more stable. Prices in 1993, for example, averaged roughly 73% of the peak prices reached at the time the ban was implemented (i.e., late 1994), while prices in early 1994 and late 1995 averaged about 83% and 79% of the peak prices, respectively. Hence, price variation was much more modest after removing the peak periods around the time of the ban's implementation (i.e., late 1994 and early 1995). The wider range of APs used in the current study may also be responsible for some of the differences between the results of this analysis and the prior study.

Table 5-1. Regression of Assault Pistol and Comparison Handgun Prices on Annual Time Indicators, 1990-1999, Controlling for Gun Model

	Assault Pistols (n=40)		Comparison Handguns (n=38)	
	Estimate	**T Value**	**Estimate**	**T Value**
Constant	1.56	26.94***	-0.21	-6.81***
1990	0.04	1.07	0.12	2.07**
1991	0.01	0.30	0.09	1.79*
1992	-0.01	-0.32	0.05	1.30
1993	-0.03	-1.09	0.02	0.48
1995	0.01	0.22	-0.02	-0.48
1996	-0.01	-0.45	-0.09	-2.69***
1997	-0.03	-1.13	-0.11	-3.26***
1998	0.00	-0.10	-0.07	-1.99*
1999	-0.02	-0.58	-0.14	-4.02***
Tec-9	-0.67	-11.95***		
Tec-22	-0.89	-15.59***		
SWD	-0.64	-11.49***		
Davis P32			0.09	3.63***
Davis P380			0.20	8.20***
Lorcin L380			0.29	11.35***
F value	27.79		16.24	
(p value)	<.01		<.01	
Adj. R-square	0.89		0.83	

Time indicators are interpreted relative to 1994. Assault pistol model indicators are interpreted relative to Calico 9mm. Comparison handgun models are interpreted relative to Lorcin .25 caliber.
* Statistically significant at p<=.10.
** Statistically significant at p<=.05.
*** Statistically significant at p<=.01.

Figure 5-1. Annual Price Trends for Assault Pistols and SNS Handguns, 1990-1999



Assault pistol prices basd on TEC9, TEC22, SWD M11/9, and Calico M950. SNS prices based on Davis P32 and P380 and Lorcin L25 and L380.

5.1.2. Comparison Handgun Prices

For comparison, Table 5-1 and Figure 5-1 illustrate price trends for a number of non-banned, cheaply priced, and readily concealable semiautomatic handgun models: the Davis P32 and P380 and the Lorcin L25 and L380. Such guns are often referred to as Saturday night specials (SNS). By a number of accounts, SNS-type guns, and Davis and Lorcin models in particular, are among the guns most frequently used in crime (ATF, 1995; 1997; Kennedy et al., 1996; Wintemute, 1994). Although the differences between APs and SNS handguns (particularly the fact that most SNS handguns do not have LCMs) suggest they are likely to be used by gun consumers with different levels of firearms experience and sophistication, the SNS guns are arguably a good comparison group for APs because both groups of guns are particularly sensitive to criminal demand. Like AP buyers, SNS buyers are more likely than other gun buyers to have criminal histories and to be charged with new offenses, particularly violent or firearm offenses, subsequent to their purchases (Wintemute et al., 1998b).

Prices of SNS handguns dropped notably throughout the 1990s. Prices for SNS handguns were 13% higher in 1990 than in 1994. Prices then dropped another 13% from 1994 to 1999. This suggests that although AP prices remained generally stable throughout the 1990s, they increased relative to prices of other guns commonly used in crime. We say more about this below.

5.1.3. Assault Rifle Prices

To assess trends in prices of ARs, we examined prices for several Colt and Olympic rifle models in the AR-15 class, as well as Calico models M900 and M951 and Feather models AT9 and AT22.[30] Because rifle production data are not disaggregated by weapon type (semiautomatic, bolt action, etc.), caliber, or model, the regressions could only be weighted using overall rifle production counts for each company. For this reason, we calculated the average price of the ARs made by each company for each year and modeled the trends in these average prices over time, weighting by each company's total rifle production.[31]

Results shown in Table 5-2 and Figure 5-2 demonstrate that AR prices rose significantly during 1994 and 1995 before falling back to pre-ban levels in 1996 and remaining there through 1999. Prices rose 16% from 1993 to 1994 and then increased another 13% in 1995 (representing an increase of nearly one third over the 1993 level). Yet by 1996, prices had fallen to levels virtually identical to those before 1994. These patterns are consistent with those we found earlier for the 1992-1996 period (Roth and Koper, 1997, Chapter 4), though the annual price fluctuations shown here were not as dramatic as the quarterly changes shown in the earlier study.

Note, however, that these patterns were not uniform across all of the AR categories. The results of the model were driven largely by the patterns for Colt rifles, which are much more numerous than the other brands. Olympic rifles increased in price throughout the time period, while prices for most Calico and Feather rifles tended to fall throughout the 1990s without necessarily exhibiting spikes around the time of the ban.

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[30] Specifically, we tracked prices for the Match Target Lightweight (R6530), Target Government Model (R6551), Competition H-Bar (R6700), and Match Target H-Bar (R6601) models by Colt and the Ultramatch, Service Match, Multimatch M1-1, AR15, and CAR15 models by Olympic Arms. Each of these models has a modified, post-ban version. We utilized prices for the pre-ban configurations during post-ban years.

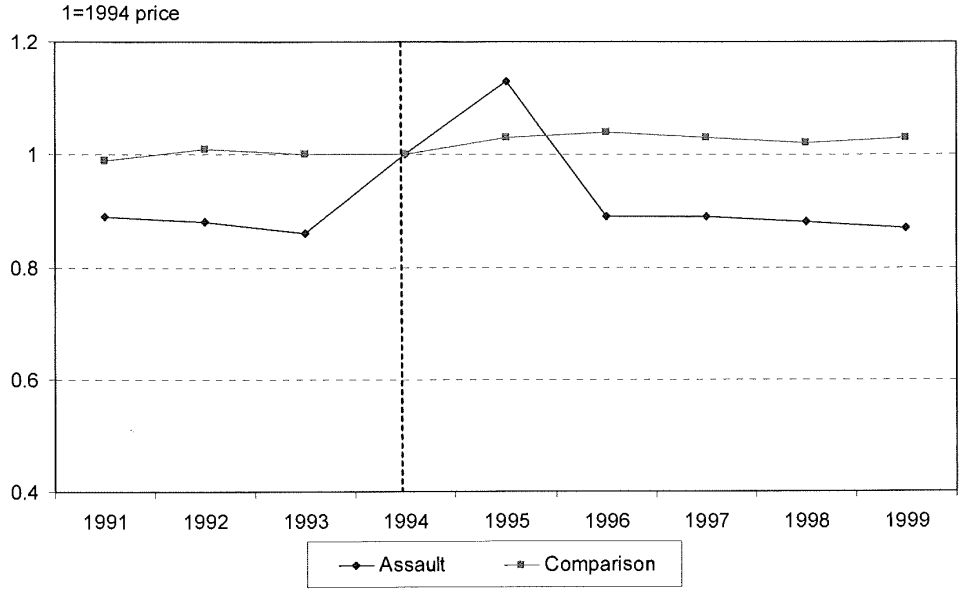
[31] Prices for the different models made by a given manufacturer tended to follow comparable trends, thus strengthening the argument for averaging prices.

Table 5-2. Regression of Assault Rifle and Comparison Semiautomatic Rifle Prices on Annual Time Indicators, 1991-1999, Controlling for Gun Make

	Assault Rifles (n=36)		Comparison Rifles (n=27)	
	Estimate	**T value**	**Estimate**	**T value**
Constant	1.31	21.15***	1.40	76.75***
1991	-0.12	-1.98*	-0.01	-0.21
1992	-0.13	-2.26**	0.01	0.30
1993	-0.15	-2.78**	0	-0.13
1995	0.12	2.47**	0.03	1.08
1996	-0.11	-2.27**	0.04	1.69
1997	-0.11	-2.23**	0.03	1.46
1998	-0.12	-2.47**	0.02	0.91
1999	-0.14	-2.71**	0.03	1.21
Colt (AR-15 type)	1.07	19.93***		
Olympic (AR-15 type)	1.14	16.08***		
Calico	0.43	5.53***		
Ruger			0.26	20.07***
Remington			0.29	21.69***
F statistic	50.52			63.62
(p value)	<.01			<.01
Adj. R-square	0.94			0.96

Time indicators interpreted relative to 1994. Assault rifle makes interpreted relative to Feather.
Comparison rifle makes interpreted relative to Marlin.
* Statistically significant at p<=.10.
** Statistically significant at p<=.05.
*** Statistically significant at p<=.01.

Figure 5-2. Annual Price Trends for Assault Rifles and Comparison Semiautomatic Rifles, 1991-1999



Assault rifle prices based on Colt and Olympic AR-type, Calico, and Feather models. Comparison rifle prices based on selected Remington, Marlin, and Sturm Ruger models.

5.1.4. Comparison Semiautomatic Rifles.

The analysis of comparison rifle prices includes the Remington 7400, Marlin Model 9, and Sturm Ruger Mini-14 and Mini-30 models (the Ruger model prices were averaged for each year). The AW legislation exempted each of these semiautomatic rifles by name, though the exemption does not apply to Mini-14 models with folding stocks (a feature included in the ban's features test). The Ruger models are of particular interest since they are among only four exempted guns that can accept LCMs made for military rifles (U.S. Department of the Treasury, 1998, p. 23), though Ruger produced LCMs only for the Mini-14 model and substituted a 5-round magazine for this gun in 1989 (Fjestad, 2002, pp. 1361-1362). The Marlin model was also manufactured with an LCM prior to 1990 (Fjestad, 2002, p. 917). The Remington model is manufactured with a detachable 4-round magazine.

Prices for these guns remained steady throughout the decade (see Table 5-2 and Figure 5-2). The largest change was a 4% increase (non-significant) in prices in 1996 relative to prices in 1994. Therefore, the rifle price spikes in 1994 and 1995 were specific to assault rifles. However, the steady annual price trends may mask short-term fluctuations that we found

previously (Roth and Koper, 1997, Chapter 4) for some non-banned semiautomatic rifles (including the Ruger Mini-14) during 1994 and early 1995.[32]

5.2. Production Trends for Assault Weapons and Other Firearms

To more fully assess the ban's effects on gun markets, examination of pre and post-ban trends in production of AWs and legal AW substitutes is a useful complement to studying price trends. Our earlier work revealed a spike in AW production during 1994 as the ban was being debated. Post-ban production of legal AW substitutes should reveal additional information about the reaction of gun markets to the ban. If production of these models has fallen off dramatically, it may suggest that the market for AWs has been temporarily saturated and/or that consumers of AWs favor the original AW models that have more military-style features. Stable or rising production levels, on the other hand, may indicate substantial consumer demand for AW substitutes, which would suggest that consumers consider the legal substitute models to be as desirable as the banned models.

5.2.1. Production of Assault Pistols and Other Handguns

Figure 5-3 presents production trends for a number of domestic AP manufacturers from 1985 through 2001 (the most recent year available for data on individual manufacturers).[33] After rising in the early 1990s and surging notably to a peak in 1994, production by these companies dropped off dramatically, falling 80% from 1993-1994 to 1996-1997 and falling another 35% by 1999-2000 (Table 5-3).[34] Makers of Intratec and SWD-type APs continued manufacturing modified versions of their APs for at least a few years following the ban, but at much lower volumes than that at which they produced APs just prior to the ban. Companies like AA Arms and Calico produced very few or no AP-type pistols from 1995 onward, and Intratec – producers of the APs most frequently used in crime – went out of business after 1999.

However, the pattern of rising and then falling production was not entirely unique to APs. Table 5-3 shows that production of all handguns and production of SNS-type pistols both declined sharply in the mid to late 1990s following a peak in 1993. Nonetheless, the trends –

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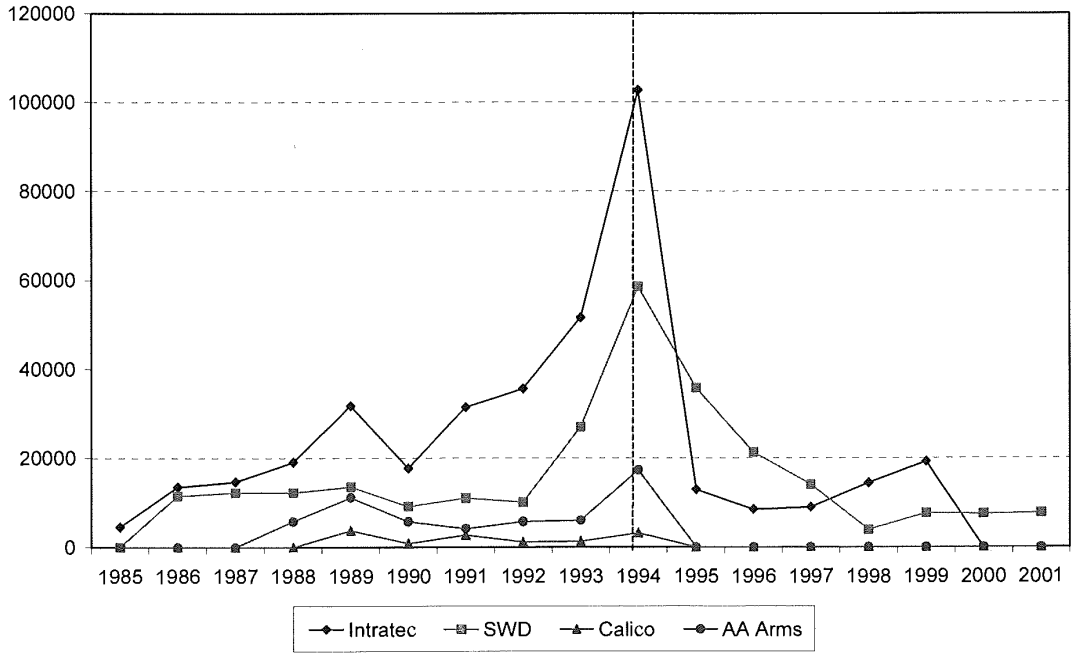
[32] We attributed those short-term fluctuations to pre-ban uncertainty regarding which semiautomatic rifles would be prohibited by the ban. Also note that the prior findings were based on a different set of comparison semiautomatic rifles that included a number of foreign rifles. We concentrated on domestically produced rifles for this updated analysis in order to make more explicit links between rifle price and production trends (data for the latter are available only for domestic firearms).

[33] Production figures for individual manufacturers through 2000 have been compiled by the Violence Policy Center (2002). Year 2001 data are available from ATF via the Internet (see www.atf.treas.gov). National gun production totals through 1998 are also available from ATF (2000, p. A-3).

[34] The assault pistol production figures used here and in the price analysis include 9mm and .22 caliber pistols made by Intratec, 9mm pistols manufactured by AA Arms, all non-.22 caliber pistols manufactured by S.W. Daniels, Wayne Daniels, and Military Armaments Corporation (which together constitute the SWD group), and .22 and 9mm pistols manufactured by Calico. Intratec produces a few non-AW models in .22 and 9mm calibers, so the Intratec figures will overstate production of assault pistols and their legal substitutes to some degree. The comparison, SNS production figures are based on all handguns produced by Lorcin Engineering and Davis Industries.

both peak and decline – were more dramatic for APs than for other handguns. Production of APs rose 69% from 1990-1991 to 1993-1994, while SNS production and overall handgun production each increased 47%. From 1993-1994 to 1996-1997, production of AP-type handguns, SNS models, and all handguns declined 80%, 66%, and 47%, respectively. Further, production of AP-type handguns continued to decline at a faster rate than that of other handguns through the end of the decade.[35]

Figure 5-3. Assault Pistol Production, 1985-2001



[35] Lorcin, a prominent SNS brand that we examined for the price and production analyses, went out of business after 1998. Unlike the situation in the AP market (where, to our knowledge, former AP makers have not been replaced on any large scale), the SNS market appears to have compensated somewhat to offset the loss of Lorcin. The SNS change from 1996-1997 to 1999-2000 is based on examination of a larger group of SNS-type makers, including Lorcin, Davis, Bryco, Phoenix Arms, and Hi-Point. Production among this group declined by 22% from 1996-1997 to 1999-2000, a decline greater than that for total handgun production but less than that for AP-type production.

Table 5-3. Production Trends for Assault Weapons and Other Firearms, 1990-2000*

Firearm Category	% Change 1990/91 to 1993/94	% Change 1993/94 to 1996/97	% Change 1996/97 to 1999/2000
Total Handguns	47%	-47%	-10%
Assault Pistols (or Post-Ban Models)	69%	-80%	-35%
SNS Handguns	47%	-66%	-22%
Total Rifles	22%	8%	18%
Assault Rifles (or Post-Ban Models)	81%	-51%	156%
Comparison Rifles	15%	13%	-16%

* Total handgun and rifle figures include all production by U.S. manufacturers. Assault pistols include Intratec group, SWD group, and Calico models. SNS figures are based on Lorcin Engineering and Davis Industries for changes up through 1996-1997. Because Lorcin went out of business after 1998, the SNS change from 1996-1997 to 1999-2000 is based on a larger group of SNS makers including Lorcin, Davis, Bryco, Phoenix Arms, and Hi-Point. Assault rifles include AR-15 type models by Colt and others. Comparison rifles include Sturm Ruger, Remington, and Marlin.

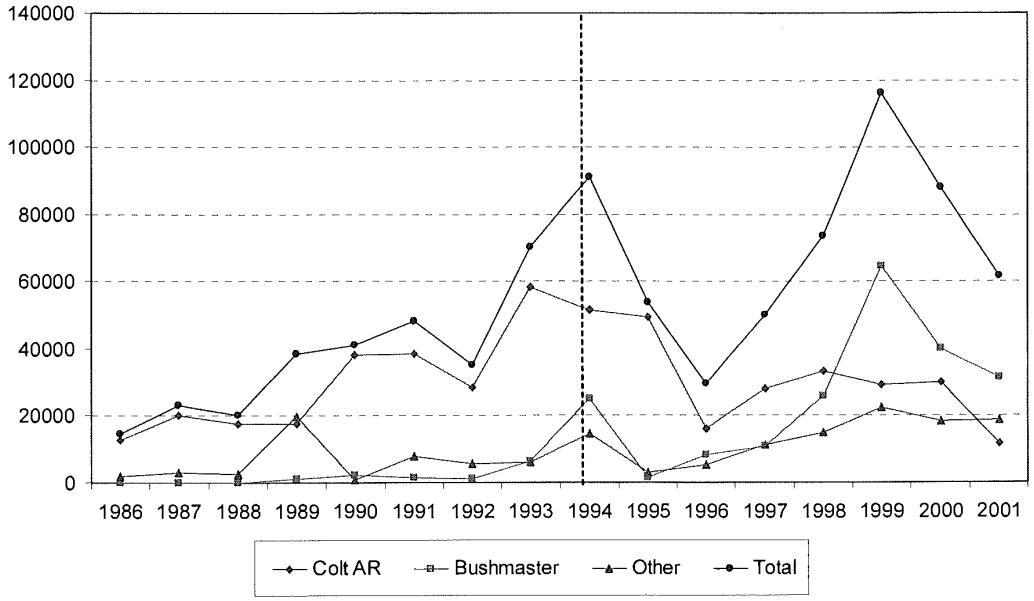
5.2.2. Production of Assault Rifles and Other Rifles

As shown in Figure 5-4, production of AR-15 type rifles surged during the early 1990s, reaching a peak in 1994.[36] AR production during the early 1990s rose almost 4 times faster than total rifle production and over 5 times faster than production of the comparison rifles examined in the price analysis (Table 5-3). Yet, by 1996 and 1997, production of legalized AR-type rifles had fallen by 51%, as production of other rifles continued increasing. AR production trends reversed again during the late 1990s, however, rising over 150%.[37] Total rifle production increased much more modestly during this time (18%), while production of the comparison rifles declined.

[36] Note again that the AR and legalized AR production figures are approximations based on all rifles produced by the companies in question (rifle production data are not available by type, caliber, or model), but it appears that most rifles made by these companies during the study period were AR-type rifles. Also, the figures for the comparison rifle companies (Ruger, Marlin, and Remington) are based on all rifles produced by these companies (the price analysis focused on selected semiautomatic models).

[37] There was also a notable shift in market shares among AR makers, as Bushmaster overtook Colt as the leading producer of AR-15 type rifles (Figure 5-4).

Figure 5-4. Assault Rifle Production, 1986-2001 (AR-15 Type)



Other: Olympic, Eagle/Armalite, DPMS, Essential Arms, Sendra.

5.3. Summary and Interpretations

Below, we offer some interpretations of the patterns found in the price and production analyses, keeping in mind that these analyses were largely descriptive, so causal inferences must be made cautiously. As documented in our earlier study, Congressional debate over the AW-LCM ban triggered speculative price increases for AWs in the months leading up to the ban's enactment. This study's examination of longer-term, annual price trends suggests that this speculative effect was very brief (and perhaps quite variable across jurisdictions) for APs but persisted through 1995 for ARs. This implies that speculators and sophisticated gun collectors (who we suspect played a large role in driving price trends) have more interest in ARs, which tend to be higher in quality and price than APs.

Responding to the speculative price growth, AW manufacturers boosted their production of AWs in 1994. Although total handgun and rifle production were increasing during the early 1990s, the rise in AW production was steeper, and there was a production peak unique to AWs in 1994 (production of other handguns peaked in 1993). It seems that this boost in the supply of grandfathered AWs was sufficient to satisfy speculative demand, thereby restoring national average AP prices to pre-ban levels within a year of the ban and doing the same for AR prices by 1996. AW prices remained stable through the late 1990s, and production of legalized AW-type weapons dropped off

substantially, at least through 1998. This suggests that the supply of grandfathered AWs was sufficient to meet demand through the late 1990s.

However, prices of APs rose relative to other handguns commonly used in crime during the 1990s. Handgun prices and production declined in general during the late 1990s, implying a decrease in demand for APs and other handguns that probably stemmed from the nation's declining crime rates.[38] But the AW ban's restriction of the AP supply, combined with the interest of speculators and collectors in these guns, may have prevented AP prices from falling as did prices for other handguns. The market patterns also suggest that consumers of APs are not as easily satisfied by legalized APs with fewer military-style features; despite the increasing value of APs (in relative terms), post-ban production of legalized APs declined faster than did production of other handguns, and some AP makers went out of business.

Prices of ARs, on the other hand, remained steady during the late 1990s (after the speculative price bubble of 1994-1995) both in absolute terms and relative to other rifles. The failure of AR prices to rise in at least relative terms, as occurred for APs, and the temporary drop in production of AR-type rifles after the ban may signify that the AR market was saturated relative to the AP market for a least a number of years following the ban. However, demand for AR-type rifles later rebounded, as evidenced by the resurgence in production of legalized, AR-type rifles in the late 1990s. In fact, more of these guns were produced in 1999 than in 1994. Unlike AP users, therefore, rifle users appear to be readily substituting the legalized AR-type rifles for the banned ARs, which may be another factor that has kept prices of the latter rifles from rising. All of this suggests that rifle owners, who have a lower prevalence of criminal users than do handgun owners, can more easily substitute rifles with fewer or no military features for the hunting and other sporting purposes that predominate among rifle consumers.

Another relevant factor may have been a surge in the supply of foreign semiautomatic rifles that can accept LCMs for military weapons (the LCMM rifles discussed in Chapter 2) during the early 1990s. Examples of LCMM rifles include legalized versions of banned AK-47, FN-FAL, and Uzi rifles. Importation of LCMM rifles rose from 19,147 in 1991 to 191, 341 in 1993, a nine-fold increase (Department of the Treasury, 1998, p. 34). Due to an embargo on the importation of firearms from China (where many legalized AK-type rifles are produced), imports of LCMM rifles dropped

[38] It seems likely that the rise and fall of handgun production was linked to the rising crime rates of the late 1980s and early 1990s and the falling crime rates of the mid and late 1990s. Self-defense and fear of crime are important motivations for handgun ownership among the general population (e.g., Cook and Ludwig, 1996; McDowall and Loftin, 1983), and the concealability and price of handguns make them the firearms of choice for criminal offenders. It is likely that the peak in 1993 was also linked to the Congressional debate and passage of the Brady Act, which established a background check system for gun purchases from retail dealers. It is widely recognized in the gun industry that the consideration of new gun control legislation tends to increase gun sales.

The decline in production was more pronounced for SNS handguns, whose sales are likely to be particularly sensitive to crime trends. Criminal offenders make disproportionate use of these guns. We can also speculate that they are prominent among guns purchased by low-income citizens desiring guns for protection. In contrast, the poor quality and reliability of these guns make them less popular among more knowledgeable and affluent gun buyers.

back down to 21,261 in 1994. Importation of all foreign LCMM rifles was ended by federal executive order in 1998.

ATF has reported that criminal use of LCMM rifles increased more quickly during the early 1990s than did that of other military-style rifles (U.S. Department of the Treasury, 1998, p. 33; also see Chapter 6). Accordingly, it is possible that the availability of LCMM rifles also helped to depress the prices of domestic ARs and discourage the production of legalized ARs during the 1990s, particularly if criminal users of rifles place a premium on the ability to accept LCMs. It is noteworthy, moreover, that the rebound in domestic production of legalized ARs came on the heels of the 1998 ban on LCMM rifles, perhaps suggesting the LCMM ban increased demand for domestic rifles accepting LCMs.

In sum, this examination of the AW ban's impact on gun prices and production suggests that there has likely been a sustained reduction in criminal use of APs since the ban but not necessarily ARs. Since most AWs used in crime are APs, this should result in an overall decline in AW use. In the following chapter, we examine the accuracy of this prediction.

6. CRIMINAL USE OF ASSAULT WEAPONS AFTER THE BAN

6.1. Measuring Criminal Use of Assault Weapons: A Methodological Note

In this chapter, we examine trends in the use of AWs using a number of national and local data sources on guns recovered by law enforcement agencies (we focus on the domestic AW models discussed at the beginning of the previous chapter). Such data provide the best available indicator of changes over time in the types (and especially the specific makes and models) of guns used in violent crime and possessed and/or carried by criminal and otherwise deviant or high-risk persons. The majority of firearms recovered by police are tied to weapon possession and carrying offenses, while the remainder are linked primarily to violent crimes and narcotics offenses (e.g., see ATF, 1976; 1977; 1997; Brill, 1977). In general, up to a quarter of guns confiscated by police are associated with violent offenses or shots fired incidents (calculated from ATF, 1977, pp. 96-98; 1997; Brill, 1977, pp. 24,71; Shaw, 1994, pp. 63, 65; also see data presented later in this chapter). Other confiscated guns may be found by officers, turned in voluntarily by citizens, or seized by officers for temporary safekeeping in situations that have the potential for violence (e.g., domestic disputes).

Because not all recovered guns are linked to violent crime investigations, we present analyses based on all gun recoveries and gun recoveries linked to violent crimes where appropriate (some of the data sources are based exclusively, or nearly so, on guns linked to violent crimes). However, the fact that a seized gun is not clearly linked to a violent crime does not rule out the possibility that it had been or would have been used in a violent crime. Many offenders carry firearms on a regular basis for protection and to be prepared for criminal opportunities (Sheley and Wright, 1993a; Wright and Rossi, 1986). In addition, many confiscated guns are taken from persons involved in drugs, a group involved disproportionately in violence and illegal gun trafficking (National Institute of Justice, 1995; Sheley and Wright, 1993a). In some instances, criminal users, including those fleeing crime scenes, may have even possessed discarded guns found by patrol officers. For all these reasons, guns recovered by police should serve as a good approximation of the types of guns used in violent crime, even though many are not clearly linked to such crimes.

Two additional caveats should be noted with respect to tracking the use of AWs. First, we can only identify AWs based on banned makes and models. The databases do not contain information about the specific features of firearms, thus precluding any assessment of non-banned gun models that were altered after purchase in ways making them illegal. In this respect, our numbers may understate the use of AWs, but we know of no data source with which to evaluate the commonality of such alterations. Second, one cannot always distinguish pre-ban versions of AWs from post-ban, legalized versions of the same weapons based on weapon make and model information (this occurs when the post-ban version of an AW has the same name as the pre-ban version), a factor which may have caused us to overstate the use of AWs after the ban. This was more of a problem for our assessment of ARs, as will be discussed below.

Finally, we generally emphasize trends in the percentage of crime guns that are AWs in order to control for overall trends in gun violence and gun recoveries. Because gun violence was declining throughout the 1990s, we expected the number of AW recoveries to drop independently of the ban's impact.

6.2. National Analysis of Guns Reported By Police to the Federal Bureau of Alcohol, Tobacco, and Firearms

6.2.1. An Introduction to Gun Tracing Data

In this section, we examine national trends in AW use based on firearm trace requests submitted to ATF by federal, state, and local law enforcement personnel throughout the nation. A gun trace is an investigation that typically tracks a gun from its manufacture to its first point of sale by a licensed dealer. Upon request, ATF traces guns seized by law enforcement as a service to federal, state, and local agencies. In order to initiate a trace on a firearm, the requesting law enforcement agency provides information about the firearm, such as make, model, and serial number.

Although ATF tracing data provide the only available national sample of the types of guns used in crime and otherwise possessed or carried by criminal and high-risk groups, they do have limitations for research purposes. Gun tracing is voluntary, and police in most jurisdictions do not submit trace requests for all, or in some cases any, guns they seize. Crime and tracing data for 1994, for example, suggest that law enforcement agencies requested traces for 27% of gun homicides but only 1% of gun robberies and gun assaults known to police during that year (calculated from ATF, 1995 and Federal Bureau of Investigation, 1995, pp. 13, 18, 26, 29, 31, 32).

The processes by which state and local law enforcement agencies decide to submit guns for tracing are largely unknown, and there are undoubtedly important sources of variation between agencies in different states and localities. For example, agencies may be less likely to submit trace requests in states that maintain their own registers of gun dealers' sales. Knowledge of ATF's tracing capabilities and procedures,[39] as well as participation in federal/state/local law enforcement task forces, are some of the other factors that may affect an agency's tracing practices. Further, these factors are likely to vary over time, a point that is reinforced below.

Therefore, firearms submitted to ATF for tracing may not be representative of the

[39] To illustrate, ATF cannot (or does not) trace military surplus weapons, imported guns without the importer name (generally, pre-1968 guns), stolen guns, or guns without a legible serial number (Zawitz 1995). Tracing guns manufactured before 1968 is also difficult because licensed dealers were not required to keep records of their transactions prior to that time. Throughout much of the 1990s, ATF did not generally trace guns older than 5-10 years without special investigative reasons (Kennedy et al., 1996, p. 171). Our data are based on trace requests rather than successful traces, but knowledge of the preceding operational guidelines might have influenced which guns law enforcement agencies chose to trace in some instances.

types of firearms typically seized by police. In general, not much is known about the nature of potential bias in tracing data. In prior studies, however, AWs tended to be more common in tracing data than in more representative samples of guns confiscated by police (Kleck, 1997, pp. 112, 141). This suggests that police have been more likely historically to initiate traces for seized AWs than for other seized guns. Although comparisons across studies are complicated by varying definitions of AWs used in different analyses, studies of guns confiscated by police or used in particular types of crimes generally suggest that AWs accounted for up to 6% of crime guns and about 2% on average prior to the federal AW ban (see Chapter 3 and Kleck, 1997, p. 141), whereas studies of pre-ban tracing data indicated that 8% of traced guns, and sometimes as many as 11%, were AWs (Cox Newspapers, 1989; Lenett, 1995; Zawitz, 1995).

Changes over time in the tracing practices of law enforcement agencies present additional complexities in analyzing tracing data. Due to improvements in the tracing process, ATF promotional efforts, and special initiatives like the Youth Crime Gun Interdiction Initiative (see ATF, 1997; 1999 and more recent reports available via the Internet at www.atf.treas.gov),[40] the utilization of tracing grew substantially throughout the 1990s in jurisdictions that chose to participate (also see ATF, 2000; Roth and Koper, 1997). To illustrate, trace requests to ATF rose from roughly 42,300 in 1991 to 229,500 in 2002 (see Table 6-1 in the next section), an increase of 443%. This growth reflects changes in tracing practices (i.e., changes in the number of agencies submitting trace requests and/or changes in the percentage of recovered guns for which participating agencies requested traces) rather than changes in gun crime; gun homicides, for example, were falling throughout the 1990s (see Table 6-1 in the next section) and were a third lower in 2002 than in 1991.

Therefore, an increase in trace requests for AWs does not necessarily signal a real increase in the use of AWs. Further, examining trends in the percentage of trace requests associated with AWs is also problematic. Because law enforcement agencies were more likely to request traces for AWs than for other guns in years past, we can expect the growth rate in tracing for non-AWs to exceed the growth rate in traces for AWs as gun tracing becomes more comprehensive. Consequently, AWs are likely to decline over time as a share of trace requests due simply to reporting effects, except perhaps during periods when AWs figure prominently in public discourse on crime.[41]

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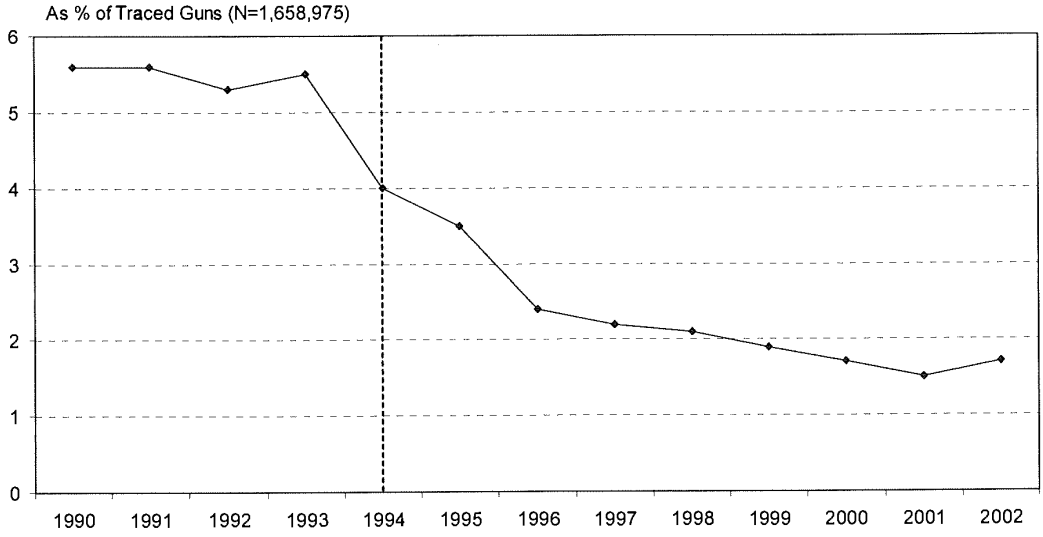
[40] As part of this initiative, police in a few dozen large cities are submitting trace requests to ATF for all guns that they confiscate. The initiative began with 17 cities in 1996 and has since spread to 55 major urban jurisdictions.

[41] To illustrate, assume that a hypothetical police agency recovers 100 guns a year, 2 of which are AWs, and that the agency has a selective tracing policy that results in the submission of trace requests for 20 of the guns, including 1 of the recovered AWs. Under this scenario, the department would be almost three times as likely to request traces for AWs as for other guns. If the department adopted a policy to request traces on all guns (and again recovered 2 AWs and 98 other guns), AW traces would double and traces of other guns would increase by more than 400%. Moreover, AWs would decline from 5% of traced guns to 2% of traced guns due simply to the change in tracing policy.

6.2.2. Traces of Assault Weapons, 1990-2002

Figure 6-1 illustrates the share of all traces that were for AWs from 1990 through 2002. A more detailed assessment of annual changes in traces for AWs and other guns is presented in Table 6-1. Changes in gun murders are also shown in Table 6-1 to emphasize the differences in trends for tracing and gun crime. Below, we summarize key points from the analysis. Due to the instrumentation problems inherent in tracing data, statistical tests are not presented.[42]

Figure 6-1. Police Recoveries of Assault Weapons Reported to ATF (National), 1990-2002



Includes Intratec group, SWD group, AR-15 group, and selected Calico and Feather models.

[42] Nearly 30% of the tracing records lack specific gun model designations (the crucial elements for conducting a trace are the gun make and serial number). For the makes and types of guns likely to be AWs, however, the missing model rate was slightly under 10%. Further, we were able to identity some of the latter weapons as AWs with reasonable confidence based on the makes, types, and calibers alone. Nevertheless, we conducted a supplemental analysis using only those records for which the gun model was identified. The results of that analysis were substantively very similar to those presented below.

Table 6-1. Annual Percentage Changes in Gun Murders and Police Requests to ATF for Traces of Assault Weapons and Other Firearms, 1991-2002 (Number of Traces in Parentheses)

Year	Gun Murders (1)	All Traces (2)	AW Traces* (3)	AP Traces (4)	AR Traces (5)	AW and AW Substitute Traces (6)	Violent Crime Traces (7)	AW Violent Crime Traces (8)	LCMM Rifle Traces** (9)
1991	9%	14% (42281)	14% (2378)	24% (1775)	-6% (603)	14% (2378)	19% (6394)	20% (344)	--
1992	-1%	6% (44992)	1% (2398)	4% (1838)	-7% (560)	1% (2398)	3% (6558)	7% (367)	--
1993	5%	20% (54189)	25% (2994)	20% (2199)	42% (795)	25% (2994)	26% (8248)	41% (516)	252% (183)
1994	-4%	53% (82791)	11% (3337)	23% (2706)	-21% (631)	11% (3337)	22% (10083)	-18% (424)	223% (592)
1995	-10%	-6% (77503)	-19% (2730)	-24% (2051)	8% (679)	-18% (2747)	23% (12439)	-15% (362)	-10% (530)
1996	-9%	66% (128653)	12% (3059)	13% (2309)	10% (750)	17% (3214)	67% (20816)	27% (459)	40% (743)
1997	-7%	42% (183225)	31% (4019)	31% (3017)	34% (1002)	36% (4362)	11% (23147)	13% (519)	24% (925)
1998	-11%	5% (192115)	0% (4014)	-9% (2751)	26% (1263)	7% (4681)	3% (23844)	-22% (404)	33% (1227)
1999	-8%	-2% (188296)	-11% (3581)	-12% (2414)	-8% (1167)	-6% (4406)	3% (24663)	0% (404)	-18% (1003)
2000	1%	-3% (182961)	-11% (3196)	-16% (2027)	0% (1169)	-6% (4143)	-13% (21465)	-25% (305)	-14% (859)
2001	-1%	18% (215282)	1% (3238)	5% (2138)	-6% (1100)	3% (4273)	20% (25822)	6% (322)	-3% (833)
2002	6%	7% (229525)	19% (3839)	4% (2214)	48% (1625)	12% (4765)	20% (30985)	65% (531)	4% (865)

* Based on Intratec group, SWD group, AR-15 group, and Calico and Feather models.
** Foreign semiautomatic rifles accepting large capacity military magazines (banned by executive order in 1998). (Data are not shown for 1991 and 1992 because very few of these guns were traced in those years.)

6.2.2.1. Assault Weapons as a Percentage of Crime Gun Traces

As shown in Figure 6-1, AWs declined from 5.4% of crime gun traces in 1992-1993 to 1.6% in 2001-2002, a decline of 70%. Although this downward trend could be attributable in large part to changes in tracing practices, it is noteworthy that it did not begin until 1994 (the year of the ban); during the pre-ban years, 1990 to 1993, AWs accounted for a steady share of traces despite a 46% increase in total tracing volume. It is also remarkable that about 3,200 AWs were traced in both 2000 and 2001, which is virtually identical to the average number traced during 1993 and 1994 (3,166) even though total traces increased more than 190% during the same period (Table 6-1, columns 2 and 3).[43]

6.2.2.2. Annual Changes in Traces for Assault Weapons and Other Guns

Throughout most of the post-ban period (particularly 1995 to 2001), AW traces either increased less or declined more than total traces (Table 6-1, columns 2 and 3), a pattern that is also consistent with a decline in the use of AWs relative to other guns, though it too may be distorted by changes in tracing practices. This pattern was largely consistent whether analyzing all traces or only traces associated with violent crimes (columns 7 and 8).[44]

The years when total traces declined or were relatively flat are arguably the most informative in the series because they appear to have been less affected by changes in tracing practices. For example, there was a 6% decline in total trace requests from 1994 to 1995 (the years featured in our earlier study) that coincided with a 10% drop in gun murders (Table 6-1, column 1). Therefore, it seems tracing practices were relatively stable (or, conversely, reporting effects were relatively small) from 1994 to 1995. The 19% reduction in AW traces during this same period implies that AW use was declining faster than that of other guns. Furthermore, there were fewer AW traces in 1995 than in 1993, the year prior to the ban. The fact that this occurred during a period when the AW issue was very prominent (and hence police might have been expected to trace more of the AWs they recovered) arguably strengthens the causal inference of a ban effect.[45]

Total traces also declined slightly (2%-3%) in 1999 and 2000. In each of those years, the decline was greater for AWs (11%). Thus, in years when tracing declined overall, AW traces fell 3 to 6 times faster than did total traces. Put another way, AWs fell between 9% and 13% as a percentage of all traces in each of these years.

The general pattern of AW traces increasing less or declining more than those of

[43] These general findings are consistent with those of other tracing analyses conducted by ATF (2003 Congressional Q&A memo provided to the author) and the Brady Center to Prevent Gun Violence (2004).
[44] A caveat is that requests without specific crime type information are often grouped with weapons offenses (ATF, 1999). Therefore, traces associated with violent crimes are likely understated to some degree.
[45] This inference is also supported by our earlier finding that trace requests for AWs declined by only 8% in states that had their own AW bans prior to the federal ban (Roth and Koper, 1997, Chapter 5).

other crime guns was clearly apparent for APs but less consistent for ARs (Table 6-1, columns 4 and 5). For example, AR traces went up 26% in 1998 while total traces went up only 5% and AP traces declined 9%. In 2000, total and AP traces fell 3% and 16%, respectively, but AR traces remained flat. This is consistent with predictions derived from the price and production analyses described above. But note that the post-ban AR counts could be overstated because the data do not distinguish pre-ban from post-ban versions of some popular AR-15 type rifles like the Colt Sporter and Bushmaster XM-15. (Also note that the percentage of traces for ARs did fall from 1.4% in 1992-1993 to 0.6% in 2001-2002.)

More generally, the use of post-ban AW-type weapons (including both legalized APs and ARs) has not been widespread enough to completely offset the apparent decline in the use of banned AWs. Combined traces for banned AWs and AW substitutes (Table 6-1, column 6) also followed the pattern of increasing less or declining more than did total traces throughout most of the period, though the differences were not as pronounced as those between AWs and total traces. In 1999 and 2000, for example, AWs traces dropped 11%, while combined traces for AWs and legal substitutes declined only 6%. Still, the latter figure was greater than the 2%-3% drop for total traces.

Finally, traces of the LCMM rifles banned by executive order in 1998 were generally rising to that point, reaching levels as high as those for AR-15 type rifles (Table 6-1, column 9). Since 1998, however, the number of traces for LCMM rifles has fallen substantially. Despite a 4% increase from 2001 to 2002, the number of LCMM traces in 2002 (865) was 30% lower than the peak number traced in 1998 (1,227). Tentatively, this suggests that the 1998 extension of the ban has been effective in curtailing weapons that offenders may have been substituting for the ARs banned in 1994.

6.2.2.3. Did Use of Assault Weapons Rebound in 2002?

In 2002, tracing volume increased 7%, which closely matched the 6% increase in gun murders for that year. In contrast to the general pattern, AW traces increased by 19%, suggesting a possible rebound in AW use independent of changes in tracing practices, a development that we have predicted elsewhere (Roth and Koper, 1997) based on the boom in AW production leading up to the ban. The disproportionate growth in AW traces was due to ARs, however, so it could partially reflect increasing use of post-ban AR-type rifles (see the discussion above).

Moreover, this pattern could be illusory. With data from the most recent years, it was possible to run a supplementary analysis screening out traces of older weapons (not shown). Focusing on just those guns recovered and traced in the same year for 2000 through 2002 revealed that recoveries of AWs declined in 2001, more so for ARs (16%) than for APs (9%), while total traces increased 1%.[46] Traces for APs and ARs then

[46] The tracing database indicates when guns were recovered and when they were traced. However, the recovery dates were missing for 30% of the records overall and were particularly problematic for years prior to 1998. For this reason, the main analysis is based on request dates. The auxiliary analysis for 2000-

increased in 2002 (1% and 6%, respectively) but by less than total traces (8%). Therefore, the disproportionate growth in AR traces in 2002 shown in Table 6-1 may have been due to tracing of older AWs by newly participating police agencies.

6.2.2.4. Summary of the ATF Gun Tracing Analysis

Complexities arising from recent changes in the use of gun tracing by law enforcement warrant caution in the interpretation of ATF gun tracing data. Notwithstanding, the data suggest that use of AWs in crime, though relatively rare from the start, has been declining. The percentage of gun traces that were for AWs plummeted 70% between 1992-1993 and 2001-2002 (from 5.4% to 1.6%), and this trend did not begin until the year of the AW ban. On a year-to-year basis, AW traces generally increased less or declined by more than other gun traces. Moreover, in years when tracing volume declined – that is, years when changes in reporting practices were least likely to distort the data – traces of AWs fell 3 to 6 times faster than gun traces in general. The drop in AW use seemed most apparent for APs and LCMM rifles (banned in 1998). Inferences were less clear for domestic ARs, but assessment of those guns is complicated by the possible substitution of post-ban legal variations.

6.3. Local Analyses of Guns Recovered By Police

Due to concerns over the validity of national ATF tracing data for investigating the types of guns used in crime, we sought to confirm the preceding findings using local data on guns recovered by police. To this end, we examined data from half a dozen localities and time periods.

- All guns recovered by the Baltimore Police Department from 1992 to 2000 (N=33,933)
- All guns recovered by the Metro-Dade Police Department (Miami and Dade County, Florida) from 1990 to 2000 (N=39,456)
- All guns recovered by the St. Louis Police Department from 1992 to 2003 (N=34,143)
- All guns recovered by the Boston Police Department (as approximated by trace requests submitted by the Department to ATF) from 1991 to 1993 and 2000 to 2002 (N=4,617)[47]

2002 focuses on guns both recovered and traced in the same year because it is likely that some guns recovered in 2002 had not yet been traced by the spring of 2003 when this database was created. Using only guns recovered and traced in the same year should mitigate this bias.

[47] The Boston Police Department has been tracing guns comprehensively since 1991 (Kennedy et al., 1996). However, we encountered difficulties in identifying Boston Police Department traces for several years in the mid-1990s. For this reason, we chose to contrast the 1991 to 1993 period with the 2000 to 2002 period.

- Guns recovered during murder investigations in Milwaukee County from 1991 to 1998 (N=592)[48]
- Guns linked to serious crimes in Anchorage and other parts of Alaska and submitted to state firearm examiners for evidentiary testing from 1987 to 2000 (N=900)[49]

The selection of these particular locations and samples reflects data availability.[50] The locations were not selected randomly, and some of the samples are small for conducting trend analysis of relatively rare events (i.e., AW recoveries). Accordingly, we must use caution in generalizing the results to other places. However, the data sources reflect a wide geographic range and cover post-ban periods extending through at least the latter 1990s (and typically through the year 2000 or beyond). To the extent that the results are similar across these jurisdictions, therefore, we can have more confidence that they reflect national patterns.

In each jurisdiction, we examined pre-post changes in recoveries of AWs (focusing on the domestic AW group defined earlier) and substitution of post-ban AW models for the banned models. Where possible, we conducted separate analyses of all AW recoveries and those linked specifically to violent crimes.[51] We also differentiated between AP and AR trends using the larger databases from Baltimore, Miami, and St. Louis. But since most of these databases do not extend more than two years beyond 1998, we do not present analyses specifically for LCMM rifles.

Key summary results are summarized in Table 6-2, while more detailed results from each site appear at the end of the chapter in Tables 6-3 through 6-6 and Figures 6-2 through 6-6.[52] The number of AW recoveries declined by 28% to 82% across these

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[48] The data are described in reports from the Medical College of Wisconsin (Hargarten et al., 1996; 2000) and include guns used in the murders and other guns recovered at the crime scenes. Guns are recovered in approximately one-third of Milwaukee homicide cases.

[49] The data include guns submitted by federal, state, and local agencies throughout the state. Roughly half come from the Anchorage area. Guns submitted by police to the state lab are most typically guns that were used in major crimes against persons (e.g. murder, attempted murder, assault, robbery).

[50] We contacted at least 20 police departments and crime labs in the course of our data search, focusing much of our attention on police departments participating in ATF's Youth Crime Gun Interdiction Initiative (YCGII) (ATF, 1997; 1999). Departments participating in the YCGII submit data to ATF on all guns that they recover. Though the YCGII did not begin until 1996 (well after the implementation of the AW ban), we suspected that these departments would be among those most likely to have electronically-stored gun data potentially extending back in time to before the ban. Unfortunately, most of these departments either did not have their gun data in electronic format or could not provide data for other reasons (e.g., resource constraints). In the course of our first AW study (Roth and Koper, 1997), we contacted many other police departments that also did not have adequate data for the study.

[51] All of the Milwaukee and Anchorage analyses were limited to guns involved in murders or other serious crimes. Despite evidence of a decline, AW recoveries linked to violence were too rare in Boston to conduct valid test statistics.

[52] We omitted guns recovered in 1994 from both the pre and post-ban counts because the speculative price increases for AWs that occurred in 1994 (see previous section and Roth and Koper, 1997, Chapter 4) raise questions about the precise timing of the ban's impact on AW use during that year, thereby clouding the designation of the intervention point. This is particularly a concern for the Baltimore analysis due to a

locations and time periods, but the discussion below focuses on changes in AWs as a share of crime guns in order to control for general trends in gun crime and gun seizures. Prior to the ban, AWs ranged from about 1% of guns linked to violent crimes in St. Louis to nearly 6% of guns recovered in Milwaukee murder cases.[53]

AWs dropped as share of crime guns in all jurisdictions after the ban. Reductions ranged from a low of 17% in Milwaukee (based on guns linked to homicides) to a high of 72% in Boston (based on all crime guns) but were generally between 32% and 40%.[54, 55] A decline in the use of AWs relative to other guns was generally apparent whether examining all AW recoveries or just those linked to violent crimes.[56] An exception was in St. Louis, where

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state AP ban that took effect a few months prior to the federal AW ban.

[53] These figures should be treated as approximations of the prevalence of AWs. On the one hand, the numbers may understate the prevalence of AWs to a small degree because they are based on only the domestic AW group defined earlier. Based on analysis of national ATF gun tracing data, we estimated previously that the domestic AW group accounts for 82% of AWs used in crime (Roth and Koper, 1997, Chapter 5). To further test the reliability of this assessment, we investigated the prevalence of all banned AW models among guns recovered in Baltimore using an ATF list of all guns defined as AWs under the 1994 Crime Act criteria (118 model and caliber combinations). We chose the Baltimore database because it provides a complete inventory of guns recovered by police in that city during the study period and, having been maintained by crime lab personnel, is particularly thorough with regard to make and model identifications. Though there was some ambiguity in classifying a small number of AK-type semiautomatic rifles (there are many civilian variations of the AK-47 rifle, some of which were legal under the 1994 legislation), our examination suggested that the domestic AW group accounted for approximately 90% of the AWs recovered in Baltimore. (In addition, including all AWs had virtually no effect on the pre-post changes in AW use in Baltimore.) But as discussed previously, the counts could also overstate AW use to some degree because imprecision in the identification of gun models in some data sources may have resulted in some legalized firearms being counted as banned AWs.

[54] The AW counts for Miami also include Interdynamics KG9 and KG99 models. These models were produced during the early 1980s and were forerunners to the Intratec models (ATF restricted the KG9 during the early 1980s because it could be converted too easily to fully automatic fire). These weapons were very rare or non-existent in most of the local data sources, but they were more common in Miami, where Interdynamics was formerly based. Including these guns increased the AW count in Miami by about 9% but did not affect pre-post changes in AW recoveries.

[55] State AW legislation passed in Maryland and Massachusetts could have had some impact on AW trends in Baltimore and Boston, respectively. Maryland implemented an AP ban, similar in coverage to the federal AW ban, in June 1994 (Maryland has also required background checks for retail sales of a broader list of state-defined AWs since 1989), and Massachusetts implemented additional legislation on federally-defined AWs in late 1998. The timing and scope of these laws make them largely redundant with the federal ban, so they should not unduly complicate inferences from the analysis. However, Maryland forbids additional transfers of grandfathered APs, and Massachusetts has imposed additional requirements for possession and transfer of LCMs and guns accepting LCMs. Both states also have enhanced penalties for certain crimes involving APs, LCMs, and/or guns accepting LCMs. Hence, the ban on AWs was arguably strengthened in Baltimore and Boston, relative to the other jurisdictions under study. This does not appear to have affected trends in AW use in Baltimore, which were very similar to those found in the other study sites. However, use of AWs and combined use of AWs and post-ban AW substitutes declined more in Boston than in any other study site. Although the trends in Boston could reflect ongoing, post-2000 reductions in use of AWs and similar weapons (Boston was one of the only study sites from which we obtained post-2000 data), it is possible that the Massachusetts legislation was also a contributing factor.

[56] There may be some inconsistency across jurisdictions in the identification of guns associated with violent crimes. In Miami, for example, 28% of the guns had an offense code equal to "other/not listed," and this percentage was notably higher for the later years of the data series.

Table 6-2. Pre-Post Changes in Assault Weapons As a Share of Recovered Crime Guns For Selected Localities and Time Periods: Summary Results (Total Number of Assault Weapons for Pre and Post Periods in Parentheses) [a]

Locality and Time Period	AWs	AWs (Linked to Violence)	APs	ARs	AWs and Post-Ban Substitutes
Baltimore (all recoveries) pre=1992-1993, post=1995-2000	-34%*** (425)	-41%** (75)	-35%*** (383)	-24% (42)	-29%*** (444)
Miami-Dade (all recoveries) pre=1990-1993, post=1995-2000	-32%*** (733)	-39%*** (101)	-40%*** (611)	37%* (115)	-30%*** (746)
St. Louis (all recoveries) pre=1992-1993, post=1995-2003	-32%*** (306)	1% (28)	-34%*** (274)	10% (32)	-24%** (328)
Boston (all recoveries) pre=1991-1993, post=2000-2002	-72%*** (71)	N/A	N/A	N/A	-60%*** (76)
Milwaukee (recoveries in murder cases) pre=1991-1993, post=1995-1998	N/A	-17% (28)	N/A	N/A	2% (31)
Anchorage, AK (recoveries in serious crimes) pre=1987-1993, post=1995-2000	N/A	-40% (24)	N/A	N/A	-40% (24)

a. Based on Intratec group, SWD group, AR-15 group, and Calico and Feather models. See the text for additional details about each sample and Tables 6-3 through 6-6 for more detailed results from each locality.

* Statistically significant change at chi-square p level < .1
** Statistically significant change at chi-square p level < .05
*** Statistically significant change at chi-square p level < .01

AWs declined as share of all guns but not of guns linked to violent crimes, though the latter test was based on rather small samples.

These reductions were not due to any obvious pre-ban trends (see Figures 6-2 through 6-6 at the end of the chapter). On the contrary, AW recoveries reached a peak in most of these jurisdictions during 1993 or 1994 (Boston, which is not shown in the graphs due to missing years, was an exception). We tested changes in AW prevalence using simple chi-square tests since there were no observable pre-existing time trends in the data. Due to the small number of AWs in some of these samples, these changes were not all statistically significant. Nonetheless, the uniformity of the results is highly suggestive, especially when one considers the consistency of these results with those found in the national ATF tracing analysis.

The changes in Tables 6-2 through 6-6 reflect the average decline in recoveries of AWs during the post-ban period in each locality. However, some of these figures may understate reductions to date. In several of the localities, the prevalence of AWs among crime guns was at, or close to, its lowest mark during the most recent year analyzed (see Figures 6-2 through 6-6 at the end of the chapter), suggesting that AW use continues to decline. In Miami, for example, AWs accounted for 1.7% of crime guns for the whole 1995 to 2000 period but had fallen to 1% by 2000. Further, the largest AW decline was recorded in Boston, one of two cities for which data extended beyond the year 2000 (however, this was not the case in St. Louis, the other locality with post-2000 data).

Breakouts of APs and ARs in Baltimore, Miami, and St. Louis show that the decline in AW recoveries was due largely to APs, which accounted for the majority of AWs in these and almost all of the other localities (the exception was Anchorage, where crimes with rifles were more common, as a share of gun crimes, than in the other sites). Pre-post changes in recoveries of the domestic AR group weapons, which accounted for less than 1% of crime guns in Baltimore, Miami, and St. Louis, were inconsistent. AR recoveries declined after the ban in Baltimore but increased in St. Louis and Miami. As discussed previously, however, the AR figures may partly reflect the substitution of post-ban, legalized versions of these rifles, thus overstating post-ban use of the banned configurations. Further, trends for these particular rifles may not be indicative of those for the full range of banned rifles, including the various foreign rifles banned by the 1994 law and the import restrictions of 1989 and 1998 (e.g., see the ATF gun tracing analysis of LCMM rifles).[57]

[57] As discussed in the last chapter, our research design focused on common AWs that were likely to be most affected by the 1994 ban as opposed to earlier regulations (namely, the 1989 import ban) or other events (e.g., company closings or model discontinuations prior to 1994). However, an auxiliary analysis with the Baltimore data revealed a statistically meaningful drop in recoveries of all ARs covered by the 1994 legislation (not including the LCMM rifles) that was larger than that found for just the domestic group ARs discussed in the text. Similarly, an expanded AR analysis in Miami showed that total AR recoveries declined after the ban, in contrast to the increase found for the domestic group ARs. (Even after expanding the analysis, ARs still accounted for no more than 0.64% of crime guns before the ban in both locations. As with the domestic AR group, there are complexities in identifying banned versus non-banned versions of some of the other ARs, so these numbers are approximations.) Consequently, a more nuanced view of AR trends may be that AR use is declining overall, but this decline may be due largely to the 1989 import

Finally, the overall decline in AW use was only partially offset by substitution of the post-ban legalized models. Even if the post-ban models are counted as AWs, the share of crime guns that were AWs still fell 24% to 60% across most jurisdictions. The exception was Milwaukee where recoveries of a few post-ban models negated the drop in banned models in a small sample of guns recovered during murder investigations.[58]

6.4. Summary

Consistent with predictions derived from the analysis of market indicators in Chapter 5, analyses of national ATF gun tracing data and local databases on guns recovered by police in several localities have been largely consistent in showing that criminal use of AWs, while accounting for no more than 6% of gun crimes even before the ban, declined after 1994, independently of trends in gun crime. In various places and times from the late 1990s through 2003, AWs typically fell by one-third or more as a share of guns used in crime.[59, 60] Some of the most recent, post-2000 data suggest

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restrictions that predated the AW ban. It is not yet clear that there has been a decline in the most common ARs prohibited exclusively by the 1994 ban.

[58] This was not true when focusing on just those guns that were used in the incident as opposed to all guns recovered during the investigations. However, the samples of AWs identified as murder weapons were too small for valid statistical tests of pre-post changes.

[59] These findings are also supported by prior research in which we found that reported thefts of AWs declined 7% in absolute terms and 14% as a fraction of stolen guns in the early period following the ban (i.e., late 1994 through early 1996) (Koper and Roth, 2002a, p. 21). We conducted that analysis to account for the possibility that an increase in thefts of AWs might have offset the effect of rising AW prices on the availability of AWs to criminals. Because crimes with AWs appear to have declined after the ban, the theft analysis is not as central to the arguments in this paper.

[60] National surveys of state prisoners conducted by the federal Bureau of Justice Statistics show an increase from 1991 to 1997 in the percentage of prisoners who reported having used an AW (Beck et al., 1993; Harlow, 2001). The 1991 survey (discussed in Chapter 3) found that 2% of violent gun offenders had carried or used an AW in the offense for which they were sentenced (calculated from Beck et al. 1993, pp. 18,33). The comparable figure from the 1997 survey was nearly 7% (Harlow, 2001, pp.3, 7).

Although these figures appear contrary to the patterns shown by gun recovery data, there are ambiguities in the survey findings that warrant caution in such an interpretation. First, the definition of an AW (and most likely the respondents' interpretation of this term) was broader in the 1997 survey. For the 1991 survey, respondents were asked about prior ownership and use of a "...military-type weapon, such as an Uzi, AK-47, AR-15, or M-16" (Beck et al., 1993, p. 18), all of which are ARs or have AR variations. The 1997 survey project defined AWs to "...include the Uzi, TEC-9, and the MAC-10 for handguns, the AR-15 and AK-47 for rifles, and the 'Street Sweeper' for shotguns" (Harlow, 2001, p. 2). (Survey codebooks available from the Inter-University Consortium for Political and Social Research also show that the 1997 survey provided more detail and elaboration about AWs and their features than did the 1991 survey, including separate definitions of APs, ARs, and assault shotguns.)

A second consideration is that many of the respondents in the 1997 survey were probably reporting criminal activity prior to or just around the time of the ban. Violent offenders participating in the survey, for example, had been incarcerated nearly six years on average at the time they were interviewed (Bureau of Justice Statistics, 2000, p. 55). Consequently, the increase in reported AW use may reflect an upward trend in the use of AWs from the 1980s through the early to mid 1990s, as well as a growing recognition of these weapons (and a greater tendency to report owning or using them) stemming from publicity about the AW issue during the early 1990s.

Finally, we might view the 1997 estimate skeptically because it is somewhat higher than that from most other sources. Nevertheless, it is within the range of estimates discussed earlier and could reflect a

reductions as high as 70%.[61] This trend has been driven primarily by a decline in the use of APs, which account for a majority of AWs used in crime. AR trends have been more varied and complicated by the substitution of post-ban guns that are very similar to some banned ARs. More generally, however, the substitution of post-ban AW-type models with fewer military features has only partially offset the decline in banned AWs.

These findings raise questions as to the whereabouts of surplus AWs, particularly APs, produced just prior to the ban. Presumably, many are in the hands of collectors and speculators holding them for their novelty and value.[62] Even criminal possessors may be more sensitive to the value of their AWs and less likely to use them for risk of losing them to police.

Finally, it is worth noting the ban has not completely eliminated the use of AWs, and, despite large relative reductions, the share of gun crimes involving AWs is similar to that before the ban. Based on year 2000 or more recent data, the most common AWs continue to be used in up to 1.7% of gun crimes.

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somewhat higher use of AWs among the subset of offenders who are most active and/or dangerous; recall that the highest estimate of AW use among the sources examined in this chapter came from a sample of guns recovered during murder investigations in Milwaukee (also see the discussion of offender surveys and AWs in Chapter 3).

[61] Developing a national estimate of the number of AW crimes prevented by the ban is complicated by the range of estimates of AW use and changes therein derived from different data sources. Tentatively, nonetheless, it appears the ban prevents a few thousand crimes with AWs annually. For example, using 2% as the best estimate of the share of gun crimes involving AWs prior to the ban (see Chapter 3) and 40% as a reasonable estimate of the post-ban drop in this figure implies that almost 2,900 murders, robberies, and assaults with AWs were prevented in 2002 (this assumes that 1.2% of the roughly 358,000 gun murders, gun robberies, and gun assaults reported to police in 2002 [see the *Uniform Crime Reports*] involved AWs but that 2% would have involved AWs had the ban not been in effect). Even if this estimate is accurate, however, it does not mean the ban prevented 2,900 gun crimes in 2002; indeed, the preceding calculation assumes that offenders prevented from using AWs committed their crimes using other guns. Whether forcing such weapon substitution can reduce the number of persons wounded or killed in gun crimes is considered in more detail in Chapter 9.

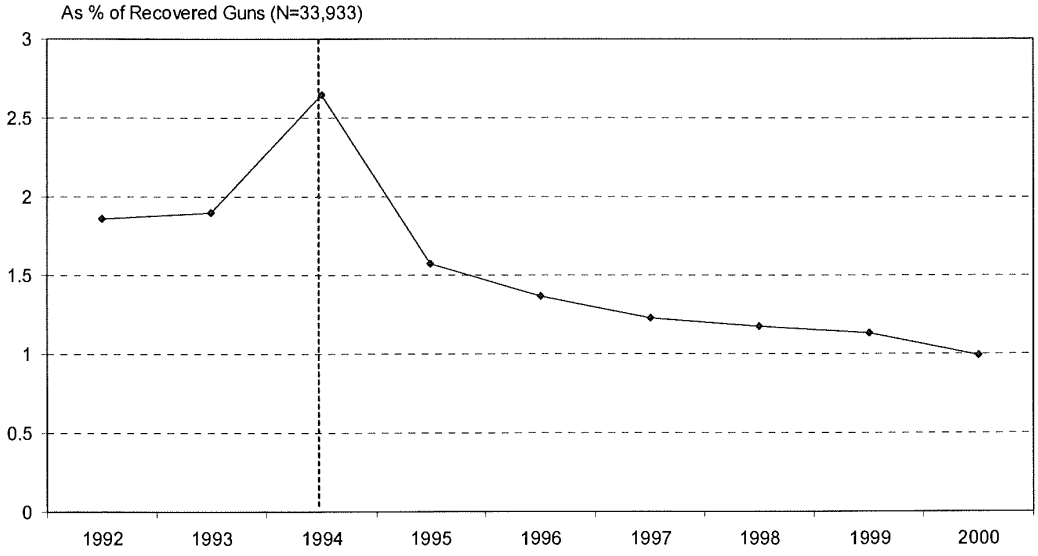
[62] The 1997 national survey of state prisoners discussed in footnote 60 found that nearly 49% of AW offenders obtained their gun from a "street" or illegal source, in contrast to 36% to 42% for other gun users (Harlow, 2001, p. 9). This could be another sign that AWs have become harder to acquire since the ban, but the data cannot be used to make an assessment over time.

Table 6-3. Trends in Police Recoveries of Domestic Assault Weapons in Baltimore, 1992-2000 [a]

	Pre-Ban Period	Post-Ban Period	Change
A. All Recoveries	Jan. 1992-Dec. 1993	Jan. 1995-Dec. 2000	
Total AWs	135	290	
Annual Mean	67.5	48.33	-28%
AW's as % of Guns	1.88%	1.25%	-34%**
APs	123	260	
Annual Mean	61.5	43.33	-30%
APs as % of Guns	1.71%	1.12%	-35%**
ARs	12	30	
Annual Mean	6	5	-17%
ARs as % of Guns	0.17%	0.13%	-24%
Total AWs and Substitutes	135	309	
Annual Mean	67.5	51.5	-24%
AWs/Subs as % of Guns	1.88%	1.33%	-29%**
B. Recoveries Linked to Violent Crimes [b]			
Total AWs	28	47	
Annual Mean	14	7.83	-44%
AWs as % of Violent Crime Guns	2.1%	1.24%	-41%*

a. Domestic assault weapons include Intratec group, SWD group, AR-15 group, and Calico and Feather models.
b. Murders, assaults, and robberies
* Chi-square p level < .05 (changes in percentages of guns that were AWs/APs/ARs/AW-subs were tested for statistical significance).
** Chi-square p level < .01 (changes in percentages of guns that were AWs/APs/ARs/AW-subs were tested for statistical significance).

Figure 6-2. Police Recoveries of Assault Weapons in Baltimore, 1992-2000



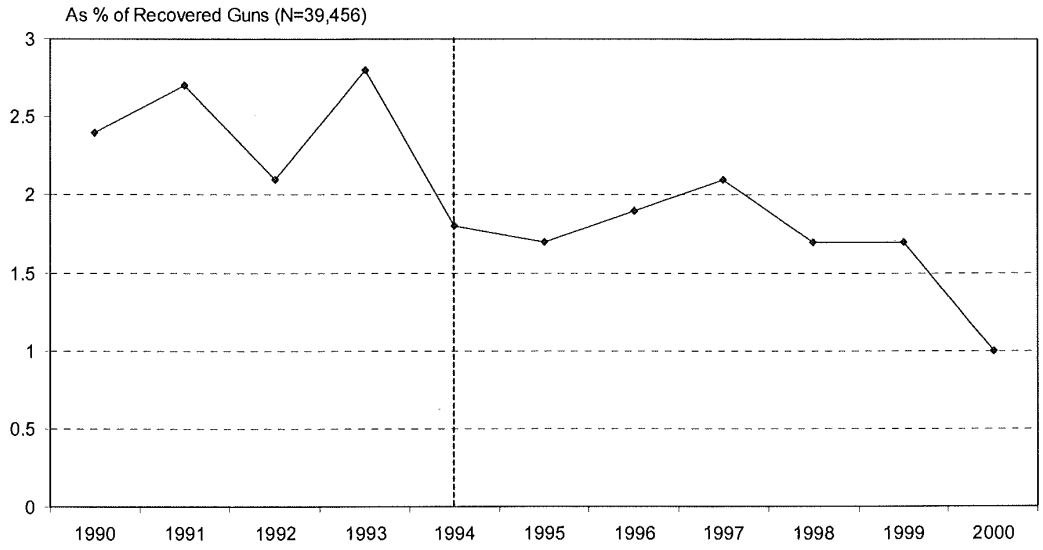
Includes Intratec group, SWD group, AR-15 group, and selected Calico and Feather models.

Table 6-4. Trends in Police Recoveries of Domestic Assault Weapons in Miami (Metro-Dade), 1990-2000 [a]

	Pre-Ban Period	Post-Ban Period	Change
A. All Recoveries	Jan. 1990-Dec. 1993	Jan. 1995-Dec. 2000	
Total AWs	403	330	
Annual Mean	100.75	55	-45%
AW's as % of Guns	2.53%	1.71%	-32%***
APs	355	256	
Annual Mean	88.75	42.67	-52%
APs as % of Guns	2.23%	1.33%	-40%***
ARs	43	72	
Annual Mean	10.75	12	12%
ARs as % of Guns	0.27%	0.37%	37%*
Total AWs and Substitutes	403	343	
Annual Mean	100.75	57.17	-43%
AWs/Subs as % of Guns	2.53%	1.78%	-30%***
B. Recoveries Linked to Violent Crimes [b]			
Total AWs	69	32	
Annual Mean	17.25	5.33	-69%
AWs as % of Violent Crime Guns	2.28%	1.39%	-39%**

a. Domestic assault weapons include Intratec group, SWD group, AR-15 group, and Calico and Feather models.
b. Murders, assaults, and robberies
* Chi-square p level < .1 (changes in percentages of guns that were AWs/APs/ARs/AW-subs were tested for statistical significance)
** Chi-square p level < .05 (changes in percentages of guns that were AWs/APs/ARs/AW-subs were tested for statistical significance)
*** Chi-square p level <.01 (changes in percentages of guns that were AWs/APs/ARs/AW-subs were tested for statistical significance)

Figure 6-3. Police Recoveries of Assault Weapons in Miami (Metro-Dade), 1990-2000



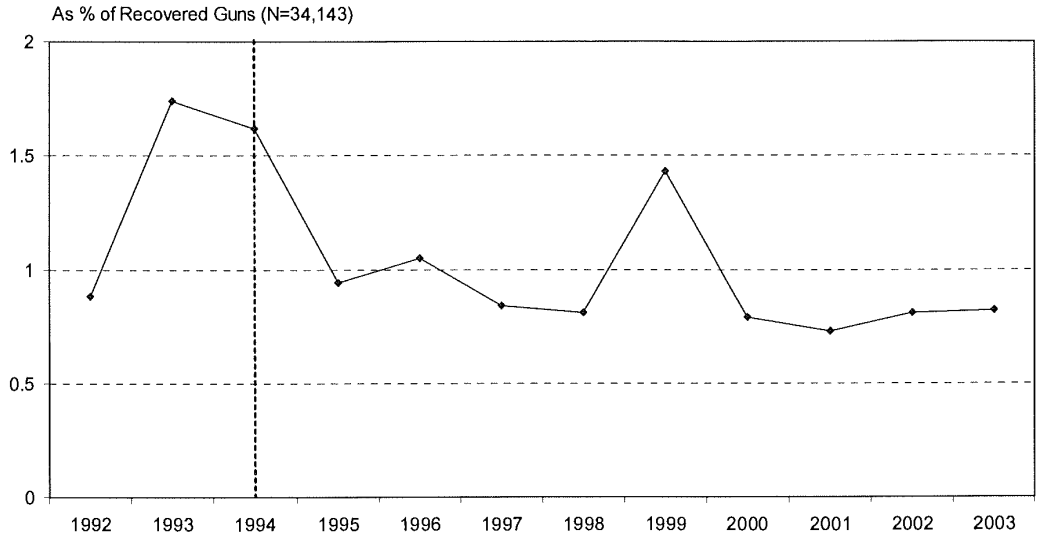
Includes Intratec group, SWD group, AR-15 group, and selected Calico and Feather models.

Table 6-5. Trends in Police Recoveries of Domestic Assault Weapons in St. Louis, 1992-2003 [a]

	Pre-Ban Period	Post-Ban Period	Change
A. All Recoveries	Jan. 1992-Dec. 1993	Jan. 1995-Dec. 2003	
Total AWs	94	212	
Annual Mean	47	23.56	-50%
AW's as % of Guns	1.33%	0.91%	-32%**
APs	87	187	
Annual Mean	43.5	20.78	-52%
APs as % of Guns	1.23%	0.81%	-34%**
ARs	7	25	
Annual Mean	3.5	2.78	-21%
ARs as % of Guns	0.1%	0.11%	10%
Total AWs and Substitutes	94	234	
Annual Mean	47	26	-45%
AWs/Subs as % of Guns	1.33%	1.01%	-24%*
B. Recoveries Linked to Violent Crimes [b]			
Total AWs	8	20	
Annual Mean	4	2.2	-45%
AWs as % of Violent Crime Guns	0.8%	0.81%	1%

a. Domestic assault weapons include Intratec group, SWD group, AR-15 group, and Calico and Feather models.
b. Murders, assaults, and robberies
* Chi-square p level < .05 (changes in percentages of guns that were AWs/APs/ARs/AW-subs were tested for statistical significance)
** Chi-square p level <.01 (changes in percentages of guns that were AWs/APs/ARs/AW-subs were tested for statistical significance)

Figure 6-4. Police Recoveries of Assault Weapons in St. Louis, 1992-2003



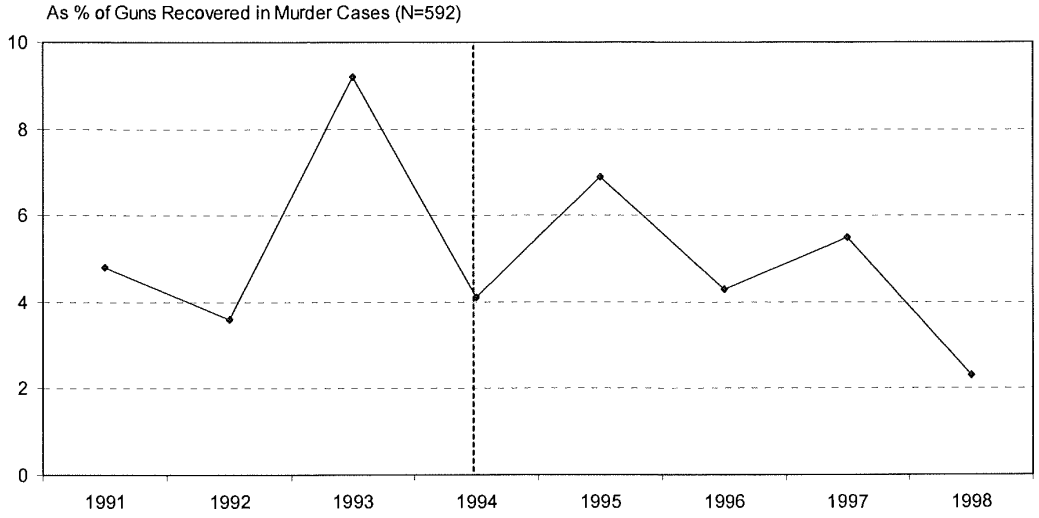
Includes Intratec group, SWD group, AR-15 group, and selected Calico and Feather models.

Table 6-6. Trends in Police Recoveries of Domestic Assault Weapons in Boston, Milwaukee, and Anchorage (Alaska) [a]

	Pre-Ban Period	Post-Ban Period	Change
Boston	Jan. 1991-Dec. 1993	Jan. 2000-Dec. 2002	
(All Gun Traces)			
AWs	60	11	
Annual Mean	20	3.7	-82%
AWs as % of Guns	2.16%	0.6%	-72%*
AWs and Substitutes	60	16	
Annual Mean	20	5.3	-74%
AWs/Subs as % of Guns	2.16%	0.87%	-60%*
Milwaukee	Jan. 1991-Dec. 1993	Jan. 1995-Dec. 1998	
(Guns Recovered in Murder Cases)			
AWs	15	13	
Annual Mean	5	3.25	-35%
AWs as % of Guns	5.91%	4.91%	-17%
AWs and Substitutes	15	16	
Annual Mean	5	4	-20%
AWs/Subs as % of Guns	5.91%	6.04%	2%
Anchorage	Jan. 1987-Dec. 1993	Jan. 1995-Dec. 2000	
(Guns Tested for Evidence)			
AWs	16	8	
Annual Mean	2.29	1.33	-42%
AW's as % of Guns	3.57%	2.13%	-40%
AWs and Substitutes	N/A	N/A	

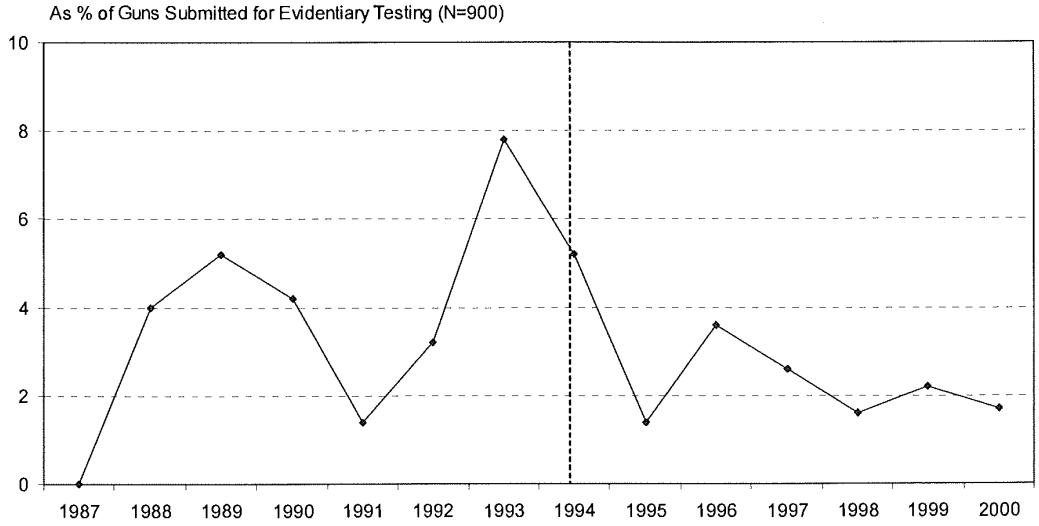
a. Domestic assault weapons include Intratec group, SWD group, AR-15 group, and Calico and Feather models.
* Chi-square p level < .01 (changes in percentages of guns that were AWs/AW-subs were tested for statistical significance)

Figure 6-5. Assault Weapons Recovered in Milwaukee County Murder Cases, 1991-1998



Includes Intratec group, SWD group, AR-15 group, and selected Calico and Feather models.

Figure 6-6. Police Recoveries of Assault Weapons in Anchorage (Alaska), 1987-2000



Includes Intratec group, SWD group, AR-15 group, and selected Calico and Feather models.

7. MARKET INDICATORS FOR LARGE CAPACITY MAGAZINES: PRICES AND IMPORTATION

The previous chapters examined the AW-LCM ban's impact on the availability and criminal use of AWs. In this chapter and the next, we consider the impact of the ban's much broader prohibition on LCMs made for numerous banned and non-banned firearms. We begin by studying market indicators. Our earlier study of LCM prices for a few gun models revealed that prices rose substantially during 1994 and into 1995 (Roth and Koper, 1997, Chapter 4). Prices of some LCMs remained high into 1996, while others returned to pre-ban levels or oscillated more unpredictably. The price increases may have reduced LCM use at least temporarily in the short-term aftermath of the ban, but we could not confirm this in our prior investigation.

7.1. Price Trends for Large Capacity Magazines

For this study, we sought to approximate longer term trends in the prices at which users could purchase banned LCMs throughout the country. To that end, we analyzed quarterly data on the prices of LCMs advertised by eleven gun and magazine distributors in *Shotgun News*, a national gun industry publication, from April 1992 to December 1998.[63] Those prices are available to any gun dealer, and primary market retailers generally re-sell within 15% of the distributors' prices.[64] The distributors were chosen during the course of the first AW study (Roth and Koper, 1997) based on the frequency with which they advertised during the April 1992 to June 1996 period. For each quarterly period, project staff coded prices for one issue from a randomly selected month. We generally used the first issue of each selected month based on a preliminary, informal assessment suggesting that the selected distributors advertised more frequently in those issues. In a few instances, first-of-month issues were unavailable to us or provided too few observations, so we substituted other issues.[65] Also, we were unable to obtain *Shotgun News* issues for the last two quarters of 1996. However, we aggregated the data annually to study price trends, and the omission of those quarters did not appear to affect the results (this is explained further below).

We ascertained trends in LCM prices by conducting hedonic price analyses,

[63] The *Blue Book of Gun Values*, which served as the data source for the AW price analysis, does not contain ammunition magazine prices.

[64] According to gun market experts, retail prices track wholesale prices quite closely (Cook et al., 1995, p. 71). Retail prices to eligible purchasers generally exceed wholesale (or original-purchase) prices by 3% to 5% in the large chain stores, by about 15% in independent dealerships, and by about 10% at gun shows (where overhead costs are lower).

[65] The decision to focus on first-of-month issues was made prior to data collection for price analysis update. For the earlier study (Roth and Koper, 1997), project staff coded data for one or more randomly selected issues of every month of the April 1992 to June 1996 period. For this analysis, we utilized data from only the first-of-month issues selected at random during the prior study. If multiple first-of-month issues were available for a given quarter, we selected one at random or based on the number of recorded advertisements. If no first-of-month issue was available for a given quarter, we selected another issue at random from among those coded during the first study.

similar to those described in the AW price analysis (Chapter 5), in which we regressed inflation-adjusted LCM prices (logged) on several predictors: magazine capacity (logged), gun make (for which the LCM was made), year of the advertisement, and distributor. We cannot account fully for the meaning of significant distributor effects. They may represent unmeasured quality differentials in the merchandise of different distributors, or they may represent other differences in stock volume or selling or service practices between the distributors.[66] We included the distributor indicators when they proved to be significant predictors of advertised price. In addition, we focused on LCMs made for several of the most common LCM-compatible handguns and rifles, rather than try to model the differences in LCM prices between the several hundred miscellaneous makes and models of firearms that were captured in the data. Finally, for both the handgun and rifle models, we created and tested seasonal indicator variables to determine if their incorporation would affect the coefficient for 1996 (the year with winter/spring data only), but they proved to be statistically insignificant and are not shown in the results below.[67]

7.1.1. Large Capacity Magazines for Handguns

The handgun LCM analysis tracks the prices of LCMs made for Intratec and Cobray (i.e., SWD) APs and non-banned semiautomatic pistols made by Smith and Wesson, Glock, Sturm Ruger, Sig-Sauer, Taurus, and Beretta (each of the manufacturers in the former group produces numerous models capable of accepting LCMs). In general, LCMs with greater magazine capacities commanded higher prices, and there were significant price differentials between LCMs made for different guns and sold by different distributors (see Table 7-1). Not surprisingly, LCMs made for Glock handguns were most expensive, followed by those made for Beretta and Sig-Sauer firearms.

Turning to the time trend indicators (see Table 7-1 and Figure 7-1), prices for these magazines increased nearly 50% from 1993 to 1994, and they rose another 56% in 1995. Prices declined somewhat, though not steadily, from 1996 to 1998. Nevertheless, prices in 1998 remained 22% higher than prices in 1994 and nearly 80% higher than those in 1993.

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[66] For example, one possible difference between the distributors may have been the extent to which they sold magazines made of different materials (e.g., steel, aluminum, etc.) or generic magazines manufactured by companies other than the companies manufacturing the firearms for which the magazines were made. For example, there were indications in the data that 3% of the handgun LCMs and 10% of the AR-15 and Mini-14 rifle LCMs used in the analyses (described below) were generic magazines. We did not control for these characteristic, however, because such information was often unclear from the advertisements and was not recorded consistently by coders.

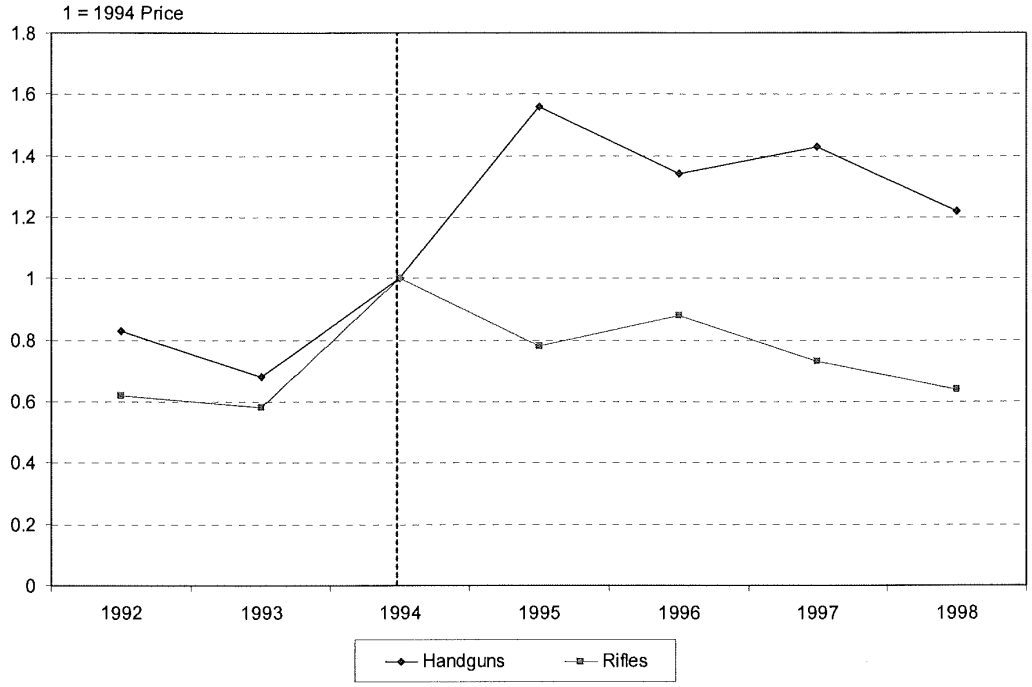
[67] Project staff coded all LCM advertisements by the selected distributors. Therefore, the data are inherently weighted. However, the weights are based on the frequency with which the different LCMs were advertised (i.e., the LCMs that were advertised most frequently have the greatest weight in the models) rather than by production volume.

Table 7-1. Regression of Handgun and Rifle Large Capacity Magazine Prices on Annual Time Indicators, 1992-1998, Controlling for Gun Makes/Models and Distributors

	Handgun LCMs (n=1,277)		Rifle LCMs (n=674)	
	Estimate	**T value**	**Estimate**	**T value**
Constant	-1.79	-12.74***	-4.10	-19.12***
1992	-0.19	-2.11**	-0.48	-4.20***
1993	-0.38	-6.00***	-0.55	-6.14***
1995	0.44	6.88***	-0.25	-2.64***
1996	0.29	4.05***	-0.12	-0.93
1997	0.36	6.33***	-0.31	-3.68***
1998	0.20	3.51***	-0.44	-5.19***
Rounds (logged)	0.26	5.73***	0.84	15.08***
Cobray	-0.36	-4.15***		
Glock	0.41	8.15***		
Intratec	-0.40	-4.18***		
Ruger	-0.42	-7.79***		
Smith&Wesson	-0.08	-1.71*		
Sig-Sauer	0	-0.09		
Taurus	-0.31	-6.10***		
AK-type			-0.25	-3.15***
Colt AR-15			0.14	1.68*
Ruger Mini-14			-0.08	-0.92
Distributor 1	-0.72	-16.38***	-0.35	-5.15***
Distributor 2	-0.15	-0.97	-0.83	-5.24***
Distributor 3	-0.16	-3.93***	0.19	2.69***
Distributor 4	-0.55	-5.72***	0.16	0.80
Distributor 5	-0.07	-1.79*	-0.18	-2.65***
Distributor 6	-0.53	-1.23	-0.12	-0.32
Distributor 7	-1.59	-3.70***	-0.10	-0.91
Distributor 8			0.14	0.70
Distributor 9	-0.91	-12.52***	-0.48	-4.00***
F statistic	58.76		21.22	
(p value)	<.0001		<.0001	
Adj. R-square	0.51		0.38	

Year indicators are interpreted relative to 1994, and distributors are interpreted relative to distributor 10. Handgun makes are relative to Beretta and rifle models are relative to SKS.
* Statistically significant at p<=.10.
** Statistically significant at p<=.05.
*** Statistically significant at p<=.01.

Figure 7-1. Annual Price Trends for Large Capacity Magazines, 1992-1998



Based on 1,277 sampled ads for LCMs fitting models of 8 handgun makers and 674 sampled ads for LCMs fitting 4 rifle model groups.

7.1.2. Large Capacity Magazines for Rifles

We approximated trends in the prices of LCMs for rifles by modeling the prices of LCMs manufactured for AR-15, Mini-14, SKS,[68] and AK-type rifle models (including various non-banned AK-type models). As in the handgun LCM model, larger LCMs drew higher prices, and there were several significant model and distributor effects. AR-15 magazines tended to have the highest prices, and magazines for AK-type models had the lowest prices (Table 7-1).

Like their handgun counterparts, prices for rifle LCMs increased over 40% from 1993 to 1994, as the ban was debated and implemented (see Table 7-1 and Figure 7-1). However, prices declined over 20% in 1995. Following a rebound in 1996, prices moved downward again during 1997 and 1998. Prices in 1998 were over one third lower than the peak prices of 1994 and were comparable to pre-ban prices in 1992 and 1993.

[68] The SKS is a very popular imported rifle (there are Russian and Chinese versions) that was not covered by either the 1989 AR import ban or the 1994 AW ban. However, importation of SKS rifles from China was discontinued in 1994 due to trade restrictions.

7.2. Post-Ban Importation of Large Capacity Magazines

ATF does not collect (or at least does not publicize) statistics on production of LCMs. Therefore, we cannot clearly document pre-ban production trends. Nevertheless, it seems likely that gun and magazine manufacturers boosted their production of LCMs during the debate over the ban, just as AW makers increased production of AWs. Regardless, gun industry sources estimated that there were 25 million LCMs available as of 1995 (including aftermarket items for repairing magazines or converting them to LCMs) (Gun Tests, 1995, p. 30).

Moreover, the supply of LCMs continued to grow even after the ban due to importation of foreign LCMs that were manufactured prior to the ban (and thus grandfathered by the LCM legislation), according to ATF importation data.[69] As shown in Table 7-2, nearly 4.8 million LCMs were imported for commercial sale (as opposed to law enforcement uses) from 1994 through 2000, with the largest number (nearly 3.7 million) arriving in 1999.[70] During this period, furthermore, importers received permission to import a total of 47.2 million LCMs; consequently, an additional 42 million LCMs may have arrived after 2000 or still be on the way, based on just those approved through 2000.[71, 72]

To put this in perspective, gun owners in the U.S. possessed 25 million firearms that were equipped with magazines holding 10 or more rounds as of 1994 (Cook and Ludwig, 1996, p. 17). Therefore, the 4.7 million LCMs imported in the U.S. from 1994 through 2000 could conceivably replenish 19% of the LCMs that were owned at the time of the ban. The 47.2 million approved during this period could supply nearly 2 additional LCMs for all guns that were so equipped as of 1994.

7.3. Summary and Interpretations

Prices of LCMs for handguns rose significantly around the time of the ban and, despite some decline from their peak levels in 1995, remained significantly higher than pre-ban prices through at least 1998. The increase in LCM prices for rifles proved to be more temporary, with prices returning to roughly pre-ban levels by 1998.[73]

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[69] To import LCMs into the country, importers must certify that the magazines were made prior to the ban. (The law requires companies to mark post-ban LCMs with serial numbers.) As a practical matter, however, it is hard for U.S. authorities to know for certain whether imported LCMs were produced prior to the ban.

[70] The data do not distinguish between handgun and rifle magazines or the specific models for which the LCMs were made. But note that roughly two-thirds of the LCMs imported from 1994 through 2000 had capacities between 11 and 19 rounds, a range that covers almost all handgun LCMs as well as many rifle LCMs. It seems most likely that the remaining LCMs (those with capacities of 20 or more rounds) were primarily for rifles.

[71] The statistics in Table 7-2 do not include belt devices used for machine guns.

[72] A caveat to the number of approved LCMs is that importers may overstate the number of LCMs they have available to give themselves leeway to import additional LCMs, should they become available.

[73] A caveat is that we did not examine prices of smaller magazines, so the price trends described here may not have been entirely unique to LCMs. Yet it seems likely that these trends reflect the unique impact of the ban on the market for LCMs.

Table 7-2. Large Capacity Magazines Imported into the United States or Approved For Importation for Commercial Sale, 1994-2000

Year	Imported	Approved
1994	67,063	77,666
1995	3,776	2,066,228
1996	280,425	2,795,173
1997	99,972	1,889,773
1998	337,172	20,814,574
1999	3,663,619	13,291,593
2000	346,416	6,272,876
Total	*4,798,443*	*47,207,883*

Source: Firearms and Explosives Imports Branch, Bureau of Alcohol, Tobacco, Firearms, and Explosives. Counts do not include "links" (belt devices) or imports for law enforcement purposes.

The drop in rifle LCM prices between 1994 and 1998 may have due to the simultaneous importation of approximately 788,400 grandfathered LCMs, most of which appear to have been rifle magazines (based on the fact that nearly two-thirds had capacities over 19 rounds), as well as the availability of U.S. military surplus LCMs that fit rifles like the AR-15 and Mini-14. We can also speculate that demand for LCMs is not as great among rifle consumers, who are less likely to acquire their guns for defensive or criminal purposes.

The pre-ban supply of handgun LCMs may have been more constricted than the supply of rifle LCMs for at least a few years following the ban, based on prices from 1994 to 1998. Although there were an estimated 25 million LCMs available in the U.S. as of 1995, some major handgun manufacturers (including Ruger, Sig Sauer, and Glock) had or were close to running out of new LCMs by that time (Gun Tests, 1995, p. 30). Yet the frequency of advertisements for handgun LCMs during 1997 and 1998, as well as the drop in prices from their 1995 peak, suggests that the supply had not become particularly low. In 1998, for example, the selected distributors posted a combined total of 92 LCM ads per issue (some of which may have been for the same make, model, and capacity combinations) for just the handguns that we incorporated into our model.[74] Perhaps the

[74] Project staff found substantially more advertisements per issue for 1997 and 1998 than for earlier years. For the LCMs studied in the handgun analysis, staff recorded an average of 412 LCM advertisements per year (103 per issue) during 1997 and 1998. For 1992-1996, staff recorded an average of about 100 ads per year (25 per issue) for the same LCMs. A similar but smaller differential existed in the volume of ads for the LCMs used in the rifle analysis. The increase in LCM ads over time may reflect changes in supply and

demand for enhanced firepower among handgun consumers, who are more likely to acquire guns for crime or defense against crime, was also a factor (and perhaps a large one) putting a premium on handgun LCMs.

Although we might hypothesize that high prices depressed use of handguns with LCMs for at least a few years after the ban, a qualification to this prediction is that LCM use may be less sensitive to prices than is use of AWs because LCMs are much less expensive than the firearms they complement and therefore account for a smaller fraction of users' income (e.g., see Friedman, 1962). To illustrate, TEC-9 APs typically cost $260 at retail during 1992 and 1993, while LCMs for the TEC-9, ranging in capacity from 30 to 36 rounds, averaged $16.50 in *Shotgun News* advertisements (and probably $19 or less at retail) during the same period. So, for example, a doubling of both gun and LCM prices would likely have a much greater impact on purchases of TEC-9 pistols than purchases of LCMs for the TEC-9. Users willing and able to pay for a gun that accepts an LCM are most likely willing and able to pay for an LCM to use with the gun.

Moreover, the LCM supply was enhanced considerably by a surge in LCM imports that occurred after the period of our price analysis. During 1999 and 2000, an additional 4 million grandfathered LCMs were imported into the U.S., over two-thirds of which had capacities of 11-19 rounds, a range that covers almost all handgun LCMs (as well as many rifle LCMs). This may have driven prices down further after 1998.

In sum, market indicators yield conflicting signs on the availability of LCMs. It is perhaps too early to expect a reduction in crimes with LCMs, considering that tens of millions of grandfathered LCMs were available at the time of the ban, an additional 4.8 million – enough to replenish one-fifth of those owned by civilians – were imported from 1994 through 2000, and that the elasticity of demand for LCMs may be more limited than that of firearms. And if the additional 42 million foreign LCMs approved for importation become available, there may not be a reduction in crimes with LCMs anytime in the near future.

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demand for LCMs during the study period, as well as product shifts by distributors and perhaps changes in ad formats (e.g., ads during the early period may have been more likely to list magazines by handgun model without listing the exact capacity of each magazine, in which case coders would have been more likely to miss some LCMs during the early period). Because the data collection effort for the early period was part of a larger effort that involved coding prices in *Shotgun News* for LCMs and numerous banned and non-banned firearms, it is also possible that coders were more likely to miss LCM ads during that period due to random factors like fatigue or time constraints.