

**UNITED STATES DISTRICT COURT
DISTRICT OF CONNECTICUT**

JUNE SHEW, et al.	:	No. 3:13-CV-0739 (AVC)
<i>Plaintiffs,</i>	:	
	:	
v.	:	
	:	
DANNEL P. MALLOY, et al.	:	
<i>Defendants.</i>	:	OCTOBER 11, 2013

DEFENDANTS' EXHIBIT LIST

Exhibit 1 - Public Act 13-3

Exhibit 2 - Public Act 13-220

Exhibit 3 - Public Act 93-306

Exhibit 4 - Public Act 01-130

Exhibit 5 - Excerpts from Senate Debates on Public Act 13-3

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Exhibit 7 - Governor's Sandy Hook Advisory Commissioner Interim Report

Exhibit 8 - Governor's Legislative Proposals

Exhibit 9 - Federal ban (1994)

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Exhibit 14 - Mattson Affidavit

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Exhibit 16 - Cooke Affidavit

Exhibit 17 - ATF Study (July 1989)

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Exhibit 20 - ATF Study (January 2011)

Exhibit 21 - H.R. Rep. 103-489 (1994)

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Exhibit 23 - Rovella Affidavit

Exhibit 24 - Hartford Gun Seizure Data

Exhibit 25 - Hartford 2012 End of Year Statistics

Exhibit 26 - Koper Affidavit

Exhibit 27 - Koper Curriculum Vitae

Exhibit 28 - *Impact Evaluation of the Public Safety and Recreational Firearms Use Protection Act of 1994: Final Report*. The Urban Institute, March 13, 1997 (“Koper 1997”)

Exhibit 29 - *Updated Assessment of the Federal Assault Weapons Ban: Impacts on Gun Markets and Gun Violence, 1994-2003*, Christopher S. Koper, July 2004 (“Koper 2004”)

Exhibit 30 - *America’s Experience with the Federal Assault Weapons Ban, 1994-2004, Key Findings and Implications*, Christopher S. Koper (chapter in *Reducing Gun Violence in America: Informing Policy with Evidence and Analysis*) (“Koper 2013”)

Exhibit 31 - Washington Post Study (January 13, 2011)

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Exhibit 48 - Mayors Against Illegal Guns Study (2013)

Exhibit 49 - Media reports about interrupted mass shootings

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Exhibit 52 - VPC "Militarization" (2011)

Exhibit 53 - Testimony of Brian J. Siebel, Brady Center to Prevent Gun Violence (Oct. 1, 2008)

Exhibit 54 - Excerpts from United States Army M16/M4 Training Manual

Exhibit 55 - VPC "Justifiable Homicide" Study (2013)

Exhibit 56 - *Benjamin v. Bailey*, Docket No. CV 93-0063723 (Conn. Super. 1994)

Exhibit 57 - NRA Story Corner Study

Exhibit 58 - Allen Declaration

Exhibit 59 - Zimring Declaration

Exhibit 60 - The Gun Debate's New Mythical Number: How Many Defensive Uses Per Year? Philip J. Cook; Jens Ludwig; David Hemenway, *Journal of Policy Analysis and Management*, Vol. 16, No. 3, Special Issue: The New Public Management in New Zealand and beyond. (Summer, 1997)

Exhibit 61 - Prepared Testimony by Laurence H. Tribe, Carl M. Loeb University Professor and Professor of Constitutional Law, Harvard Law School, *Proposals to Reduce Gun Violence: Protecting Our Communities While Respecting the Second Amendment*, Senate Judiciary Committee Subcommittee on the Constitution, Civil Rights and Human Rights. February 12, 2003

Exhibit 62 - Excerpts from *Extreme Killing: Understanding Serial and Mass Murder*, James Alan Fox, Jack Levin (2d ed. 2012)

Exhibit 63 - Eugene Volokh, *Implementing the Right to Keep and Bear Arms for Self-Defense: An Analytical Framework and a Research Agenda*, 56 UCLA L. Rev. 1443 (2009)

Exhibit 64 - Gun Ownership Article (NY Times Mar 2013)

Exhibit 65 - Gun Ownership data (GSS 2010)

Exhibit 66 – Excerpts from TRO Bench Ruling in *Tardy v. O'Malley*, Docket No. CCB-13-2841 (D.Md. Oct. 1, 2013)

Exhibit 67 - Siegel Study (2013)

Exhibit 68 - Mother Jones "More Mass Shootings" (Sept. 26, 2012)

Exhibit 69 - Media Reports Re: High Profile Incidents of Criminal Use of Assault Weapons and LCMs

Respectfully Submitted,

DEFENDANTS
DANNEL P. MALLOY, et al.

GEORGE JEPSEN
ATTORNEY GENERAL

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CERTIFICATION

I hereby certify that on October 11, 2013, a copy of the foregoing Defendants' Exhibit List was filed electronically. Notice of this filing will be sent by electronic 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

EXHIBIT 21

HEINONLINE

Citation: 5 Bernard D. Reams Jr. The Omnibus Anti-Crime Act A
History of the Violent Crime Control and Law
Act of 1994 Public Law 103-322 September 13 1994 1

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103D CONGRESS
2d Session

HOUSE OF REPRESENTATIVES

REPORT
103-489

**PUBLIC SAFETY AND RECREATIONAL FIREARMS USE
PROTECTION ACT**

MAY 2, 1994.—Committed to the Committee of the Whole House on the State of the Union and ordered to be printed

Mr. BROOKS, from the Committee on the Judiciary,
submitted the following

REPORT

together with

SUPPLEMENTAL AND DISSENTING VIEWS

[To accompany H.R. 4296]

[Including cost estimate of the Congressional Budget Office]

The Committee on the Judiciary, to whom was referred the bill (H.R. 4296) to make unlawful the transfer or possession of assault weapons, having considered the same, report favorably thereon with an amendment and recommend that the bill as amended do pass.

The amendment is as follows:

Strike out all after the enacting clause and insert in lieu thereof the following:

SECTION 1. SHORT TITLE.

This Act may be cited as the "Public Safety and Recreational Firearms Use Protection Act".

SEC. 2. RESTRICTION ON MANUFACTURE, TRANSFER, AND POSSESSION OF CERTAIN SEMI-AUTOMATIC ASSAULT WEAPONS.

(a) RESTRICTION.—Section 922 of title 18, United States Code, is amended by adding at the end the following:

"(v)(1) It shall be unlawful for a person to manufacture, transfer, or possess a semiautomatic assault weapon.

"(2) Paragraph (1) shall not apply to the possession or transfer of any semiautomatic assault weapon otherwise lawfully possessed on the date of the enactment of this subsection.

"(3) Paragraph (1) shall not apply to—

79-006

"(A) any of the firearms, or replicas or duplicates of the firearms, specified in Appendix A to this section, as such firearms were manufactured on October 1, 1993;

"(B) any firearm that—

"(i) is manually operated by bolt, pump, lever, or slide action;

"(ii) has been rendered permanently inoperable; or

"(iii) is an antique firearm;

"(C) any semiautomatic rifle that cannot accept a detachable magazine that holds more than 5 rounds of ammunition; or

"(D) any semiautomatic shotgun that cannot hold more than 5 rounds of ammunition in a fixed or detachable magazine.

The fact that a firearm is not listed in Appendix A shall not be construed to mean that paragraph (1) applies to such firearm. No firearm exempted by this subsection may be deleted from Appendix A so long as this Act is in effect.

"(4) Paragraph (1) shall not apply to—

"(A) the United States or a department or agency of the United States or a State or a department, agency, or political subdivision of a State;

"(B) the transfer of a semiautomatic assault weapon by a licensed manufacturer, licensed importer, or licensed dealer to an entity referred to in subparagraph (A) or to a law enforcement officer authorized by such an entity to purchase firearms for official use;

"(C) the possession, by an individual who is retired from service with a law enforcement agency and is not otherwise prohibited from receiving a firearm, of a semiautomatic assault weapon transferred to the individual by the agency upon such retirement; or

"(D) the manufacture, transfer, or possession of a semiautomatic assault weapon by a licensed manufacturer or licensed importer for the purposes of testing or experimentation authorized by the Secretary."

(b) DEFINITION OF SEMIAUTOMATIC ASSAULT WEAPON.—Section 921(a) of such title is amended by adding at the end the following:

"(30) The term 'semiautomatic assault weapon' means—

"(A) any of the firearms, or copies or duplicates of the firearms, known as—

"(i) Norinco, Mitchell, and Poly Technologies Avtomat Kalashnikovs (all models);

"(ii) Action Arms Israeli Military Industries UZI and Galil;

"(iii) Beretta Ar70 (SC-70);

"(iv) Colt AR-15;

"(v) Fabrique National FN/FAL, FN/LAR, and FNC;

"(vi) SWD M-10, M-11, M-11/9, and M-12;

"(vii) Steyr AUG;

"(viii) INTRATEC TEC-9, TEC-DC9 and TEC-22; and

"(ix) revolving cylinder shotguns, such as (or similar to) the Street Sweeper and Striker 12;

"(B) a semiautomatic rifle that has an ability to accept a detachable magazine and has at least 2 of—

"(i) a folding or telescoping stock;

"(ii) a pistol grip that protrudes conspicuously beneath the action of the weapon;

"(iii) a bayonet mount;

"(iv) a flash suppressor or threaded barrel designed to accommodate a flash suppressor; and

"(v) a grenade launcher;

"(C) a semiautomatic pistol that has an ability to accept a detachable magazine and has at least 2 of—

"(i) an ammunition magazine that attaches to the pistol outside of the pistol grip;

"(ii) a threaded barrel capable of accepting a barrel extender, flash suppressor, forward handgrip, or silencer;

"(iii) a shroud that is attached to, or partially or completely encircles, the barrel and that permits the shooter to hold the firearm with the nontrigger hand without being burned;

"(iv) a manufactured weight of 50 ounces or more when the pistol is unloaded; and

"(v) a semiautomatic version of an automatic firearm; and

"(D) a semiautomatic shotgun that has at least 2 of—

"(i) a folding or telescoping stock;

"(ii) a pistol grip that protrudes conspicuously beneath the action of the weapon;

- “(iii) a fixed magazine capacity in excess of 5 rounds; and
- “(iv) an ability to accept a detachable magazine.”

(c) PENALTIES.—

(1) **VIOLATION OF SECTION 922(v).**—Section 924(a)(1)(B) of such title is amended by striking “or (q) of section 922” and inserting “(r), or (v) of section 922”.

(2) **USE OR POSSESSION DURING CRIME OF VIOLENCE OR DRUG TRAFFICKING CRIME.**—Section 924(c)(1) of such title is amended in the first sentence by inserting “, or semiautomatic assault weapon,” after “short-barreled shotgun.”

(d) **IDENTIFICATION MARKINGS FOR SEMIAUTOMATIC ASSAULT WEAPONS.**—Section 923(i) of such title is amended by adding at the end the following: “The serial number of any semiautomatic assault weapon manufactured after the date of the enactment of this sentence shall clearly show the date on which the weapon was manufactured.”

SEC. 3. RECORDKEEPING REQUIREMENTS FOR TRANSFERS OF GRANDFATHERED FIREARMS.

(a) **OFFENSE.**—Section 922 of title 18, United States Code, as amended by section 2(a) of this Act, is amended by adding at the end the following:

“(w)(1) It shall be unlawful for a person to sell, ship, or deliver a semiautomatic assault weapon to a person who has not completed a form 4473 in connection with the transfer of the semiautomatic assault weapon.

“(2) It shall be unlawful for a person to receive a semiautomatic assault weapon unless the person has completed a form 4473 in connection with the transfer of the semiautomatic assault weapon.

“(3) If a person receives a semiautomatic assault weapon from anyone other than a licensed dealer, both the person and the transferor shall retain a copy of the form 4473 completed in connection with the transfer.

“(4) Within 90 days after the date of the enactment of this subsection, the Secretary shall prescribe regulations ensuring the availability of form 4473 to owners of semiautomatic assault weapons.

“(5) As used in this subsection, the term ‘form 4473’ means—

“(A) the form which, as of the date of the enactment of this subsection, is designated by the Secretary as form 4473; or

“(B) any other form which—

“(i) is required by the Secretary, in lieu of the form described in subparagraph (A), to be completed in connection with the transfer of a semiautomatic assault weapon; and

“(ii) when completed, contains, at a minimum, the information that, as of the date of the enactment of this subsection, is required to be provided on the form described in subparagraph (A).”

(b) **PENALTY.**—Section 924(a) of such title is amended by adding at the end the following:

“(6) A person who knowingly violates section 922(w) shall be fined not more than \$1,000, imprisoned not more than 6 months, or both. Section 3571 shall not apply to any offense under this paragraph.”

SEC. 4. BAN OF LARGE CAPACITY AMMUNITION FEEDING DEVICES.

(a) **PROHIBITION.**—Section 922 of title 18, United States Code, as amended by sections 2 and 3 of this Act, is amended by adding at the end the following:

“(x)(1) Except as provided in paragraph (2), it shall be unlawful for a person to transfer or possess a large capacity ammunition feeding device.

“(2) Paragraph (1) shall not apply to the possession or transfer of any large capacity ammunition feeding device otherwise lawfully possessed on the date of the enactment of this subsection.

“(3) This subsection shall not apply to—

“(A) the United States or a department or agency of the United States or a State or a department, agency, or political subdivision of a State;

“(B) the transfer of a large capacity ammunition feeding device by a licensed manufacturer, licensed importer, or licensed dealer to an entity referred to in subparagraph (A) or to a law enforcement officer authorized by such an entity to purchase large capacity ammunition feeding devices for official use;

“(C) the possession, by an individual who is retired from service with a law enforcement agency and is not otherwise prohibited from receiving ammunition, of a large capacity ammunition feeding device transferred to the individual by the agency upon such retirement; or

“(D) the manufacture, transfer, or possession of any large capacity ammunition feeding device by a licensed manufacturer or licensed importer for the purposes of testing or experimentation authorized by the Secretary.”

(b) DEFINITION OF LARGE CAPACITY AMMUNITION FEEDING DEVICE.—Section 921(a) of such title, as amended by section 2(b) of this Act, is amended by adding at the end the following:

“(31) The term ‘large capacity ammunition feeding device’—

“(A) means—

“(i) a magazine, belt, drum, feed strip, or similar device that has a capacity of, or that can be readily restored or converted to accept, more than 10 rounds of ammunition; and

“(ii) any combination of parts from which a device described in clause (i) can be assembled; but

“(B) does not include an attached tubular device designed to accept, and capable of operating only with, .22 caliber rimfire ammunition.”.

(c) LARGE CAPACITY AMMUNITION FEEDING DEVICES TREATED AS FIREARMS.—Section 921(a)(3) of such title is amended in the first sentence by striking “or (D) any destructive device.” and inserting “(D) any destructive device; or (E) any large capacity ammunition feeding device.”.

(d) PENALTY.—Section 924(a)(1)(B) of such title, as amended by section 2(c) of this Act, is amended by striking “or (v)” and inserting “(v), or (x)”.

(e) IDENTIFICATION MARKINGS FOR LARGE CAPACITY AMMUNITION FEEDING DEVICES.—Section 923(i) of such title, as amended by section 2(d) of this Act, is amended by adding at the end the following: “A large capacity ammunition feeding device manufactured after the date of the enactment of this sentence shall be identified by a serial number that clearly shows that the device was manufactured or imported after the effective date of this subsection, and such other identification as the Secretary may by regulation prescribe.”.

SEC. 5. STUDY BY ATTORNEY GENERAL.

(a) STUDY.—The Attorney General shall investigate and study the effect of this Act and the amendments made by this Act, and in particular shall determine their impact, if any, on violent and drug trafficking crime. The study shall be conducted over a period of 18 months, commencing 12 months after the date of enactment of this Act.

(b) REPORT.—Not later than 30 months after the date of enactment of this Act, the Attorney General shall prepare and submit to the Congress a report setting forth in detail the findings and determinations made in the study under subsection (a).

SEC. 6. EFFECTIVE DATE.

This Act and the amendments made by this Act—

(1) shall take effect on the date of the enactment of this Act; and

(2) are repealed effective as of the date that is 10 years after that date.

SEC. 7. APPENDIX A TO SECTION 922 OF TITLE 18.

Section 922 of title 18, United States Code, is amended by adding at the end the following appendix:

*APPENDIX A

Centerfire Rifles—Autoloaders

Browning BAR Mark II Safari Semi-Auto Rifle
 Browning BAR Mark II Safari Magnum Rifle
 Browning High-Power Rifle
 Heckler & Koch Model 300 Rifle
 Iver Johnson M-1 Carbine
 Iver Johnson 50th Anniversary M-1 Carbine
 Marlin Model 9 Camp Carbine
 Marlin Model 45 Carbine
 Remington Nylon 66 Auto-Loading Rifle
 Remington Model 7400 Auto Rifle
 Remington Model 7400 Rifle
 Remington Model 7400 Special Purpose Auto Rifle
 Ruger Mini-14 Autoloading Rifle (w/o folding stock)
 Ruger Mini Thirty Rifle

Centerfire Rifles—Lever & Slide

Browning Model 81 BLR Lever-Action Rifle
 Browning Model 81 Long Action BLR
 Browning Model 1886 Lever-Action Carbine
 Browning Model 1886 High Grade Carbine
 Cimarron 1860 Henry Replica
 Cimarron 1866 Winchester Replicas
 Cimarron 1873 Short Rifle
 Cimarron 1873 Sporting Rifle
 Cimarron 1873 30" Express Rifle
 Dixie Engraved 1873 Rifle
 E.M.F. 1866 Yellowboy Lever Actions

E.M.F. 1860 Henry Rifle
 E.M.F. Model 73 Lever-Action Rifle
 Marlin Model 336CS Lever-Action Carbine
 Marlin Model 30AS Lever-Action Carbine
 Marlin Model 444SS Lever-Action Sporter
 Marlin Model 1894S Lever-Action Carbine
 Marlin Model 1894CS Carbine
 Marlin Model 1894CL Classic
 Marlin Model 1895SS Lever-Action Rifle
 Mitchell 1856 Henry Replica
 Mitchell 1866 Winchester Replica
 Mitchell 1873 Winchester Replica
 Navy Arms Military Henry Rifle
 Navy Arms Henry Trapper
 Navy Arms Iron Frame Henry
 Navy Arms Henry Carbine
 Navy Arms 1866 Yellowboy Rifle
 Navy Arms 1873 Winchester-Style Rifle
 Navy Arms 1873 Sporting Rifle
 Remington 7600 Slide Action
 Remington Model 7600 Special Purpose Slide Action
 Rossi M92 SRC Saddle-Ring Carbine
 Rossi M92 SRS Short Carbine
 Savage 99C Lever-Action Rifle
 Uberti Henry Rifle
 Uberti 1866 Sporting Rifle
 Uberti 1873 Sporting Rifle
 Winchester Model 94 Side Eject Lever-Action Rifle
 Winchester Model 94 Trapper Side Eject
 Winchester Model 94 Big Bore Side Eject
 Winchester Model 94 Ranger Side Eject Lever-Action Rifle
 Winchester Model 94 Wrangler Side Eject

Centerfire Rifles—Bolt Action

Alpine Bolt-Action Rifle
 A-Square Caesar Bolt-Action Rifle
 A-Square Hannibal Bolt-Action Rifle
 Anschutz 1700D Classic Rifles
 Anschutz 1700D Custom Rifles
 Anschutz 1700D Bavarian Bolt-Action Rifle
 Anschutz 1733D Mannlicher Rifle
 Barret Model 90 Bolt-Action Rifle
 Beeman/HW 60J Bolt-Action Rifle
 Blaser R84 Bolt-Action Rifle
 BRNO 537 Sporter Bolt-Action Rifle
 BRNO ZKB 527 Fox Bolt-Action Rifle
 BRNO ZKK 600, 601, 602 Bolt-Action Rifles
 Browning A-Bolt Rifle
 Browning A-Bolt Stainless Stalker
 Browning A-Bolt Left Hand
 Browning A-Bolt Short Action
 Browning Euro-Bolt Rifle
 Browning A-Bolt Gold Medallion
 Browning A-Bolt Micro Medallion
 Century Centurion 14 Sporter
 Century Enfield Sporter #4
 Century Swedish Sporter #38
 Century Mauser 98 Sporter
 Cooper Model 38 Centerfire Sporter
 Dakota 22 Sporter Bolt-Action Rifle
 Dakota 76 Classic Bolt-Action Rifle
 Dakota 76 Short Action Rifles
 Dakota 76 Safari Bolt-Action Rifle
 Dakota 416 Rigby African
 E.A.A./Sabatti Rover 870 Bolt-Action Rifle
 Auguste Francotte Bolt-Action Rifles
 Carl Gustaf 2000 Bolt-Action Rifle
 Heym Magnum Express Series Rifle
 Howa Lightning Bolt-Action Rifle
 Howa Realtree Camo Rifle
 Interarms Mark X Viscount Bolt-Action Rifle
 Interarms Mini-Mark X Rifle
 Interarms Mark X Whitworth Bolt-Action Rifle
 Interarms Whitworth Express Rifle
 Iver Johnson Model 5100A1 Long-Range Rifle
 KDF K15 American Bolt-Action Rifle
 Krico Model 600 Bolt-Action Rifle
 Krico Model 700 Bolt-Action Rifles
 Mauser Model 66 Bolt-Action Rifle
 Mauser Model 99 Bolt-Action Rifle
 McMillan Signature Classic Sporter
 McMillan Signature Super Varminter
 McMillan Signature Alaskan
 McMillan Signature Titanium Mountain Rifle
 McMillan Classic Stainless Sporter
 McMillan Talon Safari Rifle
 McMillan Talon Sporter Rifle
 Midland 1500S Survivor Rifle
 Navy Arms TU-33/40 Carbine
 Parker-Hale Model 81 Classic Rifle

Parker-Hale Model 81 Classic African Rifle
 Parker-Hale Model 1000 Rifle
 Parker-Hale Model 1100M African Magnum
 Parker-Hale Model 1100 Lightweight Rifle
 Parker-Hale Model 1200 Super Rifle
 Parker-Hale Model 1200 Super Clip Rifle
 Parker-Hale Model 1300C Scout Rifle
 Parker-Hale Model 2100 Midland Rifle
 Parker-Hale Model 2700 Lightweight Rifle
 Parker-Hale Model 2800 Midland Rifle
 Remington Model Seven Bolt-Action Rifle
 Remington Model Seven Youth Rifle
 Remington Model Seven Custom KS
 Remington Model Seven Custom MS Rifle
 Remington 700 ADL Bolt-Action Rifle
 Remington 700 BDL Bolt-Action Rifle
 Remington 700 BDL Varmint Special
 Remington 700 BDL European Bolt-Action Rifle
 Remington 700 Varmint Synthetic Rifle
 Remington 700 BDL SS Rifle
 Remington 700 Stainless Synthetic Rifle
 Remington 700 MTRSS Rifle
 Remington 700 BDL Left Hand
 Remington 700 Camo Synthetic Rifle
 Remington 700 Safari
 Remington 700 Mountain Rifle
 Remington 700 Custom KS Mountain Rifle
 Remington 700 Classic Rifle
 Ruger M77 Mark II Rifle
 Ruger M77 Mark II Magnum Rifle
 Ruger M77RL Ultra Light
 Ruger M77 Mark II All-Weather Stainless Rifle
 Ruger M77 RSI International Carbine
 Ruger M77 Mark II Express Rifle
 Ruger M77VT Target Rifle
 Sako Hunter Rifle
 Sako Fiberclass Sporter
 Sako Safari Grade Bolt Action
 Sako Hunter Left-Hand Rifle
 Sako Classic Bolt Action
 Sako Hunter LS Rifle
 Sako Deluxe Lightweight
 Sako Super Deluxe Sporter
 Sako Mannlicher-Style Carbine
 Sako Varmint Heavy Barrel
 Sako TRG-S Bolt-Action Rifle
 Sauer 90 Bolt-Action Rifle
 Savage 110G Bolt-Action Rifle
 Savage 110CY Youth/Ladies Rifle
 Savage 110WLE One of One Thousand Limited Edition Rifle
 Savage 110GXP3 Bolt-Action Rifle
 Savage 110F Bolt-Action Rifle
 Savage 110FXP3 Bolt-Action Rifle
 Savage 110GV Varmint Rifle
 Savage 112FV Varmint Rifle
 Savage Model 112FVS Varmint Rifle
 Savage Model 112BV Heavy Barrel Varmint Rifle
 Savage 116FSS Bolt-Action Rifle
 Savage Model 116FSK Kodiak Rifle
 Savage 110FP Police Rifle
 Steyr-Mannlicher Sporter Models SL, L, M, S, S/T
 Steyr-Mannlicher Luxus Model L, M, S
 Steyr-Mannlicher Model M Professional Rifle
 Tikka Bolt-Action Rifle
 Tikka Premium Grade Rifles
 Tikka Varmint/Continental Rifle
 Tikka Whitetail/Battue Rifle
 Ultra Light Arms Model 20 Rifle
 Ultra Light Arms Model 28, Model 40 Rifles
 Voere VEC 91 Lightning Bolt-Action Rifle
 Voere Model 2165 Bolt-Action Rifle
 Voere Model 2155, 2150 Bolt-Action Rifles
 Weatherby Mark V Deluxe Bolt-Action Rifle
 Weatherby Lasermark V Rifle
 Weatherby Mark V Crown Custom Rifles
 Weatherby Mark V Sporter Rifle
 Weatherby Mark V Safari Grade Custom Rifles
 Weatherby Weathermark Rifle
 Weatherby Weathermark Alaskan Rifle
 Weatherby Classicmark No. 1 Rifle
 Weatherby Weatherguard Alaskan Rifle
 Weatherby Vanguard VGX Deluxe Rifle
 Weatherby Vanguard Classic Rifle
 Weatherby Vanguard Classic No. 1 Rifle
 Weatherby Vanguard Weatherguard Rifle
 Wichita Classic Rifle
 Wichita Varmint Rifle
 Winchester Model 70 Sporter
 Winchester Model 70 Sporter WinTuff
 Winchester Model 70 SM Sporter

Winchester Model 70 Stainless Rifle
 Winchester Model 70 Varmint
 Winchester Model 70 Synthetic Heavy Varmint Rifle
 Winchester Model 70 DBM Rifle
 Winchester Model 70 DBM-S Rifle
 Winchester Model 70 Featherweight
 Winchester Model 70 Featherweight WinTuff
 Winchester Model 70 Featherweight Classic
 Winchester Model 70 Lightweight Rifle
 Winchester Ranger Rifle
 Winchester Model 70 Super Express Magnum
 Winchester Model 70 Super Grade
 Winchester Model 70 Custom Sharpshooter
 Winchester Model 70 Custom Sporting Sharpshooter Rifle

Centerfire Rifles—Single Shot

Armsport 1866 Sharps Rifle, Carbine
 Brown Model One Single Shot Rifle
 Browning Model 1885 Single Shot Rifle
 Dakota Single Shot Rifle
 Desert Industries G-90 Single Shot Rifle
 Harrington & Richardson Ultra Varmint Rifle
 Model 1885 High Wall Rifle
 Navy Arms Rolling Block Buffalo Rifle
 Navy Arms #2 Creedmoor Rifle
 Navy Arms Sharps Cavalry Carbine
 Navy Arms Sharps Plains Rifle
 New England Firearms Handi-Rifle
 Red Willow Armory Ballard No. 5 Pacific
 Red Willow Armory Ballard No. 1.5 Hunting Rifle
 Red Willow Armory Ballard No. 8 Union Hill Rifle
 Red Willow Armory Ballard No. 4.5 Target Rifle
 Remington-Style Rolling Block Carbine
 Ruger No. 1B Single Shot
 Ruger No. 1A Light Sporter
 Ruger No. 1H Tropical Rifle
 Ruger No. 1S Medium Sporter
 Ruger No. 1 RSI International
 Ruger No. 1V Special Varminter
 C. Sharps Arms New Model 1874 Old Reliable
 C. Sharps Arms New Model 1875 Rifle
 C. Sharps Arms 1875 Classic Sharps
 C. Sharps Arms New Model 1875 Target & Long Range
 Shiloh Sharps 1874 Long Range Express
 Shiloh Sharps 1874 Montana Roughrider
 Shiloh Sharps 1874 Military Carbine
 Shiloh Sharps 1874 Business Rifle
 Shiloh Sharps 1874 Military Rifle
 Sharps 1874 Old Reliable
 Thompson/Center Contender Carbine
 Thompson/Center Stainless Contender Carbine
 Thompson/Center Contender Carbine Survival System
 Thompson/Center Contender Carbine Youth Model
 Thompson/Center TCR '87 Single Shot Rifle
 Uberti Rolling Block Baby Carbine

Drillings, Combination Guns, Double Rifles

Baretta Express SSO O/U Double Rifles
 Baretta Model 455 SxS Express Rifle
 Chapuis RGExpress Double Rifle
 Auguste Francotte Sidelock Double Rifles
 Auguste Francotte Boxlock Double Rifle
 Heym Model 55B O/U Double Rifle
 Heym Model 55FW O/U Combo Gun
 Heym Model 88b Side-by-Side Double Rifle
 Kodiak Mk. IV Double Rifle
 Kreighoff Teck O/U Combination Gun
 Kreighoff Trumpf Drilling
 Merkel Over/Under Combination Guns
 Merkel Drilling
 Merkel Model 160 Side-by-Side Double Rifles
 Merkel Over/Under Double Rifles
 Savage 24F O/U Combination Gun
 Savage 24F-12T Turkey Gun
 Springfield Inc. M6 Scout Rifle/Shotgun
 Tikka Model 412a Combination Gun
 Tikka Model 412S Double Fire
 A. Zoli Rifle-Shotgun O/U Combo

Rimfire Rifles—Autoloaders

AMT Lightning 25/22 Rifle
 AMT Lightning Small-Game Hunting Rifle II
 AMT Magnum Hunter Auto Rifle
 Anschutz 525 Deluxe Auto
 Armscor Model 20P Auto Rifle
 Browning Auto-22 Rifle
 Browning Auto-22 Grade VI
 Krico Model 260 Auto Rifle

Lakefield Arms Model 64B Auto Rifle
 Marlin Model 60 Self-Loading Rifle
 Marlin Model 60ss Self-Loading Rifle
 Marlin Model 70 HC Auto
 Marlin Model 990L Self-Loading Rifle
 Marlin Model 70P Papoose
 Marlin Model 922 Magnum Self-Loading Rifle
 Marlin Model 99S Self-Loading Rifle
 Norinco Model 22 ATD Rifle
 Remington Model 522 Viper Autoloading Rifle
 Remington 552BDL Speedmaster Rifle
 Ruger 10/22 Autoloading Carbine (w/o folding stock)
 Survival Arms AR-7 Explorer Rifle
 Texas Remington Revolving Carbine
 Voere Model 2115 Auto Rifle

Rimfire Rifles—Lever & Slide Action

Browning BL-22 Lever-Action Rifle
 Marlin 39TDS Carbine
 Marlin Model 39AS Golden Lever-Action Rifle
 Remington 572BDL Fieldmaster Pump Rifle
 Norinco EM-321 Pump Rifle
 Rossi Model 62 SA Pump Rifle
 Rossi Model 62 SAC Carbine
 Winchester Model 9422 Lever-Action Rifle
 Winchester Model 9422 Magnum Lever-Action Rifle

Rimfire Rifles—Bolt Actions & Single Shots

Anschutz Achiever Bolt-Action Rifle
 Anschutz 1416D/1516D Classic Rifles
 Anschutz 1418D/1518D Mannlicher Rifles
 Anschutz 1700D Classic Rifles
 Anschutz 1700D Custom Rifles
 Anschutz 1700 FWT Bolt-Action Rifle
 Anschutz 1700D Graphite Custom Rifle
 Anschutz 1700D Bavarian Bolt-Action Rifle
 Armscor Model 14P Bolt-Action Rifle
 Armscor Model 1500 Rifle
 BRNO ZKM-452 Deluxe Bolt-Action Rifle
 BRNO ZKM 452 Deluxe
 Beeman/HW 60-J-ST Bolt-Action Rifle
 Browning A-Bolt 22 Bolt-Action Rifle
 Browning A-Bolt Gold Medallion
 Cabanas Phaser Rifle
 Cabanas Master Bolt-Action Rifle
 Cabanas Espronceda IV Bolt-Action Rifle
 Cabanas Leyre Bolt-Action Rifle
 Chipmunk Single Shot Rifle
 Cooper Arms Model 363 Sporter Rifle
 Dakota 22 Sporter Bolt-Action Rifle
 Krico Model 300 Bolt-Action Rifles
 Lakefield Arms Mark II Bolt-Action Rifle
 Lakefield Arms Mark I Bolt-Action Rifle
 Magtech Model MT-22C Bolt-Action Rifle
 Marlin Model 880 Bolt-Action Rifle
 Marlin Model 881 Bolt-Action Rifle
 Marlin Model 882 Bolt-Action Rifle
 Marlin Model 883 Bolt-Action Rifle
 Marlin Model 883SS Bolt-Action Rifle
 Marlin Model 25MN Bolt-Action Rifle
 Marlin Model 25N Bolt-Action Repeater
 Marlin Model 15VN "Little Buckaroo"
 Mauser Model 107 Bolt-Action Rifle
 Mauser Model 201 Bolt-Action Rifle
 Navy Arms TU-KKW Training Rifle
 Navy Arms TU-33/40 Carbine
 Navy Arms TU-KKW Sniper Trainer
 Norinco JW-27 Bolt-Action Rifle
 Norinco JW-15 Bolt-Action Rifle
 Remington 541-T
 Remington 40-XR Rimfire Custom sporter
 Remington 541-T HB Bolt-Action Rifle
 Remington 581-S Sportsman Rifle
 Ruger 77/22 Rimfire Bolt-Action Rifle
 Ruger K77/22 Varmint Rifle
 Ultra Light Arms Model 20 RF Bolt-Action Rifle
 Winchester Model 52B Sporting Rifle

Competition Rifles—Centerfire & Rimfire

Anschutz 64-MS Left Silhouette
 Anschutz 1808D RT Super Match 54 Target
 Anschutz 1827B Biathlon Rifle
 Anschutz 1903D Match Rifle
 Anschutz 1803D Intermediate Match
 Anschutz 1911 Match Rifle
 Anschutz 54.18MS REP Deluxe Silhouette Rifle
 Anschutz 1913 Super Match Rifle
 Anschutz 1907 Match Rifle

Anschutz 1910 Super Match II
 Anschutz 54.18MS Silhouette Rifle
 Anschutz Super Match 54 Target Model 2013
 Anschutz Super Match 54 Target Model 2007
 Beeman/Feinwerkbau 2600 Target Rifle
 Cooper Arms Model TRP-1 ISU Standard Rifle
 E.A.A./Wehrhach HW 60 Target Rifle
 E.A.A./HW 620 Match Rifle
 Finnish Lion Standard Target Rifle
 Krico Model 360 S2 Biathlon Rifle
 Krico Model 400 Match Rifle
 Krico Model 360S Biathlon Rifle
 Krico Model 500 Kricotronic Match Rifle
 Krico Model 600 Sniper Rifle
 Krico Model 600 Match Rifle
 Lakefield Arms Model 90B Target Rifle
 Lakefield Arms Model 91T Target Rifle
 Lakefield Arms Model 92S Silhouette Rifle
 Marlin Model 2000 Target Rifle
 Mauser Model 86-SR Specialty Rifle
 McMillan M-86 Sniper Rifle
 McMillan Combo M-87/M-88 50-Caliber Rifle
 McMillan 300 Phoenix Long Range Rifle
 McMillan M-89 Sniper Rifle
 McMillan National Match Rifle
 McMillan Long Range Rifle
 Parker-Hale M-87 Target Rifle
 Parker-Hale M-85 Sniper Rifle
 Remington 40-XB Rangemaster Target Centerfire
 Remington 40-XR KS Rimfire Position Rifle
 Remington 40-XBRR KS
 Remington 40-XC KS National Match Course Rifle
 Sako TRG-21 Bolt-Action Rifle
 Steyr-Mannlicher Match SPG-UTT Rifle
 Steyr-Mannlicher SSG P-I Rifle
 Steyr-Mannlicher SSG P-III Rifle
 Steyr-Mannlicher SSG P-IV Rifle
 Tanner Standard UIT Rifle
 Tanner 50 Meter Free Rifle
 Tanner 300 Meter Free Rifle
 Wichita Silhouette Rifle

Shotguns—Autoloaders

American Arms/Franchi Black Magic 48/AL
 Benelli Super Black Eagle Shotgun
 Benelli Super Black Eagle Slug Gun
 Benelli M1 Super 90 Field Auto Shotgun
 Benelli Montefeltro Super 90 20-Gauge Shotgun
 Benelli Montefeltro Super 90 Shotgun
 Benelli M1 Sporting Special Auto Shotgun
 Benelli Black Eagle Competition Auto Shotgun
 Beretta A-303 Auto Shotgun
 Beretta 390 Field Auto Shotgun
 Beretta 390 Super Trap, Super Skeet Shotguns
 Beretta Vittoria Auto Shotgun
 Beretta Model 1201F Auto Shotgun
 Browning BSA 10 Auto Shotgun
 Browning Bea 10 Stalker Auto Shotgun
 Browning A-500R Auto Shotgun
 Browning A-500G Auto Shotgun
 Browning A-500G Sporting Clays
 Browning Auto-5 Light 12 and 20
 Browning Auto-5 Stalker
 Browning Auto-5 Magnum 20
 Browning Auto-5 Magnum 12
 Churchill Turkey Automatic Shotgun
 Cosmi Automatic Shotgun
 Maverick Model 60 Auto Shotgun
 Mossberg Model 5500 Shotgun
 Mossberg Model 9200 Regal Semi-Auto Shotgun
 Mossberg Model 9200 USSST Auto Shotgun
 Mossberg Model 9200 Camo Shotgun
 Mossberg Model 6000 Auto Shotgun
 Remington Model 1100 Shotgun
 Remington 11-87 Premier shotgun
 Remington 11-87 Sporting Clays
 Remington 11-87 Premier Skeet
 Remington 11-87 Premier Trap
 Remington 11-87 Special Purpose Magnum
 Remington 11-87 SPS-T Camo Auto Shotgun
 Remington 11-87 Special Purpose Deer Gun
 Remington 11-87 SPS-BG-Camo Deer/Turkey Shotgun
 Remington 11-87 SPS-Deer Shotgun
 Remington 11-87 Special Purpose Synthetic Camo
 Remington SP-10 Magnum-Camo Auto Shotgun
 Remington SP-10 Magnum Auto Shotgun
 Remington SP-10 Magnum Turkey Combo
 Remington 1100 LT-20 Auto
 Remington 1100 Special Field
 Remington 1100 20-Gauge Deer Gun

Remington 1100 LT-20 Tournament Skeet
Winchester Model 1400 Semi-Auto Shotgun

Shotguns—Slide Actions

Browning Model 42 Pump Shotgun
Browning BPS Pump Shotgun
Browning BPS Stalker Pump Shotgun
Browning BPS Pigeon Pump Shotgun
Browning BPS Pump Shotgun (Ladies and Youth Model)
Browning BPS Game Gun Turkey Special
Browning BPS Game Gun Deer Special
Ithaca Model 87 Supreme Pump Shotgun
Ithaca Model 87 Deerslayer Shotgun
Ithaca Deerslayer II Rifled Shotgun
Ithaca Model 87 Turkey Gun
Ithaca Model 87 Deluxe Pump Shotgun
Magtech Model 586-VR Pump Shotgun
Maverick Models 88, 91 Pump Shotguns
Mossberg Model 500 Sporting Pump
Mossberg Model 500 Camo Pump
Mossberg Model 500 Muzzleloader Combo
Mossberg Model 500 Trophy Slugster
Mossberg Turkey Model 500 Pump
Mossberg Model 500 Bantam Pump
Mossberg Field Grade Model 835 Pump Shotgun
Mossberg Model 835 Regal Ulti-Mag Pump
Remington 870 Wingmaster
Remington 870 Special Purpose Deer Gun
Remington 870 SPS-BG-Camo Deer/Turkey Shotgun
Remington 870 SPS-Deer Shotgun
Remington 870 Marine Magnum
Remington 870 TC Trap
Remington 870 Special Purpose Synthetic Camo
Remington 870 Wingmaster Small Gauges
Remington 870 Express Rifle Sighted Deer Gun
Remington 879 SPS Special Purpose Magnum
Remington 870 SPS-T Camo Pump Shotgun
Remington 870 Special Field
Remington 870 Express Turkey
Remington 870 High Grades
Remington 870 Express
Remington Model 870 Express Youth Gun
Winchester Model 12 Pump Shotgun
Winchester Model 42 High Grade Shotgun
Winchester Model 1300 Walnut Pump
Winchester Model 1300 Slug Hunter Deer Gun
Winchester Model 1300 Ranger Pump Gun Combo & Deer Gun
Winchester Model 1300 Turkey Gun
Winchester Model 1300 Ranger Pump Gun

Shotguns—Over/Unders

American Arms/Franchi Falconet 2000 O/U
American Arms Silver I O/U
American Arms Silver II Shotgun
American Arms Silver Skeet O/U
American Arms/Franchi Sporting 2000 O/U
American Arms Silver Sporting O/U
American Arms Silver Trap O/U
American Arms WS/OU 12, TS/OU 12 Shotguns
American Arms WT/OU 10 Shotgun
Armsport 2700 O/U Goose Gun
Armsport 2700 Series O/U
Armsport 2900 Tri-Barrel Shotgun
Baby Bretton Over/Under Shotgun
Beretta Model 686 Ultralight O/U
Beretta ASE 90 Competition O/U Shotgun
Beretta Over/Under Field Shotguns
Beretta Onyx Hunter Sport O/U Shotgun
Beretta Model SO5, SO6, SO9 Shotguns
Beretta Sporting Clay Shotguns
Beretta 687EL Sporting O/U
Beretta 682 Super Sporting O/U
Beretta Series 682 Competition Over/Unders
Browning Citori O/U Shotgun
Browning Superlight Citori Over/Under
Browning Lightning Sporting Clays
Browning Micro Citori Lightning
Browning Citori Plus Trap Combo
Browning Citori Plus Trap Gun
Browning Citori O/U Skeet Models
Browning Citori O/U Trap Models
Browning Special Sporting Clays
Browning Citori GTI Sporting Clays
Browning 325 Sporting Clays
Centurion Over/Under Shotgun
Chapuis Over/Under Shotgun
Connecticut Valley Classics Classic Sporter O/U
Connecticut Valley Classics Classic Field Waterfowler
Charles Daly Field Grade O/U

Charles Daly Lux Over/Under
 E.A.A./Sabatti Sporting Clays Pro-Gold O/U
 E.A.A./Sabatti Falcon-Mon Over/Under
 Kassnar Grade I O/U Shotgun
 Krieghoff K-80 Sporting Clays O/U
 Krieghoff K-80 Skeet Shotgun
 Krieghoff K-80 International Skeet
 Krieghoff K-80 Four-Barrel Skeet Set
 Krieghoff K-80/RT Shotguns
 Krieghoff K-80 O/U Trap Shotgun
 Laurona Silhouette 300 Sporting Clays
 Laurona Silhouette 300 Trap
 Laurona Super Model Over/Unders
 Ljutic LM-6 Deluxe O/U Shotgun
 Marocchi Conquista Over/Under Shotgun
 Marocchi Avanza O/U Shotgun
 Merkel Model 200E O/U Shotgun
 Merkel Model 200E Skeet, Trap Over/Unders
 Merkel Model 203E, 303E Over/Under Shotguns
 Perazzi Mirage Special Sporting O/U
 Perazzi Mirage Special Four-Gauge Skeet
 Perazzi Sporting Classic O/U
 Perazzi MX7 Over/Under Shotguns
 Perazzi Mirage Special Skeet Over/Under
 Perazzi MX8/MX8 Special Trap, Skeet
 Perazzi MX8/20 Over/Under Shotgun
 Perazzi MX9 Single Over/Under Shotguns
 Perazzi MX12 Hunting Over/Under
 Perazzi MX28, MX410 Game O/U Shotguns
 Perazzi MX20 Hunting Over/Under
 Piotti Boes Over/Under Shotgun
 Remington Peerless Over/Under Shotgun
 Ruger Red Label O/U Shotgun
 Ruger Sporting Clays O/U Shotgun
 San Marco 12-Ga. Wildflower Shotgun
 San Marco Field Special O/U Shotgun
 San Marco 10-Ga. O/U Shotgun
 SKB Model 505 Deluxe Over/Under Shotgun
 SKB Model 685 Over/Under Shotgun
 SKB Model 885 Over/Under Trap, Skeet, Sporting Clays
 Stoeger/IGA Condor I O/U Shotgun
 Stoeger/IGA ERA 2000 Over/Under Shotgun
 Techni-Mec Model 610 Over/Under
 Tikka Model 412S Field Grade Over/Under
 Weatherby Athena Grade IV O/U Shotguns
 Weatherby Athena Grade V Classic Field O/U
 Weatherby Orion O/U Shotguns
 Weatherby II, III Classic Field O/Us
 Weatherby Orion II Classic Sporting Clays O/U
 Weatherby Orion II Sporting Clays O/U
 Winchester Model 1001 O/U Shotgun
 Winchester Model 1001 Sporting Clays O/U
 Pietro Zanoletti Model 2000 Field O/U

Shotguns—Side by Sides

American Arms Brittany Shotgun
 American Arms Gentry Double Shotgun
 American Arms Derby Side-by-Side
 American Arms Grulla #2 Double Shotgun
 American Arms WS/SS 10
 American Arms TS/SS 10 Double Shotgun
 American Arms TS/SS 12 Side-by-Side
 Arrieta Sidelock Double Shotguns
 Armsport 1050 Series Double Shotguns
 Arizaga Model 31 Double Shotgun
 AYA Boxlock Shotguns
 AYA Sidelock Double Shotguns
 Beretta Model 452 Sidelock Shotgun
 Beretta Side-by-Side Field Shotguns
 Crucelegui Hermanos Model 150 Double
 Chapuis Side-by-Side Shotgun
 E.A.A./Sabatti Saba-Mon Double Shotgun
 Charles Daly Model Das Double
 Ferlib Model F VII Double Shotgun
 Auguste Francotte Boxlock Shotgun
 Auguste Francotte Sidelock Shotgun
 Garbi Model 100 Double
 Garbi Model 101 Side-by-Side
 Garbi Model 103A, B Side-by-Side
 Garbi Model 200 Side-by-Side
 Bill Hanus Birdgun Doubles
 Hatfield Uplander Shotgun
 Merckel Model 8, 47E Side-by-Side Shotguns
 Merkel Model 47LSC Sporting Clays Double
 Merkel Model 47S, 147S Side-by-Sides
 Parker Reproductions Side-by-Side
 Piotti King No. 1 Side-by-Side
 Piotti Lunik Side-by-Side
 Piotti King Extra Side-by-Side
 Piotti Piuma Side-by-Side

Precision Sports Model 600 Series Doubles
 Rizzini Boxlock Side-by-Side
 Rizzini Sidelock Side-by-Side
 Stoeger/IGA Uplander Side-by-Side Shotgun
 Ugartechea 10-Ga. Magnum Shotgun

Shotguns—Bolt Actions & Single Shots

Armsport Single Barrel Shotgun
 Browning BT-99 Competition Trap Special
 Browning BT-99 Plus Trap Gun
 Browning BT-99 Plus Micro
 Browning Recoiless Trap Shotgun
 Browning Micro Recoiless Trap Shotgun
 Desert Industries Big Twenty Shotgun
 Harrington & Richardson Topper Model 098
 Harrington & Richardson Topper Classic Youth Shotgun
 Harrington & Richardson N.W.T.F. Turkey Mag
 Harrington & Richardson Topper Deluxe Model 098
 Krieghoff KS-5 Trap Gun
 Krieghoff KS-5 Special
 Krieghoff K-80 Single Barrel Trap Gun
 Ljutic Mono Gun Single Barrel
 Ljutic LTX Super Deluxe Mono Gun
 Ljutic Recoiless Space Gun Shotgun
 Marlin Model 55 Goose Gun Bolt Action
 New England Firearms Turkey and Goose Gun
 New England Firearms N.W.T.F. Shotgun
 New England Firearms Tracker Slug Gun
 New England Firearms Standard Pardner
 New England Firearms Survival Gun
 Perazzi TM1 Special Single Trap
 Remington 90-T Super Single Shotgun
 Snake Charmer II Shotgun
 Stoeger/IGA Reuna Single Barrel Shotgun
 Thompson/Center TCR '87 Hunter Shotgun.

SUMMARY AND PURPOSE

The purpose of this bill is to create criminal penalties for the manufacture, transfer, or possession of certain firearms within the category of firearms known as “semiautomatic assault weapons.” It also creates such penalties for certain ammunition feeding devices, as well as any combination of parts from which such a device can be assembled.

In reporting legislation banning certain assault weapons last Congress, the Committee on the Judiciary said:

The threat posed by criminals and mentally deranged individuals armed with semi-automatic assault weapons has been tragically widespread.¹

Since then, the use of semiautomatic assault weapons by criminal gangs, drug-traffickers, and mentally deranged persons continues to grow.²

H.R. 4296 will restrict the availability of such weapons in the future. The bill protects the rights of persons who lawfully own such weapons on its date of enactment by a universal “grandfathering” clause and specifically exempts certain firearms traditionally used for hunting and other legitimate support. It contains no confiscation or registration provisions; however, it does establish record-keeping requirements for transfers involving grandfathered semiautomatic assault weapons. Such record-keeping is not required for transfers of grandfathered ammunition feeding devices

¹“Omnibus Crime Control Act of 1991,” Report of the Committee on the Judiciary, House of Representatives, on H.R. 3371, 102d Cong., 1st Sess., Rept. 102-242, October 7, 1991, at 202.

²See, e.g., Hearing on H.R. 4296 and H.R. 3527, Public Safety and Recreational Firearms Use Protection Act, House of Representatives, Committee on the Judiciary, Subcommittee on Crime and Criminal Justice, April 25, 1994 Firearms; Chief Sylvester Daughtry, President, International Association of Chiefs of Police; Mr. John Pitta, National Executive Director, Federal Law Enforcement Officers Association).

(or their component parts.) H.R. 4296 expires ("sunsets") on its own terms after 10 years.

BACKGROUND

A series of hearings over the last five years on the subject of semiautomatic assault weapons has demonstrated that they are a growing menace to our society of proportion to their numbers:³ As this Committee said in its report to the last Congress:

The carnage inflicted on the American people by criminals and mentally deranged people armed with Rambo-style, semi-automatic assault weapons has been overwhelming and continuing. Police and law enforcement groups all over the nation have joined together to support legislation that would help keep these weapons out of the hands of criminals.⁴

Since then, evidence continues to mount that these semiautomatic assault weapons are the weapons of choice among drug dealers, criminal gangs, hate groups, and mentally deranged persons bent on mass murder.

Use in Crimes. On April 25, 1994, the Director of the Federal Bureau of Alcohol, Tobacco and Firearms testified that the percentage of semiautomatic assault weapons among guns traced because of their use in crime is increasing:

In 1990, 5.9 percent of firearms traced were assault weapons. In 1993, that percentage rose to 8.1 percent. Since Justice Department studies have shown that assault weapons make up only about 1 percent of the firearms in circulation, these percentages strongly suggest that they are proportionately more often used in crimes.⁵

Law enforcement officials confirm this statistical evidence in accounts of the rising level of lethality they face from assault weapons on the street. For example, the representative of a national police officers' organization testified:

In the past, we used to face criminals armed with a cheap Saturday Night Special that could fire off six rounds before loading. Now it is not at all unusual for a cop to look down the barrel of a TEC-9 with a 32 round clip. The ready availability of and easy access to assault weapons by criminals has increased so dramatically that police forces across the country are being required to upgrade their service weapons merely as a matter of self-defense and

³ Hearing on H.R. 4296 and H.R. 3527, Public Safety and Recreational Firearms Use Protection Act, House of Representatives, Committee on the Judiciary, Subcommittee on Crime and Criminal Justice, April 25, 1994; Hearing on Semiautomatic Assault Weapons, House of Representatives, Committee on the Judiciary, Subcommittee on Crime and Criminal Justice, June 12, 1991; Hearing on Semiautomatic Assault Weapons, Part II, House of Representatives, Committee on the Judiciary, Subcommittee on Crime and Criminal Justice, July 25, 1991; Hearing on H.R. 1190, Semiautomatic Assault Weapons Act of 1989, and related bills, House of Representatives, Committee on the Judiciary, Subcommittee on Crime, April 5 and 6, 1989.

⁴ "Omnibus Crime Control Act of 1991," Report of the Committee on the Judiciary, House of Representatives, on H.R. 3371, 102d Cong., 1st Sess., Rept. 102-242, October 7, 1991, at 203.

⁵ Hearing on H.R. 4296 and H.R. 3527, Public Safety and Recreational Firearms Use Protection Act, House of Representatives, Committee on the Judiciary, Subcommittee on Crime and Criminal Justice, April 25, 1994 (Statement of Hon. John Magaw, Director, Bureau of Alcohol, Tobacco and Firearms).

preservation. The six-shot .38 caliber service revolver, standard law enforcement issue for years, it just no match against a criminal armed with a semi-automatic assault weapon.⁶

A representative of federal law enforcement officers testified that semiautomatic assault weapons “dramatically escalate the fire-power or the user” and “have become the weapon of choice for drug runners, hate groups and the mentally unstable.”⁷

The TEC-9 assault pistol is the undisputed favorite of drug traffickers, gang members and violent criminals. Cities across the country confiscate more TEC-9s than any other assault pistol. The prototype for the TEC-9 was originally designed as a submachine gun for the South African government. Now it comes standard with an ammunition magazine holding 36 rounds of 9 mm cartridges. It also has a threaded barrel to accept a silencer, and a barrel shroud to cool the barrel during rapid fire. To any real sportsman or collector, this firearm is a piece of junk, yet is very popular among criminals.⁸

The Secretary of Housing and Urban Development testified that criminal gangs in Chicago routinely use semiautomatic assault weapons to intimidate not only residents but also security guards, forcing the latter to remove metal detectors installed to detect weapons.⁹

Use in Mass Killings and Killings of Law Enforcement Officers. Public concern about semiautomatic assault weapons has grown because of shootings in which large numbers of innocent people have been killed and wounded, and in which law enforcement officers have been murdered.

On April 25, 1994, the Subcommittee on Crime and Criminal Justice heard testimony about several incidents representative of such killings.

On February 22, 1994, Los Angeles (CA) Police Department rookie officer Christy Lynn Hamilton was ambushed and killed by a

⁶ Hearing on H.R. 4296 and H.R. 3527, Public Safety and Recreational Firearms Use Protection Act, House of Representatives, Committee on the Judiciary, Subcommittee on Crime and Criminal Justice, April 25, 1994 (Statement of Tony Loizzo, executive vice president, National Association of Police Organizations). See also, Hearing on Semiautomatic Assault Weapons, House of Representatives, Committee on the Judiciary, Subcommittee on Crime and Criminal Justice, June 12, 1991 (Statement of Dewey R. Stokes, National President, Fraternal Order of Police) (assault weapons “pose a grave and immediate threat to the lives of those sworn to uphold our laws”); Hearing on H.R. 1190, Semiautomatic Assault Weapons Act of 1989, and related bills, House of Representatives, Committee on the Judiciary, Subcommittee on Crime, April 5, 1989 (Testimony of Daniel M. Hartnett, associate director, law enforcement, Bureau of Alcohol, Tobacco and Firearms) (“Fifteen years ago, police rarely encountered armed drug dealers. Today, firearms, especially certain types of semiautomatic weapons, are status symbols and tools of the trade for this country’s most vicious criminals.”)

⁷ Hearing on H.R. 4296 and H.R. 3527, Public Safety and Recreational Firearms Use Protection Act, House of Representatives, Committee on the Judiciary, Subcommittee on Crime and Criminal Justice, April 25, 1994 (Statement of John Pitta, executive vice president, Federal Law Enforcement Officers Association).

⁸ Hearing on H.R. 4296 and H.R. 3527, Public Safety and recreational Firearms Use Protection Act, House of Representatives, Committee on the Judiciary, Subcommittee on Crime and Criminal Justice, April 25, 1994 (Statement of John Pitta, executive vice president, Federal Law Enforcement Officers Association).

⁹ Hearing on H.R. 4296 and H.R. 3527, Public Safety and Recreational Firearms Use Protection Act, House of Representatives, Committee on the Judiciary, Subcommittee on Crime and Criminal Justice, April 25, 1994 (Statement of Hon. Henry Cisneros, Secretary, Department of Housing and Urban Development).

drug-abusing teenager using a Colt AR-15. The round that killed Officer Hamilton penetrated a car door, skirted the armhole of her protective vest, and lodged in her chest. The teenager also killed his father, who had given him the gun, and took his own life as well. Officer Hamilton had been voted the most inspirational officer in her graduating class only weeks before her murder. Officer Hamilton's surviving brother testified about the impact of this murder.¹⁰

On December 7, 1993, a deranged gunman walked through a Long Island Railroad commuter train, shooting commuters. Six died and 19 were wounded. The gunman used a Ruger semiautomatic pistol. Although the pistol itself would not be classified as an assault weapon under this bill, its 15 round ammunition magazine ("clip") would be banned. The gunman had several of these high capacity 15 round magazines and reloaded several times, firing between 30 to 50 rounds before he was overpowered while trying to reload yet again. The parents of one of the murdered victims, Amy Locicero Federici, testified about the impact of this murder.¹¹

On February 28, 1993, 4 special agents of the Bureau of Alcohol, Tobacco and Firearms were killed and 15 were wounded while trying to serve federal search and arrest warrants at the Branch Davidian compound in Waco, Texas. The Branch Davidian arsenal included hundreds of assault weapons, including AR-15s, AK-47s, Street Sweepers, MAC10s and MAC-11s, along with extremely high capacity magazines (up to 260 rounds).¹²

Finally, on July 1, 1993, gunman Gian Luigi Ferri Killed 8 people and wounded 6 others in a San Francisco high rise office building. Ferri—who took his own life—used two TEC DC9 assault pistols with 50 round magazines, purchased from a gun dealer in Las Vegas, Nevada. Two witnesses, both of whom lost spouses in the slaughter, and one of whom was herself seriously injured, testified about this incident.¹³

Numerous other notorious incidents involving semiautomatic assault weapons have occurred. They include the January 25, 1993, slaying of 2 CIA employees and wounding of 3 others at McLean, VA, (AK-47), and the January 17, 1989 murder in a Stockton, CA, schoolyard of 5 small children, and wounding of 29 others (AK-47 and 75 round magazine, firing 106 rounds in less than 2 minutes).

Several witnesses who were victims themselves during such incidents testified in opposition to H.R. 4296/H.R. 3527, and in opposition to the banning of any semiautomatic assault weapons or ammunition feeding devices.

Dr. Suzanna Gratia witnessed the brutal murder, in Luby's cafeteria located in Killeen, Texas, of both of her parents who had just

¹⁰Hearing on H.R. 4296 and H.R. 3527, Public Safety and Recreational Firearms Use Protection Act, House of Representatives, Committee on the Judiciary, Subcommittee on Crime and Criminal Justice, April 25, 1994 (Statement of Ken Brondell, Jr.).

¹¹Hearing on H.R. 4296 and H.R. 3527, Public Safety and Recreational Firearms Use Protection Act, House of Representatives, Committee on the Judiciary, Subcommittee on Crime and Criminal Justice, April 25, 1994 (Statements of Jacob Locicero and Arlene Locicero).

¹²Hearing on H.R. 4296 and H.R. 3527, Public Safety and Recreational Firearms Use Protection Act, House of Representatives, Committee on the Judiciary, Subcommittee on Crime and Criminal Justice, April 25, 1994 (Statement of John Pitta, executive vice president, Federal Law Enforcement Officers Association).

¹³Hearing on H.R. 4296 and H.R. 3527, Public Safety and Recreational firearms Use Protection Act, House of Representatives, Committee on the Judiciary, Subcommittee on Crime and Criminal Justice, April 25, 1994 (Statements of Michelle Scully and Steve Sposato).

celebrated their 47 wedding anniversary. Just a few days before, she had removed her gun from her purse and left it in her car to comply with a Texas law which does not allow concealed carrying of a firearm. Dr. Gratia testified:

I am mad at my legislators for legislating me out of a right to protect myself and my family. I would much rather be sitting in jail with a felony offense on my head and have my parents alive. As far as these so-called assault weapons, you say that they don't have any defense use. You tell that to the guy that I saw on a videotape of the Los Angeles riots standing on his rooftop protecting his property and his life from an entire mob with one of these so-called assault weapons. Tell me that he didn't have a legitimate self-defense use.¹⁴

Ms. Jacquie Miller was shot several times with a semiautomatic assault weapon and left for dead at her place of employment with the Standard Gravure Printing Company in Louisville, Kentucky, when a fellow employee went on a killing spree. Now permanently disabled, Ms. Miller testified:

It completely enrages me that my tragedy is being used against me to deny me and all the law abiding citizens of this country to the right of the firearm of our choosing. I refuse in return to use my tragedy for retribution against innocent people just to make myself feel better for having this misfortune. Enforce the laws against criminals already on the books. After all, there are already over 20,000 of them.¹⁵ More won't do a thing for crime control * * * You cannot ban everything in the world that could be used as a weapon because you fear it, don't understand it, or don't agree with it.

This is America, not Lithuania or China. Our most cherished possession is our Constitution and Bill of Rights. Let's not sell those down the river or we could one day find ourselves in a boat without a paddle against the criminals who think we are easy pickings.¹⁶

Mr. Phillip Murphy used his lawfully-possessed Colt AR-15 H-BAR Sporter semiautomatic rifle—a gun which would be specifically banned by H.R. 4296—to capture one of Tucson, Arizona's most wanted criminals who was attempting to burglarize the home of Mr. Murphy's parents. The 19-year old criminal he captured was

¹⁴Hearing on H.R. 4296 and H.R. 3527, Public Safety and Recreational Firearms Use Protection Act, House of Representatives, Committee on the Judiciary, Subcommittee on Crime and Criminal Justice, April 25, 1994 (Statement of Dr. Suzanna Gratia, Copperas Cove, Texas)

¹⁵The Committee notes that, under the Gun Control Act of 1968 as amended in 1986, it is a Federal felony for a convicted felon to be in possession of any firearm, including an assault weapon, under 18 U.S.C. 922(g)(1). Violations carry up to five years imprisonment and a \$250,000 fine. If a criminal—whether previously convicted or not—is carrying an assault weapon and is involved in a drug trafficking crime, that criminal is subject to a mandatory minimum of 5 years imprisonment and a \$250,000 fine under 18 U.S.C. 924(c)(1). Any criminal who has three prior violent felony and/or serious drug offenses convictions and is in possession of a firearm is subject to a mandatory minimum of 15 years imprisonment and a \$250,000 fine under 18 U.S.C. 924(e)(1).

¹⁶Hearing on H.R. 4296 and H.R. 3527, Public Safety and Recreational Firearms Use Protection Act, House of Representatives, Committee on the Judiciary, Subcommittee on Crime and Criminal Justice, April 25, 1994 (Statement of Ms. Jacquie Miller, Louisville, Kentucky).

a three-time loser with 34 prior convictions who was violating his third adult State parole for a knife assault. Mr. Murphy testified:

I respectfully urge this Committee and the Congress of the United States to restrain themselves from forcing tens of millions of law-abiding Americans like me to choose between the law and their lives.¹⁷

The Characteristics of Military-Style Semiautomatic Assault Weapons. The question of what constitutes an assault weapon has been studied by the Congress and the executive branch as the role of these guns in criminal violence has grown.

A Bureau of Alcohol, Tobacco and Firearms working group formed under the Bush administration to consider banning foreign imports of such semiautomatic assault weapons conducted the most recent comprehensive study of military assault weapons and the civilian firearms that are modelled after them.¹⁸ The working group formulated a definition of the civilian version, and a list of the assault weapon characteristics that distinguish them from sporting guns. That technical work has to a large extent been incorporated into H.R. 4296.¹⁹

The working group settled on the term "semiautomatic assault" for the civilian firearms at issue. That term distinguishes the civilian firearms from the fully automatic military weapons (machine-guns)²⁰ after which they are modelled and often simply adapted by eliminating the automatic fire feature. The group determined that "semiautomatic assault rifles * * * represent a distinctive type of rifle distinguished by certain general characteristics which are common to the modern military assault rifle."²¹

The group elaborated on the nature of those characteristics as follows:

The modern military assault rifle, such as the U.S. M16, German G3, Belgian FN/FAL, and Soviet AK-47, is a weapon designed for killing or disabling the enemy and * * * has characteristics designed to accomplish this purpose.

We found that the modern military assault rifle contains a variety of physical features and characteristics designed

¹⁷ Hearing on H.R. 4296 and H.R. 3527, Public Safety and Recreational Firearms Use Protection Act, House of Representatives, Committee on the Judiciary, Subcommittee on Crime and Criminal Justice, April 25, 1994 (Statement of Mr. Phillip Murphy, Tucson, Arizona).

¹⁸ U.S. Department of the Treasury, Bureau of Alcohol, Tobacco and Firearms, "Report and Recommendation of the ATF Working Group on the Importability of Certain Semiautomatic Rifles," July, 1989.

¹⁹ The ultimate question of law upon which the working group was advising the Secretary of the Treasury was whether these import firearms met a "sporting purpose" test under 18 U.S.C. Code section 925(d). He held that they did not. Although that legal question is not directly posed by this bill, the working group's research and analysis on assault weapons is relevant on the questions of the purposes underlying the design of assault weapons, the characteristics that distinguish them from sporting guns, and the reasons underlying each of the distinguishing features.

²⁰ An automatic gun fires a continuous stream as long as the trigger is held down, until it has fired all of the cartridges ("rounds" or "bullets") in its magazine (or "clip"). Automatic firearms are also known as machineguns. A semi-automatic gun fires one round, then loads a new round, each time the trigger is pulled until its magazine is exhausted. Manually operated guns require the shooter to manually operate a bolt, slide, pump, or lever action to extract the fired round and load a new round before pulling the trigger.

²¹ U.S. Department of the Treasury, Bureau of Alcohol, Tobacco and Firearms, "Report and Recommendation of the ATF Working Group on the Importability of Certain Semiautomatic Rifles," July, 1989, p. 6.

for military applications which distinguishes it from traditional sporting rifles. These military features and characteristics (other than selective fire) are carried over to the semiautomatic versions of the original military rifle.²²

The "selective fire" feature to which the working group referred is the ability of the military versions to switch from fully automatic to semiautomatic fire at the option of the user. Since Congress has already banned certain civilian transfer or possession of machineguns,²³ the civilian models of these guns are produced with semiautomatic fire capability only. However, testimony was received by the Subcommittee on Crime and Criminal Justice that it is a relatively simple task to convert²⁴ a semiautomatic weapon to automatic fire²⁵ and that semiautomatic weapons can be fired at rates of 300 to 500 rounds per minute, making them virtually indistinguishable in practical effect from machineguns.²⁶

The 1989 Report's analysis of assault characteristics which distinguish such firearms from sporting guns was further explained by an AFT representative at a 1991 hearing before the Subcommittee on Crime and Criminal Justice:

We found that the banned rifles represented a distinctive type of rifle characterized by certain military features which differentiated them from the traditional sporting rifles. These include the ability to accept large capacity detachable magazines, bayonets, folding or telescoping stocks, pistol grips, flash suppressors, bipods, grenade launchers and night sights, and the fact that they are semiautomatic versions of military machineguns.²⁷

Proponents of these military style semiautomatic assault weapons often dismiss these combat-designed features as merely "cosmetic." The Subcommittee received testimony that, even if these characteristics were merely "cosmetic" in effect, it is precisely those cosmetics that contribute to their usefulness as tools of intimidation by criminals.²⁸

However, the expert evidence is that the features that characterize a semiautomatic weapon as an assault weapon are not merely cosmetic, but do serve specific, combat-functional ends. By facilitat-

²² U.S. Department of the Treasury, Bureau of Alcohol, Tobacco and Firearms, "Report and Recommendation of the ATF Working Group on the Importability of Certain Semiautomatic Rifles," July, 1989, p. 6.

²³ 18 U.S. Code, section 922(o).

²⁴ The Committee notes that such conversion is a Federal felony that carries penalties of up to 10 years imprisonment and a \$250,000 fine under 26 U.S.C. 5861.

²⁵ Hearing on Semiautomatic Assault Weapons, House of Representatives, Committee on the Judiciary, Subcommittee on Crime and Criminal Justice, June 12, 1991 (Statement of Dewey R. Stokes, National President, Fraternal Order of Police).

²⁶ Hearing on Semiautomatic Assault Weapons, House of Representatives, Committee on the Judiciary, Subcommittee on Crime and Criminal Justice, June 12, 1991 (Statement of Dewey R. Stokes, National President, Fraternal Order of Police).

²⁷ Hearing on Semiautomatic Assault Weapons, House of Representatives, Committee on the Judiciary, Subcommittee on Crime and Criminal Justice, June 12, 1991 (Statement of Richard Cook, Chief, Firearms Divisions, Bureau of Alcohol, Tobacco and Firearms) at 268.

²⁸ Hearing on H.R. 4296 and H.R. 3527, Public Safety and Recreational Firearms, Use Protection Act, House of Representatives, Committee on the Judiciary, Subcommittee on Crime and Criminal Justice, April 25, 1994 (Statements of Hon. Henry Cisneros, Secretary, Department of Housing and Urban Development and John Pitta, National Executive Vice President, Federal Law Enforcement Officers Association); Hearing on Semiautomatic Assault Weapons, House of Representatives, Committee on the Judiciary, Subcommittee on Crime and Criminal Justice, June 12, 1991 (Statement of Paul J. McNulty, Principal Deputy Director, Office of Policy Development, Department of Justice) at 288.

ing the deadly “spray fire” of the weapon or enhancing its portability—a useful attribute in combat but one which serves to enhance the ability to conceal the gun in civilian life.²⁹

High-capability magazine, for example, make it possible to fire a large number of rounds without re-loading, then to reload quickly when those rounds are spent.³⁰ Most of the weapons covered by the proposed legislation come equipped with magazines that hold 30 rounds. Even these magazines, however, can be replaced with magazines that hold 50 or even 100 rounds. Furthermore, expended magazines can be quickly replaced, so that a single person with a single assault weapon can easily fire literally hundreds of rounds within minutes. As noted above, tests demonstrate that semiautomatic guns can be fired at very high rates of fire. In contrast, hunting rifles and shotguns typically have much smaller magazine capabilities—from 3 to 5.

Because of the greater enhanced lethality—numbers of rounds that can be fired quickly without reloading—H.R. 4296 also contains a ban on ammunition magazines which hold more than 10 rounds, as well as any combination of parts from which such a magazine can be assembled.

Barrel shrouds also serve a combat-functional purpose.³¹ Gun barrels become very hot when multiple rounds are fired through them quickly. The barrel shroud cools the barrel so that it will not overheat, and provides the shooter with a convenient grip especially suitable for spray-firing.

Similar military combat purposes are served by flash suppressors (designed to help conceal the point of fire in night combat), bayonet mounts, grenade launchers, and pistol grips grafted on long guns.³²

The net effect of these military combat features is a capability for lethality—more wounds, more serious, in more victims—far beyond

²⁹Hearing on H.R. 4296 and H.R. 3527, Public Safety and Recreational Firearms Use Protection Act, House of Representatives, Committee on the Judiciary, Subcommittee on Crime and Criminal Justice, April 25, 1994 (Statements and testimony of John McGaw, Director, Bureau of Alcohol, Tobacco and Firearms, and John Pitta, National Executive Vice President, Federal Law Enforcement Officers Association); Hearing on Semiautomatic Assault Weapons, House of Representatives, Committee on the Judiciary, Subcommittee on Crime and Criminal Justice, June 12, 1991 (Statement of Richard Cook, Chief, Firearms Division, Bureau of Alcohol, Tobacco and Firearms); U.S. Department of the Treasury, Bureau of Alcohol, Tobacco and Firearms, “Report and Recommendation of the ATF Working Group on the Importability of Certain Semiautomatic Rifles,” July, 1989, p. 6.

³⁰U.S. Department of the Treasury, Bureau of Alcohol, Tobacco and Firearms, “Report and Recommendation of the ATF Working Group on the Importability of Certain Semiautomatic Rifles,” July, 1989, p. 6.

³¹Hearing on H.R. 4296 and H.R. 3527, Public Safety and Recreational Firearms Use Protection Act, House of Representatives, Committee on the Judiciary, Subcommittee on Crime and Criminal Justice, April 25, 1994 (Statements and testimony of John McGaw, Director, Bureau of Alcohol, Tobacco and Firearms, and John Pitta, National Executive Vice President, Federal Law Enforcement Officers Association); U.S. Department of the Treasury, Bureau of Alcohol, Tobacco and Firearms, “Report and Recommendation of the ATF Working Group on the Importability of Certain Semiautomatic Rifles,” July, 1989, p. 6.

³²Hearing on H.R. 4296 and H.R. 3527, Public Safety and Recreational Firearms Use Protection Act, House of Representatives, Committee on the Judiciary, Subcommittee on Crime and Criminal Justice, April 25, 1994 (Statements and testimony of John McGaw, Director, Bureau of Alcohol, Tobacco and Firearms, and John Pitta, National Executive Vice President, Federal Law Enforcement Officers Association); U.S. Department of the Treasury, Bureau of Alcohol, Tobacco and Firearms, “Report and Recommendation of the ATF Working Group on the Importability of Certain Semiautomatic Rifles,” July, 1989, p. 6.

that of other firearms in general, including other semiautomatic guns.³³

BRIEF EXPLANATION OF H.R. 4296

H.R. 4296 combines two approaches which have been followed in the past in legislation proposed to control semiautomatic assault weapons—the so-called “list” approach and the “characteristics” approach.

The bill does not ban any semiautomatic assault weapons nor large capacity ammunition feeding device (or component parts) otherwise lawfully possessed on the date of enactment. However, records must be kept by both the transferor and the transferee involved in any transfer of these weapons, but not of the feeding devices (or combination of parts).

The bill explicitly exempts all guns with other than semiautomatic actions—i.e., bolt, slide, pump, and lever actions. In addition, it specifically exempts by make and model 661 long guns most commonly used in hunting and recreational sports,³⁴ making clear that these semiautomatic assault weapons are not and cannot be subject to any ban.

Section 2(z) of the bill lists 19 specific semiautomatic assault weapons—such as the AK-47, M-10, TEC-9, Uzi, etc.—that are banned.³⁵ It also defines other assault weapons by specifically enumerating combat style characteristics and bans those semiautomatic assault weapons that have 2 or more of those characteristics.³⁶

The bill makes clear that the list of exempted guns is not exclusive. The fact that a gun is not on the exempted list may not be construed to mean that it is banned. Thus, a gun that is not on the list of guns specifically banned by name would only be banned if it met the specific characteristics set out in the characteristics test. No gun may be removed from the exempted list.

H.R. 4296 also bans large capacity ammunition feeding devices—clips that accept more than 10 rounds of ammunition—as well as

³³ Hearing on H.R. 4296 and H.R. 3527, Public Safety and Recreational Firearms Use Protection Act, House of Representatives, Committee on the Judiciary, Subcommittee on Crime and Criminal Justice, April 25, 1994 (Statement and testimony of Dr. David Milzman, Associate Director, Trauma Services, Georgetown University Medical Center, Washington, DC); U.S. Department of the Treasury, Bureau of Alcohol, Tobacco and Firearms, “Report and Recommendation of the ATF Working Group on the Importability of Certain Semiautomatic Rifles,” July, 1989, p. 6.

³⁴ See H.R. 4296, Appendix A, for the list.

³⁵ H.R. 4296 bans the following semiautomatic assault weapons by name (as well as any copies or duplicates, in any caliber): All AK-47 type; Beretta AR-70; Colt AR-15; DC9, 22; FNC; FN-FAL/LAR; Gali; MAC 10, MAC 11-type; Steyr AUG; Street Sweeper; Striker 12; TEC-9; Uzi.

³⁶ While noting that its list is not all-inclusive, the Bureau of Alcohol, Tobacco, and Firearms has listed the following semi-automatic firearms that would be banned based on their general characteristics:

1. Semi-automatic Rifles: AA Arms AR9 semi-automatic rifle; AMT Lightning 25 rifle; Auto Ordnance Thompson Model 1927 carbines (finned barrel versions); Calico M100 carbine; Colt Sporter Rifle (all variations); Federal XC900 carbine; Federal XC450 carbine; Grendel R31 carbine; Iver Johnson M1 carbine (version w/collapsible stock and bayonet mount); Springfield M1A rifle.

2. Pistols: AA Arms AP9 pistol; Australian Automatic Arms pistol; Auto Ordnance Model 1927A5 pistol; American Arms Spectra pistol; Calico Model M950 pistol; Calico Model 110 pistol; All Claridge Hi-Tec pistol; D Max auto pistol; Grendel P-31 pistol; Heckler & Koch SP89 pistol; Wilkinson Linda pistol.

3. Shotguns: Benelli M1 Super 90 Defense shotgun; Benelli M3 Super 90 shotgun; Franchi LAW 12 shotgun; Franchi SPAS 12 shotgun; USAS 12 shotgun.

any combination of parts from which such a device can be assembled.

The bill exempts all semiautomatic assault weapons and large capacity ammunition feeding devices (as well as any combination of parts) that are lawfully possessed on date of enactment. Owners of such semiautomatic assault weapons need do nothing under the bill unless they wish to transfer the semiautomatic assault weapon.

H.R. 4296 differs significantly from previously-proposed legislation—it is designed to be more tightly focused and more carefully crafted to clearly exempt legitimate sporting guns. Most significantly, the ban in the 1991 proposed bill gave the Bureau of Alcohol, Tobacco, and Firearms authority to ban any weapon which “embodies the same configuration” as the named list of guns. The current bill, H.R. 4296 does not contain any such general authority. Instead, it contains a set of specific characteristics that must be present in order to ban any additional semiautomatic assault weapons.

102D CONGRESS

The Subcommittee on Crime and Criminal Justice held hearings on semiautomatic assault weapons on June 12 and July 25, 1991. A ban on certain semiautomatic assault weapons was included as Subtitle A of Title XX in H.R. 3371, the Omnibus Crime Control Act of 1991. A ban on large capacity ammunition feeding devices was included in the same bill. The bill was reported out of the Judiciary Committee on October 7, 1991. The provisions dealing with semiautomatic assault weapons and large capacity ammunition feeding devices were struck by the House of Representatives by a vote of 247–177 on October 17, 1991.

103D CONGRESS

The Subcommittee on Crime and Criminal Justice held hearings on H.R. 4296 and its predecessor, H.R. 3527, which ban semiautomatic assault weapons, on April 25, 1994. The Subcommittee reported favorably on an amendment in the nature of a substitute to H.R. 4296 on April 26, 1994, by a recorded vote of 8–5.

COMMITTEE ACTION

The Committee on the Judiciary met on April 28, 1994 to consider H.R. 4296, as amended. Two amendments were adopted during the Committee’s consideration.

An amendment was offered to provide that the absence of a firearm from the list of guns specifically exempted from the ban may not be construed as evidence that the semiautomatic assault weapon is banned, and that no gun may be removed from the exempt list so long as the Act is in effect. This amendment was adopted by voice vote.

An amendment was offered to delete a provision that barred from owning any firearms those persons convicted of violating the recordkeeping requirements relating to grandfathered weapons. This amendment was adopted by voice vote.

A reporting quorum being present, the Committee on the Judiciary, by a roll call vote of 20 to 15, ordered H.R. 4296, as amended, favorably reported to the House.

SECTION-BY-SECTION ANALYSIS

SECTION 1—SHORT TITLE

This section provides that the Act may be cited as the “Public Safety and Recreational Firearms Use Protection Act”.

SECTION 2—RESTRICTION ON MANUFACTURE, TRANSFER, AND POSSESSION OF CERTAIN SEMIAUTOMATIC ASSAULT WEAPONS

Subsection 2(a) makes it unlawful for a person to manufacture, transfer, or possess a semiautomatic assault weapon (including any “copies or duplicates.”)

The ban on transfer and possession does not apply to (1) weapons otherwise lawfully possessed on the date of enactment; (2) any of the firearms (or their replicas or duplicates) listed in Appendix A; (3) any manually operated (bolt, pump, slide, lever action), permanently inoperable, or antique firearms; (4) semiautomatic rifles that cannot accept a detachable magazine that holds more than 5 rounds; or, a semiautomatic shotgun that cannot hold more than 5 rounds in a fixed or detachable magazine.

The fact that a gun is not listed in Appendix A may not be construed to mean that it is banned. No gun listed in Appendix A may be removed from that exempted list so long as the Act is in effect.

Federal departments and agencies and those of States and their subdivisions are exempted. Law enforcement officers authorized to purchase firearms for official use are exempted, as are such officers presented with covered weapons upon retirement who are not otherwise prohibited from receiving such a weapon. Finally, weapons made, transferred, possessed, or imported for the purposes of testing or experiments authorized by the Secretary of the Treasury are exempted.

Subsection 2(b) defines semiautomatic assault weapons, both by name and by characteristics. It lists by name specific firearms, including “copies or duplicates” of such firearms.³⁷ Characteristics of covered semiautomatic rifles, pistols, and shotguns are defined by separate subsections applicable to each. In the case of rifles and pistols, in addition to being semiautomatic, a gun must be able to accept a detachable magazine and have at least 2 listed characteristics.

In the case of rifles, those characteristics are: (1) folding or telescoping stock; (2) a pistol grip that protrudes conspicuously beneath the action of the weapon; (3) a bayonet mount; (4) a flash suppressor or threaded barrel designed to accommodate a flash suppressor; and (5) a grenade launcher.

In the case of pistols, the characteristics are: (1) a magazine that attaches to the pistol outside of the pistol grip; (2) a threaded barrel capable of accepting a barrel extender, flash suppressor, forward handgrip, or silencer; (3) a barrel shroud that permits the

³⁷ H.R. 4296 bans the following semiautomatic assault weapons by name (as well as any copies or duplicates, in any caliber): All AK-47 type; Beretta AR-70; Colt AR-15; DC9, 22; FNC; FN-FALLAR; Galil; MAC 10, MAC 11-type; Steyr AUG; Street Sweeper; Striker 12; TEC-9; Uzi

shooter to hold the firearm without being burned; (4) an unloaded manufactured weight of 50 ounces or more; and (5) a semiautomatic version of an automatic firearm.

In the case of shotguns, covered weapons must have at least 2 of the following four features: (1) a folding or telescoping stock; (2) a pistol grip that protrudes conspicuously beneath the action of the weapon; (3) a fixed magazine capacity in excess of 5 rounds; and (4) an ability to accept a detachable magazine.

The section provides a fine of not more than \$5,000, imprisonment for not more than 5 years, or both, for knowingly violating the ban on manufacture, transfer and possession. It also adds use of a semiautomatic assault weapon to the crimes covered by the mandatory minimum of 5 years under 18 USC Section 924(c)(1) for use in a federal crime of violence or drug trafficking crime.

Finally, the section requires that semiautomatic assault weapons manufactured after the date of enactment must clearly show the date on which the weapon was manufactured.

SECTION 3—RECORDKEEPING REQUIREMENTS FOR TRANSFERS OF GRANDFATHERED FIREARMS

This section makes it unlawful to transfer a grandfathered semiautomatic assault weapon unless both the transferor and the transferee complete and retain a copy of federal form 4473 (or its successor). Within 90 days of enactment, the Secretary of the Treasury must issue regulations ensuring the availability of the form to owners of semiautomatic assault weapons. The Committee expects the Secretary to make such forms easily and readily available to such gun owners. The Committee further expects the Secretary to maintain the confidentiality of the requester and to ensure the destruction of any and all information pertaining to any request for such forms immediately upon complying with the request. The Committee does not expect the Secretary to release any such information to any other Department of the Federal, State or local Governments or to use the information in any way other than to comply with the requests for the form. The Committee would consider failure to comply with these expectations a very serious breach.

A person who knowingly violates the recordkeeping requirement shall be fined not more than \$1,000, imprisoned for not more than 6 months or both.

SECTION 4—BAN OF LARGE CAPACITY AMMUNITION FEEDING DEVICES

Subsection 4(a) makes it unlawful for a person to transfer or possess a large capacity ammunition feeding device (which is defined to include any combination of parts from which such a device can be assembled.)

The ban on transfer and possession does not apply to (1) devices (or component parts) otherwise lawfully possessed on the date of enactment; (2) Federal departments and agencies and those of States and their subdivisions; (3) law enforcement officers authorized to purchase ammunition feeding devices for official use; devices transferred to such officers upon retirement who are not otherwise prohibited from receiving them; and (3) devices (or combination of parts) made, transferred, possessed, or imported for the pur-

pose of testing or experiments authorized by the Secretary of the Treasury are exempted.

Subsection 4(b) defines large capacity ammunition feeding device to mean a magazine, belt, drum, feed strip, or similar device that has a capacity of more than 10 rounds, or can be readily restored or converted to accept more than 10 rounds. It includes any combination of parts from which such a device can be assembled. It exempts an attached tubular device designed to accept and capable of operating only with .22 caliber rimfire ammunition.

Subsection 4(c) adds large capacity ammunition feeding devices to the definition of "firearm" under 18 US Code section 921(a)(3).

Subsection 4(d) provides a fine of not more than \$5,000, imprisonment for not more than 5 years, or both, for knowingly violating the ban.

Subsection 4(e) requires that large capacity ammunition feeding devices manufactured after the date of enactment be identified by a serial number that clearly shows the device was manufactured after the date or imported after the date of enactment, and such other identification as the Secretary of the Treasury may by regulation prescribe.

SECTION 5—STUDY BY ATTORNEY GENERAL

This section requires the Attorney General to study and report to the Congress no later than 30 months after its enactment the effects of the Act, particularly with regard to its impact—if any—on violent and drug-trafficking crime.

The study shall be conducted over a period of 18 months, commencing 12 months after the date of enactment.

SECTION 6—EFFECTIVE DATE

The Act and the amendment made by the Act take effect on the date of enactment and are repealed effective as of the date that is 10 years after that date.

SECTION 7—APPENDIX A TO SECTION 922 OF TITLE 18

This section adds, as Appendix A, a list of firearms that are specifically exempted from the ban on semiautomatic assault weapons.

COMMITTEE OVERSIGHT FINDINGS

In compliance with clause 2(1)(3)(A) of rule XI of the Rules of the House of Representatives, the Committee reports that the findings and recommendations of the Committee, based on oversight activities under clause 2(b)(1) of rule X of the Rules of the House of Representatives, are incorporated in the descriptive portions of this report.

COMMITTEE ON GOVERNMENT OPERATIONS OVERSIGHT FINDINGS

No findings or recommendations of the Committee on Government Operations were received as referred to in clause 2(1)(3)(D) of rule XI of the Rules of the House of Representatives.

NEW BUDGET AUTHORITY AND TAX EXPENDITURES

Clause 2(1)(3)(B) of House Rule XI is inapplicable because this legislation does not provide new budgetary authority or increased tax expenditures.

INFLATIONARY IMPACT STATEMENT

Pursuant to clause 2(1)(4) of rule XI of the Rules of the House of Representatives, the Committee estimates that H.R. 4296 will have no significant inflationary impact on prices and costs in the national economy.

CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

In compliance with clause 2(1)(3)(C) of rule XI of the Rules of the House of Representatives, the Committee sets forth, with respect to the bill H.R. 4296, the following estimate and comparison prepared by the Director of the Congressional Budget Office under section 403 of the Congressional Budget Act of 1974:

U.S. CONGRESS,
CONGRESSIONAL BUDGET OFFICE.
Washington, DC, May 2, 1994.

Hon. JACK BROOKS,
*Chairman, Committee on the Judiciary,
House of Representatives, Washington, DC.*

DEAR MR. CHAIRMAN: The Congressional Budget Office has reviewed H.R. 4296, the Public Safety and Recreational Firearms Use Protection Act, as ordered reported by the House Committee on the Judiciary on April 28, 1994. We estimate that enactment of the bill would result in costs to the federal government over the 1995–1999 period of less than \$500,000 from appropriated amounts. In addition, we estimate that enactment of H.R. 4296 would lead to increases in receipts of less than \$10 million a year from new criminal fines. Such receipts would be deposited in the Crime Victims Fund and spent in the following year. Because the bill could affect direct spending and receipts, pay-as-you-go procedures would apply. The bill would not affect the budgets of state or local governments.

H.R. 4296 would ban the manufacture, transfer, and possession of certain semiautomatic assault weapons not lawfully possessed as of the date of the bill's enactment. The bill also would ban the transfer and possession of certain large-capacity ammunition feeding devices not lawfully possessed as of the date of enactment. In addition, H.R. 4296 would establish recordkeeping requirements for transfers of grandfathered weapons and would direct the Attorney General to conduct a study of the bill's impact. Finally, the bill would create new federal crimes and associated penalties—prison sentences and criminal fines—for violation of its provisions.

The new recordkeeping requirements and the impact study would increase costs to the Department of the Treasury and the Department of Justice, respectively, but we estimate that these costs would be less than \$500,000 over the next several years from appropriated amounts. The imposition of new criminal fines in H.R. 4296 could cause governmental receipts to increase through greater

penalty collections. We estimate that any such increase would be less than \$10 million annually. Criminal fines would be deposited in the Crime Victims Fund and would be spent in the following year. Thus, direct spending from the fund would match the increase in revenues with a one-year lag.

If you wish further details on this estimate, we will be pleased to provide them.

Sincerely,

ROBERT D. REISCHAUER, *Director*.

CHANGES IN EXISTING LAW MADE BY THE BILL, AS REPORTED

In compliance with clause 3 of rule XIII of the Rules of the House of Representatives, changes in existing law made by the bill, as reported, are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new matter is printed in *italic*, existing law in which no change is proposed is shown in roman):

CHAPTER 44 OF TITLE 18, UNITED STATES CODE

* * * * *

CHAPTER 44—FIREARMS

§ 921. Definitions

(a) As used in this chapter—

(1) * * *

* * * * *

(3) The term “firearm” means (A) any weapon (including a starter gun) which will or is designed to or may readily be converted to expel a projectile by the action of an explosive; (B) the frame or receiver of any such weapon; (C) any firearm muffler or firearm silencer; [or (D) any destructive device.] *(D) any destructive device; or (E) any large capacity ammunition feeding device.* Such term does not include an antique firearm.

* * * * *

(30) *The term “semiautomatic assault weapon” means—*

(A) any of the firearms, or copies or duplicates of the firearms, known as—

(i) Norinco, Mitchell, and Poly Technologies Automat Kalashnikovs (all models);

(ii) Action Arms Israeli Military Industries UZI and Galil;

(iii) Beretta Ar70 (SC-70);

(iv) Colt AR-15;

(v) Fabrique National FN/FAL, FN/LAR, and FNC;

(vi) SWD M-10, M-11, M-11/9, and M-12;

(vii) Steyr AUG;

(viii) INTRATEC TEC-9, TEC-DC9 and TEC-22; and

(ix) revolving cylinder shotguns, such as (or similar to) the Street Sweeper and Striker 12;

(B) a semiautomatic rifle that has an ability to accept a detachable magazine and has at least 2 of—

(i) a folding or telescoping stock;

- (ii) a pistol grip that protrudes conspicuously beneath the action of the weapon;
- (iii) a bayonet mount;
- (iv) a flash suppressor or threaded barrel designed to accommodate a flash suppressor; and
- (v) a grenade launcher;
- (C) a semiautomatic pistol that has an ability to accept a detachable magazine and has at least 2 of—
 - (i) an ammunition magazine that attaches to the pistol outside of the pistol grip;
 - (ii) a threaded barrel capable of accepting a barrel extender, flash suppressor, forward handgrip, or silencer;
 - (iii) a shroud that is attached to, or partially or completely encircles, the barrel and that permits the shooter to hold the firearm with the nontrigger hand without being burned;
 - (iv) a manufactured weight of 50 ounces or more when the pistol is unloaded; and
 - (v) a semiautomatic version of an automatic firearm; and
- (D) a semiautomatic shotgun that has at least 2 of—
 - (i) a folding or telescoping stock;
 - (ii) a pistol grip that protrudes conspicuously beneath the action of the weapon;
 - (iii) a fixed magazine capacity in excess of 5 rounds; and
 - (iv) an ability to accept a detachable magazine.
- (31) The term “large capacity ammunition feeding device”—
 - (A) means—
 - (i) a magazine, belt, drum, feed strip, or similar device that has a capacity of, or that can be readily restored or converted to accept, more than 10 rounds of ammunition; and
 - (ii) any combination of parts from which a device described in clause (i) can be assembled; but
 - (B) does not include an attached tubular device designed to accept, and capable of operating only with, .22 caliber rimfire ammunition.

§ 922. Unlawful acts

(a) It shall be unlawful—

* * * * *

(v)(1) It shall be unlawful for a person to manufacture, transfer, or possess a semiautomatic assault weapon.

(2) Paragraph (1) shall not apply to the possession or transfer of any semiautomatic assault weapon otherwise lawfully possessed on the date of the enactment of this subsection.

(3) Paragraph (1) shall not apply to—

(A) any of the firearms, or replicas or duplicates of the firearms, specified in Appendix A to this section, as such firearms were manufactured on October 1, 1993;

(B) any firearm that—

(i) is manually operated by bolt, pump, lever, or slide action;

(ii) has been rendered permanently inoperable; or

(iii) is an antique firearm;

(C) any semiautomatic rifle that cannot accept a detachable magazine that holds more than 5 rounds of ammunition; or

(D) any semiautomatic shotgun that cannot hold more than 5 rounds of ammunition in a fixed or detachable magazine.

The fact that a firearm is not listed in Appendix A shall not be construed to mean that paragraph (1) applies to such firearm. No firearm exempted by this subsection may be deleted from Appendix A so long as this Act is in effect.

(4) Paragraph (1) shall not apply to—

(A) the United States or a department or agency of the United States or a State or a department, agency, or political subdivision of a State;

(B) the transfer of a semiautomatic assault weapon by a licensed manufacturer, licensed importer, or licensed dealer to an entity referred to in subparagraph (A) or to a law enforcement officer authorized by such an entity to purchase firearms for official use;

(C) the possession, by an individual who is retired from service with a law enforcement agency and is not otherwise prohibited from receiving a firearm, of a semiautomatic assault weapon transferred to the individual by the agency upon such retirement; or

(D) the manufacture, transfer, or possession of a semiautomatic assault weapon by a licensed manufacturer or licensed importer for the purposes of testing or experimentation authorized by the Secretary.

(w)(1) It shall be unlawful for a person to sell, ship, or deliver a semiautomatic assault weapon to a person who has not completed a form 4473 in connection with the transfer of the semiautomatic assault weapon.

(2) It shall be unlawful for a person to receive a semiautomatic assault weapon unless the person has completed a form 4473 in connection with the transfer of the semiautomatic assault weapon.

(3) If a person receives a semiautomatic assault weapon from anyone other than a licensed dealer, both the person and the transferor shall retain a copy of the form 4473 completed in connection with the transfer.

(4) Within 90 days after the date of the enactment of this subsection, the Secretary shall prescribe regulations ensuring the availability of form 4473 to owners of semiautomatic assault weapons.

(5) As used in this subsection, the term “form 4473” means—

(A) the form which, as of the date of the enactment of this subsection, is designated by the Secretary as form 4473; or

(B) any other form which—

(i) is required by the Secretary, in lieu of the form described in subparagraph (A), to be completed in connection with the transfer of a semiautomatic assault weapon; and

(ii) when completed, contains, at a minimum, the information that, as of the date of the enactment of this subsection, is required to be provided on the form described in subparagraph (A).

(x)(1) *Except as provided in paragraph (2), it shall be unlawful for a person to transfer or possess a large capacity ammunition feeding device.*

(2) *Paragraph (1) shall not apply to the possession or transfer of any large capacity ammunition feeding device otherwise lawfully possessed on the date of the enactment of this subsection.*

(3) *This subsection shall not apply to—*

- (A) *the United States or a department or agency of the United States or a State or a department, agency, or political subdivision of a State;*

(B) *the transfer of a large capacity ammunition feeding device by a licensed manufacturer, licensed importer, or licensed dealer to an entity referred to in subparagraph (A) or to a law enforcement officer authorized by such an entity to purchase large capacity ammunition feeding devices for official use;*

(C) *the possession, by an individual who is retired from service with a law enforcement agency and is not otherwise prohibited from receiving ammunition, of a large capacity ammunition feeding device transferred to the individual by the agency upon such retirement; or*

(D) *the manufacture, transfer, or possession of any large capacity ammunition feeding device by a licensed manufacturer or licensed importer for the purposes of testing or experimentation authorized by the Secretary.*

APPENDIX A

Centerfire Rifles—Autoloaders

*Browning BAR Mark II Safari Semi-Auto Rifle
Browning BAR Mark II Safari Magnum Rifle
Browning High-Power Rifle
Heckler & Koch Model 300 Rifle
Iver Johnson M-1 Carbine
Iver Johnson 50th Anniversary M-1 Carbine
Marlin Model 9 Camp Carbine
Marlin Model 45 Carbine
Remington Nylon 66 Auto-Loading Rifle
Remington Model 7400 Auto Rifle
Remington Model 7400 Rifle
Remington Model 7400 Special Purpose Auto Rifle
Ruger Mini-14 Autoloading Rifle (w/o folding stock)
Ruger Mini Thirty Rifle*

Centerfire Rifles—Lever & Slide

*Browning Model 81 BLR Lever-Action Rifle
Browning Model 81 Long Action B.L.R.
Browning Model 1886 Lever-Action Carbine
Browning Model 1886 High Grade Carbine
Cimarron 1860 Henry Replica
Cimarron 1866 Winchester Replicas
Cimarron 1873 Short Rifle
Cimarron 1873 Sporting Rifle
Cimarron 1873 30" Express Rifle
Dixie Engraved 1873 Rifle
E.M.F. 1866 Yellowboy Lever Actions
E.M.F. 1860 Henry Rifle
E.M.F. Model 73 Lever-Action Rifle
Marlin Model 336CS Lever-Action Carbine
Marlin Model 30AS Lever-Action Carbine
Marlin Model 444SS Lever-Action Sporter
Marlin Model 1894S Lever-Action Carbine
Marlin Model 1894CS Carbine*

Marlin Model 1894CL Classic
Marlin Model 1895SS Lever-Action Rifle
Mitchell 1858 Henry Replica
Mitchell 1866 Winchester Replica
Mitchell 1873 Winchester Replica
Navy Arms Military Henry Rifle
Navy Arms Henry Trapper
Navy Arms Iron Frame Henry
Navy Arms Henry Carbine
Navy Arms 1866 Yellowboy Rifle
Navy Arms 1873 Winchester-Style Rifle
Navy Arms 1873 Sporting Rifle
Remington 7600 Slide Action
Remington Model 7600 Special Purpose Slide Action
Rossi M92 SRC Saddle-Ring Carbine
Rossi M92 SRS Short Carbine
Savage 99C Lever-Action Rifle
Uberti Henry Rifle
Uberti 1866 Sporting Rifle
Uberti 1873 Sporting Rifle
Winchester Model 94 Side Eject Lever-Action Rifle
Winchester Model 94 Trapper Side Eject
Winchester Model 94 Big Bore Side Eject
Winchester Model 94 Ranger Side Eject Lever-Action Rifle
Winchester Model 94 Wrangler Side Eject

Centerfire Rifles—Bolt Action

Alpine Bolt-Action Rifle
A-Square Caesar Bolt-Action Rifle
A-Square Hannibal Bolt-Action Rifle
Anschutz 1700D Classic Rifles
Anschutz 1700D Custom Rifles
Anschutz 1700D Bavarian Bolt-Action Rifle
Anschutz 1733D Mannlicher Rifle
Barret Model 90 Bolt-Action Rifle
Beeman/HW 60J Bolt-Action Rifle
Blaser R84 Bolt-Action Rifle
BRNO 537 Sporter Bolt-Action Rifle
BRNO ZKB 527 Fox Bolt-Action Rifle
BRNO ZKK 600, 601, 602 Bolt-Action Rifles
Browning A-Bolt Rifle
Browning A-Bolt Stainless Stalker
Browning A-Bolt Left Hand
Browning A-Bolt Short Action
Browning Euro-Bolt Rifle
Browning A-Bolt Gold Medallion
Browning A-Bolt Micro Medallion
Century Centurion 14 Sporter
Century Enfield Sporter #4
Century Swedish Sporter #38
Century Mauser 98 Sporter
Cooper Model 38 Centerfire Sporter
Dakota 22 Sporter Bolt-Action Rifle
Dakota 76 Classic Bolt-Action Rifle
Dakota 76 Short Action Rifles
Dakota 76 Safari Bolt-Action Rifle
Dakota 416 Rigby African
E.A.A. /Sabatti Rover 870 Bolt-Action Rifle
Auguste Francotte Bolt-Action Rifles
Carl Gustaf 2000 Bolt-Action Rifle
Heym Magnum Express Series Rifle
Howa Lightning Bolt-Action Rifle
Howa Realtrec Camo Rifle
Interarms Mark X Viscount Bolt-Action Rifle
Interarms Mini-Mark X Rifle
Interarms Mark X Whitworth Bolt-Action Rifle
Interarms Whitworth Express Rifle
Iver Johnson Model 5100A1 Long-Range Rifle

Red Willow Armory Ballard No. 4.5 Target Rifle
Remington-Style Rolling Block Carbine
Ruger No. 1B Single Shot
Ruger No. 1A Light Sporter
Ruger No. 1H Tropical Rifle
Ruger No. 1S Medium Sporter
Ruger No. 1 RSI International
Ruger No. 1V Special Varminter
C. Sharps Arms New Model 1874 Old Reliable
C. Sharps Arms New Model 1875 Rifle
C. Sharps Arms 1875 Classic Sharps
C. Sharps Arms New Model 1875 Target & Long Range
Shiloh Sharps 1874 Long Range Express
Shiloh Sharps 1874 Montana Roughrider
Shiloh Sharps 1874 Military Carbine
Shiloh Sharps 1874 Business Rifle
Shiloh Sharps 1874 Military Rifle
Sharps 1874 Old Reliable
Thompson/Center Contender Carbine
Thompson/Center Stainless Contender Carbine
Thompson/Center Contender Carbine Survival System
Thompson/Center Contender Carbine Youth Model
Thompson/Center TCR '87 Single Shot Rifle
Uberti Rolling Block Baby Carbine

Drillings, Combination Guns, Double Rifles

Baretta Express SSO O/U Double Rifles
Baretta Model 455 SxS Express Rifle
Chapuis RGExpress Double Rifle
Auguste Francotte Sidelock Double Rifles
Auguste Francotte Boalock Double Rifle
Heym Model 55B O/U Double Rifle
Heym Model 55FW O/U Combo Gun
Heym Model 88b Side-by-Side Double Rifle
Kodiak Mk. IV Double Rifle
Kreighoff Teck O/U Combination Gun
Kreighoff Trumpf Drilling
Merkel Over/Under Combination Guns
Merkel Drillings
Merkel Model 160 Side-by-Side Double Rifles
Merkel Over/Under Double Rifles
Savage 24F O/U Combination Gun
Savage 24F-12T Turkey Gun
Springfield Inc. M6 Scout Rifle/Shotgun
Tikka Model 412s Combination Gun
Tikka Model 412S Double Fire
A. Zoli Rifle-Shotgun O/U Combo

Rimfire Rifles—Autoloaders

AMT Lightning 25/22 Rifle
AMT Lightning Small-Game Hunting Rifle II
AMT Magnum Hunter Auto Rifle
Anschutz 525 Deluxe Auto
Arm Scor Model 20P Auto Rifle
Browning Auto-22 Rifle
Browning Auto-22 Grade VI
Krico Model 260 Auto Rifle
Lakefield Arms Model 64B Auto Rifle
Marlin Model 60 Self-Loading Rifle
Marlin Model 60ss Self-Loading Rifle
Marlin Model 70 HC Auto
Marlin Model 990L Self-Loading Rifle
Marlin Model 70P Papoose
Marlin Model 922 Magnum Self-Loading Rifle
Marlin Model 995 Self-Loading Rifle
Norinco Model 22 ATD Rifle
Remington Model 522 Viper Autoloading Rifle

Remington 552BDL Speedmaster Rifle
Ruger 10/22 Autoloading Carbine (w/o folding stock)
Survival Arms AR-7 Explorer Rifle
Texas Remington Revolving Carbine
Voere Model 2115 Auto Rifle

Rimfire Rifles—Lever & Slide Action

Browning BL-22 Lever-Action Rifle
Marlin 39TDS Carbine
Marlin Model 39AS Golden Lever-Action Rifle
Remington 572BDL Fieldmaster Pump Rifle
Norinco EM-321 Pump Rifle
Rossi Model 62 SA Pump Rifle
Rossi Model 62 SAC Carbine
Winchester Model 9422 Lever-Action Rifle
Winchester Model 9422 Magnum Lever-Action Rifle

Rimfire Rifles—Bolt Actions & Single Shots

Anschutz Achiever Bolt-Action Rifle
Anschutz 1416D/1516D Classic Rifles
Anschutz 1418D/1518D Mannlicher Rifles
Anschutz 1700D Classic Rifles
Anschutz 1700D Custom Rifles
Anschutz 1700 FWT Bolt-Action Rifle
Anschutz 1700D Graphite Custom Rifle
Anschutz 1700D Bavarian Bolt-Action Rifle
Armcor Model 14P Bolt-Action Rifle
Armcor Model 1500 Rifle
BRNO ZKM-452 Deluxe Bolt-Action Rifle
BRNO ZKM 452 Deluxe
Beeman/HW 60-J-ST Bolt-Action Rifle
Browning A-Bolt 22 Bolt-Action Rifle
Browning A-Bolt Gold Medallion
Cabanas Phaser Rifle
Cabanas Master Bolt-Action Rifle
Cabanas Espronceda IV Bolt-Action Rifle
Cabanas Leyre Bolt-Action Rifle
Chipmunk Single Shot Rifle
Cooper Arms Model 36S Sporter Rifle
Dakota 22 Sporter Bolt-Action Rifle
Krico Model 300 Bolt-Action Rifles
Lakefield Arms Mark II Bolt-Action Rifle
Lakefield Arms Mark I Bolt-Action Rifle
Magtech Model MT-22C Bolt-Action Rifle
Marlin Model 880 Bolt-Action Rifle
Marlin Model 881 Bolt-Action Rifle
Marlin Model 882 Bolt-Action Rifle
Marlin Model 883 Bolt-Action Rifle
Marlin Model 883SS Bolt-Action Rifle
Marlin Model 25MN Bolt-Action Rifle
Marlin Model 25N Bolt-Action Repeater
Marlin Model 15YN "Little Buckaroo"
Mauser Model 107 Bolt-Action Rifle
Mauser Model 201 Bolt-Action Rifle
Navy Arms TU-KKW Training Rifle
Navy Arms TU-33/40 Carbine
Navy Arms TU-KKW Sniper Trainer
Norinco JW-27 Bolt-Action Rifle
Norinco JW-15 Bolt-Action Rifle
Remington 541-T
Remington 40-XR Rimfire Custom Sporter
Remington 541-T HB Bolt-Action Rifle
Remington 581-S Sportsman Rifle
Ruger 77/22 Rimfire Bolt-Action Rifle
Ruger K77/22 Varmint Rifle
Ultra Light Arms Model 20 RF Bolt-Action Rifle
Winchester Model 52B Sporting Rifle

KDF K15 American Bolt-Action Rifle
Krico Model 600 Bolt-Action Rifle
Krico Model 700 Bolt-Action Rifles
Mauser Model 66 Bolt-Action Rifle
Mauser Model 99 Bolt-Action Rifle
McMillan Signature Classic Sporter
McMillan Signature Super Varminter
McMillan Signature Alaskan
McMillan Signature Titanium Mountain Rifle
McMillan Classic Stainless Sporter
McMillan Talon Safari Rifle
McMillan Talon Sporter Rifle
Midland 1500S Survivor Rifle
Navy Arms TU-33/40 Carbine
Parker-Hale Model 81 Classic Rifle
Parker-Hale Model 81 Classic African Rifle
Parker-Hale Model 1000 Rifle
Parker-Hale Model 1100M African Magnum
Parker-Hale Model 1100 Lightweight Rifle
Parker-Hale Model 1200 Super Rifle
Parker-Hale Model 1200 Super Clip Rifle
Parker-Hale Model 1300C Scout Rifle
Parker-Hale Model 2100 Midland Rifle
Parker-Hale Model 2700 Lightweight Rifle
Parker-Hale Model 2800 Midland Rifle
Remington Model Seven Bolt-Action Rifle
Remington Model Seven Youth Rifle
Remington Model Seven Custom KS
Remington Model Seven Custom MS Rifle
Remington 700 ADL Bolt-Action Rifle
Remington 700 BDL Bolt-Action Rifle
Remington 700 BDL Varmint Special
Remington 700 BDL European Bolt-Action Rifle
Remington 700 Varmint Synthetic Rifle
Remington 700 BDL SS Rifle
Remington 700 Stainless Synthetic Rifle
Remington 700 MTRSS Rifle
Remington 700 BDL Left Hand
Remington 700 Camo Synthetic Rifle
Remington 700 Safari
Remington 700 Mountain Rifle
Remington 700 Custom KS Mountain Rifle
Remington 700 Classic Rifle
Ruger M77 Mark II Rifle
Ruger M77 Mark II Magnum Rifle
Ruger M77RL Ultra Light
Ruger M77 Mark II All-Weather Stainless Rifle
Ruger M77 RSI International Carbine
Ruger M77 Mark II Express Rifle
Ruger M77VT Target Rifle
Sako Hunter Rifle
Sako Fiberclass Sporter
Sako Safari Grade Bolt Action
Sako Hunter Left-Hand Rifle
Sako Classic Bolt Action
Sako Hunter LS Rifle
Sako Deluxe Lightweight
Sako Super Deluxe Sporter
Sako Mannlicher-Style Carbine
Sako Varmint Heavy Barrel
Sako TRG-S Bolt-Action Rifle
Sauer 90 Bolt-Action Rifle
Savage 110G Bolt-Action Rifle
Savage 110CY Youth /Ladies Rifle
Savage 110WLE One of One Thousand Limited Edition Rifle
Savage 110GXP3 Bolt-Action Rifle
Savage 110F Bolt-Action Rifle
Savage 110FXP3 Bolt-Action Rifle

Savage 110GV Varmint Rifle
Savage 112FV Varmint Rifle
Savage Model 112FVS Varmint Rifle
Savage Model 112BV Heavy Barrel Varmint Rifle
Savage 116FSS Bolt-Action Rifle
Savage Model 116FSK Kodiak Rifle
Savage 110FP Police Rifle
Steyr-Mannlicher Sporter Models SL, L, M, S, S/T
Steyr-Mannlicher Luxus Model L, M, S
Steyr-Mannlicher Model M Professional Rifle
Tikka Bolt-Action Rifle
Tikka Premium Grade Rifles
Tikka Varmint/Continental Rifle
Tikka Whitetail/Battue Rifle
Ultra Light Arms Model 20 Rifle
Ultra Light Arms Model 28, Model 40 Rifles
Voere VEC 91 Lightning Bolt-Action Rifle
Vcere Model 2165 Bolt-Action Rifle
Voere Model 2155, 2150 Bolt-Action Rifles
Weatherby Mark V Deluxe Bolt-Action Rifle
Weatherby Lasermark V Rifle
Weatherby Mark V Crown Custom Rifles
Weatherby Mark V Sporter Rifle
Weatherby Mark V Safari Grade Custom Rifles
Weatherby Weathermark Rifle
Weatherby Weathermark Alaskan Rifle
Weatherby Classicmark No. 1 Rifle
Weatherby Weatherguard Alaskan Rifle
Weatherby Vanguard VGX Deluxe Rifle
Weatherby Vanguard Classic Rifle
Weatherby Vanguard Classic No. 1 Rifle
Weatherby Vanguard Weatherguard Rifle
Wichita Classic Rifle
Wichita Varmint Rifle
Winchester Model 70 Sporter
Winchester Model 70 Sporter WinTuff
Winchester Model 70 SM Sporter
Winchester Model 70 Stainless Rifle
Winchester Model 70 Varmint
Winchester Model 70 Synthetic Heavy Varmint Rifle
Winchester Model 70 DBM Rifle
Winchester Model 70 DBM-S Rifle
Winchester Model 70 Featherweight
Winchester Model 70 Featherweight WinTuff
Winchester Model 70 Featherweight Classic
Winchester Model 70 Lightweight Rifle
Winchester Ranger Rifle
Winchester Model 70 Super Express Magnum
Winchester Model 70 Super Grade
Winchester Model 70 Custom Sharpshooter
Winchester Model 70 Custom Sporting Sharpshooter Rifle

Centerfire Rifles—Single Shot

Armsport 1866 Sharps Rifle, Carbine
Brown Model One Single Shot Rifle
Browning Model 1885 Single Shot Rifle
Dakota Single Shot Rifle
Desert Industries G-90 Single Shot Rifle
Harrington & Richardson Ultra Varmint Rifle
Model 1885 High Wall Rifle
Navy Arms Rolling Block Buffalo Rifle
Navy Arms #2 Creedmoor Rifle
Navy Arms Sharps Cavalry Carbine
Navy Arms Sharps Plains Rifle
New England Firearms Handi-Rifle
Red Willow Armory Ballard No. 5 Pacific
Red Willow Armory Ballard No. 1.5 Hunting Rifle
Red Willow Armory Ballard No. 8 Union Hill Rifle

Competition Rifles—Centerfire & Rimfire

Anschutz 64-MS Left Silhouette
Anschutz 1808D RT Super Match 54 Target
Anschutz 1827B Biathlon Rifle
Anschutz 1903D Match Rifle
Anschutz 1803D Intermediate Match
Anschutz 1911 Match Rifle
Anschutz 54.18MS REP Deluxe Silhouette Rifle
Anschutz 1913 Super Match Rifle
Anschutz 1907 Match Rifle
Anschutz 1910 Super Match II
Anschutz 54.18MS Silhouette Rifle
Anschutz Super Match 54 Target Model 2013
Anschutz Super Match 54 Target Model 2007
Beeman / Feinwerkbau 2600 Target Rifle
Cooper Arms Model TRP-1 ISU Standard Rifle
E.A.A. / Weihrauch HW 60 Target Rifle
E.A.A. / HW 660 Match Rifle
Finnish Lion Standard Target Rifle
Krico Model 360 S2 Biathlon Rifle
Krico Model 400 Match Rifle
Krico Model 360S Biathlon Rifle
Krico Model 500 Kricotronic Match Rifle
Krico Model 600 Sniper Rifle
Krico Model 600 Match Rifle
Lakefield Arms Model 90B Target Rifle
Lakefield Arms Model 91T Target Rifle
Lakefield Arms Model 92S Silhouette Rifle
Marlin Model 2000 Target Rifle
Mauser Model 86-SR Specialty Rifle
McMillan M-86 Sniper Rifle
McMillan Combo M-87 / M-88 50-Caliber Rifle
McMillan 300 Phoenix Long Range Rifle
McMillan M-89 Sniper Rifle
McMillan National Match Rifle
McMillan Long Range Rifle
Parker-Hale M-87 Target Rifle
Parker-Hale M-85 Sniper Rifle
Remington 40-XB Rangemaster Target Centerfire
Remington 40-XR KS Rimfire Position Rifle
Remington 40-XBBR KS
Remington 40-XC KS National Match Course Rifle
Sako TRG-21 Bolt-Action Rifle
Steyr-Mannlicher Match SPG-UIT Rifle
Steyr-Mannlicher SSG P-I Rifle
Steyr-Mannlicher SSG P-III Rifle
Steyr-Mannlicher SSG P-IV Rifle
Tanner Standard UIT Rifle
Tanner 50 Meter Free Rifle
Tanner 300 Meter Free Rifle
Wichita Silhouette Rifle

Shotguns—Autoloaders

American Arms / Franchi Black Magic 48 / AL
Benelli Super Black Eagle Shotgun
Benelli Super Black Eagle Slug Gun
Benelli M1 Super 90 Field Auto Shotgun
Benelli Montefeltro Super 90 20-Gauge Shotgun
Benelli Montefeltro Super 90 Shotgun
Benelli M1 Sporting Special Auto Shotgun
Benelli Black Eagle Competition Auto Shotgun
Beretta A-303 Auto Shotgun
Beretta 390 Field Auto Shotgun
Beretta 390 Super Trap, Super Skeeet Shotguns
Beretta Vittoria Auto Shotgun
Beretta Model 1201F Auto Shotgun
Browning BSA 10 Auto Shotgun

Browning Bsa 10 Stalker Auto Shotgun
Browning A-500R Auto Shotgun
Browning A-500G Auto Shotgun
Browning A-500G Sporting Clays
Browning Auto-5 Light 12 and 20
Browning Auto-5 Stalker
Browning Auto-5 Magnum 20
Browning Auto-5 Magnum 12
Churchill Turkey Automatic Shotgun
Cosmi Automatic Shotgun
Maverick Model 60 Auto Shotgun
Mossberg Model 5500 Shotgun
Mossberg Model 9200 Regal Semi-Auto Shotgun
Mossberg Model 9200 USST Auto Shotgun
Mossberg Model 9200 Camo Shotgun
Mossberg Model 6000 Auto Shotgun
Remington Model 1100 Shotgun
Remington 11-87 Premier Shotgun
Remington 11-87 Sporting Clays
Remington 11-87 Premier Skeet
Remington 11-87 Premier Trap
Remington 11-87 Special Purpose Magnum
Remington 11-87 SPS-T Camo Auto Shotgun
Remington 11-87 Special Purpose Deer Gun
Remington 11-87 SPS-BG-Camo Deer/Turkey Shotgun
Remington 11-87 SPS-Deer Shotgun
Remington 11-87 Special Purpose Synthetic Camo
Remington SP-10 Magnum-Camo Auto Shotgun
Remington SP-10 Magnum Auto Shotgun
Remington SP-10 Magnum Turkey Combo
Remington 1100 LT-20 Auto
Remington 1100 Special Field
Remington 1100 20-Gauge Deer Gun
Remington 1100 LT-20 Tournament Skeet
Winchester Model 1400 Semi-Auto Shotgun

Shotguns—Slide Actions

Browning Model 42 Pump Shotgun
Browning BPS Pump Shotgun
Browning BPS Stalker Pump Shotgun
Browning BPS Pigeon Grade Pump Shotgun
Browning BPS Pump Shotgun (Ladies and Youth Model)
Browning BPS Game Gun Turkey Special
Browning BPS Game Gun Deer Special
Ithaca Model 87 Supreme Pump Shotgun
Ithaca Model 87 Deerslayer Shotgun
Ithaca Deerslayer II Rifled Shotgun
Ithaca Model 87 Turkey Gun
Ithaca Model 87 Deluxe Pump Shotgun
Magtech Model 586-VR Pump Shotgun
Maverick Models 88, 91 Pump Shotguns
Mossberg Model 500 Sporting Pump
Mossberg Model 500 Camo Pump
Mossberg Model 500 Muzzleloader Combo
Mossberg Model 500 Trophy Slugster
Mossberg Turkey Model 500 Pump
Mossberg Model 500 Bantam Pump
Mossberg Field Grade Model 835 Pump Shotgun
Mossberg Model 835 Regal Ulti-Mag Pump
Remington 870 Wingmaster
Remington 870 Special Purpose Deer Gun
Remington 870 SPS-BG-Camo Deer/Turkey Shotgun
Remington 870 SPS-Deer Shotgun
Remington 870 Marine Magnum
Remington 870 TC Trap
Remington 870 Special Purpose Synthetic Camo
Remington 870 Wingmaster Small Gauges
Remington 870 Express Rifle Sighted Deer Gun

Remington 879 SPS Special Purpose Magnum
 Remington 870 SPS-T Camo Pump Shotgun
 Remington 870 Special Field
 Remington 870 Express Turkey
 Remington 870 High Grades
 Remington 870 Express
 Remington Model 870 Express Youth Gun
 Winchester Model 12 Pump Shotgun
 Winchester Model 42 High Grade Shotgun
 Winchester Model 1300 Walnut Pump
 Winchester Model 1300 Slug Hunter Deer Gun
 Winchester Model 1300 Ranger Pump Gun Combo & Deer Gun
 Winchester Model 1300 Turkey Gun
 Winchester Model 1300 Ranger Pump Gun

Shotguns—Over/Unders

American Arms / Franchi Falconet 2000 O/U
 American Arms Silver I O/U
 American Arms Silver II Shotgun
 American Arms Silver Skeet O/U
 American Arms / Franchi Sporting 2000 O/U
 American Arms Silver Sporting O/U
 American Arms Silver Trap O/U
 American Arms WS/OU 12, TS/OU 12 Shotguns
 American Arms WT/OU 10 Shotgun
 Armsport 2700 O/U Goose Gun
 Armsport 2700 Series O/U
 Armsport 2900 Tri-Barrel Shotgun
 Baby Bretton Over/Under Shotgun
 Beretta Model 686 Ultralight O/U
 Beretta ASE 90 Competition O/U Shotgun
 Beretta Over/Under Field Shotguns
 Beretta Onyx Hunter Sport O/U Shotgun
 Beretta Model SO5, SO6, SO9 Shotguns
 Beretta Sporting Clay Shotguns
 Beretta 687EL Sporting O/U
 Beretta 682 Super Sporting O/U
 Beretta Series 682 Competition Over/Unders
 Browning Citori O/U Shotgun
 Browning Superlight Citori Over/Under
 Browning Lightning Sporting Clays
 Browning Micro Citori Lightning
 Browning Citori Plus Trap Combo
 Browning Citori Plus Trap Gun
 Browning Citori O/U Skeet Models
 Browning Citori O/U Trap Models
 Browning Special Sporting Clays
 Browning Citori GTI Sporting Clays
 Browning 325 Sporting Clays
 Centurion Over/Under Shotgun
 Chapuis Over/Under Shotgun
 Connecticut Valley Classics Classic Sporter O/U
 Connecticut Valley Classics Classic Field Waterfowler
 Charles Daly Field Grade O/U
 Charles Daly Lux Over/Under
 E.A.A. / Sabatti Sporting Clays Pro-Gold O/U
 E.A.A. / Sabatti Falcon-Mon Over/Under
 Kassnar Grade I O/U Shotgun
 Krieghoff K-80 Sporting Clays O/U
 Krieghoff K-80 Skeet Shotgun
 Krieghoff K-80 International Skeet
 Krieghoff K-80 Four-Barrel Skeet Set
 Krieghoff K-80/RT Shotguns
 Krieghoff K-80 O/U Trap Shotgun
 Laurona Silhouette 300 Sporting Clays
 Laurona Silhouette 300 Trap
 Laurona Super Model Over/Unders
 Ljutic LM-6 Deluxe O/U Shotgun

Marocchi Conquista Over/Under Shotgun
Marocchi Avanza O/U Shotgun
Merkel Model 200E O/U Shotgun
Merkel Model 200E Skeet, Trap Over/Unders
Merkel Model 203E, 303E Over/Under Shotguns
Perazzi Mirage Special Sporting O/U
Perazzi Mirage Special Four-Gauge Skeet
Perazzi Sporting Classic O/U
Perazzi MX7 Over/Under Shotguns
Perazzi Mirage Special Skeet Over/Under
Perazzi MX8/MX8 Special Trap, Skeet
Perazzi MX8/20 Over/Under Shotgun
Perazzi MX9 Single Over/Under Shotguns
Perazzi MX12 Hunting Over/Under
Perazzi MX28, MX410 Game O/U Shotguns
Perazzi MX20 Hunting Over/Under
Piotti Boss Over/Under Shotgun
Remington Peerless Over/Under Shotgun
Ruger Red Label O/U Shotgun
Ruger Sporting Clays O/U Shotgun
San Marco 12-Ga. Wildflower Shotgun
San Marco Field Special O/U Shotgun
San Marco 10-Ga. O/U Shotgun
SKB Model 505 Deluxe Over/Under Shotgun
SKB Model 685 Over/Under Shotgun
SKB Model 885 Over/Under Trap, Skeet, Sporting Clays
Stoeger/IGA Condor I O/U Shotgun
Stoeger/IGA ERA 2000 Over/Under Shotgun
Techni-Mec Model 610 Over/Under
Tikka Model 412S Field Grade Over/Under
Weatherby Athena Grade IV O/U Shotguns
Weatherby Athena Grade V Classic Field O/U
Weatherby Orion O/U Shotguns
Weatherby II, III Classic Field O/Us
Weatherby Orion II Classic Sporting Clays O/U
Weatherby Orion II Sporting Clays O/U
Winchester Model 1001 O/U Shotgun
Winchester Model 1001 Sporting Clays O/U
Pietro Zanoletti Model 2000 Field O/U

Shotguns—Side by Sides

American Arms Brittany Shotgun
American Arms Gentry Double Shotgun
American Arms Derby Side-by-Side
American Arms Grulla #2 Double Shotgun
American Arms WS/SS 10
American Arms TS/SS 10 Double Shotgun
American Arms TS/SS 12 Side-by-Side
Arrieta Sidelock Double Shotguns
Armsport 1050 Series Double Shotguns
Arizaga Model 31 Double Shotgun
AYA Boxlock Shotguns
AYA Sidelock Double Shotguns
Beretta Model 452 Sidelock Shotgun
Beretta Side-by-Side Field Shotguns
Crucelegui Hermanos Model 150 Double
Chapuis Side-by-Side Shotgun
E.A.A./Sabatti Saba-Mon Double Shotgun
Charles Daly Model Dss Double
Ferlib Model F VII Double Shotgun
Auguste Francotte Boxlock Shotgun
Auguste Francotte Sidelock Shotgun
Garbi Model 100 Double
Garbi Model 101 Side-by-Side
Garbi Model 103A, B Side-by-Side
Garbi Model 200 Side-by-Side
Bill Hanus Birdgun Doubles
Hatfield Uplander Shotgun

Merkell Model 8, 47E Side-by-Side Shotguns
Merkel Model 47LSC Sporting Clays Double
Merkel Model 47S, 147S Side-by-Sides
Parker Reproductions Side-by-Side
Piotti King No. 1 Side-by-Side
Piotti Lunik Side-by-Side
Piotti King Extra Side-by-Side
Piotti Piuma Side-by-Side
Precision Sports Model 600 Series Doubles
Rizzini Boxlock Side-by-Side
Rizzini Sidelock Side-by-Side
Stoeger/IGA Uplander Side-by-Side Shotgun
Ugartechea 10-Ga. Magnum Shotgun

Shotguns—Bolt Actions & Single Shots

Armsport Single Barrel Shotgun
Browning BT-99 Competition Trap Special
Browning BT-99 Plus Trap Gun
Browning BT-99 Plus Micro
Browning Recoilless Trap Shotgun
Browning Micro Recoilless Trap Shotgun
Desert Industries Big Twenty Shotgun
Harrington & Richardson Topper Model 098
Harrington & Richardson Topper Classic Youth Shotgun
Harrington & Richardson N.W.T.F. Turkey Mag
Harrington & Richardson Topper Deluxe Model 098
Krieghoff KS-5 Trap Gun
Krieghoff KS-5 Special
Krieghoff K-80 Single Barrel Trap Gun
Ljubic Mono Gun Single Barrel
Ljubic LTX Super Deluxe Mono Gun
Ljubic Recoilless Space Gun Shotgun
Marlin Model 55 Goose Gun Bolt Action
New England Firearms Turkey and Goose Gun
New England Firearms N.W.T.F. Shotgun
New England Firearms Tracker Slug Gun
New England Firearms Standard Pardner
New England Firearms Survival Gun
Perazzi TM1 Special Single Trap
Remington 90-T Super Single Shotgun
Snake Charmer II Shotgun
Stoeger/IGA Reuna Single Barrel Shotgun
Thompson/Center TCR '87 Hunter Shotgun.

§ 923. Licensing

(a) * * *

* * * * *

(i) Licensed importers and licensed manufacturers shall identify by means of a serial number engraved or cast on the receiver or frame of the weapon, in such manner as the Secretary shall by regulations prescribe, each firearm imported or manufactured by such importer or manufacturer. *The serial number of any semiautomatic assault weapon manufactured after the date of the enactment of this sentence shall clearly show the date on which the weapon was manufactured. A large capacity ammunition feeding device manufactured after the date of the enactment of this sentence shall be identified by a serial number that clearly shows that the device was manufactured or imported after the effective date of this subsection, and such other identification as the Secretary may by regulation prescribe.*

§ 924. Penalties

(a)(1) Except as otherwise provided in this subsection, subsection (b), (c), or (f) of this section, or in section 929, whoever—

(A) knowingly makes any false statement or representation with respect to the information required by this chapter to be kept in the records of a person licensed under this chapter or in applying for any license or exemption or relief from disability under the provisions of this chapter;

(B) knowingly violates subsection (a)(4), (a)(6), (f), (k), [or (q) of section 922] (r), (v), or (x) of section 922;

* * * * *

(6) *A person who knowingly violates section 922(w) shall be fined not more than \$1,000, imprisoned not more than 6 months, or both. Section 3571 shall not apply to any offense under this paragraph.*

* * * * *

(c)(1) Whoever, during and in relation to any crime of violence or drug trafficking crime (including a crime of violence or drug trafficking crime which provides for an enhanced punishment if committed by the use of a deadly or dangerous weapon or device) for which he may be prosecuted in a court of the United States, uses or carries a firearm, shall, in addition to the punishment provided for such crime of violence or drug trafficking crime, be sentenced to imprisonment for five years, and if the firearm is a short-barreled rifle, short-barreled shotgun, or semiautomatic assault weapon, to imprisonment for ten years, and if the firearm is a machinegun, or a destructive device, or is equipped with a firearm silencer or firearm muffler, to imprisonment for thirty years. In the case of his second or subsequent conviction under this subsection, such person shall be sentenced to imprisonment for twenty years, and if the firearm is a machinegun, or a destructive device, or is equipped with a firearm silencer or firearm muffler, to life imprisonment without release. Notwithstanding any other provision of law, the court shall not place on probation or suspend the sentence of any person convicted of a violation of this subsection, nor shall the term of imprisonment imposed under this subsection run concurrently with any other term of imprisonment including that imposed for the crime of violence or drug trafficking crime in which the firearm was used or carried. No person sentenced under this subsection shall be eligible for parole during the term of imprisonment imposed herein.

* * * * *

SUPPLEMENTAL VIEWS OF HON. DAN GLICKMAN

I supported this bill because it is a narrowly crafted bill focused on specific weapons that have no business being on our streets. It is aimed at rapid fire weapons that have the sole purpose of killing people, and it is aimed at weapons that are more suited for the battlefield than the target range.

I believe that violence in our nation is getting out of hand. It is devastating to read that a student killed a student with a semi-automatic weapon. But it is equally devastating to hear of students killing students with anyone. What we really need to focus on is why students are engaging in violence in the first place. For this reason, I think this legislation must be viewed as part of the effort to reduce crime—in conjunction with the comprehensive crime bill that increases penalties, calls for tougher sentencing, provides for more jails and police officers, and provides for prevention programs.

But we must not abrogate the Second Amendment rights that are provided for in the Constitution. We must be extremely careful that in this legislation and in any legislation in the future, that we are not taking away guns that truly are used for sports, hunting, or self-defense.

I don't believe that this bill is the first step in a long road to banning guns. However, some of my constituents have expressed their fear that the Congress is moving slowly toward banning all guns for all people. We must be absolutely clear that this narrowly crafted legislation is not that first step and is not just a precursor to further, broader federal gun control and federal gun bans. Sport shooters and hunters tell me that they don't want assault weapons on the streets and in the hands of gang members any more than anyone else. But what they don't want is for Congress to take the short step to saying that the hunting rifles are being used on the streets, and should be taken away. And then the handguns are being used on the streets and should be taken away.

I want to make sure that what we are doing has a purpose—that it gets at the weapons that are being used by gang members and others in killing sprees or other random violence. I want to be able to assure the hunters, sport shooters and folks who want to be prepared for self-defense that we're not going to turn around and tell these gun owners that their sporting guns are illegal. This is a good bill, but let's tread very carefully before going any further.

Finally, because I want to make sure that there is no mistake about which guns are banned and which are exempt, especially guns that will be developed in the future, I offered an amendment during Committee markup that was accepted by the Committee. This amendment clarifies that simply because a gun is not on the list of specifically exempted guns, does not mean that that firearm is banned. A firearm must meet the specific criteria set out in the

bill, or be specifically named as a banned gun before it can be banned. In other words, the exempted gun list is not exhaustive.

Furthermore, my amendment makes clear that no gun may be taken off the list of specifically exempted guns as long as the act is in effect. In this way, it is absolutely clear that the intent of Congress is that exempted guns remain exempted.

DISSENTING VIEWS OF HON. F. JAMES SENSENBRENNER, JR., HON. GEORGE GEKAS, HON. LAMAR S. SMITH, HON. BILL MCCOLLUM, HON. HOWARD COBLE, HON. STEVE SCHIFF, AND HON. BOB GOODLATTE

We strongly oppose H.R. 4296 which would ban a variety of guns. The primary problem with this bill is that it targets law abiding citizens. If this bill passes, simply possessing a shotgun or rifle could land you in jail. You don't have to shoot anybody. You don't have to threaten anyone, just leaving it in the hall closet is enough to land you in jail. Even if you use the gun for self-defense, you can go to jail.

It is already a federal crime for convicted criminals to possess these weapons, or any other gun for that matter. The laws aimed at these criminals should be fully enforced before we start going into the homes of law-abiding citizens and arresting them.

Another problem with this legislation is that simple, cosmetic changes to certain guns would turn those guns from being illegal to, all of a sudden being legal. For example, simply by removing a pistol grip, or a bayonet mount from a rifle saves the owner from going to jail, but leaves the gun's performance unaffected.

Finally, the problem of these guns has been greatly exaggerated. Although semiautomatic weapons are used in the most high profile killings that make it on the nightly news, in fact, more than 99 percent of killers eschew assault rifles and use more prosaic devices. According to statistics from the Justice Department and reports from local law enforcement, five times as many people are kicked or beaten to death than are killed with assault rifles.

Passing this legislation is an excuse to avoid the real issues of violent crime, and threatens the rights of law-abiding citizens. Therefore, we oppose H.R. 4296.

**F. JAMES SENSENBRENNER, Jr.
GEORGE W. GEKAS.
LAMAR SMITH.
BILL MCCOLLUM.
HOWARD COBLE.
STEVE SCHIFF.
BOB GOODLATTE.**

DISSENTING VIEWS OF HON. JACK BROOKS

I am strongly opposed to H.R. 4296, the Public Safety and Recreational Firearms Use Protection Act, because it misidentifies the causes of violent crime in the United States; diverts national priorities away from meaningful solutions to the problem of violent crime; punishes honest American gun owners who buy and use firearms for legitimate, lawful purposes such as, but not necessarily limited to, self-defense, target shooting, hunting, and firearms collection; fails to focus the punitive powers of government upon criminals. Most fundamentally, a prohibition on firearms violates the right of individual Americans to keep and bear arms, protected by the Second Amendment to the Constitution of the United States—a stark fact of constitutional life that the proponents of H.R. 4296 conveniently overlook in their zeal to abridge the rights of law-abiding citizens.

Reasons claimed to justify a prohibition on the firearms that would be affected by H.R. 4296 include the assertion that those particular firearms are used often in the commission of violent crimes. Data on the use of the firearms H.R. 4296 labels as “assault weapons” is not comprehensive, but such data as do exist consistently show that “assault weapons” are involved in a small percentage of violent crimes.

Most of the firearms labelled as “assault weapons” in H.R. 4296 are rifles—yet rifles are the general category of firearms used least often in the commission of violent crimes. The FBI Uniform Crime Reports, 1992, the most recent comprehensive data available, shows that rifles of any description are used in 3.1 percent of homicides, for example, while knives are used in 14.5 percent, fists and feet are used in 5 percent, and blunt objects are used in another 5 percent.

Professor Gary Kleck, of Florida State University, the 1993 recipient of the American Society of Criminology’s Hindelang Award, estimates that one-half of 1 percent of violent crimes are committed with “assault weapons.” University of Texas criminologist Sheldon Ekland-Olson estimates that one-quarter of rifle-related homicides may involve rifles chambered for military cartridges, which would include not only so-called “assault” type semi-automatic rifles, but non-semiautomatic rifles as well.

Since 1980, rifle-related homicides have declined by more than a third. According to the Metropolitan Police of Washington, D.C., the city which has the highest per capita rate of homicides of any major city in the United States, between 1980–1993 there occurred only 4 rifle-related homicides out of a total of more than 4,200 homicides in the period. The last rifle homicide during the period was recorded in 1984. Other data from D.C. police show that rifles are used in about one-tenth of 1 percent of robberies and assaults.

The California Department of Justice surveyed law enforcement agencies in the state in 1990, as the state's legislature addressed "assault weapon" ban legislation there. The California Department of Justice found that only 3.7 percent of the firearms that are used in homicides and assaults were "assault weapons," defined there to include even more firearms than are defined as "assault weapons" in H.R. 4296.

Connecticut State Police report that less than 2 percent of firearms seized by police in the state are "assault weapons"; the Massachusetts State Police report that "assault" type rifles were used in one-half of 1 percent of homicides between 1985-1991.

I believe the proponents of H.R. 4296 are in error in claiming that the Bureau of Alcohol, Tobacco and Firearms (BATF) has traced a large number of "assault weapons" to crime. This claim has been effectively contradicted by both the BATF itself and the Congressional Research Service's (CRS) report on the BATF firearms tracing system. The BATF has stated that it "does not always know if a firearm being traced has been used in a crime." For instance, sometimes a firearm is traced simply to determine the rightful owner after it is found by a law enforcement officer.

Each year, the BATF traces about 50,000 firearms, yet only about 1 percent of these traces relate to "assault weapons" that have been seized by police in the course of investigations of violent crimes. Most "assault weapons" traced relate not to violent crime but to property violations, such as stolen guns being traced so that they may be returned to their lawful owners, violations of the Gun Control Act, and other non-violent circumstances.

As noted by BATF and by CRS in its report to Congress entitled "Assault Weapons: Military-Style Semiautomatic Firearms Facts and Issues" (1992) that firearms traces are not intended to "trace guns to crime," that few "assault weapons" traced relative to violent crime investigations, and that available state and local law enforcement agency data shows relatively little use of "assault weapons" are used frequently in violent crimes.

"Assault weapons" function in the same manner as any other semi-automatic firearm. They fire once with each pull of the trigger, like most firearms. They use the same ammunition as other firearms, both semi-automatic and not. Therefore, "assault weapons" are useful for target shooting, self-defense, hunting, and other legitimate purposes, just as other firearms are.

H.R. 4296 would prohibit rifles that are commonly used for competitive shooting, such as the Springfield N1A and the Colt "AR-15."

Accessories found on some models of "assault weapons," such as folding stocks, flash suppressors, pistol grips, bayonet lugs, and detachable magazines may look menacing to persons unfamiliar with firearms, but there is absolutely no evidence that any of these accessories provide any advantage to a criminal. As has been demonstrated on many occasions, firearms which H.R. 4296 specifically exempts from its prohibition, firearms not equipped with those accessories, can be fired at the same rate, with the same accuracy, and with the same power as "assault weapons."

Time and again, supporters of H.R. 4296 have claimed that "assault weapons" can be "spray-fired from the hip"; but this is simply

not true. The firearms targeted in H.R. 4296 are not machineguns. Machineguns are restricted under the National Firearms Act of 1934. H.R. 4296's guns are semi-automatic, and fire only one shot at a time.

H.R. 4296's limitation on the capacity of ammunition feeding devices would do nothing to reduce the number of rounds available to a criminal. It has been demonstrated frequently that such devices can be switched in less than a second, so a criminal determined to have available a number of rounds greater than H.R. 4296 would permit in a single magazine would need only to possess additional smaller magazines. However, police have reportedly consistently that when criminals fire shots, they rarely discharge more than 2-5 rounds, well below the number of rounds H.R. 4296 would permit in a single magazine.

Most fundamentally, to impinge upon the constitutionally-protected rights of honest, law-abiding Americans on the basis of myth, misinformation, and newspaper headlines is a crime in and of itself. To protect against such a mockery of our Constitution and the infliction of such harm upon our citizens, I intend to oppose H.R. 4296 vigorously on the House floor in the hope that careful reflection will permit cooler heads and the light of reason to prevail.

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Document No. 43

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EXHIBIT 22

2008 Edition

Regulating Guns in America



**An Evaluation and
Comparative Analysis of Federal,
State and Selected Local Gun Laws**



A Publication of

Legal Community Against Violence

expertise, information & advocacy to end gun violence

Assault Weapons

Background

Assault weapons are a class of semi-automatic firearms designed with military features to allow rapid and accurate spray firing. They are not designed for "sport;" they are designed to kill humans quickly and efficiently. Features such as pistol grips and the ability to accept a detachable magazine clearly distinguish assault weapons from standard sporting firearms by enabling assault weapons to spray large amounts of fire quickly and accurately.

Assault weapons have been used in many high-profile shooting incidents, including the 1999 Columbine High School massacre in Colorado, the 1993 office shooting at the 101 California Street building in San Francisco, and the December 2007 shopping mall killings in Omaha, Nebraska. Some assault rifles are also accurate enough for use as sniper rifles, as illustrated by the Washington, D.C.-area sniper shootings in October 2002.

A recent study analyzing FBI data shows that 20% of the law enforcement officers killed in the line of duty from 1998 to 2001 were killed with an assault weapon.¹ Anecdotal evidence from law enforcement leaders suggests that military-style assault weapons are increasingly being used against law enforcement by drug dealers and gang members.² In response, law enforcement agencies are upgrading their arsenals to include more assault weapons.³

There is widespread public support for banning assault weapons. For example, 77% of likely 2004 presidential election voters supported renewal of the federal assault weapon ban, while only 21% opposed renewal.⁴ Sixty-five percent of Americans favored *strengthening* the federal assault weapon ban, including 51% of gun owners.⁵ Sixty-seven percent of *Field & Stream* readers did not consider assault weapons to be legitimate sporting guns.⁶

Summary of Federal Law

On September 13, 1994, Congress adopted the Violent Crime Control and Law Enforcement Act of 1994. That Act amended the Gun Control Act of 1968, making it "unlawful for a person to manufacture, transfer, or possess a semiautomatic assault weapon."⁷

¹ Violence Policy Center, "Officer Down"— *Assault Weapons and the War on Law Enforcement, Section One: Assault Weapons, the Gun Industry, and Law Enforcement* (May 2003), at <http://www.vpc.org/studies/officeone.htm>.

² International Association of Chiefs of Police (IACP), *Taking a Stand: Reducing Gun Violence in Our Communities* 26-7 (Sept. 2007).

³ See, e.g., Susan Candiotti, *Cops Find Themselves in Arms Race with Criminals*, Cable News Network, Nov. 6, 2007, available at <http://www.cnn.com/2007/US/11/05/cops.guns/index.html> (last visited Nov. 26, 2007); Kevin Johnson, *Police Needing Heavier Weapons*, USA Today, Feb. 20, 2007, at 1A.

⁴ Third Way, *Taking Back the Second Amendment: Seven Steps Progressives Must Take to Close the Gun Gap* 5 (Jan. 2006), at http://third-way.com/data/product/file/21/taking_back_2nd_amendment.pdf.

⁵ Consumer Federation of America, *Consumers Strongly Support Renewing and Strengthening the Federal Assault Weapons Ban* 3 (Feb. 2004).

⁶ Field & Stream, *The 2003 National Hunting Survey* (July 2003).

⁷ 18 U.S.C. § 922(v)(1). All references to sections of the Violent Crime Control and Law Enforcement Act of 1994, codified at 18 U.S.C. § 921 *et seq.*, are to the sections as they appeared on September 12, 2004.

The term "semiautomatic assault weapon" was defined to include 19 named firearms and copies of those firearms, as well as certain semi-automatic rifles, pistols and shotguns with at least two specified characteristics from a list of features.⁸ The two-feature test and the inclusion in the list of features that were purely cosmetic in nature created a loophole that allowed manufacturers to successfully circumvent the law by making minor modifications to the weapons they already produced.

The 1994 Act also banned the transfer and possession of any "large capacity ammunition feeding device," defined to include magazines manufactured after the enactment of the Act that are capable of holding more than 10 rounds of ammunition.⁹

The 1994 Act did not, however, prohibit the continued transfer or possession of assault weapons or large capacity ammunition magazines manufactured before the law's effective date. Manufacturers took advantage of this loophole by boosting production of assault weapons and large capacity magazines in the months leading up to the ban, creating a legal stockpile of these items. As a result, assault weapons and large capacity magazines continued to be readily available – and legal – nationwide, except where specifically banned by state or local law.

In addition, the assault weapon ban was enacted with a sunset clause, providing for its expiration after ten years. Despite overwhelming public support for its renewal, Congress and the President allowed the assault weapon ban to expire on September 13, 2004. Thus, semi-automatic, military style weapons that were formerly banned under the federal law are now legal unless banned by state or local law.¹⁰

SUMMARY OF STATE ASSAULT WEAPON LAWS

Seven states have enacted laws banning assault weapons: California, Connecticut, Hawaii, Maryland, Massachusetts, New Jersey and New York. In addition, Maryland, Minnesota and Virginia regulate assault weapons. The District of Columbia bans certain assault weapons indirectly, through laws banning other classes of weapons.

Assault weapon bans can be categorized according to: (1) the definition(s) of "assault weapon;" (2) the activities that are prohibited; (3) whether pre-ban weapons are grandfathered; (4) whether grandfathered weapons must be registered; and (5) how transfer and possession of grandfathered weapons are treated.

⁸ 18 U.S.C. § 921(a)(30).

⁹ 18 U.S.C. §§ 921(a)(31), 922(w)(1). Additional information about large capacity ammunition magazines is contained in the section entitled Large Capacity Ammunition Magazines.

¹⁰ The 2007 report by the International Association of Chiefs of Police recommended that Congress enact an effective ban on military-style assault weapons. See *Taking a Stand: Reducing Gun Violence in Our Communities*, *supra* note 2, at 26-7.

State Bans

California	Cal. Penal Code §§ 12275 – 12290
Connecticut	Conn. Gen. Stat. §§ 53-202a – 53-202o
Hawaii (assault pistols)	Haw. Rev. Stat. Ann. §§ 134-1, 134-4, 134-8
Maryland (assault pistols)	Md. Code Ann., Crim. Law §§ 4-301 – 4-306
Massachusetts	Mass. Gen. Laws ch. 140, §§ 121, 122, 123, 131, 131M
New Jersey	N.J. Stat. Ann. §§ 2C:39-1w, 2C:39-5, 2C:58-5, 2C:58-12, 2C:58-13
New York	N.Y. Penal Law §§ 265.00(22), 265.02(7), 265.10

State Regulations

Maryland	Md. Code Ann., Pub. Safety § 5-101(p)
Minnesota	Minn. Stat. §§ 624.712 – 624.7141
Virginia	Va. Code Ann. §§ 18.2-287.4, 18.2-308.2:01, 18.2-308.2:2, 18.2-308.7, 18.2-308.8

Other Laws

District of Columbia	D.C. Code Ann. §§ 7-2501.01(10), (12), 7-2502.01, 7-2502.02, 7-2551.01, 7-2551.02
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States that include a list of assault weapons banned by name

California
Connecticut
Maryland (assault pistols)
Massachusetts
New Jersey
New York

States that provide a generic feature definition of assault weapon (asterisks indicate states that use a one-feature test)

California*
Connecticut
Hawaii (assault pistols only)
Massachusetts
New Jersey*
New York

States that require registration of grandfathered weapons

California
Connecticut
Hawaii
Maryland
New Jersey

States that generally prohibit the transfer of grandfathered weapons

California
Connecticut
Hawaii
Maryland

States that limit the places a grandfathered weapon may be possessed or require a license for possession

California

Connecticut

Massachusetts (license)

New Jersey (license)

Description of State Laws Banning Assault Weapons

1. *Definition:* Most state assault weapon bans prohibit specific weapons by listing them by name. Some bans also list features that, when present, make a gun an assault weapon. These are known as generic feature tests. Generic feature tests, emphasizing high capacity and enhanced control during firing, are intended to identify assault weapons based on the military features that enhance a weapon's lethality. Generic feature tests that require a weapon to have only one of a list of features are more comprehensive than those that require two. A one-feature test captures more assault weapons and makes it harder for the gun industry to evade the law by modifying the weapon.

California and New Jersey have the most comprehensive approaches to defining assault weapons. California law also bans roughly 75 assault weapon types, models and series by name and provides a one-feature generic test for rifles and pistols. New Jersey bans roughly 65 assault weapon types, models and series and uses a one-feature generic test for shotguns.¹¹ New Jersey also bans parts that may be readily assembled into an assault weapon. The generic feature tests in most other bans, including the expired federal ban, are two-feature tests.¹²

Connecticut, Hawaii (assault pistols only), Massachusetts and New York use the definition of "assault weapon" from the expired federal law. Connecticut and Hawaii use the generic feature definition from the federal law. Massachusetts and New York use both the federal law's generic feature definition and its list of named weapons.

2. *Prohibited Activities:* Assault weapon bans vary as to which activities are prohibited. California and Connecticut prohibit the broadest range of activities. Both prohibit possession, distribution, importation, transportation, and keeping or offering for sale of assault weapons.¹³ In addition, California prohibits the manufacture and transfer of assault weapons, while Connecticut also prohibits giving an assault weapon to another person. New Jersey's law is also comprehensive, prohibiting the manufacture, transportation, sale, shipping, transfer, disposing and possession of assault weapons.

¹¹ California's definition of assault weapon also includes a semi-automatic, centerfire rifle or pistol with a fixed magazine capacity exceeding 10 rounds; a semi-automatic, centerfire rifle less than 30 inches in length; and a semi-automatic shotgun with two listed features, or the ability to accept a detachable magazine, or a revolving cylinder. New Jersey also bans semi-automatic rifles with a fixed magazine capacity exceeding 15 rounds.

¹² Like the expired federal assault weapon ban, many of the state bans also include in their generic feature definitions some features that are purely cosmetic, such as bayonet mounts and grenade launchers. Defining a firearm as an assault weapon based on such cosmetic features creates a loophole, making it possible for manufacturers to evade the ban by making cosmetic modifications to their weapons. Columbus, Ohio's assault weapon ban (*see infra* p. 25) is the best example of a ban that does not include cosmetic features in its definition of assault weapon.

¹³ In 2006 California amended its law to make possession of an assault weapon a public nuisance. Cal. Penal Code § 12282.

3. *Grandfathering:* Assault weapon bans differ in their treatment of pre-ban weapons. Each state grandfathers pre-ban weapons. However, California, Connecticut, Hawaii, Maryland and New Jersey also require registration of such weapons.¹⁴ New Jersey's law is particularly strong because only assault weapons with a legitimate target-shooting purpose may be registered (effectively requiring over 60 models, types and series of assault weapons to be transferred out of state, rendered inoperable, or surrendered to law enforcement). California, Connecticut, Hawaii, and Maryland prohibit transfer of all or most grandfathered weapons. Only California and Connecticut limit the places where a grandfathered weapon may be possessed.¹⁵ In Massachusetts and New Jersey, grandfathered weapons may only be sold and possessed if the owner has a license.

Description of State Regulations Governing Assault Weapons

1. *Maryland:* In addition to its ban on assault pistols, Maryland also regulates the sale of other assault weapons, defined to include a list of specified firearms or their copies. Assault weapons are defined as "regulated firearms" under state law, and transfers are subject to various regulations, including: requiring enhanced background checks on purchasers; requiring dealers to obtain a state license; and requiring private transfers to be processed through licensed dealers or a law enforcement agency. Additionally, purchasers: (1) must be age 21 or older; (2) are subject to a seven-day waiting period; and (3) are limited to one assault weapon in any 30-day period.¹⁶

2. *Minnesota:* Minnesota prohibits the possession of "semiautomatic military-style assault weapons" by persons under 18 years of age, as well as other prohibited persons, and imposes additional restrictions on transfers through firearms dealers.

3. *Virginia:* Virginia limits the knowing and intentional possession and transportation of certain semi-automatic "assault firearms" to citizens and permanent residents age 18 and older. These weapons may not be carried, loaded, in public places in certain cities and counties. Virginia also imposes a general ban on the importation, sale, possession and transfer of the "Striker 12" and semi-automatic folding stock shotguns of like kind, but does not refer to them as "assault firearms."

¹⁴ Registration is critical to any law that exempts pre-ban weapons. Without such a provision, it would be nearly impossible to enforce a possession ban because there would be no way to determine the date an individual acquired possession of a banned weapon.

¹⁵ California and Connecticut allow possession of a grandfathered assault weapon only at, or when being transported among: the possessor's property or workplace; the property of an expressly-consenting owner; a licensed gun dealer (for service or repair); certain target ranges; licensed shooting clubs; or an exhibition, display or education project about firearms approved by law enforcement or a recognized firearm-education entity. Cal. Penal Code § 12285(c); Conn. Gen. Stat. § 53-202d(d). California also allows possession of a grandfathered assault weapon on publicly owned land, provided it is specifically permitted by the managing authority. Cal. Penal Code § 12285(c)(6).

¹⁶ See Md. Code Ann., Pub. Safety §§ 5-101 – 5-143.

District of Columbia Regulations Governing Assault Weapons¹⁷

Although the District of Columbia does not have a specific ban on assault weapons, its handgun ban encompasses assault pistols and its machine gun ban encompasses firearms that can discharge “[s]emiautomatically, more than 12 shots without manual reloading.” Under a separate law, the District of Columbia imposes strict tort liability on manufacturers, importers and dealers of assault weapons for all direct and consequential damages that arise from injury or death due to the discharge of an assault weapon in the District (with limited exceptions).¹⁸

¹⁷ In 2007 the U.S. Court of Appeals for the District of Columbia Circuit struck down the District of Columbia’s strict laws banning most handgun possession in the District, and requiring lawfully owned firearms to be kept unloaded and disassembled or bound by a trigger lock or similar device. *Parker v. District of Columbia*, 478 F.3d 370 (D.C. Cir. 2007). The court held that the laws violate the Second Amendment, interpreting the Amendment to protect an individual right to keep and bear firearms unrelated to service in the militia. The U.S. Supreme Court granted *certiorari* on the following question: Whether the challenged provisions violate the Second Amendment rights of individuals who are not affiliated with any state-regulated militia, but who wish to keep handguns and other firearms for private use in their homes? *District of Columbia v. Heller*, 128 S. Ct. 645, 169 L. Ed. 2d 417 (2007). The Supreme Court is expected to issue its ruling in the case by June 2008.

¹⁸ D.C. Code Ann. §§ 7-2551.01 – 7-2551.03. In 2005, Congress passed and the President signed into law the Protection of Lawful Commerce in Arms Act (PLCAA). The PLCAA grants firearms dealers and others immunity from some civil lawsuits. 15 U.S.C. §§ 7901 - 7903. The Act includes, *inter alia*, the following exceptions:

- (ii) an action brought against a seller for negligent entrustment or negligence per se;
- (iii) an action in which a manufacturer or seller of a [firearm] knowingly violated a State or Federal statute applicable to the sale or marketing of the [firearm], and the violation was a proximate cause of the harm for which relief is sought, including –
 - (I) any case in which the manufacturer or seller knowingly made any false entry in, or failed to make appropriate entry in, any record required to be kept under Federal or State law with respect to the [firearm], or aided, abetted, or conspired with any person in making any false or fictitious oral or written statement with respect to any fact material to the lawfulness of the sale or other disposition of a [firearm]; or
 - (II) any case in which the manufacturer or seller aided, abetted, or conspired with any other person to sell or otherwise dispose of a [firearm], knowing, or having reasonable cause to believe, that the actual buyer of the [firearm] was prohibited from possessing or receiving a firearm or ammunition under subsection (g) or (n) of section 922 of title 18, United States Code[.]

15 U.S.C. § 7903(5)(A)(ii),(iii).

The scope of the PLCAA and its exceptions is being tested in the courts in several pending cases. In *District of Columbia v. Beretta U.S.A. Corp.*, 2008 D.C. App. LEXIS 4 (D.C. Cir. 2008), the court affirmed a judgment on the pleadings in favor of defendants (various manufacturers, importers and distributors of firearms), concluding that the District’s claims under the Assault Weapon Manufacturing Strict Liability Act were barred by the PLCAA. *See also Iletto v. Glock, Inc.*, 421 F. Supp.2d 1274 (C.D. Cal. 2006) (granting defendants’ motion for judgment on the pleadings under PLCAA). By contrast, in 2005 a federal district court denied a motion to dismiss a suit brought by the City of New York against gun manufacturers and distributors alleging a public nuisance, finding that the case was not precluded by the PLCAA. *City of New York v. Beretta U.S.A. Corp.*, 401 F. Supp.2d 244, 298 (E.D.N.Y. 2005), *appeal pending*.

SUMMARY OF SELECTED LOCAL LAWS¹⁹ BANNING ASSAULT WEAPONS

Local Laws Banning Assault Weapons²⁰

Boston	1989 Mass. Acts 596, §§ 1-7
Chicago	Chicago, Ill., Code §§ 8-24-025, 8-20-030(h)
Cleveland	Cleveland, Ohio, Code §§ 628.01 – 628.99
Columbus	Columbus, Ohio, Code §§ 2323.11(L), (M), 2323.31, 545.04(a)
New York City	New York, N.Y., Admin. Code §§ 10-301(16), 10- 303.1; New York, N.Y., Rules tit. 38, § 17-01

Boston: With some exceptions, Boston prohibits possession, transfer, purchase and display of assault weapons, large capacity magazines and ammunition belts. “Assault weapons” are defined as semi-automatic rifles with a fixed magazine with a capacity exceeding ten rounds, shotguns with a fixed magazine with a capacity exceeding six rounds, and shotguns with a revolving cylinder. The definition also includes a list of named weapons and any rifle or shotgun determined to be an assault weapon by an assault weapon roster board. In addition, any rifle or shotgun that is substantially identical to a weapon included in the definition is deemed an assault weapon. Finally, any modified semi-automatic firearm with the same make, caliber and action as a weapon included in the definition is considered an assault weapon.

Within 90 days of the date the law took effect, any individual in lawful possession of an assault weapon and a firearm identification card for the weapon was permitted to apply for a license to possess it in his or her residence. Any person denied such a license was required to dispose of the weapon within 90 days of the denial. Any person lawfully in possession of an assault weapon obtained by bequest or intestate succession or recently added to the assault weapon roster has 90 days to apply for a license or dispose of the weapon.

Chicago: Chicago prohibits persons from selling, offering or displaying for sale, giving, lending, transferring, possessing or acquiring an assault weapon or “assault ammunition.”²¹ “Assault weapon” is defined to include a list of named weapons, and also includes any weapon that the Superintendent of Police defines as such by regulation. Chicago does not grandfather pre-ban assault weapons.

Cleveland: Cleveland prohibits any person from selling, offering or displaying for sale, giving, lending or transferring ownership of, acquiring or possessing any assault weapon. “Assault

¹⁹ This section is based on research and analysis of existing firearms laws in: Boston, Massachusetts; Chicago, Illinois; Hartford, Connecticut; Los Angeles, California; Newark, New Jersey; New York, New York; Omaha, Nebraska; and San Francisco, California. LCAV selected these cities because they are located in states that grant local jurisdictions broad authority to regulate firearms. It also includes existing laws in Cleveland and Columbus, Ohio. Note, however, that in 2006, the Ohio Legislature passed House Bill 347 (overriding the Governor’s veto), which created Ohio Rev. Code Ann. § 9.68(A), a provision that purports to preempt all local authority to regulate firearms with few, limited exceptions. Legal challenges to the law are pending. Additional information about state laws governing local authority to regulate firearms is contained in the section of this report titled “The Legal Background.”

²⁰ Los Angeles passed the country’s first ban on assault weapons in February 1989. That law prohibited the transfer and possession of assault weapons within the city. San Francisco also banned the possession, sale and transfer of assault weapons. Later that year, California became the first state to ban assault weapons and both Los Angeles and San Francisco subsequently repealed their laws.

²¹ Chicago defines “assault ammunition” as any ammunition magazine with a capacity of more than 12 rounds of ammunition.

weapons” are defined as semiautomatic rifles and handguns that accept a detachable magazine with a capacity of 20 rounds or more, and semiautomatic shotguns with a magazine capacity of more than six rounds. Cleveland does not grandfather pre-ban weapons.

Columbus: In 2005, Columbus, Ohio became the first major U.S. city to ban assault weapons after the expiration of the federal ban. Columbus prohibits any person from knowingly selling, offering or displaying for sale, giving, lending or transferring ownership of, or acquiring or possessing any assault weapon. “Assault weapons” are defined using a one-feature test for semi-automatic rifles and pistols, and a two-feature test for semi-automatic shotguns.²² In addition, the city defines as “assault weapons” semi-automatic pistols with fixed magazines, and centerfire rifles with fixed magazines, that have the capacity to accept more than 10 rounds of ammunition, and revolving cylinder shotguns. Columbus grandfathers pre-ban assault weapons provided they are registered. The owner of a registered assault weapon may not sell, give, lend or transfer ownership of that weapon.

New York City: New York City prohibits possession or transfer of any assault weapon. “Assault weapon” is defined to include any semiautomatic centerfire or rimfire rifle or semiautomatic shotgun with one or more of a list of specified features. The definition also includes features and/or models of firearms that are “particularly suitable for military and not sporting purposes” as determined by the police commissioner. The city’s rules contain a list of named weapons that also are included in the definition of assault weapon. New York City does not grandfather pre-ban weapons.²³

FEATURES OF COMPREHENSIVE LAW BANNING ASSAULT WEAPONS

The features listed below are intended to provide a framework from which policy options may be considered and debated. LCAV has not attempted to include every provision or every creative approach identified in the analysis above, nor have we addressed appropriate exceptions so that the regulation does not produce unintended consequences. A jurisdiction considering modifying existing, or developing new legislation in this area should consult with counsel to ensure its legal sufficiency and compatibility with existing codes and statutes, as appropriate.

- Definition of assault weapon is based on the generic features that characterize assault weapons (*California, New Jersey and Columbus have the most comprehensive definitions*)
- Definition of assault weapon is based on a one-feature test (*New Jersey uses a one-feature test for shotguns; California and Columbus use a one-feature test for rifles and pistols; New York City uses a one-feature test for rifles and shotguns*)
- Although a generic feature test is the most comprehensive approach, if the law also includes a list of banned weapons by name, it provides a mechanism authorizing an

²² Columbus’ definition of assault weapons is derived in large part from LCAV’s model law banning assault weapons, which is contained in LCAV’s April 2004 report (reprinted August 2005), *Banning Assault Weapons – A Legal Primer for State and Local Action*, available at http://www.lcav.org/library/reports_analyses/assaultweaponreport.asp. LCAV’s model law uses a one-feature test for shotguns as well as rifles and pistols.

²³ In addition to criminal penalties, any person who violates the city’s ban on assault weapons is subject to a civil penalty of up to \$25,000 for each assault weapon possessed or transferred. Such penalty is recoverable in a civil action by the city’s corporation counsel. New York, N.Y., Admin. Code § 10-303.1(c).

appropriate governmental official or agency to add new and/or modified models to the list (*Chicago, New York City*)

- Prohibited activities include possession, sale, purchase, transfer, loan, pledge, transportation, distribution, importation, and manufacture of assault weapons (*California, Connecticut and New Jersey have the broadest prohibitions*)
- Pre-ban weapons are not grandfathered and instead are to be rendered inoperable or removed from the jurisdiction (*Chicago, Cleveland, New York City*)
- Alternatively, if pre-ban weapons are grandfathered, there is a registration mechanism for grandfathered weapons, with strict limits on their transferability, use and storage²⁴ (*California, Connecticut, Hawaii, Maryland, New Jersey, Boston, Columbus*)

²⁴ See section on Registration of Firearms for features of comprehensive registration laws. The most comprehensive system of regulating the purchase, possession and ownership of firearms combines registration of firearms with licensing of gun owners. Additional information on licensing of firearm owners is contained in the section on Licensing of Gun Owners or Purchasers.

EXHIBIT 23

UNITED STATES DISTRICT COURT
DISTRICT OF CONNECTICUT

JUNE SHEW, et al.	:	NO. 3:13-CV-0739 (AVC)
<i>Plaintiffs,</i>	:	
	:	
v.	:	
	:	
DANNEL P. MALLOY, et al.	:	
<i>Defendants.</i>	:	SEPTEMBER 25, 2013

AFFIDAVIT OF JAMES C. ROVELLA

James Rovella having been duly sworn, testifies and affirms as follows:

I am over eighteen years of age and understand the obligations of an oath.

1. I am the Chief of Police of the City of Hartford. I was sworn in as Hartford's 22nd Chief of Police on September 26, 2012. Prior to my swearing in, I served as Interim Chief from February 14, 2012.
2. I first joined the City of Hartford Police Department (HPD) as a recruit in 1981. My first assignments as a new police officer were to walk the beat on Barbour Street and Park Street, and patrol Charter Oak Terrace. In 1987, I became a detective in HPD's "Crimes Against Persons Unit", where I began specializing in homicide and cold case investigations.
3. In 2001, I retired from the HPD and began working as an Inspector with the State of Connecticut Division of Criminal Justice. I was promoted to Supervisory Inspector of the Chief State's Attorney's Office Cold Case Unit in 2006, and in 2009 I was appointed Chief Inspector for the Office of the Chief State's Attorney.
4. During my professional career, I have been recognized for my work as a police officer. I received the highest departmental award in HPD, the Chief's Medal of Heroism, and numerous letters of commendation and medals for Exemplary, Meritorious and Distinguished Service. I am a member of the Connecticut Chiefs of Police Association, FBI's Law Enforcement Executive Development Association (LEEDA), the International Association of Chiefs of Police (IACP), and the Police Executive Research Forum (PERF).
5. I currently live in the City of Hartford and my family has a long history in Hartford; my grandparents owned and operated the Travelers Market on Front Street and a meat

market on New Britain Avenue in Hartford's Southend. I was also educated in Hartford. I graduated from South Catholic High School in Hartford's Southend in 1976. I then went on to obtain a Bachelor of Arts degree in Criminal Justice and a Master's Degree in Public Administration from the University of Hartford in 1980 and 1982 respectively.

6. I make this declaration based on my personal knowledge from 32 years as a law enforcement officer, my review of portions of the "Gun Violence Prevention and Children's Safety Act", Public Act 13-3, as amended by Public Act 13-220, ("the Act") that pertain to firearms and large capacity magazines, records maintained by the Hartford Police Department and my knowledge of law enforcement safety issues from across the nation.
7. After reviewing the provisions of the Act related to firearms and large capacity magazines, I have concluded that it will help in the fight against gun violence, murder and personal injury that is such a serious and debilitating problem in Hartford. I believe the Act is a common sense and sensible gun control law that will improve public and law enforcement safety by removing large capacity magazines (LCMs) and military style firearms from our communities.
8. Like many of my fellow Chiefs of Police, I believe assault weapons and LCMs pose a real and serious threat to the public and law enforcement, and are not necessary, or even suitable, for reasonable home and self defense by civilians.
9. I have worked in law enforcement for 32 years, and most of my career has been working to prevent and investigate violent crime. I have witnessed firsthand the devastation that violent crime, and in particular gun crime, inflicts on our cities in Connecticut. Gun violence is a serious problem everywhere, but in my experience it is chronic and especially destructive in urban areas like Hartford. Hartford, like many urban communities, is more densely populated; its citizens are poorer and are therefore more easily and frequently victimized by gun violence.
10. In Connecticut, approximately 70% of the violent crime occurs in cities and many of those violent crimes involve guns. Guns are one of the few stolen items that actually increase in value after they are stolen. A gun stolen from a home in Simsbury can appear on the streets of Hartford and quickly be sold at a greater than market value and used in crime all in the same day.
11. The HPD has seized over 1700 firearms in just the last 5 years alone, and the number is over 2100 if one includes guns recovered through gun-by-back programs. (Exhibit 25, p. 5). In 2012, Hartford had its lowest number of gun shot victimizations in the past five years - 122 people. (Ex. 25, p. 10). I am working hard to continue this is downward trend.
12. Because gun violence is such an intractable and devastating problem in Hartford, I support any common sense gun regulation that strengthens registration and

background checks and helps law enforcement in our struggle to remove the most lethal form of firearms sold on the commercial market from our streets.

13. Assault weapons have been used in, or been present at, crimes committed in Hartford. As part of the preparation of my affidavit in this case, I directed my staff to inspect the Property Room at HPD headquarters and gather information about seizures of assault weapons since 2008. That information is contained in the table attached as Exhibit 24. I was surprised to learn that we had twenty-three assault rifles in our property room. Exhibit 24 shows from 2008 to 2012, the HPD seized at least an average of four assault weapons each year. I wish my department had more resources to carefully track data on every gun or magazine seized or found at a crime scene, but the information we do have, even though incomplete, demonstrates the presence of these dangerous weapons in my city.
14. Assault rifles and assault pistols are a serious threat to law enforcement on several different levels, and for that reason consume significant law enforcement resources. While most officers and police departments are not regularly confronted with situations involving assault weapons, and thankfully most will never experience the horror of having to respond to a mass shooting incident, it is something that all police departments, including mine, train for all the time. We also spend valuable public money to purchase things like body armor and our own assault rifles because we know our officers might face a shooter with a military style assault weapon.
15. Every day I am concerned that one of my officers or one of the citizens of Hartford will be faced with an assailant who possesses one of these military style weapons or LCMs. These weapons have the potential to transform even a routine police interaction into a deadly incident.
16. Assault weapons have been used to kill police and other law enforcement. There are several well-known incidents, both here in Connecticut and elsewhere in the country, in which assault weapons and large capacity magazines were used in shootings of law enforcement. (See e.g. Exhibit 40, *VPC Officer Down*). In fact, some of the high profile incidents in which law enforcement officers were shot with assault weapons brought about the escalation in weaponry and fire power that law enforcement are now required to carry to keep pace with the most heavily armed violent criminals.
17. Gun attacks on law enforcement with assault weapons and LCMs are more dangerous for law enforcement than gun shot incidents with conventional weapons and magazines because assault weapons with LCMs allow a shooter to engage law enforcement with suppressing fire and effectively hold-off and overwhelm an initial law enforcement response.
18. In North Hollywood, California in 1997, two shooters wearing full body armor, fired approximately 1,100 rounds from automatic and semiautomatic weapons, with LCMs. They wounded 11 police officers and seven civilians. Approximately 300 law enforcement officers ultimately responded to the scene before the shoot-out ended.

19. In another high-profile shootout in April 1986, two agents from the Federal Bureau of Investigation (FBI) were killed by bank robbery suspects wielding a Ruger Mini-14 assault rifle. Five other federal agents were wounded in the gun battle.
20. As recently as December 2012, a week after the mass killing of children and educators in Newtown, two first responders were gunned down in Webster, New York by a shooter who also used an assault rifle.
21. These are just a few of the more high profile and well known incidents involving assault weapons and LCMs in which law enforcement officers were shot or fired upon. It is not an exhaustive list, and I am sure there are other examples where officers were shot, shot at, or seriously feared for their lives because a person had an assault weapon. Many of those incidents are probably never reported and identified as involving assault weapons.
22. Information about the criminal use of assault weapons is not always accurately and completely compiled by law enforcement, perhaps due to constraints on law enforcement resources and because with the expiration of the federal ban on assault weapons the uniform, nationwide definition of assault weapons also expired. However, the studies that examine the offensive use of assault weapons and large capacity magazines against law enforcement officers indicate that many officers have been killed by them.
23. In one study prepared by the Violence Policy Center, using data obtained from the Federal Bureau of Investigation, the VPC showed that at least 41 of the 211 law enforcement officers slain in the line of duty between January 1, 1998, and December 31, 2001, were killed with weapons defined as assault weapons under the federal ban. (Exhibit 40). This twenty percent (20%) figure is a remarkable number, given that these types of semi-automatic weapons made up only less than 1% of the firearms owned in 1994. (Exhibit 26, Koper Aff. ¶¶ 17, 47).
24. Prohibiting civilian access to assault weapons and large capacity magazines assists law enforcement because it helps to ensure law enforcement has the greater fire power in confrontations with criminals. If law enforcement officers cannot overpower a shooter, then they simply cannot protect the public. Law enforcement officers should not be engaged in a perpetual “arms race” with criminals, and need greater assurance that we will not have to confront military weapons when we respond to a call.
25. While Connecticut has had an assault weapons ban since the enactment of Public Act 93-306, which became effective in 1994, Connecticut law did not prohibit the possession of LCMs until the passage of the 2013 Act. I welcome this addition to Connecticut’s gun regulation because it makes sense.

26. I would actually favor enactment of a more stringent LCM ban than what is in the Act. My preferred approach would be to prohibit all LCMs immediately and not allow them to be possessed under a "grandfathering" provision. This would allow us to gain the full benefit of the Act sooner without having to wait for the old LCMs to be removed from circulation over time.
27. Large capacity magazines, some of which routinely hold as many as 20 or 30 rounds and even more, are a plague in urban environments and are dangerous to our citizens and law enforcement. LCMs allow a shooter to fire a massive number of rounds without having to take the time to reload. For example, in the mass killing that occurred in Newtown on December 14, 2012, it has been reported, although not yet confirmed by a State Police report, that the shooter fired approximately 154 rounds in about five minutes.
28. My staff was not able to gather detailed data about the use of LCMs in Hartford because magazines do not have serial numbers and simply are not tracked in our system.
29. Limiting the number of rounds in a magazine means that a shooter intent on spraying bullets at least has to pause periodically to change out his magazine. While a trained shooter can change a magazine in seconds in a controlled environment, the stress of the situation may substantially increase the time it takes a criminal to change the magazine during a criminal attack. In any event, sometimes seconds is all a police officer needs to respond and stop the attack. The short period of time required for a magazine change can be of value to victims too, because those fleeting seconds can provide an opportunity for him or her to either flee the area or attempt to thwart any ongoing gun attack.
30. In a mass shooting on the Long Island Railroad in 1993, victims on the railroad car were able to subdue the shooter when his magazine ran out. (Exhibit 49). In 2011, in the shooting in Tucson, Arizona in which Congresswoman Gabrielle Giffords was shot and a federal judge was killed along with several others, the shooter was tackled during a brief pause for a magazine change. (Exhibit 49)
31. In my opinion, the only situations where more than ten rounds are legitimately fired are in war, by law enforcement attempting to end a confrontation with a criminal or in a controlled environment at a shooting range or a shooting competition.
32. I understand that Plaintiffs contend that they have a need to possess a LCM but I strongly disagree. In my 32 years in law enforcement I am not aware of a single incident in Hartford, or even Connecticut, in which a responsible gun owner fired more than ten rounds for protection during a criminal attack.
33. I understand that the Act, in addition to listing specific weapons that are banned, also prohibits firearms that have one of the military style features listed for semiautomatic centerfire rifles, semiautomatic pistols and semiautomatic shotguns. I believe the

Act's strengthening of the law, by moving from a "two feature test" to a "one feature test" will advance public safety and help to combat the circumvention of the law by gun manufacturers who quickly modify minor aspects of their assault weapons and change the names of the firearm so that they can continue to sell virtually the same weapon in Connecticut. In addition to avoiding circumvention of the law, the features test bans features that contribute to the dangerousness of assault weapons. These features were designed for combat situations and have no place in civilian life.

34. For example, a folding or telescoping stock on a rifle or shotgun allows a shooter to make a large and powerful weapon much more compact, and therefore more concealable. This is a real danger for the citizens of Hartford and for my officers. My department frequently encounters situations where criminals wear bulky clothing like heavy sweatshirts in order to hide large and small firearms.
35. Pistol grips, thumbhole stocks and forward pistol grips for the nontrigger hand are military style features that allow the weapon to be held by the shooter in a stronger hand position that allows a shooter to hold the weapon steady and remain on target during rapid firing of the weapon. It helps the shooter to move quickly from human target to human target, purposes that are suitable for military uses but not civilian. The pistol grips and thumbhole stocks also allow a shooter to spray fire from the hip.
36. A barrel shroud disperses the heat generated by the weapon when it is fired. During rapid firing of the weapon, this feature allows a shooter to steady the weapon with a hand on or near the barrel without being burned.
37. A flash suppressor suppresses the flash caused by the firing of the weapon and helps a shooter hide from police in a dark environment. This may be an important feature in combat, but it is unnecessary for legitimate hunting or sporting purposes. The flash suppressor also helps a shooter quickly focus on his next human target.
38. A grenade launcher or flare launcher allows a shooter to launch grenades or flares, two functions that have no legitimate sporting, civilian or self-defense purpose. A silencer is useful to assassins but clearly has no purpose for sportsmen.
39. I understand that Plaintiffs claim in this case that they need assault weapons and LCMs in order to adequately defend themselves and their families in the event of a home invasion. Assault rifles in particular are not well suited for self defense in the home in an urban environment like Hartford because they typically take a .223 caliber round, which could easily pass through the walls of many dwellings and result in shooting of unintended victims such as family members, passers-by or neighbors.
40. The idea of average citizens keeping weapons of this lethality and power in their homes for routine home defense really concerns me, especially when combined with a LCM. The typical homeowner has little training in weapons; in many instances just the National Rifle Association (NRA) course that is taken to qualify for a gun permit in Connecticut. This type of training does not prepare a homeowner for the stress of a

gun confrontation. I would fear that a home owner would use the weapon recklessly in a stressful situation such as a home invasion and would respond disproportionately by firing off excessive rounds. This could result in serious personal injury to innocent bystanders and first responders. These are weapons for war zones, not the homes and streets of our communities.

41. I understand that the Plaintiffs also claim that they need LCMs for home defense. The only reason that a citizen would be disadvantaged by having to change out a magazine would be if she was engaged in rapid fire of her weapon. This is simply not an appropriate thing to do in home defense, particularly in an urban area.
42. Aside from assault weapons, the Act leaves almost all other types of guns, including handguns, rifles and shotguns, available to the public to use for self defense. Notably, it does not ban the sale, or require the registration of, semiautomatic rifles with detachable magazines that have no banned features.
43. If Plaintiffs are concerned about being able to actually hit an intruder in their home, it seems to me that a shotgun would be an appropriate weapon for home defense because it would spray a lot of pellets, and almost invariably hit the intruder while at the same time causing minimal collateral damage.
44. Even law enforcement officers hold back on the firepower that they use in dangerous environments and often load their rifles and shotguns with less powerful ammunition in an effort to minimize the chance of harming unintended victims. For example, HPD narcotics officers, who are often in very dangerous and uncertain situations, are trained to approach situations in urban environments with escalating firepower. When entering an area such as a multi-family dwelling, playground, or street, the first officer in line might carry a shotgun in which the first shell is standard shot, the second shell is buckshot, and the third shell is a deer slug. In all situations, a tremendous amount of thought and preparation goes into deciding whether to use certain ammunition in a particular physical environment.
45. The Act allows law enforcement and security personnel to continue to lawfully purchase assault weapons and large capacity magazines. These exemptions serve a vital public interest in ensuring that law enforcement are permitted to personally purchase and use these weapons on duty and off duty when needed. In my view law enforcement officers are never really "off duty" because they have sworn an oath that commands them to act. In Hartford, we often give our officers portable radios to keep with them off duty so that they can respond to radio calls for assistance on the police frequency. Officers' response to crime while off duty serves the public's interest.
46. Plaintiffs' claims that they have the same needs as law enforcement to possess these weapons and LCMs are not reasonable. Plaintiffs are not like law enforcement, even "off duty" law enforcement, because they do not have the professional obligation to respond to an emergency situation, to provide back up to on duty police officers, or to

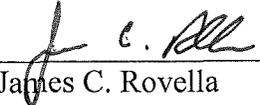
interrupt crimes whenever safe and practicable. They also have little to no tactical training on how to appropriately and responsibly use assault weapons in high stress situations.

47. I am aware of several incidents in which off duty Hartford police either helped a citizen in an emergency situation, helped to stop a crime in progress, or helped a fellow officer in responding to a crime scene.
48. Moreover, many officers own and possess assault weapons so that they can use them on the job. While the arms race with criminals has escalated over the past decades, the funding for police departments has not pace. Many officers spend their own money to purchase these weapons in order to have them available while on duty because police departments lack the funding to buy one for each officer who would like to carry one on duty.
49. The exemption in the Act allows the officers to own and possess their own assault rifle that they may then use on duty if they “qualify” on them and are trained on how to use them appropriately.
50. Law enforcement officers are also different from Plaintiffs because they are often the target of threats and violence, even while off duty. Law enforcement face risks even while off duty that average citizens, including Plaintiffs, likely do not. I doubt Plaintiffs regularly deal with multiple criminals during the regular course of their work day and then go home to face the risk of encountering them while off duty.
51. I understand that Plaintiffs claim that the Act does not advance any crime prevention goals. I strongly disagree with their position.
52. I know from firsthand experience as a police officer what works in reducing gun violence, and this law will help. In the past year, we have successfully reduced gun violence in Hartford by 30%. We have done this by centering on illegal use of firearms, illegal carry of firearms, illegal display of firearms, and the threatening use of firearms. We have also focused on the use of firearms in minor assaults and property damage.
53. In my experience there is no “one-size-fits all” solution to gun violence, and success is often the product of incremental steps that in the aggregate make a meaningful difference. I know from my review of the documents in this case that Plaintiffs dismiss the significance of the data showing assault weapons are only used in between 2% and 8% of gun crimes. While those percentages may be small, they represent a substantial number of crimes each year. If the Act can reduce the lethality of gun crimes because those weapons are no longer used, that will be significant. That reduction would mean lives saved, families preserved, and public resources that will be freed up to be used in better ways. Any Chief of Police I know, including myself, would welcome any policy initiative that could eliminate the weapons used in up to 8% of gun crime.

54. Removing these dangerous weapons and magazines from our streets also will aid law enforcement because it will decrease the level of anxiety and concern about them. I am glad that Connecticut has taken steps to prevent the escalation of weapons on our streets so that we will hopefully never have a time when officers routinely have to confront military assault rifles and assault pistols.
55. Gun violence imposes massive societal costs. When victims are killed there are huge unquantifiable costs to families and loved ones. Sadly, death is sometimes the least expensive outcome, in terms of pure financial costs to loved ones and society. In Hartford, where many of the victims of gun violence are very poor, sustaining a gun wound, even a non-life-threatening one, can impose massive costs in terms of medical care, rehabilitation, and lost income. These costs frequently are passed on to taxpayers and other citizens who have to pay for the care given to gun shot victims. As a result we all wait longer in hospitals and for other health services, like ambulances, because health care institutions are overwhelmed.
56. Any law that can minimize the number of shots fired from a weapon, the number of gun wounds sustained by a victim and decrease the lethality of the weapon would save a tremendous amount of public resources that can go to much better uses such as funding our public education, and repairing and rebuilding our cities.
57. I understand that Plaintiffs claim that the Act is unconstitutional because it is too vague to be understood. I am not an expert on all of the details of the Act and I am not expert on all the gun laws of the State of Connecticut but I can speak to the practical experience of how the pre-existing assault weapons ban has been enforced in my jurisdiction.
58. In my experience enforcing Connecticut's assault weapons ban for twenty years, police officers, when in doubt, ask questions before making any arrests. Officers do not arrest people immediately, but instead take reasonable steps to determine whether the weapon is covered by the ban. They might call the state police SLFU to inquire about a make and model, or call headquarters or maybe even someone in the department that she or he knows is more knowledgeable about firearms.
59. Police officers frequently enforce statutes that can be somewhat complicated, and that require citizens to undertake some effort to determine whether their conduct is prohibited. This Act does not appear to present more issues than other regulatory schemes we enforce every day.

The foregoing is true and accurate to the best of my knowledge and belief.

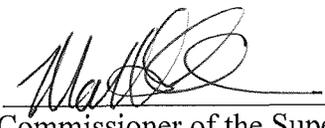
FURTHER AFFIANT SAYTH NOT.



James C. Rovella

STATE OF CONNECTICUT)
)ss: Hartford, Connecticut
COUNTY OF HARTFORD)

Subscribed and sworn to before me, this 25 th day of September, 2013.



Commissioner of the Superior Court

CERTIFICATION

I hereby certify that on this 11th day of October, 2013, a copy of the foregoing Affidavit of James Rovella was filed electronically. Notice of this filing will be 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.

Maura Murphy Osborne
Assistant Attorney General

EXHIBIT 24

Case #	Caliber	Make	Serial	Model
08-08727	5.45X39MM	ROMARM / CUGIR	2-15191-05	WASR-Z
08-23024	9 MM	INTRATEC	A008392	AB-10
08-28758	223 CAL	KELTEC	N225*	US16
08-35090	9 MM	INTRATEC	05729	TEC-9
08-35090	9 MM	INTRATEC	A007719	AB10
09-25620	9	BERETTA	CX02244	CX4 STORM
09-26725	223 CAL	OLYMPIC ARMS	SA4695	PCR98
10-21404	223 CAL	COLT	LH077628	SPORTER
10-27853	22 CAL	INTRATEC	027689	TEC-22
10-31569	9 MM	INTRATEC	115978	TEC-9
10-46499	762 CAL	POLYTECHNOLOGIES	10845	AK47
10-46499	223 cal	COLT	SL010839	AR15
10-46635	9 MM	IWI (ISREAL Weapon industry)	4822	UZI
10-5038	45 CAL	THOMPSON MACHINE GUN	318365	M1A
11-14399	9 MM	INTRATEC	A017612	AB10
11-29948	223 CAL	BUSHMASTER	L244060	SHORTY
11-44369	223 CAL	IZHMASH	H09164862T	SAIGA
12-12966	22 CAL	COLT	OBLITERATED	MATCH TARGET
12-5393	9 MM	INTRATEC	OBLITERATED	AB10
12-853	90 CAL	NORINCO	9385592	MAK90
13-20119	22 CAL	ARMS CORP	OBLIT	AK47/22
13-4142	223 CAL	IZHMASH	H06168128	SAIGA
13-4857		BUSHMASTER	L399065	AR 15

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EXHIBIT 25

Hartford Police Department

2012 Year End Report



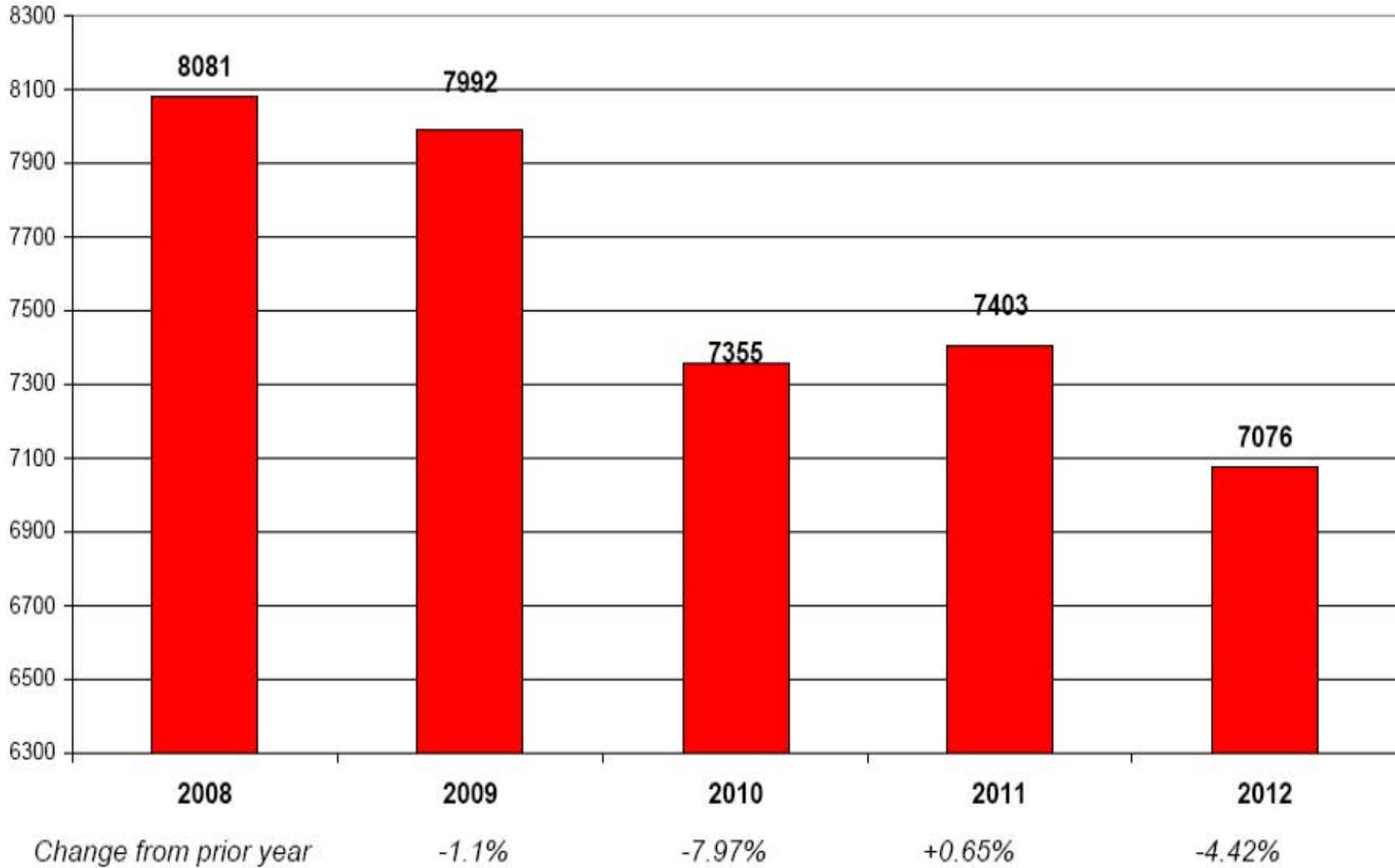
Serving the Capital City

CITY OF HARTFORD POLICE DEPARTMENT – JAMES C. ROVELLA, CHIEF OF POLICE

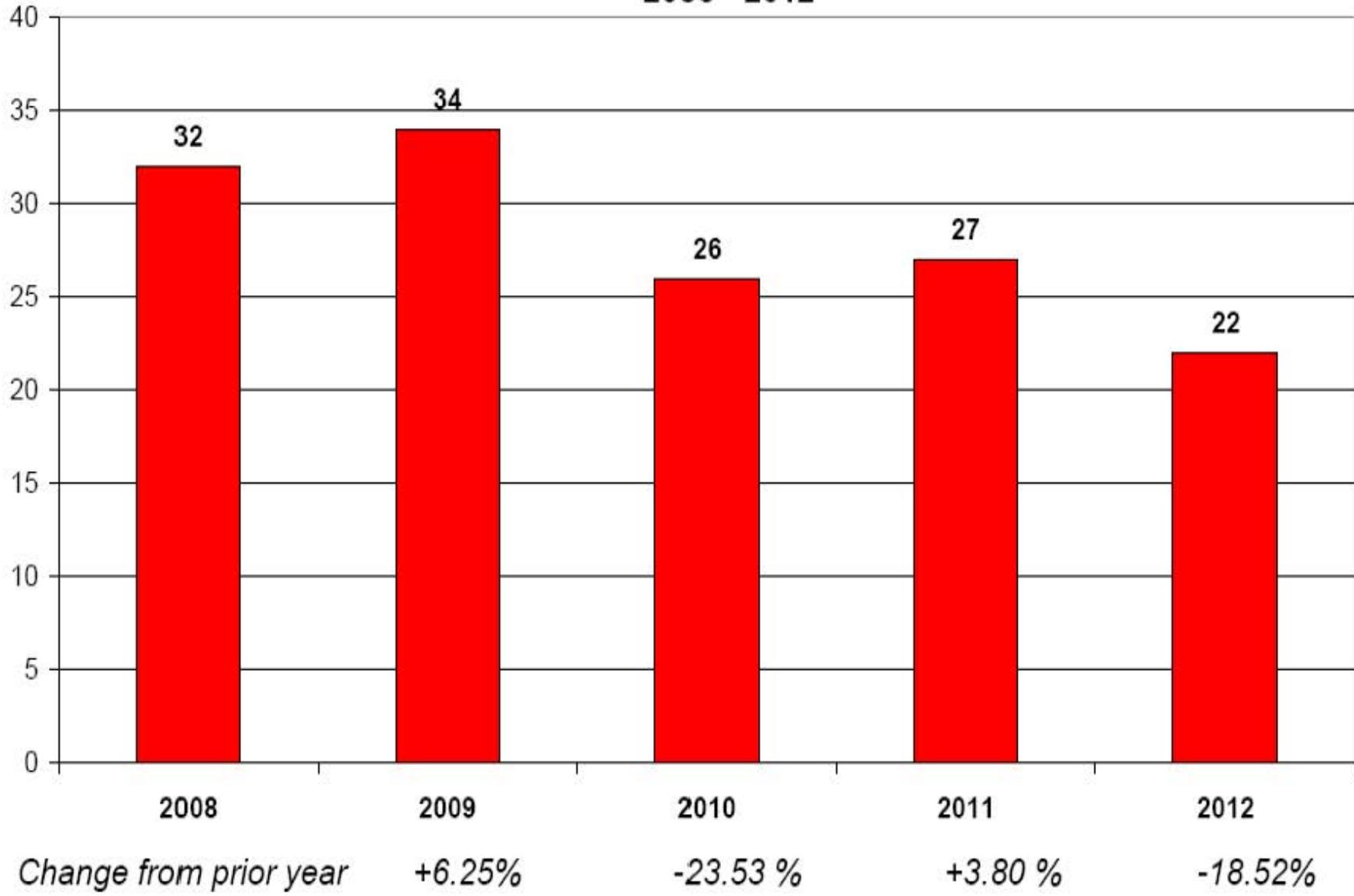
Notable Statistics

- All time low for Part 1 Crimes for the City of Hartford
- Lowest Homicide rate since 2004
- Aggravated Assault -9.8% from previous year
- Burglary -17.6% from previous year
- Record low in Auto Thefts
- Gun Buy Back Numbers Continue to Grow

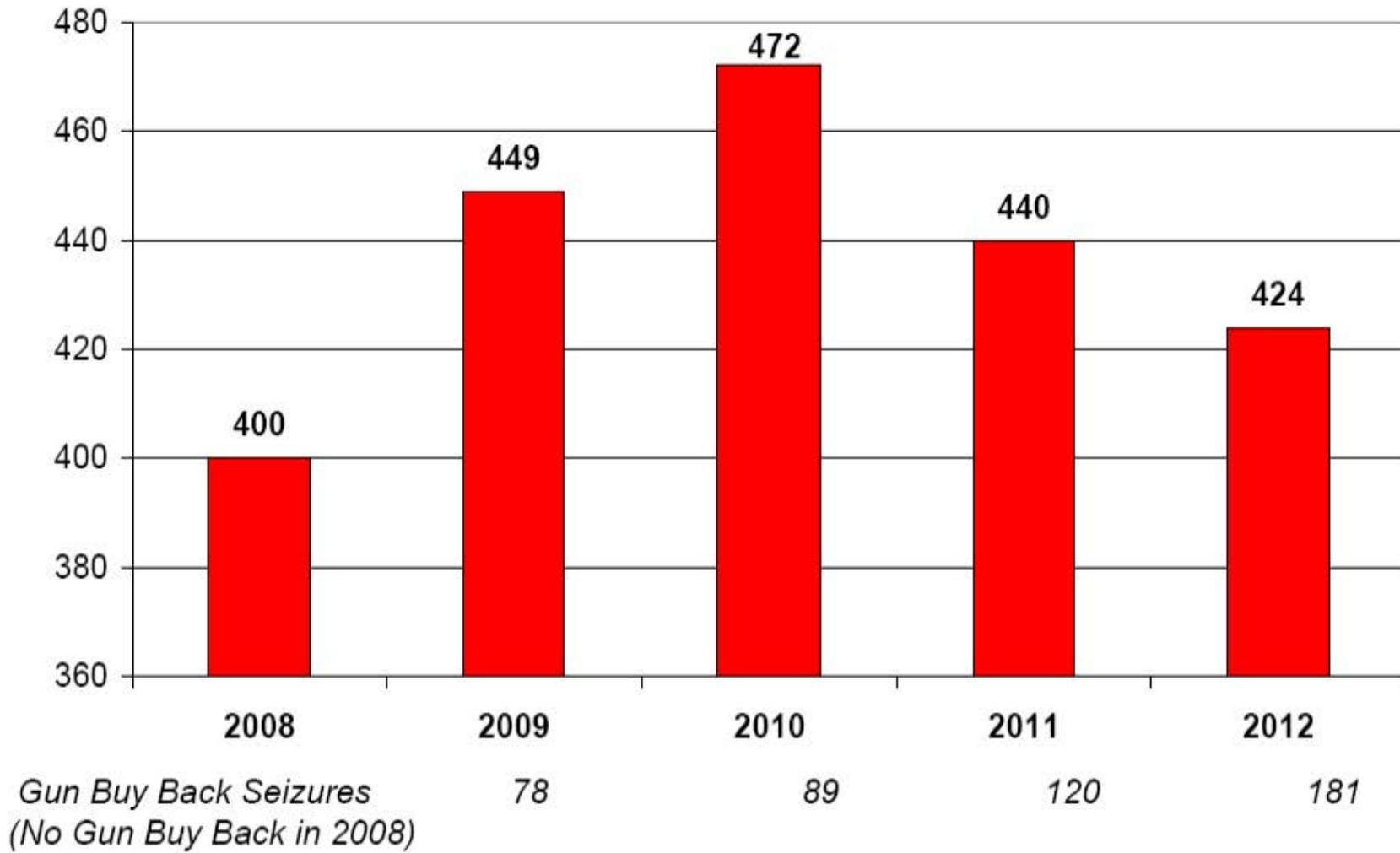
City of Hartford Part 1 Crimes Past 5 Years 2008 - 2012



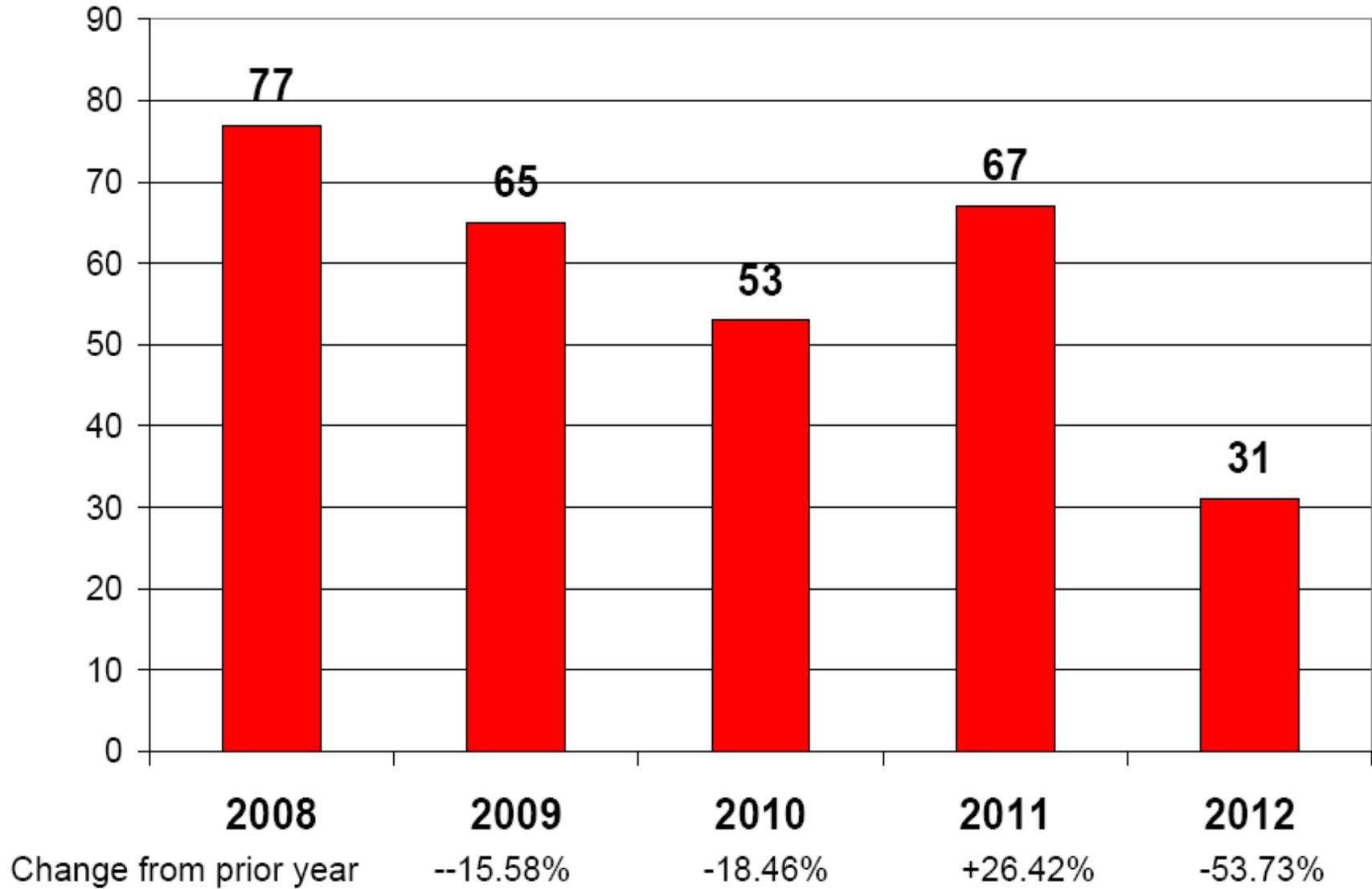
City of Hartford Homicides Past 5 Years 2008 - 2012



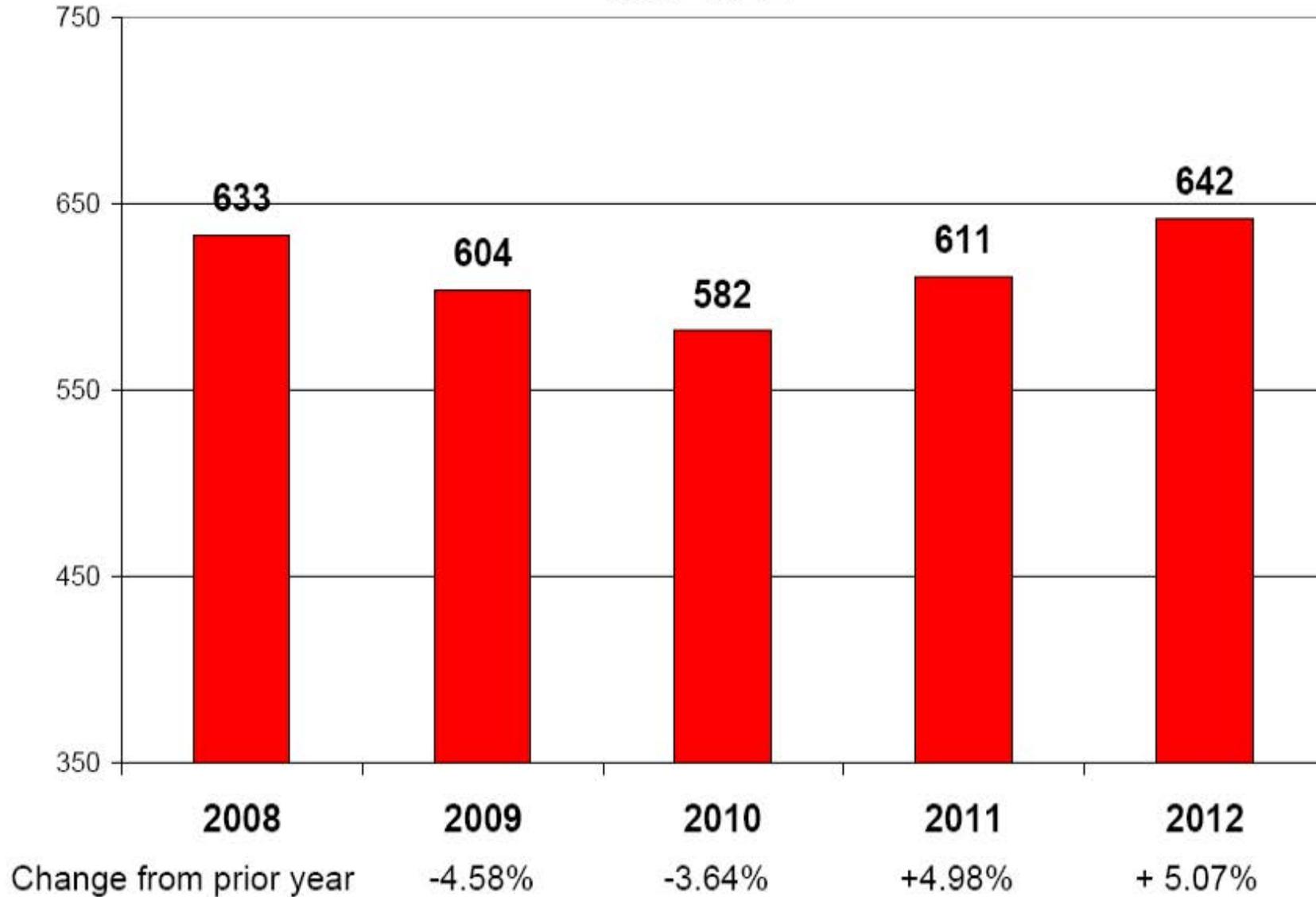
**City of Hartford
Firearms Seized Past 5 Years
2008 - 2012**



City of Hartford Rape Past 5 Years 2008 - 2012



City of Hartford Robberies Past 5 Years 2008 - 2012

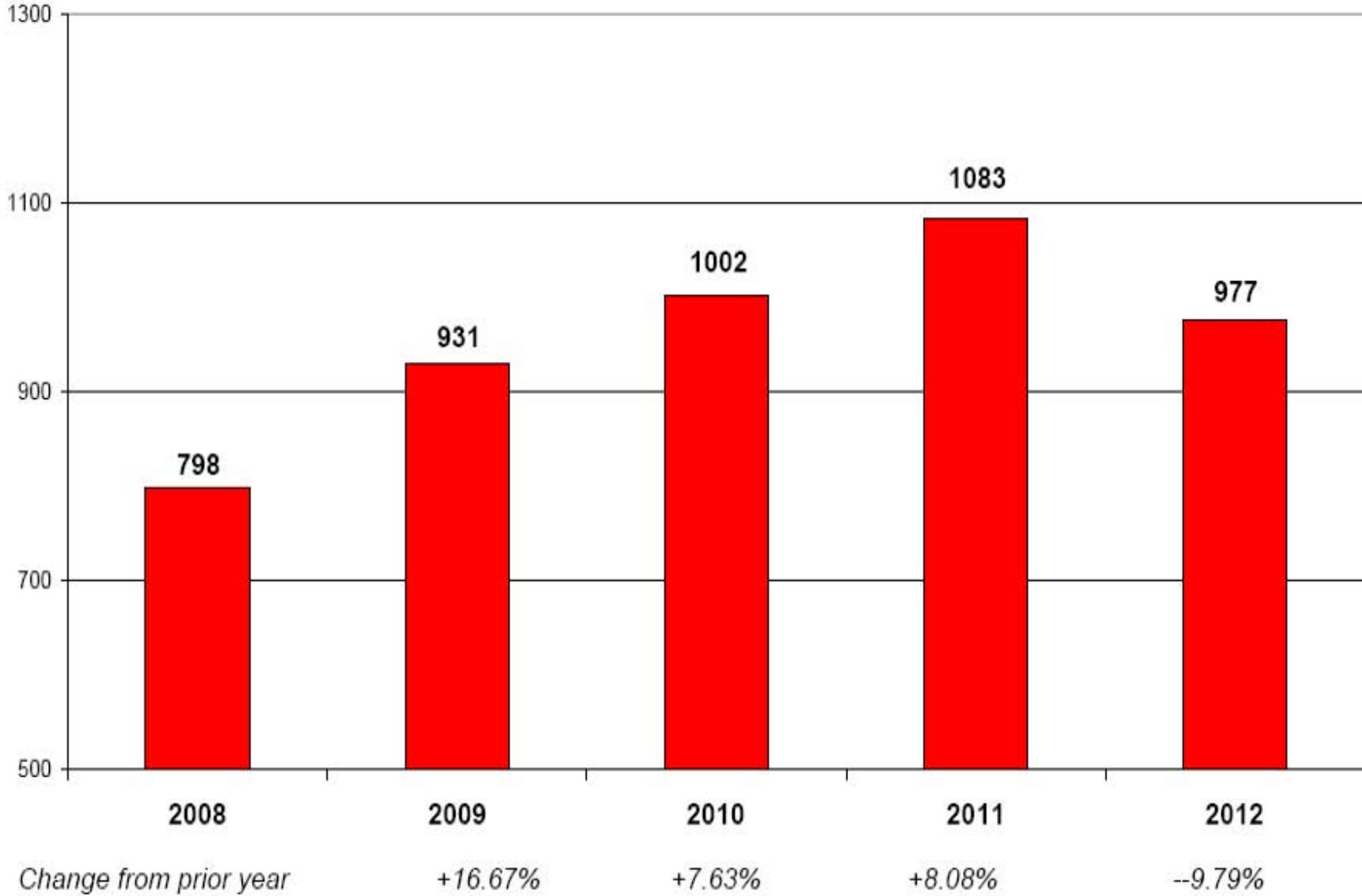


Notable Statistics

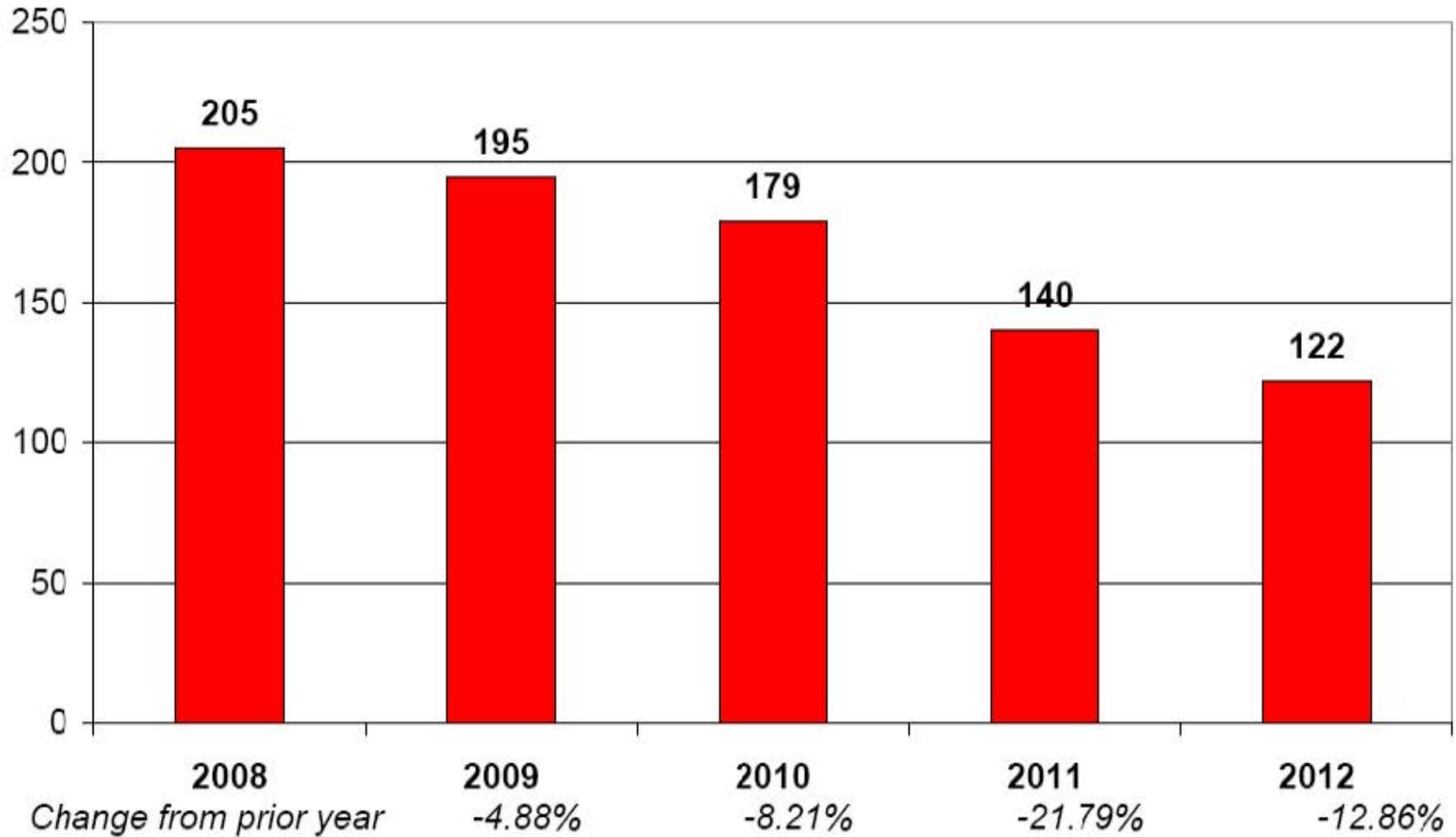
Total Persons Struck by Gun Fire -12.2%

- North East District Violent Crime Down
 - North East Homicides -35.7%
 - North East Persons Struck by Gun Fire -32.2%
- Robbery Arrests Increased 3.1%
 - North West Robbery Arrests Increased 83.3%
- Larceny Arrests Increased 1.4%
 - North West Larceny Arrests Increased 46.8%
 - North West Burglary Arrests Increased 51.7%
 - South East Auto Theft Arrests increased 45.5%

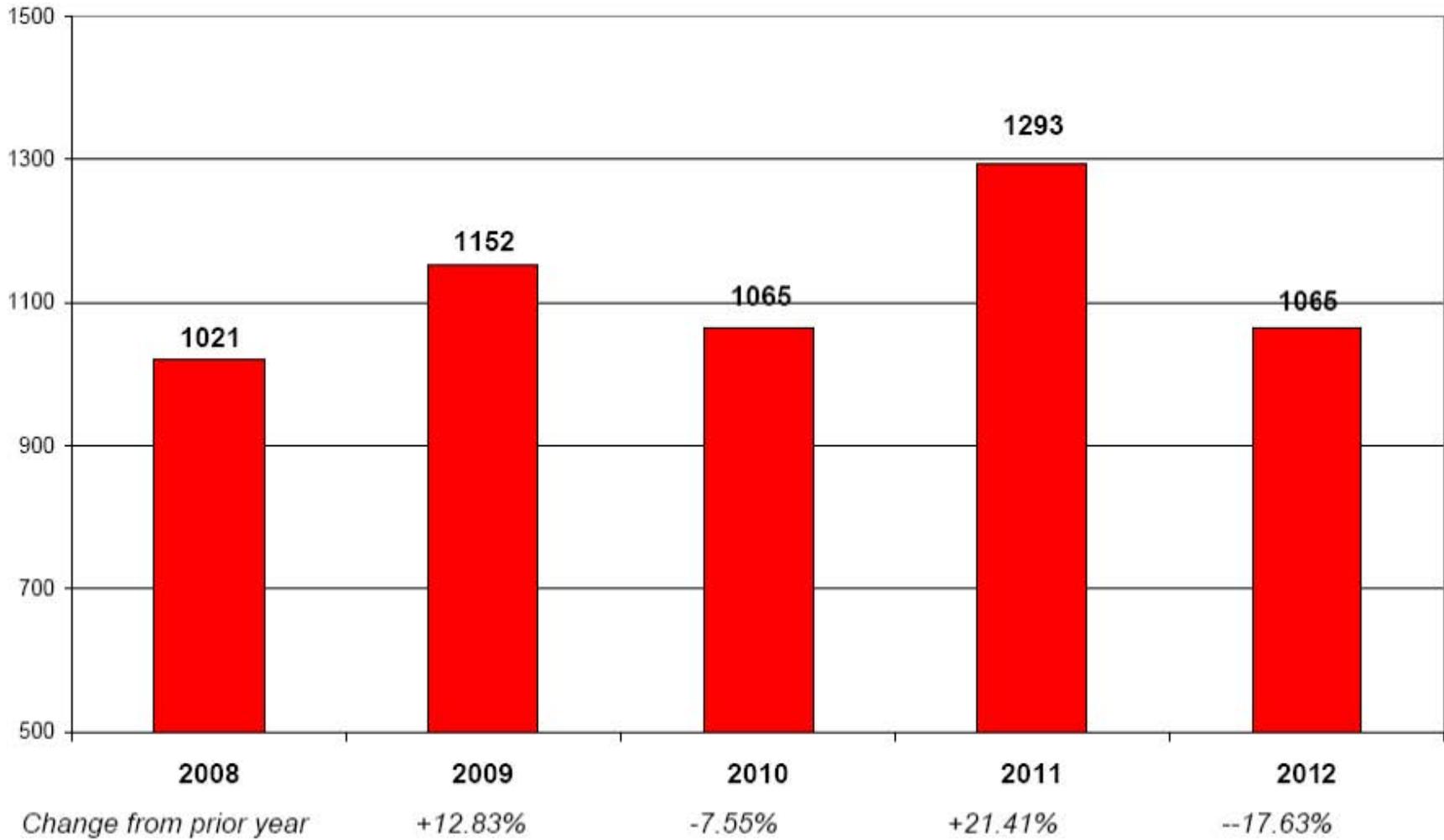
City of Hartford
Aggravated Assault Past 5 Years
2008 - 2012



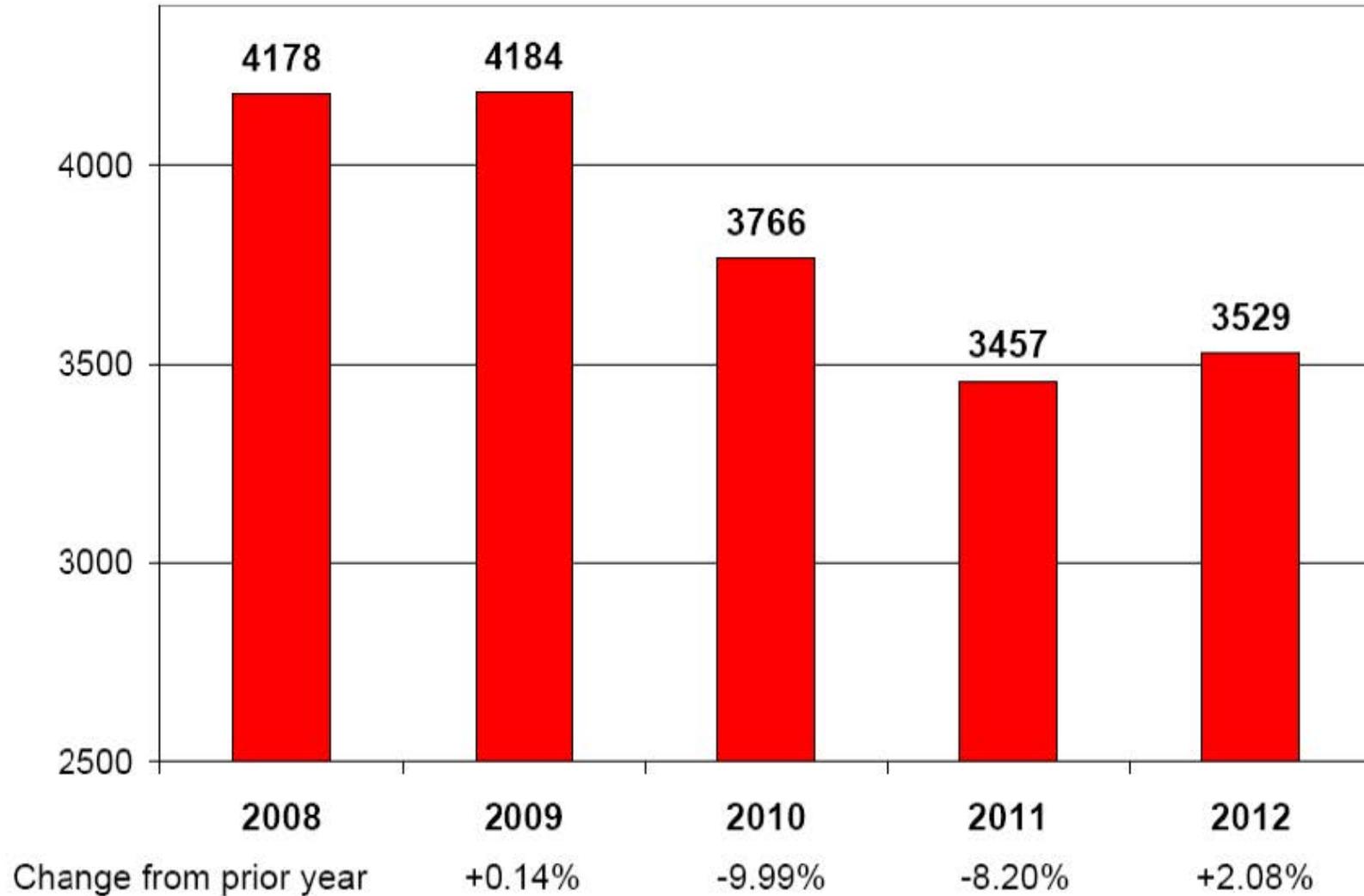
**City of Hartford
All Persons Struck by Gun Fire
Past 5 Years
2008 - 2012**



**City of Hartford
Burglary Past 5 Years
2008 - 2012**



City of Hartford Larceny Past 5 Years 2008 - 2012



City of Hartford
Auto Theft Past 5 Years
2008 - 2012

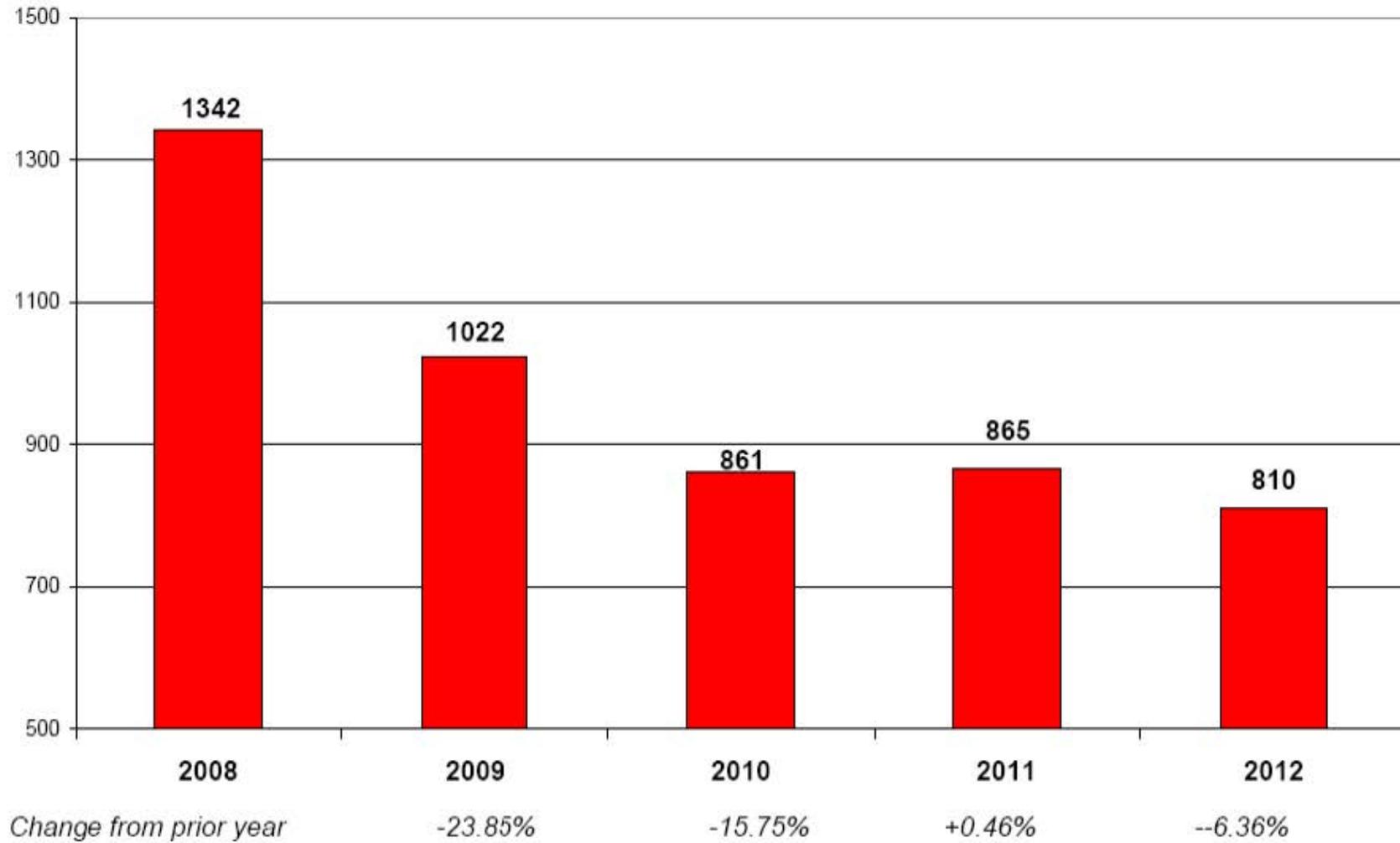


EXHIBIT 26

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. : SEPTEMBER 30, 2013

AFFIDAVIT OF CHRISTOPHER S. KOPER

1. My name is Christopher S. Koper. I am over eighteen years of age and I believe in the obligations of an oath.
2. I have read the Plaintiffs' First Amended Complaint in the above captioned matter, and am familiar with the claims set forth therein.
3. I am an Associate Professor for the Department of Criminology, Law and Society at George Mason University, in Fairfax, Virginia, and a senior fellow at George Mason's Center for Evidence-Based Crime Policy. A copy of my curriculum vitae is attached to the Defendants' motion as Exhibit 27.
4. I have been studying firearms issues since 1994. My primary areas of focus are firearms policy and policing issues.
5. In 1997, my colleague Jeffrey Roth and I conducted a study on the impact of Title XI, Subtitle A of the Violent Crime Control and Law Enforcement Act of 1994 (hereinafter the "federal assault weapons ban" or the "federal ban"), for the United States Department of Justice and the United States Congress.¹ I updated our original 1997 study in 2004,² and briefly revisited the issue again by re-examining my 2004 report in 2013.³ My 2004

¹ Jeffrey A. Roth & Christopher S. Koper, *Impact Evaluation of the Public Safety and Recreational Firearms Use Protection Act of 1994: Final Report* (1997), attached to Defendants' motion as Exhibit 28 (hereinafter, "*Koper 1997*").

² Christopher S. Koper, *An Updated Assessment of the Federal Assault Weapons Ban: Impacts on Gun Markets and Gun Violence, 1994-2003* (2004), attached to Defendants' motion as Exhibit 29 (hereinafter, "*Koper 2004*").

³ Christopher S. Koper, *America's Experience with the Federal Assault Weapons Ban, 1994-2004: Key Findings and Implications*, ch. 12, pp. 157-71 in *Reducing Gun Violence in America: Informing Policy with Evidence and Analysis* (Daniel S. Webster & Jon S. Vernick eds. 2013), attached to Defendants' motion as Exhibit 30 (hereinafter "*Koper 2013*").

and 2013 reports are the best resources for understanding my analysis of the impact of the federal ban. My 1997 report was based on limited data, especially with regard to the criminal use of large capacity magazines. As a result, my conclusions on the impact of the federal ban are most accurately and completely set forth in my 2004 and 2013 reports.

6. To my knowledge, the reports I authored are the only published academic studies to have examined the impacts of the federal bans on assault weapons and ammunition feeding devices holding more than ten rounds of ammunition (hereinafter referred to as “large-capacity magazines” or “LCMs”).⁴

SUMMARY OF FINDINGS

7. Based on my research, I found, among other things, that assault pistols are used disproportionately in crime in general, and that assault weapons more broadly were disproportionately used in murder and other serious crimes in some jurisdictions for which there was data. I also found that assault weapons and other firearms with large capacity magazines are used in a higher share of mass public shootings and killings of law enforcement officers.
8. The evidence also suggests that gun attacks with semiautomatics—especially assault weapons and other guns equipped with large capacity magazines—tend to result in more shots fired, more persons wounded, and more wounds per victim, than do gun attacks with other firearms. There is evidence that victims who receive more than one gunshot wound are substantially more likely to die than victims who receive only one wound. Thus, it appears that crimes committed with these weapons are likely to result in more injuries, and more lethal injuries, than crimes committed with other firearms.
9. In addition, there is some evidence to suggest that assault weapons are more attractive to criminals, due to the weapons’ military-style features and particularly large magazines.
10. Based on these and other findings in my studies discussed below, it is my considered opinion that Connecticut’s recently strengthened ban on assault weapons and newly enacted ban on large capacity magazines,⁵ and in particular its ban on LCMs which is in some ways stronger than the federal ban that I studied, is likely to advance Connecticut’s

⁴ As discussed below, there have been some additional studies about the impact and efficacy of the federal assault weapons ban conducted by non-academic institutions. In 2011, for example, the *Washington Post* published the results of its own investigation into the federal ban’s impact on the criminal use of LCMs in Virginia. See ¶¶57, 74, 81, *infra*. I also am aware of gun tracing analyses conducted by the federal Bureau of Alcohol Tobacco and Firearms (2003 Congressional Q&A memo provided to the author) and the Brady Center to Prevent Gun Violence (2004). These analyses are consistent with the findings of my studies regarding the decline in assault weapons as a percentage of crime gun traces between the pre-ban and post-ban periods.

⁵ See generally Public Act 13-3, An Act Concerning Gun Violence Prevention And Children’s Safety (hereinafter, “the Act”).

interest in protecting public safety. Specifically, it has the potential to: (1) reduce the number of crimes committed with assault weapons and other firearms with large capacity magazines; (2) reduce the number of shots fired in gun crimes; (3) reduce the number of gunshot victims in such crimes; (4) reduce the number of wounds per gunshot victim; (5) reduce the lethality of gunshot injuries when they do occur; and (6) reduce the substantial societal costs that flow from shootings.

I. Criminal Uses and Dangers of Assault Weapons and LCMs

11. The precise definition of “assault weapon” varies among the different federal, state, and local jurisdictions that have adopted bans on such weapons, although there is substantial overlap. Assault weapons are usually defined as a subset of semiautomatic weapons,⁶ and generally include semiautomatic pistols, rifles, and shotguns with military features that are conducive to military and potential criminal applications, but that are unnecessary in shooting sports or for self-defense.
12. The ability to accept a detachable magazine, including large capacity magazines, is a common feature in most assault weapon definitions, including Connecticut’s. However, LCMs can be and frequently are used with guns that fall outside of the definition of assault weapon.
13. One of the core rationales for banning or otherwise limiting the availability of both assault weapons and LCMs is that they are particularly dangerous, insofar as they are capable of and facilitate the wounding and killing of larger numbers of people because of their capacity for rapid firing of high numbers of rounds in a short period of time. The evidence supports this rationale. As discussed more fully below, attacks with semiautomatics—especially assault weapons and other guns with LCMs—generally result in more shots fired, persons wounded, and wounds per victim than do other gun attacks. *See Koper 2004*, p. 97. The rapid fire capability of these weapons thus increases the number and lethality of injuries from gun violence in which they are used.
14. Likely due to these characteristics, assault weapons and LCMs have been frequently and disproportionately used in mass public shootings and murders of law enforcement officers, crimes for which firearms with greater firepower would seem to be particularly desirable and effective. *See Koper 2004*, pp. 14-19, 87.
15. During the 1980s and early 1990s, for example, assault weapons and other semiautomatic firearms equipped with LCMs were involved in a number of highly publicized mass

⁶ A semiautomatic weapon is a gun that fires one bullet for each pull of the trigger and, after each round of ammunition is fired, automatically loads the next round and cocks itself for the next shot. This semiautomatic firing action permits a faster rate of fire relative to non-semiautomatic firearms. Semiautomatics, however, are not to be confused with fully automatic weapons (*i.e.*, machine guns), which fire continuously so long as the trigger is depressed. Fully automatic weapons have been illegal to own in the United States without a federal permit since 1934. *See Koper 2004*, p. 4 n.1.

shootings. These incidents heightened public concern about the accessibility of high powered, military-style weaponry, and other guns capable of discharging high numbers of rounds in a short period of time. Such incidents include:

- On July 18, 1984, James Huberty killed 21 persons and wounded nineteen others in a San Ysidro, California McDonald's restaurant, using an Uzi carbine, a shotgun, and another semiautomatic handgun equipped with a 25-round LCM;
- On January 17, 1989, Patrick Purdy used a civilian version of the AK-47 military rifle and a 75-round LCM to open fire in a schoolyard in Stockton, California, killing five children and wounding twenty nine other persons;
- On September 14, 1989, Joseph Wesbecker, armed with an AK-47 rifle, two MAC-11 handguns, a number of other firearms, and multiple 30-round magazines, killed seven and wounded fifteen people at his former workplace in Louisville, Kentucky;
- On October 16, 1991, George Hennard, armed with two semiautomatic handguns with LCMs (and reportedly a supply of extra LCMs), killed twenty two people and wounded another twenty three in Killgren, Texas; and
- On December 7, 1993, Colin Ferguson, armed with a handgun and multiple LCMs, opened fire on commuters on a Long Island Rail Road train, killing six and wounding nineteen.

See Koper 2004, p. 14.⁷

16. More recently, in the years since the expiration of the federal ban in 2004, there have been numerous other mass shooting incidents involving previously banned assault weapons and/or LCMs. Since 2007, for example, there have been at least fifteen incidents in which offenders using assault-type weapons or other semiautomatics with LCMs have wounded and/or killed eight or more people.⁸ Some of the more notorious of these incidents, both nationally and in Connecticut, include:

⁷ Additional details regarding these incidents were obtained from: Violence Policy Center, *Mass Shootings in the United States Involving High-Capacity Ammunition Magazines* (Washington, D.C. 2012) (hereinafter, "Violence Policy Center 2012"); Mark Follman, Gavin Aronsen & Deanna Pan, *US Mass Shootings, 1982-2012: Data from Mother Jones' Investigation* (updated Feb. 27, 2013), available at <http://www.motherjones.com/politics/2012/12/mass-shootings-mother-jones-full-data> (hereinafter, "Follman, Aronsen & Pan 2013"); and Mark Follman, Gavin Aronsen & Jaeah Lee, *More Than Half of Mass Shooters Used Assault Weapons and High-Capacity Magazines* (Feb. 27, 2013), available at <http://www.motherjones.com/politics/2013/02/assault-weapons-high-capacity-magazines-mass-shootings-feinstein> (hereinafter, "Follman, Aronsen & Lee 2013").

⁸ See Violence Policy Center 2012; Follman, Aronsen & Pan 2013; Follman, Aronsen & Lee 2013. The reference above to 15 cases is based on a tabulation from these sources.

- Blacksburg, Virginia, April 16, 2007: Student Seung-Hui Cho killed thirty three (including himself) and wounded seventeen on the campus of Virginia Tech., armed with a handgun and multiple LCMs;
- Binghamton, New York, April 3, 2009: Jiverly Wong killed fourteen (including himself) and wounded four at the American Civic Association immigration center, armed with two handguns and a 30-round LCM;
- Tucson, Arizona, January 8, 2011: Jared Loughner, armed with a handgun and multiple LCMs, killed six and wounded thirteen, including Congresswoman Gabrielle Giffords and a federal judge;
- Aurora, Colorado, July 20, 2012: James Holmes killed twelve and wounded fifty eight in a movie theater, armed with a Smith & Wesson M&P15 assault rifle, 100-round LCMs, and other firearms; and
- Newtown, Connecticut, December 14, 2012: Adam Lanza killed twenty six (twenty of whom were young children) and wounded two at Sandy Hook Elementary School, armed with a Bushmaster AR-15-style assault rifle, two handguns, and multiple LCMs.⁹

See Koper 2013, p. 157-58.

A. Assault Weapons

17. Though estimates are imprecise, assault weapons represented only a small percentage of the gun stock in this country when the federal ban was enacted, accounting for less than 1% of the gun stock around 1990 and about 2.5% of guns produced domestically between 1989 and 1993. This suggests that they likely accounted for 1% or less of the civilian gun stock at the time of the ban. Numerous studies suggest, however, that assault weapons accounted for up to 8% of guns used in crime overall before the federal ban, with most studies suggesting they accounted for about 2%. Further, evidence from studies of gun buyers suggests that assault pistols are at higher risk of being used in crime than other types of handguns.
18. In addition, there is some evidence that assault weapons are used more disproportionately in certain kinds of serious crime—in particular mass public shootings and killing of law enforcement officers—relative to their market presence.
19. Several local and national police data sources that my colleagues and I analyzed indicate that, before the ban went into effect, the most common assault weapons prohibited by the federal ban accounted for up to 6% of murders, up to 9% of murders of law enforcement officers, up to 13% of all mass shootings in which four or more people died (figures discussed below show that assault weapons are more heavily represented in mass public shootings and mass shootings involving particularly high numbers of victims), and up to 4% of other serious crimes. *See Koper 2004*, p. 15.

⁹ Additional details regarding these incidents were obtained from: Violence Policy Center 2012; Follman, Aronsen & Pan 2013; and Follman, Aronsen & Lee 2013.

20. While the evidence suggests that assault weapons are used in a small share of gun crimes overall, these weapons pose particular dangers in connection with two very visible and destructive aspects of crime and violence: mass shootings and murders of police. *See Koper 2004*, pp. 14-19, 87.
21. For example, evidence from before the federal ban indicates that assault weapons and other semiautomatics with LCMs were involved in 40% of mass shooting incidents that occurred between 1984 and 1993 in which six or more persons were killed or a total of 12 or more were wounded. *See Koper 2004*, p. 14.¹⁰
22. More recently, a media investigation by *Mother Jones* magazine analyzed and compiled data on sixty two public mass shooting incidents that involved the death of four or more people between 1982 and 2012.¹¹ That study indicates that 42% of the incidents involved an assault weapon, and more than half of the perpetrators possessed assault weapons, LCMs, or both.
23. Working under my direction, a graduate student at George Mason University recently analyzed the *Mother Jones* data for his Master's thesis, and compared the number of deaths and fatalities across cases that involved assault weapons and large capacity magazines, and those that did not. With regard to assault weapons, although he found no difference in the average number of fatalities, he did find an increase in gunshot victimization. Specifically, he found that an average of 11.04 people were shot in public mass shootings involving assault weapons, compared to 5.75 people shot in non-assault weapon cases. This is a statistically significant finding, meaning that it was not likely due to chance. As a result, the total average number of people killed and injured in assault weapon cases was 19.27, compared to 14.06 in non-assault weapon cases.¹²
24. Assault weapons also appear to be used in a disproportionately high number of shootings of law enforcement officers. Specifically, although prior to the federal ban they represented less than 5% of crime guns in most data sources my colleagues and I analyzed, they were involved in 7% to 9% of gun murders of police from 1992 to 1994, and as many as 16% of gun murders of police in 1994 (the same year that the ban went into effect). *See Koper 2004*, p. 15 & n.12; *Koper 1997*, pp. 98-100.
25. This disproportionate use of assault weapons in these crimes is consistent with other data suggesting that the military features and large ammunition capacity of assault weapons

¹⁰ These figures are based on tabulations that I and my research team did using data reported in Gary Kleck, *Targeting Guns: Firearms and Their Control* (1997), pp. 124-26, 144.

¹¹ This investigation and compilation of data on mass shootings was done by reporters at *Mother Jones* magazine. *See* Follman, Aronsen & Pan 2013; Follman Aronsen & Lee 2013; Mark Follman, Gavin Aronsen & Deanna Pan, *A Guide to Mass Shootings in America* (updated Feb. 27, 2013), available at <http://www.motherjones.com/politics/2012/07/mass-shootings-map>.

¹² *See* Dillon, Luke. (2013). *Mass Shootings in the United States: An Exploratory Study of the Trends from 1982 to 2012*. Master's thesis. Fairfax, VA: Department of Criminology, Law and Society, George Mason University.

make them more attractive to criminals overall, and in particular to offenders with serious criminal histories, than to non-criminal gun owners. Perhaps the best evidence of this 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 assault pistols than were buyers with no criminal history (4.6% to 2%, respectively). Those with more serious criminal histories were even more likely to purchase assault pistols: 6.6% of those who had been charged with a gun offense bought assault pistols, as did 10% of those who had been charged with two or more serious violent offenses. The study also found that assault pistol purchasers were more likely to be arrested subsequent to their purchases than were other gun purchasers. Among handgun purchasers with prior histories of violence, those who purchased assault-type pistols were three times as likely as other handgun purchasers to be subsequently charged with a new offense involving guns or violence. *See Koper 2004*, pp. 17-18.

26. Although less reliable, some survey studies have indicated even higher ownership of assault weapons among criminals and other high-risk individuals, particularly urban gang members. *See Koper 2004*, p. 16.

B. LCMs

27. LCMs appear to present even greater dangers to crime and violence than assault weapons alone, in part because they are more prevalent and can be and are used as ammunition feeding devices in both assault weapons and non-assault weapons.
28. Prior to the federal assault weapon and LCM bans, for example, guns with LCMs were used in roughly 13-26% of gun crimes. *See Koper 2004*, pp. 15, 18-19; *Koper 2013*, pp. 161-62.
29. And, in New York City, the New York State Division of Criminal Justice Services reported that, in 1993, at least 16%, and as many as 25%, of guns recovered in murder investigations were equipped with LCMs. *See Koper 2004*, p. 18.¹³
30. Like assault weapons, it also appears that firearms (assault and non-assault) with LCMs have been used disproportionately in killings of law enforcement officers. The available data indicates that LCMs were used in somewhere between 31% and 41% of gun murders of police before enactment of the federal ban. *See Koper 2004*, p. 18; *Koper 2013*, p. 162.
31. The evidence of public safety threat posed by LCMs is even stronger in the context of public mass shootings. Prior to the federal ban semiautomatics with LCMs (including assault weapons) were involved in 40% of the mass shooting incidents that occurred

¹³ 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. *See Koper 2004*, p. 18 n.15.

between 1984 and 1993 in which six or more persons were killed or a total of 12 or more were wounded. See *Koper 2004*, p. 14; *Koper 2013*, p. 161. And the recent *Mother Jones* investigative report shows that, since 1982, half of all public mass shooters who killed four or more persons possessed LCMs when carrying out their attacks.¹⁴

32. Firearms with LCMs, both assault-type and non-assault-type, also are more destructive and cause more death and injury in gun crime.
33. As discussed above, for example, a graduate student at George Mason University, working at my direction, recently analyzed the *Mother Jones* data as part of his Master's thesis. He compared cases where an LCM was known to have been used (or at least possessed by the shooter) against cases where either an LCM was not used or known to have been used. He found that the LCM cases (which included assault weapons) had significantly higher numbers of fatalities and casualties; an average of 10.19 fatalities in LCM cases compared to 6.35 fatalities in non-LCM/unknown cases. He found an average of 12.39 people were shot but not killed in public mass shooting involving LCMs, compared to just 3.55 people shot in the non-LCM/unknown LCM shootings. These findings reflect a total victim differential of 22.58 killed or wounded in the LCM cases compared to 9.9 in the non-LCM/unknown LCM cases.¹⁵ All of these differences were statistically significant and not a result of mere chance.
34. In my own studies, I similarly found that from 1984 through 1993, offenders who clearly possessed assault weapons or other semiautomatics with LCMs on average wounded or killed more than twice as many victims compared to offenders who used other kinds of weapons (an average of twenty nine victims compared to thirteen) in mass shooting incidents that resulted in at least six deaths or at least twelve total gunshot victims. See *Koper 2004*, pp. 85-86; *Koper 2013*, p. 167.
35. Localized studies of gunshot victimizations also corroborate this conclusion. Between 1992 and 1995, gun homicide victims in Milwaukee who were killed by guns with LCMs had 55% more wounds than those victims killed by non-LCM firearms. See *Koper 2004*, p. 86.
36. In Jersey City in the 1990s, criminals who used semiautomatic pistols fired roughly 23% to 61% more shots and wounded 15% more people than did those who used revolvers. Although only 2.5% of those attackers fired more than ten shots, those incidents had a 100% injury rate and accounted for nearly 5% of all gunshot victims. *Koper 2004*, p. 84-85, 90-91; *Koper 2013*, p. 167.

¹⁴ See Follman, Aronsen & Lee 2013.

¹⁵ See Dillon, Luke. (2013). *Mass Shootings in the United States: An Exploratory Study of the Trends from 1982 to 2012*. Master's thesis. Fairfax, VA: Department of Criminology, Law and Society, George Mason University. The patterns were also very similar when comparing the LCM cases against just those cases in which it was clear that an LCM was not used (though this was a very small number).

37. The trend in more lethal and injurious outcomes of crimes committed with LCMs repeated itself in Baltimore. In an analysis I conducted of guns recovered by police in that city, I found, among other things, that guns used in incidents where a victim was shot were 17% to 26% more likely to have LCMs than guns used in gunfire cases with no wounded victims. Similarly, guns linked to murders were 8% to 17% more likely to have LCMs than guns linked to non-fatal gunshot victimizations. *See Koper 2004*, p. 87.
38. In short, while tentative, the available evidence suggests that, more often than not, attacks with semiautomatics—particularly those equipped with LCMs—result in more shots fired, more victims, and more wounds per victim. Increased numbers of shots fired in a gunfire incident is significant because it increases the number of gunshot victims, and because gunshot victims who are shot more than once are 63% more likely to die than victims who receive only one wound. *See Koper 2004*, p. 87.

II. The 1994 Federal Assault Weapons Ban

A. Provisions of the Federal Assault Weapons Ban

39. The federal assault weapons ban, which was enacted on September 13, 1994, prohibited and restricted the manufacture, transfer, and possession of certain semiautomatic firearms designated as assault weapons and certain LCMs. Pub. L. No. 103-322, tit. XI, subtit. A, 108 Stat. 1796, 1996-2010 (1994).
40. The federal assault weapons ban expired on September 13, 2004 by operation of the statute, and was not renewed by Congress. *Id.* § 1101 05(2).

Banned assault weapons and features

41. The federal ban was not a prohibition on all semiautomatic firearms; rather, it was directed against those semiautomatics firearms having features that are useful in military and criminal applications, but that are unnecessary or unsuitable in shooting sports or for self-defense.
42. Banned firearms were identified under the federal law in two ways. First, the federal ban specifically prohibited eighteen models and variations of semiautomatic weapons by name (*e.g.*, the Intratec TEC-9 pistol and the Colt AR-15 rifle), as well as revolving cylinder shotguns. The list also included a number of foreign rifles that the federal government had banned from importation into the country beginning in 1989 (*e.g.*, the Avtomat Kalashnikov models). Several of the weapons banned by name were civilian copies of military weapons that accepted ammunition magazines made for those military weapons.¹⁶

¹⁶ A list of the weapons banned by name in the 1994 law is set forth in Table 2-1 of *Koper 2004*, p. 5.

43. Second, the federal ban contained a “features test” provision that generally prohibited other semiautomatic weapons having two or more military-style features. Examples of such features include pistol grips on rifles, flash suppressors, folding rifle stocks, threaded barrels for attaching silencers, and the ability to accept detachable magazines.¹⁷

Banned LCMs

44. The federal ban also prohibited most ammunition feeding devices that could hold more than ten rounds of ammunition, which I have referred to herein as “large capacity magazines” or “LCMs.” The federal ban extended to LCMs or similar devices that had the capacity to accept more than ten rounds of ammunition, or that could be “readily restored or converted or to accept” more than ten rounds of ammunition.¹⁸

Exemptions and limitations to the federal ban

45. The federal ban contained several broad exemptions that delayed its impact. *See Koper 2004*, pp. 10-11. First, assault weapons and LCMs manufactured before the effective date of the ban were “grandfathered” in, and thus remained legal to not only own but also to transfer. Estimates suggest that there may have been upward of 1.5 million assault weapons and 25 to 50 million LCMs exempted from the federal ban. The statute also allowed the importation of an additional 4.8 million pre-ban LCMs into the country from 1994 through 2000, and an additional 42 million pre-ban LCMs from 2000-2004. *See Koper 2004*, p. 10; *Koper 2013*, pp. 160-61.
46. Furthermore, although the federal ban prohibited “copies or duplicates” of the assault weapons enumerated in the act, federal authorities applied this prohibition only to exact copies in enforcing this provision. The federal ban also did not apply to a semiautomatic weapon possessing only one military-style feature.¹⁹ Thus, many civilian rifles patterned after military weapons were legal under the ban with only slight modifications. *See Koper 2004*, pp. 10-11.²⁰

¹⁷ The “features test” of the federal assault weapon ban is described more fully in Table 2-2 of *Koper 2004*, p. 6, and in Table 12-1 of *Koper 2013*, p. 160.

¹⁸ The federal ban exempted attached tubular devices capable of operating only with .22 caliber rimfire ammunition.

¹⁹ Notwithstanding these “grandfathering” exemptions, any firearms imported into the country still must 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 federal ban) fail the sporting purposes test and cannot be imported into the country. In 1998, ATF added the ability to accept a LCM made for a military rifle to the list of disqualifying features. Consequently, it was possible for foreign rifles to pass the features test of the federal assault weapons ban but not meet the sporting purposes test for imports. *See Koper 2004*, p. 10 n.7.

²⁰ Examples of some of these modified, legal versions of banned guns are listed in Table 2-1 of *Koper 2004*, p. 5.

B. Impact of the Federal Assault Weapons Ban

Assault weapons

47. Prior to the federal ban, the best estimates suggest that there were approximately 1.5 million privately owned assault weapons in the United States as of 1993, and they likely accounted for 1% or less of the total civilian gun stock. *See Koper 2013*, pp. 160-61; *Koper 2004*, p. 10.
48. Manufacturers increased production and sale of assault weapons during the Congressional debate about the federal ban that was ultimately enacted in 1994. This surge in demand helped drive up the prices for many assault weapons (notably assault pistols) and appeared to make them less accessible and affordable to criminal users. *See Koper 2013*, pp. 162-63; *Koper 2004*, pp. 25-38.
49. After the federal assault weapons ban was enacted in 1994, crimes with assault weapons declined. In particular, across six major cities (Baltimore, Miami, Milwaukee, Boston, St. Louis, and Anchorage), the share of gun crimes involving assault weapons declined by 17% to 72%, based on data covering all or portions of the 1995-2003 post-ban period. *See Koper 2004*, pp. 2, 46-60; *Koper 2013*, p. 163.
50. The pattern from these six major cities is consistent with that found in the national data on guns recovered by law enforcement and reported to the federal Bureau of Alcohol, Tobacco, Firearms and Explosives (“ATF”) for investigative gun tracing.²¹ Specifically, although the interpretation is complicated by changes in tracing practices that occurred during this time, the national gun tracing data suggests that use of assault weapons in crime declined after 1994 because the percentage of gun trace requests submitted to ATF involving assault weapons fell 70% between 1992/93 and 2001/02 (from 5.4% to 1.6%). And, notably, this downward trend did not begin until 1994, the year the federal ban became effective. *See Koper 2004*, pp. 2, 39-46, 51-52; *Koper 2013*, p. 163.²²
51. In short, my research and analysis indicates that the criminal use of assault weapons declined after the federal assault weapons ban was implemented in 1994, independently of trends in gun crime. *See Koper 2004*, pp. 51-52; *Koper 2013*, p. 163.
52. The reduction in the use of assault pistols in crime was the biggest factor in criminal use of assault weapons. Assessment of trends in the use of assault rifles was complicated by

²¹ A gun trace is an investigation that typically tracks a gun from its manufacture to its first point of sale by a licensed dealer. It is undertaken by the ATF, upon request by a law enforcement agency. The trace is generally initiated when the requesting law enforcement agency provides ATF with a trace request including identifying information about the firearm, such as make, model and serial number. For the full discussion of the use of ATF gun tracing data, *see* section 6.2 of *Koper 2004*, pp. 40-46.

²² These findings are consistent with other tracing analyses conducted by ATF and the Brady Center to Prevent Gun Violence. *See Koper 2004*, p. 44 n.43.

the rarity of crimes with such rifles and by the substitution in some cases of post-ban rifles that were very similar to the banned models, but remained legal with slight modification. See ¶46, *supra*. The decline in assault weapon use was not completely offset by use of substitution assault weapon-type models. Even counting these substitute models, the share of crime guns that were assault weapons fell 24% to 60% across most of the local jurisdictions studied. Patterns in the local data sources also suggested that crimes with assault weapons were becoming increasingly rare as the years passed. See *Koper 2004*, pp. 46-52; *Koper 2013*, pp. 163-64.

53. Arriving at a nationwide estimate of the number of assault weapons crimes prevented due to the federal ban is made more complicated by the range of estimates of assault weapon use and changes therein derived from different data sources. Notwithstanding these complexities, it is my opinion based on my review of multiple data sources that the federal ban prevented a few thousand crimes with assault weapons annually. For example, using 2% as the best estimate of the percentage of gun crimes involving assault weapons prior to the ban, and 40% as a reasonable estimate of the post-ban drop in this figure, implies that almost 2,900 murders, robberies, and assaults with assault weapons were prevented in 2002 as a result of the federal ban. See *Koper 2004*, p. 52 n.61.²³

LCMs

54. Assessing trends in LCM use is much more difficult because there was, and is, no national data source on crimes with LCMs, and few local jurisdictions maintain this sort of information. Also LCMs, unlike firearms, do not have serial numbers and therefore are not always uniquely identifiable.
55. It was nevertheless possible to examine trends in the use of guns with LCMs in four jurisdictions: Baltimore, Milwaukee, Anchorage, and Louisville. In all four jurisdictions, the overall share of crime guns equipped with LCMs rose or remained steady through at least the late 1990s. This failure to reduce overall LCM use for at least several years after the federal ban was likely attributable to the immense stock of exempted pre-ban LCMs, which, as noted, was enhanced by post-ban imports. See *Koper 2004*, pp. 68-79; *Koper 2013*, p. 164.
56. Notwithstanding that initial increase, the criminal use of LCMs may have been starting to drop by the early 2000s. See *Koper 2013*, p. 164; *Koper 2004*, pp. 68-79. Although the data in the four cities I investigated were too limited and inconsistent to draw any clear overall conclusions in this regard, such a deferred decline in LCM use would make sense because of the grandfathering provision in the federal law, which delayed the

²³ It is likely that many of these crimes still were committed with other guns that the perpetrator substituted for the banned assault weapon. Even if that is the case, however, for the reasons discussed it is likely that the number of victims per shooting incident, and the number of wounds inflicted per victim, was diminished in some of those instances in which an assault weapon or LCM was no longer available to the assailant.

effectiveness of the ban by requiring more time for grandfathered LCMs to be taken out of circulation.

57. A later investigative study by the *Washington Post* in January 2011 provides some additional evidence that the ban may have reduced crimes with LCMs by the time it expired in 2004. In its study, the *Washington Post* analyzed data maintained by the Virginia State Police about guns recovered in crimes by local law enforcement officers across the state. Those data indicated that between 1994 and 2004, the period the federal ban was in effect, the share of crime guns with LCMs declined by roughly 31% to 44%, and then rebounded after the ban was allowed to expire. Specifically, although the percentage of recovered crime guns with LCMs generally ranged between 13% and 16% from 1994 through 2000, by the time the ban had a chance to run its full course through 2004 that percentage fell to 9% of crime guns recovered. Following expiration of the federal ban in 2004, the share of Virginia crime guns with an LCM rose again to 20% of recovered crime guns by 2010. See *Koper 2013*, p. 165.²⁴
58. Although it is difficult to extrapolate the Virginia data to the nation as a whole, these data do suggest that the federal ban may have been reducing the use of LCMs in gun crime by the time it expired in 2004, and that it could have had an even stronger impact had it remained in effect.

Results of the Federal Assault Weapons Ban

59. The federal ban's exemption of millions of pre-ban assault weapons and LCMs meant that the effects of the law would occur only gradually, and that those effects were growing when the ban expired in 2004. Nevertheless, while the ban did not appear to have a measurable effect on overall gun crime in terms of crimes committed (due to criminals' ability to substitute other guns in their crimes), the evidence does suggest a significant impact on the number of gun crimes involving assault weapons. Had it remained in effect over the long-term, moreover, it could have had a potentially significant impact on the number of crimes involving LCMs.

²⁴ The results of the *Washington Post*'s original investigation (which are conveyed in *Koper 2013*, p. 165) are reported in David S. Fallis & James V. Grimaldi, *Va. Data Show Drop in Criminal Firepower During Assault Gun Ban*, Wash. Post, Jan. 23, 2011, available at <http://www.washingtonpost.com/wp-dyn/content/article/2011/01/22/AR2011012203452.html>. Earlier this year, the *Post* updated this analysis and slightly revised the figures it reported by identifying and excluding from its counts more than one thousand .22-caliber rifles with large-capacity tubular magazines, which were not subject to the federal ban (and which are similarly not subject to Connecticut's ban). See David S. Fallis, *Data Indicate Drop in High-Capacity Magazines During Federal Gun Ban*, Wash. Post, Jan. 10, 2013, available at http://www.washingtonpost.com/investigations/data-point-to-drop-in-highcapacity-magazines-during-federal-gun-ban/2013/01/10/d56d3bb6-4b91-11e2-a6a6-aabac85e8036_story.html. This updated data, is reported above.

60. These implications are important. By reducing the number of crimes in which assault weapons and LCMs are used and forcing criminals to use less lethal weapons and magazines, the federal ban could have potentially prevented hundreds of gunshot victimizations annually. It also could have reduced the lethality and injuriousness of those gunshot victimizations that do occur by reducing the number of wounds per victim. *See Koper 2004*, p. 87.
61. Using the Jersey City data as a tentative guide, it is possible that the federal ban eventually could have reduced gunshot victimizations by up to 5% if it had remained in effect long enough to meaningfully reduce the number of LCMs in circulation. *See Koper 2013*, p. 167. Although that may be a small percentage, based on 2010 statistics from the Center for Disease Control and Prevention it would correlate to 3,241 fewer people being wounded or killed as a result of gun crime on an annual basis. *See id.* Even if the federal ban's effect would not have been that substantial, however, a smaller reduction in the number and lethality of gunshot victimizations could still have yielded significant societal benefits.
62. In addition to the inherent benefits of such reductions, the federal ban also potentially could have produced millions of dollars of cost savings per year in medical care alone. Some studies have shown, for example, that the lifetime medical costs for gunshot injuries are about \$28,894 (adjusted for inflation). Even if the federal ban would have been able to reduce gunshot victimizations by only 1%, that would result in roughly \$18,781,100 in lifetime medical cost savings from the shootings prevented each year.²⁵ *See Koper 2013*, pp. 166-67; *see also Koper 2004*, p. 100 n.118.
63. The cost savings potentially could have been substantially higher if one looks beyond just medical costs. For example, some estimates suggest that the full societal costs of gun violence—including medical, criminal justice, and other government and private costs (both tangible and intangible)—could be as high as \$1 million per shooting. Based on those estimates, even a 1% decrease in shootings could result in roughly \$650 million in cost savings to society from shootings prevented each year. *See Koper 2013*, pp. 166-67.

III. The Act Concerning Gun Violence Prevention And Children's Safety

64. As noted above, the State of Connecticut recently enacted the Act Concerning Gun Violence Prevention And Children's Safety ("the Act"). Among other things, the Act strengthened Connecticut's existing ban on assault weapons, which was similar to the standards set forth in the 1994 federal assault weapons ban. It also imposed a new ban on LCMs. I examine these prohibitions and restrictions on assault weapons and large-capacity magazines, and opine as to their potential impact and likely efficacy, below.²⁶

²⁵ These savings calculations are based on a report by the federal Centers for Disease Control and Prevention which indicated that there were 64,816 gun homicides and other non-fatal assault-related shootings in the United States in 2010. *See Koper 2013*, pp. 166-67.

²⁶ The Act is a comprehensive law that contains many other provisions, including new regulations on long guns, ammunition, firearm storage, mental health, and school safety. It also

A. Connecticut's Assault Weapons Ban

65. In the Act, Connecticut strengthened its existing assault weapons ban by updating the list of enumerated weapons and the military features test to make it more stringent, and more consistent with modern assault weapon features. Like the 1994 federal ban, Connecticut's previous ban consisted of both a list of specifically prohibited firearms, and a "features test" that generally prohibited semiautomatic weapons having two or more military-style features and, for rifles, that also had a detachable magazine.
66. The Act broadens the assault weapon ban by including a number of additional specifically identified semiautomatic centerfire rifles, semiautomatic pistols, and semiautomatic shotguns. It also prohibits any semiautomatic centerfire rifle or semiautomatic pistol that has a fixed magazine with the ability to accept more than ten rounds of ammunition, and any semiautomatic shotgun that has the ability to accept a detachable magazine or a revolving cylinder. P.A. 13-3, § 25(1)(B)-(D); *id.*, § 25(1)(E)(ii), (v), (vii), (viii).
67. It also provides that any semiautomatic centerfire rifle or semiautomatic pistol that has an ability to accept a detachable magazine need only have one of the listed enumerated military-style features to qualify as an assault weapon (instead of the two feature requirement that existed previously). It also amended the number and type of those prohibited features. *Id.*, § 25(1)(E)(i), (iv).
68. The Act does not ban any weapons that were lawfully possessed prior to its effective date. Thus, those who lawfully possessed assault weapons at that time may continue to do so as long as they obtain a certificate of possession for it and possess it in compliance with all applicable state laws and regulations. *Id.*, § 28(a), (f)

B. Connecticut's LCM Ban

69. The Act also imposed a ban on LCMs which, as noted, largely mirrors the 1994 federal ban. P.A. 13-3, § 23. As with assault weapons, the Act does not ban any LCMs that were lawfully possessed prior to its effective date. Those who lawfully possessed an LCM at that time may continue to do so as long as they declare it to the Department of Emergency Services and Public Protection, and possess it in compliance with all applicable state laws and regulations. *Id.*, § 23(e)(3), § 24(a), (f).
70. One important difference between the Connecticut and federal LCM ban is that, unlike the federal ban, the Act prohibits any individual who possesses a grandfathered LCM from selling or transferring it to another individual. Importantly, moreover, LCMs

establishes a deadly weapon offender registry, and increases the penalties for certain gun-related offenses. I limit my analysis here to Connecticut's bans on assault weapons and large-capacity magazines.

generally may not be imported into the state after the Act's effective date, including those produced before the effective date of the Act. *Id.*, § 23(b), (d), (f).

C. The Potential Impact and Efficacy of Connecticut's Bans

71. The Act was only recently passed and not all of its provisions have gone into effect, and I have not undertaken any study or analysis of its effects. Nevertheless, it is my considered opinion that, based on the similarities of the Act to the federal ban, the impacts of the federal ban and the ways in which the Act address some of the weaknesses of the federal ban, the Act is likely to advance Connecticut's interest in protecting public safety.
72. First, the Act strengthens the assault weapons ban by moving it to a "one-feature" test rather than the "two-feature" test that existed under the federal ban and Connecticut's original ban. This change is likely to substantially limit—if not eliminate—the ability of gun manufacturers to quickly adopt minor cosmetic changes to their firearms that make them technically legal but that circumvent the purpose and effect of the law to remove military style assault weapons from civilian use. In doing so, the Act is likely to meaningfully limit the number of weapons with military-style characteristics considered conducive to criminal applications in Connecticut, and to further reduce the use of such weapons in crime.
73. Second, Connecticut's LCM ban is more robust than the expired federal ban, and may be more effective more quickly. Unlike the grandfather provision in the federal ban, the grandfathered LCMs in Connecticut may not be sold or transferred after the effective date of the Act. Unlike the experience under the federal ban, moreover, banned LCMs in Connecticut may not be imported into the state after the Act's effective date. Although these changes will not eliminate the lag in effectiveness created by the grandfather provision, they likely will minimize it and thereby reduce the time it otherwise would take for the benefits of the LCM ban to take hold.
74. Even with the grandfather provision, it is my opinion that Connecticut's LCM ban is likely to have a meaningful impact on gun crime if allowed to operate over the long-run. As discussed, the analogous grandfather provision in the federal ban and the immense stock of pre-ban LCMs that existed in this country delayed any impact that the federal LCM ban could have had on the use of such weapons in crime. The *Washington Post* study found, however, that the number of recovered crime guns with LCMs in Virginia nevertheless was beginning to substantially decline just as the ban expired. This suggests that, had the federal ban been renewed by Congress in 2004 and not allowed to expire, it could have had a meaningful impact on the use of such weapons in crime. That impact likely would have increased the longer the ban remained in effect. Thus, although Connecticut's LCM ban contains an analogous grandfather provision, it is reasonable to assume that it likewise would have a meaningful impact on the use of LCMs in crime if allowed to operate over the long-term.
75. If that is the case, it is likely that the Act could have a meaningful impact on public safety. As discussed above, *see* ¶¶8, 32-38, *supra*, the available evidence suggests that

attacks with semiautomatics, particularly assault weapons and other semiautomatics equipped with LCMs, result in more shots being fired, leading to both more injuries and injuries of greater severity. If the Act is allowed to operate over the long-term, it should reduce the number of LCMs in circulation and thereby reduce the number and lethality of gunshot victimizations. The potential benefits to victims and their families is obvious, and may well reduce the associated medical costs and overall costs to society. *See Koper 2004*, pp. 83-91, 100 n.118.

76. While the Act's provisions prohibiting and restricting assault weapons and large-capacity magazines certainly will not be a panacea for the gun violence epidemic in Connecticut or the United States more broadly, they appear to be reasonable and well-constructed measures that, like federal restrictions on fully automatic weapons and armor-piercing ammunition, will help prevent the spread of particularly dangerous weaponry.
77. In sum, therefore, it is my considered opinion, based on my nineteen years as a criminologist studying firearms generally and my detailed study of the federal assault weapon ban in particular, that Connecticut's bans on assault weapons and large-capacity magazines, and particularly its ban on LCMs, have the potential to prevent and limit shootings in the state over the long-run. In doing so, the Act is likely to advance Connecticut's interest in reducing the harms caused by gun violence.

IV. Plaintiffs' and Amici's Reliance On My Reports

78. I have read the Plaintiffs' brief in support of their motion for preliminary injunction (Document No. 15), their brief submitted in support of their motion for summary judgment (Document No. 62), and their Local Rule 56(a)(1) statement (Document No. 61). I also have read the briefs submitted by the *amici* in support of the Plaintiffs' motion (Document Nos. 33, 34, and 36). I hereby respond to those parties' reliance on, and characterizations of, the findings and conclusions in my reports.
79. As a general matter, the Plaintiffs and *amici* frequently cherry pick isolated statements from my studies and take them out of context. While the majority of their references to my works accurately quote from my reports, in most instances they do not reflect the totality of my discussion or the conclusions that I actually reached. The Plaintiffs and *amici* also rely heavily on my 1997 report which, as discussed above, was for the most part superseded by the more complete and up to date evidence contained in my 2004 and 2013 reports. I respond to some specific representations made by the Plaintiffs and *amici* below.
80. First, in the *amicus* brief filed by Pink Pistols, that group states that my reports support the conclusion that "this kind of legislation has no discernible impact on firearms violence." (Doc. 36 at 27). Specifically, they quote a variety of statements in my 1997 and 2004 reports to the effect that there is little evidence that such bans will have an impact on the lethality and injuriousness of gun violence based on indicators such as the number of victims per gun homicide incident, the number of gunshot wounds per victim,

or the proportion of gunshot victims with multiple wounds. (*Id.* at 27-28 and n.71). In doing so, Pink Pistols does not fully convey the conclusions in my reports.

81. My research revealed that gun crimes involving assault weapons and other guns with LCMs do result in more shots fired, more victims shot, more gunshots per victim, and more lethal injuries. Although it is true that my research team and I cannot clearly credit the federal ban with decreasing gunshot victimizations during the time it was in effect, as explained in my report, that is due in large part to the delay in the ban's effectiveness caused by its grandfather provision and the large stock of pre-ban LCMs that remained in circulation.²⁷ In other words, had the federal ban remained in effect long enough to reduce the stock of those pre-ban LCMs—which the *Washington Post* study suggests it may have begun to do just as it expired in 2004—it is more likely that we would have seen a corresponding drop in the gun violence lethality indicators discussed above.²⁸
82. Pink Pistols also quotes my 2004 report for the proposition that, “[s]hould it be renewed, the ban’s effects on gun violence are likely to be small at best and perhaps too small for reliable measurement”, that “the evidence is not strong enough for us to conclude that there was any meaningful effect [on gun violence] (i.e., that the effect was different from zero)”, and that “there is not a clear rationale for expecting the ban to reduce assaults and

²⁷ Pink Pistols cites my 1997 report for the proposition that “in fact, both ‘victims per incident’ and ‘the average number of gunshot wounds per victim’ *actually increased* under the Ban—although not by a statistically significant margin.” (Document 36 at 28 n.71, citing *Koper 1997* at 85-86, 88, 91). Notably, the increase to which I referred in my 1997 report occurred during a period in which we also saw an increase in the use of LCMs in gun crime due to the federal ban’s grandfathering provision and the large numbers of LCMs being imported into the country. See ¶¶55-58, *supra*. If anything, therefore, that finding corroborates the link between LCMs and increased lethality of gunshot victimizations.

²⁸ Pink Pistols contends that I concluded in my 2013 report that the *Washington Post* study nevertheless “showed no discernible reduction in the lethality or injuriousness of gun violence during the post-ban years.” (Doc. 36 at 29 n.75, quoting *Koper 2013*, p. 165). That is incorrect. My research team and I did not examine the *Washington Post* data to determine whether the drop in LCM use in Virginia during the last years of the federal ban correlated to a drop in the lethality or injuriousness of gun crime in that jurisdiction. Rather, our examination of the lethality of gun crime in the 2004 report was based on national data and data from a selected number of localities outside of Virginia. Further, the analyses in the 2004 report were limited to the first several years of the federal ban (they covered different portions of the 1995-2002 period, and most extended only through the late 1990s or through 2001), during which time we had not yet observed a reduction in the use of LCMs in crime. The *Washington Post* data suggests that LCM use may have declined more appreciably by 2004, but this was beyond the period I had studied for the 2004 report to the U.S. Department of Justice. Consequently, my conclusion that there was “no discernible reduction in the lethality or injuriousness of gun violence” during earlier portions of the ban when we had not seen a drop in LCM use in gun crime has no bearing on whether there would be such a reduction once the number of LCMs used in crime began to drop.

robberies with guns.” (Doc. 36 at 27-29). While those are accurate quotes, they do not fully reflect the conclusions in my report on the efficacy of this kind of legislation.

83. Because criminals and mass shooters will be able to substitute legal firearms for the banned assault weapons and LCMs, it is true that this kind of legislation is unlikely to substantially reduce overall gun violence in terms of the number or rate of crimes committed. One should not conclude from that, however, that such bans will have no effect on public safety. As discussed above, if allowed to operate over the long-run, such bans can potentially reduce the number and lethality of gunshot victimizations by forcing criminals to substitute assault weapons and other weapons with LCMs with less destructive firearms. The effects on gun deaths and injuries overall would likely be small in percentage terms (and thus they could be difficult to measure reliably), but, as discussed above, even small reductions in gunshot victimizations could produce significant societal benefits.
84. Pink Pistols similarly cites my 2004 report for the proposition that “[s]tudies of state-law bans on AWs and LCMs likewise found that such bans ‘have not reduced crime.’” (Document 36 at 28 and n.73, quoting *Koper 2004*, p. 81 n.95). That, again, does not accurately reflect my conclusions in the 2004 report. In discussing the effect of state assault weapons bans, I noted that there are a few studies that have suggested that such bans have not reduced crime. I specifically noted, however, that it is hard to draw definitive conclusions from these studies for the following reasons: (1) there is little evidence on how state assault weapon bans affect the availability and use of assault weapons; (2) studies have not always examined the effects of these laws on gun homicides and shootings, the crimes that are arguably most likely to be affected by assault weapon bans; and (3) the state assault weapon bans that were passed prior to the federal ban (those in California, New Jersey, Hawaii, Connecticut, and Maryland) were in effect for only three months to five years (two years or less in most cases) before the imposition of the federal ban, after which they became largely redundant with the federal legislation and their effects more difficult to predict and estimate. Perhaps more importantly, most of these state laws either lacked LCM bans or had LCM bans that were less restrictive than that of the federal ban or Connecticut’s ban. Pink Pistols ignores these important qualifications that undermine the usefulness of the cited studies.
85. Second, both the National Rifle Association (“NRA”) and the Law Enforcement Legal Defense Fund (“LELDF”) argue that banning large capacity magazines will not advance public safety. In support of that conclusion they cite the findings in my reports that assailants fire an average of less than four shots in gun crimes, and rarely fire more than ten shots. (Doc. 33 at 19; Doc. 34 at 9-10). While those references to my studies are correct, they also do not fully reflect my conclusions.
86. Based on my study with Darin Reedy of handgun attacks in Jersey City, NJ, I found that assailants fired more than ten shots in 2.5% to 3% of gunfire incidents. As discussed above, however, my report specifically explains that those incidents had a 100% injury rate, and were responsible for 4.7% of the gunshot victimizations in our sample. The *amici* ignore this crucial piece of data, which was the whole point of that aspect of my

discussion in the report. It shows that, while rare, incidents in which more than ten shots are fired are especially lethal and injurious. They produce a disproportionate share of gunshot victimizations and are more likely to result in gunshot injuries or deaths. *See Koper 2004*, pp. 3, 90-91.

87. In addition to taking that data out of context, the *amici* completely ignore one of my central conclusions: gun crimes involving assault weapons and other weapons with LCMs tend to result in more victims wounded, more wounds per victim, and more lethal injuries than do gun crimes committed with other weapons. They likewise ignore the evidence that both assault weapons and other guns with LCMs are used disproportionately in mass killings and murders of law enforcement officers.
88. Third, the *amici* argue that assault weapons bans are not likely to reduce overall gun violence based on the finding in my reports that such weapons are only used in between 2% and 8% of gun crimes. (Doc. 33 at 14; Doc. 34 at 9; Doc. 36 at 27 and n. 69, 70). While these selective references to my studies technically are correct, they are again misleading. It ignores the fact that assault weapons were used more frequently and disproportionately in mass murders and killings of law enforcement officers. It also ignores the fact that gun crimes involving semiautomatics—including assault weapons and other firearms with LCMs—generally result in more shots fired, more victims, and more wounds per victim. Thus, although reducing the number of such weapons may not reduce the overall number of gun crimes due to the weapon substitution effect, it could reduce the number and lethality of gunshot victimizations in crimes in which such weapons otherwise would have been used. Any such reduction in gun crime or gun crime lethality—even if difficult to measure precisely relative to the overall level of gun violence in the nation—would have a meaningful impact for the victims of such crimes, and for society more broadly.

The foregoing is true and accurate to the best of my knowledge and belief.

FURTHER AFFIANT SAYETH NOT.

Christopher S. Koper
Christopher S. Koper

STATE OF VIRGINIA

COUNTY OF Loudoun

)
)ss: Brambleton, Virginia
)

Subscribed and sworn to before me, this 30 day of September, 2013.

Sarah York Conrad
Notary Public
Commissioner of the Superior Court

SARAH YORK CONRAD
NOTARY PUBLIC
Commonwealth of Virginia
Reg. #7365612
My Commission Expires Nov. 30, 2014

CERTIFICATION

I hereby certify that on this 11th day of October, 2013, a copy of the foregoing Affidavit of Christopher S. Koper was filed electronically. Notice of this filing will be 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
Assistant Attorney General

EXHIBIT 27

CHRISTOPHER S. KOPER

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Education

1995	Ph.D., Criminology and Criminal Justice, University of Maryland
1992	M.A., Criminology and Criminal Justice, University of Maryland
1988	B.A. (Summa cum Laude), Criminal Justice, University of Maryland

Career Brief

Dr. Christopher Koper is an Associate Professor in the Department of Criminology, Law and Society at George Mason University. He is also a senior fellow and co-director of the evidence-based policing research program in George Mason's Center for Evidence-Based Crime Policy. Prior to joining the faculty at George Mason, Dr. Koper was the Director of Research for the Police Executive Research Forum (PERF), a policing membership and research organization based in Washington, D.C. He holds a Ph.D. in criminology and criminal justice from the University of Maryland and has over 20 years of experiencing conducting criminological research at PERF, the University of Pennsylvania, the Urban Institute, the RAND Corporation, the Police Foundation, and other organizations, where he has written and published extensively on issues related to firearms, policing, federal crime prevention efforts, research methods, juvenile delinquency, and other topics. Dr. Koper has served as a lead or senior-level investigator for numerous projects funded by the U.S. Department of Justice, including Congressionally-mandated assessments of the 1994 federal assault weapons ban and the federal Community Oriented Policing Services (COPS) program. He is the co-creator of the [Evidence-Based Policing Matrix](#), a tool used by local and national organizations including the federal Bureau of Justice Assistance and the National Policing Improvement Agency of the United Kingdom to visualize research results on police effectiveness and translate those results for practitioners and policymakers. Dr. Koper's work on the methods of patrolling crime hot spots (often referred to as the "Koper curve" principal) is also used by numerous police agencies in the United States and abroad.

Professional Background

Associate Professor:	Department of Criminology, Law and Society, George Mason University (Aug. 2011-present)
Director of Research:	Police Executive Research Forum (May 2010-Aug. 2011)
Deputy Director of Research:	Police Executive Research Forum (Dec. 2007 – May 2010)
Behavioral / Social Scientist:	RAND Corporation (2007)
Senior Research Associate:	Jerry Lee Center of Criminology, University of Pennsylvania (2001 – 2006)
Research Associate:	The Urban Institute (1997 – 2001)
Faculty Research Scientist:	Department of Criminology and Criminal Justice, University of Maryland (1997)
Research Scientist:	Crime Control Institute (1994-1997)
Graduate Assistant:	Department of Criminology and Criminal Justice, University of Maryland: (1989-1994)
Social Science Program Specialist (Graduate Intern):	National Institute of Justice, U.S. Department of Justice (1990)
Consultant:	Police Foundation (1988-1989)

Journal Articles, Book Chapters, and Other Peer-Reviewed Publications

Koper, Christopher S. 2013. "America's Experience with the Federal Assault Weapons Ban, 1994-2004: Key Findings and Implications." Pp. 157-171 in *Reducing Gun Violence in America: Informing Policy with Evidence and Analysis*, edited by Daniel W. Webster and Jon S. Vernick. Baltimore, MD: Johns Hopkins University Press.

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Harrell, Adele V., Shannon E. Cavanagh, Michele A. Harmon, Christopher S. Koper, and Sanjeev Sridharan. 1997. *Impact of the Children at Risk Program* (Volumes 1 and 2). Report to the National Institute of Justice. Washington, D.C.: The Urban Institute.

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Other Publications, Reports, and Working Papers

Lum, Cynthia, Christopher S. Koper, and Cody W. Telep. *The Evidence-Based Policing Matrix*. Online interactive tool available at: <http://gemini.gmu.edu/cebcp/Matrix.html>. Fairfax, VA: Center for Evidence-Based Crime Policy, George Mason University. Updated annually.

Lum, Cynthia and Christopher S. Koper. 2012. "Incorporating Research into Daily Police Practice: The Matrix Demonstration Project." *Translational Criminology: The Magazine of the Center for Evidence-Based Crime Policy* (George Mason University). Fall 2012:16-17. Available at: <http://gemini.gmu.edu/cebcp/TranslationalCrimFall2012.pdf>.

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Appears in Koper, Christopher, et al. 2010. *Developing a St. Louis Model for Reducing Gun Violence: A Report from the Police Executive Research Forum to the St. Louis Metropolitan Police Department*. Washington, D.C.: Police Executive Research Forum.

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Koper, Christopher S. 1989. *External Resources for Police*. Report prepared for the Police Foundation (Washington, D.C.).

Funded Research

Selected projects as a principal or senior-level investigator

Co-Principal Investigator: "The Evidence-Based Policing Matrix Demonstration Project." \$749,237 grant from the Bureau of Justice Assistance (U.S. Department of Justice) to George Mason University. Awarded 2011.

Principal Investigator: "Realizing the Potential of Technology for Policing: A Multi-Site Study of the Social, Organizational, and Behavioral Aspects of Implementing Policing Technologies." \$592,151 grant from the National Institute of Justice (U.S. Department of Justice) to the Police Executive Research Forum and George Mason University (subcontractor). Awarded 2010.

Principal Investigator (Jan. 2011-Aug. 2011): "Community Policing Self-Assessment Tool Short Form, COPS Hiring Recovery Program Administration." \$85,444 subcontract from ICF International and the Office of Community Oriented Policing Services (U.S. Department of Justice) to the Police Executive Research Forum. Awarded 2011.

Principal Investigator: "National Study of Gun Enforcement and Gun Violence Prevention Practices Among Local Law Enforcement Agencies." \$70,400 grant from the Joyce Foundation to the Police Executive Research Forum. Awarded 2010.

Principal Investigator: "Development of the Community Policing Self-Assessment Tool Short Form." \$53,907 subcontract from ICF International and the Office of Community Oriented Policing Services (U.S. Department of Justice) to the Police Executive Research Forum. Awarded 2010.

Principal Investigator: "A Systematic Review of Research on Police Strategies to Reduce Illegal Gun Carrying." \$15,600 subcontract from George Mason University and the National Policing Improvement Agency of the United Kingdom to the Police Executive Research Forum. Awarded 2010.

Principal Investigator (2009-Aug. 2011) and consultant (Aug. 2011-present): "Hiring of Civilian Staff in Policing: An Assessment of the 2009 Byrne Program." \$549,878 grant from the National Institute of Justice (U.S. Department of Justice) to the Police Executive Research Forum. Awarded 2009.

Co-Principal Investigator (2005-2010): "Understanding and Monitoring the 'Whys' Behind Juvenile Crime Trends." \$2,249,290 grant from the Office of Juvenile Justice and Delinquency Prevention (U.S. Department of Justice) to the University of Pennsylvania (with subcontracts to

the Police Executive Research Forum, 2009-2010). Initial and continuation awards, 2001-2005.

Principal Investigator (research director): "Police Interventions to Reduce Gun Violence: A National Examination." Supported through \$200,000 in funding from the Motorola Foundation to the Police Executive Research Forum. Awarded 2009.

Principal Investigator: "The Varieties and Effectiveness of Hot Spots Policing: Results from a National Survey of Police Agencies and a Re-Assessment of Prior Research." Supported through \$80,000 in funding from the Motorola Foundation to the Police Executive Research Forum. Awarded 2008.

Co-Principal Investigator: "Assessment of Technology Needs in Law Enforcement." \$185,866 contract from the Lockheed Martin Corporation to the Police Executive Research Forum. Awarded 2008.

Co-Principal Investigator: "An Evaluation of the Jacksonville Data Driven Reduction of Street Violence Project." \$650,008 grant from the Bureau of Justice Assistance (U.S. Department of Justice) to the Jacksonville Sheriff's Office and the Police Executive Research Forum (subcontractor). Awarded 2007.

Co-Principal Investigator: "A Randomized Experiment Assessing License Plate Recognition Technology in Mesa, Arizona." \$474,765 grant from the National Institute of Justice (U.S. Department of Justice) to the Police Executive Research Forum. Awarded 2007.

Co-Principal Investigator (evaluation director): "Developing a St. Louis Model for Reducing Gun Violence." \$500,000 grant from the Bureau of Justice Assistance (U.S. Department of Justice) to the St. Louis Metropolitan Police Department and the Police Executive Research Forum (subcontractor). Awarded 2007.

Co-Principal Investigator: "Evaluation Study of the Prince William County Police Immigration Enforcement Policy." \$282,129 contract from the Prince William County Police Department to the University of Virginia and the Police Executive Research Forum (subcontractor). Awarded 2008.

Principal Investigator: "Crime Gun Risk Factors: The Impact of Dealer, Firearm, Transaction, and Buyer Characteristics on the Likelihood of Gun Use in Crime." \$103,514 grant from the U.S. Department of Justice to the University of Pennsylvania. Awarded 2004.

Principal Investigator: "A Reassessment of the Federal Assault Weapons Ban." \$38,915 grant from the U.S. Department of Justice to the University of Pennsylvania. Awarded 2003.

Co-Principal Investigator: "Pennsylvania Fair Share Tax Project." \$100,000 grant from the Jerry Lee Foundation to the University of Pennsylvania. Awarded 2003.

Principal Investigator: "The Impact of Dealer and Firearm Characteristics on the Likelihood of Gun Use in Crime." \$60,000 grant from the Smith Richardson Foundation to the University of Pennsylvania. Awarded 2001.

Principal Investigator: "Police Hiring and Retention Study." \$250,000 grant from the U.S. Department of Justice to the Urban Institute. Awarded 1999.

Co-Principal Investigator: "Analysis of Title XI Effects." \$301,826 grant from the U.S. Department of Justice to the Urban Institute. Awarded 1998.

Co-Principal Investigator: "Illegal Firearms Markets." \$499,990 grant from the U.S. Department of Justice to Northeastern University and the Urban Institute (subcontractor). Awarded 1997.

Co-Principal Investigator (director of national survey and evaluation task leader), 1997-2001: "Evaluation of Title I of the 1994 Crime Act." \$3,356,156 grant from the U.S. Department of Justice to the Urban Institute.

Co-Principal Investigator: "Impact Evaluation of the Public Safety and Recreational Firearms Use Protection Act of 1994." \$150,000 grant from the U.S. Department of Justice to the Urban Institute (subcontract later awarded to the Crime Control Institute). Awarded 1995.

Principal Investigator: "Gun Density Versus Gun Type: Did More, or More Lethal, Guns Drive Up the Dallas Homicide Rate, 1978-1992?" \$49,714 grant from the U.S. Department of Justice to the Crime Control Institute. Awarded 1994.

Other successful proposals written or co-authored:

Co-author and proposed Principal Investigator (research director): "Research and Policy Initiatives to Help Police Leaders Speak Out on Gun Violence in America." \$375,000 grant from the Joyce Foundation to the Police Executive Research Forum. Awarded 2011.

Co-author and proposed Co-Principal Investigator (evaluation director): "Demonstrating Innovation in Policing: Using Evidence-Based Strategies to Build Police Legitimacy and Reduce Violent Crime." \$599,896 grant from the Bureau of Justice Assistance to the Police Executive Research Forum. Awarded 2011.

Co-author and proposed Co-Principal Investigator: "Recruitment and Hiring Clearinghouse." \$499,763 grant from the Office of Community Oriented Policing Services, U.S. Department of Justice to the RAND Corporation. Awarded 2007.

Conference Presentations

Annual Symposium of the Center for Evidence-Based Crime Policy, George Mason University (2010-2012)

International Conference on Evidence-Based Policing, sponsored by the National Policing Improvement Agency of the United Kingdom and Cambridge University (2009, 2011)

Annual Jerry Lee Symposium on Criminology and Public Policy (2005, 2011)

Annual Stockholm Criminology Symposium (2006, 2010)

Annual meeting of the Police Executive Research Forum (2008-2009)

Annual meeting of the American Society of Criminology (1991-2001, 2003-2006, 2008-2012)

14th World Congress of Criminology (2005)

Annual meeting of the Academy of Criminal Justice Sciences (1995, 1997, 1999-2001, 2012)

U.S. Department of Justice Annual Conference on Criminal Justice Research and Evaluation (1995-1997, 1999, 2002)

U.S. Department of Justice National Conference on Community Policing (1998)

National Institute of Justice (U.S. Department of Justice) Firearms Cluster Conference (1996)

Selected Presentations, Briefings, and Lectures

“America’s Experience with the Federal Assault Weapons Ban, 1994-2004: Key Findings and Implications.” Invited speaker, Summit on Reducing Gun Violence in America: Informing Policy with Evidence and Analysis, held at Johns Hopkins University. January 2013. Featured on C-SPAN (<http://www.c-spanvideo.org/clip/4304369>) and on the website of the Johns Hopkins Bloomberg School of Public Health (<http://www.jhsph.edu/events/gun-policy-summit/video-archive>).

“Police Strategies for Reducing Gun Violence.” Invited speaker, 2013 Summit to Combat Gun Violence hosted by the City of Minneapolis and the City of Milwaukee. Minneapolis, 2013.

“Realizing the Potential of Technology for Policing: Results from a Multi-Site Study” (thematic panel conducted with Cynthia Lum and James Willis). Presentation at the annual meeting of the American Society of Criminology. Chicago, 2012.

Session leader and presenter for “Policing Places” panels at the Evidence-Based Policing Workshop held by the Center for Evidence-Based Crime Policy, George Mason University. Fairfax, VA, 2012. Presentation materials and video available at: <http://gemini.gmu.edu/cebcp/CEBCPSymposium.html>.

Organizer and panel presenter for Congressional briefing on “Reducing Gun Violence: Lessons from Research and Practice,” held by the Center for Evidence-Based Crime Policy, George Mason University. (Panel presentation entitled, “Assessing Police Efforts to Reduce Gun Crime: Results from a National Survey.”) Held in the Rayburn Building of the U.S. House of Representatives, Washington, DC, 2012. Video available at: <http://gemini.gmu.edu/cebcp/Briefings/gunviolence.html>.

“Evidence-Based Policing in Jacksonville, Florida: Lessons Learned” (co-presented with Jamie Roush). Presentation at the annual meeting of the Academy of Criminal Justice Sciences. New York City, 2012.

“Gun Enforcement and Gun Violence Prevention Practices among Local Law Enforcement Agencies in Urban Areas”

- Invited speaker, presentation for the Firearms Committee of the International Association of Chiefs of Police, 2012
- Presentation at the annual meeting of the American Society of Criminology. Washington, DC, 2011

“The Use of Patrol and Problem-Solving at Crime Hot Spots: A Review of the Evidence.” Presentation at the Evidence-Based Policing Workshop held by the Center for Evidence-Based Crime Policy, George Mason University. Fairfax, VA, 2011. Presentation slides and video available at: <http://gemini.gmu.edu/cebcp/PolicingWorkshop.html>.

“A Randomized Trial Comparing Directed Patrol and Problem-Solving at Violent Crime Hot Spots”

- Invited speaker, 4th International Conference on Evidence-Based Policing. Cambridge University, United Kingdom, 2011
- Invited speaker, 12th Annual Jerry Lee Symposium on Criminology and Public Policy. Washington, DC (held in the U.S. Senate Russell Office Building), 2011
- Invited speaker, Annual Symposium of the Center for Evidence-Based Crime Policy, George Mason University. Fairfax, VA, 2010
- Annual Stockholm Criminology Symposium. Stockholm, Sweden, 2010
- Annual meeting of the American Society of Criminology. Philadelphia, 2009

“Evaluating the Effectiveness of License Plate Reader Technology: A Joint Project of PERF and the Mesa, AZ Police Department”

- Police Executive Research Forum’s conference, “How are Innovations in Technology Transforming Policing?” (Critical Issues in Policing Series). Washington, D.C., 2011

- Annual meeting of the Police Executive Research Forum. Washington, D.C., 2009

“The Influences of Community Changes, Policing, Incarceration, and Juvenile Justice Policies on Juvenile Violence in Large Cities and Counties, 1994-2000.” Presentation at the annual meeting of the American Society of Criminology. San Francisco, 2010.

“Evaluation Study of Prince William County’s Illegal Immigration Enforcement Policy”

- Presentation for the Prince William County, Virginia Board of County Supervisors, November 16, 2010 (co-presented with Thomas Guterbock)
- Briefings for senior staff of the Prince William County Police Department and Prince William County Government, October-November 2010 (co-presented with Thomas Guterbock)

“Police Strategies for Reducing Gun Violence.” Invited speaker, Congressional briefing on “Evidence-Based Policy: What We Know, What We Need to Know,” organized by the Center for Evidence-Based Crime Policy, George Mason University. Held in the U.S. Capitol Visitors’ Center, Washington, DC, 2009. (Video available at <http://gemini.gmu.edu/cebcp/Briefings/evidence.html>). (Featured on the website of the National Institute of Justice in Dec. 2009.)

“Hot Spots Policing: A Review of the Evidence.” Invited speaker, 2nd International Conference on Evidence-Based Policing (sponsored by the National Policing Improvement Agency of the United Kingdom and Cambridge University). Cambridge, United Kingdom, 2009.

“The Varieties and Effectiveness of Hot Spots Policing: Results from a National Survey”

- Annual meeting of the American Society of Criminology. St. Louis, 2008
- Annual meeting of the Police Executive Research Forum. Miami, 2008

“The PERF Technology Needs Assessment Survey: Preliminary Results.” PERF-Lockheed Martin Law Enforcement Future Technologies Workshop. Suffolk (Virginia), 2008.

“The PERF Homicide Gunshot Survey.” Police Executive Research Forum’s International “Hot Spots” Symposium (2008 Critical Issues in Policing Series). Washington, D.C., 2008.

“Assessments of Corporate Culture and Prosecutorial Decisions by U.S. Attorneys.”

Presentation to the advisory board of the LRN-RAND Center for Corporate Ethics, Law, and Governance. New York, 2007.

“Crime Gun Risk Factors: Buyer, Seller, Firearm, and Transaction Characteristics Linked to Criminal Gun Use and Gun Trafficking” / “Risk Factors for Crime Involvement of Guns Sold in Maryland”

- Invited speaker, seminar sponsored by the Center for Injury Research and Policy, Johns Hopkins School of Public Health. Baltimore, 2007
- Annual meeting of the American Society of Criminology. Los Angeles, 2006

“Police Strategies for Reducing Illegal Possession and Carrying of Firearms” Presentation slides available at: www.sas.upenn.edu/jerrylee/programs/2005symposium_koper_illegalfirearms.pdf

- Invited speaker, Annual Jerry Lee Crime Prevention Symposium. Washington, D.C. (held in the U.S. Senate Dirksen Office Building), 2005
- Invited speaker, Firearm and Injury Center at Penn (FICAP) Forum Series. Philadelphia, 2005

“The Impacts of the 1994 Federal Assault Weapons Ban on Gun Markets and Gun Violence”

- Briefings for the Associate Attorney General of the United States and other staff of the U.S. Department of Justice and the U.S. Department of the Treasury. Washington, D.C., 1997
- Invited speaker, presentation to the National Research Council, Committee to Improve Research Information and Data on Firearms. Washington, D.C., 2002
- Invited speaker, Firearm and Injury Center at Penn (FICAP) Forum Series. Philadelphia, 2003
- Firearm Injury Center at Penn (FICAP) Workshop on Existing and Innovative Methods in the Study of Gun Violence. Bryn Mawr, Pennsylvania, 2003
- Invited speaker, Jerry Lee Center of Criminology (University of Pennsylvania) Colloquium. Philadelphia, 2001

“Federal Legislation and Gun Markets: An Assessment of Recent Initiatives Affecting Licensed Firearms Dealers.” Invited speaker, Jerry Lee Center of Criminology (University of Pennsylvania) Colloquium. Philadelphia, 2003.

“Juvenile Gun Acquisition.” Presentation to the Philadelphia Interdisciplinary Youth Fatality Review Team (A Project of the Philadelphia Departments of Public Health and Human Services). Philadelphia, 2002.

“A National Study of Hiring and Retention Issues in Police Agencies.” Briefing for staff of the Office of Community Oriented Policing Services (U.S. Department of Justice) and the National Institute of Justice (U.S. Department of Justice). Washington, D.C., 2001.

“COPS and the Level, Style, and Organization of American Policing: Findings of the National Evaluation”

- Press briefing sponsored by the Urban Institute. Washington, D.C., September 2000
- Briefings for staff of the Office of Community Oriented Policing Services (U.S. Department of Justice) and the National Institute of Justice (U.S. Department of Justice). Washington, D.C., 1998 and 1999

Professional Service

Reviews of manuscripts, reports, or proposals:

- *Journal of Experimental Criminology* (2004, 2009, 2011, 2012)
- *Justice Research and Policy* (2012)
- *Sociological Quarterly* (2012)
- Oxford University Publishing (2011)
- *Journal of Quantitative Criminology* (2001-2005, 2009, 2011)
- *Police Quarterly* (2002-2004, 2011)
- *Criminology* (2006, 2010)
- *Justice Quarterly* (2008)
- *Homicide Studies* (2008)
- *Criminology and Public Policy* (2005)
- *Injury Prevention* (2004-2005)
- National Institute of Justice (U.S. Department of Justice) (2001)
- Population Reference Bureau (1994)

Other Professional Affiliations and Service:

- Member, American Society of Criminology
- Member of the Research Advisory Board of the Police Foundation
- Area editor for police strategies and practices, *Encyclopedia of Criminology and Criminal Justice* (under development for Springer Verlag, Gerben Bruinsma and David Weisburd, editors in chief)
- Contributor to the Crime and Justice Group of the Campbell Collaboration
- Former Associate of the Jerry Lee Center of Criminology, University of Pennsylvania
- Former Associate of the Firearm and Injury Center at Penn, University of Pennsylvania Health System
- Participant in the National Research Collaborative on Firearm Violence convened by the Firearm and Injury Center at Penn (2005)
- Participant in National Institute of Justice (U.S. Department of Justice) focus group on identity theft research (2005)
- Participant in annual fellowship fundraiser for the American Society of Criminology (1993-2006, 2012)
- Committee member for selected M.A. and Ph.D. committees at Temple University and the University of Maryland (1997, 2001, 2004)
- Member of award selection committee for the American Society of Criminology (2002)
- Member of the Advisory Committee for the National Criminal History Improvement Program State Firearms Research Project of the Justice Research and Statistics Association (1996)

Selected Honors and Awards

Excellence in Law Enforcement Research Bronze Award from the International Association of Chiefs of Police, 2012 (for co-authorship of *Evaluation Study of Prince William County's Illegal Immigration Enforcement Policy*)

Scholar-in-Residence of the Firearm and Injury Center at Penn (University of Pennsylvania Health System), 2004 – 2006

Smith Richardson Foundation Public Policy Research Fellowship, 2001

Graduate Assistant Award, Department of Criminology and Criminal Justice, University of Maryland, 1989-1994

Honors, Ph.D. Theory Comprehensive Examination, Department of Criminology and Criminal Justice, University of Maryland, 1993

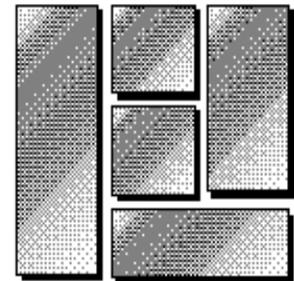
Summa cum Laude, University of Maryland, 1988

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EXHIBIT 28

IMPACT EVALUATION OF THE PUBLIC SAFETY AND RECREATIONAL FIREARMS USE PROTECTION ACT OF 1994

Final Report



THE URBAN INSTITUTE
2100 M STREET, N.W.
WASHINGTON, DC 20037

March 13, 1997

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1. OVERVIEW

Title XI of the Violent Crime Control and Law Enforcement Act of 1994 (the Crime Control Act) took effect on September 13, 1994. Subtitle A banned the manufacture, transfer, and possession of designated semiautomatic assault weapons. It also banned “large-capacity” magazines, which were defined as ammunition feeding devices designed to hold more than 10 rounds. Finally, it required a study of the effects of these bans, with particular emphasis on violent and drug trafficking crime, to be conducted within 30 months following the effective date of the bans. To satisfy the study requirement, the National Institute of Justice (NIJ) awarded a grant to The Urban Institute for an impact evaluation of Subtitle A. This report contains the study findings.

In defining assault weapons, Subtitle A banned 8 named categories of rifles and handguns. It also banned *exact copies* of the named guns, revolving cylinder shotguns, and guns with detachable magazines that were manufactured with certain features such as flash suppressors and folding rifle stocks. The ban specifically exempted *grandfathered* assault weapons and magazines that had been manufactured before the ban took effect. Implicitly, the ban exempts all other guns; several of these, which we treated as *legal substitutes*, closely resemble the banned guns but are not classified as exact copies.

Among other characteristics, ban proponents cited the capacity of these weapons, most of which had been originally designed for military use, to fire many bullets rapidly. While this capacity had been demonstrated in several highly publicized mass murders in the decade before 1994, ban supporters argued that it was largely irrelevant for hunting, competitive shooting, and self-defense. Therefore, it was argued, the ban could prevent violent crimes with only a small burden on law-abiding gun owners. Some of our own analyses added evidence that assault weapons are disproportionately involved in murders with multiple victims, multiple wounds per victim, and police officers as victims.

To reduce levels of these crimes, the law must increase the scarcity of the banned weapons. Scarcity would be reflected in higher prices not only in the *primary markets* where licensed dealers create records of sales to legally eligible purchasers, but also in *secondary markets* that lack such records. Although most secondary-market transfers are legal, minors, convicted felons, and other ineligible purchasers may purchase guns in them (usually at highly inflated prices) without creating records. In theory, higher prices in secondary markets would discourage criminal use of assault weapons, thereby reducing levels of the violent crimes in which assault weapons are disproportionately used.

For these reasons, our analysis considered potential ban effects on gun markets, on assault weapon use in crime, and on lethal consequences of assault weapon use. However, the statutory schedule for this study constrained our findings to short-run effects, which are not necessarily a reliable guide to long-term effects. The timing also limited the power of our statistical analyses to detect worthwhile ban effects that may have occurred. Most fundamentally, because the banned guns and magazines were never used in more than a fraction of all gun murders, even the maximum theoretically achievable preventive effect of the ban on gun murders is almost certainly too small to detect statistically with only one year of post-ban crime data.

With these cautions in mind, our analysis suggests that the primary-market prices of the banned guns and magazines rose by upwards of 50 percent during 1993 and 1994, while the ban was being debated, as gun distributors, dealers, and collectors speculated that the banned weapons would become expensive collectors’ items. 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. 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.

Even though the expected quick profits failed to materialize, we found no strong evidence to date that licensed dealers have increased “off the books” sales of assault weapons in secondary markets and concealed them with false stolen gun reports. Stolen gun reports for assault weapons did increase slightly after the ban took effect, but by less than reported thefts of unbanned large-capacity semiautomatic handguns, which began rising well before the ban.

The lack of an increase in stolen gun reports suggests that so far, the large stock of grandfathered assault weapons has remained largely in dealers’ and collectors’ inventories instead of leaking into the secondary markets through which criminals tend to obtain guns. In turn, this speculative stockpiling of assault weapons by law-abiding dealers and owners apparently reduced the flow of assault weapons to criminals, at least temporarily. Between 1994 and 1995, the criminal use of assault weapons, as measured by law enforcement agency requests for BATF traces of guns associated with crimes, fell by 20 percent, compared to an 11 percent decrease for all guns. BATF trace requests are an imperfect measure because they reflect only a small percentage of guns used in crime. However, we found similar trends in data on all guns recovered in crime in two cities. We also found similar decreases in trace requests concerning guns associated with violent and drug crimes.

At best, the assault weapons ban can have only a limited effect on total gun murders, because the banned weapons and magazines were never involved in more than a modest fraction of all gun murders. Our best estimate is that the ban contributed to a 6.7 percent decrease in total gun murders between 1994 and 1995, beyond what would have been expected in view of ongoing crime, demographic, and economic trends. However, with only one year of post-ban data, we cannot rule out the possibility that this decrease reflects chance year-to-year variation rather than a true effect of the ban. Nor can we rule out effects of other features of the 1994 Crime Act or a host of state and local initiatives that took place simultaneously. Further, any short-run preventive effect observable at this time may ebb in the near future as the stock of grandfathered assault weapons and legal substitute guns leaks to secondary markets, then increase as the stock of large-capacity magazines gradually dwindles.

We were unable to detect any reduction to date in two types of gun murders that are thought to be closely associated with assault weapons, those with multiple victims in a single incident and those producing multiple bullet wounds per victim. We did find a reduction in killings of police officers since mid-1995. However, the available data are partial and preliminary, and the trends may have been influenced by law enforcement agency policies regarding bullet-proof vests.

The following pages explain these findings in more detail, and recommend future research to update and refine our results at this early post-ban stage.

1.1. PRIMARY-MARKET EFFECTS

1.1.1. Prices and Production

1.1.1.1. Findings

We found clear peaks in legal-market prices of the banned weapons and magazines around the effective date of the ban, based on display ads in the nationally distributed periodical Shotgun News between 1992 and mid-1996. For example, a price index of banned SWD semiautomatic pistols rose by about 47 percent during the year preceding the ban, then fell by about 20 percent the following year, to a level where it remains. Meanwhile, the

prices of non-banned Davis and Lorcin semiautomatic pistols remained virtually constant over the entire period. Similarly, a price index for banned AR-15 rifles, exact copies, and legal substitutes at least doubled in the year preceding the ban, then fell after the ban nearly to 1992 levels, where they have remained. Prices of unbanned semiautomatic rifles (e.g., the Ruger Mini-14, Maadi, and SKS) behaved similarly to AR-15 prices, presumably due to pre-ban speculation that these guns would be included in the final version of the Crime Act.

Like assault weapon prices, large-capacity magazine prices generally doubled within the year preceding the ban. However, trends diverged after the ban depending on what gun the magazine was made for. For example, magazines for non-banned Glock handguns held their new high levels, while magazines for banned Uzi and unbanned Mini-14 weapons fell substantially from their peaks. AR-15 large-capacity magazine prices also fell to 1993 levels shortly after the ban took effect, but returned to their 1994 peak in mid-1996. We believe that demand for grandfathered Glock and AR-15 magazines was sustained or revived by continuing sales of legal guns that accept them.

Production of the banned assault weapons surged in the months leading up to the ban. Data limitations preclude precise and comprehensive counts. However, we estimate that the annual production of five categories of assault weapons (AR-15s and models by Intratec, SWD, AA Arms, and Calico) and legal substitutes rose by more than 120 percent, from an estimated 1989–93 annual average of 91,000 guns to about 204,000 in 1994 — more than an extra year’s supply. In contrast, production of non-banned Lorcin and Davis pistols, which are among the guns most frequently seized by police, fell by about 35 percent, from a 1989–93 annual average of 283,000 to 184,000 in 1994.

Our interpretation of these trends is that the pre-ban price and production increases reflected speculation that grandfathered weapons and magazines in the banned categories would become profitable collectors’ items after the ban took effect. Instead, however, assault weapon prices fell sharply within months after the ban took effect, apparently under the combined weight of the extra year’s supply of grandfathered guns, along with legal substitute guns that entered the distribution chain around the time of the ban. While large-capacity magazine prices for several banned assault weapons followed similar trends, those for unbanned Glock pistols sustained their peaks, and those for the widely-copied AR-15 rifle rebounded at least temporarily to peak levels in 1996, after an immediate post-ban fall.

1.1.1.2. Recommendations

To establish our findings about legal-market effects more definitively, we have short-term (i.e., 12-month) and long-term research recommendations for consideration by NIJ. In the short term, we recommend entering and analyzing large-capacity magazine price data that we have already coded but not entered, in order to study how the prices and legal status of guns affect the prices of large-capacity magazines as economic complements. We also recommend updating our price and production analyses for both the banned firearms and large-capacity magazines, to learn about retention of the apparent ban effects we identified. For the long term, we recommend that NIJ and BATF cooperate in establishing and maintaining time-series data on prices and production of assault weapons, legal substitutes, other guns commonly used in crime, and the respective large and small capacity magazines; like similar statistical series currently maintained for illegal drugs, we believe such a price and production series would be a valuable instrument for monitoring effects of policy changes and other influences on markets for weapons that are commonly used in violent and drug trafficking crime.

1.2. SECONDARY-MARKET EFFECTS

1.2.1. Findings

In addition to the retail markets discussed above, there are secondary gun markets in which gun transfers are made without formal record keeping requirements. Secondary market transfers are by and large legal transactions. However, prohibited gun purchasers such as minors, felons, and fugitives tend to acquire most of their guns through secondary markets and pay premiums of 3 to 5 times the legal-market prices in order to avoid eligibility checks, sales records, and the 5-day waiting period required by the Brady Act. We were unable to observe secondary-market prices and quantities directly. Anecdotally, however, the channels through which guns “leak” from legal to secondary markets include gun thieves, unscrupulous licensed dealers who sell guns on the streets and in gun shows more or less exclusively to prohibited purchasers (who may resell the guns), as well as “storefront” dealers who sell occasionally in secondary markets, reporting the missing inventories to BATF inspectors as “stolen or lost.” Since two of these channels may lead to theft reports to the FBI’s National Crime Information Center (NCIC), we tested for an increase in reported assault weapon thefts after the ban.

To this point, there has been only a slight increase in assault weapon thefts as a share of all stolen semiautomatic weapons. Thus, there does not appear to have been much leakage of assault weapons from legal to secondary markets.

In order to assess the effects of the large-capacity magazine ban on secondary markets, we examined thefts of Glock and Ruger handgun models that accept these magazines. Theft of these guns continued to increase after the ban, despite the magazine ban, which presumably made the guns less attractive. Yet we also did not find strong evidence of an increase in thefts of these guns relative to what would have been predicted based on pre-ban trends. This implies that dealers have not been leaking the guns to illegitimate users on a large scale.

1.2.2. Recommendations

To monitor possible future leakage of the large existing stock of assault weapons into secondary markets, we recommend updating our analyses of trends in stolen gun reports. We also recommend that BATF and NCIC encourage reporting agencies to ascertain and record the magazines with which guns were stolen. Also, because stolen gun reports are deleted from NCIC files when the guns are recovered, we recommend that analyses be conducted on periodic downloads of the database in order to analyze time from theft to recovery. For strategic purposes, it would also be useful to compare dealer patterns of assault weapon theft reports with patterns of occurrence in BATF traces of guns recovered in crime.

1.3. EFFECTS ON ASSAULT WEAPON USE IN CRIME

1.3.1. Findings

Requests for BATF traces of assault weapons recovered in crime by law enforcement agencies throughout the country declined 20 percent in 1995, the first calendar year after the ban took effect. Some of this decrease may reflect an overall decrease in gun crimes; total trace requests dropped 11 percent in 1995 and gun murders dropped 12 percent. Nevertheless, these trends suggest an 8–9 percent additional decrease due to substitution of other guns for the banned assault weapons in 1995 gun crimes. We were unable to find similar assault pistol reductions in states with pre-existing assault pistol bans. Nationwide decreases related to violent and drug crimes were at least as great as that in total trace requests in percentage terms, although these categories were quite small

in number. The decrease we observed was evidently not a spurious result of a spurt of assault-weapon tracing around the effective date of the ban, because there were fewer assault weapon traces in 1995 than in 1993.

Trace requests for assault weapons rose by 7 percent in the first half of 1996, suggesting that the 1995 effect we observed may be temporary. However, data limitations have prevented us from attributing this rebound to changes in overall crime patterns, leakage of grandfathered assault weapons to secondary markets, changes in trace request practices, or other causes. Data from two cities not subject to a pre-existing state bans suggested that assault weapon use, while rare in those cities both before and after the ban, also tapered off during late 1995 and into 1996.

With our local data sources, we also examined confiscations of selected unbanned handguns capable of accepting large-capacity magazines. Criminal use of these guns relative to other guns remained stable or was higher during the post-ban period, though data from one of these cities were indicative of a recent plateau. However, we were unable to acquire data on the magazines with which these guns were equipped. Further, trends in confiscations of our selected models may not be indicative of trends for other unbanned large-capacity handguns. It is therefore difficult to make any definitive statements about the use of large-capacity magazines in crime since the ban. Nevertheless, the contrasting trends for these guns and assault weapons provide some tentative hints of short-term substitution of non-banned large-capacity semiautomatic handguns for the banned assault weapons.

1.3.2. Recommendations

Although BATF trace request data provide the only national trends related to assault weapon use, our findings based on them are subject to limitations. Law enforcement agencies request traces on only a fraction of confiscated guns that probably does not represent the entire population. Therefore, we recommend further study of available data on all guns recovered in crime in selected cities that either were or were not under state assault weapon bans when the Federal ban took effect. Beyond that, we recommend analyzing BATF trace data already in-house to compare trends for specific banned assault weapon models with trends for non-banned models that are close substitutes. Most strongly, we also recommend updating our trend analysis, to see if the early 1996 rebound in BATF trace requests for assault weapons continued throughout the year and to relate any change to 1996 trends in gun crime and overall trace requests.

From a broader and longer-term perspective, we share others' concerns about the adequacy of BATF trace data, the only available national data, as a basis for assessing the effects of firearms policies and other influences on the use of assault weapons and other guns in violent and drug trafficking crime. Therefore, we commend recent BATF efforts to encourage local law enforcement agencies to request traces on more of the guns they seize from criminals. As a complement, however, we recommend short-term research on departmental policies and officers' decisions that affect the probability that a specific gun recovered in crime will be submitted for tracing.

Unfortunately, we have been unable to this point to assemble much information regarding trends in the criminal use of large-capacity magazines or guns capable of accepting these magazines. This gap is especially salient for the following reasons: the large-capacity magazine is perhaps the most functionally important distinguishing feature of assault weapons; the magazine ban affected more gun models than did the more visible bans on designated assault weapons; and based on 1993 BATF trace requests, non-banned semiautomatic weapons accepting large-capacity magazines were used in more crimes than were the banned assault weapons. For these reasons, we recommend that BATF and state/local law enforcement agencies encourage concerted efforts to record the magazines with which confiscated firearms are equipped — information that frequently goes unrecorded under present practice — and we recommend further research on trends, at both the national and local levels, on the

criminal use of guns equipped with large-capacity magazines. Finally, to support this research and a variety of strategic objectives for reducing the consequences of violent and drug trafficking crime, consideration should be given to studying the costs and benefits of legislative and administrative measures that would encourage recording, tracing, and analyzing magazines recovered in crimes, with or without guns.

1.4. CONSEQUENCES OF ASSAULT WEAPON USE

1.4.1. Findings

A central argument for special regulation of assault weapons and large-capacity magazines is that the rapid-fire/multi-shot capabilities they make available to gun offenders increase the expected number of deaths per criminal use, because an intended victim may receive more wounds, and more people can be wounded, in a short period of time. Therefore, we examined trends in three consequences of gun use: gun murders, victims per gun homicide incident, and wounds per gunshot victim.

Our ability to discern ban effects on these consequences is constrained by a number of facts. The potential size of ban effects is limited because the banned weapons and magazines were used in only a minority of gun crimes — based on limited evidence, we estimate that 25% of gun homicides are committed with guns equipped with large-capacity magazines, of which assault weapons are a subset. Further, the power to discern small effects statistically is limited because post-ban data are available for only one full calendar year. Also, a large stock still exists of grandfathered magazines as well as grandfathered and legal-substitute guns with assault weapon characteristics.

Our best estimate of the impact of the ban on state level gun homicide rates is that it caused a reduction of 6.7% in gun murders in 1995 relative to a projection of recent trends. However, the evidence is not strong enough for us to conclude that there was any meaningful effect (i.e., that the effect was different from zero). Note also that a true decrease of 6.7% in the gun murder rate attributable to the ban would imply a reduction of 27% in the use of assault weapons and large-capacity guns and no effective substitution of other guns. While we do not yet have an estimate of large-capacity magazine use in 1995, our nationwide assessment of assault weapon utilization suggested only an 8 to 20 percent drop in assault weapon use in 1995.

Using a variety of national and local data sources, we 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. Nor did we find assault weapons to be overrepresented in a sample of mass murders involving guns (see Appendix A).

The absence of stronger ban effects may be attributable to the relative rarity with which the banned weapons are used in violent crimes. At the same time, our chosen measures reflect only a few of the possible manifestations of the rapid-fire/multi-shot characteristics thought to make assault weapons and large-capacity magazines particularly dangerous. For example, we might have found the use of assault weapons and large-capacity magazines to be more consequential in an analysis of the number of victims receiving any wound (fatal or non-fatal), in broader samples of firearm discharge incidents. Moreover, our comparisons did not control for characteristics of incidents and offenders that may affect the choice of weapon, the consequences of weapon use, or both.

Recommendations: First, we recommend further study of the impact measures examined in this investigation. Relatively little time has passed since the implementation of the ban. This weakens the ability of statistical tests — particularly those in our time-series analyses — to discern meaningful impacts. Moreover, the

ban's effects on the gun market are still unfolding. Hence, the long term consequences of the ban may differ substantially from the short term consequences which have been the subject of this investigation.

Therefore, we recommend updating the state-level analysis of gun murder rates as more data become available. Similarly, investigations of trends in wounds per gunshot victim could be expanded to include longer post ban periods, larger numbers of jurisdictions, and, wherever possible, data on both fatal and non-fatal victims. Examination of numbers of total wounded victims in both fatal and non-fatal gunshot incidents may also be useful. In some jurisdictions, it may also be possible to link trends in the types of guns seized by police to trends in specific weapon-related consequence measures.

Second, we recommend further research on the role of assault weapons and large-capacity magazines in murders of police officers. Our analysis of police murders has shown that the fraction of police murders involving assault weapons is higher than that for civilian murders. This suggests that gun murders of police should be more sensitive to the ban than gun murders in general. Yet, further research, considering such factors as numbers of shots fired, wounds inflicted, and offender characteristics, is necessary for a greater understanding of the role of the banned weaponry in these murders.

Along similar lines, we strongly recommend in-depth, incident-based research on the situational dynamics of both fatal and non-fatal gun assaults to gain greater understanding of the roles of banned and other weapons in intentional deaths and injuries. A goal of this research should be to determine the extent to which assault weapons and guns equipped with large-capacity magazines are used in homicides and assaults and to compare the fatality rates of attacks with these weapons to those with other firearms. A second goal should be to determine the extent to which the properties of the banned weapons influence the outcomes of criminal gun attacks after controlling for important characteristics of the situations and the actors. In other words, how many homicides and non-fatal gunshot wound cases involving assault weapons or large-capacity magazines would not occur if the offenders were forced to substitute other firearms and/or small capacity magazines? In what percentage of gun attacks, for instance, does the ability to fire more than 10 rounds without reloading influence the number of gunshot wound victims or determine the difference between a fatal and non-fatal attack? In this study, we found some weak evidence that victims killed with guns having large-capacity magazines tend to have more bullet wounds than victims killed with other firearms, and that mass murders with assault weapons tend to involve more victims than those with other firearms. However, our results were based on simple comparisons; much more comprehensive research should be pursued in this area.

Future research on the dynamics of criminal shootings, including various measures of the number of shots fired and wounds inflicted, would provide information on possible effects of the assault weapon and magazine ban that we were unable to estimate, as well as useful information on violent gun crime generally. Such research requires linking medical and law enforcement data sets on victim wounds, forensic examinations of recovered firearms and magazines, and police incident reports.

2. BACKGROUND FOR THE IMPACT ASSESSMENT

Title XI of the Violent Crime Control and Law Enforcement Act of 1994 (the Crime Control Act), took effect on its enactment date, September 13, 1994. Subtitle A, which is itself known as the Public Safety and Recreational Firearms Use Protection Act, contains three provisions related to “semiautomatic assault weapons.” Section 110102 (the assault weapons ban) made unlawful the manufacture, transfer, or possession of such weapons under 18:922 of the United States Code. Section 110103 (the magazine ban) made unlawful the transfer or possession of “large-capacity ammunition feeding devices”: detachable magazines that accept more than 10 rounds¹ and can be attached to semi- or automatic firearms. Section 110104 (the evaluation requirement) required the Attorney General to study the effect of these prohibitions and “in particular...their impact, if any, on violent and drug trafficking crime.” The evaluation requirement specified a time period for the study: an 18-month period beginning 12 months after the enactment date of the Act. It also required the Attorney General to report the study results to Congress 30 months after enactment of the Crime Control Act — March 13, 1997. The National Institute of Justice awarded a grant to the Urban Institute to conduct the mandated study, and this report contains the findings.

This chapter first explains the legislation in additional detail, then discusses what is already known about the role of the banned weapons in crime, and finally explains certain relevant features of firearms markets.

2.1. THE LEGISLATION

Effective on its enactment date, September 13, 1994, Section 110102 of Title XI banned the manufacture, transfer, and possession of “semiautomatic assault weapons.” It defined the banned items defined in four ways:

- 1) Named guns: specific rifles and handguns, available from ten importers and manufacturers: Norinco, Mitchell, and Poly Technologies (all models, popularly known as AKs); Israeli Military Industries UZI and Galil models, imported by Action Arms; Beretta Ar 70 (also known as SC-70); Colt AR-15; Fabrique National FN/FAL, FN/LAR, FN/FNC), SWD M-10, M-11, M-11/9, and M-12; Steyr AUG; and INTRATEC TEC-9, TEC-DC9, and TEC-22;
- 2) Exact copies: “Copies or duplicates of the [named guns] in any caliber”;
- 3) Revolving cylinder shotguns: Large-capacity shotguns, with the Street Sweeper and Striker 12 named as examples; and
- 4) Features-test guns: semiautomatic weapons capable of accepting detachable magazines and having at least two named features.²

Several provisions of the ban require further explanation because they affected our approach to this study. First, the ban exempted several categories of guns: a long list of specific models specified in Appendix A to Sec.

¹ Or “that can be readily restored or converted to accept.”

² For rifles, the named features were: a folding or telescoping stock; a pistol grip that protrudes below the firing action; a bayonet mount; a flash suppresser or threaded barrel designed to accommodate one; a grenade launcher. For pistols, the features were a magazine outside the pistol grip; a threaded barrel (capable of accepting a barrel extender, flash suppresser, forward handgrip, or silencer); a heat shroud that encircles the barrel; a weight of more than 50 ounces unloaded; and a semiautomatic version of an automatic firearm. For shotguns, named features included the folding or telescoping stock, protruding pistol grip, fixed magazine capacity over 5 rounds, and ability to accept a detachable magazine.

110102; bolt- or pump-action, inoperable, and antique guns; semiautomatic rifles and shotguns that cannot hold more than 5 rounds; and firearms belonging to a unit of government, a nuclear materials security organization, a retired law enforcement officer, or an authorized weapons tester.

Second, the prohibitions exempted weapons and magazines that met the definitional criteria but were legally owned (by manufacturers, distributors, retailers, or consumers) on the effective date of the Act. Such “grandfathered” guns may legally be sold, resold, and transferred indefinitely. Estimates of their numbers are imprecise. However, a 1992 report by the American Medical Association reported an estimate of 1 million semiautomatic assault weapons manufactured for civilian use, plus 1.5 million semiautomatic M-1 rifles sold as military surplus (AMA Council, 1992). To distinguish grandfathered guns from exempt guns that might be stolen or diverted to illegal markets, the ban required the serial numbers of guns in the banned categories to clearly indicate their dates of manufacture.

Third, the ban on exact copies of the named guns did not prohibit the manufacture, sale, or transfer of legal substitutes, most of which first appeared around or after the effective date of the ban. Legal substitutes differ from banned exact copies by lacking certain named features or by incorporating minimal design modifications such as slight reductions of pistol barrel length, thumbholes drilled in a rifle stock, or the like. Manufacturers named some legal substitutes by adding a designation such as “Sporter,” “AB,” (After Ban), or “PCR” (Politically Correct Rifle) to the name of the corresponding banned weapon.

Section 110103 of Title XI banned large-capacity magazines, i.e., magazines that accept ten or more rounds of ammunition. Its effective date, exemptions, and grandfathering provisions correspond to those governing firearms under Section 110102. This provision exempts attached tubular devices capable of operating only with .22 caliber rimfire ammunition.

Section 110104 required the study that is the subject of this report: a study of the effect of the ban, citing impacts on violent crime and drug trafficking in particular. It also specified the time period of the study: to begin 12 months after enactment, to be conducted over an 18-month period, and to be reported to Congress after 30 months. Finally, Title XI included a “sunset provision” for the ban, repealing it 10 years after its effective date.

Subtitles B and C of Title XI are relevant to this study because they took effect at the same time, and so special efforts are needed to distinguish their effects from those effects of the assault weapon and magazine bans in Subtitle A. With certain exemptions, Subtitle B bans the sale, delivery, or transfer of handguns to juveniles less than 18 years old. This juvenile handgun possession ban applies, of course, to assault pistols and to other semiautomatic handguns that are frequently recovered in crimes. Subtitle C requires applicants for new and renewal Federal Firearms Licenses — the Federal dealers’ licenses — to submit a photograph and fingerprints with their applications and to certify that their businesses will comply with all state and local laws pertinent to their business operations. These subtitles gave force of law to practices that BATF had begun early in 1994, to require the fingerprints and photographs, and to cooperate with local law enforcement agencies in investigations of Federal Firearms Licensees’ (FFLs) compliance with local sales tax, zoning, and other administrative requirements. These BATF practices are believed to have contributed to an 11 percent reduction in licensees (from 281,447 to 250,833) between January and the effective date of the Crime Act, and a subsequent 50 percent reduction to about 124,286 by December 1996 (U.S. Department of Treasury, 1997). These practices and subtitles were intended to discourage license applications and renewals by the subset of licensees least likely to comply with laws governing sales to felons, juveniles, and other prohibited purchasers.

2.2. CONTEXT FOR THE ASSAULT WEAPONS BAN

At least three considerations appear to have motivated the Subtitle A bans on assault weapons and large-capacity magazines: arguments over particularly dangerous consequences of their use, highly publicized incidents that drew public attention to the widespread availability of military-style weapons, and the disproportionate use of the banned weapons in crime.

The argument over dangerous consequences is that the ban targets a large array of semiautomatic weapons capable of accepting large-capacity magazines (i.e., magazines holding more than 10 rounds). Semiautomatic firearms permit a somewhat more rapid rate of fire than do non-semiautomatics. When combined with large-capacity magazines, semiautomatic firearms enable gun offenders to fire more times and at a faster rate, thereby increasing the probability that offenders hit one or more victims at least once.

There is very little empirical evidence, however, on the direct role of ammunition capacity in determining the outcomes of criminal gun attacks (see Koper 1995). The limited data which do exist suggest that criminal gun attacks involve three or fewer shots on average (Kleck 1991, pp.78-79; McGonigal et al. 1993, p.534). Further, 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 (indeed, there is no evidence comparing the fatality rate of attacks with semiautomatics to those with other firearms). But in the absence of substantial data on the dynamics of criminal shootings (including the number of shots fired and wounds inflicted per incident), it seems plausible that offenders using semiautomatics, especially assault weapons and other guns capable of accepting large-capacity magazines, have the ability to wound more persons, whether they be intended targets or innocent bystanders (see Sherman et al. 1989). This possibility encouraged us to attempt to estimate the effect of the ban on both the number of murder victims per incident and the number of wounds per murder victim.

The potential of assault weapons to kill multiple victims quickly was realized in several dramatic public murder incidents that occurred in the decade preceding the ban and involved assault weapons or other semiautomatic firearms with large-capacity magazines (e.g., see Cox Newspapers 1989; Lenett 1995). In one of the worst mass murders ever committed in the United States, for example, James Huberty killed 21 persons and wounded 19 others in a San Ysidro, California, McDonald's on July 18, 1984, using an Uzi handgun and a shotgun. On September 14, 1989, Joseph T. Wesbecker killed seven persons and wounded thirteen others at his former workplace in Louisville, Kentucky before taking his own life. Wesbecker was armed with an AK-47 rifle, two MAC-11 handguns, and a number of other firearms. One of the most infamous assault weapon cases occurred on January 17, 1989, when Patrick Edward Purdy used an AK-47 to open fire on a schoolyard in Stockton, California, killing 5 children.

There were additional high profile incidents in which offenders using semiautomatic handguns with large-capacity magazines killed large numbers of persons. In October of 1991, a gunman armed with a Glock 17, a Ruger P89 (both the Glock and Ruger models are semiautomatic handguns capable of accepting magazines with more than 10 rounds), and several large-capacity magazines killed 23 people and wounded another 19 in Killeen, Texas. In a December 1993 incident, six people were killed and another 20 were wounded on a Long Island commuter train by a gunman equipped with a semiautomatic pistol and large-capacity magazines.

These events have been cited as jarring the public consciousness, highlighting the public accessibility of weapons generally associated with military use, and demonstrating the apparent danger to public health posed by semiautomatic weapons with large-capacity magazines. These considerations, along with the claim that large-capacity magazines were unnecessary for hunting or sporting purposes, reportedly galvanized public support for the initiative to ban these magazines (Lenett, 1995).

Debate over assault weapons raged for several years prior to the passage of the 1994 Crime Act. Throughout that time, different studies, news reports, policy debates, and legal regulations employed varying definitions of assault weapons. Yet, in general terms, the firearms targeted in these debates and those ultimately prohibited by the federal government's ban consist of various semiautomatic pistols, rifles, and shotguns, most of which accept detachable ammunition magazines and have military-style features. Mechanically, the most important features of these guns are their semiautomatic firing mechanisms and the ability to accept detachable magazines, particularly large-capacity magazines. However, these traits do not distinguish them from many other semiautomatic weapons used for hunting and target shooting. Therefore, some have argued that assault weapons differ only cosmetically from other semiautomatic firearms (Kleck 1991; Cox Newspapers 1989).

Nonetheless, proponents of assault weapons legislation argued that these weapons are too inaccurate to have much hunting or sporting value. Furthermore, they argued that various features of these weapons, such as folding stocks and shrouds surrounding their barrels, have no hunting or sporting value and serve to make these weapons more concealable and practical for criminal use (Cox Newspapers 1989). To the extent that these features facilitated criminal use of long guns or handguns with large-capacity magazines, one could hypothesize that there would be an increase in the deadliness of gun violence. Proponents also claimed that some of these weapons, such as Uzi carbines and pistols, could be converted rather easily to fully automatic firing.³

To buttress these arguments, proponents of assault weapons legislation pointed out that assault weapons are used disproportionately in crime. According to estimates generated prior to the federal ban, assault weapons represented less than one percent of the over 200 million privately-owned guns in the United States; yet they were reported to account for 8% of all firearms trace requests submitted to BATF from 1986 to 1993 (Lenett 1995; also see Zawitz 1995). Moreover, these guns were perceived to be especially attractive to offenders involved in drug dealing and organized crime, as evidenced by the relatively high representation of these weapons among BATF gun trace requests for these crimes. To illustrate, a late 1980s study of BATF trace requests reported that nearly 30% of the guns tied to organized crime cases were assault weapons, and 12.4% of gun traces tied to narcotics crimes involved these guns (Cox Newspapers 1989, p.4).

Further, most assault weapons combine semiautomatic firing capability with the ability to accept large-capacity magazines and higher stopping power (i.e., the ability to inflict more serious wounds).⁴ Thus, assault weapons would appear to be a particularly lethal group of firearms. However, this is also true of many non-banned semiautomatic firearms. Moreover, there have been no studies comparing the fatality rate of attacks with assault weapons to those committed with other firearms.

³ Fully automatic firearms, which shoot continuously as long as the trigger is held down, have been illegal to own in the U.S. without a federal permit since 1934. BATF has the responsibility of determining whether particular firearm models are too easily convertible to fully automatic firing. Earlier versions of the SWD M series assault pistols made by RPB Industries were met with BATF disapproval for this reason during the early 1980s.

⁴ Determinants of firearm stopping power include the velocity, size, shape, and jacketing of projectiles fired from a gun. Notwithstanding various complexities, the works of various forensic, medical, and criminological researchers suggest we can roughly categorize different types of guns as inflicting more or less lethal wounds (see review in Koper 1995). At perhaps the most general level, we can classify shotguns, centerfire (high-velocity) rifles, magnum handguns, and other large caliber handguns (generally, those larger than .32 caliber) as more lethal firearms and small caliber handguns and .22 caliber rimfire (low velocity) rifles as less lethal firearms. Most assault weapons are either high velocity rifles, large caliber handguns, or shotguns.

Nonetheless, the involvement of assault weapons in a number of mass murder incidents such as those discussed above provided an important impetus to the movement to ban assault weapons. Commenting on Patrick Purdy's murder of five children with an AK-47 rifle in Stockton, California in 1989, one observer noted, "The crime was to raise renewed outcries against the availability of exotic military-style weapons in our society. This time police forces joined forces with those who have traditionally opposed the widespread ownership of guns" (Cox Newspapers 1989, p.i). Later that year, California became the first state in the nation to enact an assault weapons ban, and the federal government enacted a ban on the importation of several foreign military-style rifles.

2.3. ASSAULT WEAPONS AND CRIME

Table 2-1 describes the named guns banned by Subtitle A in terms of their design, price, pre-ban legal status, and examples of legal substitutes for the banned guns. The table also reports counts of BATF trace requests — law enforcement agency requests for BATF to trace the recorded purchase history of a gun. Trace counts are commonly used to compare the relative frequencies of gun model uses in crime, although they are subject to biases discussed in the next chapter. Together, the named guns and legal substitutes accounted for 3,493 trace requests in 1993, the last full pre-ban year. This represented about 6.3 percent of all 55,089 traces requested that year.

Of the nine types of banned weapons shown in Table 2-1, five are foreign-made: AKs, UZI/ Galil, Beretta Ar-70, FN models, and the Steyr AUG. Together they accounted for only 394 BATF trace requests in 1993, and 281 of those concerned Uzis. There are at least three reasons for these low frequencies. First, imports of all of them had been banned under the 1989 assault weapon importation ban. Second, the Blue Book prices of the UZI, FN models, and Steyr AUG were all high relative to the prices of guns typically used in crime. Third, the FN and Steyr models lack the concealability that is often desired in criminal uses.

Among the four domestically produced banned categories, two handgun types were the most frequently submitted for tracing, with 1,377 requests for TEC models and exact copies, and 878 traces of SWD's M-series. Table 2-1 also reports 581 trace requests for Colt AR-15 rifles, 99 for other manufacturers' exact copies of the AR-15, and a handful of trace requests for Street Sweepers and Berettas.

Table 2-1. Description of firearms banned in Title XI

<i>Name of firearm</i>	<i>Description</i>	<i>1993 Blue Book price</i>	<i>Pre-ban Federal legal status</i>	<i>1993 trace request count</i>	<i>Examples of legal substitutes</i>
Avtomat Kalashnikov (AK)	Chinese, Russian, other foreign and domestic: .223 or 7.62x39mm cal., semi-auto Kalashnikov rifle, 5, 10*, or 30* shot mag., may be supplied with bayonet.	\$550 (plus 10-15% for folding stock models)	Imports banned in 1989	87	Norinco NHM 90/91
UZI, Galil	Israeli: 9mm, .41, or .45 cal. semi-auto 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	281 UZI 12 Galil	
Beretta Ar-70	Italian: .222 or .223 cal., semi-auto paramilitary design rifle, 5, 8, or 30 shot mag.	\$1050	Imports banned in 1989	1	
Colt AR-15	Domestic: .Primarily 223 cal. paramilitary rifle or carbine, 5-shot magazine, often comes with two 5-shot detachable mags. Exact copies by DPMS, Eagle, Olympic, and others.	\$825-\$1325	Legal (civilian version of military M-16)	581 Colt 99 Other manufacturers	Colt Sporter, Match H-Bar, Target. Olympic PCR Models.
FN/FAL, FN/LAR, FNC	Belgian design: .308 Winchester cal., semi-auto rifle or .223 Remington combat carbine with 30-shot mag. Rifle comes with flash hider, 4-position fire selector on automatic models. Manufacturing discontinued in 1988.	\$1100-\$2500	Imports banned in 1989	9	L1A1 Sporter (FN, Century)
SWD M-10, M-11, M-11/9, M-12	Domestic: 9mm paramilitary semi-auto pistol, fires from closed bolt, 32-shot mag. Also available in fully automatic variation.	\$215	Legal	878	Cobray PM-11, PM12 Kimel AP-9, Mini AP-9
Steyr AUG	Austrian: .223 Remington/5.56mm cal., semi-auto paramilitary design rifle.	\$2500	Imports banned in 1989	4	
TEC-9, TEC*DC-9, TEC-22	Domestic: 9mm semi-auto paramilitary design pistol, 10** or 32** shot mag.; .22 LR semi-auto paramilitary design pistol, 30-shot mag.	\$145-\$295	Legal	1202 Intratec 175 Exact copies	TEC-AB
Revolving Cylinder Shotguns	Domestic: 12 gauge, 12-shot rotary mag., paramilitary configuration, double action.	\$525***	Legal	64 SWD Street Sweepers	

* The 30-shot magazine was banned by the 1994 Crime Act, and the 10-shot magazine was introduced as a result.

** The 32-shot magazine was banned by the 1994 Crime Act, and the 10-shot magazine was introduced as a result.

*** Street Sweeper

Source: *Blue Book of Gun Values*, 17th Edition, by S.P. Fjestad, 1996.

Although the banned weapons are more likely than most guns to be used in crime, they are so rare that only 5 models appeared among the BATF National Tracing Center list of the 50 most frequently traced guns in 1993: the SWD M-11/9 (659 trace requests, ranked 8), the TEC-9 (602 requests, ranked 9), the Colt AR-15 (581 requests, ranked 11), the TEC-DC9 (397 requests, ranked 21), and the TEC-22 (203, ranked 48). In addition, the list named eight unbanned guns that accept banned large-capacity magazines: the Glock 17 pistol (509 requests, ranked 13), the Ruger P85 pistol (403 requests, ranked 20), the Ruger P89 pistol (361 requests, ranked 24), the

Glock 19 pistol (339 requests, ranked 28), the Taurus PT92 (282 requests, ranked 31), the Beretta/FI Industries Model 92 pistol (270 requests, ranked 33), the Beretta Model 92 (264 requests, ranked 34), and the Ruger Mini-14 rifle (255 requests, ranked 36).

In contrast, the list of ten most frequently traced guns is dominated by inexpensive small-caliber semiautomatic handguns not subject to the ban. These included the Raven P-25 (1,674 requests, ranked 1), the Davis P380 (1,539 requests, ranked 2), the Lorcin L-380 (1,163 requests, ranked 3), the Jennings J-22 (714 requests, ranked 6), and the Lorcin L-25 (691 requests, ranked 7). Other guns among the 1993 top ten list were: the Norinco SKS, a Chinese-made semi-automatic rifle (786 requests, ranked 4); the Mossberg 500 .12-gauge shotgun (742 requests, ranked 5), and the Smith & Wesson .38 caliber revolver (596 requests, ranked 10). None of these are subject to the assault weapon ban.

The relative infrequency of BATF trace requests for assault weapons is consistent with other findings summarized in Koper (1995). During the two years preceding the 1989 import ban, the percentage of traces involving assault weapons reportedly increased from 5.5 to 10.5 percent for all crimes (Cox Newspapers, n.d., p.4), and was 12.4 percent for drug crimes. Because law enforcement agencies are thought to request BATF traces more frequently in organized crime and drug crime cases, many criminal researchers (including ourselves) believe that raw trace request statistics overstate the criminal use of assault weapons in crime. Based on more representative samples, Kleck (1991) reports that assault weapons comprised 3.6 percent or less of guns confiscated from most of the Florida agencies he surveyed, with only one agency reporting as high as 8 percent. Similarly, Hutson et al. (1994) report that assault weapons were involved in less than one percent of 1991 Los Angeles drive-by shootings with juvenile victims. Based on his reanalysis of 1993 New York City data, Koper (1995) concluded that assault weapons were involved in only 4 percent of the 271 homicides in which discharged guns were recovered and 6.5 percent of the 169 homicides in which ballistics evidence positively linked a recovered gun to the crime.

Koper (1995) also summarizes findings which suggest that criminal self-reporting of assault weapon ownership or use may have become “trendy” in recent years, especially among young offenders. The percentages of offenders who reported ever using weapons in categories that may have included assault weapons was generally around 4 percent in studies conducted during the 1980s, but rose to the 20- to 30-percent range in surveys of youth reported since 1993, when publicity about such weapons was high (see, e.g., Knox et al., 1994; Sheley and Wright, 1993).

2.4. MARKETS FOR ASSAULT WEAPONS AND OTHER FIREARMS

Predicting effects of the bans on assault weapons and large-capacity magazines requires some basic knowledge of firearms markets. The Federal Bureau of Alcohol, Tobacco and Firearms (BATF) licenses persons to sell or repair firearms, or accept them as a pawnbroker under the Gun Control Act of 1968. Cook et al. (1995, p.73) summarized the relevant characteristics of a Federal firearms licensee (FFL) as follows. Licenses are issued for three years renewable, and they allow Federal Firearm licensees to buy guns mail-order across state lines without a background check or a waiting period. Starting well before the 1994 Crime Act, applicants had to state that they were at least 21 years old and provide a Social Security number, proposed business name and location, and hours of operation. Since the 1968 Omnibus Crime Control and Safe Streets Act, FFL applicants have had to state that they were not felons, fugitives, illegal immigrants, or substance abusers, and that they had never renounced their American citizenship, been committed to a mental institution, or dishonorably discharged from the military.

The Gun Control Act of 1968 made these same categories of persons ineligible to purchase a gun from a licensee and required would-be purchasers to sign statements that they were not ineligible purchasers. The 1968

Act also requires FFLs to retain the records of each sale and a running log of acquisitions and dispositions of all guns that come into their possession. In 1993, the Brady Handgun Violence Prevention Act added several more requirements on handgun sales by FFLs; the focus on handguns reflected their disproportionate involvement in crime. Under the Brady Act, licensed dealers⁵ became required to obtain a photo ID from each would-be handgun purchaser, to verify that the ID described the purchaser, to notify the chief law enforcement officer (CLEO) of the purchaser's home of the attempt to purchase, and to wait five business days before completing the sale, allowing the CLEO to verify eligibility and notify the seller if the purchaser is ineligible. The Brady Act also raised the fee for the most common license, Type 1 (retail), from \$10.00 per year to \$200.00 for the first three years and \$90.00 for each three-year renewal.

Subtitle C of Title XI which took effect simultaneously with the 1994 assault weapons ban strengthened the requirements on FFLs and their customers in several ways, including the following. To facilitate fingerprint-based criminal history checks and to deter applicants who feared such checks, Subtitle C required FFL applicants to submit fingerprints and photographs; this ratified BATF practice that had begun in early 1994. To make FFLs more visible to local authorities, Subtitle C required applicants to certify that within 30 days they would comply with applicable local laws and required the Secretary of the Treasury to notify state and local authorities of the names and addresses of all new licensees. To help local law enforcement agencies recover stolen guns and to discourage licensees from retroactively classifying firearms they had sold without following Federally required procedures as "stolen," Subtitle C introduced requirements for FFLs to report the theft or loss of a firearm to BATF and to local authorities within 48 hours.

Assault weapons and other firearms are sold in primary and secondary markets whose structure was described by Cook et al. (1995). Primary markets include transactions by FFLs. At the wholesale level, licensed importers and distributors purchase firearms directly from manufacturers and advertise them through catalogs and display ads in nationally distributed publications such as *Shotgun News*. Under the law, purchasers may include walk-ins who reside in the distributor's state and FFLs from anywhere who can order guns by telephone, fax, or mail. Primary-market retailers include both large discount stores and smaller-volume independent firearms specialists who offer advice, gun service, sometimes shooting ranges, and other professional services of interest to gun enthusiasts. Some 25,000 independent dealers are organized as the National Alliance of Stocking Gun Dealers. At both the wholesale and retail level, primary-market sellers are legally required to verify that the purchaser is eligible under Federal laws, to maintain records of sales for possible future use in BATF traces of guns used in crime, and, since the effective date of the Crime Act, to report thefts of guns to BATF.

Cook et al. (1995, p.68) also designated "secondary markets," in which non-licensed persons sell or give firearms to others. Sellers other than FFLs include collectors or hobbyists who typically resell used guns through classified ads in newspapers or "consumer classified sheets," through newsletters oriented toward gun enthusiasts, or through word of mouth to family and friends. The secondary market also includes gun shows, "street sales", and gifts or sales to family, friends, or acquaintances. Secondary transfers are not subject to the record-keeping requirements placed on FFLs.

Gun prices in the primary markets are widely publicized, and barriers to entry are few, so that the market for legal purchasers is fairly competitive. For new guns, distributors' catalogs and publications such as *Shotgun News* disseminate wholesale prices. Prices of used guns are reported annually in a *Blue Book* catalog (Fjestad, 1996). Based on interviews with gun market experts, Cook et al. (1995, p.71) report that retail prices track

⁵ The Brady Act exempted sellers in states that already had similar requirements to verify the eligibility of would-be gun purchasers.

wholesale prices quite closely. They estimate that retail prices to eligible purchasers generally exceed wholesale (or original-purchase) prices by 3–5 percent in the large chain stores, by about 15 percent in independent dealerships, and by about 10 percent at gun shows because overhead costs are lower.

In contrast, purchasers who wish to avoid creating a record of the transaction and ineligible purchasers, including convicted felons who lack convincing false identification and wish to avoid the Brady Act eligibility check or waiting period, must buy assault weapons and other guns in the secondary markets, which are much less perfect. Prices for banned guns with accurate and complete descriptions are rarely advertised, for obvious reasons. Sellers do not supply catalogues and reference books that would help an untrained buyer sort out the bewildering array of model designations, serial numbers, and detachable features that distinguish legal from illegal guns. And competition is limited because sellers who are wary of possible undercover purchases by law enforcement agencies prefer to limit “off-the-books” sales either to persons known or personally referred to them, or to settings such as gun shows and streets away from home, where they themselves can remain anonymous.

In general, ineligible purchasers face premium prices some 3 to 5 times legal retail prices.⁶ Moreover, geographic differentials persist that make interstate arbitrage, or trafficking, profitable from “loose regulation” states to “tight regulation” states. Among the banned assault weapons, for example, Cook et al. (1995, p.72, note 56) report TEC-9s with an advertised 1991 price of \$200 in the Ohio legal retail market selling for \$500 on the streets of Philadelphia. By 1995, they report a legal North Carolina price of \$300 compared to a street price of \$1,000 in New York City. In 1992 interviews with Roth (1992), local and state police officers reported even higher premiums in secondary submarkets in which ineligible purchasers bartered drugs for guns: prices in terms of the street value of drugs reportedly exceeded street cash prices by a factor of about 5.

The attraction that the higher premiums hold for FFLs as sellers has been noted by both researchers and market participants. Cook et al. (1995, p.72) note that licensed dealers willing to sell to ineligible purchasers or without Federal paperwork offer buyers the combined advantages of the primary and secondary markets: “they have the ability to choose any new gun in the catalog, but without the paperwork, delays, fees, and restrictions on who can buy.” Their data raise the possibility that up to 78 percent of FFLs in the Raleigh/Durham/Chapel Hill area of North Carolina may operate primarily or exclusively in secondary markets, since 40 percent had not given BATF a business name on their application, and an additional 38 percent provided “business” numbers that turned out to be home numbers (Cook et al., 1995:75). They note the consistency of their findings with a national estimate by the Violence Policy Center (1992 — More Gun Dealers than Gas Stations) that 80 percent of dealers nationwide do not have storefront retail firearms businesses. Jacobs and Potter (1995, p.106) note that because resource constraints have restricted BATF inspections to storefronts, dealers without storefronts may operate without regard to the Brady Act requirements, or presumably to other requirements as well.

The opportunities for FFLs, whether operating from storefronts or not, to sell firearms in both the primary and secondary markets, were colorfully described in the 1993 statement of the National Alliance of Stocking Gun Dealers (NASGD) to the House and Senate Judiciary Committees regarding Subtitle C. After noting the substantial price premium for selling guns directly felons to and others on the street, the statement continues:

Should you feel a little queasy about the late night hours and the face-to-face negotiations with the street folk, then you can become a “gun-show cowboy.” Simply drive by your friendly “distributor” ..., load up 250 handguns, and hit the weekend circuit of gun shows...If you choose

⁶ There are exceptions. Guns fired in crimes may sell at substantial discounts on the street because ballistic “fingerprints” may incriminate the subsequent owner. Drug addicts who find and steal guns during burglaries may sell or trade them for drugs at prices far below market.

to do the “cash and carry” routine then you will command higher prices than those who insist on selling lawfully with all the attendant ID and paperwork. However, since you will most probably be selling at gun shows in states other than where you are licensed, it is unlawful for you to sell and deliver on the spot, so you will not want to identify yourself either. Attendees (purchasers) at gun shows include the entire spectrum of the criminal element — felons, gangs who don’t have their own armorer, underage youth, buyers for underage youth, multistate gun runners and such...Though the gun show cowboy won’t achieve quite as high a profit as the street seller, he can sell in very high volume and easily earn the same dollar amount and feel a lot safer. (NASGD, 1993:2-3).

Pierce et al. (1995) made an initial effort to investigate the extent and distribution of FFLs’ transactions in secondary submarkets through which firearms flow to criminal uses. Using the automated Firearms Tracing System (FTS) recently developed by BATF’s National Tracing Center, they explored several covariates of the distribution of traces in which a given FFL holder is named. They reported the highest mean number of traces for dealers in Maryland, Vermont, and Virginia. Other cross-tabulations indicated that currently active dealers operating at the addresses previously used by out-of-business dealers were more likely than average to be named in traces, which suggests that dealers who are active in secondary markets tend to reapply for licenses under new names. Finally, they reported a very high concentration of dealers in trace requests. While 91.6 percent of the dealers in the FTS database had never been named in a trace, 2,133 dealers, 0.8 percent of the total, had been named in 10 or more traces. Together, they were named in 65.7 percent of all traces conducted. An even smaller handful of 145 dealers’ names surfaced in 30,850 traces — 25.5 percent of the entire trace database. These findings indicated that the channels through which guns flow from FFLs to criminal users are more heavily concentrated than previously recognized.

The channels described above through which firearms flow from licensed dealers (FFLs) and eligible purchasers to ineligible purchasers vary in terms of visibility.⁷ In primary markets, ineligible purchasers may buy guns from FFLs using fake identification themselves or using “straw purchasers” (eligible buyers acting as agents for ineligible buyers, unbeknownst to the FFL). In Cook and Leitzel’s (1996) terminology, these are “formal” transactions that create official records, but the records do not identify the actual consumer.

We use the term “leakage” to designate channels through which guns flow from legal primary and secondary markets to ineligible purchasers. No leakage channel creates valid sales records; however, at least since 1994, all are likely to generate stolen gun reports to BATEF. Ineligible purchasers may buy guns informally (i.e., without paperwork) from unethical FFLs at gun shows or through “street” or “back door” sales. To prevent informal sales from creating discrepancies between actual inventories and the acquisition/disposition records, the FFL may report them as stolen. Such transactions are indistinguishable from actual thefts, the other leakage channel.

Guns may also leak from eligible non-FFL gun owners to ineligible owners through direct sales on the street or at gun shows, or through thefts. While non-FFL owners are not required to record sales or transfers of their guns, they may also wish to report a gun that they sell to an ineligible purchaser as stolen if they suspect it may be recovered in a future crime. Therefore, leakage in secondary markets may also be reflected in theft reports.

⁷ While the law presumes ineligible purchasers to be more likely than eligible purchasers to use guns during crimes, eligible purchasers have, in fact, committed viable crimes with large-capacity firearms.

3. ANALYSIS PLAN

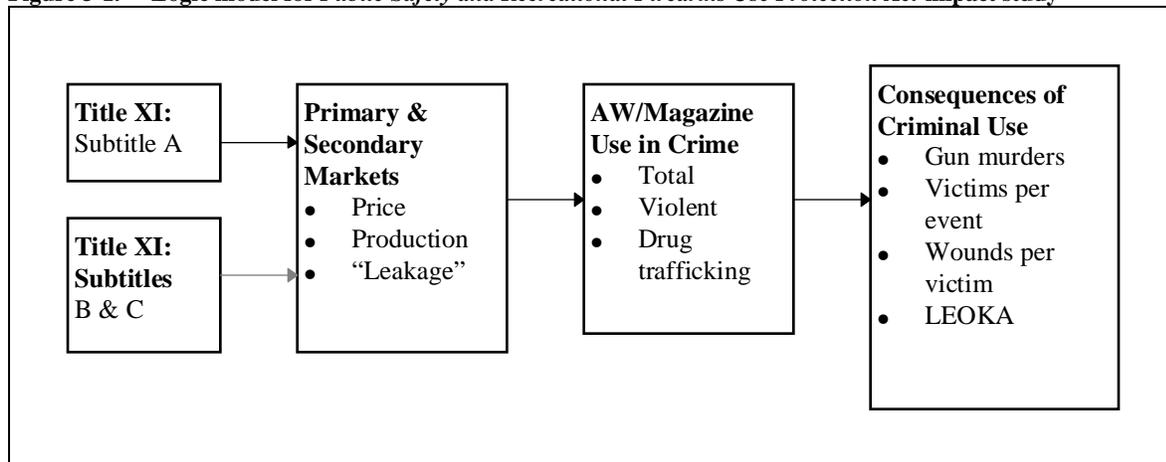
Subtitle A of Title XI banned the manufacture, transfer, and possession of assault weapons and large-capacity magazines. We hypothesized that the ban would produce direct effects in the primary markets for these weapons, that related indirect effects in secondary markets would reduce the frequency of their criminal use, and that the decrease in use would reduce such consequences as gun homicides, especially incidents involving multiple victims, multiple wounds, and killings of law enforcement officers. In this chapter, we explain our general strategy testing these hypotheses.

3.1. POTENTIAL BAN EFFECTS

Figure 3-1 displays the ban effects that we hypothesized and the measures that we used to test those effects. As shown there, we anticipated potential effects on primary and secondary markets for the banned guns and magazines, potential reductions in their use in crime, and subsequent reductions in the consequences of criminal use. Although the available measures of any single effect are problematic, the problems differ by measure. Therefore, our approach was to conduct several small studies, each subject to different error sources, and then to integrate the findings of the separate studies.

As shown in Figure 3-1, the **market effects** of interest included indicators of price, production, and “leakage” between primary and secondary markets. If the Subtitle A bans are to be effective in reducing criminal uses of the banned weapons and magazines, they must increase the prices of those items. Our **price** indicators were collected for banned guns, selected legal substitutes, large-capacity magazines, and, as comparison groups, comparable guns that should not have been directly affected by the ban. The data were the nationally advertised prices of distributors who ran display ads in *Shotgun News* continuously from January 1992 through mid-1996. Because these distributors sell guns simultaneously at the wholesale and retail levels, and because primary-market retail margins are small, we believe these prices offer a useful index of primary-market prices. We used hedonic price analysis to study trends. Annual **production** data were obtained from the Violence Policy Research Project, an organization that compiles BATF manufacturing data. We lacked post-ban data because release of the production statistics is delayed two years by law. Also, we had to make certain approximations because production statistics are not reported for specific models. Therefore, findings from our tabular analyses of production are less complete and more tentative than those about price. Finally, as discussed in Section 3.2, we defined “**leakage**” as the transfer of firearms to ineligible purchasers from licensed dealers and eligible purchasers. Because we argued there that leakage is likely to generate theft reports (either because the guns were transferred by theft or because a false theft report was used to conceal a sale to an ineligible purchaser), we measured leakage using counts of stolen gun reports to the FBI’s National Crime Information Center (NCIC).

Our primary indicator of assault weapon **use in crime** is the volume of requests for BATF traces of guns recovered in crime. **Trace request** data have the advantage of providing a national picture, and they allow us to focus on two of the Congressional priorities for this study, violent crime and drug trafficking crime. They require special caution in interpretation, however, since trace requests are a small and unrepresentative sample of guns recovered in crime. We believe that our tabular analyses provide a defensible estimate of the short-term effects of Title XI on criminal use of the banned weapons. We attempted to supplement the national analysis with analyses of **local trends in recovered assault weapons** in representative samples of recovered guns from a number of law enforcement agencies, but could obtain the necessary data for only a few cities.

Figure 3-1. Logic model for *Public Safety and Recreational Firearms Use Protection Act* impact study

Finally, as shown in Figure 3-1, we used four indicators of the **consequences** of criminal use of assault weapons and semiautomatic weapons with large-capacity magazines: total gun murders by state, victims per criminal event involving gun murder, entry wounds per gunshot wound victim, and law enforcement officers killed in action. While these indicators all have logical relationships to use of the banned items, all have difficulties. Total gun murders is an insensitive indicator because attacks with assault weapons and other semiautomatics with large-capacity magazines account for only a fraction of all murders. Other consequences such as victims per event and wounds per victim are more specific to the banned weapons and magazines, as supporters argued during the ban debates, and assault weapons are more disproportionately used in killings of law enforcement officers than in other murders. However, available databases for measuring those impacts are difficult to analyze because they contain such small numbers of cases. And, for all the indicators, the existence of only one full post-ban year in available data may make the estimates too imprecise to discern short-run impacts even if they are large enough to be of policy interest. As a result, our findings about ban effects on consequences are especially tentative.

We anticipated that market effects during the short-term period allowed for this study would be heavily influenced by expectations. Enactment of the ban was preceded by extensive publicity and debate, which afforded time for manufacturers, distributors, retailers, and collectors to speculate that the firearms being considered for ban coverage would eventually become expensive collectors' items. Analogous experience from 1989 seemed instructive, because that year saw both a Federal ban on importation of assault rifles and a California ban analogous to Title XI. During the three months leading up to the importation ban, import license requests for assault rifles, which had numbered 40,000 in 1987 and 44,000 in 1988, swelled 10-fold to an annual rate of 456,000 (AMA Council, 1992). It is not clear how rapidly the import surge flowed through the distribution chain from importers to consumers in the primary and secondary markets. Yet six months later, during the period leading up to a California ban and sentence enhancement, several police agencies reported sharp decreases in criminal use of assault rifles. At the time, observers attributed this seeming paradox to advance publicity that may have left the misimpression that the ban took effect when enacted, judicial anticipation of the enhancements in setting bond and imposing sentence, tips to police from law-abiding gun dealers sensitive to the criminal gun use that motivated the ban, and owners' reluctance to risk confiscation for misuse of their assault weapons, which had become more valuable in anticipation of the ban (Mathews, 1989). However, it is equally plausible that the speculative price increases for the banned weapons in formal markets at least temporarily bid assault weapons

away from ineligible purchasers who would more probably have used them in crimes (Cook and Leitzel, 1996).⁸ Whether these short-run conditions would hold for the long run would depend on the extent to which grandfathered guns in the banned categories leaked into secondary markets over time through gun shows, “back door” sales, and thefts.

Therefore, our objectives became to estimate ban-related effects on price, supply responses, and leakage from formal to informal markets; to estimate how these market effects influenced criminal assault weapon use; and to estimate trends in the consequences of that use. In accordance with the statutory study requirement, we placed special emphasis on the use of assault weapons in violent crime and drug trafficking crime wherever available data permitted.

3.2. GENERAL DESIGN STRATEGY

Our general design strategies are to test whether the assault weapon and magazine bans interrupted trends over time in the outcome measures listed above. A variety of techniques exist for this general problem. They differ in terms of desirable qualities such as statistical power, robustness against various threats to the validity of findings, and precision; unfortunately, the techniques with more desirable properties are generally more demanding in terms of data requirements. Because of different data constraints, we employed a variety of methods, including various forms of time series and multiple regression analysis (i.e., pooled, cross-sectional time series analysis, hedonic price analysis, and Box-Jenkins interrupted time series models), simple before and after comparisons, and graphical displays. As a result, our conclusions about some measures are stronger than about others.

Because we anticipated these circumstances, our approach to the Congressional mandate was to conduct a number of small-scale analyses of more-or-less readily available data, then to synthesize the results into our best judgment concerning the impacts of Title XI.⁹ We carried out three kinds of analyses of market effects:

- Hedonic price analyses of 1992–96 primary-market price trends for banned semiautomatic firearms, comparable unbanned firearms, and large-capacity magazines, using national distributors’ prices;
- Tabular analyses of gun production data through 1994, the latest available year;
- Pre-ban/post-ban comparisons and time series analyses of 1992–96 trends in “leakage” to illegal markets, as measured by guns reported stolen to FBI/NCIC.

We carried out two kinds of analyses of assault weapon use:

- Graphical and tabular analyses of 1992–96 trends in requests for BATF traces of assault weapons recovered in crime, in both absolute terms and as a percentage of all requests;

⁸ While unbanned, widely available, inexpensive semiautomatic pistols made by Lorcin, Davis, and other manufacturers are good (and perhaps superior) substitutes for the banned assault weapons in most criminal uses, they are not substitutes for speculative purposes.

⁹ During the project, we abandoned early plans for several additional impact studies that we had contemplated. It proved impossible to analyze trends in enforcement of the ban because of the small numbers of matters referred to U.S. Attorneys and cases filed in U.S. District Court. We were forced to abandon plans to measure secondary-market prices of banned weapons from classified advertisements for two reasons: back issues of consumer classifieds proved unavailable, and the ads describe the weapons too imprecisely for consistent classification. Finally, we dropped plans to analyze multi-city assault weapon use data from the gun module of the Drug Use Forecasting (DUF) program for two reasons. Data exist only for the post-ban period, and we had concerns about the validity of respondents’ reports of assault weapon ownership and use.

- Pre-ban/post-ban comparisons and time series analyses of 1992–96 trends in counts of guns recovered in crime by selected local law enforcement agencies.

We carried out the following analyses of the consequences of using assault weapons and semiautomatics with large-capacity magazines in crime:

- An analysis of state-level time-series data on gun murders which controls for potential influences of legal, demographic, and criminological importance;
- Pre-ban/post-ban comparisons and time series analyses of 1980–95 trends in victims per gun-homicide incident as measured nationally from Supplementary Homicide Reports;
- Descriptive analysis of the use of assault weapons in mass murders in the U.S. from 1992-present (see Appendix A);
- Graphical analyses and pre-ban/post-ban comparisons of 1992–96 trends in the number of wounds per gunshot victim using medical data from medical examiners and one hospital emergency department in selected cities, following Webster et al. (1992) and McGonigal et al. (1993);
- A tabular analysis of 1992–96 trends in law enforcement officers killed in action (LEOKA) with assault weapons.

3.2.1. Threats to Validity and Use of Comparison Groups

The validity of the techniques we applied depends on comparisons of trends between meaningful treatment and comparison groups, and we used two approaches to defining comparison groups. In general, to estimate ban effects on markets and uses, we compared trends between types of guns and magazines that were differentially affected by the ban. To estimate effects on the consequences of assault weapon use, we used pre-existing state-level bans on assault weapons and juvenile handgun possession to define comparison groups, because we assumed that such laws would attenuate the effects of the Federal ban.¹⁰

Table 3-1 describes our general classification scheme for types of guns affected by the ban and the corresponding comparison groups.¹¹ The comparisons are not always precise, and, as later chapters will make clear, they differ from measure to measure depending on the gun descriptors used in available databases.

¹⁰ Although in theory, comparisons of markets and uses could be made simultaneously by weapon and jurisdiction, the disaggregation often leaves too little data for meaningful analysis.

¹¹ To be considered a potential comparison gun, we had to have at least anecdotal evidence that it had appeal beyond the community of sportsmen and collectors and/or evidence that it was among the 50 guns most commonly submitted for BATF traces. Without that constraint, it would have been unreasonable to consider it as being functionally similar to any banned gun, and data on prices and uses would have involved numbers too small to analyze. The trade-off is that the comparison guns may well have been subject to indirect substitution effects from the ban.

Table 3-1. Banned weapons and examples of unbanned comparison weapons

<i>Banned weapon</i>	<i>Examples of Comparison weapon</i>
<u>Named Domestic Assault Pistols</u> -SWD M-10, M-11, M-11/9, M-12, exact copies under other names, legal substitutes -TEC-9, TEC-DC9, TEC-22, exact copies by AA Arms, legal substitutes	-Lorcin, Davis semiautomatic pistols (less expensive) -Glock, Ruger semiautomatic pistols (more expensive)
<u>Named Domestic Assault Rifles</u> -Colt AR-15, exact copies and legal substitutes	-Ruger Mini-14 (unbanned domestic) -Maadi (legal import)
<u>Named Foreign Assault Weapons</u> -UZI carbines and pistols -AK models	-SKS (recently restricted, widely available import)
<u>“Features Test” Guns</u> Calico Light Weapons pistols and rifles Feather rifles	See pistols and rifles above.
<u>Rare Banned Weapons</u> Beretta Ar-70, FN models, Steyr AUG, revolving cylinder shotguns	No comparisons defined.

Of the banned weapons named in Table 3-1, the named domestic assault pistols are of greatest interest because they are more widely used in crime than rifles. We used two categories of pistols as comparison groups: the cheap small-caliber pistols by Lorcin and Davis that are among the most widely used guns in crime, and the more expensive Glock and Ruger pistols. The Glock and Ruger models took on additional significance by serving as indicators of non-banned handguns capable of accepting large-capacity magazines. For the AR-15 family of assault rifles, we used the Ruger Mini-14, SKS, and/or Maadi rifles in various comparisons. All are legally and widely available.

We performed relatively few comparative analyses of named foreign assault weapons, the UZI, Galil, and AK weapons, because the 1989 import ban limited their availability during our observation period, and their legal status was unchanged by the Title XI ban. Nevertheless, because these guns remain in criminal use, we performed price analyses for their large-capacity magazines, which are also widely available from foreign military surplus. The SKS semiautomatic rifle, which was imported from China and Russia in fairly large numbers¹² until recently, served as an unbanned comparison weapon for the banned foreign rifles. We carried out no analyses concerning the rarest assault weapons shown in Table 3-1.

Because few available databases relate the consequences of assault weapon use to the make and model of weapon, most of our analyses of consequences are based on treatment and comparison jurisdictions defined in terms of their legal environments. Four states — California, Connecticut, Hawaii, and New Jersey — already

¹² Although a 1994 ban on Chinese imports of many goods including firearms nominally covered SKS rifles, large numbers continued to enter the country under Craig Amendment exemptions for goods already “on the water” at the time of the import ban.

banned assault weapons before the Federal ban was enacted. Although state bans can be circumvented by interstate traffickers, we hypothesized that their existence would reduce the effects of the Federal ban in their respective states.

The following chapters report findings of the analyses described here. Each chapter also explains in detail the tailoring of this general analysis plan to data constraints associated with each comparison.

4. GUN AND MAGAZINE MARKET EFFECTS

The discussion of gun markets in Chapter 2 led us to several hypotheses. First, assuming that the primary and secondary markets were in equilibrium before Congress took up serious discussion of a ban on assault weapons and large-capacity magazines, we hypothesized that the opening of debate would stimulate speculative demand for the banned guns and magazines, leading to price increases in primary markets well in advance of the effective date of the ban. Second, we hypothesized that for the makes and models of assault weapons whose prices increased, quantities produced would also increase before the ban took effect. These “grandfathered guns” were exempted from the ban.

Having been advised by a gun market expert¹³ that legal substitutes for many of the banned weapons appeared in primary markets around the effective date of the ban, it seemed doubtful that the speculative pre-ban price increases could hold under the combined weight of stockpiled grandfathered guns and the flows of new legal substitute models. Therefore, our third hypothesis was that the post-ban prices of banned guns and their legal substitutes would return to their pre-debate equilibrium levels.

We presumed that assault weapons and large-capacity magazines are economic complements, so that, like bread and butter, an increase in the supply of either one should decrease its price and increase the price of the other. Therefore, our fourth hypothesis was that, for the oversupplied assault weapons and legal substitutes whose prices fell from their speculative peaks, their magazine prices¹⁴ should rise over time, as the stock of grandfathered magazines dwindled.

Finally, we believed that for banned makes and models whose prices experienced a speculative price bubble around the time of the ban and then returned to pre-ban levels, speculative demand would fall eventually in both primary and secondary markets as expectations receded for a price “rebound” in primary markets. In contrast, demand by ineligible purchasers intending to use the banned weapons in crime should be relatively unaffected. Therefore, at least in the short run, relative prices should rise in secondary markets, where such “crime demand” is concentrated. We could not directly observe secondary-market prices. However, a price rise in secondary relative to primary markets should cause increased “leakage” to secondary markets, reflected in rising theft reports of assault weapons during post-ban periods of low prices in primary markets.

The following sections report the methods we used to test these hypotheses about market effects of the ban, and our findings.

4.1. FINDINGS OF PRICE ANALYSIS

4.1.1. Collection of Price Data

To test our hypotheses about price trends, we sought to approximate the prices at which the banned items could be legally purchased throughout the country. After considering available data sources, we decided that monthly data would be sufficient and that the distributors’ prices advertised in national publications would offer a

¹³ William R. Bridgewater, personal communication, September 1995.

¹⁴ Magazines are make and model-specific, so that in general a magazine made for a specific rifle will not fit other rifles. However, a magazine made for a banned assault rifle like the Colt AR-15 will fit an exact copy like the Olympic Arms AR-15 and a legal substitute like the Colt AR-15 Sporter, which has the same receiver.

suitable index. Those prices are available to any FFL, and, as discussed in Chapter 2, primary-market FFLs generally re-sell within 15 percent of the distributors' price.

To collect the necessary data, we developed two forms. The first was designed to collect data on base price and accessorized price on 47 makes and models of guns. These included all guns named in Subtitle A along with selected legal substitutes and functional substitutes (e.g., low-capacity semiautomatic pistols that are commonly used in crimes). The second form recorded make, model, capacity, and price of any advertised large-capacity magazines. Both forms also recorded the distributors' names and, for verification purposes, a citation to the location of the advertisements.

We selected twelve gun and magazine distributors that had display ads on a monthly basis in *Shotgun News* throughout the entire period from April 1992 through June 1996. This period was selected to permit observation of rumored "Clinton election" price effects (i.e., increased speculative demand based on concern over possible new gun controls under a Democratic administration) as well as the entire period of debate over Subtitle XI and as long a post-ban period as possible. Display ad prices were coded on a monthly basis throughout the period except immediately around the ban, from August 1994 to October 1994, when prices were coded on a weekly basis to maximize statistical power during the period when we expected the largest price variances. The *Shotgun News* issue to be coded for each month was selected randomly, to avoid any biases that might have occurred if a particular part of the month was coded throughout the period. The number of advertised-price observations for any given gun varied from month to month over the period, as distributors chose to feature different makes and models. The number of price observations for a given make and model bears an unknown relationship to the number of transactions occurring at that price. The advertised prices should be considered approximations for at least three reasons. Advertised prices simultaneously represent wholesale prices to retail dealers and retail prices to "convenience dealers" who hold licenses primarily to receive guns for personal use by mail from out-of-state sources. There is anecdotal evidence of discounts from advertised prices for purchases in large quantities or by long-time friends of the distributors. Finally, the ads did not permit us to accurately record such price-relevant features as finish, included gun cases, and included magazines.

4.1.2. Analysis

Price trends for a number of firearms and large-capacity magazines were analyzed using hedonic price analysis (Berndt 1990, pp.102-149; also see Chow 1967). This form of analysis examines changes over time in the price of a product while controlling for changes over time in the characteristics (i.e., quality) of the product. Hedonic analysis employs a model of the form:

$$Y = a + b * X + c_1 * T_1 + \dots c_n * T_n + e$$

where Y is the logarithmic price of the product, X represents one or more quality characteristics affecting the price of the product, T₁ through T_n are dummy variables for the time periods of interest, a is an intercept term, and e is an error term with standard properties. The coefficients c₁ through c_n provide quality-adjusted estimates of changes over time in the price of the product.

In the analysis that follows, all price data were first divided by quarterly values of the gross domestic product price deflator as provided in *Economic Indicators* (August 1996). This quantity was then logged. In all models, we have omitted the time dummy for the period when the ban went into effect. Thus, the time coefficients are interpreted relative to the prices at the time of ban implementation. Because the outcome variable is logged, the coefficients on the time period indicators can be interpreted as multiplier effects (we illustrate this in more

detail below). Whenever possible, we examined quarterly price trends. In a number of instances, however, sample size considerations required us to use semi-annual or annual periods.

Our quality variables correspond to factors such as manufacturer, model, distributor, and, in some cases, weapon caliber. In addition, some of the models include an indicator variable denoting whether the firearm had special features or enhancements or was a special edition of any sort.¹⁵ We have used these variables as proxy variables for quality characteristics in the absence of more detailed measures of weapon characteristics. Further, we cannot fully account for the meaning of significant distributor effects. Distributor effects 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.¹⁶ Nevertheless, we included distributor because it was often a significant predictor of price. Thus, our models provide price trends after controlling for the mix of products and distributors advertised during each time period. Finally, the models presented below are parsimonious models in which we have retained only those quality indicators which proved meaningful in preliminary analyses.¹⁷

4.1.2.1. Gun Prices

For the analysis of firearm prices, we chose groups of weapons based on both theoretical importance and data availability (a number of the guns included on our coding form appeared infrequently in the ads examined by project staff). We examined price trends in banned assault pistols and compared them to price trends for unbanned semiautomatic handguns commonly used in crime. In addition, we analyzed the price trend for the banned AR-15 assault rifle and its variations and compared it to trends for a number of similar semiautomatic rifles not subject to the ban.

Our findings for handguns were consistent with our hypotheses. For the banned SWD group of assault pistols, the average advertised price peaked at the time the ban took effect, having risen from 68 percent of the peak a year earlier; within a year, the mean price fell to about 79 percent of peak. In contrast, advertised prices of unbanned Davis and Lorcin semiautomatic pistols commonly used in crime were essentially constant over the entire period.

Rifle price trends were only partially consistent with our hypotheses. For semiautomatic rifles, prices of both the banned AR-15 family of assault rifles and a comparison group of unbanned semiautomatic rifles showed evidence of speculative peaks around the time the ban took effect, followed by a decrease to approximately pre-speculation levels.

We interpret these findings as evidence of substantial speculative pre-ban demand for guns that were expected to be banned as assault weapons, while the underlying primary market for guns more commonly used in crime remained stable. While no plausible definition of assault weapon was ever likely to include the Davis and

¹⁵ We note, however, that recording special features of the weapons was a secondary priority in the data collection effort; for this reason, and because the ads do not follow a consistent format, this information may not have been recorded as consistently as other data elements.

¹⁶ We have heard speculations but have no evidence that distributors' prices for a given quantity of a specific gun may be inversely related to the rigor of their verification of purchasers' eligibility.

¹⁷ We eliminated control variables that had *t* values less than one in absolute value. This generally improved the standard errors for the coefficients of interest (i.e., the coefficients for the time period indicators).

Lorcin pistols, Lenett (1995) describes considerable uncertainty during the Crime Act debate over precisely which rifles were to be covered.

Assault pistols: The analysis of assault pistol prices focused on the family of SWD M10/M11/M11-9/M12 weapons.^{18 19} Our coders did not find enough ads for these weapons to conduct a quarterly price trend analysis; therefore, we examined semi-annual prices. Results are shown in Table 4-1. In general, the M10, M11, and M11/9 models were significantly more expensive than the M12 model and the new PM11 and PM12 models. Models with the Cobray trademark name had lower prices, while weapons made in .380 caliber commanded higher prices. Finally, two distributors selling these weapons had significantly lower prices than did the other distributors.

¹⁸ Over the years, this class of weapons has been manufactured under a number of different names (i.e., Military Armaments Corp., RPB Industries, Cobray, SWD, and FMJ).

¹⁹ Initially, we had also wished to analyze the prices of banned Intratec weapons and their copies. However, project staff found few ads for these guns among the chosen distributors, particularly in the years prior to the ban's implementation.

Table 4-1. Regression of SWD handgun prices on time indicators, controlling for product characteristics and distributors

Analysis of Variance					
<i>Source</i>	<i>DF</i>	<i>Sum of squares</i>	<i>Mean square</i>	<i>F value</i>	<i>Prob>F</i>
Model	16	16.26086	1.01630	13.376	0.0001
Error	132	10.02900	0.07598		
C Total	148	26.28986			
	Root MSE	0.27564		R-square	0.6185
	Dep Mean	0.87282		Adj R-square	0.5723
Parameter Estimates					
<i>Variable</i>	<i>DF</i>	<i>Parameter estimate</i>	<i>Standard error</i>	<i>T for H0 parameter = 0</i>	<i>Prob> T </i>
INTERCEP	1	1.00876	0.073205	13.78	0.0001
T1	1	-0.17097	0.130798	-1.307	0.1935
T2	1	-0.29236	0.109943	-2.659	0.0088
T3	1	-0.26949	0.078477	-3.434	0.0008
T4	1	-0.38309	0.086909	-4.408	0.0001
T5	1	-0.1881	0.12957	-1.452	0.1489
T7	1	-0.04368	0.076185	-0.573	0.5674
T8	1	-0.23376	0.108602	-2.152	0.0332
T9	1	0.108787	0.205848	0.528	0.5981
CAL380	1	0.200609	0.06946	2.888	0.0045
DIST 3	1	-0.26216	0.128954	-2.033	0.0441
DIST 5	1	0.331378	0.224065	1.479	0.1415
DIST 6	1	-0.18987	0.059367	-3.198	0.0017
COBRAY	1	-0.18832	0.053756	-3.503	0.0006
M10	1	0.771313	0.131932	5.846	0.0001
M11	1	0.308675	0.057351	5.382	0.0001
M119	1	0.110174	0.077347	1.424	0.1567

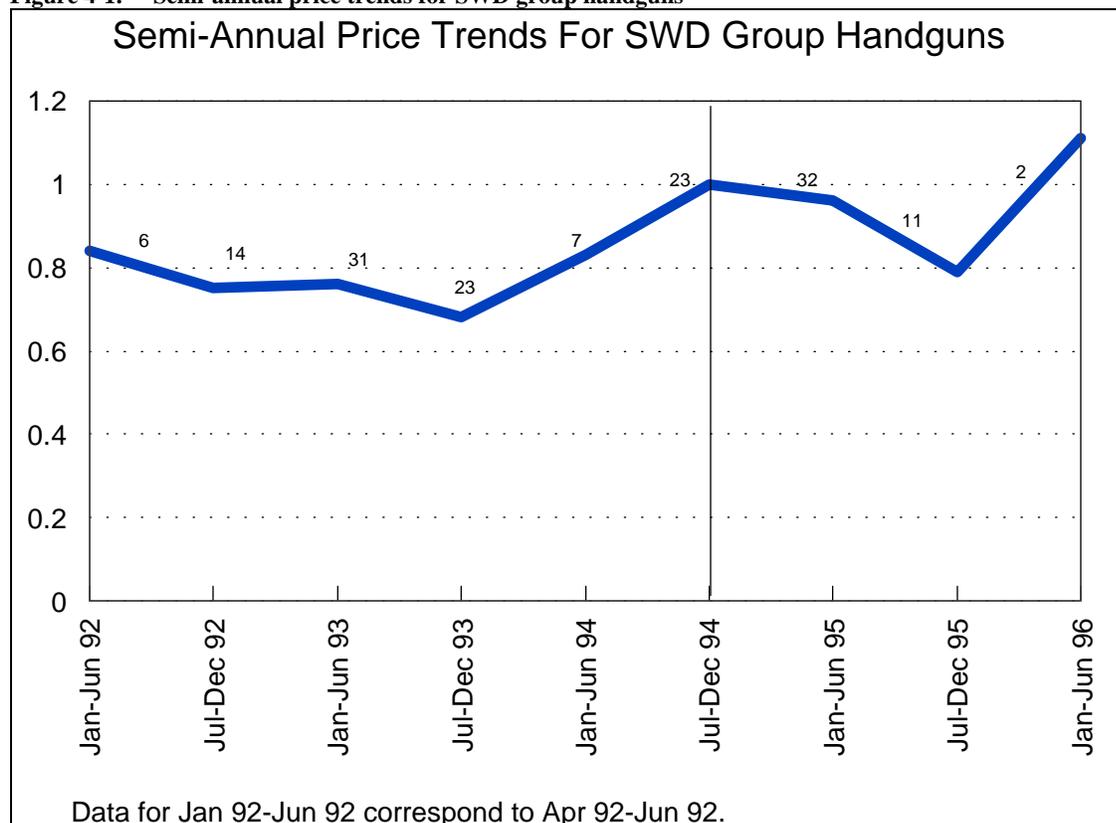
The coefficients for the time indicator variables provide quality-adjusted price trends. The time indicator t6 has been omitted from the equation.²⁰ This indicator corresponds to the period of July 1994 through December 1994 which encompasses the ban implementation date of September 13, 1994. The coefficients on the time dummy variables are all negative and most are significant, indicating that prices for these weapons were at their highest during the six month period when the ban took effect. To interpret the time variables, we exponentiate the coefficients (i.e., take their antilogs). To illustrate, the coefficient for the first time period (January 1992 through June 1992) is -0.170966.²¹ Exponentiating this coefficient yields approximately 0.84, indicating that the average price of these weapons at time 1 (January 1992 through June 1992) was 84 percent of the average price at time 6

²⁰ In this and all other price analyses, time dummies are defined to omit the time period that includes the effective date of the ban. This restricts the coefficient to 0 and $\exp(0) = 1$. Therefore, the effective date is the reference period for prices in all other periods.

²¹ Data collection began with April 1992 issues of Shotgun News. Consequently, the first data point is based on data for April through June of 1992 rather than a full six-month period.

(July 1994 through December 1994). Conversely, the average quality-adjusted price of these firearms was 17 percent less during the January 1992-June 1992 period than during the July 1994-December 1994 period.

Figure 4-1. Semi-annual price trends for SWD group handguns



The time effects are displayed graphically in Figure 4-1 (sample sizes are shown for each time period).²² During the semi-annual periods prior to the ban's implementation, prices of these weapons ranged from 68 to 83 percent of their price during the period of the ban's implementation. Prices peaked when the ban became effective in the latter part of 1994 and remained high through the first half of 1995. In the second half of 1995, however, the prices dropped off dramatically, falling to levels comparable to the pre-ban period. Prices may have rebounded again during the first half of 1996, but the apparent "rebound" was based on only two advertisements and should be treated very cautiously. If one assumes that wholesale markets were in equilibrium before debates about the ban started, then these data reflect a ban-related, speculative peak of up to 47 percent in price, followed by a decline of about 20 percent. Parenthetically, we note that contrary to some anecdotes, we found no evidence of speculation related to the 1992 election.

Comparison handguns: For comparison, we also examined price trends for a number of unbanned semiautomatic handgun models: the Davis P32 and P380 and the Lorcin L25 and L380. By a number of accounts, these models are among the guns most frequently used in crime (BATF 1995; Kennedy et al. 1996; Wintemute 1994, Chapter 2 *supra*). Because of small sample size, this model was estimated using semi-annual data spanning from 1992 through 1995. Referring to Table 4-2, two of the handgun models were significantly less expensive than the others, and one distributor offered statistically significant discounts for these guns.

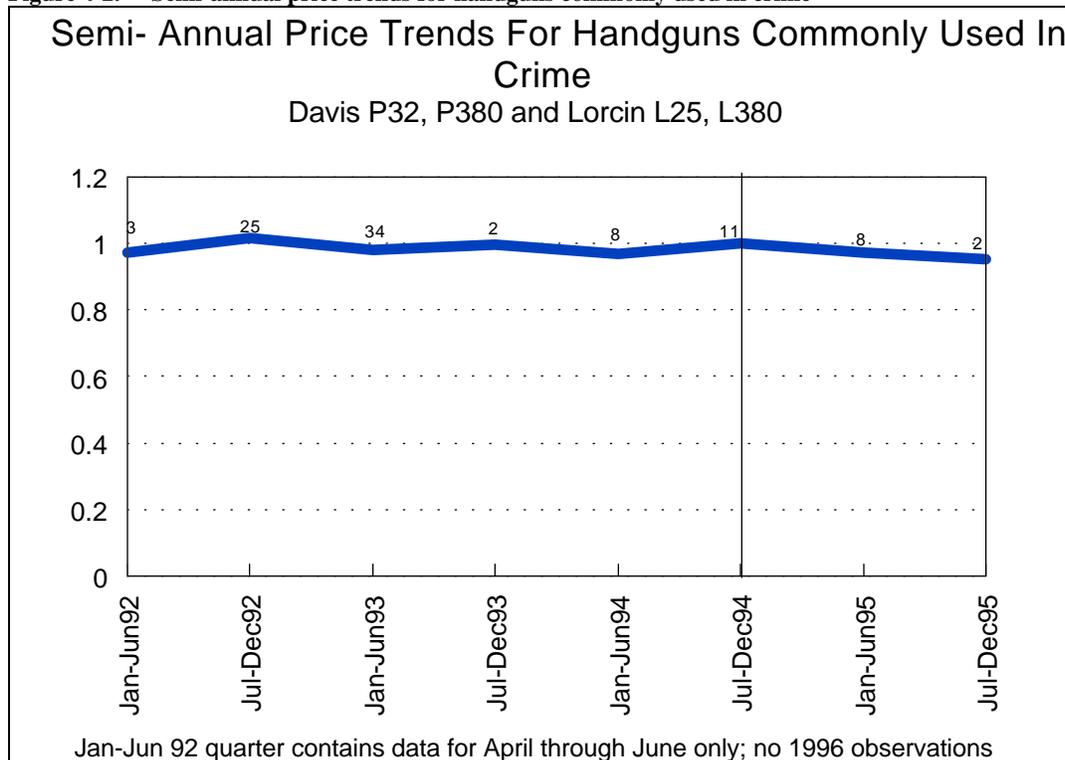
²² Sample sizes are defined in terms of number of price observations available during the period. The number of transactions that took place at each recorded price is, of course, unavailable to us.

Table 4-2. Regression of Lorcin and Davis handgun prices on time indicators, controlling for product characteristics and distributors

Analysis of Variance					
<i>Source</i>	<i>DF</i>	<i>Sum of squares</i>	<i>Mean square</i>	<i>F value</i>	<i>Prob>F</i>
Model	11	3.60246	0.32750	30.678	0.0001
Error	81	0.86469	0.01068		
C Total	92	4.46716			
Root MSE		0.10332		R-square	0.8064
Dep Mean		-0.60396		Adj R-square	0.7801
C.V.		-17.10713			
Parameter Estimates					
<i>Variable</i>	<i>DF</i>	<i>Parameter estimate</i>	<i>Standard error</i>	<i>T for H0 parameter = 0</i>	<i>Prob> T </i>
INTERCEP	1	-0.44243	0.034043	-12.996	0.0001
T1	1	-0.03004	0.069877	-0.43	0.6684
T2	1	0.014817	0.040258	0.368	0.7138
T3	1	-0.0198	0.037239	-0.532	0.5964
T4	1	-0.00259	0.082314	-0.031	0.975
T5	1	-0.03162	0.048582	-0.651	0.517
T7	1	-0.02753	0.048576	-0.567	0.5724
T8	1	-0.05041	0.082314	-0.612	0.542
P32	1	-0.22559	0.033404	-6.753	0.0001
L25	1	-0.55562	0.034119	-16.285	0.0001
DIST 2	1	-0.06434	0.030256	-2.127	0.0365
DIST 6	1	-0.05723	0.042414	-1.349	0.181

The time period coefficients indicate that prices for these weapons were unaffected by the assault weapons ban. Most of the time dummies have negative signs, but their t score values are very small, indicating that prices during these periods did not differ meaningfully from those at the time when the ban was implemented. This is underscored graphically in Figure 4-2.

Figure 4-2. Semi-annual price trends for handguns commonly used in crime



Assault rifles: To investigate the ban's effect on assault rifle prices, we examined quarterly price trends for the Colt AR15 family, which includes the AR15 as well as Colt's Sporter, H-Bar, and Target models.²³ Referring to Table 4-3, the AR15 model was more expensive than other models. Further, guns which had special features/enhancements or a special designation of some sort had somewhat higher prices. Models in 7.62mm caliber were lower in price than other models, though this effect was not quite statistically significant. Finally, one distributor stood out as having lower prices than other distributors.

²³ A number of other manufacturers also made exact copies of the Colt AR15 (e.g., Essential Arms, Olympic Arms, and SGW Enterprises). We included a number of these copies on our price coding form before the ban and legal substitutes thereafter, but we did not find advertisements for these non-Colt versions in *Shotgun News*.

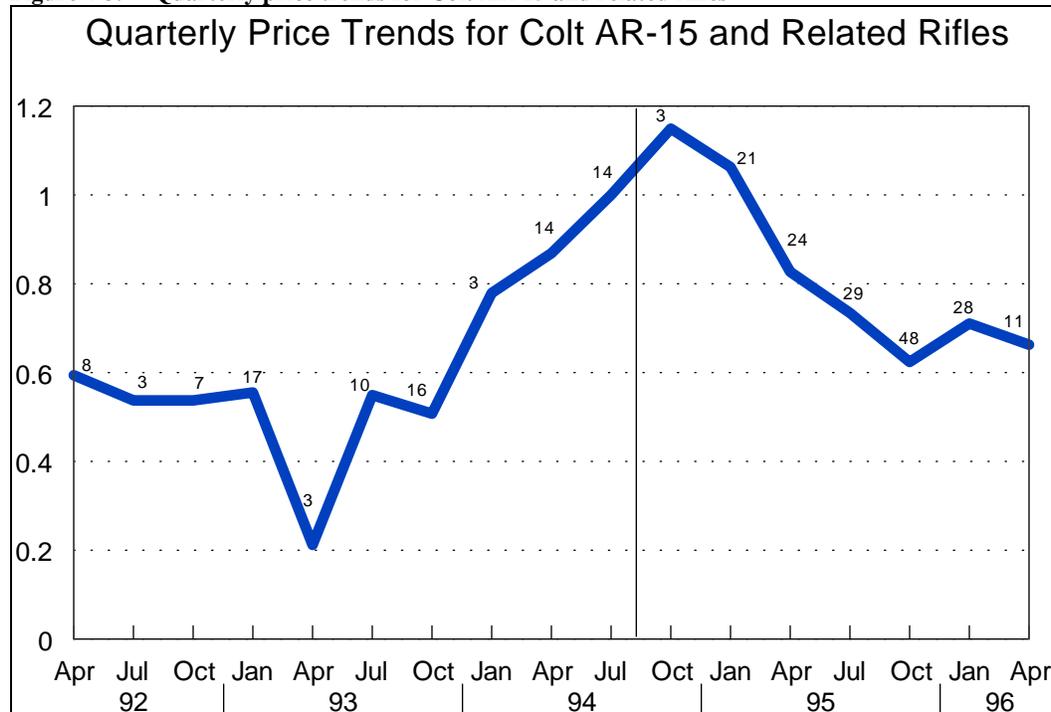
Table 4-3. Regression of Colt AR15 group prices on time indicators, controlling for product characteristics and distributors

Analysis of Variance					
<i>Source</i>	<i>DF</i>	<i>Sum of squares</i>	<i>Mean square</i>	<i>F value</i>	<i>Prob>F</i>
Model	23	21.67729	0.94249	18.161	0.0001
Error	235	12.19537	0.05190		
C Total	258	33.87266			
Root MSE		0.22781		R-square	0.6400
Dep Mean		2.13335		Adj R-square	0.6047
C.V.		10.67826			
Parameter Estimates					
<i>Variable</i>	<i>DF</i>	<i>Parameter estimate</i>	<i>Standard error</i>	<i>T for H0 parameter = 0</i>	<i>Prob> T </i>
INTERCEP	1	2.714668	0.066599	40.762	0.0001
Q1	1	-0.52079	0.107749	-4.833	0.0001
Q2	1	-0.62023	0.149137	-4.159	0.0001
Q3	1	-0.62368	0.116786	-5.34	0.0001
Q4	1	-0.58506	0.083154	-7.036	0.0001
Q5	1	-1.54569	0.150793	-10.25	0.0001
Q6	1	-0.60339	0.095035	-6.349	0.0001
Q7	1	-0.68488	0.084707	-8.085	0.0001
Q8	1	-0.25158	0.14673	-1.715	0.0877
Q9	1	-0.14066	0.087217	-1.613	0.1081
Q11	1	0.143282	0.148951	0.962	0.3371
Q12	1	0.059189	0.082263	0.72	0.4725
Q13	1	-0.18904	0.07715	-2.45	0.015
Q14	1	-0.3144	0.075984	-4.138	0.0001
Q15	1	-0.46528	0.069595	-6.686	0.0001
Q16	1	-0.33741	0.079461	-4.246	0.0001
Q17	1	-0.40788	0.093078	-4.382	0.0001
DIST 5	1	-0.16586	0.044717	-3.709	0.0003
SPORTERL	1	-0.26691	0.042783	-6.239	0.0001
SPORTERC	1	-0.27709	0.057987	-4.778	0.0001
MATCH H-BAR	1	-0.28594	0.041454	-6.898	0.0001
TARGET	1	-0.30664	0.05565	-5.51	0.0001
FEATURE	1	0.1039	0.040315	2.577	0.0106
CAL762	1	-0.14924	0.092373	-1.616	0.1075

Turning to the quarterly indicator variables, the omitted period is quarter ten (July 1994 through September 1994). Most of the quarterly dummy variables have coefficients which are negative and significant, indicating that prices rose significantly at the time of the ban's implementation. Indeed, prices during the 1992–93 period were 41 to 79 percent lower than those at the time of the ban. The prices then began rising during 1994 and peaked during the quarter after the ban's implementation (however, prices during the latter period were not significantly different from those when the ban went into effect). These data reflect price increase of 69 to 100 percent over typical quarters during the 1992–93 period, and a 376 percent increase over the lowest price quarter during that period.

Quality-adjusted prices began to fall significantly during the second quarter of 1995. During the first two quarters of 1996, prices were 29 to 33 percent less than at the time of the ban.²⁴ These trends are illustrated in Figure 4-3.²⁵

Figure 4-3. Quarterly price trends for Colt AR-15 and related rifles



Other Semiautomatic Rifles: A comparison price series was constructed for a small number of semiautomatic rifles not prohibited by the ban. The rifles selected for this analysis, the Ruger Mini-14 and Maadi rifles are arguably useful substitutes for the banned rifles for many purposes. The Mini-14 is a semiautomatic rifle which is relatively common among guns submitted to ATF for tracing.²⁶ The Maadi is an Egyptian semiautomatic rifle which is loosely patterned after the AK-47, but it is a legal gun, according to BATF experts.

²⁴ Colt has discontinued its AR15 models, but the company has continued to make post-ban, modified versions of other weapons in the AR15 family (e.g., the Sporter). We considered the possibility that the AR15 model would follow a different pre/post ban trend from the other Colt models. Based on the number of available observations, we estimated a yearly model for the AR15. Yearly prices for the AR15 followed the same basic pattern as did the entire AR15 group. Relative to 1994, prices for the AR15 were 57 percent lower in 1993 ($p < .01$), 39 percent lower in 1995 ($p = .02$), and 37 percent lower in 1996 ($p = .06$). In addition, we estimated a model containing dummy variables for the AR15 and the post-ban period and an interaction term between these dummy variables (no other time period dummies were included in the model). The interaction term was very small and insignificant, leading us to include that the price differential between the AR15 model and the other Colt models remained constant throughout the period under study.

²⁵ Because some quarterly estimates were based on very small numbers of advertisements, the exact values of the quarterly coefficients should be treated cautiously. Nevertheless, a semi-annual model produced the same pattern of results.

²⁶ Based upon figures provided by ATF, the Mini-14 ranked as the 23rd most common firearm submitted to ATF for tracing in 1992 and the 36th most common firearm submitted in 1993. The Ruger Mini-14 was also featured as a common assault weapon in an early study of assault weapons published by *Cox Newspapers* (1989). However, the Crime Act specifically exempts Mini-14's without folding stocks from assault weapons status.

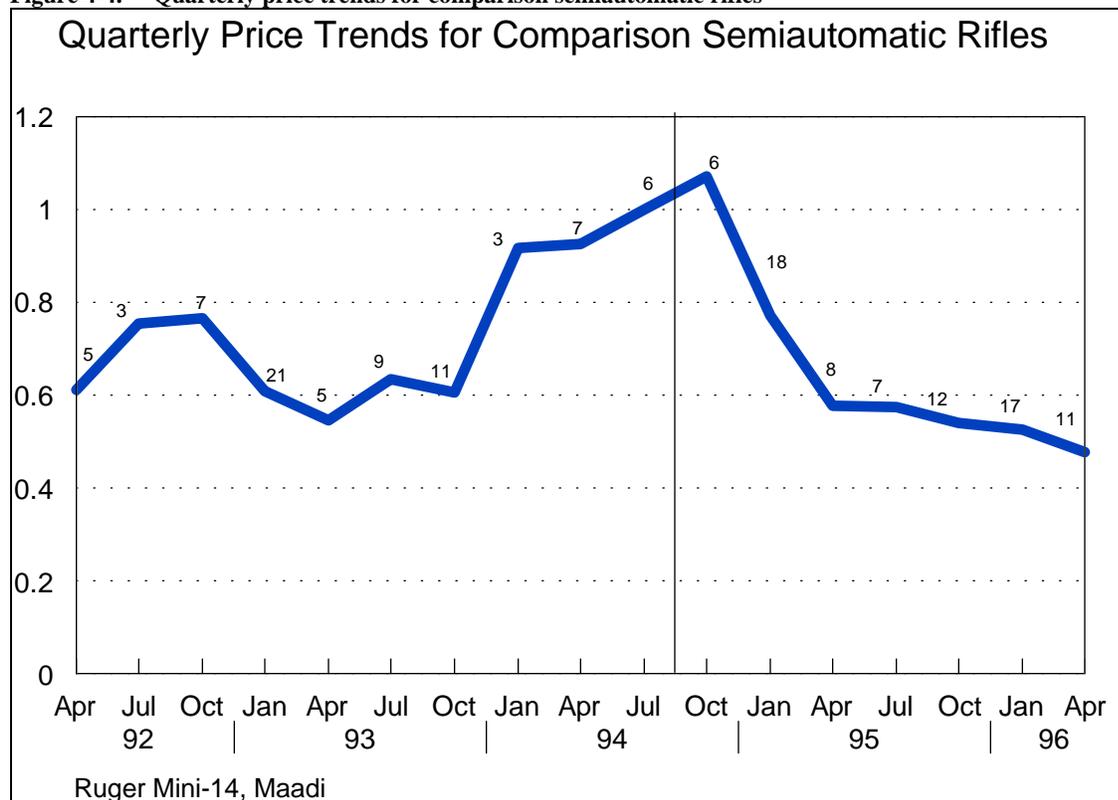
Further, the Maadi rifle has not been affected by import restrictions as have a number of other potential substitute rifles.

Table 4-4 and Figure 4-4 present trends for prices of these rifles (N=156) measured on a quarterly basis. The Ruger Mini-14 was significantly more expensive than was the Maadi, and a number of distributors had substantially lower or higher prices for these weapons. Guns having some sort of special feature or classification were somewhat less expensive than were other weapons.

Table 4-4. Regression of Ruger Mini-14 and Maadi rifle prices on time indicators, controlling for product characteristics and distributors

Analysis of Variance					
<i>Source</i>	<i>DF</i>	<i>Sum of squares</i>	<i>Mean square</i>	<i>F value</i>	<i>Prob>F</i>
Model	23	15.72251	0.68359	12.468	0.0001
Error	132	7.23741	0.05483		
C Total	155	22.95993			
Root MSE		0.23416		R-square	0.6848
Dep Mean		1.11132		Adj R-square	0.6299
C.V.		21.06999			
Parameter Estimates					
<i>Variable</i>	<i>DF</i>	<i>Parameter estimate</i>	<i>Standard error</i>	<i>T for H0 parameter = 0</i>	<i>Prob> T </i>
INTERCEP	1	1.348039	0.096025	14.038	0.0001
Q1	1	-0.49339	0.150985	-3.268	0.0014
Q2	1	-0.28143	0.170394	-1.652	0.101
Q3	1	-0.26618	0.145198	-1.833	0.069
Q4	1	-0.49586	0.1189	-4.17	0.0001
Q5	1	-0.60429	0.149813	-4.034	0.0001
Q6	1	-0.45337	0.12651	-3.584	0.0005
Q7	1	-0.50108	0.123093	-4.071	0.0001
Q8	1	-0.08801	0.166538	-0.528	0.598
Q9	1	-0.07736	0.131103	-0.59	0.5561
Q11	1	0.06801	0.139693	0.487	0.6272
Q12	1	-0.26056	0.114103	-2.284	0.024
Q13	1	-0.55108	0.128193	-4.299	0.0001
Q14	1	-0.5565	0.137519	-4.047	0.0001
Q15	1	-0.61763	0.120067	-5.144	0.0001
Q16	1	-0.64124	0.119303	-5.375	0.0001
Q17	1	-0.73806	0.123765	-5.963	0.0001
RUGER	1	0.672197	0.055061	12.208	0.0001
DIST 2	1	-0.17779	0.079666	-2.232	0.0273
DIST 3	1	-0.08717	0.054575	-1.597	0.1126
DIST 4	1	-1.66399	0.242712	-6.856	0.0001
DIST 5	1	-0.19243	0.0727	-2.647	0.0091
DIST 7	1	0.235402	0.131826	1.786	0.0764
FEATURES	1	-0.08813	0.047131	-1.87	0.0637

Figure 4-4. Quarterly price trends for comparison semiautomatic rifles



The temporal price trends for these weapons mirror those found for the AR15 family rifles. Relative to the period of the ban's implementation, prices were significantly lower during periods before and after the ban's implementation. During 1992 and 1993, prices ranged from 23 to 45 percent lower than during the reference period. Prices were at their highest during 1994, with the peak occurring during the quarter following the ban's effective date, reflecting an increase of 82 percent from the 1992–93 low point to the immediate post-ban period. However, prices for the first, second, and fourth quarters of 1994 were not discernibly different from those during the third quarter. Prices began to fall significantly in 1995, and by the second quarter of 1996, prices were approximately 52 percent lower than during the quarter when the ban took effect.²⁷

Alternative Comparison for Semiautomatic Rifles: As a final test of price trends for potential substitute semiautomatic rifles, we added the SKS rifle to the semiautomatic rifles model. The SKS rifle is imported (there are Russian and Chinese versions) and is occasionally mistaken for an AK-47. The SKS was not covered by either the 1989 import ban or the Crime Act. We initially excluded it as a comparison semiautomatic rifle because importation was nominally restricted in 1994 as part of U.S. trade sanctions directed against China. However, SKS rifles have continued to enter the U.S. under the Craig Amendment exemption for goods already “on the water” when the trade sanctions were imposed. We added it to subsequent analysis because it has been relatively

²⁷ Because some of the quarterly periods yielded few observations, we also estimated a semi-annual model for these gun prices. The results of this model paralleled those of the quarterly model; prices were at their highest during the latter half of 1994 and were significantly lower throughout 1992, 1993, 1995, and early 1996.

common among gun traces submitted to BATF²⁸ and because our coders found over 550 ads for SKS rifles, making that gun the most frequently advertised weapon in *Shotgun News* from among those guns chosen for the analysis.

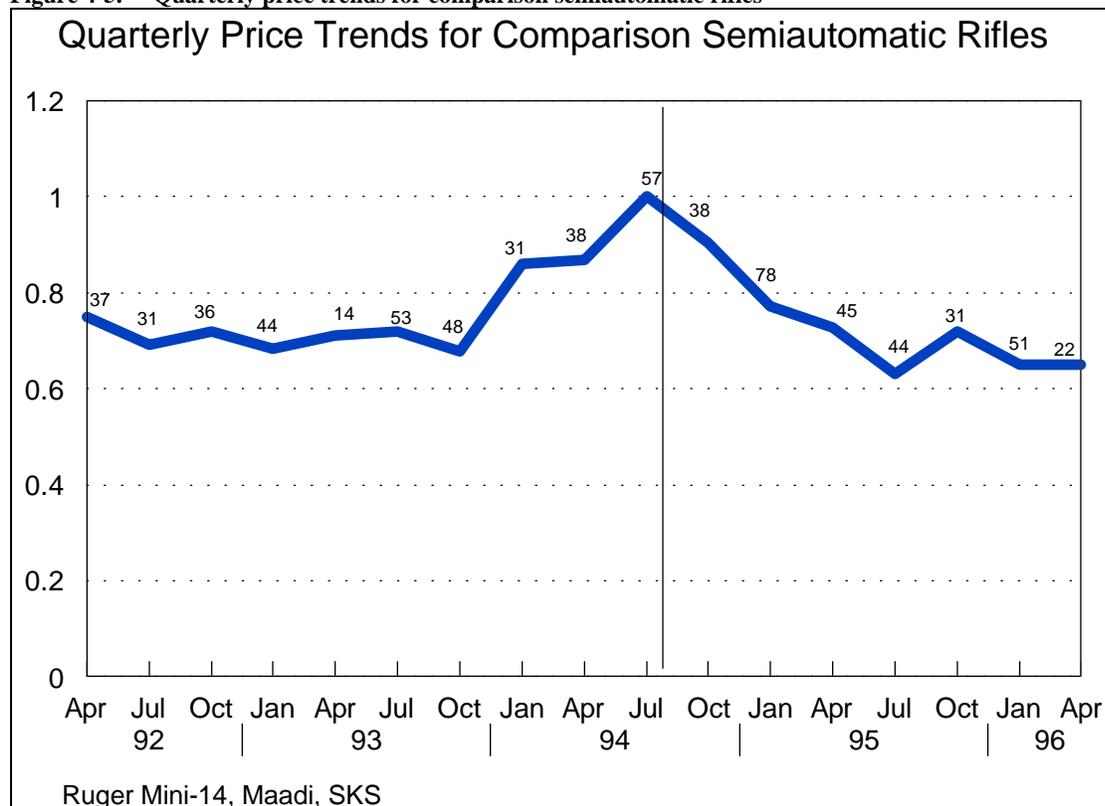
Results from a quarterly price trend model for 698 SKS, Ruger Mini-14, and Maadi AK-type advertisements are presented in Table 4-5 and Figure 4-5. Again, the results indicate that prices were highest during 1994 and peaked during the quarter of the ban's implementation (quarter ten). Prices during the 1992–93 period were generally 32 to 25 percent less than they were during the quarter of the ban's implementation. Following the ban, however, prices fell rather quickly, and by 1996 they were approximately 35 percent less than they had been at the time of the ban.

²⁸ Figures provided to us by BATF show that the SKS was the 10th most common firearm traced in 1992 and the 4th most common in 1993.

Table 4-5. Regression of Ruger Mini-14, Maadi, and SKS rifle prices on time indicators, controlling for product characteristics and distributors

Analysis of Variance					
<i>Source</i>	<i>DF</i>	<i>Sum of squares</i>	<i>Mean square</i>	<i>F value</i>	<i>Prob>F</i>
Model	19	145.53206	7.65958	105.960	0.0001
Error	678	49.01094	0.07229		
C Total	697	194.54300			
Root MSE		0.26886		R-square	0.7481
Dep Mean		0.32139		Adj R-square	0.7410
C.V.		83.65546			
Parameter Estimates					
<i>Variable</i>	<i>DF</i>	<i>Parameter estimate</i>	<i>Standard error</i>	<i>T for H0 parameter = 0</i>	<i>Prob> T </i>
INTERCEP	1	0.320571	0.037047	8.653	0.0001
Q1	1	-0.29288	0.056985	-5.14	0.0001
Q2	1	-0.36758	0.060234	-6.103	0.0001
Q3	1	-0.32732	0.057937	-5.65	0.0001
Q4	1	-0.37657	0.056037	-6.72	0.0001
Q5	1	-0.33581	0.08099	-4.146	0.0001
Q6	1	-0.32629	0.051373	-6.351	0.0001
Q7	1	-0.39266	0.052767	-7.441	0.0001
Q8	1	-0.15306	0.060298	-2.538	0.0114
Q9	1	-0.13647	0.056349	-2.422	0.0157
Q11	1	-0.09587	0.056591	-1.694	0.0907
Q12	1	-0.25553	0.047168	-5.417	0.0001
Q13	1	-0.32473	0.053753	-6.041	0.0001
Q14	1	-0.457	0.054492	-8.387	0.0001
Q15	1	-0.32702	0.06053	-5.403	0.0001
Q16	1	-0.43303	0.052708	-8.216	0.0001
Q17	1	-0.42588	0.068581	-6.21	0.0001
MAADI	1	0.855348	0.032324	26.462	0.0001
RUGER	1	1.363013	0.036904	36.934	0.0001
FEATURES	1	0.093431	0.02203	4.241	0.0001

Figure 4-5. Quarterly price trends for comparison semiautomatic rifles



4.1.3. Magazine Prices

Since the Crime Act permanently capped the stock of large-capacity magazines at the number produced before September 13, 1994, our long-run expectations about price trends for the banned magazines depend on whether or not the ban prevented increases in the supply of “compatible” guns that accept the magazine. For compatible guns whose supply continued to increase — such as the unbanned Ruger Mini-14 rifle and Glock pistols and the AR-15 family of rifles, for which legal substitutes emerged — we expect a gradual long-run increase in the price of the large-capacity magazines. Only for compatible guns such as Uzi models, whose supply was capped because legal substitutes did not emerge, do we expect stable or declining long-run magazine prices as the operational stock of banned guns gradually declines.

In the short run, which is all we can observe at this time, we expect at least three confounding factors to divert large-capacity magazine prices from these trends. First, as with the banned guns, speculative demand for the banned magazines may have caused prices to rise and then fall around the time of the ban. Second, because guns and magazines are economic complements, their prices may be likely to move in opposite directions. Third, for banned guns such as the AR-15 and Uzi models, which are mechanically identical to military weapons, there are military surplus supplies that we believe are huge relative to civilian demand. For these reasons, short-run price trends are a poor guide to long-run price trends for large-capacity magazines.

With these reservations in mind, we examined price trends for large-capacity magazines (i.e., magazines holding more than 10 rounds) manufactured for use with banned firearms and compared them to trends for large-capacity magazines made for unbanned semiautomatic weapons. Selection of firearm models was based on both theoretical relevance and available sample sizes. To improve the generalizeability of the results, we attempted to

analyze magazine prices for both handguns and long guns and for both banned and non-banned weapons. The methodology for the magazine price analysis was essentially the same as that used in the firearm price analysis.²⁹ As in the firearm price analysis, our quality control variables consisted primarily of indicator variables corresponding to manufacturers and distributors. An additional key variable for the magazine analysis was the number of rounds held by the magazine (logged).³⁰

Assault weapon handgun magazines—Uzi: Our analysis of large-capacity magazines prices for assault weapons focused upon the 9mm Uzi handgun.³¹ Though importation of the Uzi handgun had been discontinued in 1993 (Fjestad 1996, p.1049), our coders found ads for Uzi magazines (N=117) more frequently than for other assault weapon handguns.³² Even so, the number of observations was as low as 1-2 for some quarterly periods, and we therefore grouped the data into semi-annual time periods. There is no legal substitute for the banned Uzis that accepts the same magazine.

Regression results for Uzi magazine prices are presented in Table 4-6 and price trends are displayed in Figure 4-6. Controlling for the number of rounds held by the magazine, semi-annual prices during the January 1992 through June 1994 period ranged from approximately 52 to 62 percent of their value during the latter half of 1994. Prices peaked in the first half of 1995, rising another 56 percent, to a tripling of their 1992–94 lowest prices. Prices began to fall in the latter half of 1995 and the first half of 1996, but they did not differ significantly from prices during the latter half of 1994.

²⁹ Project staff recorded information on all advertisements for magazines holding more than 10 rounds which appeared in the selected issues of *Shotgun News*. However, the volume of collected data required us to pursue a data reduction strategy. Based on informal inspection of the hardcopy data, therefore, we chose a group of magazines which appeared relatively more frequently and which had relevance as a banned weapon or legal substitute.

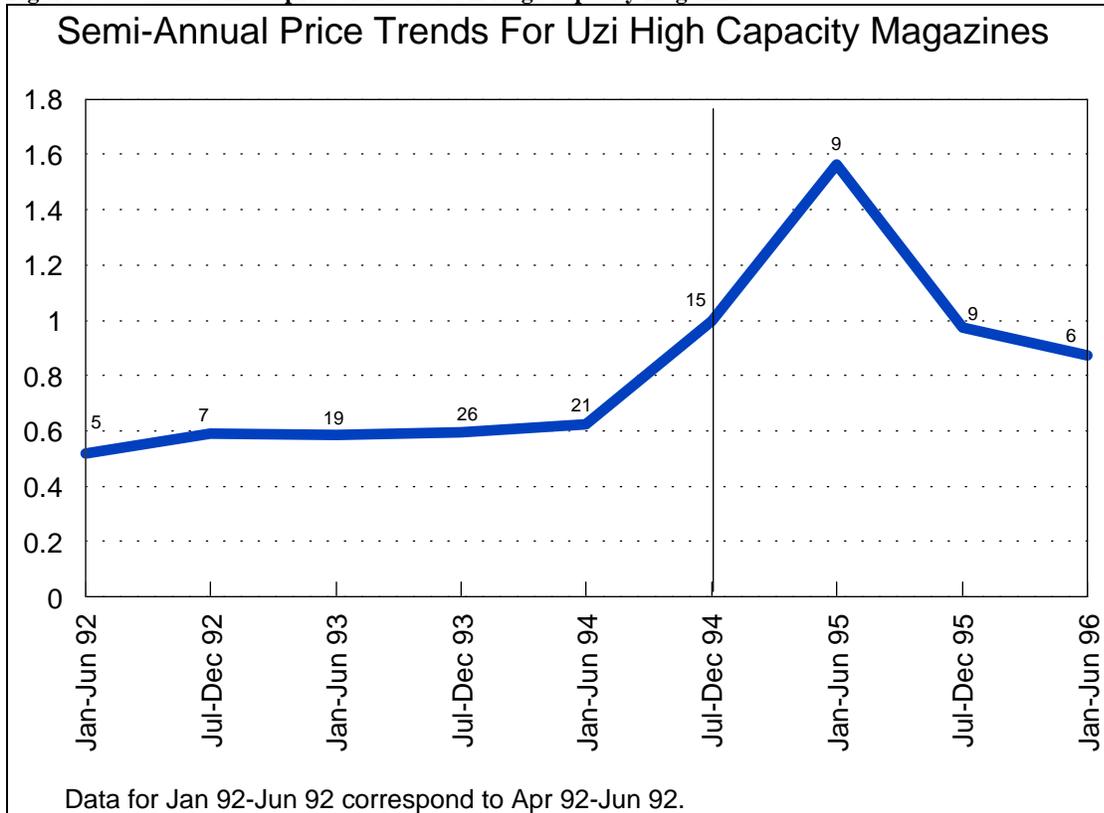
³⁰ Other potentially important characteristics are whether the magazine was new or used and the type of metal from which the magazine was made. Ads often did not state whether magazines were new or used, and our research staff did not record this information. Our working assumption is that the magazines were new or in good working condition. If an ad featured the same magazine manufactured with different types of metals, we used the base price magazine. If the coding form indicated that the advertisement featured only magazines made from special materials (e.g., stainless steel), we made note of this characteristic. There were very few such cases, and preliminary analyses using an indicator variable for the presence of a special metal showed the variable to have no impact in any of the models discussed in the main text.

³¹ The Uzi was previously manufactured and imported to the U.S. in both carbine and handgun versions, but the carbine versions were banned from importation in 1989.

³² The relative frequency of Uzi magazine advertisements is probably due to the fact that the Uzi is a military weapon. Firearms experts have informed us that good quality, military surplus magazines are commonly available and are often sold cheaply.

Table 4-6. Regression of Uzi large-capacity magazine prices on time indicators, controlling for product characteristics and distributors

Analysis of Variance					
<i>Source</i>	<i>DF</i>	<i>Sum of squares</i>	<i>Mean square</i>	<i>F value</i>	<i>Prob>F</i>
Model	9	12.80484	1.42276	9.670	0.0001
Error	107	15.74298	0.14713		
C Total	116	28.54782			
Root MSE		0.38358		R-square	0.4485
Dep Mean		-1.65739		Adj R-square	0.4022
C.V.		-23.14337			
Parameter Estimates					
<i>Variable</i>	<i>DF</i>	<i>Parameter estimate</i>	<i>Standard error</i>	<i>T for H0 parameter = 0</i>	<i>Prob> T </i>
INTERCEP	1	-3.835055	0.54716949	-7.009	0.0001
ROUNDS	1	0.729783	0.15350538	4.754	0.0001
T1	1	-0.661263	0.19914123	-3.321	0.0012
T2	1	-0.525479	0.17560540	-2.992	0.0034
T3	1	-0.536934	0.13325422	-4.029	0.0001
T4	1	-0.515880	0.12659037	-4.075	0.0001
T5	1	-0.474834	0.12970256	-3.661	0.0004
T7	1	0.447430	0.16646042	2.688	0.0083
T8	1	-0.027967	0.16286070	-0.172	0.8640
T9	1	-0.137577	0.18908164	-0.728	0.4684

Figure 4-6. Semi-annual price trends for Uzi large-capacity magazines

Other Handgun Magazines: To provide price trends for large-capacity magazines manufactured for non-banned handguns, we examined large-capacity magazines for Glock 9mm handguns. Prior to the Crime Act, Glock sold several handgun models with large-capacity magazines. The most common, the Glock 17, was among the ten firearm models submitted most frequently to ATF for tracing in 1994 (BATF 1995a). Guns currently manufactured by Glock are capable of accepting Glock's pre-ban large-capacity magazines, but the supply is limited to magazines made before the ban.

Project staff found 74 advertisements for Glock magazines, but the large majority of these ads were placed after the ban (only nine ads were pre-ban) and there were no ads for 1992. It was therefore necessary to group the advertisements into yearly periods rather than quarterly or semi-annual periods. Regression results and price trends for 1993 through 1996 are shown in Table 4-7 and Figure 4-7 respectively. In general, magazines with greater numbers of rounds were more expensive. In addition, a number of distributors had higher prices for these magazines, and magazines for one particular model were more expensive at a moderate level of statistical significance.³³

³³ For the model dummy variables, the excluded category included magazines for which no model was indicated.

Table 4-7. Regression of Glock large-capacity handgun magazine prices on time indicators, controlling for product characteristics and distributors

Analysis of Variance					
<i>Source</i>	<i>DF</i>	<i>Sum of squares</i>	<i>Mean square</i>	<i>F value</i>	<i>Prob>F</i>
Model	10	29.85755	2.98575	28.020	0.0001
Error	91	9.69680	0.10656		
C Total	101	39.55434			
Root MSE		0.32643		R-square	0.7548
Dep Mean		-0.86656		Adj R-square	0.7279
C.V.		-37.66991			
Parameter Estimates					
<i>Variable</i>	<i>DF</i>	<i>Parameter estimate</i>	<i>Standard error</i>	<i>T for H0 parameter = 0</i>	<i>Prob> T </i>
INTERCEP	1	-3.37422	0.56384	-5.984	0.0001
ROUNDS	1	0.618327	0.197724	3.127	0.0024
Y93	1	-0.95884	0.17246	-5.56	0.0001
Y95	1	0.064606	0.108817	0.594	0.5542
Y96	1	0.2227	0.143595	1.551	0.1244
DIST 10	1	0.529244	0.279526	1.893	0.0615
DIST 12	1	0.601322	0.162505	3.7	0.0004
DIST 3	1	0.37606	0.17071	2.203	0.0301
DIST 5	1	0.980483	0.101626	9.648	0.0001
M17	1	0.198804	0.108878	1.826	0.0711
M19	1	0.169323	0.112614	1.504	0.1362

Figure 4-7. Yearly price trends for Glock large-capacity handgun magazines

Most importantly, prices for large-capacity Glock magazines were 62 percent lower in 1993 than they were in 1994. Prices remained high through 1995, and they increased another 25 percent in 1996 (relative to 1994), though this increase was not statistically significant by conventional standards.

Assault rifle magazines — AR15 Family: Pre-ban large-capacity magazines manufactured by Colt for their AR15's and related rifles can be utilized with the post-ban, modified versions of these rifles. Consequently, we expected that there would be a continuing demand for these magazines.

Project staff recorded 364 ads for large-capacity magazines (.223 caliber) made to fit the AR15 and related rifles. Results from our analysis of quarterly price trends for these magazines are shown in Table 4-8 and Figure 4-8. Magazines having larger ammunition capacities were more expensive as were those magazines for which Colt was listed explicitly as the manufacturer.³⁴ In addition, prices tended to differ significantly between distributors.

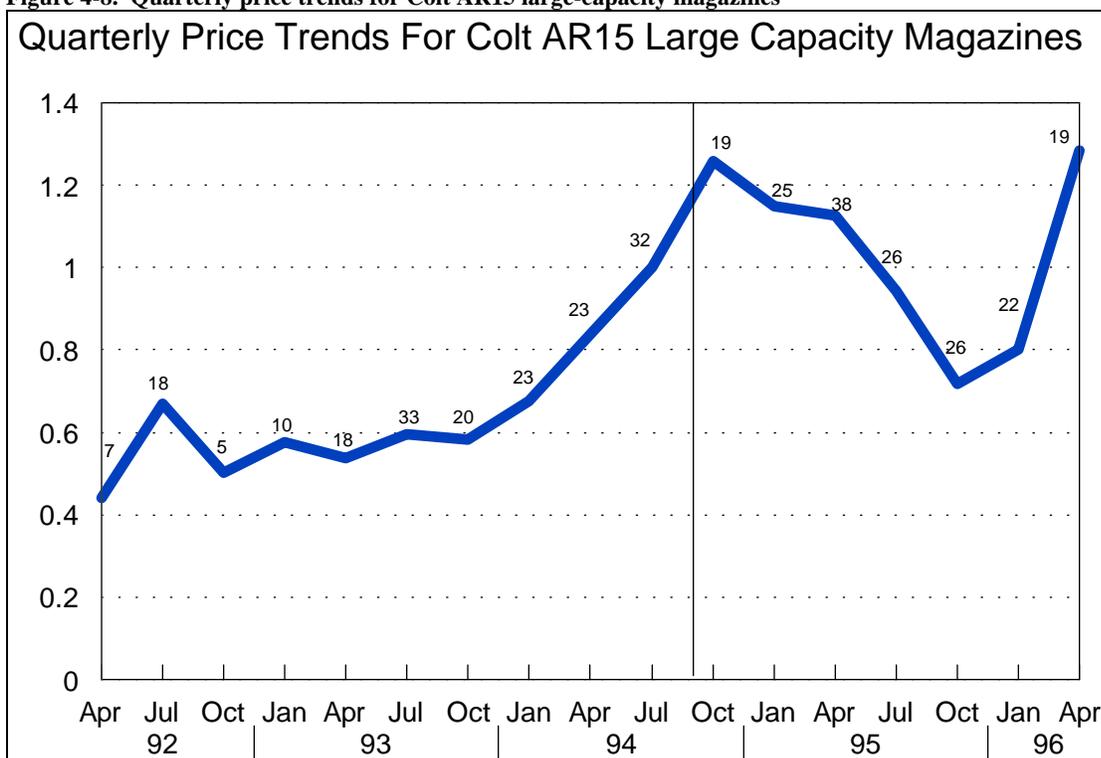
During the quarters of 1992 and 1993, prices were anywhere from 33 to 56 percent lower than during the third quarter of 1994. Prices rose further during the last quarter of 1994 and remained high through the first three quarters of 1995. In the last quarter of 1995 and the first quarter of 1996, prices fell though they remained higher than their pre-ban levels. Prices then rebounded in the second quarter of 1996, reaching a peak value comparable to the last quarter of 1995 (prices were approximately 29 percent higher than during the quarter when the ban took effect). Gun market experts have suggested to us that these short-run fluctuations reflect intermittent availability of military surplus M-16 magazines, which are compatible with the AR-15 family of rifles.

³⁴ Though firearms usually require magazines made by the same manufacturer, a number of manufacturers other than Colt make magazines which can fit Colt rifles.

Table 4-8. Regression of Colt AR15 group large-capacity magazine prices on time indicators, controlling for product characteristics and distributors

Analysis of Variance					
<i>Source</i>	<i>DF</i>	<i>Sum of squares</i>	<i>Mean square</i>	<i>F value</i>	<i>Prob>F</i>
Model	26	122.28012	4.70308	33.836	0.0001
Error	337	46.84153	0.13900		
C Total	363	169.12165			
Root MSE		0.37282		R-square	0.7230
Dep Mean		-1.65183		Adj R-square	0.7017
C.V.		-22.57021			
Parameter Estimates					
<i>Variable</i>	<i>DF</i>	<i>Parameter estimate</i>	<i>Standard error</i>	<i>T for H0 parameter = 0</i>	<i>Prob> T </i>
INTERCEP	1	-5.34744	0.194896	-27.437	0.0001
ROUNDS	1	1.025757	0.046243	22.182	0.0001
CLT	1	0.184123	0.063507	2.899	0.004
DIST 2	1	0.385288	0.283893	1.357	0.1756
DIST 3	1	0.10778	0.078807	1.368	0.1723
DIST 4	1	-0.40188	0.129797	-3.096	0.0021
DIST 5	1	0.134623	0.068759	1.958	0.0511
DIST 7	1	-0.41214	0.13435	-3.068	0.0023
DIST 10	1	0.137861	0.080196	1.719	0.0865
DIST 11	1	-0.36298	0.168942	-2.149	0.0324
DIST 12	1	0.215247	0.085722	2.511	0.0125
Q1	1	-0.82099	0.158248	-5.188	0.0001
Q2	1	-0.39767	0.115668	-3.438	0.0007
Q3	1	-0.68998	0.181038	-3.811	0.0002
Q4	1	-0.55199	0.137727	-4.008	0.0001
Q5	1	-0.61893	0.115858	-5.342	0.0001
Q6	1	-0.52304	0.093025	-5.623	0.0001
Q7	1	-0.54396	0.107619	-5.055	0.0001
Q8	1	-0.38921	0.102709	-3.789	0.0002
Q9	1	-0.17713	0.104247	-1.699	0.0902
Q11	1	0.229259	0.11575	1.981	0.0484
Q12	1	0.13716	0.107928	1.271	0.2047
Q13	1	0.115077	0.099774	1.153	0.2496
Q14	1	-0.05869	0.106556	-0.551	0.5821
Q15	1	-0.32639	0.107409	-3.039	0.0026
Q16	1	-0.21758	0.109759	-1.982	0.0482
Q17	1	0.252132	0.117683	2.142	0.0329

Figure 4-8. Quarterly price trends for Colt AR15 large-capacity magazines



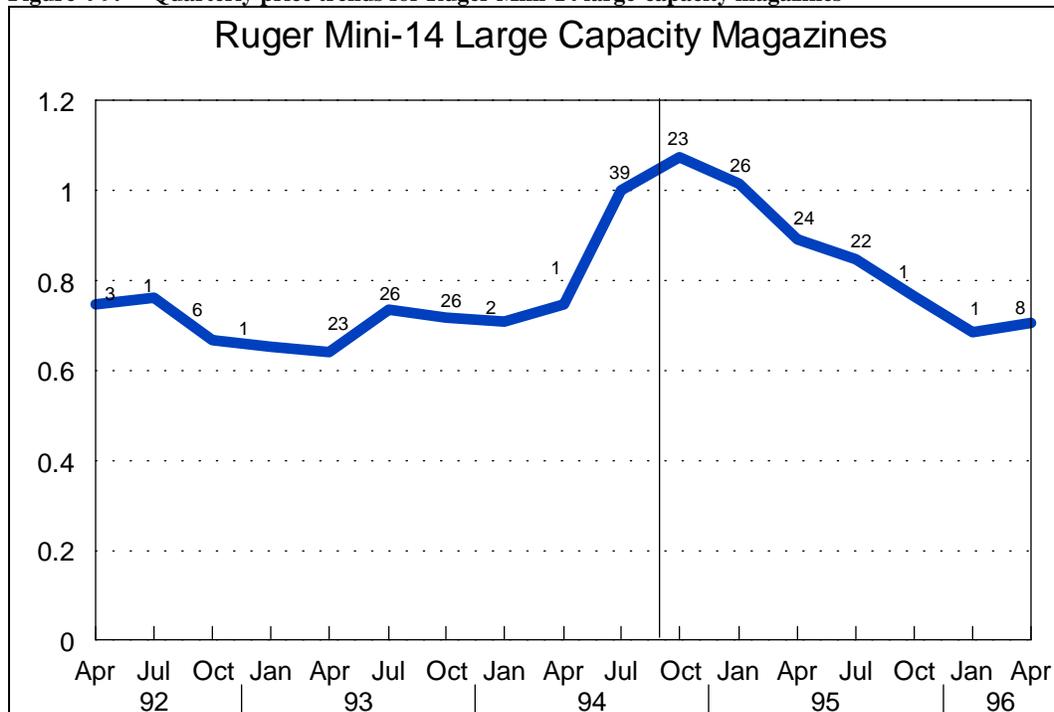
Comparison Semiautomatic Rifle Magazines — Ruger Mini-14: Quarterly price regression results for large-capacity magazines made for the Ruger Mini-14 rifle are shown in Table 4-9. Magazines with the Ruger name and larger magazines were more expensive than other magazines.³⁵ Further, prices differed significantly among distributors.

³⁵ A number of manufacturers besides Ruger made large-capacity magazines to fit the Mini-14.

Table 4-9. Regression of Ruger Mini-14 large-capacity magazine prices on time indicators, controlling for product characteristics and distributors

Analysis of Variance					
<i>Source</i>	<i>DF</i>	<i>Sum of squares</i>	<i>Mean square</i>	<i>F value</i>	<i>Prob>F</i>
Model	26	64.39474	2.4672	34.029	0.0001
Error	303	22.05342	0.07278		
C Total	329	86.44816			
Root MSE		0.26978		R-square	0.7449
Dep Mean		-1.72827		Adj R-square	0.7230
C.V.		-15.61009			
Parameter Estimates					
<i>Variable</i>	<i>DF</i>	<i>Parameter estimate</i>	<i>Standard error</i>	<i>T for H0 parameter = 0</i>	<i>Prob> T </i>
INTERCEP	1	-4.41607	0.145547	-30.341	0.0001
ROUNDS	1	0.836435	0.036639	22.829	0.0001
RUG	1	0.264903	0.061061	4.338	0.0001
DIST 2	1	-0.3889	0.17264	-2.253	0.025
DIST 3	1	-0.13012	0.072105	-1.805	0.0721
DIST 4	1	-0.57328	0.126483	-4.532	0.0001
DIST 5	1	-0.40885	0.066235	-6.173	0.0001
DIST 7	1	-0.5319	0.278193	-1.912	0.0568
DIST 10	1	-0.26988	0.074589	-3.618	0.0003
DIST 11	1	-0.1793	0.164002	-1.093	0.2751
DIST 12	1	0.324892	0.094116	3.452	0.0006
Q1	1	-0.29169	0.178205	-1.637	0.1027
Q2	1	-0.27167	0.08733	-3.111	0.002
Q3	1	-0.40486	0.122507	-3.305	0.0011
Q4	1	-0.425	0.082811	-5.132	0.0001
Q5	1	-0.44577	0.073027	-6.104	0.0001
Q6	1	-0.30726	0.070368	-4.366	0.0001
Q7	1	-0.33086	0.069189	-4.782	0.0001
Q8	1	-0.34428	0.074365	-4.63	0.0001
Q9	1	-0.29213	0.078927	-3.701	0.0003
Q11	1	0.071176	0.074263	0.958	0.3386
Q12	1	0.013922	0.07447	0.187	0.8518
Q13	1	-0.11436	0.073432	-1.557	0.1204
Q14	1	-0.1658	0.075341	-2.201	0.0285
Q15	1	-0.26924	0.081055	-3.322	0.001
Q16	1	-0.37783	0.084169	-4.489	0.0001
Q17	1	-0.34628	0.111216	-3.114	0.002

The quarterly indicators in Table 4-9 and the graphic illustration in Figure 4-9 show that quarterly prices prior to the ban were 64 to 76 percent of their level at the time of the ban. By late 1995, prices of these magazines were falling significantly, and by 1996 they had fallen to levels comparable to pre-ban prices.

Figure 4-9. Quarterly price trends for Ruger Mini-14 large-capacity magazines

4.1.4. Summary of Large-Capacity Magazine Price Trends

In summary, short-run price trends for four examples of banned large-capacity magazines appeared to depend on the legal status of the guns they fit, speculative demand for the guns and magazines, and the availability of military surplus magazines. All four magazine prices rose substantially during the period of debate over the ban, reflecting anticipatory demand. However, their price trends diverged substantially after that point. For a banned assault pistol (the 9mm Uzi) for which no legal substitute emerged, the post-ban magazine price fell to a level between its peak and its pre-speculation level and remained there. For a banned rifle (Colt AR-15) for which legal substitutes emerged and the gun price fell sharply after the ban, post-ban magazine prices fluctuated dramatically, apparently because of variations in the availability of military surplus M-16 magazines. For unbanned Glock pistols, whose supply continued to grow, the post-ban magazine price continued to rise throughout the post-ban period, though at a slower rate than during the pre-ban speculation; this is consistent with the expected long-term price trend. Finally, prices for large-capacity Ruger Mini-14 magazines appear to have followed speculative trends similar to those for the rifles themselves.

4.2. PRODUCTION TRENDS

Analyses reported in Section 4.1 found substantial pre-ban price increases for two major categories of assault weapons that were examined: SWD and related handguns (+47 percent), the AR-15 assault rifle family (+69 percent to +100 percent, at minimum). A comparison group of unbanned semiautomatic rifles including the domestically produced Ruger Mini-14 showed a pre-ban price increase of 82 percent. But strikingly, a comparison group of inexpensive Davis and Lorcin semiautomatic handguns showed no discernible price change during the 4-year period that included the effective date of the ban.

In the introduction to this chapter, we hypothesized that weapons whose prices increased during the pre-ban period would also show increases in production. To test that hypothesis, we were able to obtain annual

production data from the Violence Policy Center for three of the four weapon categories above: the SWD, AR-15, and Davis/Lorcin groups.³⁶ The data extend through 1994, the year of the ban and the last year for which production data are available.

The production data for these three groups are shown in Figure 4-10, Figure 4-11, and Figure 4-12, and they strongly support the hypothesis that pre-ban price speculation was associated with increases in production. As shown there, the SWD and AR-15 groups show substantial increases in production in 1993 and 1994, the years when prices were increasing in advance of the ban. Production increases of similar magnitude appear for two other categories of banned assault weapons that could not be included in the price analysis: the Intratec/AA Arms group, and Calico and Feather Industries rifles, which are banned by the features test.³⁷ In contrast, the Davis/Lorcin handgun group showed decreased production relative to both 1993 and their 1989–93 average.

Table 4-10 summarizes production data for five typical groups of banned assault weapons and the Lorcin/Davis comparison group of small-caliber semiautomatic pistols. For each weapon type, the table reports 1994 production, average 1989–93 production, and the ratio of 1994 production to the average over the period. On average, 1994 assault weapon production exceeded the 1989–93 average by a ratio of 2.233 during the nine months before the ban took effect. In contrast, 1994 production for the Lorcin/Davis comparison group was only 65.2 percent of the 1989–93 average.

Table 4-10. Production trends for banned assault weapons and comparison guns

<i>Firearm type</i>	(1) <i>1994 production</i>	(2) <i>1989–93 average production</i>	(3) <i>Ratio [(1)/(2)]</i>	(4) <i>“Excess” production [(1)-(2)]</i>
AR-15 group	66,042	38,511	1.714	27,531
Intratec 9mm, 22	102,682	33,578	3.058	69,104
SWD family (all) & MAC (all)	14,380	10,508	1.368	3,872
AA Arms	17,280	6,561	2.633	10,719
Calico 9mm, 22	3,194	1,979	1.613	1,215
Lorcin, Davis	184,139	282,603	0.652	
Assault Weapon Total*	203,578	91,137	2.233	112,441

*Assault weapon total excludes Lorcin/Davis group

Table 4-10 also displays "excess" production, the difference between 1994 production and 1989–93 average production. Excess 1994 production for the five assault weapon types shown in the table was approximately 112,000, which were added to the stock of grandfathered assault weapons eligible for resale after the ban took effect.

³⁶ BATF production data for rifles are not disaggregated by model or caliber. While we could be confident that nearly all Colt's rifles belong to the AR-15 family and could therefore use Colt's rifle production data as an index of AR-15 production, Sturm, Ruger produces too many rifles besides the Mini-14 for us to have a reliable index of Mini-14 production.

³⁷ It may be of interest that the Intratec, SWD, and Calico/Feather groups, but not the AR-15 group, also had production peaks in 1989, the year of the assault weapon import ban.

Figure 4-10. Annual production data, Colt and Olympic Arms AR-15 type (years with complete data only)

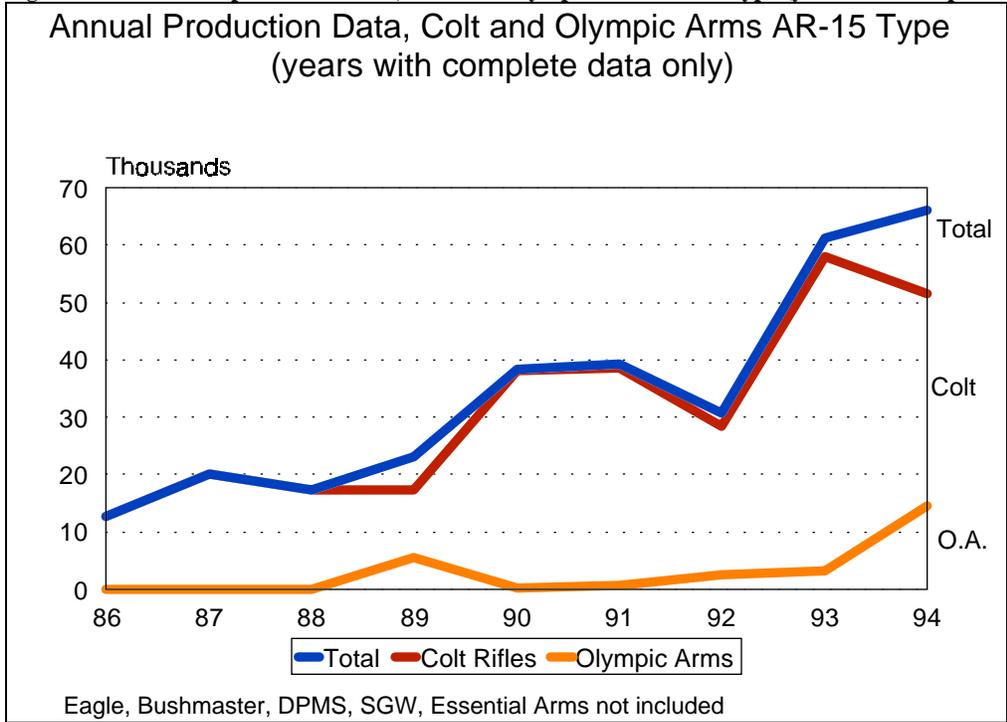


Figure 4-11. Annual production data, SWD group (missing data in some early years)

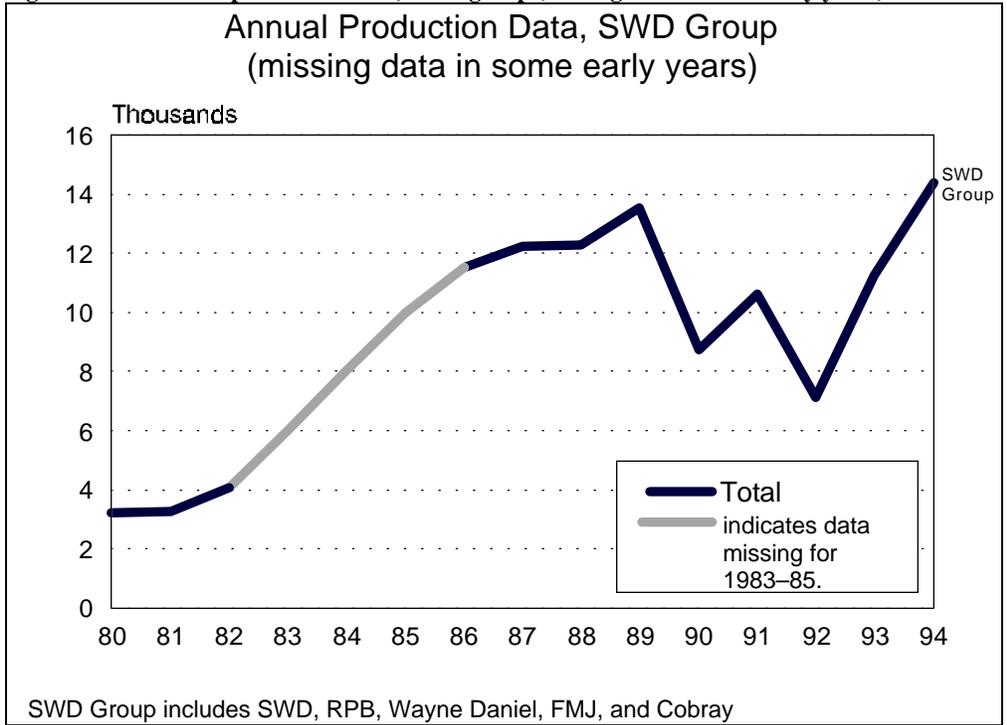
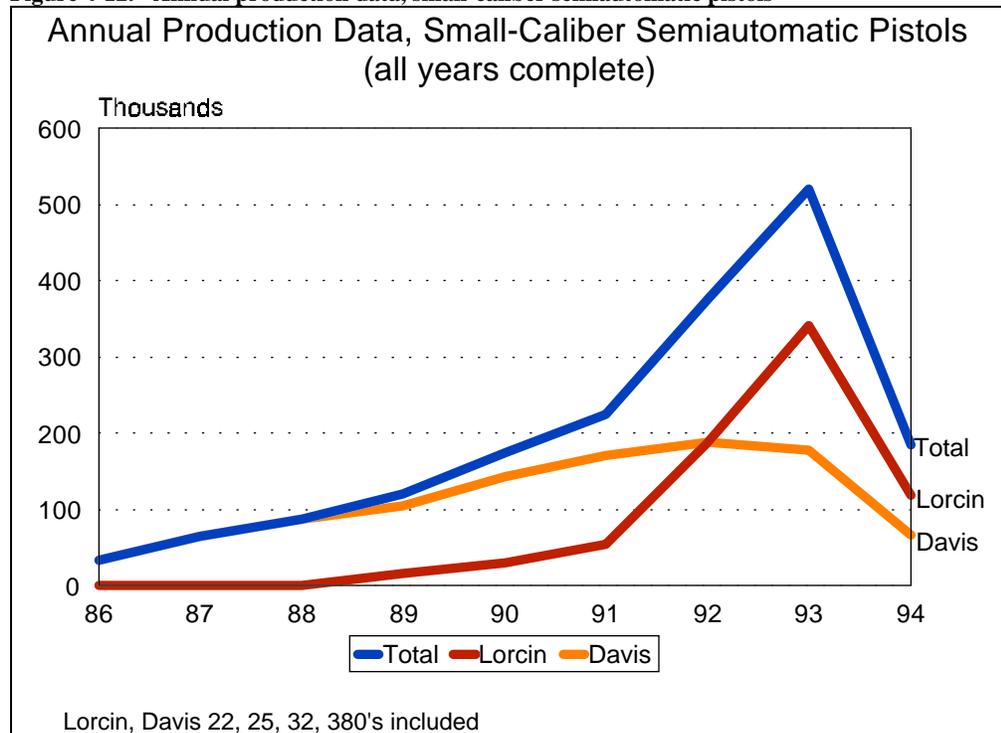


Figure 4-12. Annual production data, small-caliber semiautomatic pistols

4.3. UNINTENDED CONSEQUENCES: GUN THEFTS AND “LEAKAGE”

4.3.1. Introduction

As a final consideration of the ban’s impact on gun markets, we investigated trends in stolen firearms. Given the boom in production of the banned weapons prior to the assault weapon ban, there would appear to be a substantial stockpile of banned weapons, some of which may “leak” from gun dealers and carriers into the hands of criminals and other violence-prone individuals after the ban through a combination of recorded transfers, unrecorded transfers, and thefts.

Indeed, we hypothesized that the Crime Act might have the unintended consequence of increasing reported thefts of the banned weapons for two reasons. Short-term price increases in primary markets might temporarily keep assault weapons from entering the sales distribution channels to criminals, who might be tempted to steal them instead. In addition, dealers who had paid high speculative prices for grandfathered assault weapons around the time of the of the ban but then suffered the post-ban price decline prices might be encouraged to sell their to ineligible purchases and then report the weapons as stolen to BATF, who in turn would enter them into the Federal Bureau of Investigation’s national database on stolen firearms. Our tests of these hypotheses had to recognize that any observed rise in assault weapon thefts could be due, at least in part, to new theft reporting requirements established for firearm dealers by Subtitle C of Title XI. In the sections below, we describe the tests and findings.

4.3.2. Data and Analysis Strategy

Since 1967, the Federal Bureau of Investigation has stored law enforcement agency reports of stolen and recovered guns in a database maintained by the National Crime Information Center (NCIC). This database contains records on guns which have been reported stolen to participating agencies. It also includes a relatively small number of guns which have been recovered by law enforcement agencies but which have not been reported stolen to the FBI. The latter category of guns accounts for about 6 percent of the guns in the database, and we removed them from our analysis. Weapons which are stolen and later recovered are removed from the database by the NCIC. Thus, the file contains only guns which have been stolen and not recovered. Among other items, the database contains entries for the following: the date the gun was reported stolen ; the weapon type, make, model, caliber, and serial number of the gun; and the agency to which the weapon owner reported the theft.

For our analysis, we utilized data on guns stolen between January 1992 and May 1996. Our analysis of assault weapon thefts focused upon our select group of domestic assault weapons. Unfortunately, weapon model is missing for the majority of the records in the file. Therefore we used the following operational definitions to approximate thefts of assault weapons and other guns:³⁸

- 1) Colt AR15 group: all .223 caliber firearms made by Colt, Eagle, Olympic/SGW, Essential Arms, Bushmaster, and Sendra.
- 2) Intratec group: all 9mm and .22 caliber semiautomatic weapons made by Intratec and all 9mm semiautomatic handguns made by AA Arms.
- 3) SWD group: all 9mm, .380, and .45 caliber semiautomatic weapons made by SWD, Ingram, Military Armaments Corp., and RPB Industries.
- 4) Features test group: all semiautomatic handguns and rifles made by Calico and all 9mm and .22 caliber semiautomatic rifles made by Feather.
- 5) Non-banned large-capacity handguns: Based on the relative frequency of the Glock 17 and Ruger P89 among guns traced by BATF (see Chapter 2), we used Glock and Ruger 9mm semiautomatic handguns to operationalize this count.

4.3.3. Trends in Stolen Assault Weapons

Statistics in Table 4-11 show that the number of assault weapons reported stolen per month was higher during the post-ban period than during the pre-ban period. These figures combine all of the assault weapons in our select group. As is shown in

³⁸ We arrived at these operational definitions by examining the varieties of gun types, makes, models, and calibers contained in the *Blue Book of Gun Values* (Fjestad 1996). The largest approximation error is probably that Group 2 includes the Protect .22, which is not banned and does not accept large-capacity magazines.

Figure 4-13, this post-ban increase continued an upward trend which began before the assault weapon ban. Interpreting the raw numbers of assault weapons thefts is problematic even with time series methods, however, because the Subtitle C theft reporting requirement for FFL's may have caused an artificial increase in reported thefts. The monthly average of total reported gun thefts did increase from approximately 11,602 for the January 1992 through August 1994 period to 12,806 during the September 1994 through May 1996 period, although we did not make systematic attempts to explain the increase.

Table 4-11. Pre-ban (Jan. 1992-Aug. 1994) to post-ban (Sept. 1994-May 1996) changes in counts of stolen assault weapons and unbanned semiautomatic handguns capable of accepting large-capacity magazines

<i>Stolen gun type</i>	<i>Pre-ban monthly mean</i>	<i>Post-ban monthly mean</i>
Assault weapons	2,334	2,642
Unbanned large-capacity semiautomatic handguns	235	343

Table 4-12. Pre-ban (Jan. 1992-Aug. 1994) to post-ban (Sept. 1994-May 1996) changes in ratios of stolen assault weapons and unbanned semiautomatic handguns capable of accepting large-capacity magazines

	<i>Pre-ban</i>	<i>Post-ban</i>	<i>Change</i>
Ratio: Assault weapons ÷ automatic and semiautomatic guns	.449	.463	+3%
Ratio: Unbanned large-capacity semiautomatic handguns ÷ All semiautomatic handguns	.054	.073	+35%

To control for possible confounding effects of the Subtitle C reporting requirement, we examined assault weapon thefts as a proportion of all reported thefts of semiautomatic and automatic weapons. A post-ban increase in this proportion would suggest a rise in assault weapon thefts which occurred independently of any Subtitle C effect. We used semiautomatic and automatic weapons as our baseline rather than all reported thefts in order to control for changes in the composition of the gun stock; semiautomatic firearms, of which assault weapons are a subset, have grown dramatically since the late 1980s as a share of the firearms market. Relatedly, some law enforcement personnel have suggested to us that gun theft victims are more likely to report thefts of recently purchased firearms because it is easier for victims to assemble information necessary for a theft report (such as serial numbers) when dealing with a newer firearm. Finally, expressing assault weapons as a proportion of semiautomatic/automatic weaponry may correct potential bias stemming from the NCIC's removal of recovered weapons from their data system. Some evidence suggests that semiautomatic handguns tend to move more quickly from retail sale to crime than do other firearms (Kennedy et al. 1996). If this process works the same way for the time from theft to use in crime and recovery by police, then assault weapons and other semiautomatic firearms may tend to drop out of the system at a faster rate than other firearms.

Figures in Table 4-12 reveal that between 1992 and 1996 automatic and semiautomatic assault weapon thefts increased only very slightly (about 3%) as a proportion of thefts of rapid fire weapons. A contingency table chi-square test indicated that this was a statistically significant increase ($p < .01$).³⁹ However, an interrupted time series analysis of monthly trends (see Figure 4-14) failed to provide any strong evidence that the ban caused a change in the proportion of semiautomatic/automatic firearm thefts involving assault weapons.⁴⁰ Either way, the relative increase in assault weapon thefts appears to have been very modest.

³⁹ The proportion of semiautomatic/automatic gun thefts accounted for by assault weapons is strikingly large in light of the generally low prevalence of these guns among confiscated and traced weapons. Due to the manner in which we approximated assault weapon thefts, our figures probably overstate assault weapon thefts to some degree. In addition, BATF agents have suggested to us that assault weapon thefts may be more likely to be reported to NCIC than thefts of other firearms due to owners' insurance claims on assault weapons and owners' concerns about how stolen assault weapons may be used.

Errors in the data submitted by law enforcement agencies may also be relevant. The NCIC uses character and numeric codes to identify manufacturers, weapon types, and calibers. To assess coding error in the data, we ran a number of crude reliability tests with guns made by selected manufacturers. To illustrate, if a particular handgun manufacturer makes only semiautomatic handguns, one can examine all guns made by that company which appear in the database and determine what percentage were coded as weapon types other than semiautomatic handguns. If 5% of the guns produced by this manufacturer have other weapon type codes, then the manufacturer and/or weapon type must be incorrect for that 5% of cases.

We chose guns made by Davis Industries and Intratec for our tests. Davis Industries makes only derringers and semiautomatic pistols (Fjestad 1996, pp.412-413). Davis derringers are made in .22, .25, .32, .38, and 9mm calibers. The company's semiautomatic pistols are produced in calibers .32 and .380. Of the several thousand guns in the data coded as Davis Industries firearms, about 10% were coded as weapon types other than derringers or semiautomatic handguns (most of these were coded as revolvers). Virtually 100% of the Davis Industries derringers had calibers in the proper range, as did 95% of the semiautomatic handguns.

Intratec, a prominent maker of assault weapons, makes derringers in .38 caliber and produces semiautomatic handguns in .22, .25, .380, .40, .45, and 9mm calibers (Fjestad 1996, pp.577-579). Approximately 89% of the several thousand guns coded as Intratecs were coded as semiautomatic handguns or derringers. Nearly 100% of the Intratec semiautomatic handguns had caliber codes in the proper range, while 97% of the derringers had the proper caliber.

In light of the various coding errors which are present in the NCIC data, we constructed our counts of assault weapons and semiautomatic/automatic guns using a broad array of weapon type codes corresponding to various semiautomatic and fully automatic weapon types. The analyses described above seem to indicate that errors in the numerator and denominator of our assault weapon measure are roughly proportional. Finally, our analysis assumes that any biases in the data resulting from the various issues discussed above have remained relatively constant from the pre-ban to post-ban periods.

⁴⁰ Due to ambiguity regarding the form of the ban's hypothesized impact on assault weapon thefts, we tested a number of impact models (see McCleary and Hay 1980). The temporary increase in assault weapon prices which occurred around the time of the ban may have raised the incentive for criminals to steal assault weapons, thereby creating an abrupt, temporary impact on thefts of assault weapons. However, an abrupt temporary impact was inconsistent with the data.

The eventual fall in assault weapon prices, on the other hand, could have increased the incentive for dealers to "leak" the guns to illegitimate buyers. The gradual decline of assault weapon prices documented in the price analysis would suggest a gradual, permanent impact on assault weapon thefts. However, an abrupt, permanent impact also seems plausible. Further, abrupt, permanent impact models are less demanding on the data and sometimes provide a better fit and more accurate results even when the true form of the impact is not of this type (see McDowall et al. 1996). In this case, a gradual, permanent impact model yielded insignificant results and provided a worse fit to the data than did an abrupt, permanent impact model.

Assessment of the abrupt, permanent impact model was complicated by the presence of an outlier observation corresponding to March 1993, during which time there was an unusually low proportion of thefts involving assault weapons (see Figure 4-14). We therefore estimated models with and without this observation. In the first model, we retained the outlier observation and logged the data series. This model suggested that the ban produced a moderately significant ($p < .10$) positive impact on the proportion of semiautomatic/automatic gun thefts that involved assault weapons. (After adding the intervention component, this model did not require any autoregressive or moving average parameters for the noise component). When the outlier observation was removed, however, the model failed to yield evidence of an impact from the ban. (The noise

component for this model included a fourth order autoregressive subset model [see SAS Institute 1993] in which all parameters except the fourth were set to zero).

Figure 4-13. Stolen assault weapons count, January 1992–May 1996

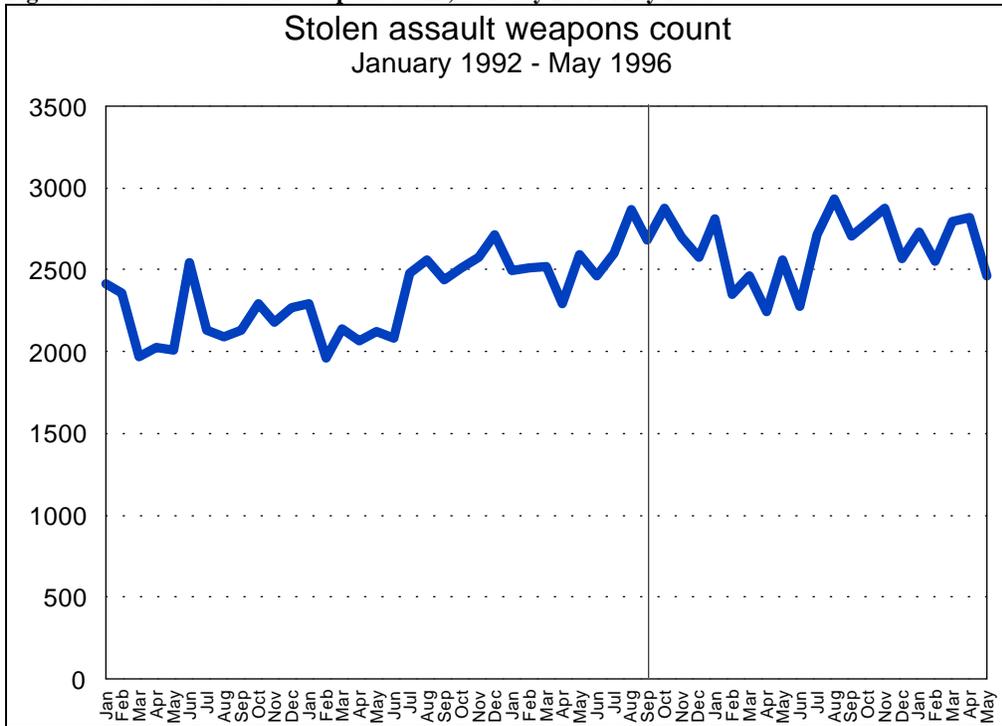
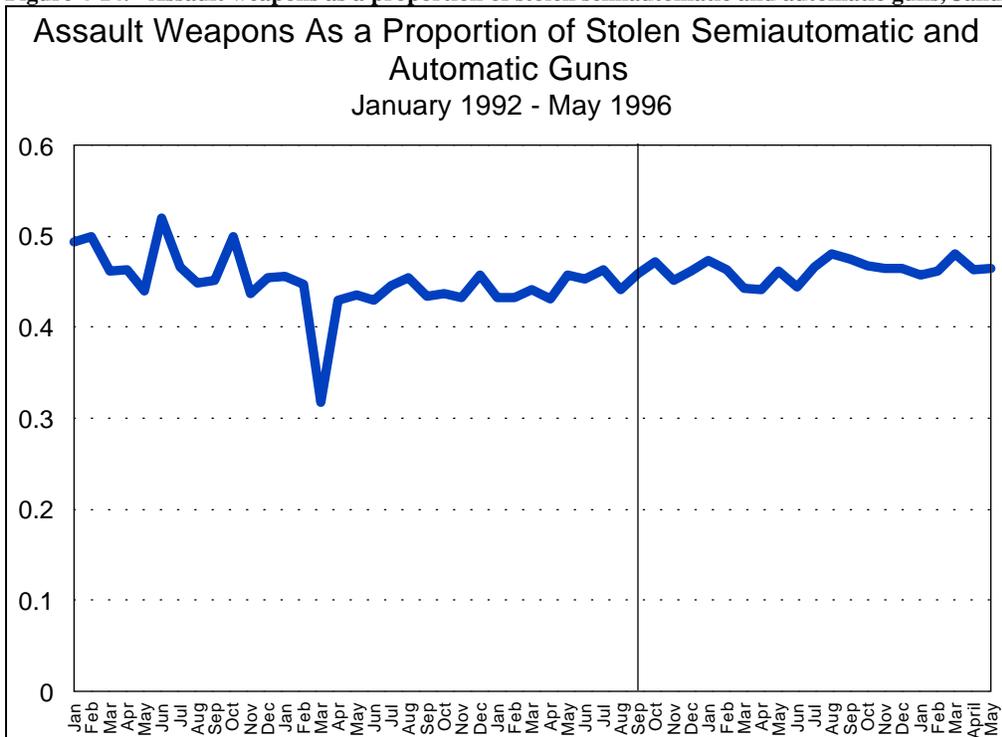


Figure 4-14. Assault weapons as a proportion of stolen semiautomatic and automatic guns, January 1992–June 1996



Additional analyses (not shown) revealed that the assault weapon trends were driven entirely by assault pistols. Thefts of the AR15 group weapons, for example, were rather few in number both before and after the ban, and they decreased both in numbers and as a proportion of stolen weapons during the post-ban months.

4.3.4. Trends in Thefts of Non-Banned Semiautomatic Handguns Capable of Accepting Large-capacity Magazines

In another set of analyses, we investigated whether the ban affected thefts of non-banned semiautomatic handguns capable of handling banned, large-capacity magazines. A number of effects seem plausible. If the magazine ban has been effective in decreasing the availability of large-capacity magazines, one might hypothesize a decrease in offenders' demand for handguns capable of accepting these magazines and a decrease in thefts of these weapons from primary-market dealers and eligible owners. Alternatively, if a similar decrease in the demand for these guns drove down their prices in the primary market, it might increase the incentive for dealers to leak the guns to the illegal market and report the guns as stolen or missing. However, recent years' Blue Book values for Glock pistols suggest that their primary-market prices have been quite stable, when adjusted for inflation. Therefore, if these magazines are still widely available in secondary markets, some offenders might desire to substitute unbanned large-capacity handguns for banned assault weapons. In that case, we might also expect to see a rise in thefts of these guns.

Average monthly thefts of these weapons were higher in the months following the ban (Table 4-11). Moreover, thefts of these guns increased by about a third during the post ban period as a fraction of all semiautomatic handgun thefts (Table 4-12). However, Figure 4-15 and Figure 4-16 show that thefts of these guns were trending upwards in both numbers and as a proportion of semiautomatic handgun thefts both before and after the ban. A time series analysis did not provide conclusive evidence that handguns accepting large-capacity magazines increased significantly after the ban as a fraction of semiautomatic handgun thefts.⁴¹ (We did not employ contingency table chi-square tests due to the clear upward trend in this variable.) At any rate, the Crime Act does not appear to have decreased criminal demand for these guns, as approximated by theft reports.

⁴¹ We tested a variety of potential impact forms for this time series, though we considered an abrupt, permanent impact or a gradual, permanent impact to be most plausible in light of the steadily increasing prices for Glock magazines documented in the price analysis. A model with an abrupt, permanent intervention component and a first order autoregressive process for the noise component provided an adequate fit to the data. However, this model yielded an impact estimate virtually identical to the change in the proportion measure shown in Table 4-12 (an increase of approximately one third). In light of the clear pre-ban upward trend in this measure shown in Figure 4-16, we find this effect to be implausible and suspect that the data series is too short to provide a rigorous test of the ban's impact using this methodology.

We ran a crude alternative test in which we regressed the proportion measure on a time trend and a pre-ban/post-ban indicator variable. The time trend variable was significant, while the post ban variable suggested a positive, but statistically insignificant, increase of about 7% in the proportion measure.

Figure 4-15. Stolen unbanned large-capacity semiautomatic handgun counts, January 1992–May 1996

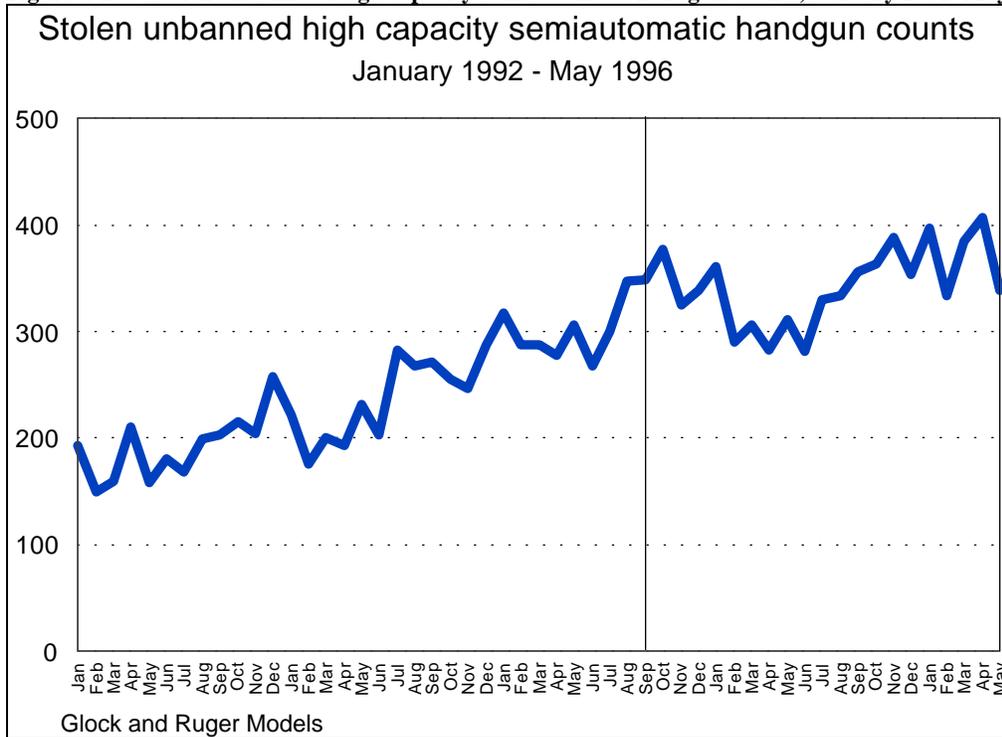
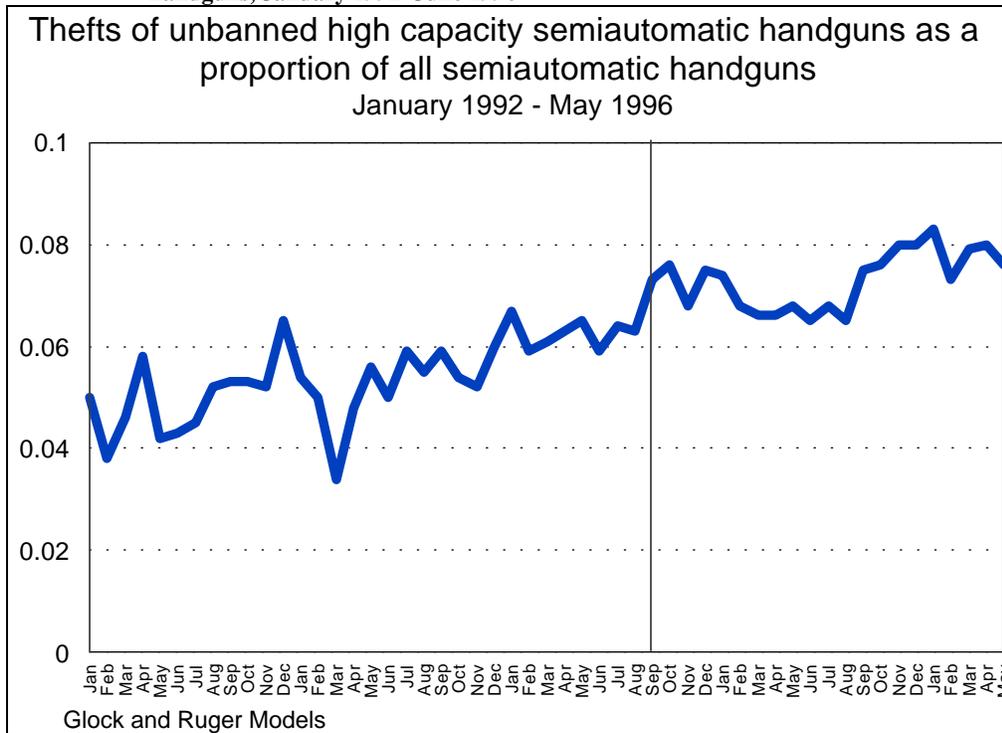


Figure 4-16. Thefts of unbanned large-capacity semiautomatic handguns as a proportion of all semiautomatic handguns, January 1992–June 1996



5. UTILIZATION EFFECTS

5.1. BATF NATIONAL FIREARM TRACE DATA

5.1.1. Introduction: Data and Limitations

To provide national level estimates of the use of assault weapons, we obtained data on firearm trace requests submitted to the U.S. Bureau of Alcohol, Tobacco and Firearms (BATF) by Federal, State, and local law enforcement personnel throughout the nation from January 1993 through May 1996. BATF maintains a firearm tracing center in West Virginia. Upon request, personnel at this center can trace firearms to their last point of recorded sale in a primary market. BATF makes this service available to police departments throughout the country to assist in criminal investigations.

The assault weapon trace file provided by BATF contains the make, model, and caliber of all models subject to the assault weapons ban (the designations are discussed in more detail below). Further, the file includes the month and year when BATF received the request, the state from which the request originated, and type of crime with which the firearm was associated. Our data for total traces consist of aggregate counts of traces broken down by month, year, state, weapon type,⁴² and offense.

BATF trace data are the only available national-level sample of guns used in crime. Nevertheless, BATF trace data have significant limitations for research purposes. As Zawitz (1995, p.4) has noted, trace requests represent an unknown fraction of all guns used in crime. In terms of general limitations, BATF cannot trace military surplus weapons, imported guns without the importer name, stolen guns, or guns without a legible serial number (Zawitz 1995, p.4). Tracing guns manufactured before 1968 is also difficult because FFL's were not required to keep records of their transactions prior to that time. BATF does not generally trace guns having a manufacturing date more than six years old (such guns are likely to be many transfers removed from the original retail purchaser), though BATF can and does trace these guns in response to special requests.

Moreover, trace data are based on requests from law enforcement agencies; yet not all guns used in crime are seized by authorities, and agencies, particularly local ones, do not submit all guns they seize for tracing. Consequently, firearms submitted to BATF for tracing may not be a representative sample of firearms used in crime. Previous studies of trace data have suggested that only about 10 percent of gun crimes and 2 percent of violent crimes result in trace requests to BATF (Cox Newspapers 1989, p.3; Kleck 1991, p.75).⁴³

The vast majority of weapons submitted to BATF for tracing are associated with weapons offenses, drug offenses, or violent crimes. In 1994, 72% of traces were for weapons offenses, 12% were for drug-related offenses, 12% were for the combined violent crimes of homicide, assault, and robbery, and 2% were for burglary

⁴² The weapon categories consist of revolver, pistol, derringer, rifle, shotgun, combination rifle/shotgun, and a few other miscellaneous categories.

⁴³ A prior study of BATF trace data by *Cox Newspapers* (1989) suggested that police are more likely to request gun traces for organized crime and drug trafficking. Further, the study indicated that these were the types of crimes with which assault weapons were most likely to be associated. Nearly 30 percent of the gun traces tied to organized crime were for assault weapons as defined by the Cox study (their definition did not match that in the 1994 Crime Act), and 12.4 percent of gun traces for drug crimes involved these guns. In contrast, assault weapons accounted for only 8 percent of gun trace requests for assaults and homicides.

(BATF 1995a, p.43). The high representation of weapons offenses was probably due to the fact that 57% of the trace requests were made by BATF field offices (BATF 1995a, p.45).

Because of the predominance of weapons offenses, BATF trace data might not appear to be a good indicator of guns used in violent and/or drug-related crime. However, the fact that a gun was not seized in association with a specific violent crime does not rule out the possibility that it had been used or would have been used in violent crime. Substantial percentages of adult and juvenile offenders carry firearms on a regular basis for protection and to be prepared for criminal opportunities (Sheley and Wright 1993; Wright and Rossi 1986). In Kansas City, Missouri, for example, about 60% of the guns seized as a result of regular police enforcement activity in high crime beats in 1992 were seized in conjunction with pedestrian checks, car checks, and other traffic violations (Shaw 1994, p.263).⁴⁴ Moreover, drug offenders tend to be disproportionately involved in violence and illegal gun traffic (National Institute of Justice 1995; Sheley and Wright 1993). Thus, guns seized in association with weapons offenses and violent offenses — in addition to those seized for drug-related crimes — may serve as a good indicator of guns possessed by drug offenders.

Despite their limitations, guns confiscated by law enforcement agencies are a reasonable index of guns used in violent and drug-related crime, and they are the best available indicator of changes over time in the types of guns used in crime and possessed and/or carried by criminal and otherwise deviant or high risk persons. BATF trace data are the only such national sample.

Yet, another important limitation to national trace data is that the process by which state and local law enforcement agencies decide to submit guns for tracing is largely unknown, and there are undoubtedly important sources of variation between agencies in different states and localities (and perhaps regions). For instance, a state or local agency may be less likely to need the tracing services of BATF if its state or city maintains its own firearms registration system. Knowledge of BATF's tracing capabilities and participation in federal/state/local law enforcement task forces are some additional factors that can affect an agency's tracing practices. Further, these conditions will vary over time; for example, BATF has been actively trying to spread this knowledge and encourage trace requests since 1994. For all of these reasons, BATF trace data should be interpreted cautiously.

Finally, prior studies have suggested that assault weapons are more likely than other guns to be submitted for tracing.⁴⁵ However, this generalization may no longer be valid, for, as is discussed below, police appear to be requesting traces for increasing proportions of confiscated firearms.

5.1.2. Trends in Total Trace Requests

Table 5-1 presents yearly changes in trace requests for all firearms for 1993 through early 1996. Total traces grew 57 percent from 1993 to 1994, decreased 11 percent from 1994 to 1995, and then increased 56 percent from 1995 to 1996. In contrast, Table 5-2 indicates that gun crimes declined throughout the 1993–95 period (national gun crime figures are not yet available for 1996). The increase in gun trace requests that occurred in 1994 was not attributable to an increase in gun crime and thus appears to have reflected a change in police trace request behavior and/or BATF initiatives. The large growth in traces in early 1996 also seems to be unrelated to gun crime (national gun crime figures for 1996 are not yet available, but we are not aware of any data suggesting

⁴⁴ This calculation excludes guns seized by special crime hot spots patrols which were proactively targeting guns. Thus, the figure reflects normal police activity.

⁴⁵ Prior estimates have indicated that approximately 5 to 11 percent of trace requests are for assault weapons (*Cox Newspapers* 1989; Lenett 1995; Zawitz 1995), though these estimates have not all been based on the 1994 Crime Act definition of assault weapons.

that gun crime has increased over 50 percent since 1995). On the other hand, the decline in trace requests in 1994 mirrored the decline in gun crime, particularly gun homicides (the most accurately measured gun crime category), suggesting that tracing practices were fairly stable from 1994 to 1995.

Table 5-1. Total traces, January 1993–May 1996

<i>Year</i>	<i>Total</i>	<i>Monthly average</i>	<i>Percent change from previous year</i>
1993	55,089	4,591	N/A
1994	86,216	7,185	+ 57
1995	76,924	6,410	- 11
1996 (Jan.-May)	54,254	10,851	+56*

* Change is expressed relative to January through May of 1995.

Table 5-2. National trends in gun crime, 1993–95

<i>Year</i>	<i>Offense</i>	<i>Number</i>	<i>Percent change from previous year</i>
1993	Gun murders	16,136	N/A
1994	Gun murders	15,463	- 4
1995	Gun murders	13,673	- 12
1993	Gun robberies	279,737	N/A
1994	Gun robberies	257,428	- 8
1995	Gun robberies	238,023	- 8
1993	Gun aggrav. assaults	284,910	N/A
1994	Gun aggrav. assaults	268,788	- 6
1995	Gun aggrav. assaults	251,712	- 6

Sources: FBI Uniform Crime Reports, *Crime in the United States* (1996, pp.18, 26-29, 31-32; 1995, pp.18, 26-29, 31; 1994, pp.27-29, 31-32).

As a comparison to national trends, Table 5-3 presents gun confiscation figures for the cities of Boston and St. Louis, two cities for which we have data on all confiscated firearms.⁴⁶ The Boston data are consistent with national trends in gun violence in that they show decreases in gun seizures for each year.⁴⁷ In St. Louis, gun confiscations increased slightly in 1994, but in 1995, they decreased by an amount comparable to the nationwide

⁴⁶ These Boston data were provided to us by the Boston Police Department via researchers at Harvard University. The St. Louis data are from the St. Louis Police Department and were provided by researchers at the University of Missouri, St. Louis.

⁴⁷ The sharp decrease in gun confiscations from 1995 to 1996 may be due in part to recent youth gun violence initiatives being undertaken by the Boston Police Department in collaboration with a number of other agencies and researchers from Harvard University (Kennedy et al. 1996; Kennedy 1996).

decreases in gun murders and gun robberies. Of course, trends in Boston and St. Louis may not be indicative of those in the rest of the nation. Nevertheless, the contrast between the Boston and St. Louis figures and the national tracing figures provide further evidence that changes in national gun traces in 1994 and early 1996 were driven largely by police practices and BATF initiatives rather than changes in gun crime.

Table 5-3. Gun confiscations/traces, January 1993–May 1996

<i>Year</i>	<i>Total</i>	<i>Monthly average</i>	<i>Percent change from previous year</i>
Gun confiscations/traces for Boston, MA, January 1993–May 1996			
1993	866	72	N/A
1994	762	64	- 12%
1995	712	59	- 7%
1996 (Jan.-May)	241	48	- 28%*
Gun confiscations in St. Louis, MO, 1993–95			
1993	3,544	295	N/A
1994	3,729	311	5%
1995	3,349	279	-10%

*Change is expressed relative to January-May of 1995.

In sum, the changes in national trace requests which occurred in 1994 and early 1996 appear to have stemmed from BATF initiatives. Although we have little documentation of these changes, our consultations with BATF agents have suggested that the surge in trace requests from 1993 to 1994 was due largely to internal BATF initiatives that now require agents to submit all confiscated firearms for tracing. In addition, BATF has made efforts to encourage more police departments to submit trace requests and to encourage police departments to request traces for greater fractions of their confiscated weapons. One example is BATF's national juvenile firearms tracing initiative launched in late 1993 (BATF 1995b, p.21). Greater cooperation between BATF and local agencies (through, for example, special task forces) has also resulted in more trace requests according to BATF officials, and a few states and localities have recently reached 100 percent tracing. Beginning in the fall of 1995, moreover, agents from the tracing center began visiting BATF's field divisions to inform federal, state, and local law enforcement personnel about the tracing center's services and capabilities, including the implementation of computerized on-line tracing services. This would appear to be a major factor behind the growth in trace requests from 1995 to 1996.

For the 1994–95 period, however, tracing practices seem to have remained steady. The decline in traces in 1995 matched a real decrease in gun crimes. These developments have important ramifications for the analysis of assault weapon traces.⁴⁸

⁴⁸ We made limited efforts to further disentangle federal and state/local trends by obtaining annual data on traces from a number of states broken down by requesting agency. We examined trace requests from a number of cities where, according to informal judgments by BATF agents, cooperative efforts between local law enforcement agencies and BATF had resulted in the submission of trace requests for a relatively high percentage of confiscated firearms over an extended period. We anticipated that trace requests from BATF field offices in these locations would show substantial increases from 1993 to

5.1.3. Total Assault Weapon Traces

During the period from January 1993 through May 1996, BATF received 12,701 trace requests for assault weapons. This count covers specific makes and models listed in the 1994 Crime Act, exact copies of those makes and models, and other firearms failing the Crime Act's features test for assault weapons.⁴⁹ The requests include all states, Washington, D.C., Puerto Rico, and Guam.⁵⁰

Table 5-4 shows the number, monthly averages, and percentage changes of assault weapon traces for each year. Assault weapon traces increased 9 percent from 1993 to 1994, declined 20 percent from 1994 to 1995, and then increased 7 percent from 1995 to 1996. While one cannot entirely dismiss the possibility that the use of assault weapons rose in 1994 and 1996, it seems likely that these increases were due partially or entirely to the general increase in police trace requests which occurred during those years. Yet assault weapon traces increased by amounts much smaller than did total traces in 1994 and 1996, a finding which supports the conjecture that police have been more consistently diligent over time in requesting traces for confiscated assault weapons.⁵¹

1994, and that requests from the local law enforcement agencies would rise from 1995 to 1996. However, the figures from these locations did not reveal any clearly interpretable patterns. Any patterns which might have existed may be obscured by the fact that local agencies may submit traces directly to the tracing center or submit them indirectly through local ATF field offices. In 1994, for example, 17% of trace requests were from outside (i.e., non-BATF) agencies directly, while 26% were from outside agencies through BATF offices (BATF 1995, p.45). Our judgment is that analyzing trace requests according to submitting agency will not necessarily illuminate the ambiguities in interpreting trace request trends without extensive research into both the processes by which guns are selected for tracing and submitted by local agencies and BATF field offices and the impact of special BATF/local initiatives on these processes.

⁴⁹ The guns designated as "features test" guns consist of makes and models that fail the features test based on manufacturer specifications. The file does not generally include guns which were legal as manufactured but were later modified in ways which made them illegal. (Firearms which are traced by BATF are not actually sent to BATF for inspection). Further, firearms are often manufactured and sold with various options, and the legal/illegal status of some models is contingent upon the particular features with which the gun was manufactured. For example, a Franchi Spas 12 shotgun may or may not be an assault weapon depending upon the size of its ammunition magazine (prior to the ban, the gun was sold with 5 shot and 8 shot tube magazines - see Fjestad [1996, p.471]). Unfortunately, this level of detail is not available in the BATF data. Potential assault weapon models like the Franchi Spas 12 were included in the assault weapon file, but, as is discussed later in the text, we did not utilize them in all analyses.

⁵⁰ It should be noted that the firearm make and model designations in BATF trace data are made by the law enforcement officers who submit the requests. Undoubtedly, there exists some level of error in these designations, though we do not have any data with which to estimate the error rate.

⁵¹ The 1996 assault weapon traces include 89 observations identified as "duplicate traces." Although these trace requests can sometimes represent instances in which the same gun was used in multiple crimes, they usually represent instances in which, for various administrative reasons, a particular trace request was entered into the computer system more than once. Unfortunately, it is not possible to identify duplicate trace requests for years prior to 1996. In order to treat data from all years in a consistent manner, we therefore retained all of the 1996 trace requests for the analysis. Consequently, the total and assault weapon trace numbers presented in this report overstate the true numbers of trace requests. Our analysis of the trace data rests on the assumption that the rate of duplicate tracing has remained relatively constant over the 1993-96 period.

Table 5-4. Assault weapons traces, January 1993–May 1996

<i>Year</i>	<i>Total</i>	<i>Monthly average</i>	<i>Percent change from previous Year</i>
1993	3,748	312	N/A
1994	4,077	340	+ 9%
1995	3,268	272	- 20%
1996 (Jan.-May)	1,608	322	+ 7%*

*Change is expressed relative to January through May of 1995.

Traces for assault weapons dropped more markedly from 1994 to 1995 (20 percent) than did overall traces (11 percent). In a t-test of 1994 and 1995 monthly means, the drop in assault weapon traces was statistically significant ($p=.01$, two-tailed test), while the drop in total traces was not ($p=.22$, two-tailed test). Moreover, the drop in assault weapon traces was substantially greater than the declines in gun murder (12 percent), gun robbery (8 percent), and gun assault (6 percent) for the same period. This suggests that criminal use of assault weapons decreased from 1994 to 1995, both in absolute terms and relative to crime trends generally. In addition, utilization of assault weapons in crime was less in 1995 than in 1993.

5.1.4. Analysis of Select Assault Weapons

As noted in Chapter 2, many of the foreign makes and models banned by Title XI were banned from importation prior to the passage of that legislation. Thus, any recent decrease in the use of those weapons cannot be attributed unambiguously to the effects of the Crime Act. For this reason, we concentrated our analyses below on a select group of domestic assault weapons whose availability was not affected by legislation or regulations predating the 1994 Crime Act. These guns include the AR15 family (including the various non-Colt copies), the Intratec family (including the AA Arms AP-9), and the SWD handgun family.

In addition, we selected a small number of firearm models which, as manufactured, fail the features test of the assault weapons legislation. These weapons had to meet three selection criteria: 1) the weapon had to be in production at the time of the Crime Act (if the weapon was a foreign weapon, its importation could not have been discontinued prior to the Crime Act);⁵² 2) there had to be 30 or more trace requests for assault weapons made by that manufacturer during the period January 1993 through April 1994; and 3) the weapon had to have an unambiguous assault weapon designation as it was manufactured prior to the ban (i.e., its status could not be conditional on optional features).⁵³ These criteria ensured that we would capture the most prevalent assault weapons that were still being sold in primary markets just prior to the effective date of Title XI. We used January 1993 through April 1994 as the selection period in order to minimize effects on the gun market which may have resulted from the passage of the assault weapons legislation by the U.S. House of Representatives in May of 1994.

⁵² Heckler and Koch, for example, manufactured a number of rifle and handgun models which were relatively common among assault weapon traces (i.e., the HK91, HK93, HK94, and SP89). However, these models were all discontinued between 1991 and 1993 (Fjestad 1996, p.531).

⁵³ BATF officials assisted us in these designations. The only weapon which passed the first two criteria but not the third was the Franchi Spas 12 shotgun. The assault weapon trace file contained 53 trace requests for this model prior to May 1994.

The features test weapons selected for the analysis were: Calico M950 and M110 model handguns; Calico M100, M900, and M951 model rifles; and Feather AT9 and AT22 model rifles.

This select group of assault weapons accounted for 82 percent of assault weapon traces submitted to BATF during the study period. Yearly trends in trace requests for these weapons (see Table 5-5) were virtually identical to those for all assault weapons. Most importantly, average monthly traces were 20 percent lower in 1995 than in 1994 (p=.01, two-tailed test). Figure 5-1 displays the trend in monthly traces for these firearms.

Figure 5-1. National ATF trace data: Traces for select assault weapons, January 1993–May 1996

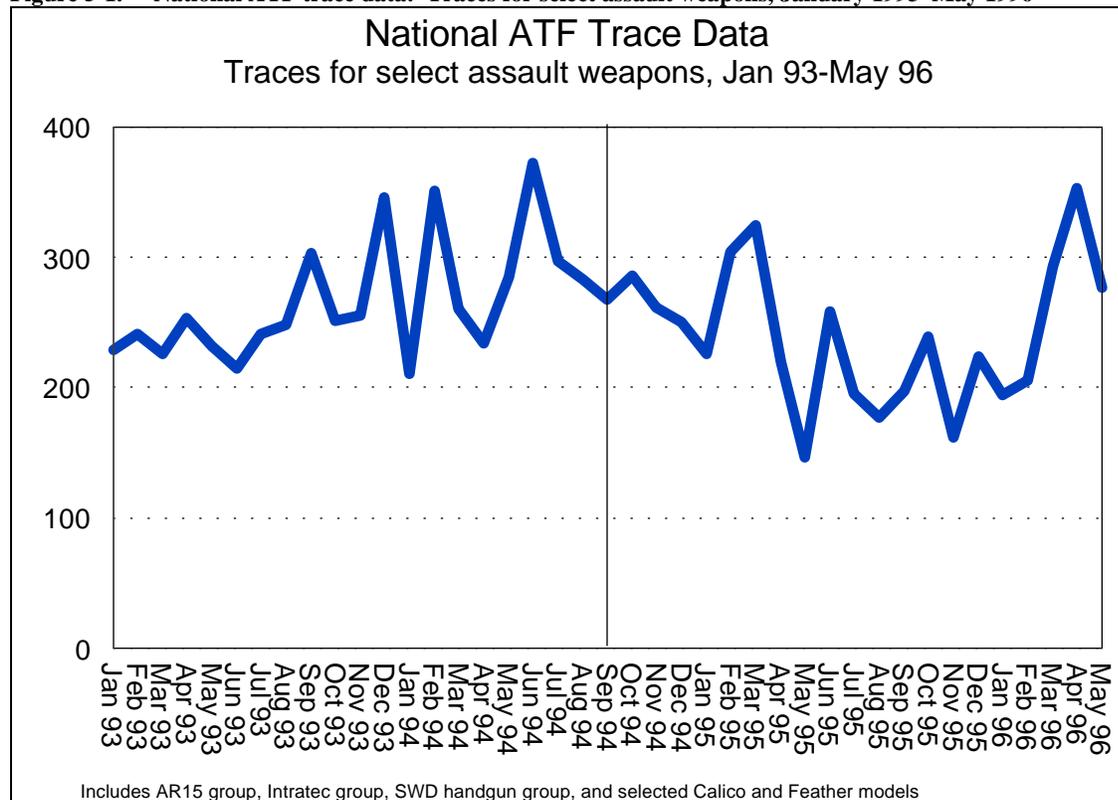


Table 5-5. Traces for select assault weapons,[†] January 1993–May 1996

<i>Year</i>	<i>Total</i>	<i>Monthly average</i>	<i>Percent change from previous year</i>
1993	3,040	253	N/A
1994	3,358	280	+ 10%
1995	2,673	223	- 20%
1996 (Jan.-May)	1,323	265	+ 8%*

*Change is expressed relative to January through May of 1995.

[†]Includes traces for AR15 group, Intratec group, SWD handgun group, and selected Calico and Feather models.

5.1.5. Assault Weapon Traces for Violent Crimes and Drug-Related Crimes

To fulfill Title XI's mandate to assess the effects of the ban on violent and drug-related crime, we also analyzed assault weapon traces associated with violent crimes (murder, assault, and robbery) and drug-related crimes. We used our select group of assault weapons for this analysis. Yearly trends for these traces are presented in Table 5-6. Monthly trends are graphed in Figure 5-2 and Figure 5-3. A striking feature of these numbers is their small magnitude. 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. For drug crimes, the monthly averages ranged from 34 in 1995 to 50 in 1994.

Figure 5-2. National ATF trace data: Traces for select assault weapons (violent crimes)

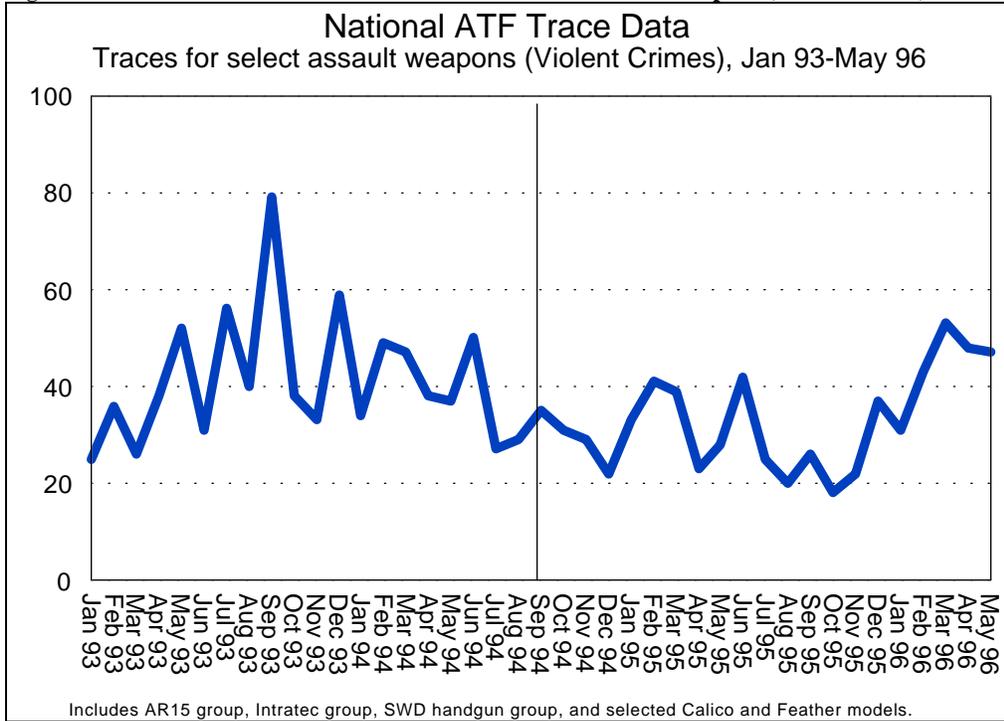


Figure 5-3. National ATF trace data: traces for select assault weapons (drug crimes)

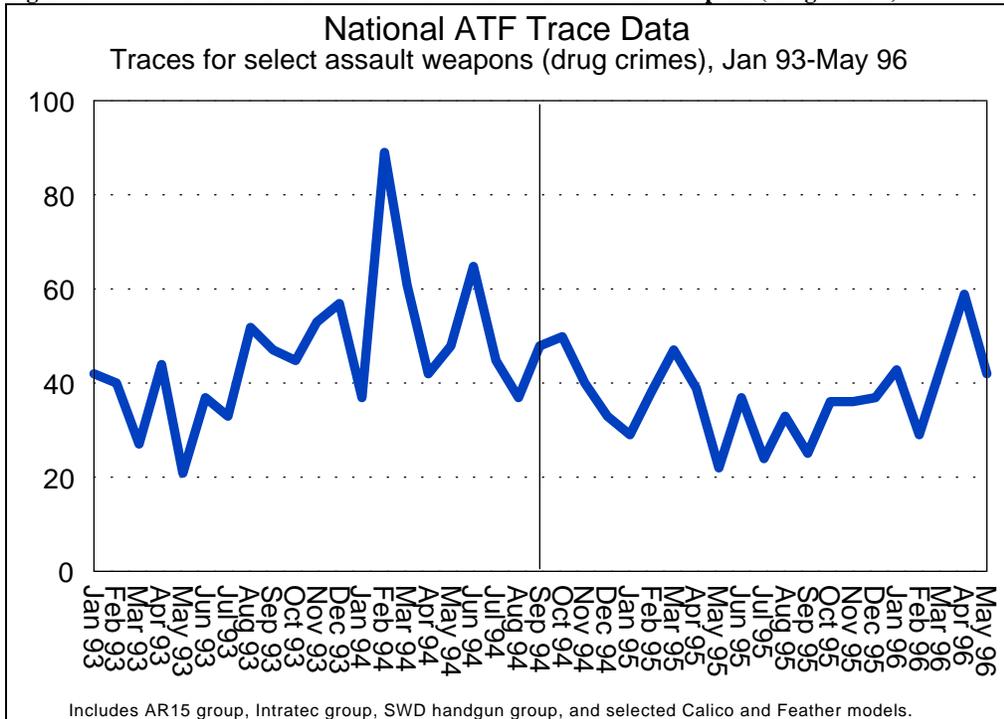


Table 5-6. Traces for select assault weapons,[†] January 1993–May 1996 (violent and drug-related crimes)**Violent Crimes:**

<i>Year</i>	<i>Total</i>	<i>Monthly average</i>	<i>Percent change from previous year</i>
1993	513	43	N/A
1994	428	36	- 17%
1995	354	30	- 17%
1996 (Jan.-May)	222	44	+ 35%*

Drug-Related Crimes:

<i>Year</i>	<i>Total</i>	<i>Monthly average</i>	<i>Percent change from previous year</i>
1993	498	42	N/A
1994	595	50	+ 19%
1995	403	34	- 32%
1996 (Jan.-May)	217	43	+ 24%*

*Change is expressed relative to January through May of 1995.

[†]Includes AR15 group, Intratec group, SWD handgun group, and selected Calico and Feather models.

Traces for assault weapons associated with violent crimes dropped 17 percent in both 1994 and 1995. Both decreases were greater than the decreases which occurred for violent gun crimes in each of those years. However, assault weapon traces for violent crime rebounded 35 percent in 1996 to a level comparable with that in 1993.

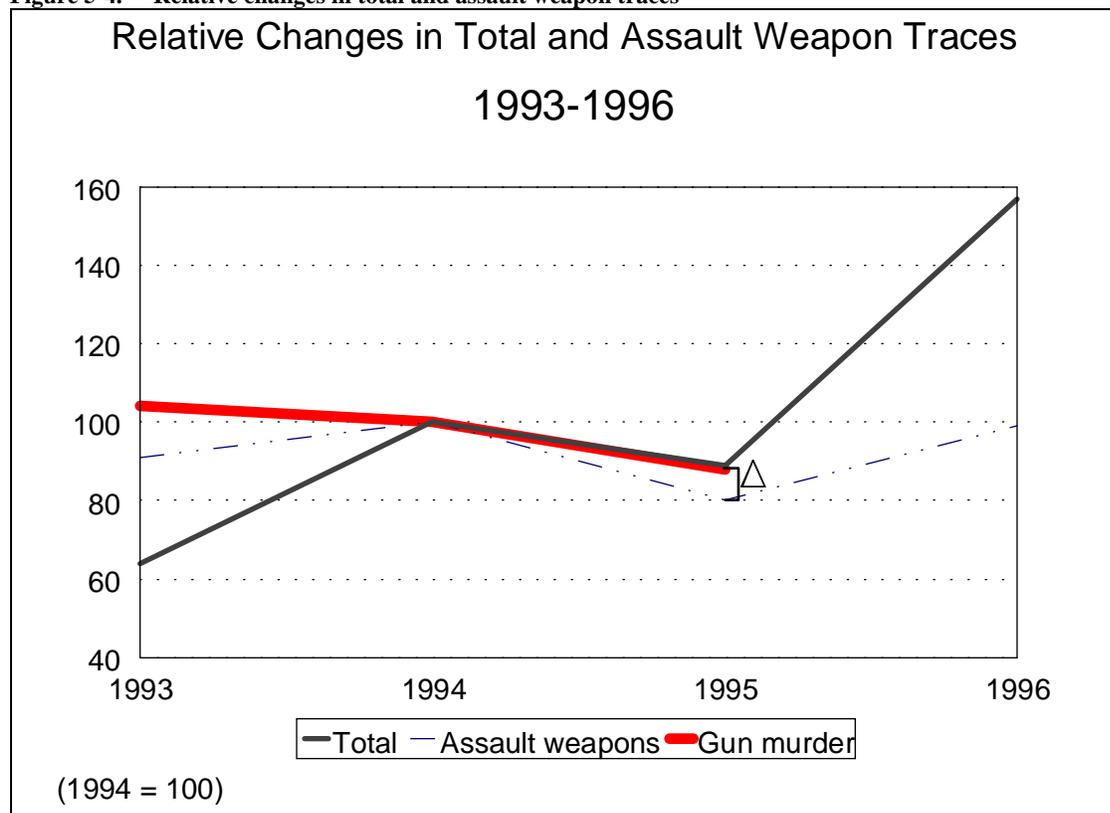
Assault weapon traces for drug crimes followed patterns similar to those for all assault weapons. Assault weapon traces increased 19 percent from 1993 to 1994, decreased 32 percent from 1994 to 1995, and then increased 24 percent from 1995 to 1996. The yearly fluctuations of these traces were greater than those for all assault weapons, but the drug trace numbers may be relatively more unstable due to the small number of weapons under consideration.

5.1.6. Conclusions on National Trends in the Use of Assault Weapons

National-level data suggest that the use of assault weapons, as measured by trace requests to BATF, declined in 1995 in the wake of the Crime Act. The 20 percent decrease in assault weapon trace requests from 1994 to 1995 was greater than occurred overall, and it was greater than the 6 to 12 percent national drop in violent gun crime. This is demonstrated graphically in Figure 5-4. Assault weapon traces for violent crimes and drug-related crimes also decreased in 1995 by amounts comparable to or greater than the overall drop in assault weapon

traces. Further, there were approximately 13 percent fewer assault weapon trace requests in 1995 than during the pre-ban year of 1993.⁵⁴

Figure 5-4. Relative changes in total and assault weapon traces



Another indication that this was an effect from the ban is that assault weapon traces declined less in 1995 in states which had their own bans prior to the Federal legislation. Table 5-7 presents combined yearly traces for our select assault pistol group in the four states with assault weapon bans: California, New Jersey, Connecticut, and Hawaii. In general, assault weapon traces in these states followed the same pattern as did the national figures. The increases in 1994 and 1996 were larger than the national increases which occurred during those years, but the 1995 decrease was smaller than the national assault weapon decrease. Further, the decline in these ban states was consistent in magnitude with the national drop in gun crime.⁵⁵

⁵⁴ The data also do not show any obvious substitution of non-banned long guns for assault weapons. Trace requests for shotguns decreased 10 percent in 1995. Total rifle traces increased 3.5 percent in 1995, but our select group of assault weapon rifles (AR15 group and selected Calico and Feather models) also increased 3 percent. Thus, banned and non-banned rifles did not follow divergent trends. With currently available data, we have not been able to assess whether the assault weapon ban led to displacement to other categories of weapons, such as non-banned semiautomatic handguns capable of carrying pre-ban large-capacity magazines.

⁵⁵ We chose to examine only assault weapon pistols because assault rifles are rarely used in crime and Hawaii's assault weapons legislation covers only handguns. Maryland passed an assault pistol ban in 1994, but the legislation was passed only a few months prior to the Federal ban, so we did not include Maryland as a ban state.

All of the assault pistol ban states outlawed one or more of the handguns in our select group of assault pistols. However, the coverage of these state laws varied, and our select assault pistols were not banned in all of these states. We therefore conducted a supplemental analysis focusing on the Intratec TEC-9 series and the M10/M11 series made by SWD and others. As far as we can determine, these guns were covered by all of the state assault pistol bans. Trace requests for TEC-9's,

Table 5-7. Assault pistol traces, ban states (CA, NJ, CT, and HI), January 1993–May 1996

<i>Year</i>	<i>Total</i>	<i>Monthly mean</i>	<i>Percent change from previous year</i>
1993	204	17	N/A
1994	228	19	+12%
1995	210	18	- 8%
1996 (Jan.-May)	106	21	+15%

*Change is expressed relative to January through May of 1995.

Nationally, traces for assault weapons rebounded in 1996 to a level higher than that of 1993 but lower than that of 1994. This could represent leakage into illegal channels from the stockpile of legal, grandfathered assault weapons manufactured prior to the implementation of Title XI. Production of assault weapons increased considerably in 1994, and prices of these weapons fell to pre-ban levels in late 1995 and early 1996 (see Chapter 3). Over the next few years, it is possible that more, rather than fewer, of the grandfathered weapons will make their way into the hands of criminals through secondary markets.

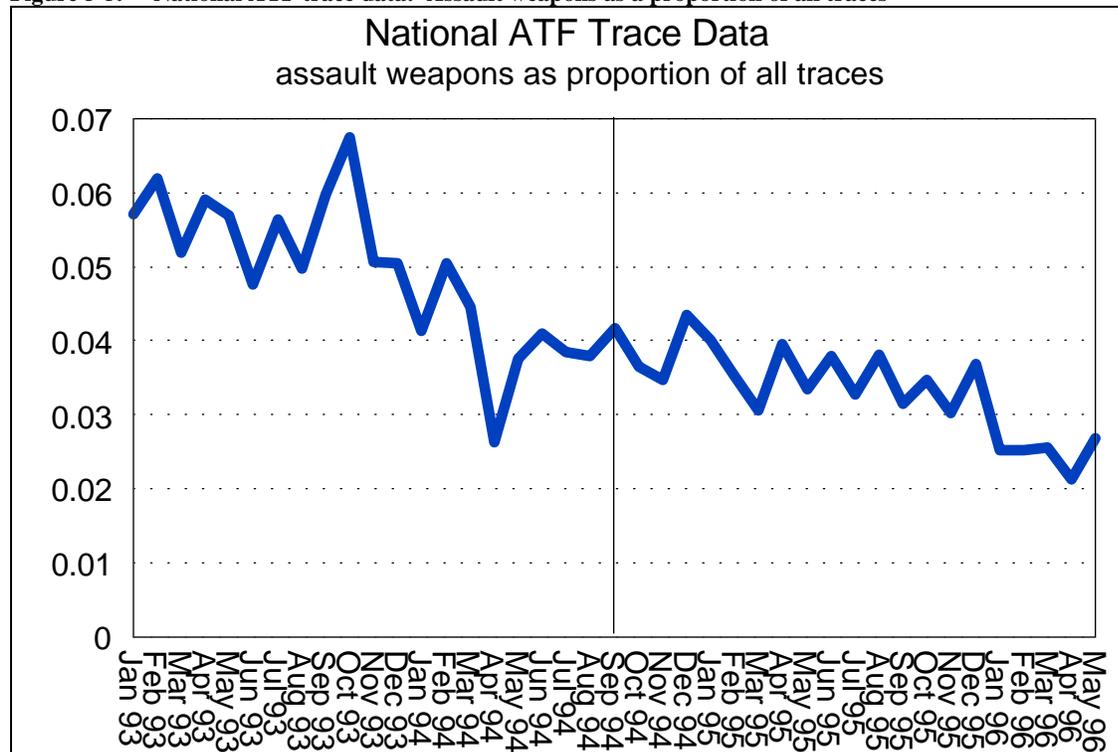
On the other hand, the increase for 1996 may be an artifact of recent BATF initiatives to increase trace requests from local police. The rebound in assault weapon traces might also reflect an as yet undocumented rebound in gun crime in 1996. Unfortunately, we cannot disentangle these possibilities with data available at this time, and it is not yet clear whether the 1995 decrease in our indicator of assault weapon use was temporary or permanent.⁵⁶

5.1.7. The Prevalence of Assault Weapons Among Crime Guns

As is shown in Figure 5-5, assault weapon traces decreased as a proportion of all traces throughout the entire study period. While Title XI may have contributed to this trend, it is apparent that the trend began before implementation of Title XI, and, to a large degree, must reflect the disproportionate growth in trace requests for non-assault weapons rather than a continual decline in the prevalence of assault weapons.

M10's, and M11's from the ban states rose 1% from 1993 to 1994, decreased 6% from 1994 to 1995, and remained steady from 1995 to early 1996. The 6% drop in 1995 seems to confirm that assault weapon trace requests dropped in the ban states after implementation of the federal law but by smaller percentages than assault weapon trace requests nationwide.

⁵⁶ In light of the substantial instrumentation problems with these data and the threat which such problems pose to quasi-experimental time series designs (Campbell and Stanley 1963, pp.40-41), we elected not to pursue more sophisticated methods, such as an interrupted time series analysis, with these data.

Figure 5-5. National ATF trace data: Assault weapons as a proportion of all traces

Despite this problem with interpreting trends in the prevalence of assault weapon traces, the 1996 trace figures arguably provide the best available estimate of the prevalence of assault weapons among crime guns. Firearm tracing should now be more complete and less biased than at any time previously. For January through May of 1996, assault weapons accounted for 3 percent of all trace requests. Our group of select domestic assault weapons represented 2.5 percent of all traces. Traces for the select assault weapon group accounted for 2.6 percent of traces for guns associated with violent crimes and 3.5 percent of traces for guns associated with drug crimes. This is consistent with previous research indicating that assault weapons are more likely to be associated with drug crimes than with violent crime (Cox Newspapers 1989; Kleck 1991). At the same time, these numbers reinforce the conclusion that assault weapons are rare among crime guns.

5.1.8. Crime Types Associated with Assault Weapons

Table 5-8 displays the types of offenses with which assault weapons were associated. For each year, approximately two-thirds of assault weapons were tied to weapons offenses. Drug offenses were the next most common, accounting for 16 to 18 percent of assault weapon traces for each year. Violent offenses ranged from 13 to 17 percent of assault weapon traces. For comparison, the percentage of total traces associated with drug offenses varied between 12 and 13 percent during this period. Violent offenses accounted for 12 to 16 percent of total traces. Hence, assault weapons were more likely to be associated with drug offenses than were other traces.

Table 5-8. Assault weapon trace requests to BATF by crime type

	<i>1993</i> (N=3,725)	<i>1994</i> (N=4,048)	<i>1995</i> (N=3,226)	<i>1996 (Jan–May)</i> (N=1,500)
Offense type*				
Murder/Homicide	.097	.069	.063	.072
Aggravated assaults	.048	.040	.051	.076
Robbery	.027	.018	.020	.022
Drug abuse violations	.167	.182	.161	.174
Weapons; carrying, possessing, etc.	.647	.665	.661	.581
Other offenses	.015	.025	.046	.075

*Offense type could not be determined for 1 percent of assault weapon traces in 1993, 1994, and 1995. Offense type could not be determined for 7 percent of assault weapon traces in 1996.

5.2. ASSAULT WEAPON UTILIZATION: LOCAL POLICE DATA SOURCES

5.2.1. Introduction and Data Collection Effort.

Because of our concerns over the validity of national BATF trace data for measuring the distribution of guns used in crime, we attempted to collect and analyze data from a number of police departments around the country. We sought to acquire data on all firearms confiscated in these jurisdictions, rather than just firearms for which BATF trace requests were made. Analyzing all guns confiscated in a jurisdiction provides a more complete and less biased picture of weapons used in crime than does analysis of guns selected for BATF traces. The disadvantage of using local agency gun seizure data is that trends in any given jurisdiction may not be indicative of those elsewhere in the nation. Of course, local agency data are still subject to general limitations regarding police gun confiscation data which were raised in the last section (i.e., not all guns confiscated by police are used in violent or drug-related crime and not all guns used in crime are seized by police).

Unfortunately, the attempt to collect local gun data fell short of our expectations. Our intention was to collect data from cities in states both with and without their own assault weapon bans. Further, we concentrated our data collection effort on cities in states which had relatively high rates of gun violence. To this end, we contacted several police departments around the country. However, most of the departments that we contacted either did not have their property records computerized or had only computerized their records a few months prior to the implementation of the Crime Act, thus precluding the collection of meaningful pre-ban baseline data.⁵⁷

Ultimately, we obtained data from two cities, St. Louis and Boston, neither of which is subject to a State assault weapon ban. From St. Louis, we acquired a database on all firearms confiscated by police from 1992 through 1995 (N=13,863). Our Boston data consist of monthly counts of various categories of firearms confiscated by Boston police from 1992 through August of 1996 (total confiscations numbered 3,840 for this period). For both locations, we examined trends in confiscations of our select domestic assault weapon group (i.e., the AR15, Intratec, and SWD families and selected Calico and Feather models). In addition, we approximated trends in confiscations of semiautomatic handguns capable of accepting large-capacity magazines by analyzing confiscations of selected Glock and Ruger pistols.

⁵⁷ Time, cost, and personnel considerations limited our ability to implement on-site data collection efforts.

The patterns we discovered were relatively consistent in both cities. Assault weapon confiscations were rare both before and after the ban. In both cities, the data were suggestive of a decrease in assault weapon confiscations after the ban. As a fraction of all confiscated guns, assault weapons decreased roughly 25% in these cities. Thus, these data sources provide some confirmation of our inferences regarding assault weapon trends from the national trace data. Further, we were able to examine the crimes with which assault weapons were associated in St. Louis and found that, as in the national data, assault weapons are overrepresented in drug offenses but not in violent offenses. Finally, confiscations of non-banned semiautomatic handguns capable of accepting large-capacity magazines increased or remained stable after the ban as a fraction of all confiscated handguns in both St. Louis and Boston.⁵⁸

5.2.2. Assault Weapons in St. Louis and Boston

St. Louis police confiscated 180 weapons in the select assault weapon group between 1992 and 1995.⁵⁹ The vast majority of these weapons were from the Intratec and SWD assault pistol groups. Average monthly confiscations of assault weapons dropped from 4 to 3 after the ban's implementation (see Table 5-9). Total gun seizures also dropped during the post-ban months. In order to control for the general downward trend in gun confiscations, we examined assault weapons as a fraction of all confiscated guns. Prior to the ban, assault weapons accounted for about 1.4% of all guns. After the ban they decreased to 1% of confiscated guns, a relative decrease of approximately 29%. A contingency table chi-square test indicated that this was a statistically meaningful drop ($p=.05$). In addition, assault weapons represented a lower fraction of all guns confiscated during 1995 (.009) than

Table 5-9. Summary data on guns confiscated in St. Louis, January 1992 – December 1995

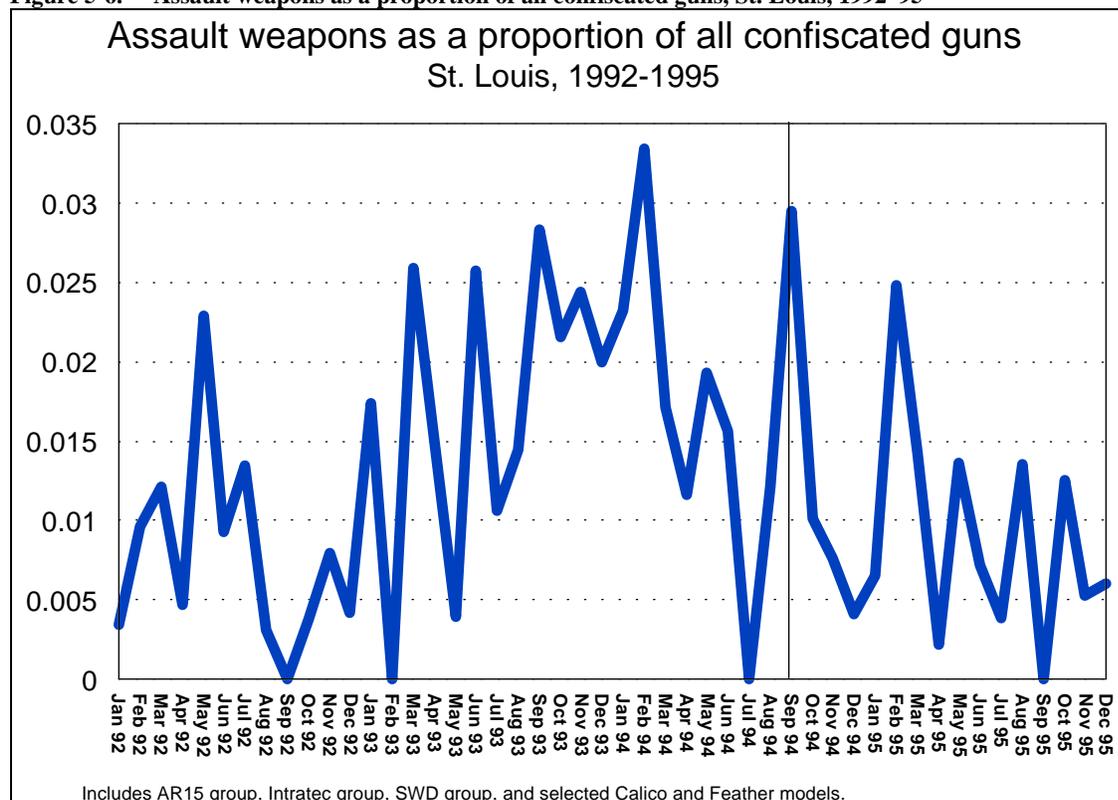
	<i>Pre-ban</i> <i>(Jan. '92–Aug. '94)</i>	<i>Post-ban</i> <i>(Sept. '94–Dec. '95)</i>	<i>Change</i>
<u>Total guns confiscated</u>			
Total	9,372	4,491	
Monthly mean	293	281	-4%
<u>Assault guns</u>			
Total	134	46	
Monthly mean	4	3	-25%
Proportion of confiscated guns	.014	.010	-29%
<u>Large-capacity handguns (Ruger and Glock)</u>			
Total	118	93	
Monthly mean	4	6	+50%
Proportion of all handguns	.018	.031	+72%

⁵⁸ As stated above, analyses of local data sources have the limitation that they are not necessarily indicative of those elsewhere in the nation. We cannot address the various local conditions which may have impacted recent gun trends in the selected cities. However, we should note that youth gun violence initiatives sponsored by the National Institute of Justice have been ongoing in each city during recent years. It is not clear at this time what impact, if any, these initiatives have had upon the gun trends that are the subjects of our investigation.

⁵⁹ The St. Louis data contain a few SWD streetsweeper shotguns in addition to SWD assault pistols.

during 1993 (.018), the last full calendar year prior to the passage and implementation of the ban. A monthly trend line for assault weapons as a fraction of all guns is shown in Figure 5-6.^{60 61}

Figure 5-6. Assault weapons as a proportion of all confiscated guns, St. Louis, 1992–95



A similar picture emerged from Boston. From 1992 through August of 1996, Boston police seized only 74 of these weapons. As in St. Louis, the vast majority were Intratec and SWD assault pistols. Table 5-10 shows

⁶⁰ We also estimated interrupted time series models to test the post intervention change in the monthly trend for the assault weapons proportion measure. As in the NCIC analysis reported in Section 4.3 (p.50) we considered various models of impact. An abrupt, temporary impact model might seem appropriate, for example, based on the price trends presented in Section 4.1 (p.24). Both abrupt, permanent and gradual, permanent impacts are also plausible and seem to better match the pattern displayed in the St. Louis data. At any rate, these analyses failed to confirm that there was a significant change in assault weapons as a fraction of all guns. (The best fitting model was an abrupt, permanent impact model with an autoregressive parameter at the third lag).

However, we have emphasized the chi-square proportions test because the monthly series is rather short (N=48) for interrupted time series analysis (McCleary and Hay 1980) and because the monthly trend line provides no strong indication that the post ban drop was due to a preexisting trend.

⁶¹ Average monthly confiscations of long guns (rifles and shotguns) increased somewhat from 88 in the pre-ban months to 92 after the ban. As a proportion of all confiscated guns, long guns rose from .299 before the ban to .326 after the ban. Thus, the decrease in assault weapons may have been offset by an increase in the use of long guns. However, we did not have the opportunity to investigate the circumstances under which long guns were seized. The post-ban increase could have been due, for example, to an increase in the proportion of confiscated guns turned in voluntarily by citizens. In addition, the ramifications of a long gun substitution effect are somewhat unclear. If, for instance, the substituted long guns were .22 caliber, rimfire (i.e., low velocity) rifles (and in addition did not accept large-capacity magazines), then a substitution effect would be less likely to have demonstrably negative consequences. If, on the other hand, offenders substituted shotguns for assault weapons, there could be negative consequences for gun violence mortality.

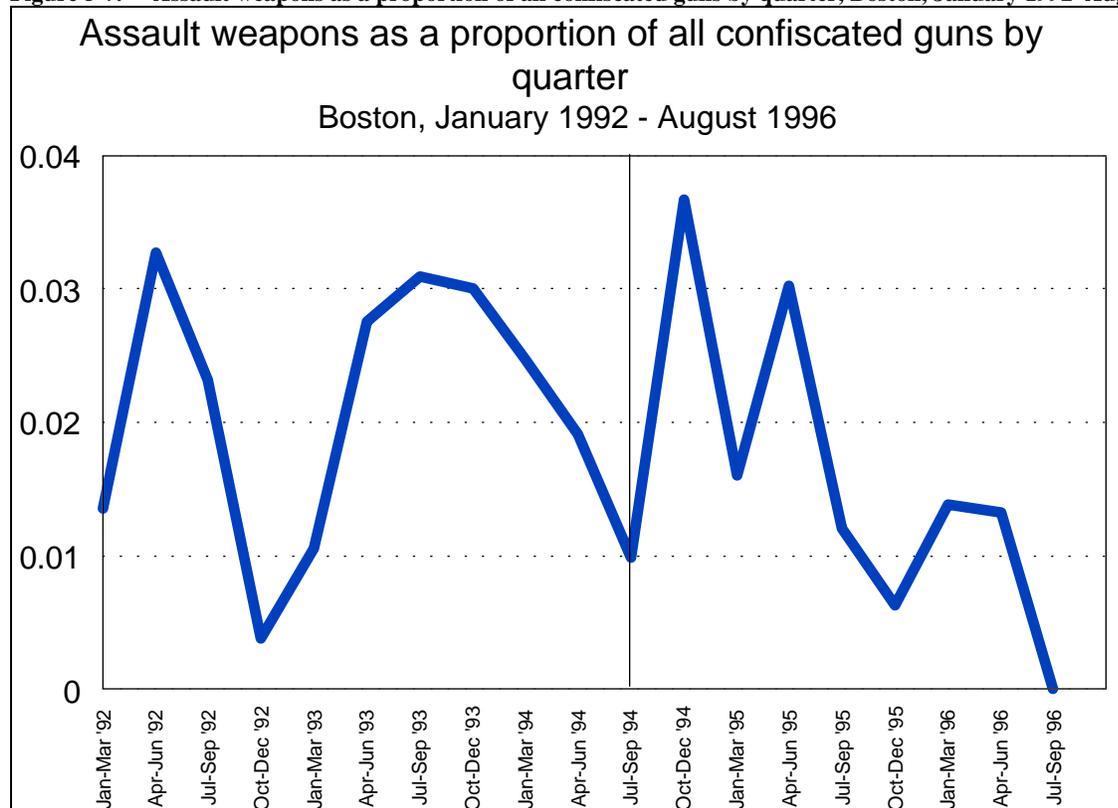
the respective numbers of total firearms and assault weapons seized before and after the Crime Act. The average number of assault weapons seized per month dropped from approximately 2 before the ban to about 1 after the ban, but total gun seizures were also falling. As a fraction of all guns, assault weapons decreased from .021 before the ban to .016 after the ban, a relative decrease of about 24%. A contingency table chi-square test indicated that this change was not statistically meaningful ($p=.38$), but the numbers provide some weak indication that assault weapons were dropping at a faster rate than were other guns. Quarterly trends for the proportions variable shown in Figure 5-7 suggest that assault weapons were relatively high as a proportion of confiscated guns during the quarters immediately following the ban, but then dropped off notably starting in the latter part of 1995.^{62 63}

Table 5-10. Summary data on guns confiscated in Boston, January 1992 – August 1996

	<i>Pre-ban</i> <i>Jan. '92–Aug. '94)</i>	<i>Post-ban</i> <i>(Sept. '94–Aug. '96)</i>	<i>Change</i>
<u>Total guns confiscated</u>			
Total	2,567	1,273	
Monthly mean	80	53	-34%
<u>Assault guns</u>			
Total	53	21	
Monthly mean	2	1	-50%
Proportion of confiscated guns	.021	.016	-24%
<u>Large-capacity handguns (Ruger and Glock)</u>			
Total	28	17	
Monthly mean	1	1	0%
Proportion of all handguns	.015	.016	+7%

⁶² We did not estimate time series models with the Boston data due to the rarity with which assault weapons were confiscated during the study period.

⁶³ In other analyses, we found that long guns decreased as a proportion of gun confiscations throughout the period, suggesting that there was not substitution of long guns for assault weapons in Boston.

Figure 5-7. Assault weapons as a proportion of all confiscated guns by quarter, Boston, January 1992–August 1996

5.2.3. Assault Weapons and Crime

Using the data from St. Louis, we were able to investigate the types of crimes with which assault weapons were associated. Approximately 12% of the assault weapons seized in St. Louis during the study period were associated with the violent crimes of homicide, aggravated assault, and robbery. Overall, about 12% of all confiscated guns were associated with these crimes. Hence, assault weapons do not appear to be used disproportionately in violent crime relative to other guns in these data, a finding consistent with our conclusions about national BATF trace data (see previous section). Overall, assault weapons accounted for about 1% of guns associated with homicides, aggravated assaults, and robberies.

However, 27% of the assault weapons seized in St. Louis were associated with drug offenses. This figure is notably higher than the 17% of all confiscated guns associated with drug charges.⁶⁴ This finding is also consistent with our national trace data analysis showing assault weapons to be more heavily represented among drug offenders relative to other firearms. Nevertheless, only 2% of guns associated with drug crimes were assault weapons.

5.2.4. Unbanned Handguns Capable of Accepting Large-capacity Magazines

We could not directly measure criminal use of pre-ban large-capacity magazines. Therefore, in order to approximate pre-ban and post-ban trends, we examined confiscations of a number of Glock and Ruger handgun models which can accept large-capacity magazines. These guns are not banned by the Crime Act, but they can

⁶⁴ Some of the guns associated with drug charges were also tied to weapons charges.

accept banned large-capacity magazines. We selected Glock and Ruger models because they are relatively common in BATF trace data (BATF 1995a, p.35). A caveat to the analysis is that we were not able to obtain data on the magazines recovered with these guns. Consequently, we cannot say whether Glock and Ruger pistols confiscated after the ban were equipped with pre-ban large-capacity magazines. It is also possible that trends corresponding to Glocks and Rugers are not indicative of trends for other unbanned, large-capacity handguns.

As was discussed in Chapter 4 (see the NCIC stolen gun analysis), the hypothesized effects of the ban on this group of weapons is ambiguous. If large-capacity handgun magazines have become less available since the ban as intended (indeed, recall that the magazine price analysis in Chapter 4 indicated that prices of large-capacity magazines for Glock handguns remained at high levels through our last measurement period in the spring of 1996), one might hypothesize that offenders would find large-capacity handguns like Glocks and Rugers to be less desirable, particularly in light of their high prices relative to other handguns. If, on the other hand, large-capacity magazines for these unbanned handguns are still widely available, offenders seeking high-quality rapid-fire capability might substitute them for the banned assault weapons.

With the St. Louis data, we investigated trends in confiscations of all Glock handguns and Ruger P85 and P89 models. Police confiscated 118 of these handguns during the pre-ban months and 93 during the post-ban months (see Table 5-9). The monthly average increased from approximately 4 in the pre-ban months to 6 in the post-ban period. As a fraction of all confiscated handguns, moreover, the Glock and Ruger models rose from .018 before the ban to .031 after the ban, a relative increase of 72%. (These handguns also increased from .037 to .065 — a 76% change — as a fraction of all semiautomatic handguns; thus, the upward trend for these guns was not simply a result of a general increase in the use of semiautomatic handguns). However, Figure 5-8 shows that these handguns were trending upward as a fraction of all handguns well before the ban was implemented. (For this reason, we did not conduct contingency table chi-square tests for the pre-ban and post-ban proportions). Visually, it appears that the ban may have caused this trend to level off. Nevertheless, an interrupted time series analysis failed to provide evidence of a ban effect on the proportion of handguns which were unbanned large-capacity semiautomatics.⁶⁵

⁶⁵ In preliminary analysis, we found that the noise component of this time series was substantially affected by a modest outlier value at the last data point. We were able to estimate a better fitting model with more stable parameters with the outlier removed. After removing this data point (N=47), the final noise component consisted of a moving average parameter at the third lag, autoregressive parameters at lags two and four, and a seasonal autoregressive parameter at the twelfth lag. As in the time series analyses reported elsewhere, we examined a variety of impact models. The most appropriate impact model for the data was an abrupt, permanent impact. The impact parameter was positive (.006) but statistically insignificant (t value=1.13).

Figure 5-8. Unbanned large-capacity handguns as a proportion of all confiscated handguns, St. Louis, 1992–95

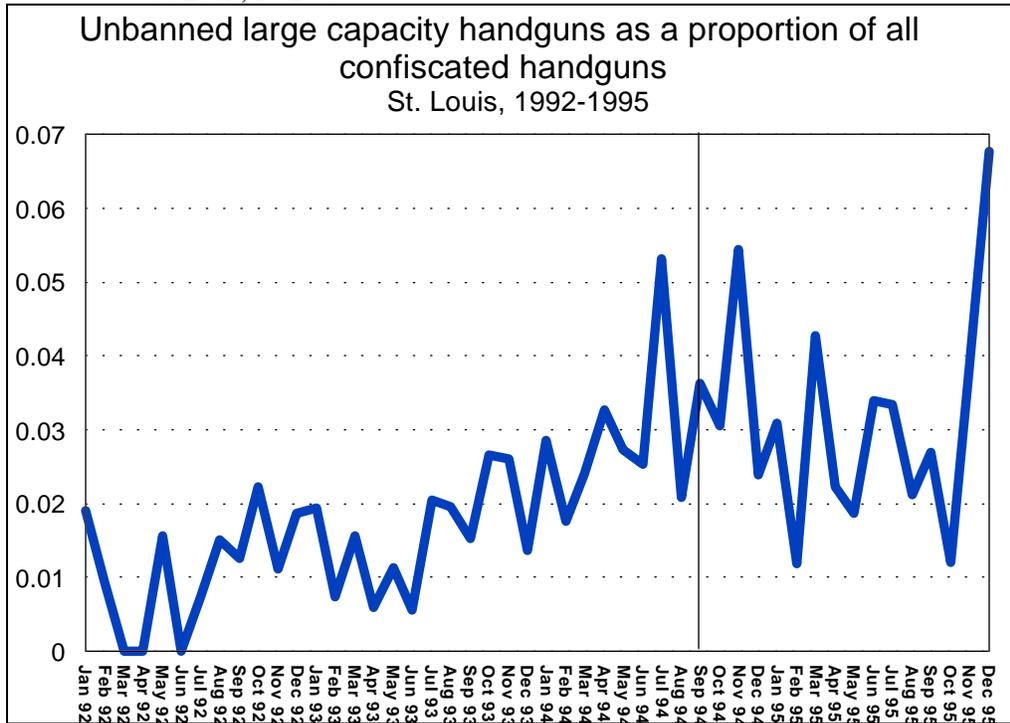
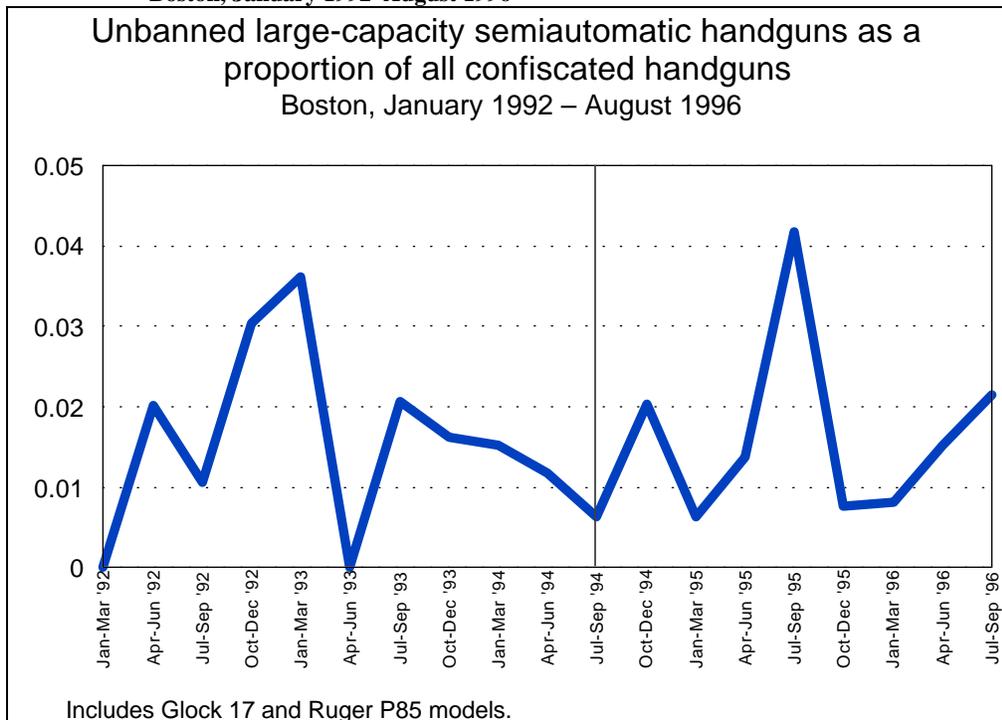


Figure 5-9. Unbanned large-capacity semiautomatic handguns as a proportion of all confiscated handguns, Boston, January 1992–August 1996



The data we acquired from Boston included counts for two specific unbanned, large-capacity handgun models, the Glock 17 and Ruger P85. Police in Boston confiscated 28 of these guns from January 1992 through August of 1994 and 17 from September 1994 through August 1996 (see Table 5-10). As a proportion of all

confiscated handguns, these models increased slightly from .015 before the ban to .016 after the ban. However, a contingency table chi-square test indicated that this difference was not statistically meaningful ($p=.83$).⁶⁶ The quarterly trend for the proportion measure is displayed in Figure 5-8. The pattern does not suggest any meaningful trends over time.⁶⁷

In sum, the data from St. Louis and Boston do not warrant any strong conclusions one way or the other with respect to the use of large-capacity magazines, as crudely approximated by confiscations of a few relatively popular unbanned handgun models which accept such magazines. The ban on large-capacity magazines does not seem to have discouraged the use of these guns. At the same time, the assault weapon ban has not caused a clear substitution of these weapons for the banned large-capacity firearms.

⁶⁶ We did not attempt any time series analyses with these data due to the rarity with which these guns were confiscated in Boston.

⁶⁷ A caveat to this analysis is that the Ruger P85 was discontinued in 1992 and replaced with a new version called the P89 (Fjestad 1996, p.996). The P89 was one of the ten most frequently traced guns nationally in 1994 (BATF 1995a, p.35). Unfortunately, we did not acquire data on confiscations of P89's in Boston (the P89 was included in our St. Louis figures). Had we been able to examine P89's in Boston, we may have found a greater increase in the use of unbanned, large-capacity handguns after the ban. Accordingly, the most prudent conclusion from the Boston data may be that there are no signs of a decrease in the use of unbanned, large-capacity handguns.

6. POTENTIAL CONSEQUENCES OF ASSAULT WEAPON USE

The Congressional mandate for this study required us to study how the Subtitle A bans on assault weapons and large-capacity magazines affected two consequences of using those weapons: specifically, violent and drug-related crime. Among violent crimes, we devoted most attention to gun murders, because it is the best measured. However, the total gun murder rate is an insensitive indicator of ban effects, because only a fraction of gun murders involve large-capacity magazines, and only about 25 percent of those murders involve the banned assault weapons. Therefore, we carried out supplementary analyses of certain categories of gun murders that more commonly involve the banned guns and magazines: events that involve multiple gun murder victims, gun murders involving multiple wounds, and killings of law enforcement officers. Unlike the BATF trace data analyzed in Chapter 5, available data sources did not permit us to categorize these events on the basis of relationship to drugs.

6.1. TRENDS IN STATE-LEVEL GUN HOMICIDE RATES

To estimate the impact of the Subtitle A bans on gun homicide rates, we estimated multivariate regression models using data from all states with reasonably consistent Supplementary Homicide Reporting over the sixteen-year period 1980 through 1995. We closely followed the approach used by Marvell and Moody (1995) to analyze the impact of enhanced prison sentences for felony gun use. Marvell and Moody generously provided their database, which we updated to cover the post-ban period.

Any effort to estimate how the ban affected the gun murder rate must confront a fundamental problem, that the maximum achievable preventive effect of the ban is almost certainly too small to detect statistically. Although our statistical model succeeded in explaining 92 percent of the variation in State murder rates over the observation period, a post hoc power analysis revealed that it lacks the statistical power to detect a preventive effect smaller than about 17 percent of all gun murders under conventional standards of statistical reliability.⁶⁸ A reduction that large would amount to preventing at least 2.4 murders for every one committed with an assault weapon before the ban, or, alternatively, preventing two-thirds of all gun murders committed with large-capacity magazines — obviously impossible feats given the availability of substitutes for the banned weapons.⁶⁹ While there are substantially smaller reductions that would benefit society by more than the cost of the ban, they would be impossible to detect in a statistical sense, at least until the U.S. accumulates more years of post-ban data.

Within this overall constraint, our strategy was to begin with a “first-approximation” estimate of the ban effect on murders, then to produce a series of re-estimates intended to rule out alternative explanations of the estimated effect. Based on these efforts, our best estimate of the short-run effect is that the ban produced a 6.7 percent reduction in gun murders in 1995. However, we caution that for the reasons just explained, we cannot statistically rule out the possibility that no effect occurred. Also, we expect any short-run 1995 preventive effect on gun murders to ebb, then flow, in future years, as the stock of grandfathered assault weapons makes its way to offenders patronizing secondary markets, while the stock of large-capacity magazines dwindles over time.

The following sections first describe our data set, then explain our analyses.

⁶⁸ By conventional standards, we mean statistical power of 0.8 to detect a change, with .05 probability of a Type 1 error.

⁶⁹ Moreover, no evidence exists on the lethality effect of limiting magazine capacity.

6.1.1. Data

Data for gun homicides are available for the entire 1980–95 period of the study. We obtained data from “Crime in the United States” Uniform Crime Reports for the years 1994 and 1995, and from Marvell and Moody for the years 1980 through 1993. (Marvell and Moody used “Crime in the United States” Uniform Crime Reports for years 1991 to 1993, and unpublished data from the FBI for the earlier years.)

Since the fraction of homicides for which weapon use was reported by states varied from state to state and even year to year over the period, it was necessary to adjust and filter the data. To address this reporting problem, we adopted Marvell and Moody’s (1995) approach to compile what they call a “usable” data series, consisting of observations (each year for each state) for which homicide weapon-use reporting is at least 75 percent complete (See Marvell and Moody, 1995).⁷⁰ On this basis we had to eliminate a certain portion of the gun homicide data (see Table 6-2) For each observation that met this requirement, the number of gun homicides was multiplied by a correction factor defined as the ratio of the FBI estimate for the total number of reported homicides in the state to the number of homicides for which the state reported weapon data.

We used Marvell and Moody’s rule of retaining states in the analysis only if they had data for seven or more consecutive years⁷¹ and added the additional requirement that states must have had gun homicide data for the post-intervention year, 1995. (This additional requirement caused us to eliminate four states entirely from the analysis: Delaware, Kansas, Nebraska, and New Mexico.) In addition, Marvell and Moody made allowances for otherwise adequate seven-year series that contained a single year of data that did not meet the above requirements. Provided the reporting rate was at least 50 percent and the corrected figure did not “depart greatly”⁷² from surrounding years, the state was not dropped from the analysis. (These are: Louisiana 1987, South Carolina 1991, Tennessee 1991, and Wyoming 1982.) A further allowance was, that if the reporting rate was below 50 percent, or if the adjusted number did depart from surrounding years, the percentage of gun homicides was revised as the average of that for the four surrounding years. (These are: Alaska 1984, Arizona 1989, Idaho 1991, Iowa, 1987, Kentucky 1983, Maryland 1987, Minnesota 1990, North Dakota 1991, Texas 1982, and Vermont, 1993.) In the end, “usable data” remained for 42 states for the analysis (see Table 6-2).

To allow us to account for intervening influences on gun homicide rates, we gathered data for several time-varying control variables that proved statistically significant in Marvell and Moody’s analysis. Two economic variables (state per capita personal income and state employment rate) and two age structure variables were included. State per capita personal income was available from the Bureau of Economic Analysis for all years; we obtained data for 1991–95 directly from the Department of Commerce, while Marvell and Moody provided us the data for earlier years. State employment rates were available from the Bureau of Labor Statistics, Department of Labor for 1994 and 1995 and from the Bureau of Economic Analysis (via Marvell and Moody) for year 1980–93. Data on the age structures of state populations were available from the Bureau of the Census

⁷⁰ An alternative approach would have been to use mortality data available from the National Center for Health Statistics through 1992, then to append NCR data for the subsequent years. We were concerned about possible artifactual effects of combining medical examiners’ and police data into a single time series, but recommend this approach for future replication.

⁷¹ However, we departed from Marvell and Moody by including observations for years that followed a gap in a series of “usable” data and were therefore not part of a seven-year string. The state was treated as a missing observation during the gap.

⁷² According to Marvell and Moody, a single year of data does not “depart greatly” from surrounding years if either the percentage of gun murders falls within the percentages for the prior and following years, or if it is within three percentage points of the average of the four closest years.

unadjusted estimates of total resident population of each state as of July 1 of each year. (We obtained these data directly for years 1994–95, while Marvell and Moody generously provided us with the data for earlier years).

6.1.2. Research Design

As a first approximation for estimating effects of the assault weapon ban, we specified Model 1 as loglinear in state gun homicide rate (adjusted as described above) and a series of regressors.⁷³ The regressors were:

- A third-degree polynomial trend in the logarithm of time;
- A dummy variable for each state;
- State per-capita income and employment rates for each year (logged);
- Proportions of the population aged 15-17 and 18-24 (logged);
- D95, a 1995 dummy variable, which represented ban effects in this first-approximation model; and
- PREBAN, a dummy variable set to represent states with assault weapon bans during their pre-ban years.

We represented time with the polynomial trend instead of a series of year dummies for two reasons. First, by reducing the number of time parameters to estimate from 15 to 3, we improved statistical efficiency. Second, during sensitivity analyses after Model 1 was fit, we discovered that it produced more conservative estimates of ban effects than a model using time dummies (that model implicitly compares 1995 levels to 1994 levels instead of to the projected trend for 1995), because the estimated trend began decreasing at an increasing rate in the most recent years. We included the economic and demographic explanatory variables because Marvell and Moody (1995) had found them to be significant influences on state-level homicide rates using the same data set. PREBAN was included so that for states with their own assault weapon bans, the D95 coefficient would reflect differences between 1995 and only those earlier years in which the state's gun ban was in place.

As shown in Table 6-1, Model 1 estimated a 9.0 percent reduction in gun murder rates in the year following the Crime Act, based on a statistically significant estimated coefficient for the 1995 dummy variable.⁷⁴ This estimated coefficient, of course, reflects the combined effect of a package of interventions that occurred nearly simultaneously with the Subtitle A bans on assault weapons and large-capacity magazines. These include: the Subtitle B ban on juvenile handgun possession and the new Subtitle C FFL application and reporting requirements, other Crime Act provisions, the Brady Act, and a variety of State and local initiatives.

We reasoned that if the Model 1 estimate truly reflected assault weapon ban effects, then by disaggregating the states we would find a larger reduction in gun murders in the states without pre-existing assault weapon bans than in the four states with such bans prior to 1994 (California, Connecticut, Hawaii, and New Jersey). To test this hypothesis, we estimated Model 2, in which D95 was replaced by two interaction terms that indicated whether or not a State ban was in place in 1995. As shown in Table 6-1, disaggregating the states using

⁷³ We weighted the regression by state population to adjust for heteroskedasticity and to avoid giving undue weight to small states.

⁷⁴ In our sensitivity analyses of models in which the polynomial time trend was replaced with year dummies, the corresponding Model 1 estimated reduction was 11.2 percent, and the estimated coefficient was statistically significant at the .05 level. Similarly, for alternatives to Models 2-4, the estimated ban effects were 2 to 3 percent larger than those shown in Table 6-1 and were statistically significant at the .05 level.

Model 2 did produce a larger estimated ban effect, a statistically significant reduction of 10.3 percent in the states without their own bans.

Table 6-1. Estimated Coefficients and Changes in Gun Murder Rates from Title XI Interventions

<i>Model</i>	<i>Subgroup for 1995 impact</i>	<i>Coefficient</i>	<i>Percent change</i>	<i>test statistic</i>
1	All Usable (N = 42)	-0.094 +	-9.0%	-1.67
2	States without AW ban (N = 38)	-0.108 +	-10.3	-1.88
	States with AW ban (N = 4)	-0.001	-0.1	-0.01
3	States without AW or JW ban (N = 22)	-0.102	-9.7	-1.56
	States without AW, with JW ban (N = 16)	-0.115	-10.9	-1.64
	States with AW, without JW ban (N = 2)	-0.076	-7.3	-0.41
	States with AW and JW ban (N = 2)	0.044	4.5	0.39
4	California and New York excluded: States without AW or JW ban (N = 22)	-0.103	-9.8	-1.58
	States without AW, with JW ban (N = 15)	-0.069	-6.7	-0.95
	States with AW, without JW ban (N = 2)	-0.079	-7.6	-0.43
	States with AW and JW ban (N = 1)	0.056	5.8	0.30

+ Statistically significant at 10-percent level

To isolate the hypothesized Subtitle A bans from the Subtitle B ban on juvenile handgun possession, we estimated Model 3, in which D95 was used in four interaction terms with dummy variables indicating whether a state had its own assault weapon ban, juvenile handgun possession ban, both, or neither at the time of the Crime Act.⁷⁵ We also added a term, PREJBAN, which represented states with juvenile bans during their pre-ban years, for reasons analogous to the inclusion of PREBAN. The estimates of most interest are those for the 38 states without their own assault weapon bans. Among those, the estimated ban effect was slightly larger in states that

⁷⁵ A more restrictive alternative to Model 3 is based on the assumption that the impacts for states without assault weapon bans and the impacts for states without juvenile handgun possession bans are additive. A model estimate under this assumption yielded very similar point estimates and slightly smaller standard errors than Model 3. We preferred the more flexible Model 3 for two reasons. First, the less restrictive model helps us interpret the estimates clearly in light of some of the legislative changes that occurred in late 1994. Model 3 allows the reader to assess the consequences of the assault weapon ban under each set of conditions that existed at the time the ban was implemented. Second, because a juvenile handgun possession ban a fortiori prohibits the most crime-prone segment of the population from possessing the assault weapons most widely used in crime, we hesitated to impose an additivity assumption.

already had a juvenile handgun possession ban than in those that did not. We interpret the former estimate as a better estimate of the assault weapon ban effect because the State juvenile ban attenuates any confounding effects of the Federal juvenile ban. In any event, however, the estimates are not widely different, and they imply a reduction in the 10 to 11 percent range.

We were also concerned that our estimates might be distorted by the effects of relevant State and local initiatives. Therefore, we reestimated Model 3 excluding 1995 data for California and New York. We filtered out these two because combined they account for nearly one-fourth of all U.S. murders and because they were experiencing potentially relevant local interventions at the time of the ban: California’s “three strikes” law and New York City’s “Bratton era” in policing, coming on the heels of several years of aggressive order maintenance in that city’s subway system.

The estimation results with California and New York omitted appear as Model 4 in Table 6-1. While dropping these states leaves three of the estimated coefficients largely unaffected, it has a substantial effect on New York’s category, states with a juvenile handgun possession ban but no assault weapon ban. The estimated ban effect in this category drops from a nearly significant 10.9 percent reduction to a clearly insignificant 6.7 percent reduction, which we take as our best estimate.

To conclude our study of state-level gun homicide rates, we performed an auxiliary analysis. We were concerned that our Model 4 estimate of 1995 ban effects could be biased by failure to control for the additional requirements on FFL applicants that were imposed administratively by BATF in early 1994 and included statutorily in Subtitle C of Title XI, which took effect simultaneously with the assault weapon ban. These requirements were intended to discourage new and renewal applications by scofflaw dealers who planned to sell guns primarily to ineligible purchasers presumed to be disproportionately criminal. Indeed, they succeeded in decreasing the number of FFLs by some 37 percent during 1994 and 1995, from about 280,000 to about 180,000 (U.S. Department of Treasury, 1997). We were concerned that if the FFLs who left the formal market during that period were disproportionately large suppliers of guns to criminals, then failure to control for their disappearance could cause us to impute any resulting decrease in gun murder rates mistakenly to the Subtitle A ban.

Unfortunately, we could use only the 1989–95 subset of our database to test this possibility, because we could not obtain state-level FFL counts for years before 1989. Therefore, we modified Model 4 by replacing the time trend polynomial with year dummies. We then estimated the modified Model 4 both with and without a logged FFL count and an interaction term between the logged count and a 1994–95 dummy variable. Although the estimated coefficient on the interaction term was significantly negative, the estimated 1995 ban effect was essentially unchanged.

Table 6-2. Years for which gun-related homicide data are not available

	<i>Gun homicide data 1980–95</i>
Alabama	✓
Alaska	✓
Arizona	✓
Arkansas	✓
California	✓
Colorado	✓
Connecticut	✓

	<i>Gun homicide data 1980-95</i>
Delaware	No usable data
District of Columbia	No usable data
Florida	1988-91
Georgia	1980-81
Hawaii	✓
Idaho	✓
Illinois	No usable data
Indiana	1989-1991
Iowa	1991-1993
Kansas	No usable data
Kentucky	1987-89; 1994
Louisiana	1990-91
Maine	1990-92
Maryland	✓
Massachusetts	1988-90
Michigan	✓
Minnesota	✓
Mississippi	No usable data
Missouri	✓
Montana	No usable data
Nebraska	No usable data
Nevada	✓
New Hampshire	✓
New Jersey	✓
New Mexico	No usable data
New York	✓
North Carolina	✓
North Dakota	1994
Ohio	✓
Oklahoma	✓
Oregon	✓

	<i>Gun homicide data 1980–95</i>
Pennsylvania	✓
Rhode Island	✓
South Carolina	✓
South Dakota	No usable data
Tennessee	✓
Texas	✓
Utah	✓
Vermont	1980-83
Virginia	✓
Washington	✓
West Virginia	✓
Wisconsin	✓
Wyoming	✓

✓ indicates usable data are available for all years (1980–95) in the period

6.2. ASSAULT WEAPONS, LARGE-CAPACITY MAGAZINES, AND MULTIPLE VICTIM/MASS MURDERS

6.2.1. Trends in Multiple-Victim Gun Homicides

The use of assault weapons and other firearms with large-capacity magazines is hypothesized to facilitate a greater number of shots fired per incident, thus increasing the probability that one or more victims are hit in any given gun attack. Accordingly, one might expect there to be on average a higher number of victims per gun homicide incident for cases involving assault weapons or other firearms with large-capacity magazines. To the extent that the Crime Act brought about a permanent or temporary decrease in the use of these weapons (a result tentatively but not conclusively demonstrated for assault weapons in Chapter 5), we can hypothesize that the number of victims per gun homicide incident may have also declined.

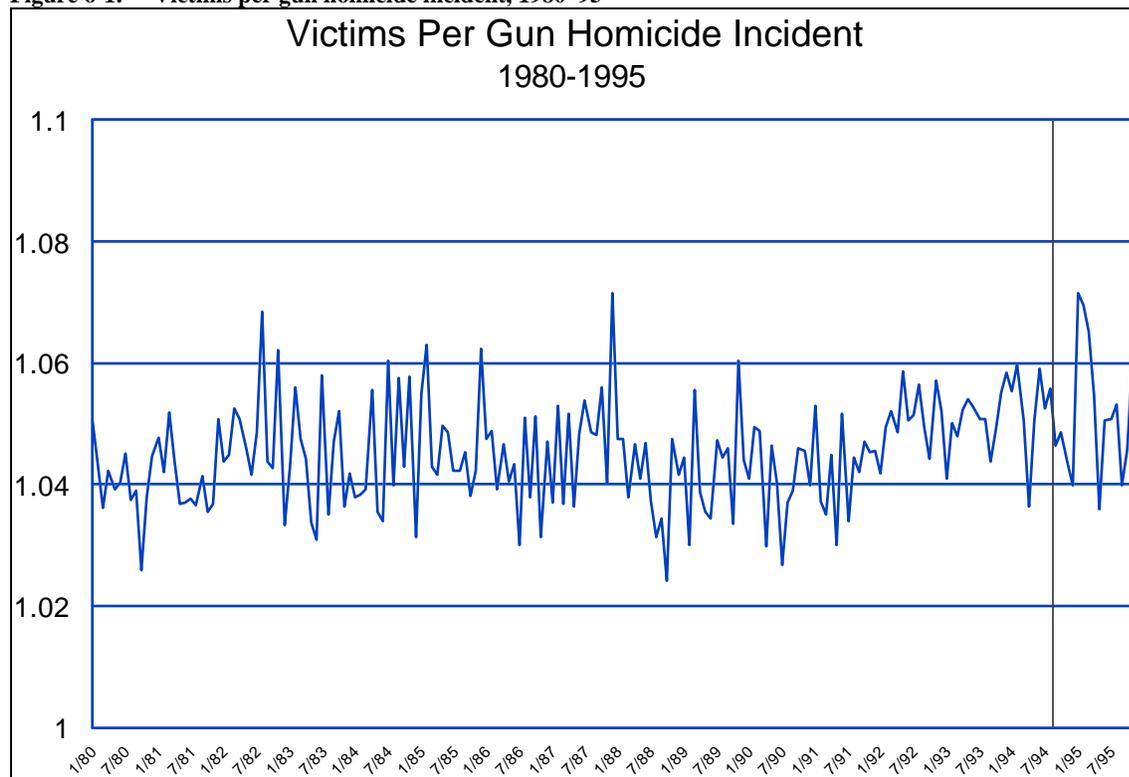
We investigated this hypothesis using data from the Federal Bureau of Investigation’s Supplemental Homicide Reports (SHR) for the years 1980 through 1995. We constructed a monthly database containing the number of gun homicide incidents and victims throughout the nation.⁷⁶ The SHR does not contain information

⁷⁶ The SHR is compiled annually by the FBI based on homicide incident reports submitted voluntarily by law enforcement agencies throughout the country (see the FBI’s *Uniform Crime Reports* for more information about reporting to the Uniform Crime Reports and the Supplemental Homicide Reports). Though the SHR contains data on the vast majority of homicides in the nation, not all agencies report homicide incident data to the SHR, and those agencies which do report may fail to report data for some of the homicides in their jurisdiction. In this application, it is not clear how any potential bias from

about the makes, models, and magazine capacities of firearms used in homicides. Consequently, these results rely on indirect, inferred links between expected changes in the use of banned weapons and trends in the victim per incident measure.

From 1980 through August of 1994 (the pre-ban period), there were 184,528 gun homicide incidents reported to the SHR. These cases involved 192,848 victims, for an average of 1.045 victims per gun homicide incident. For the post-ban months of September 1994 through December 1995, there were 18,720 victims killed in 17,797 incidents, for an average of 1.052 victims per incident. Thus, victims per incident increased very slightly (less than 1 percent) after the Crime Act. A graph of monthly means presented in Figure 6-1 suggests that this increase predated the assault weapon ban. Nevertheless, an interrupted time series analysis also failed to produce any evidence that the ban reduced the number of victims per gun homicide incident.⁷⁷

Figure 6-1. Victims per gun homicide incident, 1980-95



Considering the rarity with which assault weapons are used in violent crime (for example, assault weapons are estimated to be involved in 1 to 7 percent of gun homicides),⁷⁸ this result is not unexpected. At the same time, an important qualifier is that the data available for this study have not produced much evidence regarding pre-ban/post-ban trends in the use of large-capacity magazines in gun crime. In the next section, we offer a tentative estimate, based on one city, that approximately 20 to 25 percent of gun homicides are committed

missing cases would operate. That is, we are unaware of any data indicating whether reported and non-reported cases might differ with respect to the number of victims killed.

⁷⁷ We tested the data under different theories of impact suggested by the findings on assault weapon utilization reported in Chapter 5, but failed to find evidence of a beneficial ban effect. If anything, our time series analysis suggested that the post-ban increase in victims per gun murder incident was a meaningful change.

⁷⁸ See discussion in Chapters 2 (p.8) and 5 (p.58) and in Section 6.3 (p.87) of this chapter.

with gun equipped with large-capacity magazines banned by the Crime Act.⁷⁹ Hence, trends in the use of large-capacity magazines would seem to have more potential to produce measurable effects on gun homicides. It is not yet clear as to whether the use of large-capacity magazines has been substantially affected by the Crime Act.

Despite these ambiguities, we can at least say that this examination of 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.⁸⁰

6.3. CONSEQUENCES OF TITLE XI: MULTIPLE WOUND GUN HOMICIDES

To provide another measure of the consequences of the assault weapon/large-capacity magazine ban on the lethality of gun violence, we analyzed trends in the mean number of gunshot wounds per victim of gun homicides in a number of sites. In one jurisdiction, we were able to examine trends in multiple wound non-fatal gunshot cases. The logic of these analyses stems from the hypothesis that offenders with assault weapons or other large-capacity firearms can fire more times and at a more rapid rate, thereby increasing both the probability that they hit one or more victims and the likelihood that they inflict multiple wounds on their victims. One manifestation of this phenomenon could be a higher number of gunshot wounds for victims of gun homicides committed with assault weapons and other large-capacity firearms. To the extent that Title XI decreased the use of assault weapons and large-capacity magazines, we hypothesize a decrease in the average number of wounds per gun murder victim.

To test this hypothesis, we collected data from police and medical sources on gunshot murders (justifiable homicides were excluded) in Milwaukee County, Seattle and King County, Jersey City (New Jersey), Boston, and San Diego County. Selection of the cities was based on both data availability and theoretical relevance. Jersey City and San Diego were chosen as comparison series for the other cities because New Jersey and California had their own assault weapons bans prior to the Federal ban. The New Jersey and California laws did not ban all large-capacity magazines, but they did ban several weapons capable of accepting large-capacity magazines. Thus, we hypothesized that any reduction in gunshot wounds per gun homicide victim due to the Federal ban might be smaller in magnitude in Jersey City and San Diego.

The data from Seattle and San Diego were collected from the respective medical examiners' offices of those counties.⁸¹ The Milwaukee data were collected from both medical and police sources by researchers at the Medical College of Wisconsin. The Jersey City data were collected from the Jersey City Police Department. Finally, the Boston data were provided by the Massachusetts Department of Public Health. From each of these sources, we were able to collect data spanning from January 1992 through at least the end of 1995. In some cities we were able to obtain data on the actual number of gunshot wounds inflicted upon victims, while in other cities we were able to classify cases only as single wound or multiple wound cases. Depending on data available, we analyzed pre-ban and post-ban data in each city for either the mean number of wounds per victim or the proportion

⁷⁹ A New York study estimated this figure to be between 16 percent and 25 percent (New York State Division of Criminal Justice Services 1994, p.7).

⁸⁰ See Appendix A for an investigation of assault weapon use in mass murders.

⁸¹ The Seattle data were collected for this project by researchers at the Harborview Injury Prevention and Research Center in Seattle. The San Diego County Medical Examiner's Office provided data from San Diego.

of victims with multiple wounds. We concluded this investigation with an examination of the mean number of gunshot wounds for victims killed with assault weapons and other firearms with large-capacity magazines, based on data from one city.

6.3.1. Wounds per Incident: Milwaukee, Seattle, and Jersey City

From the Milwaukee, Seattle, and Jersey City data, we were able to ascertain the number of gunshot wounds suffered by gun murder victims. Relevant data comparing pre-ban and post-ban cases are displayed in Table 6-3. The average number of gunshot wounds per victim did not decrease in any of these three cities. Gunshot wounds per victim actually increased in all these cities, but these increases were not statistically significant.^{82 83}

Table 6-3. Gunshot wounds per gun homicide victim, Milwaukee, Seattle, and Jersey City

	<i>Cases</i>	<i>Average</i>	<i>Standard deviation</i>	<i>T value</i>	<i>P level</i>
<u>Milwaukee County (N = 418)</u>					
Pre-ban: January '92 - August '94	282	2.28	2.34		
Post-ban: September '94 - December '95	136	2.52	2.90		
<i>Difference</i>		+ 0.24		0.85*	.40
<u>Seattle and King County (N = 275)</u>					
Pre-ban: January '92 - August '94	184	2.08	1.78		
Post-ban: September '94 - June '96	91	2.46	2.22		
<i>Difference</i>		+ 0.38		1.44*	.15
<u>Jersey City (N =44)</u>					
Pre-ban: January '92 - August '94	24	1.58	1.56		
Post-ban: September '94 - May '96	20	1.60	1.79		
<i>Difference</i>		+ 0.02		0.03	.97

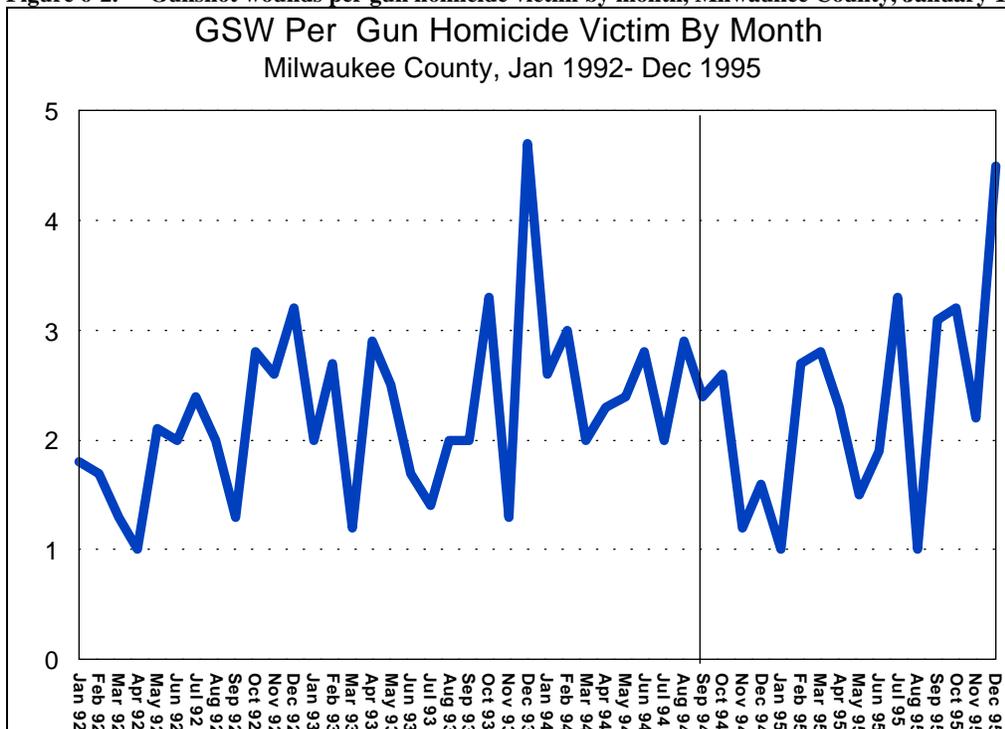
* T values were computed using formula for populations having unequal variances

⁸² Our comparisons of pre-ban and post-ban cases throughout this section are based on the assumption that the cases in each sample are independent. Technically, this assumption may be violated by incidents involving multiple victims and/or common offenders. Violation of this assumption has the practical consequence of making test statistics larger, thus making it more likely that differences will appear significant. Since the observed effects in these analyses are insignificant and usually in the wrong direction, it does not appear that violation of the independence assumption is a meaningful threat to our inferences.

⁸³ We also ran tests comparing only cases from 1993 (the last full year prior to passage and implementation of Title XI) and 1995 (the first full year following implementation of Title XI). These tests also failed to yield evidence of a post-ban reduction in the number of wounds per case.

Time trends in the monthly average of wounds per victim for Milwaukee and Seattle are displayed in Figure 6-2 and Figure 6-3. Figure 6-4 presents quarterly time trends for Jersey City. None of the graphs provide strong visual evidence of trends or changes in trends associated with the implementation of Title XI, but the Milwaukee and Seattle graphs are somewhat suggestive of upward pre-ban trends that may have been affected by the ban. We made limited efforts to estimate interrupted time series models (McCleary and Hay 1980) for these two series. The Milwaukee model provided no evidence of a ban effect,⁸⁴ and the efforts to model the Seattle data were inconclusive.⁸⁵ Because the ban produced no effects in Milwaukee or Seattle, it was not necessary to draw inferences about Jersey City as a comparison site.

Figure 6-2. Gunshot wounds per gun homicide victim by month, Milwaukee County, January 1992–December 1995



⁸⁴ We tested the Milwaukee data under various theories of impact but failed to find evidence of an effect from the ban.

⁸⁵ The Seattle data produced an autocorrelation function (see McCleary and Hay 1980) that was uninterpretable, perhaps as a result of the small number of gun murders per month in Seattle. Aggregating the data into larger time periods (such as quarters) would have made the series substantially shorter than the 40-50 observations commonly accepted as a minimum number of observations necessary for Box-Jenkins (i.e., ARIMA) modeling techniques (e.g., see McCleary and Hay 1980, p.20).

Figure 6-3. Gunshot wounds per gun homicide victim by month, King County (Seattle), January 1992–June 1996

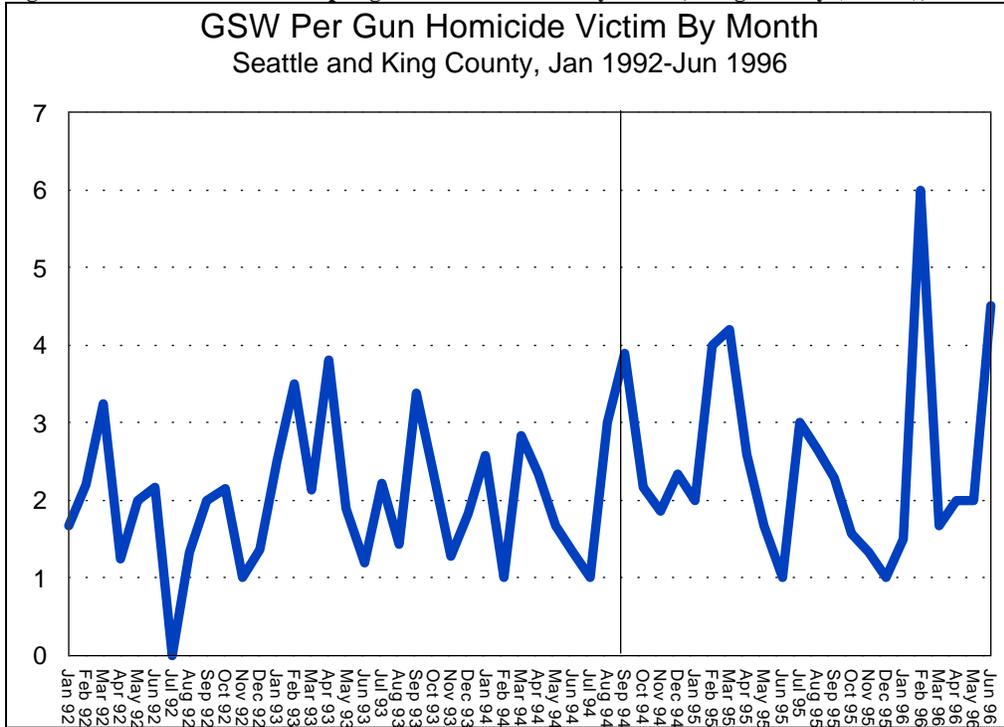
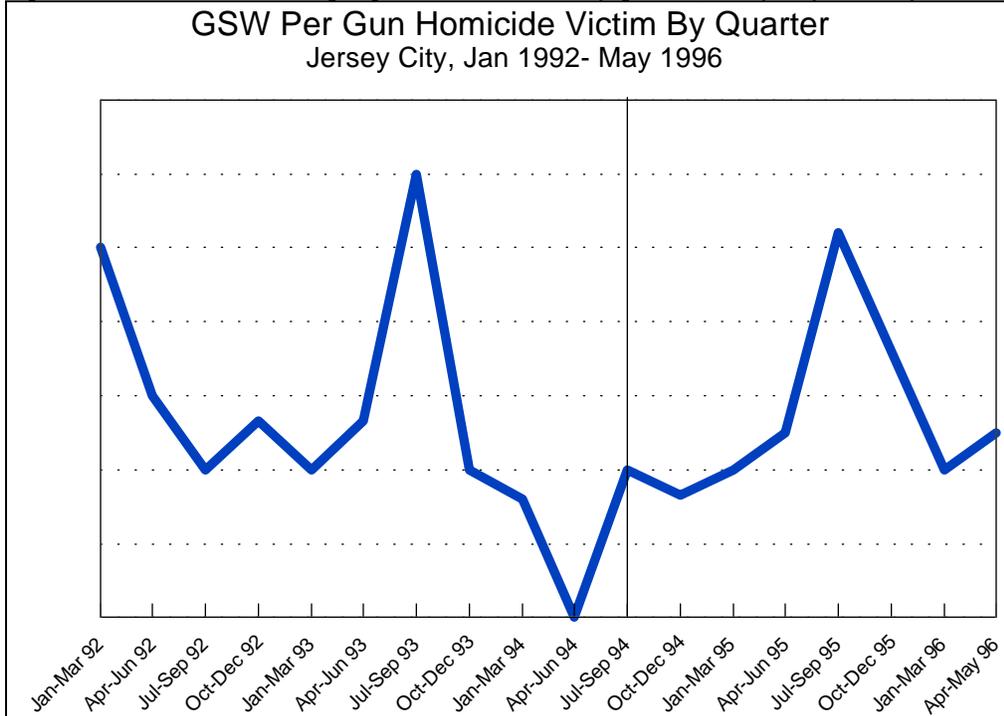


Figure 6-4. Gunshot wounds per gun homicide victim by quarter, Jersey City, January 1992–May 1996

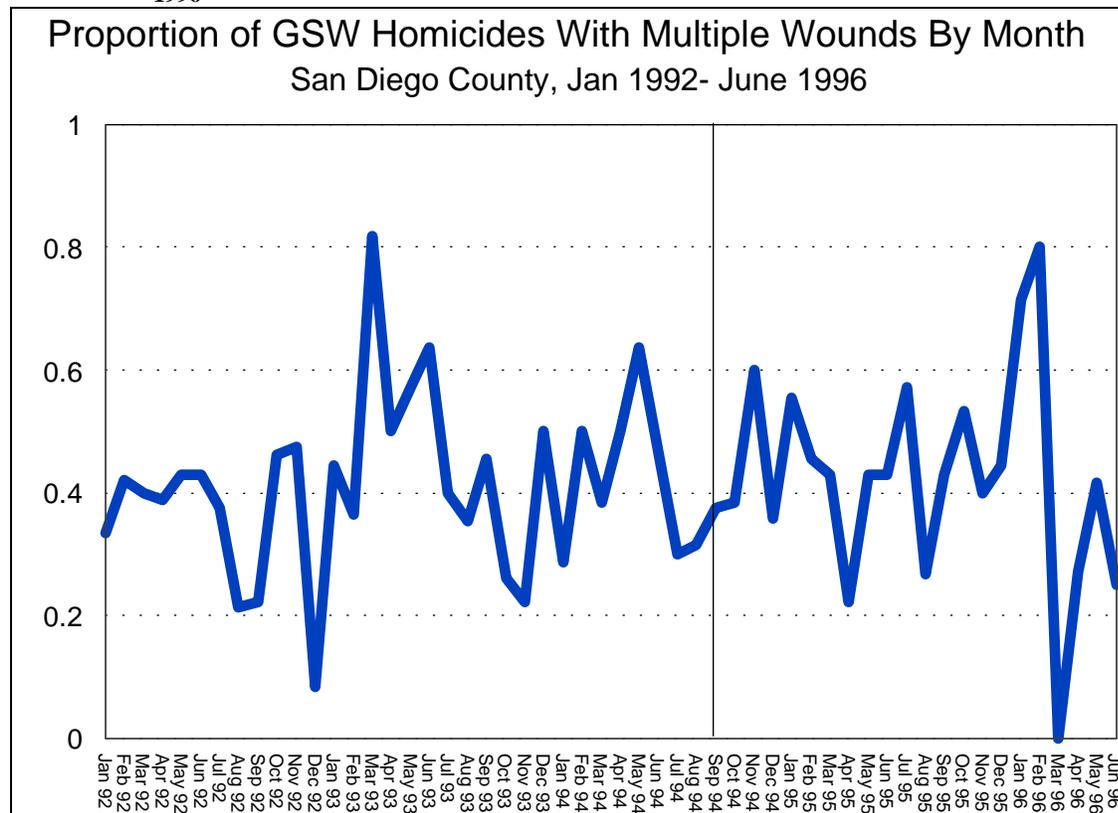


6.3.2. Proportion of Cases With Multiple Wounds: San Diego and Boston

The data from San Diego and Boston identified cases only as being single or multiple wound cases. We examined the proportions of pre-ban and post-ban cases involving multiple wounds and utilized contingency tables with chi-square tests to determine whether pre-ban and post-ban cases differed significantly.⁸⁶

The proportion of San Diego County’s gun homicide victims sustaining multiple wounds increased very slightly after the ban (see Table 6-4), thus providing no evidence of a ban impact. Nor do there appear to have been any significant temporal trends before or after the ban (see Figure 6-5).

Figure 6-5. Proportion of gunshot homicides with multiple wounds by month, San Diego County, January 1992–June 1996



The Boston data require further explanation and qualification. The data were taken from the Weapon-Related Injury Surveillance System (WRISS) of the Massachusetts Department of Public Health (MDPH). WRISS tracks gunshot and stabbing cases treated in acute care hospital emergency departments throughout the state.⁸⁷ These data have the unique advantage of providing trends for non-fatal victimizations, but they represent a biased sample of gunshot homicide cases because gun homicide victims found dead at the scene are not tracked by WRISS.⁸⁸ Since multiple wound victims can be expected to have a greater chance of dying at the scene, WRISS

⁸⁶ Monthly and quarterly averages in the fraction of cases involving multiple wounds did not appear to follow discernible time trends for any of these series (see Figure 6-5 through Figure 6-8). Therefore, we did not analyze the data using time series methods.

⁸⁷ For a discussion of error rates in the determination of wound counts by hospital staff, see Randall (1993).

⁸⁸ The MDPH also maintains a database on all homicide victims, but this database does not contain single/multiple wound designations and data for 1995 are not complete as of this writing.

data are likely to underestimate the fraction of gun homicide victims with multiple wounds. While it is possible that this bias has remained constant over time, the gun homicide trends should be treated cautiously.

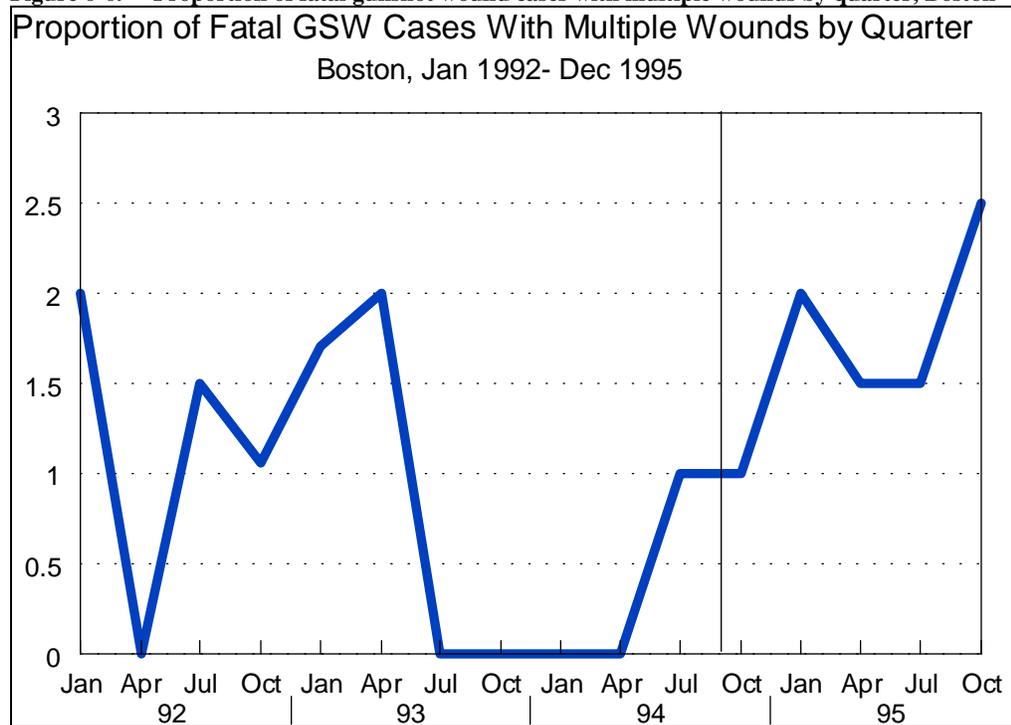
Table 6-4. Proportion of gunshot victims receiving multiple wounds, San Diego and Boston

	<i>Cases</i>	<i>Proportion with multiple wounds</i>	<i>Standard deviation</i>
<u>San Diego homicides (N = 668)</u>			
Pre-ban: January '92 - August '94	445	.41	.49
Post-ban: September '94 - June '96	223	.43	.50
<i>Difference</i>		.02	
$\xi^2 = 0.177$			
<i>P level = .674</i>			
<u>Boston Gun homicides (N = 53)</u>			
Pre-ban: January '92 - August '94	32	.50	.50
Post-ban: September '94 - December '95	21	.38	.50
<i>Difference</i>		-.12	
$\xi^2 = 0.725$			
<i>P level = .39</i>			
<u>Boston non-fatal gunshot victims (N = 762)</u>			
Pre-ban: January '92 - August '94	518	.18	.39
Post-ban: September '94 - December '95	244	.24	.43
<i>Difference</i>		.06	
$\xi^2 = 3.048$			
<i>P level = .08</i>			
<u>Boston total gunshot victims (N = 815)</u>			
Pre-ban: January '92 - August '94	550	.20	.40
Post-ban: September '94 - December '95	265	.27	.44
<i>Difference</i>		.07	
$\xi^2 = 4.506$			
<i>P level = .03</i>			

An additional concern with WRISS data is that system compliance is not 100 percent. Based on figures provided by MDPH, yearly hospital reporting rates in Boston during the study period were as follows: 63 percent for 1992; 69 percent for 1993; 75 percent for 1994; and 79 percent for 1995. It is thus possible that gunshot cases treated in non-reporting hospitals differ significantly from those treated in reporting hospitals with respect to single/multiple wound status. For all of these reasons, the Boston data should be interpreted cautiously. Overall, the WRISS captured 18 to 33 percent of Boston’s gun homicides for the years 1992–94.

Pre-ban/post-ban comparisons for fatal, non-fatal, and total gunshot cases from WRISS are presented in Table 6-4. The proportion of multiple wound cases decreased only for gun homicides. This decrease was not statistically significant, but the sample sizes were very small and thus the statistical power of the test is rather low. Nonetheless, the non-fatal wound data, which are arguably less biased than the fatal wound data, show statistically meaningful increases in the proportion of cases with multiple wounds.⁸⁹ Figure 6-6 through Figure 6-8 present monthly or quarterly trends for each series. These trends fail to provide any visual evidence of a post-ban reduction in the proportion of multiple wound gunshot cases.⁹⁰ Thus, overall, the Boston data appear inconclusive.

Figure 6-6. Proportion of fatal gunshot wound cases with multiple wounds by quarter, Boston



⁸⁹ Further, the decrease for homicide cases could have been due to an increase in the proportion of multiple wound victims who died at the scene and were not recorded in the WRISS.

⁹⁰ As with the Milwaukee and Seattle data, we also ran supplemental tests with the San Diego and Boston data using only cases from 1993 and 1995. These comparisons also failed to produce evidence of post-ban reductions in the proportion of gunshot cases with multiple wounds.

Figure 6-7. Proportion of non-fatal gunshot wound cases with multiple wounds by month, Boston, January 1992–December 1995

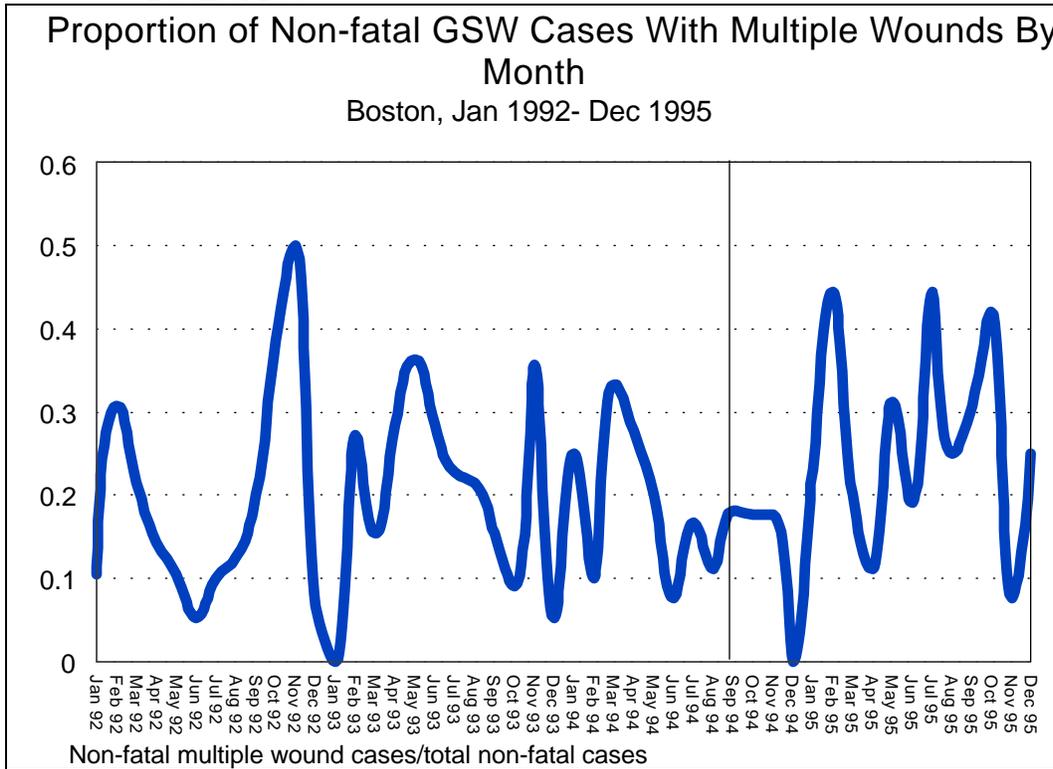
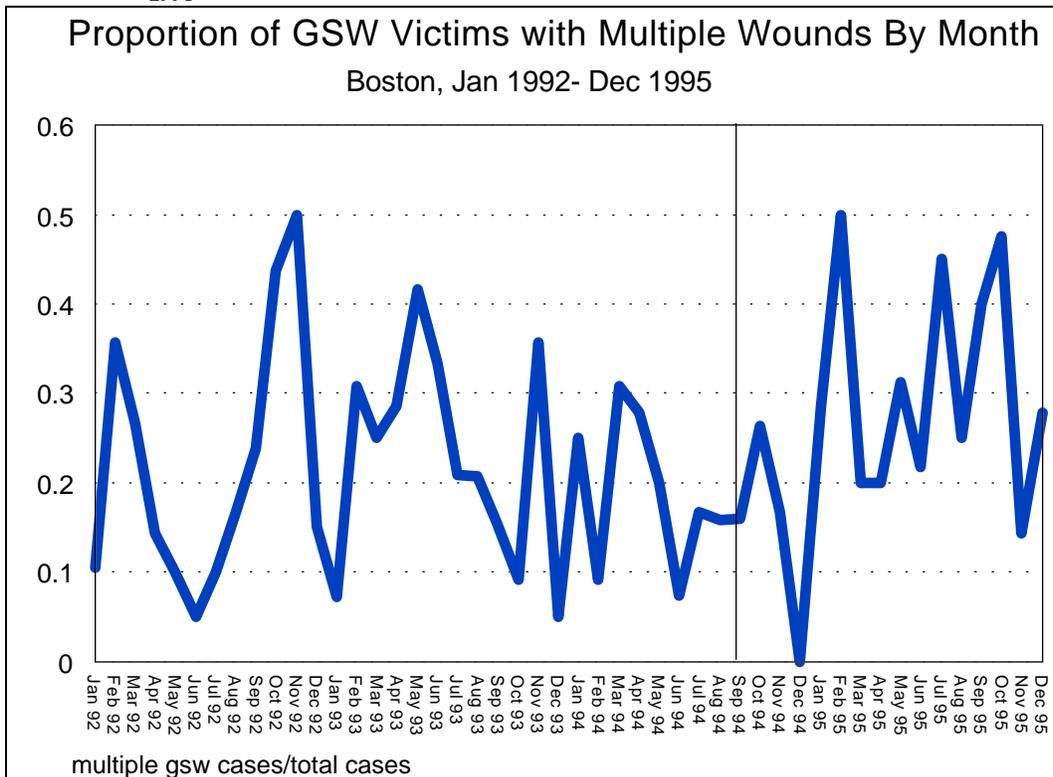


Figure 6-8. Proportion of gunshot wound victims with multiple wounds by month, Boston, January 1992–December 1995



6.3.3. Assault Weapons, Large-Capacity Magazines, and Multiple Wound Cases: Milwaukee

Most of the data sources used in this investigation contain little or no detailed information regarding weapon makes and models. Consequently, the validity of the previous analyses rest on indirect, inferred links between multiple wound gun homicides and expected changes in the use of assault weapons and large-capacity magazines.

However, we were able to make more explicit links between the banned weapons and gunshot wound counts by performing a cross-sectional analysis with the data from Milwaukee. Complete weapon make and model data were obtained for 149 guns associated with the 418 gun murders which occurred in Milwaukee County from 1992 through 1995. Eight of these firearms, or 5.4 percent, were assault weapons named in Title XI or copies of firearms named in Title XI (all of the assault weapons were handguns).⁹¹ Table 6-5 shows the mean number of wounds for gun homicide victims killed with assault weapons and other guns. Note that in Table 6-5 we screened out two cases in which the victim appeared to have been shot with multiple firearms. One of these cases involved an assault weapon. The results in Table 6-5 indicate that victims killed with assault weapons were shot a little over three times on average, while victims killed with other firearms were shot slightly over two times on average. This difference was not statistically significant, but the small number of cases involving assault weapons makes the test rather weak.

Table 6-5. Gunshot wounds per gun homicide victim: Assault weapon and large-capacity magazine cases, Milwaukee

	<i>Cases</i>	<i>Average</i>	<i>Standard deviation</i>	<i>T value</i>	<i>P level</i>
Assault weapons v. other firearms (N = 147)					
Assault weapons	7	3.14	3.08		
Other firearms	140	2.21	2.87		
<i>Difference</i>		0.93		0.83	.41
Firearms with banned large-capacity magazines v. other firearms (N = 132)					
Large-capacity firearms	30	3.23	4.29		
Other firearms	102	2.08	2.48		
<i>Difference</i>		1.15		1.41*	.17

*T values were computed using formula for populations having unequal variances.

We also conducted a more general examination of cases involving any firearm with a large-capacity magazine. There were 132 cases in which a victim was killed with a firearm for which make, model, and magazine capacity could be determined (the magazine capacity variable corresponds to the magazine actually recovered with the firearm). This analysis also excluded cases in which the victim was shot with more than one firearm. In 30 of these cases (23 percent), the victim was killed with a firearm carrying a large-capacity magazine

⁹¹ It is possible that other firearms in the database were assault weapons according to the features test of Title XI, but we did not have the opportunity to fully assess this issue.

banned by Title XI. As is shown in the bottom of Table 6-5, offenders killed with guns having banned large-capacity magazines received over three wounds on average. In contrast, persons killed with firearms having non-banned magazines received an average of two wounds. Despite the relatively small number of large magazine cases, the t statistic is moderately large and could be considered statistically meaningful with a one-tailed test.⁹² In addition, we constructed a regression model in which wound counts were regressed upon magazine capacity and the number of perpetrators involved in the incident.⁹³ The large-capacity magazine coefficient was 1.24 with a two-tailed p level equal to 0.05 (however, the equation explained only 3 percent of the variance in wound counts). These admittedly crude comparisons support the hypothesis that large-capacity magazines are linked to higher numbers of shots fired and wounds inflicted.

6.3.4. Conclusions

Our multi-site analysis of gunshot wounds inflicted in fatal and non-fatal gunshot cases failed to produce evidence of a post-ban reduction in the average number of gunshot wounds per case or in the proportion of cases involving multiple wounds. These results are perhaps to be expected. Available data from national gun trace requests to BATF (see Chapter 5), Milwaukee (this chapter), and other cities (see Chapters 2 and 5) indicate that assault weapons account for only 1 to 7 percent of all guns used in violent crime. Likewise, our analysis of guns used in homicides in Milwaukee suggests that a substantial majority of gun homicides (approximately three-quarters) are not committed with guns having large-capacity magazines. Further, victims killed with large-capacity magazines in Milwaukee were shot three times on average, a number well below the ten-round capacity permitted for post-ban magazines. This does not tell us the actual number of shots fired in these cases, but other limited evidence also suggests that most gun attacks involve three or fewer shots (Kleck 1991; McGonigal et al. 1993). Finally, a faster rate of fire is arguably an important lethality characteristic of semiautomatics which may influence the number of wounds inflicted in gun attacks; yet one would not expect the Crime Act to have had an impact on overall use of semiautomatics, of which assault weapons were a minority even before the ban.

On the other hand, the analysis of Milwaukee gun homicides did produce some weak evidence that homicide victims killed with guns having large-capacity magazines tended to have more bullet wounds than did victims killed with other firearms. This may suggest that large-capacity magazines facilitate higher numbers of shots fired per incident, perhaps by encouraging gun offenders to fire more shots (a phenomenon we have heard some police officers refer to as a “spray and pray” mentality). If so, the gradual attrition of the stock of pre-ban large-capacity magazines could have important preventive effects on the lethality of gun violence. However, our analysis of wounds inflicted in banned and non-banned magazine cases was crude and did not control for potentially important characteristics of the incidents, victims, and offenders. We believe that such incident-based analyses would yield important information about the role of specific firearm characteristics in lethal and non-lethal gun violence and provide further guidance by which to assess this aspect of the Crime Act legislation.

⁹² Note that two cases involving attached tubular .22 caliber large-capacity magazines were included in the non-banned magazine group because these magazines are exempted by Title XI. In one of these cases, the victim sustained 13 wounds. In a second comparison, these cases were removed from the analysis entirely. The results were essentially the same; the two-tailed p level for the comparison decreased to .13.

⁹³ The regression model (N=138) included cases in which the victim was shot with more than one gun. Separate variables were included for the number of victims and the use of more than one firearm. Both variables proved insignificant, but the perpetrator variable had a somewhat larger t statistic and was retained for the model discussed in the main text.

6.4. LAW ENFORCEMENT OFFICERS KILLED IN ACTION

6.4.1. *Introduction and Data*

As a final measure of consequences stemming from the assault weapons ban, we examined firearm homicides of police officers. Assault weapons and other high capacity firearms offer substantial firepower to offenders and may be especially attractive to very dangerous offenders. Further, the firepower offered by these weapons may facilitate successful gun battles with police. We hypothesized that these weapons might turn up more frequently in police homicides than in other gun homicides, and that the Crime Act might eventually decrease their use in these crimes.

To investigate this issue, we obtained data from the Federal Bureau of Investigation (FBI) on all gun murders of police officers from January 1992 through May 1996.⁹⁴ The data include the date of the incident, the state in which the incident occurred, the agency to which the officer belonged, and the make, model, and caliber of the firearm reportedly used in the murder. During this period, 276 police officers were killed by offenders using firearms. Gun murders of police peaked in 1994 (see Table 6-6). Data for 1995 and early 1996 suggest a decline in gun murders of police. However, any drop in gun murders of police could be due to more officers using bullet-proof vests, changes in policing tactics for drug markets, or other factors unrelated to the assault weapons ban. Moreover, the 1995 and 1996 data we received are preliminary and thus perhaps incomplete. For these reasons, we concentrated on the use of assault weapons in police homicides and did not attempt to judge whether the assault weapon ban has caused a decline in gun murders of police.

Table 6-6. Murders of police officers with assault weapons

<i>Year</i>	<i>Total gun murders of police officers</i>	<i>Officers killed with assault weapons</i>	<i>Proportion of victims killed with assault weapons (minimum estimate)</i>	<i>Proportion of victims killed with assault weapons for cases in which gun make is known</i>
1992	54	0	0%	0%
1993	67	4	6%	8%
1994	76	9	12%	16%
1995*	61	7	11%	16%
1996* (Jan–May)	18	0	0%	0%

*Data for 1995 and 1996 are preliminary

Even this more limited task was complicated by the fact that complete data on the make, model, and caliber of the murder weapon were not reported for a substantial proportion of these cases. The number of cases by year for which at least the gun make is known are 43 (80%) for 1992, 49 (73%) for 1993, 58 (76%) for 1994, 44 (72%) for 1995, and 10 (56%) for 1996.

6.4.2. *Assault Weapons and Homicides of Police Officers*

We focused our investigation on all makes and models named in Title XI and their exact copies. We also included our selected features test guns (Calico and Feather models), although we did not make a systematic

⁹⁴ These data are compiled annually by the FBI based on reports submitted by law enforcement agencies throughout the country.

assessment of all guns which may have failed the features test of the Crime Act as produced by their manufacturers.⁹⁵ Using these criteria, our estimate is that 20 officers were murdered by offenders using assault weapons during this period. (In some of these cases, it appears that the same weapon was used to murder more than one officer). Of these cases, 3 involved Intratec models, 6 were committed with weapons in the SWD family, 3 involved AR15's or exact AR15 copies, 2 cases involved Uzi's, and 6 cases identified AK-47's as the murder weapons.^{96 97} These cases accounted for about 7% of all gun murders of police during this period. This 7% figure serves as a minimum estimate of assault weapon use in police gun murders. A more accurate estimate was obtained by focusing on those cases for which, at a minimum, the gun make was reported. Overall, 10% of these cases involved assault weapons, a figure higher than that for gun murders of civilians.⁹⁸

All of the assault weapon cases took place from 1993 through 1995 (see Table 6-6). For those three years, murders with assault weapons ranged from 6% of the cases in 1993 to 12% in 1994. Among those cases for which firearm make was reported, assault weapons accounted for 8% in 1993 and 16% in both 1994 and 1995. All of these cases occurred prior to June 1995. From that point through May of 1996, there were no additional deaths of police officers attributed to assault weapons. This is perhaps another indication of the temporary or permanent decrease in the availability of these weapons which was suggested in Chapter 5.

In sum, police officers are rarely murdered with assault weapons. Yet the fraction of police gun murders perpetrated with assault weapons is higher than that for civilian gun murders. Assault weapons accounted for about 10% of police gun murders from 1992 through May of 1996 when considering only those cases for which the gun make could be ascertained. Whether the higher representation of assault weapons among police murders is due to characteristics of the weapons, characteristics of the offenders who are drawn to assault weapons, or some

⁹⁵ With the available data, it is not possible for us to determine whether otherwise legal guns were modified so as to make them assault weapons.

⁹⁶ There is a discrepancy between our data and those provided elsewhere with respect to a November 1994 incident in which two FBI agents and a Washington, D.C. police officer were killed. In a study of police murders from January 1994 through September 1995, Adler et al. (1995) reported that the offender in this case used a TEC9 assault pistol. The FBI data identify the weapon as an M11. (The data actually identify the gun as a Smith and Wesson M11. However, Smith and Wesson does not make a model M11. We counted the weapon as an SWD M11.)

In addition, Adler et al. identified one additional pre-ban incident in which an officer was killed with a weapon which may have failed the features test (a Springfield M1A). We are not aware of any other cases in our data which would qualify as assault weapon cases based on the features test, but we did not undertake an in-depth examination of this issue. There were no cases involving our select features test guns (Calico and Feather models).

⁹⁷ The weapon identifications in these data were made by the police departments reporting the incidents, and there is likely to be some degree of error in the firearm model designations. In particular, officers may not always accurately distinguish banned assault weapons from legal substitutes or look-alike variations. We note the issue here due to the prominence of AK-47's among guns used in police homicides. There are numerous AK-47 copies and look-alikes, and firearm experts have informed us that legal guns such as the SKS rifle and the Norinco NHM-90/91 (a modified, legal version of the AK-47) are sometimes, and perhaps commonly, mistakenly identified as AK-47's.

⁹⁸ In consultation with BATF officials, we developed a list of manufacturers who produced models listed in the Crime Act and exact copies of those firearms. We were thus able to determine whether all of the identified makes in the FBI file were assault weapons.

combination of both is unclear. However, there have been no recorded murders of police with assault weapons since the early part of 1995.⁹⁹

These findings have important ramifications for future research on the impact of the assault weapons ban. The relatively high use of assault weapons in murders of police suggests that police gun murders should be more sensitive to the effects of the ban than gun murders of civilians. That is, if the disproportionate representation of assault weapons among gun homicides of police is attributable to the objective properties of these firearms (i.e., the greater lethality of these firearms), then a decrease in the availability of these guns should cause a notable reduction of police gun murders because other weapons will not be effective substitutes in gun battles with police. At this point, however, it is not clear whether the high representation of assault weapons among police murder cases is due to the greater stopping power of assault weapons (most assault weapons are high velocity rifles or high velocity handguns and thus inflict more serious wounds), their rate of fire and ability to accept large-capacity magazines, some combination of these weapon characteristics, or simply the traits of offenders who prefer assault weapons. A variety of non-banned weapons may serve as adequate substitutes for offenders who engage in armed confrontations with police.

As more data become available, we encourage the study of trends in police gun murders before and after the Crime Act. Furthermore, we believe that research on these issues would be strengthened by the systematic recording of the magazines with which police murder weapons were equipped and the numbers of shots fired and wounds inflicted in these incidents.

⁹⁹ We did not examine police murders committed with firearms capable of accepting large-capacity magazines because the available data do not enable us to determine whether any guns used after the ban were actually equipped with pre-ban large-capacity magazines, nor do the data indicate the number of shots fired in these incidents. Moreover, in recent years many police departments have adopted large-capacity semiautomatic handguns as their standard firearm. Since about 14% of police officers murdered with guns are killed with their own firearms (FBI 1994, p.4), this could create an apparent increase in police murders with large-capacity firearms. (We did not acquire data on whether the officers were killed with their own firearms.) For a discussion of large-capacity firearms used in killings of police from January 1994 through September 30, 1995, see Adler et al. (1995).

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Appendix A

Assault Weapons and Mass Murder

INTRODUCTION: MASS MURDERS AS AN IMPACT MEASURE

As another indicator of ban effects on the consequences of assault weapon use, we attempted to analyze pre- and post-ban trends in mass murders, which we defined as the killing of four or more victims at one time and place by a lone offender. Although we lacked advance information on the proportion of mass murders involving assault weapons, we had two reasons for believing that assault weapons were more prevalent in mass murders than in events involving smaller numbers of victims:

- 1) A weapon lethality/facilitation hypothesis, that assault weapon characteristics, especially high magazine capacities, would enable a rational but intent killer to shoot more people more rapidly with an assault weapon than with many other firearms.
- 2) A selection hypothesis, that certain deranged killers might tend to select assault weapons to act out “commando” fantasies (e.g., see Holmes and Holmes 1994, pp.86-87).

In addition, we believed that newspaper reports of mass murders might carry more detail than reports of other murders, and that these reports might provide insights into the situational dynamics of mass murders involving assault weapons.

Our attempt to construct and analyze a 1992–96 trend line in mass murders using Nexis searches of U.S. news sources foundered, for two primary reasons. First, apparent variations in reporting or indexing practices forced us to alter our search parameters over the period, and so all three kinds of variation introduce validity problems into the trends. Second, newspaper accounts were surprisingly imprecise about the type of weapon involved. In some cases, the offender had not yet been apprehended and thus the make and model of the weapon was probably unknown. In other instances, there was apparent inattention or confusion regarding the make, model, and features. Finally, some offenders were armed with multiple weapons when they committed their crimes or when they were captured, and it was unclear to the reporter which weapon accounted for which death(s).¹

Nevertheless, our mass murder analysis produced several interesting, though tentative, findings. First, SHR and news media sources both appear to undercount mass murders under our definition, and our capture-recapture analysis suggests that their true number may exceed the count based on either source by something like 50 percent. Second, contrary to our expectations, only 2 — 3.8 percent — of the 52 mass murders we gleaned from the Nexis search unambiguously involved assault weapons. This is about the same percentage as for other murders. Third, media accounts lend some tenuous support to the notion that assault weapons are more deadly than other weapons in mass murder events, as measured by victims per incident.

Our search methodology and the findings above are explained more fully in the following sections, which conclude with recommendations for further related research.

¹ It is also not unusual for news accounts to use imprecise terms like “assault rifle” when describing a military-style firearm. However, we did not encounter any such cases in our particular sample.

DEFINING MASS MURDERS AND SAMPLE SELECTION

In general terms, a mass murder is the killing of a number of people at one time and place. The time requirement in particular sets mass murders apart from serial murders, which take place over a very long timeframe. We focused our analysis upon mass murders committed with firearms, and we chose four victims for our operational definition of mass murder.² In addition, we focused upon cases in which the murders were committed by one offender. We selected the victim and offender criteria based on practicality and because they arguably fit better with the weapon lethality/weapon facilitation argument. If assault weapons do contribute to mass murder, we hypothesized that they will enable a single offender to murder greater numbers of people at one time. Thus, we selected a subset of mass murders for which we felt assault weapons might plausibly play a greater role.

Project staff conducted Nexis searches for multiple-victim firearm murder stories appearing in U.S. news sources from 1992 through the early summer of 1996. Fifty-two stories meeting our firearm mass murder criteria were found. A breakdown of these cases by year is shown in the bottom row of table A-1.³ Cases ranged from a low of 3 in 1994 and 1996 to a high of 20 in 1995. We urge caution in the interpretation of these numbers. Although project staff did examine well over a thousand firearm murder stories, we do not claim to have found all firearm mass murders occurring during this time. Rather, these cases should be treated as a possibly unrepresentative sample of firearm mass murders. Further, we do not recommend using these numbers as trend indicators. We refined our search parameters several times during the course of the research, and we cannot speak to issues regarding changes in journalistic practices (or Nexis coverage) which may have occurred during this period and affected our results. This portion of the evaluation was more exploratory in nature, and the primary goal was to assess the prevalence of assault weapons among a sample of recent mass murder incidents.

Table A-1. Mass murder newspaper reports, by weapon type and year of event

	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>1996</i>	<i>Total</i>
<u>Semiautomatics</u>						
Handgun	4	3	1	7	1	16
Rifle	0	0	0	2	0	2
<u>Generic weapon types</u>						
Revolver	0	0	0	1	0	1
Other non-semiautomatic handgun	0	0	0	0	0	0
Handgun, type unknown	2	2	0	1	0	5
Non-semiautomatic rifle	0	0	0	1	0	1
Rifle, type unknown	1	1	0	0	0	2
Non-semiautomatic shotgun	0	0	0	1	0	1
Shotgun, type unknown	2	3	0	1	0	6
Unknown firearm	5	2	2	6	2	17

² As Holmes and Holmes (1994, pp.71-73) have noted, most scholars set the victim criterion for mass murder at three or four victims.

³ Table A-1 excludes 1 of the 52 for which we were unable to ascertain the date of the mass murder.

Total cases	14	11	3	20	3	51
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ESTIMATING TOTAL FIREARM MASS MURDERS: A METHODOLOGICAL NOTE

Our investigation of multiple/mass murders utilized both the SHR and news media as data sources. Both of these sources have limitations for this task. Though the SHR is widely accepted as an accurate source of homicide data, not all agencies in the country report homicides to the SHR, and agencies that do report to the SHR program may not report all of their homicides. Likewise, some mass murders may not be reported accurately in media sources, or the stories may differ in their accessibility depending on where they occurred and the publication(s) which carried the story. Family-related mass murders, for example, seem less likely to be reported in national sources (Dietz 1986), although the availability of national electronic searches through services such as Nexis would seem to lessen this problem.⁴ Our experience suggests that both sources underestimate the number of true mass murders.

Capture-recapture methods (e.g., see Mastro et al. 1994; Neugebauer and Wittes 1994) offer one potential way of improving estimation of mass murders. Capture-recapture methods enable one to estimate the true size of a population based on the number of overlapping subjects found in random samples drawn from the population. Mastro et al. (1994), for example, have used this methodology to estimate the number of HIV-infected drug users in the population of a foreign city. Similarly, researchers in the biological sciences have used this methodology to estimate the size of different wildlife populations.

Given two samples from a population, the size of the population can be estimated as:

$$N = n1 * n2 / m$$

where N is the population estimate, n1 is the size of the first sample, n2 is the size of the second sample, and m is the amount of overlap in the samples (i.e., the number of subjects which turned up in the first sample and that were subsequently recaptured in the second sample). Neugebauer and Wittes (1994, p.1068) point out that this estimate is biased but that the "bias is small when the capture and recapture sizes are large." The reliability of the estimate depends on four assumptions (Mastro et al. 1994, pp.1096-1097). First, the population must be closed (in our case, this is not a problem because our samples are drawn from the same geographic area and time period). Second, the capture sources must be independent (if more than two sources are used, log-linear modeling can be used to account for dependence between the sources, and the assumption of independence is not necessary). Third, members of the population must have an equal probability of being captured. Finally, the matching procedure must be accurate — all matches must be identified and there can be no false matches.

As mentioned previously, our work with the SHR and media sources suggests that both sources underestimate the true number of firearm mass murders occurring in the nation. That being the case, we offer a tentative illustration of how capture-recapture methods might be used to estimate the true number of mass murders occurring in the nation based on the SHR and media source numbers. We add a number of qualifiers

⁴ In our experience, one factor making mass murder cases more difficult to locate is that many of these stories are not labeled with dramatic terms such as "mass murder" or "massacre." Despite the rarity and tragedy of these events, they are often described in commonplace terms (headlines may simply state something like, "Gunman shoots five persons during robbery"). Thus, it becomes necessary to develop Nexis search parameters broad enough to capture various sorts of multiple-victim incidents. This, in turn, requires one to examine a much greater number of stories.

throughout this exercise. To begin with, the SHR and media sources might not seem independent because, generally speaking, news organizations are reliant upon police for information about crime. Once a homicide is discovered, on the other hand, the reporting apparatuses for the SHR and news organizations are distinct.

With that caveat in mind, we used the year 1992 for this demonstration. For that year, we identified all cases from both sources in which one offender killed four or more persons using a firearm. The SHR search turned up 15 cases, and the Nexis search yielded 14 cases.

Next, we attempted to match these cases. Tentatively, we determined that nine cases were common to both sources (see Table A-2). Our estimate for the number of incidents during 1992 in which one offender killed four or more persons using a firearm(s) thus becomes:

$$N = (15 * 14)/9 = 23.$$

Table A-2. 1992 HR/Nexis comparisons

<u>NEXIS</u>	<u>SHR</u>	<u>NEXIS & SHR</u>
14	15	9
<u>NEXIS ONLY</u>		<u>NUMBER OF VICTIMS</u>
2/16/92	Mobile, AL	4
5/1/92	Yuba County, CA	4
6/15/92	Inglewood, CA	5
9/13/92	Harris County, TX	4
11/13/92	Spring Branch, TX	5
<u>FBI ONLY</u>		<u>NUMBER OF VICTIMS</u>
8/92	Dade, FL	4
9/92	Chicago, IL	4
5/92	Detroit, MI	4
3/92	New York, NY	4
1/92	Burleigh, ND	4
7/92	Houston, TX	4
<u>NEXIS & FBI</u>		<u>NUMBER OF VICTIMS</u>
2/12/92	Seattle, WA	4
3/21/92	Sullivan, MO	6
3/26/92	Queens, NY	5
7/23/92	Fairmont, WV	4
10/4/92	Dallas, TX	4
10/15/92	Schuyler County	4
11/1/92	Rancho Santa Fe, CA	4
12/13/92	King County, WA	4
12/24/92	Prince William County, VA	4

A number of cautionary notes are required. Obviously, our sample sizes are quite small, but, apparently, so is the population which we are trying to estimate. In addition, our matches between the sources were based on matching the town (determined from the police department's name), month of occurrence, number of victims, and number of offenders. In a more thorough investigation, one would wish to make the matches more carefully. If,

for instance, the victims were not all immediately killed, one may find a news story referring to the initial number of deaths, and that count might not match the final count appearing in the SHR. Moreover, we have focused on cases in which one offender committed the murders. However, the SHR might list two or more offenders if there were other accomplices who did not do the shooting. Finally, there could be ambiguity regarding the exact location of the SHR cases because we used the police department name to match the locations with the Nexis cases (city or town name does not appear in the file). We did not investigate these issues extensively, but they would seem to be manageable problems.

Another issue is whether each incident's probability of being captured is the same for each sample. Our tentative judgment is that this is not the case, or at least it does not appear to have been true for our sample. Referring to Table A-2, it seems that the SHR-only cases were more likely to appear in urban areas, whereas the Nexis-only cases appear to have taken place in more rural areas. We can speculate that rural police departments are somewhat less likely to participate in the SHR, and that cases in rural areas are thus less likely to be reported to the SHR. In contrast, the greater number of murders and violent acts which occur in urban areas may have the effect of making any given incident less newsworthy, even if that incident is a mass murder. A mass murder taking place among family members in an urban jurisdiction, for instance, might get less prominent coverage in news sources and might therefore be more difficult to locate in a national electronic search.

But even if we accept these biases as real, we can at least estimate the direction of the bias in the capture-recapture estimate. Biases such as those discussed above have the effect of lessening the overlap between our sources. Therefore, they decrease the denominator of the capture-recapture equation and bias the population estimate upwards. With this in mind, our 1992 estimate of 23 cases should be seen as an upper estimate of the number of these incidents for that year.

In this section, we have provided a very rough illustration of how capture-recapture models might be utilized to more accurately estimate the number of mass murders in the U.S. or any portion of the U.S. If additional homicide sources were added such as the U.S. Public Health Service's Mortality Detail Files, moreover, researchers could model any dependencies between the sources. With further research into past years and ahead into future years, researchers could build time series to track mass murders and firearm mass murders over time. This may be a worthwhile venture because though these events are only a small fraction of all homicides, they are arguably events which have a disproportionately negative impact on citizens' perceptions of safety.

Firearms Used in Mass Murders

Table A-1 displays information about the weapons used in our sample of mass murders. One of the major goals behind the Nexis search was to obtain more detailed information on the weapons used in firearm mass murders. Yet a substantial proportion of the articles said nothing about the firearm(s) used in the crime or identified the gun(s) with generic terms such as "handgun," "rifle," or "shotgun." Overall, 18 stories identified the murder weapon(s) as a semiautomatic weapon, and 16 of these guns were semiautomatic handguns. Only eight stories named the make and model of the murder weapon.

Despite the general lack of detailed weapon information, our operating assumption was that, due to their notoriety, assault weapons would draw more attention in media sources. That is, we assumed that reporters would explicitly identify any assault weapons that were involved in the incident and that unidentified weapons were most likely not assault weapons. This assumption is most reasonable for cases in which the offender was apprehended. Overall, 37 cases (71 percent) were solved and another 6 (11.5 percent) had known suspects.

Of the total 52 cases in our sample, 2, or 3.8 percent, involved assault weapons as the murder weapon. If we focus on just the 37 solved cases, assault weapons were involved in 5.4 percent (both assault weapon cases were solved). One of the assault weapon cases took place in 1993 and the other took place in 1995 after the ban's implementation. The accounts of those cases are as follows:

Case 1 (July 3, 1993, San Francisco, California). A 55-year-old man bearing a grudge against his former attorneys for a lawsuit in which he lost 1 million dollars killed 8 persons, wounded 6 others, and then killed himself during a 15-minute rampage in which he fired 50-100 rounds. The offender was armed with two TEC-9 assault pistols, a .45 caliber semiautomatic pistol, and hundreds of rounds of ammunition.⁵

Case 2 (June 20, 1995, Spokane, Washington). A military man assigned to Fairchild Air Force Base entered the base hospital with an AK-47 assault rifle and opened fire, killing 4 and wounding 19. The gunman was killed by a military police officer. At the time of the story, no motive for the killing had been discovered.

In addition, our search uncovered two other cases in which the offender possessed an assault weapon but did not use it in the crime. In one of these cases, the additional weapon was identified only as a "Chinese assault rifle," so there is the possibility that the gun was an SKS rifle or other firearm that was not an assault weapon by the criteria of Title XI.

LETHALITY OF ASSAULT WEAPONS USED IN MASS MURDERS

Although assault weapons appeared rarely in our sample of firearm mass murder cases, there are some indications that mass murders involving assault weapons are more deadly than other mass murders with guns. The two unambiguous assault weapon cases in our sample involved a mean of 6 victims, a number 1.5 higher than the 4.5 victims killed on average in the other cases. Further, each assault weapon case involved a substantial number of other victims who were wounded but not killed. Other notorious mass murders committed with assault weapons also claimed particularly high numbers of victims (Cox Newspapers 1989). The numbers of victims in these cases suggests that the ability of the murder weapons to accept large-capacity magazines was probably an important factor. We offer this observation cautiously, however, for several reasons besides the small number of cases in our sample. We did not make detailed assessments of the actors or circumstances involved in these incidents. Relevant questions, for example, might include whether the offender had a set number of intended targets (and, relatedly, the relationship between the offender and victims), the number of different guns used, whether the offender had the victims trapped at the time of the murders, and the amount of time the offender had to commit the crime.

In order to refine our comparison somewhat further, we examined the number of victims in assault weapon and non-assault weapon cases after removing 19 family-related cases from consideration. This did not change the results; the average number of victims in assault weapon cases was still approximately 1.5 higher than that of non-assault weapon cases.

⁵ The story indicated that the offender had modified the firearms to make them fire more rapidly than they would have otherwise. Presumably, this means that he converted the guns to fully automatic fire, but this is not entirely clear from the article.

RECOMMENDATIONS FOR FURTHER RELATED RESEARCH

There are a number of related questions that could be pursued in future research. One concerns a more explicit examination of the role of large-capacity magazines in mass murder, particularly for incidents involving non-assault weapon firearms. Based on our experience, this information is rarely offered in media sources and would require contacting police departments which investigated mass murder incidents. Another issue concerns non-fatal victims. This was not an express focus of our research, but if the assault weapon/large-capacity semiautomatic hypothesis has validity, we can hypothesize that shootings involving these weapons will involve more total victims. Along similar lines, Sherman and his colleagues (1989) documented a rise in bystander shootings in a number of cities during the 1980s and speculated that the spread of semiautomatic weaponry was a factor in this development. Due to time and resource limitations, we did not pursue the issue of bystander shootings for this study, but further research might shed light on whether assault weapons and large-capacity magazines have been a factor in any such rise.

EXHIBIT 29

The author(s) shown below used Federal funds provided by the U.S. Department of Justice and prepared the following final report:

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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**

By

Christopher S. Koper
(Principal Investigator)

With

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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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The author wishes to thank several people and organizations that assisted this effort in numerous ways. Daniel Woods assisted with data analysis. Jeffrey Roth, who directed our first study of the assault weapons ban, provided advice and editorial input. Additional research assistance was provided by the following former employees of the Urban Institute: Gretchen Moore, David Huffer, Erica Dinger, Darin Reedy, Kate Bunting, Katie Gorie, and Michele Waul. The following persons and organizations provided databases, information, or other resources utilized for this report: Glenn Pierce (Northeastern University), Pamela Shaw and Edward Koch (Baltimore Police Department), Robert Shem (Alaska State Police), Bill McGill and Mallory O'Brien (currently or formerly of the Firearm Injury Center, Medical College of Wisconsin), Rick Ruddell (California State University, Chico), Scott Doyle (Kentucky State Police), Terrence Austin and Joe Vince (currently or formerly of the Bureau of Alcohol, Tobacco, Firearms, and Explosives), Carlos Alvarez and Alan Lynn (Metro-Dade Police Department), Charles Branas (Firearm and Injury Center, University of Pennsylvania), Caroline Harlow (Bureau of Justice Statistics), and Rebecca Knox (Brady Center to Prevent Handgun Violence). Robert Burrows (Bureau of Alcohol, Tobacco, Firearms, and Explosives) and Wain Roberts (Wain Roberts Firearms) shared technical expertise on firearms. Anonymous reviewers for the National Institute of Justice provided thorough and helpful comments on earlier versions of this report, as did Terrence Austin and Robert Burrows of the Bureau of Alcohol, Tobacco, Firearms, and Explosives. Finally, I thank Lois Mock, our National Institute of Justice grant monitor, for her advice and encouragement throughout all of the research that my colleagues and I have conducted on the assault weapons ban.

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 Victimitizations, 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.

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

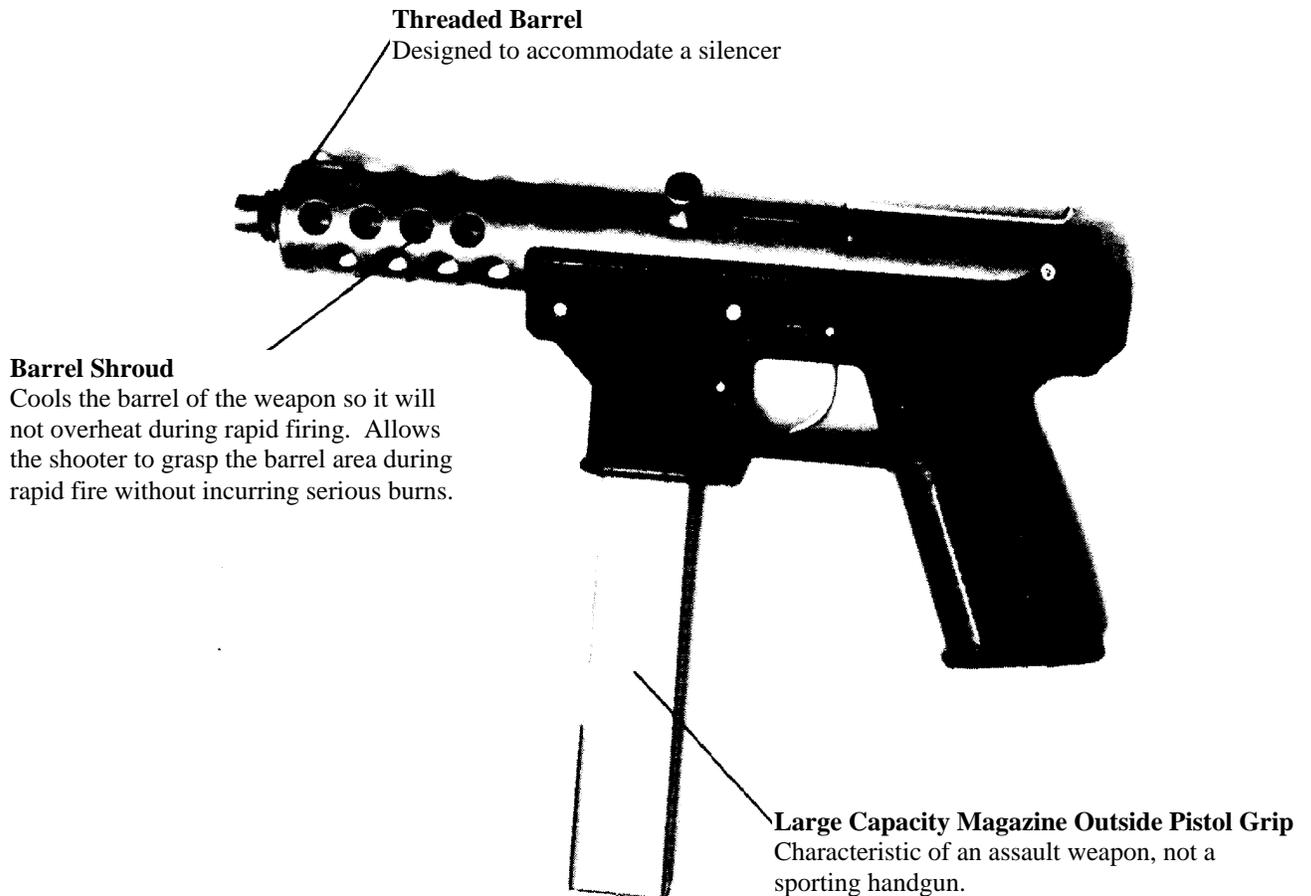
Weapon Category	Military-Style Features (Two or more qualify a firearm as an assault weapon)
Semiautomatic pistols accepting detachable magazines:	<ol style="list-style-type: none"> 1) ammunition magazine that attaches outside the pistol grip 2) threaded barrel capable of accepting a barrel extender, 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:	<ol style="list-style-type: none"> 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:	<ol style="list-style-type: none"> 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.

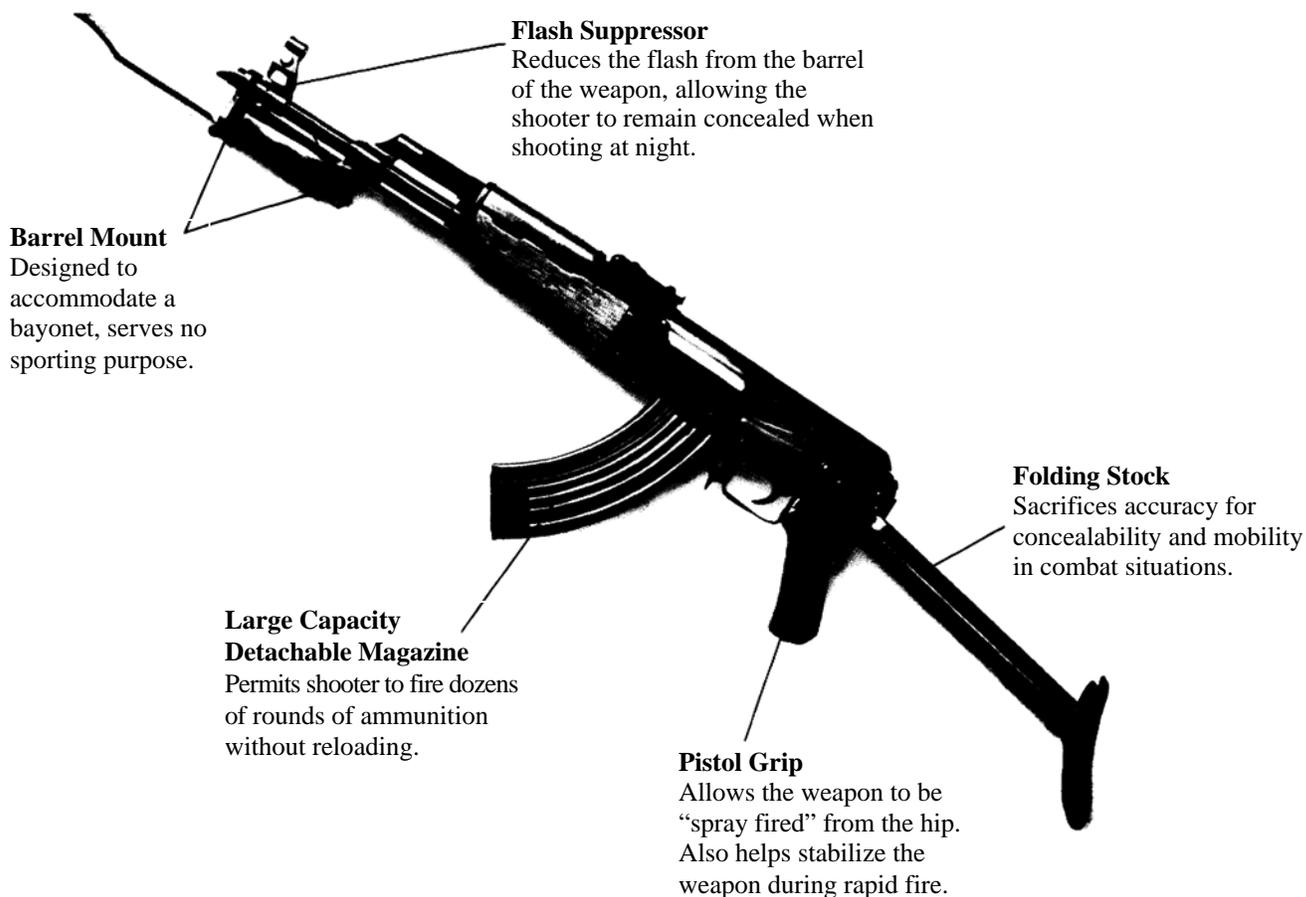
**Figure 2-1. Features of Assault Weapons:
The Intratec TEC-9 Assault Pistol**



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.

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)

AMERICAN PRIDE

BRAND NEW

AMERICAN MADE

Introducing The AB-10 Stainless Steel 9mm Pistol!
The New non-threaded AB-10 Stainless Steel Firearm is now available with a 32-round Stainless Steel capacity magazine. This new edition is one of the most affordable and reliable firearms on the market! In Standard Blue or Stainless Steel, the AB-10 series makes an ideal firearm for self-defense or recreation.
A super profit-maker!

"Cat"-9
9mm, Luger. Magazine 7+1

Sport -22
Non-Threaded Barrel
10-Round Magazine

"Cat"-9/.380 Auto
Magazine 7+1

"Cat" -45
45 A.C.P.
Magazine 6+1

Pro-"tec"-tor Series
Protec 25B, 8-Round Mag.
Protec 25KB, 8-Round Mag.

INTRATEC
12405 S.W. 130th St., Miami, FL 33186
<http://amfire.com/intratec.html>
Fax: (305) 253-7207

**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

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 as 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).

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

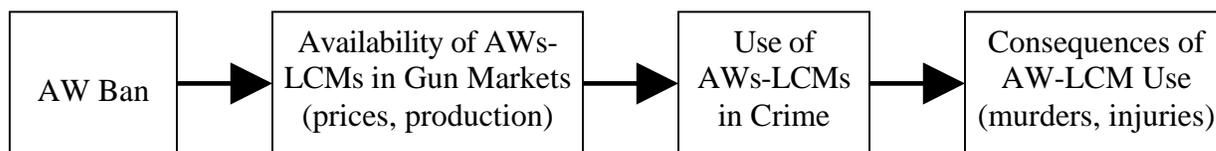
An important rationale for the AW-LCM ban is that AWs and other guns equipped with LCMs are particularly dangerous weapons because they facilitate the rapid firing of high numbers of shots, thereby potentially increasing injuries and deaths from gun violence. Although AWs and LCMs were used in only a 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

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?

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}

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	

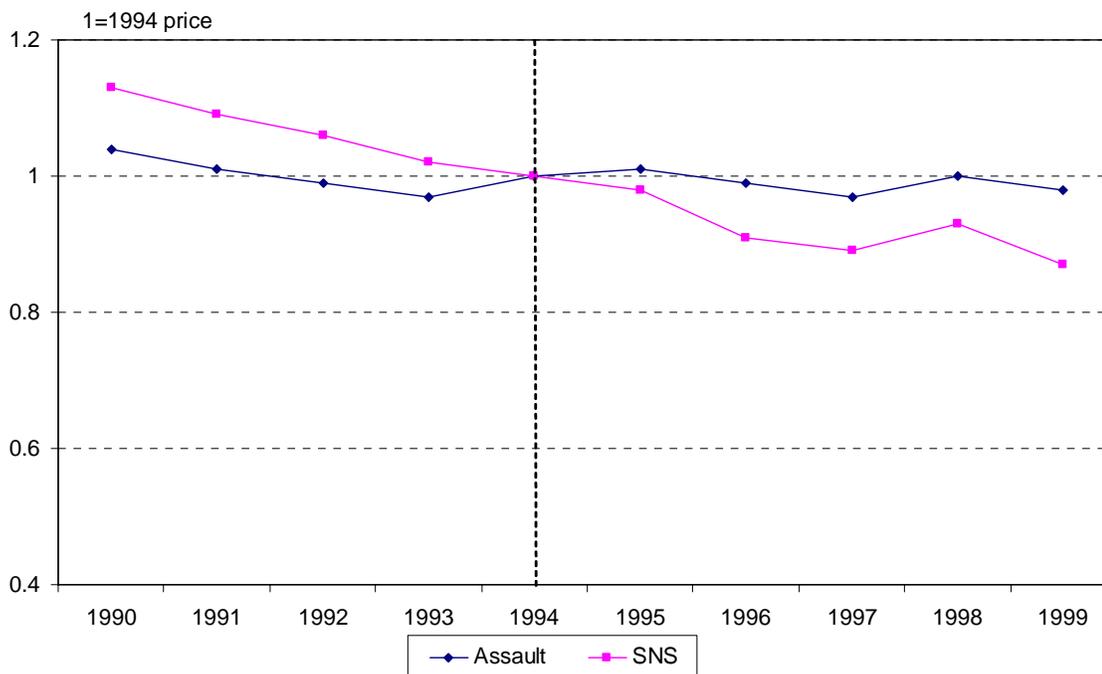
Time indicators are interpreted relative to 1994. Assault pistol model indicators are interpreted relative to Calico 9mm. Comparison handgun models are interpreted relative to Lorcin .25 caliber.

* Statistically significant at $p \leq .10$.

** Statistically significant at $p \leq .05$.

*** Statistically significant at $p \leq .01$.

Figure 5-1. Annual Price Trends for Assault Pistols and SNS Handguns, 1990-1999



Assault pistol prices based 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.

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.

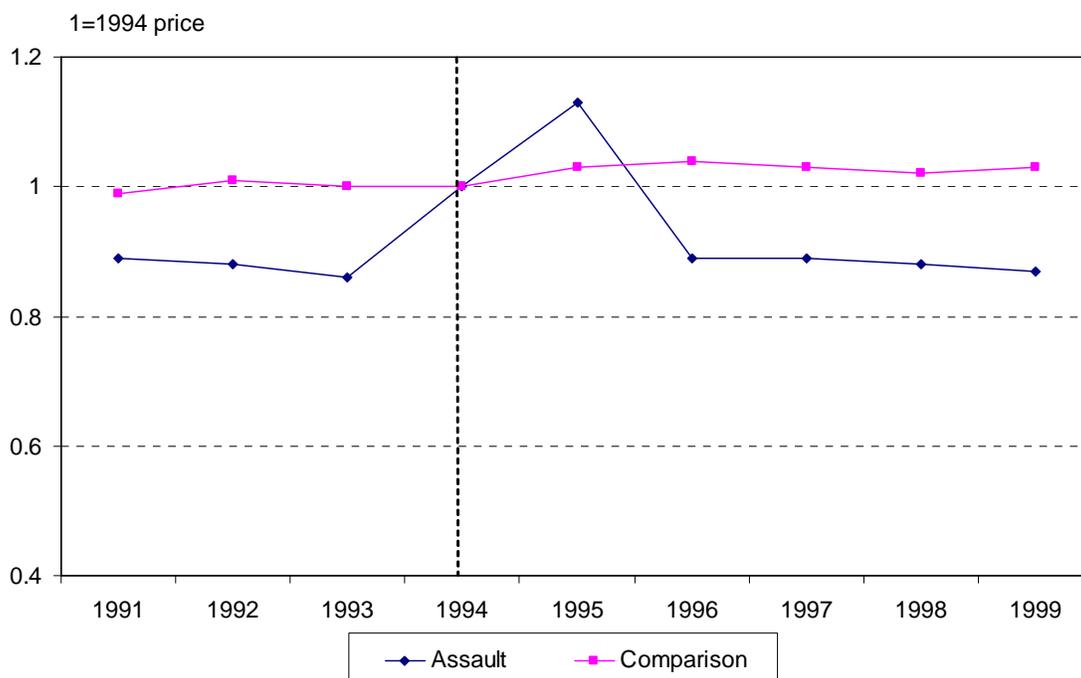
Comparison rifle makes interpreted relative to Marlin.

* Statistically significant at $p \leq .10$.

** Statistically significant at $p \leq .05$.

*** Statistically significant at $p \leq .01$.

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 –

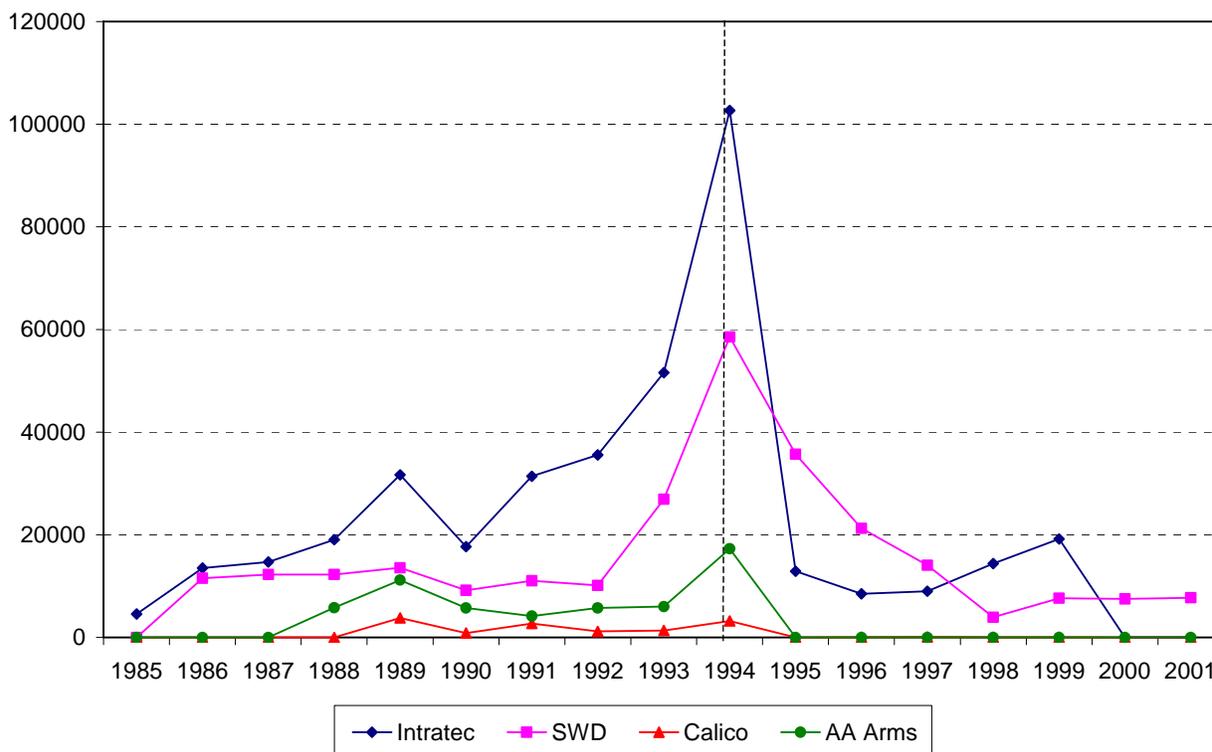
³² We attributed those short-term fluctuations to pre-ban uncertainty regarding which semiautomatic rifles would be prohibited by the ban. Also note that the prior findings were based on a different set of comparison semiautomatic rifles that included a number of foreign rifles. We concentrated on domestically 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%

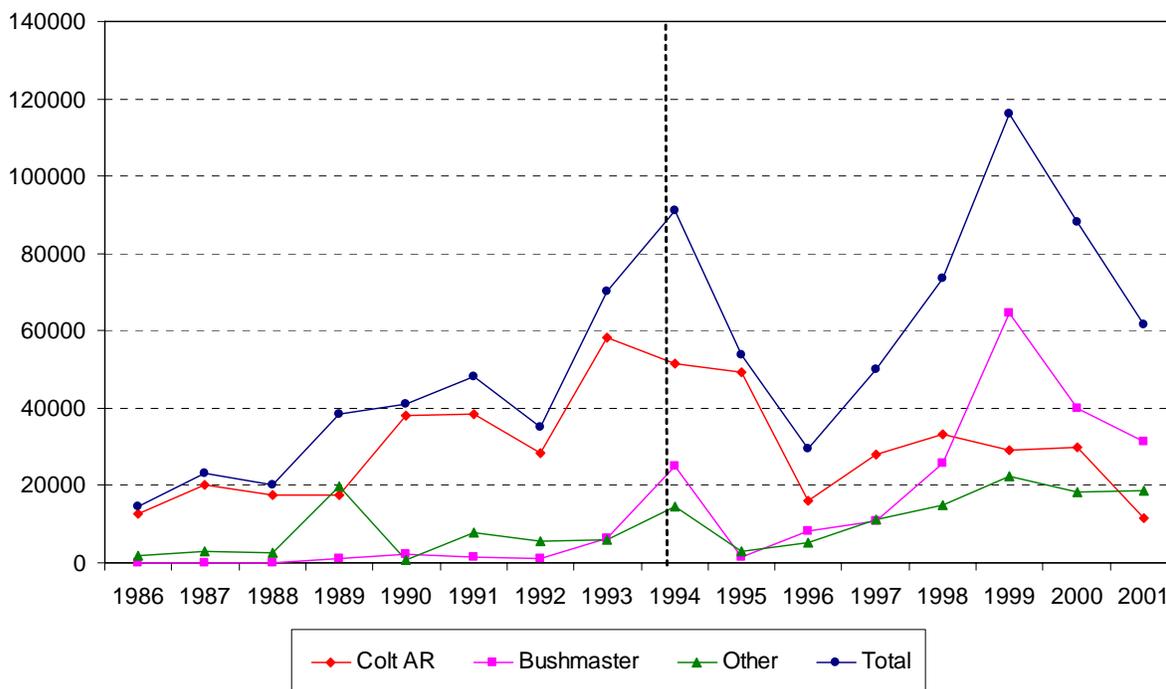
* Total handgun and rifle figures include all production by U.S. manufacturers. Assault pistols include Intratec group, SWD group, and Calico models. SNS figures are based on Lorcin Engineering and Davis Industries for changes up through 1996-1997. Because Lorcin went out of business after 1998, the 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 at 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

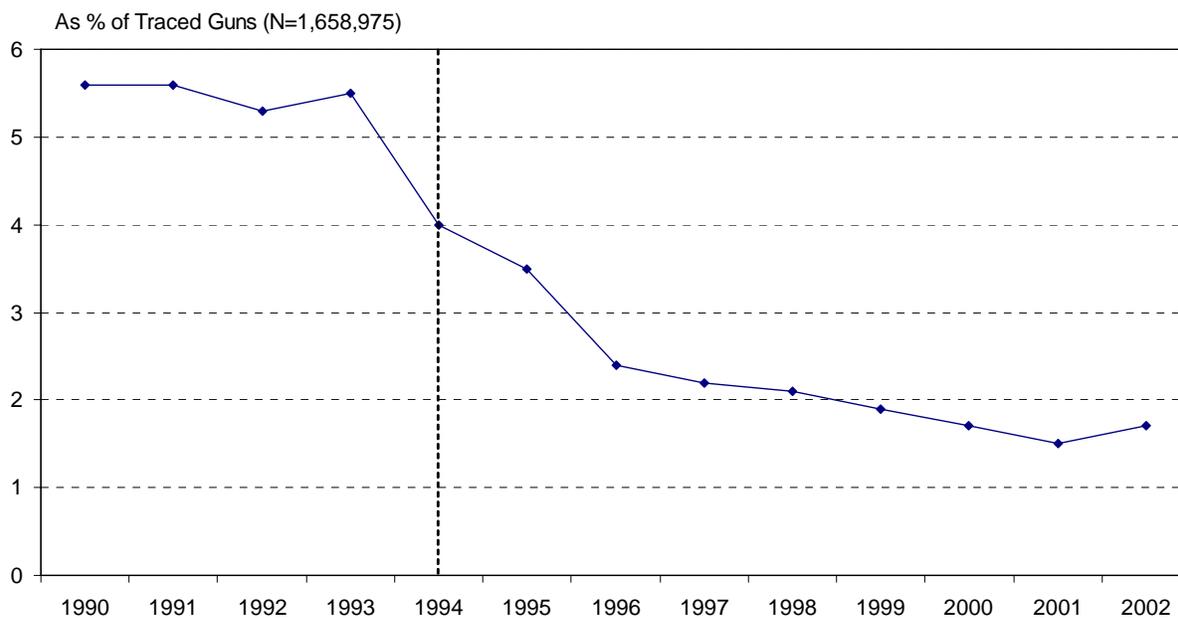
⁴⁰ As part of this initiative, police in a few dozen large cities are submitting trace requests to ATF for all guns that they confiscate. The initiative began with 17 cities in 1996 and has since spread to 55 major urban jurisdictions.

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 identify 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)

<u>Year</u>	<u>Gun Murders</u> (1)	<u>All Traces</u> (2)	<u>AW Traces*</u> (3)	<u>AP Traces</u> (4)	<u>AR Traces</u> (5)	<u>AW and AW Substitute Traces</u> (6)	<u>Violent Crime Traces</u> (7)	<u>AW Violent Crime Traces</u> (8)	<u>LCMM Rifle Traces**</u> (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

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

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 underestimate 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

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.

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

	<u>Pre-Ban Period</u>	<u>Post-Ban Period</u>	<u>Change</u>
<u>A. All Recoveries</u>	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%**
<u>B. Recoveries Linked to Violent Crimes^b</u>			
Total AWs	28	47	
Annual Mean	14	7.83	-44%
AWs as % of Violent Crime Guns	2.1%	1.24%	-41%**

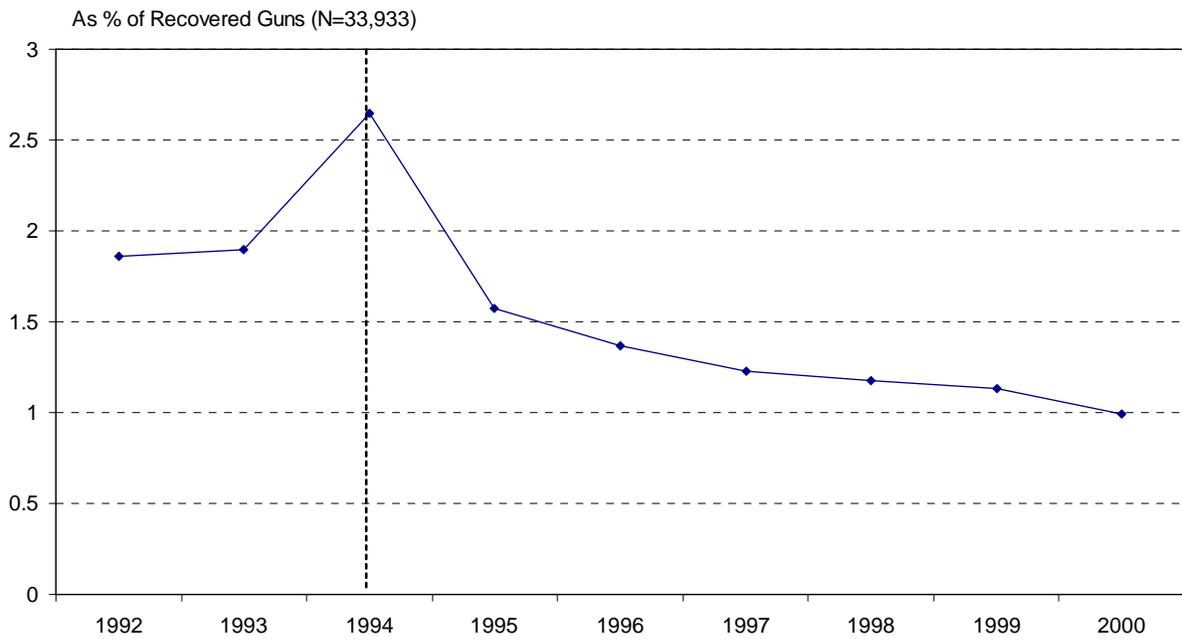
a. Domestic assault weapons include Intratec group, SWD group, AR-15 group, and Calico and Feather models.

b. Murders, assaults, and robberies

* Chi-square p level < .05 (changes in percentages of guns that were AWs/APs/ARs/AW-substitutes were tested for statistical significance).

** Chi-square p level < .01 (changes in percentages of guns that were AWs/APs/ARs/AW-substitutes 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

	<u>Pre-Ban Period</u>	<u>Post-Ban Period</u>	<u>Change</u>
<u>A. All Recoveries</u>	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%***
<u>B. Recoveries Linked to Violent Crimes^b</u>			
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.

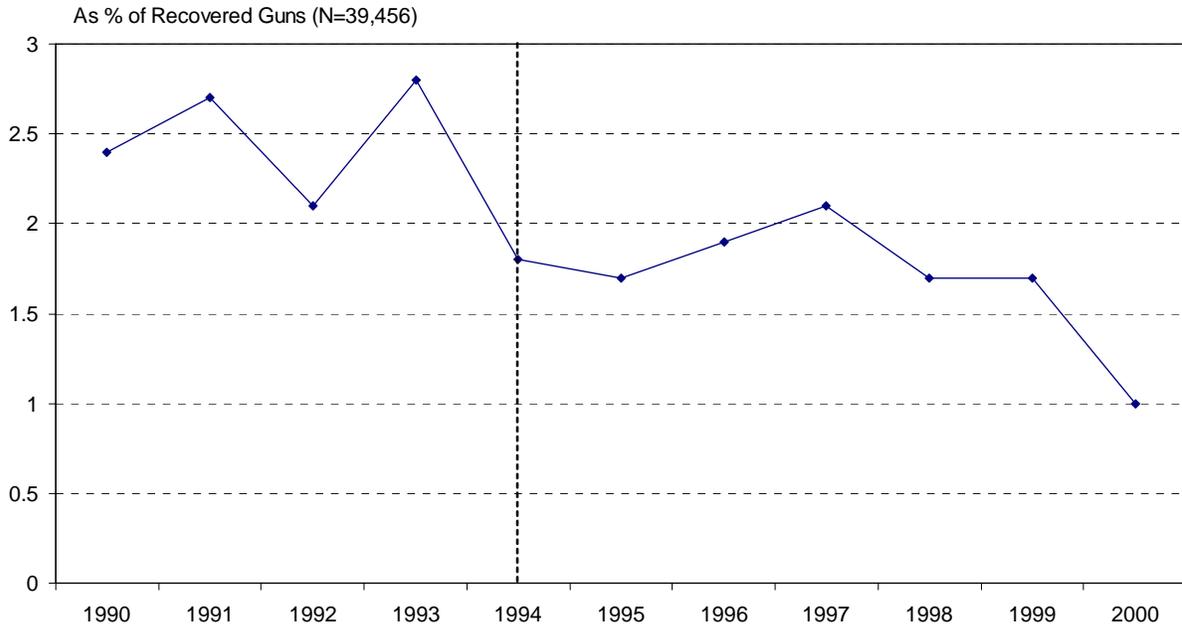
b. Murders, assaults, and robberies

* Chi-square p level < .1 (changes in percentages of guns that were AWs/APs/ARs/AW-substitutes were tested for statistical significance)

** Chi-square p level < .05 (changes in percentages of guns that were AWs/APs/ARs/AW-substitutes were tested for statistical significance)

*** Chi-square p level < .01 (changes in percentages of guns that were AWs/APs/ARs/AW-substitutes 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

	<u>Pre-Ban Period</u>	<u>Post-Ban Period</u>	<u>Change</u>
<u>A. All Recoveries</u>	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%*
<u>B. Recoveries Linked to Violent Crimes^b</u>			
Total AWs	8	20	
Annual Mean	4	2.2	-45%
AWs as % of Violent Crime Guns	0.8%	0.81%	1%

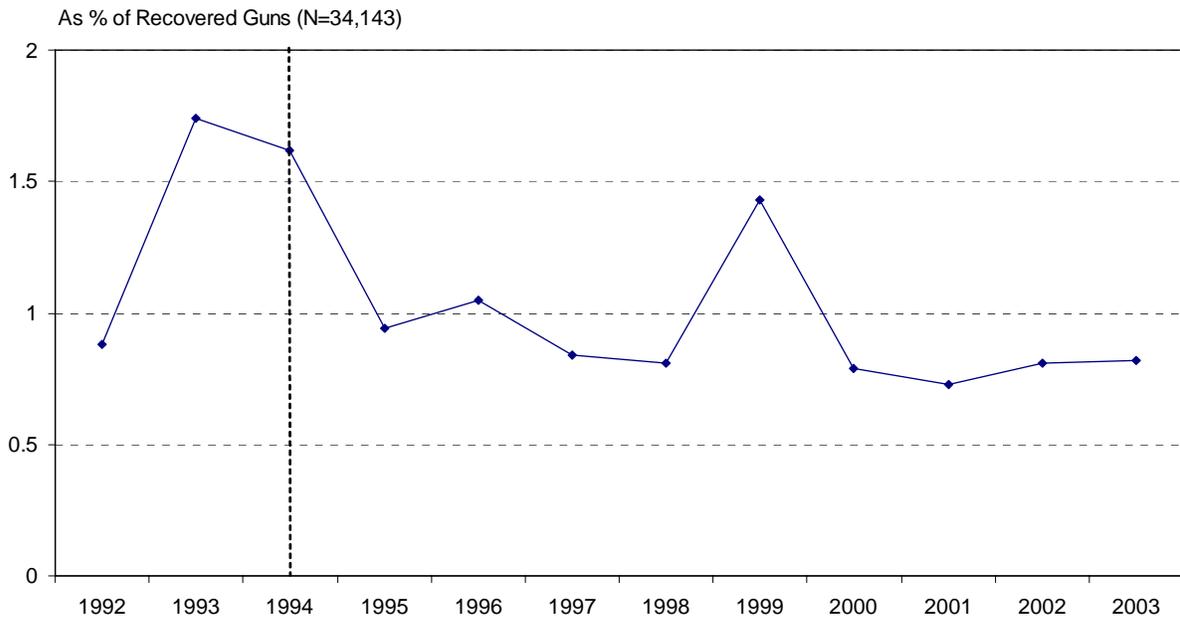
a. Domestic assault weapons include Intratec group, SWD group, AR-15 group, and Calico and Feather models.

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.

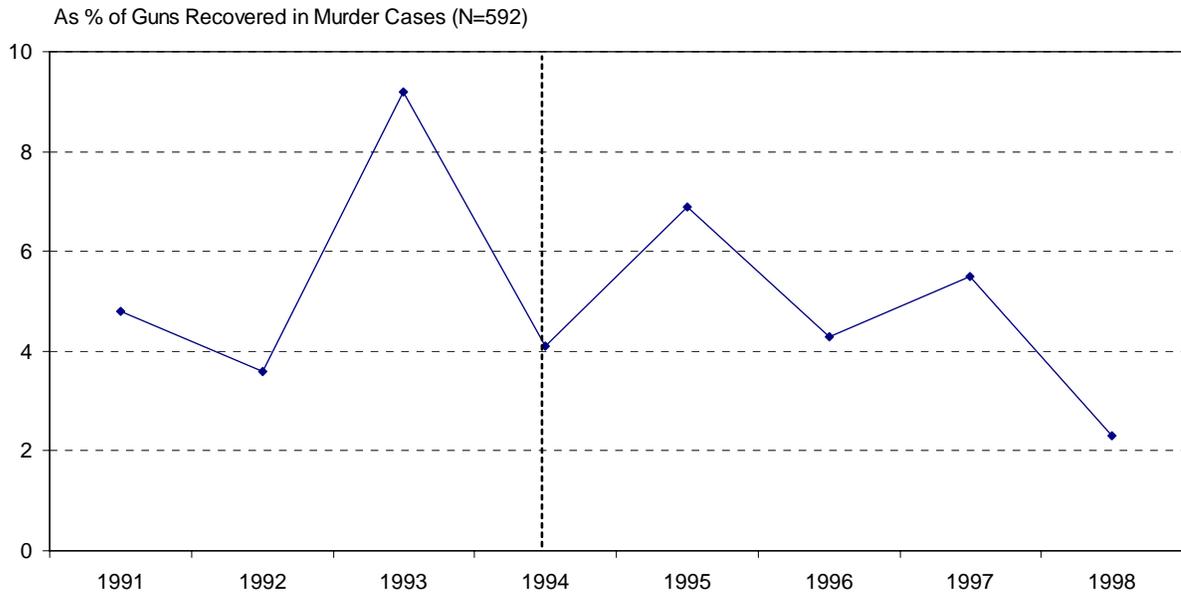
Table 6-6. Trends in Police Recoveries of Domestic Assault Weapons in Boston, Milwaukee, and Anchorage (Alaska) ^a

	<u>Pre-Ban Period</u>	<u>Post-Ban Period</u>	<u>Change</u>
<u>Boston</u>	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%*
<u>Milwaukee</u>	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%
<u>Anchorage</u>	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.

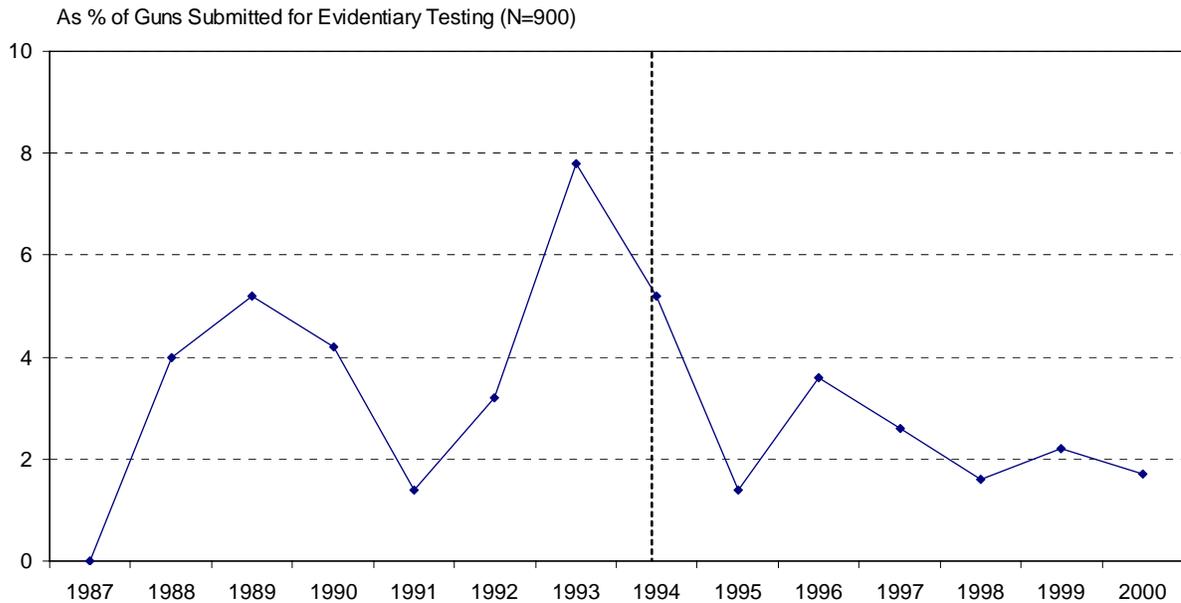
* Chi-square p level < .01 (changes in percentages of guns that were AWs/AW-substitutes were tested for statistical significance)

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.

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 $p \leq .10$.

** Statistically significant at $p \leq .05$.

*** Statistically significant at $p \leq .01$.

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

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

<u>Year</u>	<u>Imported</u>	<u>Approved</u>
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
<i>Total</i>	<i>4,798,443</i>	<i>47,207,883</i>

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.

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.

8. CRIMINAL USE OF LARGE CAPACITY MAGAZINES AFTER THE BAN

Assessing trends in criminal use of LCMs is difficult. There is no national data source on crime guns equipped with LCMs (ATF national tracing data do not include information about magazines recovered with traced firearms), and, based on our contacts with numerous police departments over the course of this study and the first AW study, it seems that even those police departments that maintain electronic databases on recovered firearms do not typically record the capacity of the magazines with which the guns are equipped.^{75,76} Indeed, we were unable to acquire sufficient data to examine LCM use for the first AW study (Roth and Koper, 1997).

For the current study, we obtained four data sources with which to investigate trends in criminal use of LCMs. Three of the databases utilized in the AW analysis – those from Baltimore, Milwaukee, and Anchorage – contained information about the magazines recovered with the guns (see the descriptions of these databases in Chapter 6). Using updated versions of these databases, we examined all LCM recoveries in Baltimore from 1993 through 2003, recoveries of LCMs in Milwaukee murder cases from 1991 to 2001, and recoveries of LCMs linked to serious crimes in Anchorage (and other parts of Alaska) from 1992 through 2002.⁷⁷ In addition, we studied records of guns and magazines submitted to the Jefferson Regional Forensics Lab in Louisville, Kentucky from 1996 through 2000. This lab of the Kentucky State Police services law enforcement agencies throughout roughly half of Kentucky, but most guns submitted to the lab are from the Louisville area. Guns examined at the lab are most typically those associated with serious crimes such as murders, robberies, and assaults.

The LCM analyses and findings were not as uniform across locations as were those for AWs. Therefore, we discuss each site separately. As in the AW analysis, we emphasize changes in the percentage of guns equipped with LCMs to control for overall trends in gun crime and gun recoveries. Because gun crime was falling during the latter 1990s, we anticipated that the number of guns recovered with LCMs might decline independently of the ban's impact. (Hereafter, we refer to guns equipped with LCMs as LCM guns.)

⁷⁵ For the pre-ban period, one can usually infer magazine capacity based on the firearm model. For post-ban recoveries, this is more problematic because gun models capable of accepting LCMs may have been equipped with grandfathered LCMs or with post-ban magazines designed to fit the same gun but holding fewer rounds.

⁷⁶ As for the AW analysis in Chapter 6, we utilize police data to examine trends in criminal use of LCMs. The reader is referred to the general discussion of police gun seizure data in Chapter 6.

⁷⁷ Findings presented in our 2002 interim report (Koper and Roth, 2002b) indicated that LCM use had not declined as of the late 1990s. Therefore, we sought to update the LCM analyses where possible for this version of the report.

8.1. Baltimore

In Baltimore, about 14% of guns recovered by police were LCM guns in 1993. This figure remained relatively stable for a few years after the ban but had dropped notably by 2002 and 2003 (Figure 8-1). For the entire post-ban period (1995-2003), recoveries of LCM guns were down 8% relative to those of guns with smaller magazines (Table 8-1, panel A), a change of borderline statistical significance. Focusing on the most recent years, however, LCM gun recoveries were 24% lower in 2002 and 2003 than during the year prior to the ban, a difference that was clearly significant (Table 8-1, panel B).^{78,79,80} This change was attributable to a 36% drop in LCM handguns (Table 8-1, panel C). LCM rifles actually increased 36% as a share of crime guns, although they still accounted for no more than 3% in 2002 and 2003 (Table 8-1, panel D).⁸¹

Yet there was no decline in recoveries of LCM guns used in violent crimes (i.e., murders, shootings, robberies, and other assaults). After the ban, the percentage of violent crime guns with LCMs generally oscillated in a range consistent with the pre-ban level (14%) and hit peaks of roughly 16% to 17% in 1996 and 2003 (Figure 8-1).⁸² Whether comparing the pre-ban period to the entire post-ban period (1995-2003) or the most recent years (2002-2003), there was no meaningful decline in LCM recoveries linked to violent crimes (Table 8-2, panels A and B).⁸³ Neither violent uses of LCM

⁷⁸ Data on handgun magazines were also available for 1992. An auxiliary analysis of those data did not change the substantive inferences described in the text.

⁷⁹ The Maryland AP ban enacted in June 1994 also prohibited ammunition magazines holding over 20 rounds and did not permit additional sales or transfers of such magazines manufactured prior to the ban. This ban, as well as the Maryland and federal bans on AWs that account for many of the guns with magazines over 20 rounds, may have contributed to the downward trend in LCMs in Baltimore, but only 2% of the guns recovered in Baltimore from 1993 to 2000 were equipped with such magazines.

⁸⁰ All comparisons of 1993 to 2002-2003 in the Baltimore data are based on information from the months of January through November of each year. At the time we received these data, information was not yet available for December 2003, and preliminary analysis revealed that guns with LCMs were somewhat less likely to be recovered in December than in other months for years prior to 2003. Nevertheless, utilizing the December data for 1993 and 2002 did not change the substantive inferences. We did not remove December data from the comparisons of 1993 and the full post-ban period because those comparisons seemed less likely to be influenced by the absence of one month of data.

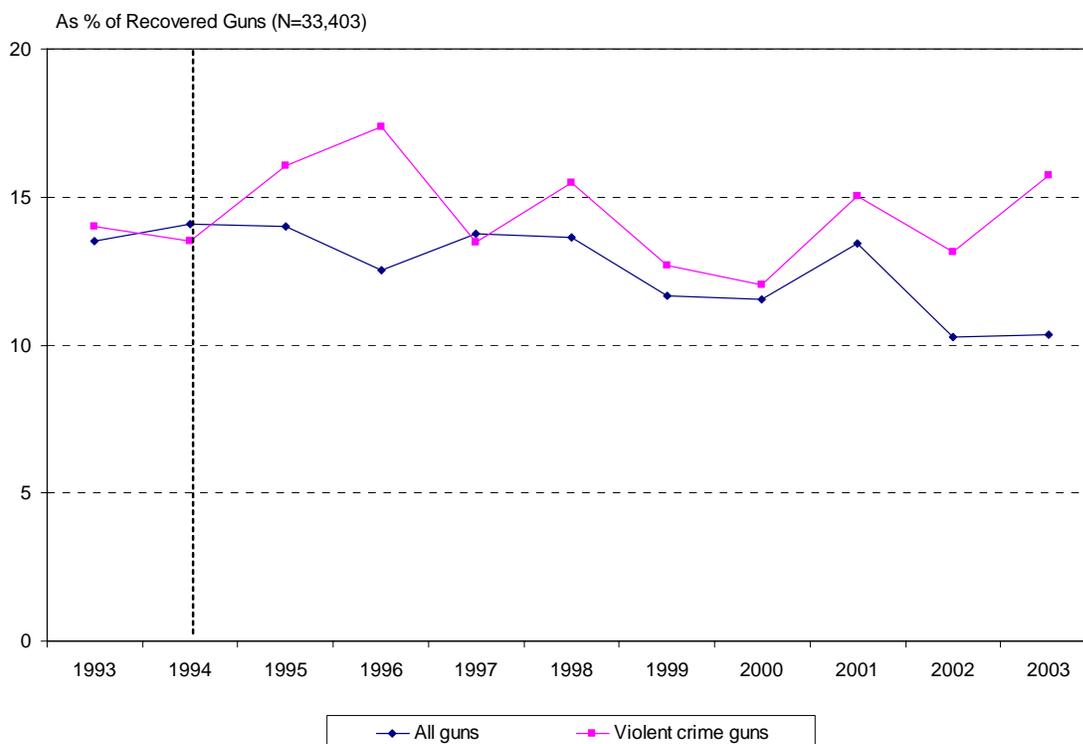
⁸¹ This increase may have been due largely to a general increase in rifle seizures. LCM rifles actually dropped as a percentage of all rifle recoveries from 1993 to 2002-2003, suggesting that recoveries of LCM rifles were increasing less than recoveries of other rifles.

⁸² For 1996, 45% of all records and 24% of those linked to violent crimes had missing data for magazine capacity (due to temporary changes in operational procedures in the Baltimore crime lab). For other years, missing data rates were no more than 6%. Based on those cases for which data were available, the share of guns with LCMs in 1996 was comparable to that in other years, particularly when examining all gun recoveries. At any rate, the analyses focusing on 1993, 2002, and 2003 reinforce the findings of those that include the 1996 data.

⁸³ The ammunition capacity code in the Baltimore data usually reflected the full capacity of the magazine and weapon, but sometimes reflected the capacity of the magazine only. (For instance, a semiautomatic with a 10-round magazine and the ability to accept one additional round in the chamber might have been coded as having a capacity of 10 or 11.) Informal assessment suggested that capacity was more likely to reflect the exact capacity of the magazine in the early years of the database and more likely to reflect the full capacity of the gun and magazine in later years. For the main runs presented in the text and tables, guns were counted as having LCMs if the coded capacity was greater than 11 rounds. This ensured that LCMs were not overestimated, but it potentially understated LCM prevalence, particularly for the earlier

handguns or LCM rifles had declined appreciably by 2002-2003 (Table 8-2, panels C and D). Hence, the general decline in LCM recoveries may reflect differences in the availability and use of LCMs among less serious offenders, changes in police practices,⁸⁴ or other factors.

Figure 8-1. Police Recoveries of Guns Equipped With Large Capacity Magazines in Baltimore, 1993-2003



years. However, coding the guns as LCM weapons based on a threshold of 10 (i.e., a coded capacity over 10 rounds) in 1993 and a threshold of 11 (i.e., a coded capacity over 11 rounds) for 2002-2003 did not change the inferences of the violent crime analysis. Further, this coding increased the pre-ban prevalence of LCMs by very little (about 4% in relative terms).

⁸⁴ During the late 1990s, for example, Baltimore police put greater emphasis on detecting illegal gun carrying (this statement is based on prior research and interviews the author has done in Baltimore as well as the discussion in Center to Prevent Handgun Violence, 1998). One can hypothesize that this effort reduced the fraction of recovered guns with LCMs because illegal gun carriers are probably more likely to carry smaller, more concealable handguns that are less likely to have LCMs.

Table 8-1. Trends in All Police Recoveries of Firearms Equipped With Large Capacity Magazines, Baltimore, 1993-2003

	<u>Pre-Ban Period</u>	<u>Post-Ban Period</u>	<u>Change</u>
<u>A. All LCM Guns</u>	Jan.-Dec. 1993	Jan. 1995-Nov. 2003	
Total	473	3703	
Annual Mean	473	445.86 ^a	-6%
LCM Guns as % of All Guns	13.51%	12.38%	-8%*
<u>B. All LCM Guns</u>	Jan.-Nov. 1993	Jan.-Nov. 2002-2003	
Total	430	626	
Annual Mean	430	313	-27%
LCM Guns as % of All Guns	13.47%	10.3%	-24%***
<u>C. LCM Handguns</u>	Jan.-Nov. 1993	Jan.-Nov. 2002-2003	
Total	359	440	
Annual Mean	359	220	-39%
LCM Handguns as % of All Guns	11.25%	7.24%	-36%***
<u>D. LCM Rifles</u>	Jan.-Nov. 1993	Jan.-Nov. 2002-2003	
LCM Rifles	71	183	
Annual Mean	71	91.5	29%
LCM Rifles as % of All Guns	2.22%	3.01%	36%**

a. Annual average calculated without 1996 and 2003 (to correct for missing months or missing magazine data).

* Chi-square p level < .10 (changes in percentages of guns equipped with LCMs were tested for statistical significance)

** Chi-square p level < .05 (changes in percentages of guns equipped with LCMs were tested for statistical significance)

*** Chi-square p level < .01 (changes in percentages of guns equipped with LCMs were tested for statistical significance)

Table 8-2. Trends in Police Recoveries of Firearms Equipped With Large Capacity Magazines in Violent Crime Cases, Baltimore, 1993-2003

	<u>Pre-Ban Period</u>	<u>Post-Ban Period</u>	<u>Change</u> ^a
<u>A. All LCM Guns</u>	Jan.-Dec. 1993	Jan. 1995-Nov. 2003	
Total	87	711	
Annual Mean	87	81.86 ^b	-6%
LCM Guns as % of All Guns	14.01%	14.44%	3%
<u>B. All LCM Guns</u>	Jan.-Nov. 1993	Jan.-Nov. 2002-2003	
Total	79	104	
Annual Mean	79	52	-34%
LCM Guns as % of All Guns	13.96%	13.65%	-2%
<u>C. LCM Handguns</u>	Jan.-Nov. 1993	Jan.-Nov. 2002-2003	
Total	62	81	
Annual Mean	62	40.5	-35%
LCM Handguns as % of All Guns	10.95%	10.63%	-3%
<u>D. LCM Rifles</u>	Jan.-Nov. 1993	Jan.-Nov. 2002-2003	
LCM Rifles	17	23	
Annual Mean	17	11.5	-32%
LCM Rifles as % of All Guns	3%	3.02%	1%

a. Changes in the percentages of guns with LCMs were statistically insignificant in chi-square tests.

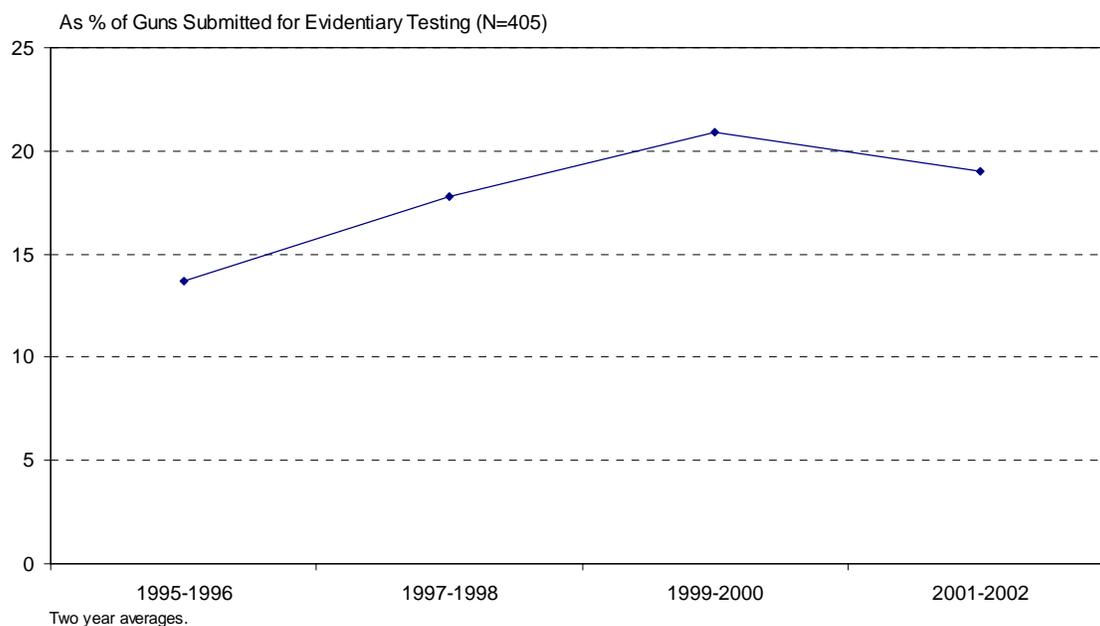
b. Annual average calculated without 1996 and 2003 (to correct for missing months or missing magazine data).

8.2. Anchorage

In the Alaska database, magazine capacity was recorded only for guns recovered during the post-ban years, 1995 through 2002. However, we estimated pre-ban use of LCM handguns by identifying handgun models inspected during 1992 and 1993 that were manufactured with LCMs prior to the ban.⁸⁵ This permitted an assessment of pre-post changes in the use of LCM handguns.

As shown in Figure 8-2 (also see Table 8-3, panel A), LCM guns rose from 14.5% of crime guns in 1995-1996 to 24% in 2000-2001 (we present two-year averages because the sample are relatively small, particularly for the most recent years) and averaged about 20% for the entire post-ban period. LCM handguns drove much of this trend, but LCM rifles also increased from about 3% of crime guns in 1995-96 to 11% in 2000-2001.

Figure 8-2. Police Recoveries of Guns Equipped With Large Capacity Magazines in Anchorage (Alaska), 1995-2002



⁸⁵ To make these determinations, we consulted gun catalogs such as the *Blue Book of Gun Values* and *Guns Illustrated*.

Table 8-3. Trends in Police Recoveries of Firearms Equipped With Large Capacity Magazines in Violent Crime Cases, Anchorage (Alaska), 1992-2002^a

	<u>Pre-Ban Period</u>	<u>Post-Ban Period</u>	<u>Change^b</u>
<u>A. All LCM Guns</u>	N/A	Jan. 1995-Dec. 2002	
Total		80	
Annual Mean		10	N/A
LCM Guns as % of All Guns		19.75%	N/A
<u>B. LCM Handguns</u>	Jan. 1992-Dec. 1993	Jan. 1995-Dec. 2002	
Total	17	57	
Annual Mean	8.5	7.13	-16%
LCM Handguns as % All Handguns	26.15%	22.35%	-15%
<u>C. LCM Handguns</u>	Jan. 1992-Dec. 1993	Jan. 2001-Dec. 2002	
Total	17	10	
Annual Mean	8.5	5	-41%
LCM Handguns as % of All Handguns	26.15%	19.23%	-26%

a. Based on guns submitted to State Police for evidentiary testing.

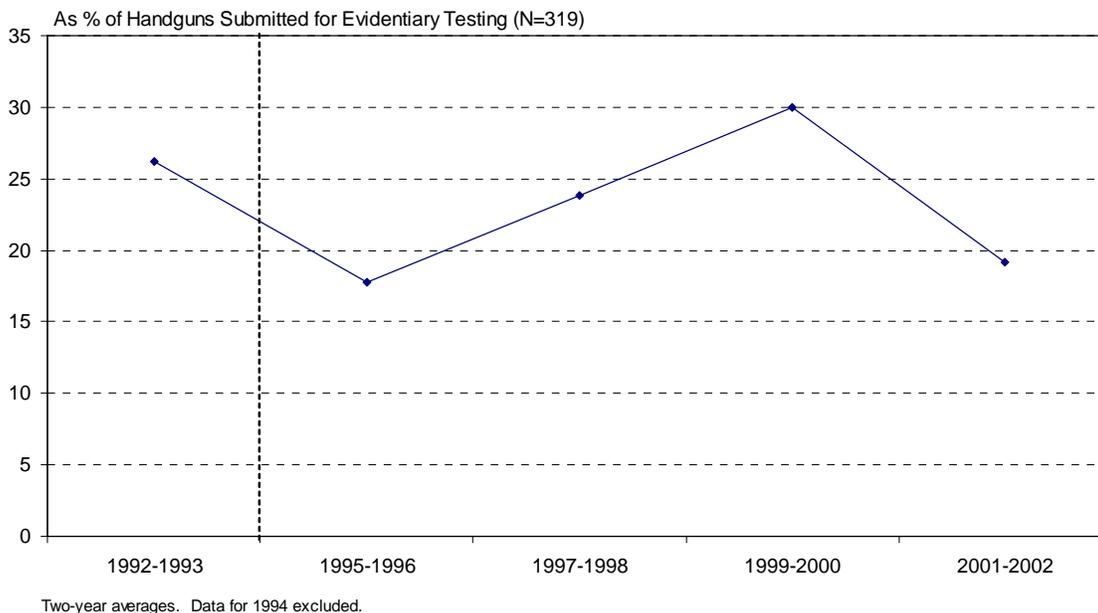
b. Changes in the percentages of guns equipped with LCMs were statistically insignificant in chi-square tests.

Investigation of pre-post changes for handguns revealed an inconsistent pattern (Figure 8-3). LCM handguns dropped initially after the ban, declining from 26% of handguns in 1992-1993 to 18% in 1995-1996. However, they rebounded after 1996, reaching a peak of 30% of handguns in 1999-2000 before declining to 19% in 2001-2002.

For the entire post-ban period, the share of handguns with LCMs was about 15% lower than in the pre-ban period (Table 8-3, panel B). By the two most recent post-ban years (2001-2002), LCM use had dropped 26% from the pre-ban years (Table 8-3, panel C). These changes were not statistically significant, but the samples of LCM handguns were rather small for rigorous statistical testing. Even so, it seems premature to conclude

that there has been a lasting reduction in LCM use in Alaska. LCM use in 2001-2002 was somewhat higher than that immediately following the ban in 1995-1996, after which there was a substantial rebound. Considering the inconsistency of post-ban patterns, further follow-up seems warranted before making definitive conclusions about LCM use in Alaska.

Figure 8-3. Police Recoveries of Handguns Equipped With Large Capacity Magazines in Anchorage (Alaska), 1992-2002



8.3. Milwaukee

LCM guns accounted for 21% of guns recovered in Milwaukee murder investigations from 1991 to 1993 (Table 8-4, panel A). Following the ban, this figure rose until reaching a plateau of over 36% in 1997 and 1998 (Figure 8-4). On average, the share of guns with LCMs grew 55% from 1991-1993 to 1995-1998, a trend that was driven by LCM handguns (Table 8-4, panels A and B).⁸⁶ LCM rifles held steady at between 4% and 5% of the guns (Table 8-4, panel C).

We also analyzed a preliminary database on 48 guns used in murders during 2000 and 2001 (unlike the 1991-1998 database, this database did not include information on other guns recovered during the murder investigations). About 11% of these guns were LCM guns, as compared to 19% of guns used in murders from 1991 to 1993 (analyses not shown). However, nearly a quarter of the 2000-2001 records were missing information on magazine capacity.⁸⁷ Examination of the types and models of guns with

⁸⁶ LCM guns also increased as share of guns that were used in the murders (the full sample results discussed in the text include all guns recovered during the investigations).

⁸⁷ Magazine capacity was missing for less than 4% of the records in earlier years.

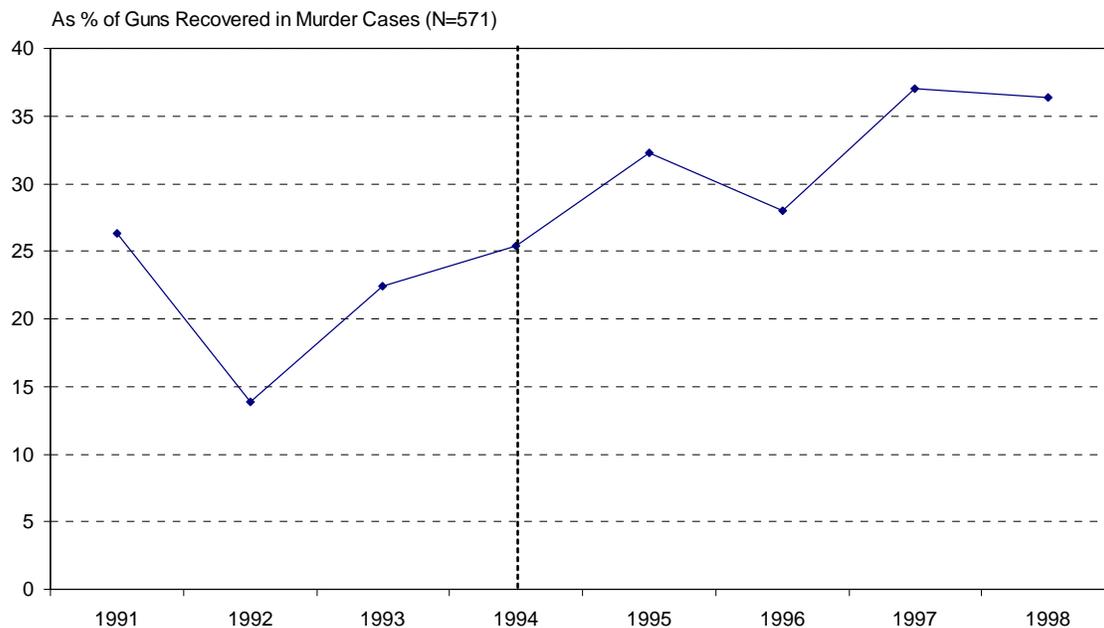
unidentified magazines suggested that as many as 17% of guns used in murders during 2000 and 2001 may have been LCM guns (based on all those that either had LCMs, were models sold with LCMs prior to the ban, or were unidentified semiautomatics). While this still suggests a drop in LCM use from the peak levels of the late 1990s (26% of guns used in murders from 1995 to 1998 had LCMs), it is not clear that LCM use has declined significantly below pre-ban levels.

Table 8-4. Trends in Police Recoveries of Firearms Equipped With Large Capacity Magazines in Murder Cases, Milwaukee County, 1991-1998

	<u>Pre-Ban Period</u>	<u>Post-Ban Period</u>	<u>Change</u>
	Jan. 1991-Dec. 1993	Jan. 1995-Dec. 1998	
<u>A. All LCM Guns</u>			
Total	51	83	
Annual Mean	17	20.75	22%
LCM Guns as % of All Guns	20.9%	32.42%	55%*
<u>B. LCM Handguns</u>			
	Jan. 1991-Dec. 1993	Jan. 1995-Dec. 1998	
Total	40	71	
Annual Mean	13.33	17.75	33%
LCM Handguns as % of All Guns	16.39%	27.73%	69%*
<u>C. LCM Rifles</u>			
	Jan. 1991-Dec. 1993	Jan. 1995-Dec. 1998	
Total	11	12	
Annual Mean	3.67	3	-18%
LCM Rifles as % of All Guns	4.51%	4.69%	4%

* Chi-square p level < .01 (changes in percentages of guns equipped with LCMs were tested for statistical significance)

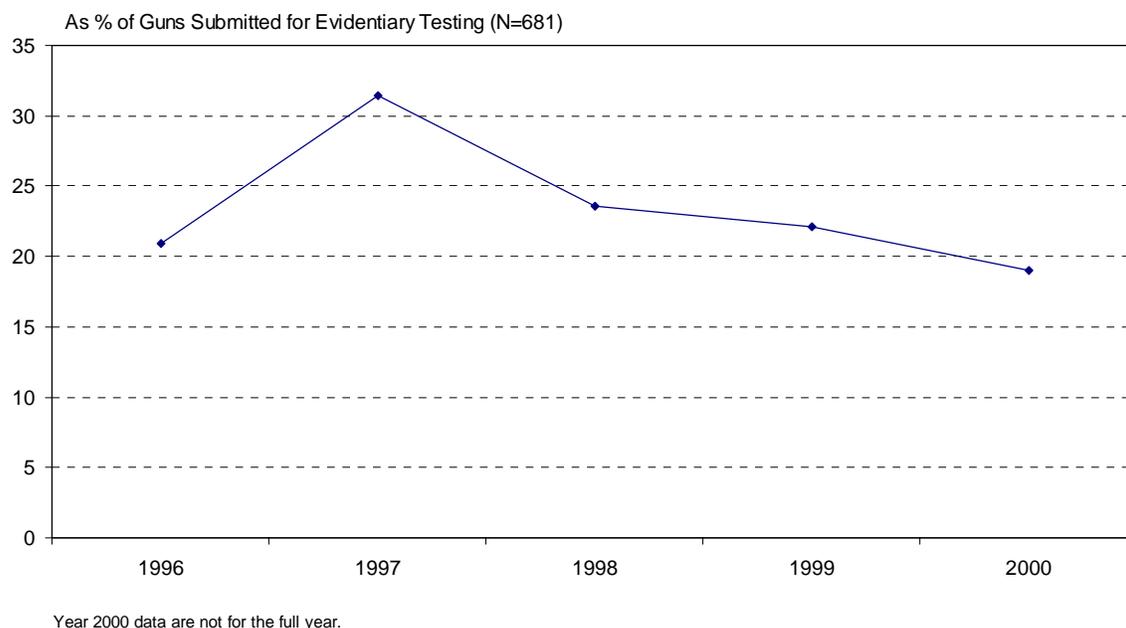
Figure 8-4. Recoveries of Guns Equipped With Large Capacity Magazines in Milwaukee County Murder Cases, 1991-1998



8.4. Louisville

The Louisville LCM data are all post-ban (1996-2000), so we cannot make pre-post comparisons. Nonetheless, the share of crime guns with LCMs in Louisville (24%) was within the range of that observed in the other cities during this period. And similar to post-ban trends in the other sites, LCM recoveries peaked in 1997 before leveling off and remaining steady through the year 2000 (Figure 8-5). LCM rifles dropped 21% as a share of crime guns between 1996 and 2000 (analyses not shown), but there were few in the database, and they never accounted for more than 6.2% of guns in any year.

Figure 8-5. Police Recoveries of Guns Equipped With Large Capacity Magazines in Louisville (Kentucky), 1996-2000



8.5. Summary

Despite a doubling of handgun LCM prices between 1993 and 1995 and a 40% increase in rifle LCM prices from 1993 to 1994, criminal use of LCMs was rising or steady through at least the latter 1990s, based on police recovery data from four jurisdictions studied in this chapter. These findings are also consistent with an earlier study finding no decline in seizures of LCM guns from juveniles in Washington, DC in the year after the ban (Koper, 2001).⁸⁸ Post-2000 data, though more limited and inconsistent, suggest that LCM use may be dropping from peak levels of the late 1990s but provide no definitive evidence of a drop below pre-ban levels.⁸⁹ These trends have been driven primarily by LCM handguns, which are used in crime roughly three times as

⁸⁸ From 1991 to 1993, 16.4% of guns recovered from juveniles in Washington, DC had LCMs (14.2% had LCMs in 1993). In 1995, this percentage increased to 17.1%. We did not present these findings in this chapter because the data were limited to guns recovered from juveniles, the post-ban data series was very short, and the gun markets supplying DC and Baltimore are likely to have much overlap (Maryland is a leading supplier of guns to DC – see ATF, 1997; 1999).

⁸⁹ We reran selected key analyses with the Baltimore, Milwaukee, and Louisville data after excluding .22 caliber guns, some of which could have been equipped with attached tubular magazines that are exempted from the LCM ban, and obtained results consistent with those reported in the text. It was possible to identify these exempted magazines in the Anchorage data. When they were removed from Anchorage's LCM count, the general pattern in use of banned LCMs was similar to that presented in the main 1995-2002 analysis: guns with banned LCMs rose, reaching a peak of 21% of crime guns in 1999-2000, before declining slightly to 19% in 2001-2002.

often as LCM rifles. Nonetheless, there has been no consistent reduction in the use of LCM rifles either.

The observed patterns are likely due to several factors: a hangover from pre-ban growth in the production and marketing of LCM guns (Cook and Ludwig, 1997, pp. 5-6; Wintemute, 1996);⁹⁰ the low cost of LCMs relative to the firearms they complement, which seems to make LCM use less sensitive to prices than is firearm use;⁹¹ the utility that gun users, particularly handgun users, attach to LCMs; a plentiful supply of grandfathered LCMs, likely enhanced by a pre-ban surge in production (though this has not been documented) and the importation of millions of foreign LCMs since the ban;⁹² thefts of LCM firearms (see Roth and Koper, 1997, Chapter 4); or some combination of these factors.⁹³ However, it is worth noting that our analysis did not reveal an upswing in use of LCM guns following the surge of LCM importation in 1999 (see the previous chapter). It remains to be seen whether recent imports will have a demonstrable effect on patterns of LCM use.

Finally, we must be cautious in generalizing these results to the nation because they are based on a small number of non-randomly selected jurisdictions. Nonetheless, the consistent failure to find clear evidence of a pre-post drop in LCM use across these geographically diverse locations strengthens the inference that the findings are indicative of a national pattern.

⁹⁰ To illustrate this trend, 38% of handguns acquired by gun owners during 1993 and 1994 were equipped with magazines holding 10 or more rounds, whereas only 14% of handguns acquired before 1993 were so equipped (Cook and Ludwig, 1997, pp. 5-6).

⁹¹ Although elevated post-ban prices did not suppress use of LCMs, a more subtle point is that LCM use rose in most of these locations between 1995 and 1998, as LCM prices were falling from their peak levels of 1994-1995. Therefore, LCM use may have some sensitivity to price trends.

⁹² However, we do not have the necessary data to determine if LCMs used in crime after the ban were acquired before or after the ban.

⁹³ In light of these considerations, it is conceivable that the ban slowed the rate of growth in LCM use, accelerated it temporarily (due to a pre-ban production boom), or had no effect. We do not have the data necessary to examine this issue rigorously. Moreover, the issue might be regarded as somewhat superfluous; the more critical point would seem to be that nearly a decade after the ban, LCM use has still not declined demonstrably below pre-ban levels.

9. THE CONSEQUENCES OF CRIMES WITH ASSAULT WEAPONS AND LARGE CAPACITY MAGAZINES

One of the primary considerations motivating passage of the ban on AWs and LCMs was a concern over the perceived dangerousness of these guns and magazines. In principal, semiautomatic weapons with LCMs enable offenders to fire high numbers of shots rapidly, thereby potentially increasing both the number of person wounded per gunfire incident (including both intended targets and innocent bystanders) and the number of gunshot victims suffering multiple wounds, both of which would increase deaths and injuries from gun violence. Ban advocates also argued that the banned AWs possessed additional features conducive to criminal applications.

The findings of the previous chapters suggest that it is premature to make definitive assessments of the ban's impact on gun violence. Although criminal use of AWs has declined since the ban, this reduction was offset through at least the late 1990s by steady or rising use of other guns equipped with LCMs. As argued previously, the LCM ban has greater potential for reducing gun deaths and injuries than does the AW ban. Guns with LCMs – of which AWs are only a subset – were used in up to 25% of gun crimes before the ban, whereas AWs were used in no more than 8% (Chapter 3). Furthermore, an LCM is arguably the most important feature of an AW. Hence, use of guns with LCMs is probably more consequential than use of guns with other military-style features, such as flash hiders, folding rifle stocks, threaded barrels for attaching a silencers, and so on.⁹⁴

This is not to say that reducing use of AWs will have no effect on gun crime; a decline in the use of AWs does imply fewer crimes with guns having particularly large magazines (20 or more rounds) and other military-style features that could facilitate some crimes. However, it seems that any such effects would be outweighed, or at least

⁹⁴ While it is conceivable that changing features of AWs other than their magazines might prevent some gunshot victimizations, available data provide little if any empirical basis for judging the likely size of such effects. Speculatively, some of the most beneficial weapon redesigns may be the removal of folding stocks and pistol grips from rifles. It is plausible that some offenders who cannot obtain rifles with folding stocks (which make the guns more concealable) might switch to handguns, which are more concealable but generally cause less severe wounds (e.g. see DiMaio, 1985). However, such substitution patterns cannot be predicted with certainty. Police gun databases rarely have information sufficiently detailed to make assessments of changes over time in the use of weapons with specific features like folding stocks. Based on informal assessments, there was no consistent pattern in post-ban use of rifles (as a share of crime guns) in the local databases examined in the prior chapters (also see the specific comments on LCM rifles in the previous chapters).

Pistol grips enhance the ability of shooters to maintain control of a rifle during rapid, “spray and pray” firing (e.g., see Violence Policy Center, 2003). (Heat shrouds and forward handgrips on APs serve the same function.) While this feature may prove useful in military contexts (e.g., firefights among groups at 100 meters or less – see data of the U.S. Army’s Operations Research Office as cited in Violence Policy Center, 2003), it is unknown whether civilian attacks with semiautomatic rifles having pistol grips claim more victims per attack than do those with other semiautomatic rifles. At any rate, most post-ban AR-type rifles still have pistol grips. Further, the ban does not count a stock thumbhole grip, which serves the same function as a pistol grip (e.g., see the illustration of LCMM rifles in Chapter 2), as an AR feature.

obscured, by the wider effects of LCM use, which themselves are likely to be small at best, as we argue below.⁹⁵

Because offenders can substitute non-banned guns and small magazines for banned AWs and LCMs, there is not a clear rationale for expecting the ban to reduce assaults and robberies with guns.⁹⁶ But by forcing AW and LCM offenders to substitute non-AWs with small magazines, the ban might reduce the number of shots fired per gun attack, thereby reducing both victims shot per gunfire incident and gunshot victims sustaining multiple wounds. In the following sections, we consider the evidence linking high-capacity semiautomatics and AWs to gun violence and briefly examine recent trends in lethal and injurious gun violence.

9.1. The Spread of Semiautomatic Weaponry and Trends in Lethal and Injurious Gun Violence Prior to the Ban

Nationally, semiautomatic handguns grew from 28% of handgun production in 1973 to 80% in 1993 (Zawitz, 1995, p. 3). Most of this growth occurred from the late 1980s onward, during which time the gun industry also increased marketing and production of semiautomatics with LCMs (Wintemute, 1996). Likewise, semiautomatics grew as a percentage of crime guns (Koper, 1995; 1997), implying an increase in the average firing rate and ammunition capacity of guns used in crime.⁹⁷

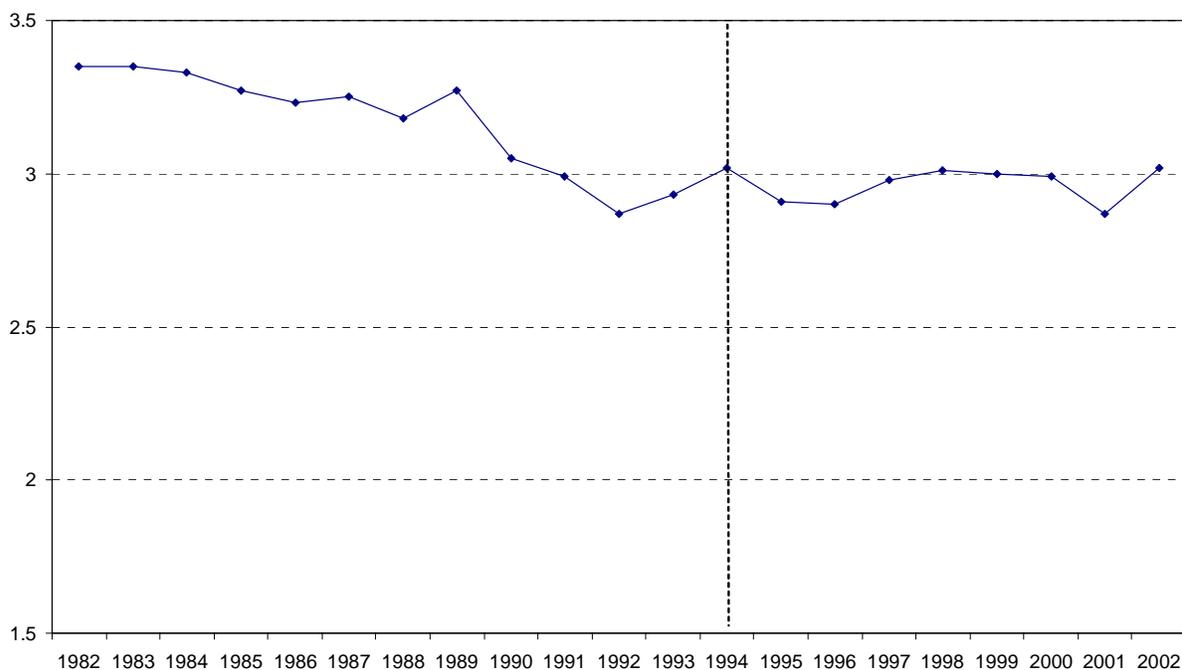
⁹⁵ On a related note, a few studies suggest that state-level AW bans have not reduced crime (Koper and Roth, 2001a; Lott, 2003). This could be construed as evidence that the federal AW ban will not reduce gunshot victimizations without reducing LCM use because the state bans tested in those studies, as written at the time, either lacked LCM bans or had LCM provisions that were less restrictive than that of the federal ban. (New Jersey's 1990 AW ban prohibited magazines holding more than 15 rounds. AP bans passed by Maryland and Hawaii prohibited magazines holding more than 20 rounds and pistol magazines holding more than 10 rounds, respectively, but these provisions did not take effect until just a few months prior to the federal ban.) However, it is hard to draw definitive conclusions from these studies for a number of reasons, perhaps the most salient of which are the following: there is little evidence on how state AW bans affect the availability and use of AWs (the impact of these laws is likely undermined to some degree by the influx of AWs from other states, a problem that was probably more pronounced prior to the federal ban when the state laws were most relevant); studies have not always examined the effects of these laws on gun homicides and shootings, the crimes that are arguably most likely to be affected by AW bans (see discussion in the main text); and the state AW bans that were passed prior to the federal ban (those in California, New Jersey, Hawaii, Connecticut, and Maryland) were in effect for only three months to five years (two years or less in most cases) before the imposition of the federal ban, after which they became largely redundant with the federal legislation and their effects more difficult to predict and estimate.

⁹⁶ One might hypothesize that the firepower provided by AWs and other semiautomatics with LCMs emboldens some offenders to engage in aggressive behaviors that prompt more shooting incidents. On the other hand, these weapons might also prevent some acts of violence by intimidating adversaries, thus discouraging attacks or resistance. We suspect that firepower does influence perceptions, considering that many police departments have upgraded their weaponry in recent years – often adopting semiautomatics with LCMs – because their officers felt outgunned by offenders. However, hypotheses about gun types and offender behavior are very speculative, and, pending additional research on such issues, it seems prudent to focus on indicators with stronger theoretical and empirical foundations.

⁹⁷ Revolvers, the most common type of non-semiautomatic handgun, typically hold only 5 or 6 rounds (and sometimes up to 9). Semiautomatic pistols, in contrast, hold ammunition in detachable magazines that, prior to the ban, typically held 5 to 17 bullets and sometimes upwards of 30 (Murtz et al., 1994).

The impact of this trend is debatable. Although the gun homicide rate rose considerably during the late 1980s and early 1990s (Bureau of Justice Statistics, 1994, p. 13), the percentage of violent gun crimes resulting in death was declining (see Figure 9-1 and the related discussion in section 9.3). Similarly, the percentage of victims killed or wounded in handgun discharge incidents declined from 27% during the 1979-1987 period to 25% for the 1987-1992 period (calculated from Rand, 1990, p. 5; 1994, p. 2) as semiautomatics were becoming more common crime weapons.⁹⁸ On the other hand, an increasing percentage of gunshot victims died from 1992 to 1995 according to hospital data (Cherry et al., 1998), a trend that could have been caused in part by a higher number of gunshot victims with multiple wounds (also see McGonigal et al., 1993). Most notably, the case fatality rate for assaultive gunshot cases involving 15 to 24-year-old males rose from 15.9% in late 1993 to 17.5% in early 1995 (p. 56).

Figure 9-1. Percentage of Violent Gun Crimes Resulting in Death (National), 1982-2002



Based on gun homicides, gun robberies, and gun assaults reported in the Uniform Crime Reports and Supplemental Homicide Reports.

⁹⁸ A related point is that there was a general upward trend in the average number of shots fired by offenders in gunfights with New York City police from the late 1980s through 1992 (calculated from Goehl, 1993, p. 51). However, the average was no higher during this time than during many years of the early 1980s and 1970s.

Some researchers have inferred links between the growing use of semiautomatics in crime and the rise of both gun homicides and bystander shootings in a number of cities during the late 1980s and early 1990s (Block and Block, 1993; McGonigal et al., 1993; Sherman et al., 1989; Webster et al., 1992). A study in Washington, DC, for example, reported increases in wounds per gunshot victim and gunshot patient mortality during the 1980s that coincided with a reported increase in the percentage of crime guns that were semiautomatics (Webster et al., 1992).

Nevertheless, changes in offender behavior, coupled with other changes in crime guns (e.g., growing use of large caliber handguns – see Caruso et al., 1999; Koper, 1995; 1997; Wintemute, 1996), may have been key factors driving such trends. Washington, DC, for example, was experiencing an exploding crack epidemic at the time of the aforementioned study, and this may have raised the percentage of gun attacks in which offenders had a clear intention to injure or kill their victims. Moreover, studies that attempted to make more explicit links between the use of semiautomatic firearms and trends in lethal gun violence via time series analysis failed to produce convincing evidence of such links (Koper, 1995; 1997). However, none of the preceding research related specific trends in the use of AWs or LCMs to trends in lethal gun violence.

9.2. Shots Fired in Gun Attacks and the Effects of Weaponry on Attack Outcomes

The evidence most directly relevant to the potential of the AW-LCM ban to reduce gun deaths and injuries comes from studies examining shots fired in gun attacks and/or the outcomes of attacks involving different types of guns. Unfortunately, such evidence is very sparse.

As a general point, the faster firing rate and larger ammunition capacities of semiautomatics, especially those equipped with LCMs, have the potential to affect the outcomes of many gun attacks because gun offenders are not particularly good shooters. Offenders wounded their victims in no more than 29% of gunfire incidents according to national, pre-ban estimates (computed from Rand, 1994, p. 2; also see estimates presented later in this chapter). Similarly, a study of handgun assaults in one city revealed a 31% hit rate per shot, based on the sum totals of all shots fired and wounds inflicted (Reedy and Koper, 2003, p. 154). Other studies have yielded hit rates per shot ranging from 8% in gunfights with police (Goehl, 1993, p. 8) to 50% in mass murders (Kleck, 1997, p. 144). Even police officers, who are presumably certified and regularly re-certified as proficient marksman and who are almost certainly better shooters than are average gun offenders, hit their targets with only 22% to 39% of their shots (Kleck, 1991, p. 163; Goehl, 1993). Therefore, the ability to deliver more shots rapidly should raise the likelihood that offenders hit their targets, not to mention innocent bystanders.⁹⁹

⁹⁹ However, some argue that this capability is offset to some degree by the effects of recoil on shooter aim, the limited number of shots fired in most criminal attacks (see below), and the fact that criminals using non-semiautomatics or semiautomatics with small magazines usually have the time and ability to deliver multiple shots if desired (Kleck, 1991, pp. 78-79).

A few studies have compared attacks with semiautomatics, sometimes specifically those with LCMs (including AWs), to other gun assaults in terms of shots fired, persons hit, and wounds inflicted (see Tables 9-1 and 9-2). The most comprehensive of these studies examined police reports of attacks with semiautomatic pistols and revolvers in Jersey City, New Jersey from 1992 through 1996 (Reedy and Koper, 2003), finding that use of pistols resulted in more shots fired and higher numbers of gunshot victims (Table 9-1), though not more gunshot wounds per victim (Table 9-2).¹⁰⁰ Results implied there would have been 9.4% fewer gunshot victims overall had semiautomatics not been used in any of the attacks. Similarly, studies of gun murders in Philadelphia (see McGonigal et al., 1993 in Table 9-1) and a number of smaller cities in Pennsylvania, Ohio, and Iowa (see Richmond et al., 2003 in Table 9-2) found that attacks with semiautomatics resulted in more shots fired and gunshot wounds per victim. An exception is that the differential in shots fired between pistol and revolver cases in Philadelphia during 1990 did not exist for cases that occurred in 1985, when semiautomatics and revolvers had been fired an average of 1.6 and 1.9 times, respectively. It is not clear whether the increase in shots fired for pistol cases from 1985 to 1990 was due to changes in offender behavior, changes in the design or quality of pistols (especially an increase in the use of models with LCMs – see Wintemute, 1996), the larger sample for 1990, or other factors.

¹⁰⁰ But unlike other studies that have examined wounds per victim (see Table 9-2), this study relied on police reports of wounds inflicted rather than medical reports, which are likely to be more accurate.

Table 9-1. Shots Fired and Victims Hit in Gunfire Attacks By Type of Gun and Magazine

Data Source	Measure	Outcome
Gun attacks with semiautomatic pistols and revolvers, Jersey City, 1992-1996 ^a	Shots Fired	Avg. = 3.2 – 3.7 (n=165 pistol cases) * Avg. = 2.3 – 2.6 (n=71 revolver cases) *
Gun homicides with semiautomatic pistols and revolvers, Philadelphia, 1985 and 1990 ^b	Shots Fired	Avg. = 1.6 (n=21 pistol cases, 1985) Avg. = 1.9 (n=57 revolver cases, 1985) Avg. = 2.7 (n=95 pistol cases, 1990) Avg. = 2.1 (n=108 revolver cases, 1990)
Gun attacks with semiautomatic pistols and revolvers, Jersey City, 1992-1996 ^a	Victims Hit	Avg. = 1.15 (n=95 pistol cases) * Avg. = 1.0 (n=40 revolver cases) *
Mass shootings with AWs, semiautomatics having LCMs, or other guns, 6+ dead or 12+ shot, United States, 1984-1993 ^c	Victims Hit	Avg. = 29 (n=6 AW/LCM cases) Avg. = 13 (n=9 non-AW/LCM cases)
Self-reported gunfire attacks by state prisoners with AWs, other semiautomatics, and non-semiautomatic firearms, United States, 1997 or earlier ^d	% of Attacks With Victims Hit	19.5% (n=72 AW or machine gun cases) 22.3% (n=419 non-AW, semiautomatic cases) 23.3% (n=608 non-AW, non-semiautomatic cases)

a. Reedy and Koper (2003)

b. McGonigal et al. (1993)

c. Figures calculated by Koper and Roth (2001a) based on data presented by Kleck (1997, p. 144)

d. Calculated from Harlow (2001, p. 11). (Sample sizes are based on unpublished information provided by the author of the survey report.)

* Pistol/revolver differences statistically significant at $p < .05$ (only Reedy and Koper [2003] and Harlow [2001] tested for statistically significant differences). The shots fired ranges in Reedy and Koper are based on minimum and maximum estimates.

Table 9-2. Gunshot Wounds Per Victim By Type of Gun and Magazine

Data Source	Measure	Outcome
Gun attacks with semiautomatic pistols and revolvers, Jersey City, 1992-1996 ^a	Gunshot Wounds	Avg. = 1.4 (n=107 pistol victims) Avg. = 1.5 (n=40 revolver victims)
Gun homicides with semiautomatic pistols and revolvers, Iowa City (IA), Youngstown (OH), and Bethlehem (PA), 1994-1998 ^b	Gunshot Wounds	Avg. = 4.5 total (n=212 pistol victims)* Avg. = 2.9 entry Avg. = 2.0 total (n=63 revolver victims)* Avg. = 1.5 entry
Gun homicides with assault weapons (AWs), guns having large capacity magazines (LCMs), and other firearms, Milwaukee, 1992-1995 ^c	Gunshot Wounds	Avg. = 3.23 (n=30 LCM victims)** Avg. = 3.14 (n=7 AW victims) Avg. = 2.08 (n=102 non-AW/LCM victims)**

a. Reedy and Koper (2003)

b. Richmond et al. (2003)

c. Roth and Koper (1997, Chapter 6)

* Pistol/revolver differences statistically significant at $p < .01$.

** The basic comparison between LCM victims and non-AW/LCM victims was moderately significant ($p < .10$) with a one-tailed test. Regression results (with a slightly modified sample) revealed a difference significant at $p = .05$ (two-tailed test). Note that the non-LCM group included a few cases involving non-banned LCMs (.22 caliber attached tubular devices).

Also, a national survey of state prisoners found that, contrary to expectations, offenders who reported firing on victims with AWs and other semiautomatics were no more likely to report having killed or injured victims than were other gun offenders who reported firing on victims (Table 9-1). However, the measurement of guns used and attack outcomes were arguably less precise in this study, which was based on offender self-reports, than in other studies utilizing police and medical reports.¹⁰¹

Attacks with AWs or other guns with LCMs may be particularly lethal and injurious, based on very limited evidence. In mass shooting incidents (defined as those in which at least 6 persons were killed or at least 12 were wounded) that occurred during the decade preceding the ban, offenders using AWs and other semiautomatics with LCMs (sometimes in addition to other guns) claimed an average of 29 victims in comparison to an average of 13 victims for other cases (Table 9-1). (But also see the study discussed in the preceding paragraph in regards to victims hit in AW cases.)

Further, a study of Milwaukee homicide victims from 1992 through 1995 revealed that those killed with AWs were shot 3.14 times on average, while those killed with any

¹⁰¹ See the discussion of self-reports and AW use in Chapter 3.

gun having an LCM were shot 3.23 times on average (Table 9-2). In contrast, victims shot with guns having small magazines had only 2.1 wounds on average. If such a wound differential can be generalized to other gun attacks – if, that is, both fatal and non-fatal LCM gunshot victims are generally hit one or more extra times – then LCM use could have a considerable effect on the number of gunshot victims who die. To illustrate, the fatality rate among gunshot victims in Jersey City during the 1990s was 63% higher for those shot twice than for those shot once (26% to 16%) (Koper and Roth, 2001a; 2001b). Likewise, fatality rates are 61% higher for patients with multiple chest wounds than for patients with a single chest wound (49% to 30.5%), based on a Washington, DC study (Webster et al., 1992, p. 696).

Similar conclusions can also be inferred indirectly from the types of crimes involving LCM guns. To illustrate, handguns associated with gunshot victimizations in Baltimore (see the description of the Baltimore gun and magazine data in the preceding chapter) are 20% to 50% more likely to have LCMs than are handguns associated with other violent crimes, controlling for weapon caliber (Table 9-3). This difference may be due to higher numbers of shots and hits in crimes committed with LCMs, although it is also possible that offenders using LCMs are more likely to fire on victims. But controlling for gunfire, guns used in shootings are 17% to 26% more likely to have LCMs than guns used in gunfire cases resulting in no wounded victims (perhaps reflecting higher numbers of shots fired and victims hit in LCM cases), and guns linked to murders are 8% to 17% more likely to have LCMs than guns linked to non-fatal gunshot victimizations (perhaps indicating higher numbers of shots fired and wounds per victim in LCM cases).¹⁰² These differences are not all statistically significant, but the pattern is consistent. And as discussed in Chapter 3, AWs account for a larger share of guns used in mass murders and murders of police, crimes for which weapons with greater firepower would seem particularly useful.

¹⁰² Cases with and without gunfire and gunshot victims were approximated based on offense codes contained in the gun seizure data (some gunfire cases not resulting in wounded victims may not have been identified as such, and it is possible that some homicides were not committed with the guns recovered during the investigations). In order to control for caliber effects, we focused on 9mm and .38 caliber handguns. Over 80% of the LCM handguns linked to violent crimes were 9mm handguns. Since all (or virtually all) 9mm handguns are semiautomatics, we also selected .38 caliber guns, which are close to 9mm in size and consist almost entirely of revolvers and derringers.

The disproportionate involvement of LCM handguns in injury and death cases is greatest in the comparisons including both 9mm and .38 caliber handguns. This may reflect a greater differential in average ammunition capacity between LCM handguns and revolvers/derringers than between LCM handguns and other semiautomatics. The differential in fatal and non-fatal gunshot victims may also be due to caliber effects; 9mm is generally a more powerful caliber than .38 based on measures like kinetic energy or relative stopping power (e.g., see DiMaio, 1985, p. 140; Warner 1995, p. 223; Wintemute, 1996, p. 1751).

Table 9-3. Probabilities That Handguns Associated With Murders, Non-Fatal Shootings, and Other Violent Crimes Were Equipped With Large Capacity Magazines in Baltimore, 1993-2000

<u>Handgun Sample</u>	<u>% With LCM</u>	<u>% Difference (#2 Relative to #1)</u>
A. Handguns Used in Violent Crimes With and Without Gunshot Injury		
1) 9mm and .38: violence, no gunshot victims	23.21%	
2) 9mm and .38: violence with gunshot victims	34.87%	50%*
1) 9mm: violence, no gunshot victims	52.92%	
2) 9mm: violence with gunshot victims	63.24%	20%*
B. Handguns Used in Gunfire Cases With and Without Gunshot Injury		
1) 9mm and .38: gunfire, no gunshot victims	27.66%	
2) 9mm and .38: gunfire with gunshot victims	34.87%	26%
1) 9mm: gunfire, no gunshot victims	54.17%	
2) 9mm: gunfire with gunshot victims	63.24%	17%
C. Handguns Used in Fatal Versus Non-Fatal Gunshot Victimizations		
1) 9mm and .38: non-fatal gunshot victims	32.58%	
2) 9mm and .38: homicides	38.18%	17%
1) 9mm: non-fatal gunshot victims	61.14%	
2) 9mm: homicides	66.04%	8%

* Statistically significant difference at $p < .01$ (chi-square).

The findings of the preceding studies are subject to numerous caveats. There were few if any attempts to control for characteristics of the actors or situations that might have influenced weapon choices and/or attack outcomes.¹⁰³ Weapons data were typically missing for substantial percentages of cases. Further, many of the comparisons in the tables were not tested for statistical significance (see the notes to Tables 9-1 and 9-2).¹⁰⁴

Tentatively, nonetheless, the evidence suggests more often than not that attacks with semiautomatics, particularly those equipped with LCMs, result in more shots fired, leading to both more injuries and injuries of greater severity. Perhaps the faster firing rate and larger ammunition capacities afforded by these weapons prompt some offenders to fire more frequently (i.e., encouraging what some police and military persons refer to as a “spray and pray” mentality). But this still begs the question of whether a 10-round limit on magazine capacity will affect the outcomes of enough gun attacks to measurably reduce gun injuries and deaths.

¹⁰³ In terms of offender characteristics, recall from Chapter 3 that AP buyers are more likely than other gun buyers to have criminal histories and commit subsequent crimes. This does not seem to apply, however, to the broader class of semiautomatic users: handgun buyers with and without criminal histories tend to buy pistols in virtually the same proportions (Wintemute et al., 1998b), and youthful gun offenders using pistols and revolvers have very comparable criminal histories (Sheley and Wright, 1993b, p. 381). Further, semiautomatic users, including many of those using AWs, show no greater propensity to shoot at victims than do other gun offenders (Harlow, 2001, p. 11; Reedy and Koper, 2003). Other potential confounders to the comparisons in Tables 9-1 and 9-2 might include shooter age and skill, the nature of the circumstances (e.g., whether the shooting was an execution-style shooting), the health of the victim(s), the type of location (e.g., indoor or outdoor location), the distance between the shooter and intended victim(s), the presence of multiple persons who could have been shot intentionally or accidentally (as bystanders), and (in the mass shooting incidents) the use of multiple firearms.

¹⁰⁴ Tables 9-1 and 9-2 present the strongest evidence from the available studies. However, there are additional findings from these studies and others that, while weaker, are relevant. Based on gun model information available for a subset of cases in the Jersey City study, there were 12 gunfire cases involving guns manufactured with LCMs before the ban (7 of which resulted in wounded victims) and 94 gunfire cases involving revolvers or semiautomatic models without LCMs. Comparisons of these cases produced results similar to those of the main analysis: shot fired estimates ranged from 2.83 to 3.25 for the LCM cases and 2.22 to 2.6 for the non-LCM cases; 1.14 victims were wounded on average in the LCM gunshot cases and 1.06 in the non-LCM gunshot cases; and LCM gunshot victims had 1.14 wound on average, which, contrary to expectations, was less than the 1.47 average for other gunshot victims.

The compilation of mass shooting incidents cited in Table 9-1 had tentative shots fired estimates for 3 of the AW-LCM cases and 4 of the other cases. The AW-LCM cases averaged 93 shots per incident, a figure two and a half times greater than the 36.5 shot average for the other cases.

Finally, another study of firearm mass murders found that the average number of victims killed (tallies did not include others wounded) was 6 in AW cases and 4.5 in other cases (Roth and Koper, 1997, Appendix A). Only 2 of the 52 cases studied clearly involved AWs (or very similar guns). However, the make and model of the firearm were available for only eight cases, so additional incidents may have involved LCMs; in fact, at least 35% of the cases involved unidentified semiautomatics. (For those cases in which at least the gun type and firing action were known, semiautomatics outnumbered non-semiautomatics by 6 to 1, perhaps suggesting that semiautomatics are used disproportionately in mass murders.)

9.2.1. Will a 10-Round Magazine Limit Reduce Gunshot Victimization?

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.¹⁰⁵ Based on national data compiled by the FBI, for example, there were only about 19 gun murder incidents a year involving four or more victims from 1976 through 1995 (for a total of 375) (Fox and Levin, 1998, p. 435) and only about one a year involving six or more victims from 1976 through 1992 (for a total of 17) (Kleck, 1997, p. 126). Similarly, gun murder victims are shot two to three times on average according to a number of sources (see Table 9-2 and Koper and Roth, 2001a), 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 (Webster et al., 1992, p. 696).

However, counts of victims hit or wounds inflicted provide only a lower bound estimate of the number of shots fired in an attack, which could be considerably higher in light of the low hit rates in gunfire incidents (see above).¹⁰⁶ The few available studies on shots fired show that assailants fire less than four shots on average (see sources in Table 9-1 and Goehl, 1993), a number well within the 10-round magazine limit imposed by the AW-LCM ban, but these studies have not usually presented the full distribution of shots fired for all cases, so it is usually unclear how many cases, if any, involved more than 10 shots.

An exception is the aforementioned study of handgun murders and assaults in Jersey City (Reedy and Koper, 2003). Focusing on cases for which at least the type of handgun (semiautomatic, revolver, derringer) could be determined, 2.5% of the gunfire cases involved more than 10 shots.¹⁰⁷ These incidents – all of which involved pistols – had a 100% injury rate and accounted for 4.7% of all gunshot victims in the sample (see Figure 9-2). Offenders fired a total of 83 shots in these cases, wounding 7 victims, only 1 of whom was wounded more than once. Overall, therefore, attackers fired over 8 shots

¹⁰⁵ Although the focus of the discussion is on attacks with more than 10 shots fired, a gun user with a post-ban 10-round magazine can attain a firing capacity of 11 shots with many semiautomatics by loading one bullet into the chamber before loading the magazine.

¹⁰⁶ As a dramatic example, consider the heavily publicized case of Amadou Diallo, who was shot to death by four New York City police officers just a few years ago. The officers in this case fired upon Diallo 41 times but hit him with only 19 shots (a 46% hit rate), despite his being confined in a vestibule. Two of the officers reportedly fired until they had emptied their 16-round magazines, a reaction that may not be uncommon in such high-stress situations. In official statistics, this case will appear as having only one victim.

¹⁰⁷ The shots fired estimates were based on reported gunshot injuries, physical evidence (for example, shell casings found at the scene), and the accounts of witnesses and actors. The 2.5% figure is based on minimum estimates of shots fired. Using maximum estimates, 3% of the gunfire incidents involved more than 10 shots (Reedy and Koper, 2003, p. 154).

A caveat to these figures is that the federal LCM ban was in effect for much of the study period (which spanned January 1992 to November 1996), and a New Jersey ban on magazines with more than 15 rounds predated the study period. It is thus conceivable that these laws reduced attacks with LCM guns and attacks with more than 10 shots fired, though it seems unlikely that the federal ban had any such effect (see the analyses of LCM use presented in the previous chapter). Approximately 1% of the gunfire incidents involved more than 15 shots.

for every wound inflicted, suggesting that perhaps fewer persons would have been wounded had the offenders not been able to fire as often.¹⁰⁸

Figure 9-2. Attacks With More Than 10 Shots Fired

Jersey City Handgun Attacks, 1992-1996

- **2.5% - 3% of gunfire incidents involved 11+ shots**
 - **3.6% - 4.2% of semiauto pistol attacks**
- **100% injury rate**
- **Produced 4.7% of all gunshot wound victims**
- **8.3 shots per gunshot wound**

Based on data reported by Reedy and Koper (2003). Injury statistics based on the 2.5% of cases involving 11+ shots by minimum estimate.

Caution is warranted in generalizing from these results because they are based on a very small number of incidents (6) from one sample in one city. Further, it is not known if the offenders in these cases had LCMs (gun model and magazine information was very limited); they may have emptied small magazines, reloaded, and continued firing. But subject to these caveats, the findings suggest that the ability to deliver more than 10 shots without reloading may be instrumental in a small but non-trivial percentage of gunshot victimizations.

On the other hand, the Jersey City study also implies that eliminating AWs and LCMs might only reduce gunshot victimizations by up to 5%. And even this estimate is probably overly optimistic because the LCM ban cannot be expected to prevent all incidents with more than 10 shots. Consequently, any effects from the ban (should it be extended) are likely to be smaller and perhaps quite difficult to detect with standard statistical methods (see Koper and Roth, 2001a), especially in the near future, if recent patterns of LCM use continue.

9.3. Post-Ban Trends in Lethal and Injurious Gun Violence

Having established some basis for believing the AW-LCM ban could have at least a small effect on lethal and injurious gun violence, is there any evidence of such an effect to date? Gun homicides plummeted from approximately 16,300 in 1994 to 10,100 in 1999, a reduction of about 38% (see the Federal Bureau of Investigation's *Uniform Crime*

¹⁰⁸ These figures are based on a supplemental analysis not contained in the published study. We thank Darin Reedy for this analysis.

Reports). Likewise, non-fatal, assaultive gunshot injuries treated in hospitals nationwide declined one-third, from about 68,400 to under 46,400, between 1994 and 1998 (Gotsch et al., 2001, pp. 23-24). Experts believe numerous factors contributed to the recent drop in these and other crimes, including changing drug markets, a strong economy, better policing, and higher incarceration rates, among others (Blumstein and Wallman, 2000). Attributing the decline in gun murders and shootings to the AW-LCM ban is problematic, however, considering that crimes with LCMs appear to have been steady or rising since the ban. For this reason, we do not undertake a rigorous investigation of the ban's effects on gun violence.¹⁰⁹

But a more casual assessment shows that gun crimes since the ban have been no less likely to cause death or injury than those before the ban, contrary to what we might expect if crimes with AWs and LCMs had both declined. For instance, the percentage of violent gun crimes resulting in death has been very stable since 1990 according to national statistics on crimes reported to police (see Figure 9-1 in section 9.1).¹¹⁰ 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%).

Similarly, neither medical nor criminological data sources have shown any post-ban reduction in the percentage of crime-related gunshot victims who die. If anything, this percentage has been higher since the ban, a pattern that could be linked in part to more multiple wound victimizations stemming from elevated levels of LCM use. According to medical examiners' reports and hospitalization estimates, about 20% of gunshot victims died nationwide in 1993 (Gotsch et al., 2001). This figure rose to 23% in 1996, before declining to 21% in 1998 (Figure 9-3).¹¹¹ Estimates derived from the Uniform Crime Reports and the Bureau of Justice Statistics' annual National Crime Victimization Survey follow a similar pattern from 1992 to 1999 (although the ratio of fatal to non-fatal cases is much higher in these data than that in the medical data) and also show a considerable increase in the percentage of gunshot victims who died in 2000 and 2001 (Figure 9-3).¹¹² Of course, changes in offender behavior or other changes in crime

¹⁰⁹ In our prior study (Koper and Roth 2001a; Roth and Koper, 1997, Chapter 6), we estimated that gun murders were about 7% lower than expected in 1995 (the first year after the ban), adjusting for pre-existing trends. However, the very limited post-ban data available for that study precluded a definitive judgment as to whether this drop was statistically meaningful (see especially Koper and Roth, 2001a). Furthermore, that analysis was based on the assumption that crimes with both AWs and LCMs had dropped in the short-term aftermath of the ban, an assumption called into question by the findings of this study. It is now more difficult to credit the ban with any of the drop in gun murders in 1995 or anytime since. We did not update the gun murder analysis because interpreting the results would be unavoidably ambiguous. Such an investigation will be more productive after demonstrating that the ban has reduced crimes with both AWs and LCMs.

¹¹⁰ The decline in this figure during the 1980s was likely due in part to changes in police reporting of aggravated assaults in recent decades (Blumstein, 2000). The ratio of gun murders to gun robberies rose during the 1980s, then declined and remained relatively flat during the 1990s.

¹¹¹ Combining homicide data from 1999 with non-fatal gunshot estimates for 2000 suggests that about 20% of gunshot victimizations resulted in death during 1999 and 2000 (Simon et al., 2002).

¹¹² The SHR/NCVS estimates should be interpreted cautiously because the NCVS appears to undercount non-fatal gunshot wound cases by as much as two-thirds relative to police data, most likely because it fails to represent adequately the types of people most likely to be victims of serious crime (i.e., young urban males who engage in deviant lifestyles) (Cook, 1985). Indeed, the rate of death among gunshot victims

weaponry (such as an increase in shootings with large caliber handguns) may have influenced these trends. Yet is worth noting that multiple wound shootings were elevated over pre-ban levels during 1995 and 1996 in four of five localities examined during our first AW study, though most of the differences were not statistically significant (Table 9-4, panels B through E).

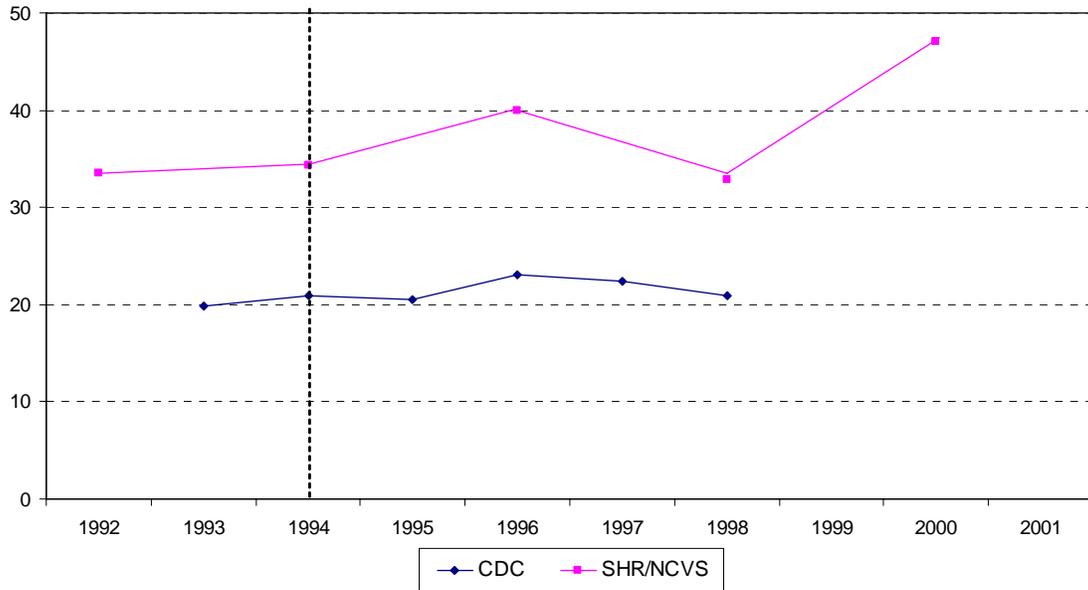
Another potential indicator of ban effects is the percentage of gunfire incidents resulting in fatal or non-fatal gunshot victimizations. If attacks with AWs and LCMs result in more shots fired and victims hit than attacks with other guns and magazines, we might expect a decline in crimes with AWs and LCMs to reduce the share of gunfire incidents resulting in victims wounded or killed. 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 (Figure 9-4).¹¹³ Along similar lines, 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 (Table 9-4, panel A).¹¹⁴

appears much higher in the SHR/NCVS series than in data compiled from medical examiners and hospitals (see the CDC series in Figure 9-3). But if these biases are relatively consistent over time, the data may still provide useful insights into trends over time.

¹¹³ The NCVS estimates are based on a compilation of 1992-2002 data recently produced by the Inter-University Consortium for Political and Social Research (ICPSR study 3691). In 2002, only 9% of non-fatal gunfire incidents resulted in gunshot victimizations. This implies a hit rate for 2002 that was below pre-ban levels, even after incorporating gun homicide cases into the estimate. However, the 2002 NCVS estimate deviates quite substantially from earlier years, for which the average hit rate in non-fatal gunfire incidents was 24% (and the estimate for 2001 was 20%). Therefore, we did not include the 2002 data in our analysis. We used two-year averages in Figures 9-3 and 9-4 because the annual NCVS estimates are based on very small samples of gunfire incidents. The 2002 sample was especially small, so it seems prudent to wait for more data to become available before drawing conclusions about hit rates since 2001.

¹¹⁴ We thank David Huffer for this analysis.

Figure 9-3. Percentage of Gunshot Victimization Resulting in Death (National), 1992-2001



SHR/NCVS series based on two-year averages from the Supplemental Homicide Reports and National Crime Victimization Survey. CDC series based on homicide and hospitalization data from the Centers for Disease Control (reported by Gotsch et al. 2001).

Table 9-4. Short-Term, Post-Ban Changes in the Lethality and Injuriousness of Gun Violence: National and Local Indicators, 1994-1998^a

Measure and Location	<u>Pre-Ban Period</u>	<u>Post-Ban Period</u>	Change
A. Victims Per Gun Homicide Incident (National)	Jan. 1986-Sept. 1994 1.05 (N=106,668)	Oct. 1994-Dec. 1998 1.06 (N=47,511)	1%**
B. Wounds per Gun Homicide Victim: Milwaukee County	Jan. 1992-Aug. 1994 2.28 (N=282)	Sept. 1994-Dec. 1995 2.52 (N=136)	11%
C. Wounds Per Gun Homicide Victim: Seattle (King County)	Jan. 1992-Aug. 1994 2.08 (N=184)	Sept. 1994-Jun. 1996 2.46 (N=91)	18%
D. Wounds Per Gunshot Victim: Jersey City (NJ)	Jan. 1992-Aug. 94 1.42 (N=125)	Sept. 1994-Jun. 1996 1.39 (N=137)	-2%
E. % of Gun Homicide Victims With Multiple Wounds: San Diego County	Jan. 1992-Aug. 1994 41% (N=445)	Sept. 1994-Jun. 1996 43% (N=223)	5%
F. % of Non-Fatal Gunshot Victims With Multiple Wounds: Boston	Jan. 1992-Aug. 1994 18% (N=584)	Sept. 1994-Dec. 1995 24% (N=244)	33%*

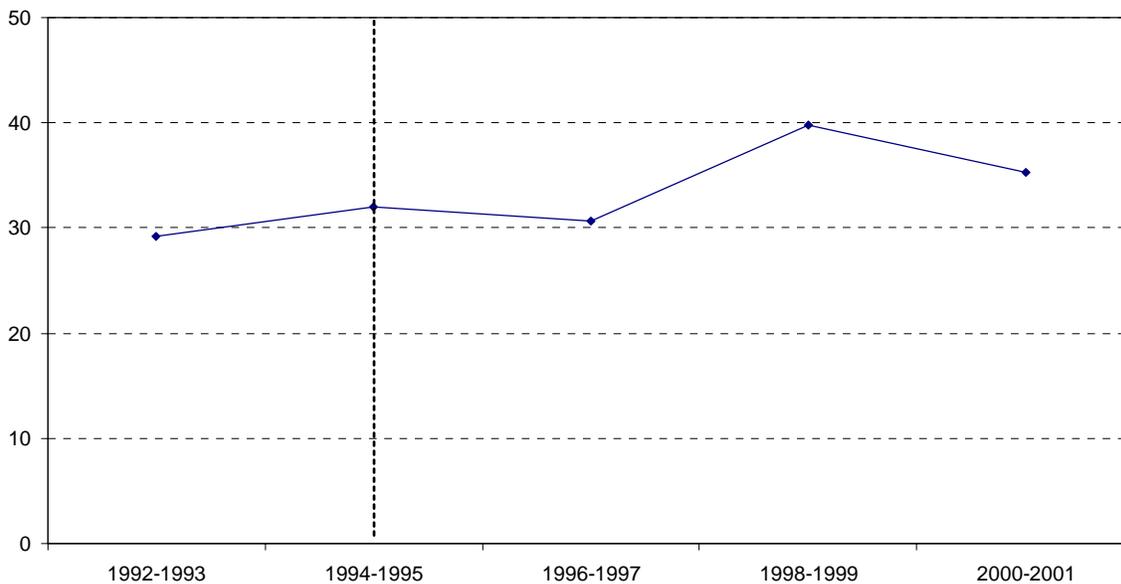
a. National victims per incident figures based on unpublished update of analysis reported in Roth and Koper (1997, Chapter 5). Gunshot wound data are taken from Roth and Koper (1997, Chapter 6) and Koper and Roth (2001a). Wound data are based on medical examiners' reports (Milwaukee, Seattle, San Diego), hospitalization data (Boston), and police reports (Jersey City).

* Chi-square p level < .1.

** T-test p level < .01.

If anything, therefore, gun attacks appear to have been more lethal and injurious since the ban. Perhaps elevated LCM use has contributed to this pattern. But if this is true, then the reverse would also be true – a reduction in crimes with LCMs, should the ban be extended, would reduce injuries and deaths from gun violence.

Figure 9-4. Percentage of Gunfire Cases Resulting in Gunshot Victimizations (National), 1992-2001



Based on two-year averages from the Supplemental Homicide Reports and National Crime Victimization Survey.

9.4. Summary

Although the ban has been successful in reducing crimes with AWs, any benefits from this reduction are likely to have been outweighed by steady or rising use of non-banned semiautomatics with LCMs, which are used in crime much more frequently than AWs. Therefore, we cannot clearly credit the ban with any of the nation's recent drop in gun violence. And, indeed, there has been 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, as we might have expected had the ban reduced crimes with both AWs and LCMs.

However, the grandfathering provision of the AW-LCM ban guaranteed that the effects of this law would occur only gradually over time. 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. It is thus premature to make definitive assessments of the ban's impact on gun violence.

Having said this, the ban's impact on gun violence is likely to be small at best, and perhaps too small for reliable measurement. AWs were used in no more than 8% of gun crimes even before the ban. Guns with LCMs are used in up to a quarter of gun crimes, but it is not clear how often the outcomes of gun attacks depend on the ability to fire more than 10 shots (the current limit on magazine capacity) without reloading.

Nonetheless, reducing crimes with AWs and especially LCMs could have non-trivial effects on gunshot victimizations. As a general matter, hit rates tend to be low in gunfire incidents, so having more shots to fire rapidly can increase the likelihood that offenders hit their targets, and perhaps bystanders as well. While not entirely consistent, the few available studies contrasting attacks with different types of guns and magazines generally suggest that attacks with semiautomatics – including AWs and other semiautomatics with LCMs – result in more shots fired, persons wounded, and wounds per victim than do other gun attacks. Further, a study of handgun attacks in one city found that about 3% of gunfire incidents involved more than 10 shots fired, and those cases accounted for nearly 5% of gunshot victims. However, the evidence on these matters is too limited (both in volume and quality) to make firm projections of the ban's impact, should it be reauthorized.

10. LOOKING TO THE FUTURE: RESEARCH RECOMMENDATIONS AND SPECULATION ABOUT THE CONSEQUENCES OF REAUTHORIZING, MODIFYING, OR LIFTING THE ASSAULT WEAPONS BAN

In this chapter, we discuss future lines of inquiry that would be informative whether or not the AW-LCM ban is renewed in September 2004. We then offer some brief thoughts about the possible consequences of reauthorizing the ban, modifying it, or allowing it to expire.

10.1. Research Recommendations and Data Requirements

10.1.1. An Agenda for Assault Weapons Research and Recommendations for Data Collection by Law Enforcement

The effects of the AW-LCM ban have yet to be fully realized; therefore, we recommend continued study of trends in the availability and criminal use of AWs and LCMs. Even if the ban is lifted, longer-term study of crimes with AWs and LCMs will inform future assessment of the consequences of these policy shifts and improve understanding of the responses of gun markets to gun legislation more generally.¹¹⁵

Developing better data on crimes with LCMs is especially important. To this end, we urge police departments and their affiliated crime labs to record information about magazines recovered with crime guns. Further, we recommend that ATF integrate ammunition magazine data into its national gun tracing system and encourage reporting of magazine data by police departments that trace firearms.

As better data on LCM use become available, more research is warranted on the impacts of AW and LCM trends (which may go up or down depending on the ban's fate) on gun murders and shootings, as well as levels of death and injury per gun crime. Indicators of the latter, such as victims per gunfire incident and wounds per gunshot victim, are useful complementary outcome measures because they reflect the mechanisms through which use of AWs and LCMs is hypothesized to affect gun deaths and injuries.¹¹⁶ Other potentially promising lines of inquiry might relate AW and LCM use to mass murders and murders of police, crimes that are very rare but appear more likely to involve AWs (and perhaps LCMs) and to disproportionately affect public perceptions.¹¹⁷

¹¹⁵ Establishing time series data on primary and secondary market prices and production or importation of various guns and magazines of policy interest could provide benefits for policy researchers. Like similar statistical series maintained for illegal drugs, such price and production series would be valuable instruments for monitoring effects of policy changes and other influences on markets for various weapons.

¹¹⁶ However, more research is needed on the full range of factors that cause variation in these indicators over time and between places.

¹¹⁷ Studying these crimes poses a number of challenges, including modeling of rare events, establishing the reliability and validity of methods for measuring the frequency and characteristics of mass murders (such as through media searches; see Duwe, 2000, Roth and Koper, 1997, Appendix A), and controlling for factors like the use of bullet-proof vests by police.

Finally, statistical studies relating AW and LCM use to trends in gun violence should include statistical power analysis to ensure that estimated models have sufficient ability to detect small effects, an issue that has been problematic in some of our prior time series research on the ban (Koper and Roth, 2001a) and is applicable more generally to the study of modest, incremental policy changes.

Research on aggregate trends should be complemented by more incident-based studies that contrast the dynamics and outcomes of attacks with different types of guns and magazines, while controlling for relevant characteristics of the actors and situations. Such studies would refine predictions of the change in gun deaths and injuries that would follow reductions in attacks with AWs and LCMs. For instance, how many homicides and injuries involving AWs and LCMs could be prevented if offenders were forced to substitute other guns and magazines? In what percentage of gun attacks does the ability to fire more than ten rounds without reloading affect the number of wounded victims or determine the difference between a fatal and non-fatal attack? Do other AW features (such as flash hiders and pistol grips on rifles) have demonstrable effects on the outcomes of gun attacks? Studies of gun attacks could draw upon police incident reports, forensic examinations of recovered guns and magazines, and medical and law enforcement data on wounded victims.

10.1.2. Studying the Implementation and Market Impacts of Gun Control

More broadly, this study reiterates the importance of examining the implementation of gun policies and the workings of gun markets, considerations that have been largely absent from prior research on gun control. Typical methods of evaluating gun policies involve statistical comparisons of total or gun crime rates between places and/or time periods with and without different gun control provisions. Without complimentary implementation and market measures, such studies have a “black box” quality and may lead to misleading conclusions. For example, a time series study of gun murder rates before and after the AW-LCM ban might find that the ban has not reduced gun murders. Yet the interpretation of such a finding would be ambiguous, absent market or implementation measures. Reducing attacks with AWs and LCMs may in fact have no more than a trivial impact on gun deaths and injuries, but any such impact cannot be realized or adequately assessed until the availability and use of the banned guns and magazines decline appreciably. Additionally, it may take many years for the effects of modest, incremental policy changes to be fully felt, a reality that both researchers and policy makers should heed. Similar implementation concerns apply to the evaluation of various gun control policies, ranging from gun bans to enhanced sentences for gun offenders.

Our studies of the AW ban have shown that the reaction of manufacturers, dealers, and consumers to gun control policies can have substantial effects on demand and supply for affected weapons both before and after a law’s implementation. It is important to study these factors because they affect the timing and form of a law’s impact

on the availability of weapons to criminals and, by extension, the law's impact on gun violence.

10.2. Potential Consequences of Reauthorizing, Modifying, or Lifting the Assault Weapons Ban

10.2.1. Potential Consequences of Reauthorizing the Ban As Is

Should it be renewed, the ban might reduce gunshot victimizations. This effect is likely to be small at best and possibly too small for reliable measurement. A 5% reduction in gunshot victimizations is perhaps a reasonable upper bound estimate of the ban's potential impact (based on the only available estimate of gunshot victimizations resulting from attacks in which more than 10 shots were fired), but the actual impact is likely to be smaller and may not be fully realized for many years into the future, particularly if pre-ban LCMs continue to be imported into the U.S. from abroad. Just as the restrictions imposed by the ban are modest – they are essentially limits on weapon accessories like LCMs, flash hiders, threaded barrels, and the like – so too are the potential benefits.¹¹⁸ In time, the ban may be seen as an effective prevention measure that stopped further spread of weaponry considered to be particularly dangerous (in a manner similar to federal restrictions on fully automatic weapons). But that conclusion will be contingent on further research validating the dangers of AWs and LCMs.

10.2.2. Potential Consequences of Modifying the Ban

We have not examined the specifics of legislative proposals to modify the AW ban. However, we offer a few general comments about the possible consequences of such efforts, particularly as they relate to expanding the range of the ban as some have advocated (Halstead, 2003, pp. 11-12).

¹¹⁸ But note that although the ban's impact on gunshot victimizations would be small in percentage terms and unlikely to have much effect on the public's fear of crime, it could conceivably prevent hundreds of gunshot victimizations annually and produce notable cost savings in medical care alone. To help place this in perspective, there were about 10,200 gun homicides and 48,600 non-fatal, assault-related shootings in 2000 (see the FBI's *Uniform Crime Reports* for the gun homicide estimate and Simon et al. [2002] for the estimate of non-fatal shootings). Reducing these crimes by 1% would have thus prevented 588 gunshot victimizations in 2000 (we assume the ban did not actually produce such benefits because the reduction in AW use as of 2000 was outweighed by steady or rising levels of LCM use). This may seem insubstantial compared to the 342,000 murders, assaults, and robberies committed with guns in 2000 (see the *Uniform Crime Reports*). Yet, gunshot victimizations are particularly costly crimes. Setting aside the less tangible costs of lost lives and human suffering, the lifetime medical costs of assault-related gunshot injuries (fatal and non-fatal) were estimated to be about \$18,600 per injury in 1994 (Cook et al., 1999). Therefore, the lifetime costs of 588 gun homicides and shootings would be nearly \$11 million in 1994 dollars (the net medical costs could be lower for reasons discussed by Cook and Ludwig [2000] but, on the other hand, this estimate does not consider other governmental and private costs that Cook and Ludwig attribute to gun violence). This implies that small reductions in gunshot victimizations sustained over many years could produce considerable long-term savings for society. We do not wish to push this point too far, however, considering the uncertainty regarding the ban's potential impact.

Gun markets react strongly merely to debates over gun legislation. Indeed, debate over the AW ban's original passage triggered spikes upwards of 50% in gun distributors' advertised AW prices (Roth and Koper, 1997, Chapter 4). In turn, this prompted a surge in AW production in 1994 (Chapter 5). Therefore, it seems likely that discussion of broadening the AW ban to additional firearms would raise prices and production of the weapons under discussion. (Such market reactions may already be underway in response to existing proposals to expand the ban, but we have not investigated this issue.) Heightened production levels could saturate the market for the weapons in question, depressing prices and delaying desired reductions in crimes with the weapons, as appears to have happened with banned ARs.

Mandating further design changes in the outward features of semiautomatic weapons (e.g., banning weapons having any military-style features) may not produce benefits beyond those of the current ban. As noted throughout this report, the most important feature of military-style weapons may be their ability to accept LCMs, and this feature has been addressed by the LCM ban and the LCMM rifle ban. Whether changing other features of military-style firearms will produce measurable benefits is unknown.

Finally, curbing importation of pre-ban LCMs should help reduce crimes with LCMs and possibly gunshot victimizations. Crimes with LCMs may not decline substantially for quite some time if millions of LCMs continue to be imported into the U.S.

10.2.3. Potential Consequences of Lifting the Ban

If the ban is lifted, it is likely that gun and magazine manufacturers will reintroduce AW models and LCMs, perhaps in substantial numbers.¹¹⁹ In addition, AWs grandfathered under the 1994 law may lose value and novelty, prompting some of their lawful owners to sell them in secondary markets, where they may reach criminal users. Any resulting increase in crimes with AWs and LCMs might increase gunshot victimizations, though this effect could be difficult to discern statistically.

It is also possible, and perhaps probable, that new AWs and LCMs will eventually be used to commit mass murder. Mass murders garner much media attention, particularly when they involve AWs (Duwe, 2000). The notoriety likely to accompany mass murders if committed with AWs and LCMs, especially after these guns and magazines have been deregulated, could have a considerable negative impact on public perceptions, an effect that would almost certainly be intensified if such crimes were committed by terrorists operating in the U.S.

¹¹⁹ Note, however, that foreign semiautomatic rifles with military features, including the LCMM rifles and several rifles prohibited by the 1994 ban, would still be restricted by executive orders passed in 1989 and 1998. Those orders stem from the sporting purposes test of the Gun Control Act of 1968.

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EXHIBIT 30

REDUCING GUN VIOLENCE IN AMERICA

Informing Policy with
Evidence and Analysis

Edited by

DANIEL W. WEBSTER
and **JON S. VERNICK**

Foreword by

MICHAEL R. BLOOMBERG



Reducing Gun Violence in America

Informing Policy with Evidence and Analysis

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*To victims of gun violence
to those who work daily
to reduce it*

America's Experience with the Federal Assault Weapons Ban, 1994–2004

Key Findings and Implications

Christopher S. Koper

In 1994, the federal government imposed a ten-year ban on military-style semi-automatic firearms and ammunition-feeding devices holding more than ten rounds of ammunition. This legislation, commonly known as the federal assault weapons ban, was intended in the broadest sense to reduce gunshot victimizations by limiting the national stock of semi-automatic firearms with large ammunition capacities and other features conducive to criminal uses. Reflecting America's general political divisions over the issue of gun control, the debate over the law was highly contentious. Ten years later, Congress allowed the ban to expire.

More recently, there have been growing calls for a reexamination of the assault weapons issue. This debate has been fueled by a series of mass shooting incidents involving previously banned firearms or magazines. Since 2007, for example, there have been at least 11 incidents in which offenders using

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assault weapons or other semi-automatics with magazines larger than 10 rounds have wounded or killed eight or more people (Violence Policy Center 2012). Some of the most notorious of these incidents have been a 2007 shooting on the college campus of Virginia Tech that left 33 dead and 17 wounded; a 2011 shooting in an Arizona parking lot that killed 6 and wounded 13, including Congresswoman Gabrielle Giffords; a 2012 shooting in an Aurora, Colorado, movie theatre that left 12 dead and 58 wounded; and, most recently, a shooting in a Newtown, Connecticut, elementary school that left 26 victims dead, 20 of whom were children (an additional victim was killed elsewhere).

To help inform the new dialogue on this issue, this essay examines America's experience with the 1994 assault weapons law. During the course of the ban, the National Institute of Justice (NIJ) funded a series of studies on the law's impacts for the U.S. Department of Justice and the U.S. Congress (Koper 2004; Koper and Roth 2001, 2002; Roth and Koper 1997, 1999). I present highlights from those studies, with an emphasis on findings from the final evaluation reported in 2004 (Koper 2004). These studies sought to assess the law's impacts on (1) the availability of assault weapons (AWs) and large-capacity magazines (LCMs) as measured by price and production (or importation) indices in legal markets; (2) trends in criminal uses of AWs and LCMs; and (3) trends in the types of gun crimes that seemed most likely to be affected by changes in the use of AWs and LCMs. (The latter two issues are emphasized in this summary.) Finally, the research team examined studies of gun attacks more generally in order to estimate the ban's potential to produce longer-term reductions in shootings.

In summary, the ban had mixed effects in reducing crimes with the banned weaponry because of various exemptions and loopholes in the legislation. The ban did not appear to affect gun crime during the time it was in effect, but some evidence suggests it may have modestly reduced gunshot victimizations had it remained in place for a longer period. The ban's most important provision was arguably its prohibition on ammunition magazines holding more than 10 rounds. Policymakers considering a new version of the ban might particularly focus on this aspect of the previous legislation and reconsider the exemptions and loopholes that undermined the effectiveness of the original ban.

Provisions of the Assault Weapons Ban

Enacted on September 13, 1994, Title XI, Subtitle A of the Violent Crime Control and Law Enforcement Act of 1994 imposed a ten-year ban on the “manufacture, transfer, and possession” of certain semi-automatic firearms designated as assault weapons. The AW ban did not prohibit all semi-automatics; rather, it was directed at semi-automatics having features that appear to be 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. The law specifically prohibited 18 models and variations by name (e.g., the Intratec TEC-9 pistol and the Colt AR-15 rifle), as well as revolving cylinder shotguns (see Koper 2004, 5). This list included a number of foreign rifles that the federal government had banned from importation into the country beginning in 1989 (e.g., Avtomat Kalashnikov models). In addition, the ban contained a generic “features test” provision that generally prohibited other semi-automatic firearms having two or more military-style features, as described in Table 12.1. In total, the federal Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) identified 118 model and caliber variations that met the AW criteria established by the ban.

The law also banned “copies or duplicates” of the named gun makes and models, but federal authorities emphasized exact copies. Relatively cosmetic changes, such as removing a flash hider or bayonet mount, were thus sufficient to transform a banned weapon into a legal substitute. In this sense, the law is perhaps best understood not as a gun ban but as a law that restricted weapon accessories. A number of gun manufacturers began producing modified, legal versions of some of the banned guns, though not all of these substitute weapons proved as popular as the banned versions.¹ In other respects (e.g., type of firing mechanism, ammunition fired, and the ability to accept a detachable magazine), the banned AWs did not differ from other legal semi-automatic weapons.

The other major component of the assault weapons legislation was a ban on most ammunition-feeding devices holding more than 10 rounds of ammunition (referred to as large-capacity magazines).² The LCM ban was arguably the most important part of the assault weapons law for two reasons. First, an LCM is the most functionally important feature of an AW-type firearm. 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

Table 12.1 Features test of the federal assault weapons ban

Weapon category	Military-style features (2 or more qualified a firearm as an assault weapon)
Semi-automatic pistols accepting detachable magazines	<ol style="list-style-type: none"> 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
Semi-automatic rifles accepting detachable magazines	<ol style="list-style-type: none"> 1) folding or telescoping stock 2) pistol grip that protrudes beneath the firing action 3) bayonet mount 4) flash hider or a threaded barrel designed to accommodate one 5) grenade launcher
Semi-automatic shotguns	<ol style="list-style-type: none"> 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

many as 50 or 100 rounds (United States Department of the Treasury 1998, 14). Removing LCMs from these weapons thus greatly limits their firepower.

Second, the reach of the LCM ban was much broader than that of the AW ban because many semi-automatics that were not banned by the AW provision could accept LCMs. Approximately 40 percent of the semi-automatic handgun models and a majority of the semi-automatic rifle models that were 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 and the Editors of Gun Digest 1994). Still others could accept LCMs made for other firearms and/or by other manufacturers. A national survey of gun owners in 1994 found that 18% of all civilian-owned firearms and 21% of civilian-owned handguns were equipped with magazines having 10 or more rounds (Cook and Ludwig 1996, 17). The AW provision did not affect most LCM-compatible guns, but the LCM provision limited the capacities of their magazines to 10 rounds.

The AW ban also contained important exemptions. AWs and LCMs manufactured before the effective date of the ban were "grandfathered" and thus legal to own and transfer. Though not precise, estimates suggest there were

upward of 1.5 million privately owned AWs in the United States when the ban took effect (American Medical Association Council on Scientific Affairs 1992; Cox Newspapers 1989, 1; Koper 2004, 10). Gun owners in America possessed an estimated 25 million guns that were equipped with LCMs or 10-round magazines in 1994 (Cook and Ludwig 1996, 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, 30). Moreover, an additional 4.8 million pre-ban LCMs were imported into the country from 1994 through 2000 under the grandfathering exemption, with the largest number arriving in 1999. During this same period, importers were also authorized to import another 42 million pre-ban LCMs that may have arrived after 2000.

Criminal Use of Assault Weapons and Large-Capacity Magazines Prior to the Ban

During the 1980s and early 1990s, AWs and other semi-automatic firearms equipped with LCMs were involved in a number of highly publicized mass shootings that raised public concern about the accessibility of high-powered, military-style weaponry and other guns capable of rapidly discharging high numbers of bullets (Cox Newspapers 1989; Kleck 1997, 124-126, 144; Lenett 1995; Violence Policy Center 2012). Perhaps most notably, AWs or other semi-automatics with LCMs were used in 6, or 40%, of 15 particularly severe mass shooting incidents between 1984 and 1993 that resulted in at least 6 deaths or at least 12 killed or wounded (Kleck, 1997, 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, 4; also see Roth and Koper 1997, chap. 5), fueling a perception that AWs were guns of choice among drug dealers and other particularly violent groups. These events intensified concern over AWs and other semi-automatics with LCMs and helped spur the 1989 federal import ban on selected semi-automatic rifles (implemented by executive order) and the passage of the 1994 federal AW ban (the states of California, New Jersey, Connecticut, Hawaii, and Maryland also passed AW legislation between 1989 and 1994).

Looking at the nation's gun crime problem more broadly, numerous studies of AW-type weapons conducted prior to the federal ban found that 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, Anglin, and Pratts 1994; Hutson et al. 1995; McGonigal et al. 1993; New York State Division of Criminal Justice Services 1994; Roth and Koper 1997, chap. 2; Zawitz 1995). A compilation of 38 sources indicated that AWs accounted for about 2% of crime guns on average (Kleck 1997, 112, 141–143). 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 the NIJ-funded studies summarized here (Koper 2004, 15).

As with crime guns in general, the majority of AWs used in crime were assault pistols rather than assault rifles. Among AWs reported by police to ATF during 1992 and 1993, for example, assault pistols outnumbered assault rifles by a ratio of three to one.

The relative rarity of AW use in crime can be attributed to a number of factors. Many of these models are long guns, which are used in crime much less often than handguns. Also, as noted, a number of the rifles named in the 1994 law were banned from importation into the United States in 1989. Further, AWs in general are more expensive and more difficult to conceal than the types of handguns that are used most frequently in crime.

Criminal use of guns equipped with LCMs had not been studied as extensively as criminal use of AWs at the time of the ban. However, 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 13% to 26% of most gun crimes prior to the ban, though they appeared to be used in 31% to 41% of gun murders of police (see summary in Koper 2004, 18; also see Adler et al. 1995; Fallis 2011; New York Division of Criminal Justice Services 1994).

The Ban's Effects on Crimes with Assault Weapons and Large-Capacity Magazines

Although there was a surge in production of AW-type weapons as Congress debated the ban in 1994, the law's restriction of the new AW supply and the interest of collectors and speculators in these weapons helped to drive prices higher for many AWs (notably assault pistols) through the end of the 1990s

Table 12.2 Assault weapons as a percentage of guns recovered by police

City	Pre-ban	Post-ban	% change
Baltimore, MD	1.88% (1992–1993)	1.25% (1995–2000)	–34%
Boston, MA	2.16% (1991–1993)	0.6% (2000–2002)	–72%
Miami, FL	2.53% (1990–1993)	1.71% (1995–2000)	–32%
St. Louis, MO	1.33% (1992–1993)	0.91% (1995–2003)	–32%
Anchorage, AK	3.57% (1987–1993)	2.13% (1995–2000)	–40%
Milwaukee, WI	5.91% (1991–1993)	4.91% (1995–1998)	–17%

Note: Figures for Baltimore, Boston, Miami, and St. Louis are based on all recovered guns. Figures for Anchorage and Milwaukee are based on, respectively, guns tested for evidence and guns recovered in murder cases. Changes in Baltimore, Boston, Miami, and St. Louis were statistically significant at $p < .05$. See Koper (2004) for further details about the data and analyses.

and appeared to make them less accessible and/or affordable to criminal users.³ Analyses of several national and local databases on guns recovered by police indicated that crimes with AWs declined following the ban.

To illustrate, the share of gun crimes involving the most commonly used AWs declined by 17% to 72% across six major cities 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 (Table 12.2). (The number of AW recoveries also declined by 28% to 82% across these locations and time periods; the discussion here focuses on changes in AWs as a share of crime guns in order to control for general trends in gun crime and gun seizures.) Similar patterns were found in a national analysis of recovered guns reported by law enforcement agencies around the country to ATF for investigative gun tracing.⁴ The percentage of gun traces that were for AWs fell 70% between 1992–1993 and 2001–2002 (from 5.4% to 1.6%), though the interpretation of these data was complicated by changes that occurred during this time in gun tracing practices (see Koper 2004 for further discussion).

The decline in crimes with AWs was due primarily to a reduction in the use of assault pistols. Assessment of trends in the use of assault rifles was complicated by the rarity of crimes with such rifles and by the substitution in some cases of post-ban rifles that were very similar to the banned models. In general, however, the decline in AW use was only partially offset by substitution of post-ban AW-type models. Even counting the post-ban models as AWs, the share of crime guns that were AWs fell 24% to 60% across most of the local

jurisdictions studied. Patterns in the local data sources also suggested that crimes with AWs were becoming increasingly rare as the years passed.

The decline in crimes with AWs appeared to have been offset throughout at least the late 1990s by steady or rising use of other semi-automatics equipped with LCMs. Assessing trends in LCM use was difficult because there is no national data source on crimes with LCMs and few contacted jurisdictions maintained such information. It was possible, nonetheless, to examine trends in the use of guns with LCMs in four jurisdictions: Baltimore, Milwaukee, Anchorage, and Louisville (KY). Across the different samples analyzed from these cities (some databases included all recovered guns and some included only guns associated with particular crimes), the share of guns with an LCM generally varied from 14% to 26% prior to the ban. In all four jurisdictions, the share of crime guns equipped with LCMs rose or remained steady through the late 1990s (Table 12.3). These trends were driven primarily by handguns with LCMs, which were used in crime roughly three times as often as rifles with LCMs (though crimes with rifles having LCMs also showed no general decline). Generalizing from such a small number of jurisdictions must be done very cautiously, but the consistency of the findings across these geographically diverse locations strengthens the inference that they reflected a national pattern.

Failure to reduce LCM use for at least several years after the ban was likely because of the immense stock of exempted pre-ban magazines, which, as noted, was enhanced by post-ban imports. The trend in crimes with LCMs may have been changing by the early 2000s, but the available data were too limited and inconsistent to draw clear inferences (post-2000 data were available for only two of the four study sites).

Table 12.3 Guns with large-capacity magazines as a percentage of guns recovered by police (selected years)

City	Pre-ban	Late 1990s	Early 2000s
Baltimore, MD	14.0% (1993)	15.5% (1998)	15.7% (2003)
Anchorage, AK	26.2% (1992–1993)	30.0% (1999–2000)	19.2% (2001–2002)
Milwaukee, WI	22.4% (1993)	36.4% (1998)	N/A
Louisville, KY	N/A	20.9 (1996)	19.0% (2000)

Note: Figures for Baltimore and Milwaukee are based on, respectively, guns associated with violent crimes and with murders. Figures for Anchorage and Louisville are based on guns submitted for evidentiary testing. The Anchorage figures are based on handguns only. See Koper (2004) for further details about the data and analyses.

A later media investigation of LCM use in Richmond, Virginia, suggests that the ban may have had a more substantial impact on the supply of LCMs to criminal users by the time it expired in 2004. In that city, the share of recovered guns with LCMs generally varied between 18% and 20% from 1994 through 2000 but fell to 10% by 2004 (Fallis 2011). It is not clear whether the Richmond results represented a wider national or even regional trend. (The data from this study also show that after the ban was lifted, the share of Richmond crime guns with an LCM rose to 22% by 2008.)

The Ban's Impacts on Gun Violence

Because offenders could substitute non-banned guns and small magazines for banned AWs and LCMs, there was not a clear rationale for expecting the ban to reduce assaults and robberies with guns. But by forcing this weapon substitution, it was conceivable that the ban would reduce the number and severity of shooting deaths and injuries by reducing the number of shots fired in gun attacks (thus reducing the number of victims per gunfire incident and the share of gunshot victims sustaining multiple wounds). Based on this logic, the research team examined several indicators of trends in the lethality and injuriousness of gun violence for different portions of the 1995-2002 post-ban period. These included national-level analyses of gun murders, the percentage of violent gun crimes resulting in death, the share of gunfire cases resulting in wounded victims, the percentage of gunshot victimizations resulting in death, and the average number of victims per gun homicide incident. For selected localities, the team also examined trends in wounds per gunshot victim or the percentage of gunshot victims sustaining multiple wounds.

On balance, these analyses showed no discernible reduction in the lethality or injuriousness of gun violence during the post-ban years (see Koper 2004, Koper and Roth 2001, and Roth and Koper 1997). Nationally, for example, the percentage of violent gun crimes resulting in death (based on gun homicides, gun assaults, and gun robberies reported to the Uniform Crime Reports) was the same for the period 2001-2002 (2.9%) as it was for the immediate pre-ban period 1992-1993 (Koper 2004, 82, 92). Accordingly, it was difficult to credit the ban with contributing to the general decline in gun crime and gun homicide that occurred during the 1990s.

However, the ban's exemption of millions of pre-ban AWs and LCMs meant that the effects of the law would occur only gradually. Those effects were still

unfolding when the ban was lifted and may not have been fully realized until several years beyond that, particularly if importation of foreign, pre-ban LCMs had continued in large numbers. In light of this, it was impossible to make definitive assessments of the ban's impact on gun violence.

It was also difficult to judge the ban's effects on the more specific problem of mass shootings. The research team attempted to assess changes in mass shootings during the first few years of the ban, but this effort was hampered by the difficulty of counting these incidents (results can be sensitive to the definitions and data sources used) and identifying the specific types of guns and magazines used in them (Roth and Koper 1997, app. A). There is no national data source that provides detailed information on the types of guns and magazines used in shooting incidents or that provides full counts of victims killed and wounded in these attacks. Studying mass shootings in particular poses a number of challenges with regard to defining these events, establishing the validity and reliability of methods for measuring their frequency and characteristics (particularly if done through media searches, as is often necessary), and modeling their trends, as they are particularly rare events (e.g., see Duwe 2000; Roth and Koper 1997, app. A).

Nonetheless, the issue of mass shootings continues to be a catalyst to the debate surrounding AW legislation. A recent media compilation of 62 mass shooting incidents that involved the death of four or more people over the period 1982–2012, for instance, suggests that 25% of the guns used in these attacks were AW-type weapons (these were not precisely defined) and another 48% were other types of semi-automatic handguns (Follman, Aronsen, and Pan 2012). Continuing improvements in media search tools and greater attention to the types of guns and magazines used in multiple-victim attacks may improve prospects for examining this issue more rigorously in future studies.

Assessing the Potential Long-Term Effects of Banning Assault Weapons and Large-Capacity Magazines

Although available evidence is too limited to make firm projections, it suggests that the ban may have reduced shootings slightly had it remained in place long enough to substantially reduce crimes with both LCMs and AWs. A small number of studies suggest that gun attacks with semi-automatics—including AWs and other guns equipped with LCMs—tend to result in more shots fired, more persons wounded, and more wounds inflicted per victim

than do attacks with other firearms (see reviews in Koper 2004; Koper and Roth 2001; also see McGonigal et al. 1993; Richmond et al. 2003; Reedy and Koper 2003; Roth and Koper 1997). For example, in mass shooting incidents that resulted in at least 6 deaths or at least 12 total gunshot victims from 1984 through 1993, offenders who clearly possessed AWs or other semi-automatics with LCMs (sometimes in addition to other guns) wounded or killed an average of 29 victims in comparison to an average of 13 victims wounded or killed by other offenders (see Koper and Roth's [2001] analysis of data compiled by Kleck [1997, 144]).

Similarly, a study of handgun attacks in Jersey City, New Jersey, during the 1990s found that the average number of victims wounded in gunfire incidents involving semi-automatic pistols was in general 15% higher than in those involving revolvers (Reedy and Koper 2003). The study also found that attackers using semi-automatics to fire more than 10 shots were responsible for nearly 5% of the gunshot victims in the sample. Used as a tentative guide, this implies that the LCM ban could have eventually produced a small reduction in shootings overall, perhaps up to 5%, even if some gun attackers had the foresight to carry more than one small magazine (or more than one firearm) and the time and poise to reload during an attack.

Effects of this magnitude might be difficult to measure reliably, but they could nonetheless yield significant societal benefits. Consider that in 2010 there were 11,078 gun homicides in the United States and another 53,738 non-fatal assault-related shootings according to the federal Centers for Disease Control and Prevention (see the CDC's web-based injury statistics query and reporting system at <http://www.cdc.gov/injury/wisqars/index.html>). At these levels, reducing shootings by just 1% (arguably a reasonable ballpark estimate for the long-term impact of substantially reducing AW and LCM use) would amount to preventing about 650 shootings annually. The lifetime medical costs of assault-related gunshot injuries (fatal and nonfatal) were estimated to be about \$18,600 per injury in 1994 (Cook et al. 1999). Adjusting for inflation, this amounts to \$28,894 in today's dollars. Moreover, some estimates suggest that the full societal costs of gun violence—including medical, criminal justice, and other government and private costs (both tangible and intangible)—could be as high as \$1 million per shooting (Cook and Ludwig 2000). Hence, reducing shootings by even a very small margin could produce substantial long-term savings for society, especially as the shootings prevented accrue over many years.

Lessons and Implications from the 1994 Ban

Studies of America's previous assault weapons ban provide a number of lessons that can inform future policymaking. A new law similar to the old ban will have little impact on most gun crimes, but it may prevent some shootings, particularly those involving high numbers of shots and victims. It may thus help to reduce the number and severity of mass shooting incidents as well as produce a small reduction in shootings overall.

The most important feature of the previous ban was the prohibition on large-capacity ammunition magazines. A large magazine is arguably the most critical feature of an assault weapon, and restrictions on magazines have the potential to affect many more gun crimes than do those on military-style weapons. Restrictions focused on magazine capacity may also have a greater chance of gaining sufficient public and political support for passage than would new restrictions on assault weapons, though current polling suggests that both measures are supported by three-quarters of non-gun owners and nearly half of gun owners (Barry et al., in this volume). To enhance the potential impact of magazine restrictions, policymakers might also consider limiting magazine capacity to fewer than 10 rounds for all or selected weapons (for example, lower limits might be set for magazines made for semi-automatic rifles).⁵ It is unknown whether further restrictions on the outward features of semi-automatic weapons, such as banning weapons having any military-style features, will produce measurable benefits beyond those of restricting magazine capacity.

Policymakers must also consider the implications of any grandfathering provisions in new legislation. Assessing the political and practical difficulties of registering all assault weapons and large magazines or establishing turn-in or buyback programs for them is beyond the scope of this essay. Policymakers should note, however, that it may take many years to attain substantial reductions in crimes with banned weapons and/or magazines if a new law exempts the existing stock (which has likely grown considerably since the time of the original ban). Policies regarding exemptions must also explicitly address the status of imported guns and magazines.

Past experience further suggests that public debate on reinstating the ban or crafting a new one will raise prices and production of the guns and magazines likely to be affected. This could temporarily saturate the market for the guns and magazines in question (particularly if close substitutes emerge) and delay desired reductions in crimes with some categories of the banned weap-

onry (this appeared to happen with assault rifles that were banned by the 1994 law and may have contributed as well to the observed trends in use of large magazines).

A new ban on assault weapons and/or large-capacity magazines will certainly not be a panacea for America's gun violence problem nor will it stop all mass shootings. However, it is one modest measure that, like federal restrictions on fully automatic weapons and armor-piercing ammunition, can help to prevent the further spread of particularly dangerous weaponry.

NOTES

1. In general, the AW ban did not apply to semi-automatics possessing no more than one military-style feature listed under the ban's features test provision. Note, however, that firearms imported into the country still had to meet the "sporting purposes test" established under the federal Gun Control Act of 1968. In 1989, ATF determined that foreign semi-automatic 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 was 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).

2. Technically, the ban prohibited any magazine, belt, drum, feed strip, or similar device that has the capacity to accept more than 10 rounds of ammunition or which can be readily converted or restored to accept more than 10 rounds of ammunition. The ban exempted attached tubular devices capable of operating only with .22 caliber rimfire (i.e., low velocity) ammunition.

3. See Koper (2004), Koper and Roth (2002), and Roth and Koper (1997) for more extensive discussions of the ban's impacts on prices and production of AWs, non-banned firearms, and LCMs.

4. A gun trace is an investigation into the sales history of a firearm (e.g., see ATF 2000).

5. To support the formulation and evaluation of policy in this area, there are also a number of research needs worth noting. For one, it is important to develop better data on crimes with guns having LCMs. Policymakers should thus encourage police agencies to record information about magazines recovered with crime guns. Likewise, ATF should consider integrating ammunition magazine data into its national gun tracing system and encourage reporting of magazine data by police agencies that trace firearms. Second, there is a need for more studies that contrast the outcomes of attacks with different types of guns and magazines. Such studies would help to refine predictions of the change in gun deaths and injuries that would follow reductions in attacks with firearms having large-capacity magazines.

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EXHIBIT 31



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January 13, 2013 Sunday 8:13 PM EST

SECTION: A section; Pg. A04

LENGTH: 1381 words

HEADLINE: High-capacity magazines saw drop during ban, data indicate

BYLINE: David S. Fallis

BODY:

During the 10-year federal ban on assault weapons, the percentage of firearms equipped with high-capacity magazines seized by police agencies in Virginia dropped, only to rise sharply once the restrictions were lifted in 2004, according to an analysis by The Washington Post.

The White House is leading a push to reinstate a national ban on large-capacity magazines and assault weapons after a gunman armed with an AR-15 and 30-round magazines killed 20 children and seven adults in Connecticut. Vice President Biden has been holding advisory meetings to hammer out a course of action that will address the issue of the larger magazines, which under the lapsed federal ban were those that held 11 or more rounds of ammunition.

In Virginia, The Post found that the rate at which police recovered firearms with high-capacity magazines - mostly handguns and, to a smaller extent, rifles - began to drop around 1998, four years into the ban. It hit a low of 9 percent of the total number of guns recovered the year the ban expired, 2004.

The next year, the rate began to climb and continued to rise in subsequent years, reaching 20 percent in 2010, according to the analysis of a little-known Virginia database of guns recovered by police. In the period The Post studied, police in Virginia recovered more than 100,000 firearms, more than 14,000 of which had high-capacity magazines.

Researchers see impact

To some researchers, the snapshot in Virginia suggests that the federal ban may have started to curb the widespread availability of the larger magazines.

"I was skeptical that the ban would be effective, and I was wrong," said Garen Wintemute, head of the Violence Prevention Research Program at the University of California at Davis School of Medicine. The database analysis offers "about as clear an example as we could ask for of evidence that the ban was working."

The analysis is based on an examination of the Criminal Firearms Clearinghouse, a database obtained from state police under Virginia's public information law. The data, which were first studied by The Post in 2011, offer a rare glimpse into the size of the magazines of guns seized during criminal investigations. The Bureau of Alcohol, Tobacco, Firearms and Explosives, which traces guns and regulates the industry, tracks details about the guns seized after crimes but not the magazine size.

High-capacity magazines saw drop during ban, data indicate Washingtonpost.com January 13, 2013 Sunday 8:13 PM EST

The initial Post analysis was prompted by a mass shooting in Tucson. Jared Lee Loughner - armed with a legally purchased 9mm semiautomatic handgun and a 33-round magazine - opened fire outside a grocery store, killing six people and wounding 13, including Rep. Gabrielle Giffords (D-Ariz.).

In the following two years, a succession of mass shootings has occurred, including several in which the gunmen reportedly had high-capacity magazines.

At the Dec. 14 shooting in Newtown, Conn., the gunman was reported to have been armed with two handguns, an AR-15 rifle and numerous 30-round magazines. He killed himself at the scene. The guns were legally purchased by his mother.

The federal ban that expired in 2004 prohibited the manufacture of magazines capable of holding more than 10 rounds. But the law permitted the sale of magazines manufactured before the ban. By some estimates, 25 million of the large-capacity magazines were still on the market in 1995.

Many semiautomatic rifles and semiautomatic handguns accept magazines of various sizes. Larger magazines increase a gun's firepower, enabling more shots before reloading.

The Virginia database analyzed by The Post lists about three-quarters of guns recovered by police, missing the rest because some agencies failed to report their recoveries to the state. The database contains details about more than 100,000 guns recovered by 200 police departments in a wide range of investigations from 1993 through August 2010, when The Post last obtained it.

In recent weeks, The Post conducted additional analysis into the type of guns confiscated with large-capacity magazines. The guns included Glock and TEC-9 handguns and Bushmaster rifles. Most had magazines ranging from 11 to 30 rounds.

Of 14,478 guns equipped with large-capacity magazines that were confiscated by police, more than 87 percent - 12,664 - were classified as semiautomatic pistols. The remainder were mostly semiautomatic rifles.

The Post also identified and excluded from the counts more than 1,000 .22-caliber rifles with large-capacity tubular magazines, which were not subject to the ban.

In Virginia, handguns outfitted with large-capacity magazines saw the biggest fluctuation during and after the ban.

In 1997, three years into the ban, police across the state reported seizing 944 handguns with large-capacity magazines. In 2004, the year the ban ended, they confiscated 452. In 2009, the last full year for which data were available, the number had rebounded to 986 handguns, analysis showed.

Of these, the single biggest group were handguns equipped with 15-round magazines, accounting overall for 4,270 firearms over the 18 years.

Effect hard to measure

Nationwide, researchers who studied the federal ban had difficulty determining its effect, in part because weapons and magazines manufactured before the ban could still be sold and in part because most criminals do not use assault weapons.

Christopher Koper, who studied the ban's effect for the National Institute of Justice, the research arm of the Justice Department, noted in a 2004 report that the "success in reducing criminal use of the banned guns and magazines has been mixed."

He found that gun crimes involving assault weapons declined between 17 and 72 percent in the six cities covered in the study - Anchorage, Baltimore, Boston, Miami, Milwaukee and St. Louis. But he said he found no decline in crimes committed with other guns with large-capacity magazines, most likely "due to the immense stock of exempted pre-ban magazines."

Koper's study tracked guns through 2003. He said that The Post's findings, which looked at magazine capacity of guns recovered in Virginia before and after 2003, suggests that "maybe the federal ban was finally starting to make a dent in the market by the time it ended."

Koper, now an associate professor of criminology at George Mason University, also noted the ban on high-capacity magazines might improve public safety because larger magazines enable shooters to inflict more damage.

High-capacity magazines saw drop during ban, data indicate Washingtonpost.com January 13, 2013 Sunday 8:13 PM EST

The use of high-capacity magazines is a contentious point in the gun debate.

"Anyone who's thought seriously about armed self-defense knows why honest Americans - private citizens and police alike - choose magazines that hold more than 10 rounds. Quite simply, they improve good people's odds in defensive situations," Chris W. Cox, the executive director of the National Rifle Association's legislative institute wrote in a piece posted online. He called the ban a "dismal failure."

The federal prohibition on high-capacity magazines and assault weapons was spurred in part by the 1989 mass killing in Stockton, Calif. Patrick Edward Purdy, a mentally unbalanced drug addict, fired 110 rounds from an AK-47 into a schoolyard, killing five children and wounding 29 others and a teacher. Purdy used a 75-round drum magazine and a 35-round banana clip, one of four he carried.

Some states still limit magazine size. Maryland limits the size to 20 rounds; California limits it to 10. Connecticut, the location of Sandy Hook Elementary School, does not.

After Giffords's shooting, Rep. Carolyn McCarthy (N.Y.) and other Democrats proposed legislation to ban the sale or transfer of high-capacity magazines. McCarthy's husband and five others were killed in 1993 on the Long Island Rail Road by a gunman armed with a semiautomatic pistol and four 15-round magazines. He fired 30 shots before being subdued as he swapped magazines.

In the wake of the Newtown shooting, President Obama and lawmakers urged that a ban on assault weapons and high-capacity magazines be made permanent.

The NRA and the National Shooting Sports Foundation, a gun industry group, have historically opposed any restrictions on magazine capacity. The NRA did not respond to requests for comment, and the sports foundation declined to comment.

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LOAD-DATE: January 13, 2013

EXHIBIT 32



1 of 1 DOCUMENT

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January 23, 2011 Sunday
Correction Appended
Suburban Edition

SECTION: A-SECTION; Pg. A01

DISTRIBUTION: Every Zone

LENGTH: 1758 words

HEADLINE: In Virginia, high-yield clip seizures rise

BYLINE: David S. Fallis;James V. Grimaldi

BODY:

The number of guns with high-capacity magazines seized by Virginia police dropped during a decade-long federal prohibition on assault weapons, but the rate has rebounded sharply since the ban was lifted in late 2004, according to a Washington Post analysis.

More than 15,000 guns equipped with high-capacity magazines - defined under the lapsed federal law as holding 11 or more bullets - have been seized by Virginia police in a wide range of investigations since 1993, the data show.

The role of high-capacity magazines in gun crime was thrust into the national spotlight two weeks ago when 22-year-old Jared Lee Loughner allegedly opened fire with a semiautomatic handgun outside a Tucson grocery store, killing six and wounding 13, including Rep. Gabrielle Giffords (D-Ariz.). Authorities say Loughner used a legally purchased 9mm Glock 19 handgun with a 31-round clip and was tackled while changing magazines.

Of the seized Virginia weapons, 2,000 had magazines with a capacity of 30 or more bullets. Some states, including California and Maryland, still limit magazine capacity to 10 rounds.

Last year in Virginia, guns with high-capacity magazines amounted to 22 percent of the weapons recovered and reported by police. In 2004, when the ban expired, the rate had reached a low of 10 percent. In each year since then, the rate has gone up.

"Maybe the federal ban was finally starting to make a dent in the market by the time it ended," said Christopher Koper, head of research at the Police Executive Research Forum, who studied the assault weapons ban for the National Institute of Justice, the research arm of the Justice Department.

Congress is considering legislation to reinstitute the assault weapon ban's prohibition on high-capacity magazines, a measure strongly opposed by gun rights advocates.

In Virginia, high-yield clip seizures rise The Washington Post January 23, 2011 Sunday Correction Appended

The analysis of the Virginia records, obtained under the state's public information law, provides a rare window into the firepower of guns used in crimes. The Bureau of Alcohol, Tobacco, Firearms and Explosives, which traces guns for local police agencies and regulates the firearms industry, does not track magazine sizes. Academic researchers said they were unaware of any other comprehensive study of firearms magazines.

The pattern in Virginia "may be a pivotal piece of evidence" that the assault weapons ban eventually had an impact on the proliferation of high-capacity magazines on the streets, said Garen Wintemute, head of the Violence Prevention Research Program at the University of California at Davis.

"Many people, me included, were skeptical about the chances that the magazine ban would make a difference back in 1994," Wintemute said. "But what I am seeing here is that after a few years' lag time the prevalence of high-capacity magazines was declining. The increase since the ban's repeal is quite striking."

Guns with high-capacity magazines have appeared in Virginia crimes ranging from the mundane to the murderous. The Post found that 200 guns with high-capacity magazines figured in Virginia homicides, including these incidents:

In Richmond in 2003, Michael Antoine Wilson, 21, used his semiautomatic rifle with its 30-round magazine to shoot his 17-year-old girlfriend to death in front of children and relatives. Then he went to a nearby convenience store, killed two workers and stole a van before turning the gun on himself.

In Roanoke in 2004, Marcus Jerome Nance, 22, used his legally purchased 9mm Glock 17 handgun with a high-capacity magazine to spray 33 bullets into a crowd that had gathered outside a Roanoke gas station after a night-club closing, killing one and wounding two.

In Newport News last year, Antonio Johnson, 34, began shooting at police during a traffic stop with a 9mm semi-automatic handgun outfitted with a 15-round magazine. "Subject shot police officer and then killed himself with weapon," state records say.

In the Arizona shootings, Loughner allegedly used a Glock 19 that he had legally purchased at a Tucson sporting goods store in November. The gun's capacity allowed Loughner to squeeze off more than 30 shots without reloading, authorities said.

The federal assault weapons ban from late 1994 through late 2004 prohibited the manufacturing of magazines capable of holding more than 10 rounds. But the act permitted the sale of magazines manufactured before the ban.

The federal prohibition was spurred by a mass killing in 1989 in Stockton, Calif., where Patrick Edward Purdy, 24, a mentally unbalanced drug addict, fired 110 shots from an AK-47 into a schoolyard, killing five children and wounding 29 others and a teacher. He used a 75-round rotary clip and a 35-round banana clip, one of four he was carrying.

Rep. Carolyn McCarthy (N.Y.) and 57 other Democrats proposed legislation last week to ban the sale or transfer of high-capacity magazines, no matter when they were manufactured. McCarthy's husband and five others were killed in 1993 on the Long Island Rail Road by a gunman armed with a semiautomatic pistol and four 15-round magazines. He fired 30 shots before being subdued while changing magazines.

The bill's prospects are considered slim in the Republican-controlled House. In the Senate, the National Rifle Association says it has a solid 50-senator pro-gun block that could delay any legislation.

The NRA has announced its opposition to proposals that limit magazine capacity.

"These magazines are standard equipment for self-defense handguns and other firearms owned by tens of millions of Americans," according to a statement on its politics Web page, and in a letter circulating to members of Congress. "Law-abiding private citizens choose them for many reasons, including the same reason police officers do: to improve their odds in defensive situations."

The firearms industry also opposes the proposal. "The tragedy in Tucson was not about firearms, ammunition or magazine capacity," said Ted Novin, a spokesman for the National Shooting Sports Foundation, a gun industry group. "It was about the actions of a madman. Period."

The analysis by The Post is possible because of a little-known database of guns seized in Virginia. The database, called the Criminal Firearms Clearinghouse, has information on more than 100,000 firearms recovered by more than 200 local police departments since 1993. A federal law in 2003, known as the Tiahrt Amendment after the congressman who sponsored it, banned the release of federal data on guns recovered in crimes.

In Virginia, high-yield clip seizures rise The Washington Post January 23, 2011 Sunday Correction Appended

Last year, The Post mined the database to pierce the secrecy imposed by Congress on federal gun-tracing records. The analysis found that a fraction of licensed dealers in Virginia sell most of guns later seized by police. The vast majority of the guns in the database were confiscated because of illegal-possession charges. But thousands were swept up in the wake of assaults, robberies and shootings.

Two months before the ban expired in September 2004, Marcus Nance bought an extended magazine and a 9mm Glock 17 handgun at a Roanoke gun store. Three nights later, down the street from the store, Nance opened fire on a crowded parking lot after arguing and fighting with people in the crowd.

A police officer called to investigate a disturbance heard shots and saw Nance holding a gun at arm's length and firing "randomly into the mass of people" before shooting several rounds into the air.

A police car's dashboard camera recorded the jackhammer sound of gunfire. In a car parked nearby, police found a Glock gun box and two boxes of ammunition, one of them partially empty.

Police went to the gun shop and confirmed that Nance had bought the handgun (\$555), a laser sight (\$380) and two extended magazines (\$135), paying cash in an entirely legal transaction. Police noted: "The magazines in question were manufactured before 1994 and not considered prohibited."

Nance, who said he had been attacked by members of the crowd and shot in self-defense, was convicted of second-degree murder and is in prison.

Koper's 108-page 2004 study for the National Institute of Justice found the ban on assault weapons had mixed results.

"Assault weapons were rarely used in gun crimes even before the ban," he said in the report. But he also concluded that the prohibition on high-capacity magazines might have affected public safety, because such magazines allow shooters to inflict more damage.

"Tentatively I was able to show that guns associated with large-capacity magazines tended to be associated with more serious crimes, more serious outcomes," he said.

Some gun rights activists argue that a ban on high-capacity magazines would violate the Second Amendment right to bear arms. One prominent gun rights activist who takes a less absolute position is Robert A. Levy, chairman of the Cato Institute. He is also the lawyer who brought the case that overturned D.C.'s handgun ban.

But Levy said the government would need to prove that such a ban was effective.

"The burden is on the government, not on the individual to show that the regulation isn't unduly intrusive," Levy said.

Colin Goddard, a lobbyist for the Brady Campaign to Prevent Gun Violence and a victim of the 2007 Virginia Tech shootings, said the high-capacity ban could save lives. The Virginia Tech shooter, Seung Hui Cho, used several 15-round magazines to fire 174 shots and kill 32 people in the worst gun-related mass murder by an individual in U.S. history.

"When you double and triple the amount of the clip size, you don't double or triple the number of deer you kill, you double and triple the amount of innocent people who are killed in shootings like this," said Goddard, 25, who was shot four times by Cho.

Bradley A. Buckles, ATF director from 1999 to 2004, said bureau officials advised Congress to focus on high-capacity magazines, which were "completely unregulated" and had almost no sporting purpose.

"The whole thing with magazine capacity came out of ATF," Buckles said. "It wasn't so much guns, but it was firepower. What made them more deadly than a hunting rifle was the fact that you could have a 20-round, 30-round clip, when most hunting rifles wouldn't have more than five rounds."

Buckles said lawmakers should have extended the ban on high-capacity magazines in 2004. Banning them now, he said, just puts everyone back at square one.

"There are so many millions of them out there, it probably wouldn't make any immediate difference over the course of 20 years," Buckles said. "It is not a short-term solution to anything."

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In Virginia, high-yield clip seizures rise The Washington Post January 23, 2011 Sunday Correction Appended

grimaldij@washpost.com

Research editor Alice Crites contributed to this report.

CORRECTION-DATE: January 24, 2011

CORRECTION:

A Jan. 23 Page One article about guns seized by police in Virginia misstated Maryland's limit on the capacity of gun magazines. Maryland law limits magazines to 20 bullets, not 10.

LOAD-DATE: January 23, 2011

EXHIBIT 33

**UNITED STATES DISTRICT COURT
DISTRICT OF CONNECTICUT**

JUNE SHEW, et al.	:	NO. 3:13-CV-0739 (AVC)
<i>Plaintiffs,</i>	:	
	:	
v.	:	
	:	
DANNEL P. MALLOY, et al.	:	SEPTEMBER 30, 2013
<i>Defendants.</i>	:	

AFFIDAVIT OF KEITH L. MELLO

Keith L. Mello having been duly sworn, testifies and affirms as follows:

1. I am over eighteen years of age and understand the obligations of an oath.
2. I am presently employed as the Chief of Police for the City of Milford, Connecticut
3. I have worked in the Milford Police Department for 32 years, and have been the Chief for the past 8 years. I have spent virtually my entire professional career working in the Milford Police Department.
4. Before becoming a police officer, I served in the United States Army on active duty from 1976 to 1980. I then went on to serve in the Marine Corps Reserves from 1981 until 1985.
5. I am a graduate of the FBI National Academy and the FBI Law Enforcement Executive Development School. In addition, I have a Bachelor's Degree in Business Management and a Master's Degree in Business Administration.
6. While I served on active duty in the United States Army and served in the Marine Corps Reserves, I received training on military firearms including the M-16 assault rifle.
7. Since I completed the terms of my enlistment from the military, I have not received specific training in weapons other than at the police academy. In my role as a police officer and as the Chief of Police, however, I frequently have to deal with issues related to firearms. I am certified in my professional capacity in the Sig Sauer 40 caliber 226, and the M4 5.56mm Patrol Rifle.

8. I make this declaration based on my personal knowledge from 32 years as a law enforcement officer, my review of law enforcement safety issues from across the nation, and my review of records maintained by the Milford Police Department.
9. After reviewing the firearms and large capacity magazine provisions of the newly enacted "Gun Violence Prevention and Children's Safety Act", Public Act 13-3, as amended by Public Act 13-220, ("the Act"), I have concluded that it is a common sense and sensible gun control law that will improve public and law enforcement safety by removing large ammunition magazines and military style firearms from our communities.
10. It is my reasoned and professional opinion as a Chief of Police that assault weapons and large capacity magazines pose a real and serious threat to the public and law enforcement, and are not needed for reasonable home defense and self defense by citizens.
11. The Act bans a small number of semiautomatic weapons compared to the thousands of weapons that are lawfully available to citizens for self defense and sporting purposes. These assault weapons are a sub-category of all semiautomatic weapons. A semiautomatic weapon is a weapon that fires one round for each squeeze of the trigger. After each shot, the gun automatically loads the next round in the chamber, and arms the firing pin for the next shot, thereby permitting a faster rate of fire compared to manually operated guns.
12. Assault weapons are the types of semiautomatic weapons that have been modeled on and closely resemble fully automatic military weapons. In essence, assault weapons are a civilian version of a military weapon. For example, the M-16 that I trained on in the US Army and Marines was a fully automatic rifle. It is sold on the civilian commercial market as an AR-15 without the fully automatic option.
13. Assault rifles and assault pistols pose a very serious threat to law enforcement on several different levels, and consume significant law enforcement resources. While most officers and police departments are not regularly confronted with situations involving assault weapons, and thankfully most will never experience the horror of having to respond to a mass public shooting incident, it is something that all police departments, including mine, train for constantly.
14. Every day I am concerned that one of my officers or one of the citizens of Milford will be faced with an assailant who possesses one of these military weapons. These weapons have the potential to transform even a routine police interaction into a deadly incident.
15. The presence and prevalence of military style assault weapons on our streets and in the hands of violent individuals has resulted in unnecessary deaths of law enforcement personnel, and has required cities and towns to dedicate massive

amounts of resources to ensure that their law enforcement are capable of responding to, thwarting and surviving situations where criminals use an assault weapon.

16. Our department has expended countless hours training for situations involving assault weapons, procuring resources that will allow us to respond to criminals with assault weapons such as body armor, and obtaining our own assault weapons.
17. There is simply no disputing the fact that assault weapons have been used to kill police and other law enforcement. There are several well known incidents, both here in Connecticut and elsewhere in the country, in which assault weapons and large capacity magazines were used in shootings of law enforcement. (See e.g. Defendants' Exhibit 40, VPC, *Officer Down*). In fact, some of the high profile incidents in which law enforcement officers were shot with assault weapons resulted in law enforcement now carrying their own assault weapons to keep pace with the most heavily armed criminals.
18. Unlawful attacks on law enforcement with assault weapons and large capacity magazine pose a greater threat to law enforcement because they often result in more rounds fired. The military style features of assault pistols and rifles that allow a shooter to hold multiple weapons with large magazines means that a single shooter can fire suppressing fire at law enforcement, and effectively hold-off and overwhelm an initial law enforcement response.
19. I am aware of one incident in Connecticut in which a police officer was killed with a military style assault weapon. In 2004, Newington Police Officer Peter J. Lavery was killed while responding a to domestic disturbance incident. It is my understanding that Officer Lavery was shot multiple times through his bullet proof vest with a modified assault weapon.
20. In a high-profile shootout in April 1986, two agents from the Federal Bureau of Investigation (FBI) were killed by bank robbery suspects wielding a Ruger Mini-14 assault rifle. Five other agents were wounded in the gun battle.
21. In North Hollywood, California in 1997, two shooters wearing full body armor fired approximately 1,100 rounds from illegally converted automatic and semiautomatic weapons, with LCMs, wounding 11 police officers and seven civilians. It required a law enforcement response of hundreds of officers to end the shoot-out.
22. As recently as December 2013, a week after the mass killing of children and educators in Newtown, two first responders were gunned down in Webster, New York by a Bushmaster assault rifle.
23. These are just a few of the high profile and well known incidents involving assault weapons and large capacity magazines in which law enforcement officers were shot. It is not an exhaustive list, and I am sure there are others where officers were shot,

shot at, or feared for their lives because a person had an assault weapons. Many of these incidents probably go unreported and cannot be documented as involving assault weapons.

24. Regrettably, information about the criminal use of assault weapons is not always accurately and completely compiled, perhaps due to constraints on resources, and because, the lack of a uniform nationwide definition of the term since the expiration of the federal assault weapon ban. However, the studies that have been done on the use of assault weapons and large capacity magazines against law enforcement indicate that many officers have been killed by criminals using them.
25. In one study done by the Violence Policy Center, using data obtained from the Federal Bureau of Investigation, it was shown that at least 41 of the 211 law enforcement officers slain in the line of duty between January 1, 1998, and December 31, 2001, were killed with weapons defined as assault weapons under the federal ban. (Exhibit 40, p.5). These data indicate that at least one in five, or 20%, of law enforcement officers slain in the line of duty during this time period was killed with an assault weapon. This is a high number, given that these types of semiautomatic weapons make up only a small percent of firearms.
26. Prohibiting public access to assault weapons and large capacity magazines assists law enforcement because it helps to ensure law enforcement has the greater fire power in any confrontation with criminals. If law enforcement cannot overpower a shooter then it simply cannot protect the public. Law enforcement should not have to confront military weapons while on duty or have to engage in an “arms race” with criminals.
27. While Connecticut has had an assault weapons ban since the enactment of Public Act 93-306, which became effective in 1994, Connecticut law did not prohibit the possession of large capacity magazines until the passage of the 2013 Act. I welcome this addition to Connecticut’s gun regulations, and I think it makes sense.
28. Under the new Act, citizens cannot legally possess a magazine that holds more than 10 rounds, although thousands of citizens will be allowed to keep their existing large capacity magazines (LCM) under the grandfathering provision of the Act. I would actually prefer if the Act had not allowed for “grandfathering” possession of LCMs.
29. Large capacity magazines, some of which routinely hold as many as 20 or 30 rounds and even more, allow a shooter to fire a massive number of rounds without having to take the time to reload. For example, in the mass killing that occurred in Newtown on December 14, 2012, it has been reported, although not yet confirmed by the State Police report, that the shooter fired approximately 154 rounds in about five minutes.
30. Limiting the number of rounds in a magazine means that a shooter intent on firing bullets indiscriminately has to at least pause periodically to change out his magazine. While a trained shooter can change a magazine in seconds in a controlled

environment, the stress of the situation may substantially increase the time it takes a criminal to change the magazine during a criminal attack. In any event, sometimes seconds is all a police officer needs to respond and stop the attack.

31. The short period of time of a magazine change can be of value to victims too, because those fleeting seconds can provide an opportunity for him or her to either flee or attempt to thwart the ongoing gun attack.
32. This exact thing has been reported in at least two mass shootings, and may have occurred in other shooting incidents as well. In the mass shooting on the Long Island Railroad in 1993, victims on the railroad car were able to subdue the shooter when his magazine ran out. In 2011, in the shooting in Tucson, Arizona in which Congresswoman Gabriel Giffords was shot and a federal judge was killed along with several others, the shooter was tackled while changing magazines.
33. In my opinion, the only situations where firing more than ten rounds may be necessary are in war, by law enforcement attempting to end a confrontation with a criminal, or in a controlled environment at a shooting range or a shooting competition.
34. I understand that Plaintiffs contend that they have a legitimate and even constitutional right to possess a large capacity magazine. In my 32 years in law enforcement, I am not aware of a single incident in Milford, or even Connecticut, in which a responsible gun owner fired more than ten rounds in order to protect her home or herself during a crime attack.
35. In my experience, law enforcement officers rarely fire more than a couple of rounds when they appropriately and legally discharge their weapons. I seriously question any claim that a citizen would realistically face a situation where he or she needed to fire 11 or more rounds to adequately stop an intruder or attacker. In my professional opinion, there is just no rational argument for why a civilian needs to have a 20, 30 or 40 round magazine in her or his home.
36. The only reason that a citizen would be disadvantaged by having to change out a magazine would be if she was engaged in rapid fire of her weapon. This is simply not an appropriate thing to do in a residential setting under almost any circumstance.
37. Aside from assault weapons, the Act leaves many other firearms, including many handguns, rifles and shotguns, available to the public to use for self-defense. Notably, it does not ban the sale or possession of semiautomatic rifles with detachable magazines that have no banned features.
38. The Act allows law enforcement and security personnel to continue to lawfully purchase assault weapons and large capacity magazines. These exemptions serve a vital public interest in ensuring that law enforcement are permitted to personally purchase and use these weapons on duty and off duty when needed.

39. Plaintiffs' claims that they have the same needs as law enforcement to possess these weapons and LCMs are absurd. Plaintiffs are not like law enforcement, even off duty law enforcement, because they do not have the professional obligation to respond to an emergency situation, to provide back up to on duty police officers and to interrupt crimes whenever safe and practicable. Moreover, many law enforcement officers own and possess assault weapons so that they can use them on the job.
40. While the arms race with criminals has escalated over the past decades, the resources provided to police have not increased at the same pace. Unfortunately, many police have to expend their own money to purchase these weapons to use on duty because there just is not enough funding in the police departments to buy one for each officer who would like to have one in his or her cruiser. In Milford, a charitable fund created in the memory of an officer is a funding source for some officers to purchase weapons.
41. The law enforcement exemptions in the Act allow officers to own and possess their own assault rifle that they use on duty. Also, officers are not allowed to own these weapons unless they "qualify" on them and are trained on how to use them appropriately.
42. Federal law permits law enforcement to carry weapons anywhere in the country probably for this reason, to allow them to respond to any crisis situation in the manner in which they were trained.
43. Law enforcement officers are also different from Plaintiffs because they are often the target of threats and violence, even while off duty. At one point in my career, I was the target of a serious and credible threat from a specific individual that required investigation and intervention by federal law enforcement. This is just one personal example of the fact that law enforcement officers sometimes face risks, even when off duty, that I think most average citizens probably do not face.
44. I understand that Plaintiffs claim that the Act does not advance any crime prevention goals. I strongly disagree with their position. The presence of assault weapons on our streets is a huge drain on police resources. Even when these weapons are not being used, they are always a concern and we are constantly dedicating resources to address their presence in our community. Because of the presence of these weapons in our community, our department has to expend thousands of dollars for additional equipment, such as threat level III vests for officers, which cost \$2,600 each, that can more effectively stop a bullet from an AR-15 than lower threat level vests.
45. Simply because a threat is a rare occurrence does not mean it is not real or significant. In Milford, we have not had an officer killed in the line of duty since 1987, but we still train for that situation constantly. Milford has never experienced a mass shooting to my knowledge, and hopefully never will, but we still train for it constantly.

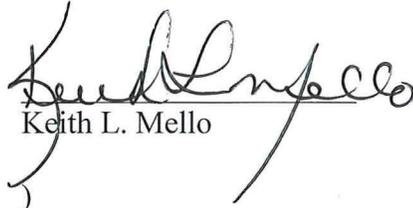
46. Just because assault weapons and large capacity magazines are not “widely used by criminals” does not mean that prohibiting their new possession or transfer to new owners does not advance law enforcement goals. Removing these dangerous weapons from our streets will aid law enforcement because it will deescalate the level of concern about them and minimize the threat that they pose.
47. As a Chief, I have grave concerns about these types of weapons and fear that my officers will be confronted with one of them. I am glad that Connecticut has taken steps to prevent the escalation of weapons on our streets; we will hopefully never have a time when officers routinely have to confront military assault rifles and assault pistols.
48. In my experience, crime prevention is often best achieved through incremental measures. Although studies show that assault weapons are only used in between 2% and 8% of gun crimes nationally, the number of crimes that those percentages represent is large and significant. Moreover, any reduction in the number or lethality of gun crimes in which assault weapons are used will be very meaningful, and will represent lives saved, families preserved and public resources that can be used in better ways. Plaintiffs diminish the value of these potential benefits of the Act, but in my view, any Chief of Police would welcome a policy initiative that could decrease the lethality of up to 8% of gun crime.
49. I understand that Plaintiffs claim that the Act is unconstitutional because it is too vague to be understood. I am not an expert on all of the details of the Act and I am not expert on all the gun laws of the State of Connecticut, but I can speak to the practical experience of how the assault weapons ban that has been the law for twenty years has been enforced in my jurisdiction.
50. In enforcing the 1993 ban over the past twenty years sometimes questions have arisen about whether a gun is banned. These questions arise in part because officers might not know all the listed weapons or features and also because gun manufacturers circumvent the law by making models that are very similar to the banned weapons, but not identical.
51. In my experience, whenever these situations arise the officers do not respond rashly by arresting people immediately, but instead take reasonable steps to determine whether the weapon is covered by the ban. They call the state police SLFU to inquire about a make and model, they call headquarters, or maybe even someone in the department that she or he knows is more knowledgeable about guns. Frequently, the possession of the weapon is not the primary source of probable cause to make an arrest but is simply one of the possible charges against the person.
52. Police officers often have to enforce statutes that can be somewhat complicated to understand, and that require citizens to undertake some effort to determine whether their conduct is prohibited. For example, Connecticut statutes prohibit minors from driving with other minors in the car after a certain time at night. This law can be

confusing for some minors, parents and guardians, and, as a result, they must make some effort to learn the details if they are worried about violating the law.

53. The Act is no different. So while I understand that Plaintiffs are concerned about the enforcement of certain provisions, I think their concerns are unwarranted because the Act is like many enforcement schemes that law enforcement officers enforce in Connecticut.

The foregoing is true and accurate to the best of my knowledge and belief.

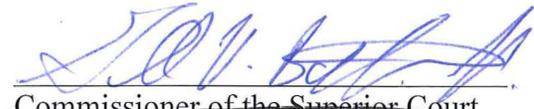
FURTHER AFFIANT SAYETH NOT.


Keith L. Mello

STATE OF CONNECTICUT
COUNTY OF NEW HAVEN

)
)ss: Milford, Connecticut
)

Subscribed and sworn to before me, this 30 day of September, 2013.


Commissioner of the Superior Court
Notary

GERALD V. BUTLER JR.
NOTARY PUBLIC
MY COMMISSION EXPIRES MAR. 31, 2017

CERTIFICATION

I hereby certify that on this 11th day of October, 2013, a copy of the foregoing Affidavit of Keith L. Mello in support of defendants' motion was filed electronically. Notice of this filing will be 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.

Maura Murphy Osborne
Assistant Attorney General

EXHIBIT 34

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.	:	SEPTEMBER 16, 2013

AFFIDAVIT OF THOMAS SWEENEY

Thomas Sweeney having been duly sworn, testifies and affirms as follows:

1. I am over eighteen years of age and understand the obligations of an oath.
2. I am a retired Chief of Police. Immediately prior to my retirement, I served as the Chief of Police for Glastonbury, Connecticut from 1999 to 2012. Prior to that I was Chief of Police in Bridgeport from 1990 to 1999. I was also the Deputy Commissioner of Public Safety/Undersheriff for Westchester County, NY where my responsibilities included command of the County Police Division from 1982 to 1990.
3. I have a Bachelor of Science degree in Psychology from Manhattan College and a Master's degree in Criminology from the University of California, Berkeley. I also completed the Police Executive Research Forum's (PERF) Senior Management Institute for Police program and the FBI's National Executive Institute.
4. I make this declaration based on my personal knowledge from 30 plus years as a law enforcement officer and my personal experience combatting gun crime, specifically crime involving assault weapons and large capacity magazines while Chief of Police in Bridgeport. I am familiar with the provisions in the newly enacted "Gun Violence Prevention and Children's Safety Act", Public Act 13-3, as amended by Public Act 13-220, ("the Act"), that relate to firearms and large capacity magazines and I believe these provisions are sensible gun control laws.
5. As I will discuss in more detail below, I was very involved in the legislative process that resulted in the enactment of Connecticut's original assault weapon ban in 1993 and the new Act is a logical extension of Connecticut's 1993 assault weapons ban that responds to developments in the gun market over the past 20 years and also corrects some weaknesses in the 1993 law. The Act will improve public safety by freezing the

number of large capacity magazines and assault weapons possessed by civilians in Connecticut and over time will reduce the number of these lethal military style firearms and large capacity magazines in our communities.

6. It is my reasoned and professional opinion that assault weapons and large capacity magazines pose a real and serious threat to the public and law enforcement, and are not needed, or necessarily the best choice, for reasonable home and self defense by citizens. The number of weapons and ammunition magazines covered by the Act represent only a small percentage of firearms on the gun market and gun owners in Connecticut will continue to have many different lawful guns and ammunition to choose from for self defense and other lawful purposes.
7. In 1990, I became Chief of Police in Bridgeport, Connecticut's largest city. At that time Bridgeport was experiencing a massive homicide and gun violence problem that was directly related to gang violence and drug trafficking. There were 50-60 homicides annually, and approximately 400 gun shot victims per year. Bridgeport had earned the unfortunate moniker of the "Murder Capitol of New England." During this period, businesses were losing employees and customers who were too frightened to work and shop in Bridgeport and neighborhoods were terrorized by the threat of gun violence.
8. While the bulk of Bridgeport's gun violence at this time involved ordinary handguns, one aspect of the problem in the early 1990s was the increased use of assault style weapons by gangs against their rivals and to guard their drug operations. Police officers increasingly found themselves facing military style assault weapons, including AK-47s, AR-15s and military style semiautomatic pistols, when they searched buildings, executed search warrants and responded to criminal incidents. I recall data gathered in 1993 which showed that the number of assault style weapons recovered by Bridgeport officers had increased 95 percent between 1991 and 1993.
9. The citizens of Bridgeport were terrorized by the presence of these weapons on their streets and their use by criminals in drive-by shootings and for intimidation of neighborhoods immediately around their bases of operation. Parents in neighborhoods with high numbers of shootings were fearful of stray bullets coming through the walls and windows of their homes; some parents even told me that they had their children sleep in bathtubs for greater protection. While Plaintiffs in this case claim they need these weapons to enhance their sense of personal security, the presence of these weapons in civilian hands in Bridgeport had just the opposite effect on the citizens of Bridgeport.
10. Even 20 years later I recall very well three homicides in Bridgeport that involved the use of assault style weapons and the discharge of a very high numbers of rounds by the shooters. In two of those cases, investigators determined that over seventy-five rounds were fired. In one of those cases, the murder victim was not the intended target. In a second homicide, numerous rounds fired by the perpetrators passed through the walls of an occupied dwelling that was behind the intended victim who

intended victim who had been walking down the street. In the third homicide, the murder victim, who was the intended target, was killed and his companion was wounded. A police officer who just happened to be in the area investigating an unrelated matter was also struck in the abdomen during the spray of gunfire.

11. The public safety crisis caused by the proliferation of ordinary handguns and military style assault weapons in the hands of gang members and drug dealers became so severe in Bridgeport that, in 1992, I began to advocate to our elected officials about the critical needs for legislation to address the problem. From 1992-1994, I worked with legislative leaders in the Connecticut General Assembly to curb the proliferation of military style assault weapons and to require the reporting of all secondary sales of handguns by private citizens. Ultimately, in 1993, the General Assembly passed Connecticut's first assault weapons ban, Public Act 93-306 (the "1993 law").
12. The next year, the General Assembly enacted legislation that required registration of private sale or transfer of handguns. Pubic Act 94-1 (July 1994 Sp. Sess.). This legislation addressed the problem of "straw purchasers" who purchased large numbers of handguns and resold them to criminals. I believe the assault weapon ban and the "straw purchaser" legislation effectively ended Connecticut's role as a significant source state for firearms used in crimes in the Tri-State area.
13. The 1993 law was not a perfect law. I would have preferred that it contained an administrative mechanism to periodically update the list of named weapons as new models or exact copies of banned weapons were manufactured and just called something different. I believe the original 1993 ban was one of the earliest assault weapons bans enacted in the nation and lawmakers and law enforcement have learned since how to better address this problem since this "first generation" law was enacted. Even with its imperfections, the 1993 law was an important factor in the dramatic reduction of the overall level of gun violence and the frequency with which assault weapons showed up in crimes in Bridgeport. By the late 1990s, the ban on assault weapons, along with intensive enforcement efforts against violent gangs, illegal gun possession, and gun trafficking, yielded a lowering of the crime rate in Bridgeport to levels not seen since the 1970's. I believe that the 1993 law was a factor in this positive trend and prevented the flood of assault style weapons from spreading to any other city in Connecticut.
14. The assault weapons prohibited under Connecticut's assault weapon ban are essentially versions of military style weapons that have been manufactured without the full automatic fire capability and marketed in the civilian marketplace. These weapons are equipped with features that enable shooters to engage multiple targets rapidly in a combat setting. Unlawful attacks with assault weapons, particularly when large capacity magazines are used, result in more rounds being fired. With large capacity magazines a criminal can continue to rapidly engage targets and shoot longer without having to stop or slow to reload. This allows more rounds to be fired and potentially more injuries to be inflicted on more people. As many of these assault weapons utilize high velocity rifle ammunition that inflict injuries that are likely to be

extremely devastating to the victim's bodies. I expect that when the facts of Newtown tragedy are finally made public in the State Police Report, they will show that a massive number of rounds were fired by the shooter in a short period of time and that the injuries to the children and educators were devastating.

15. Since the Columbine High School shooting, police tactics in responding to mass shooting have evolved. Prior to Columbine, officers were told to establish a perimeter and await the arrival of the better trained and equipped SWAT units who would handle the entry and assault. In many jurisdictions, police officers are currently being trained that the only effective way to terminate a mass shooting situation is for the first responders on scene to move directly to the shooting and to immediately neutralize the shooter. Anything which thwarts or delays the first responders in achieving that objective in the fastest possible time is detrimental to public safety interests and likely to result in more injuries and deaths. Assault style weapons present significant added risk and problems for the law enforcement officers responding to a mass shooting situation. Shooters using such weapons, particularly those with high capacity magazines, may mount a level of suppressing fire that can defeat or delay the efforts of the first responding officers to move directly toward and to end the shooting. Large capacity magazines enable the criminal to shoot longer between reloads and, therefore, reduce the opportunity for the first responders to move or take down the shooter. The high velocity rifle rounds fired by many of the assault weapons easily pass through the "threat level two" soft body armor worn by police in their routine duties. Consequently responding police officers will face a greater risk of being shot or killed and may be unable to swiftly neutralize any shooters.
16. Since the 1980's gun manufacturers have placed increased emphasis on marketing semi-automatic versions of military style weapons in the civilian market. Since the 1993 law, new models of assault style weapons have been introduced. In some cases minor changes were made to previously existing models to circumvent the wording of the 1993 law. The Act addresses the problem of circumvention by updating the list of enumerated weapons, prohibiting "copies or duplicates" of the enumerated weapons and also strengthening the military features test. As I said earlier, I believe these enhancements of the existing law are a logical extension and updating of the 1993 law that respond to Connecticut's experience with changes to assault weapons over the past twenty years.
17. In my view, the lack of "copies or duplicates" language in the 1993 law was a weakness in the law and I am very pleased that the General Assembly and the Governor corrected this flaw and have strengthened the 1993 law in this way. I also favor the strengthening of the military features test from a two-feature test to a one-feature test. I believe this is sound policy because the feature test helps to avoid circumvention.
18. Features like the pistol grip, forward pistol grip and thumbhole stocks allow shooters to steady the weapon during rapid firing, and also make it easier to spray bullets from

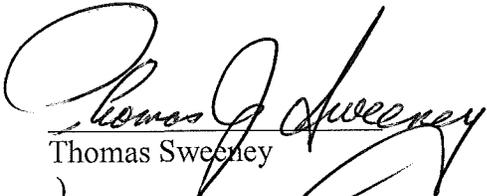
the hip or fire the weapon with only one hand. Features like the shroud also promote prolonged rapid firing of the weapon because it helps to disperse the heat on the barrel and prevent the shooter from being burned. Features like a grenade launcher or flare launcher pose obvious and real threats to law enforcement because of the firepower. A flash suppressor allows a shooter to better hide his position from law enforcement, which is an obvious threat. A collapsing or telescoping stock may allow a criminal to more easily conceal an assault weapon in clothing or a pack therefore posing a risk to law enforcement and civilians.

19. These features are appropriately banned because they either help criminals conceal themselves from law enforcement, conceal their weapons, enhance the firepower available to shooters, and prolong any shooting incident where law enforcement and innocent civilians may be indiscriminately murdered.
20. Arguably the most important feature of the Act is the new prohibition on large capacity magazines. This was another weakness of the 1993 law that the legislature corrected in the Act. A criminal with a large capacity magazine can shoot more rounds and not have to slow as often to reload thereby posing greater risks to civilians and law enforcement. With a larger ammunition capacity a shooter can more easily direct suppressing fire to delay or thwart law enforcement's response.
21. There are many firearms that remain legal for Connecticut's lawful gun owners that will more than adequately provide self defense in a home or business. Assault style weapons particularly those using large capacity magazines and high velocity rifle rounds pose too many risks of overpenetration, down range injuries and disproportionate response by civilians. In my professional opinion based on actually dealing with crime for over 30 years, I believe a shotgun would be a wiser choice in the home or business if a gun owner feels he or she needs a long gun for self protection. That weapon requires less accuracy in aiming to be effective in a stress situation and the shot rounds it discharges have less down range distance and risk of overpenetration.
22. The Act is a logical and appropriate extension of the 1993 Act that, in my experience, was an effective tool in combatting gun crime in Connecticut. The 2013 Act corrects some weaknesses in that original 1993 law and appropriately responds to developments in the gun market over the past twenty years. I believe that banning these weapons and large capacity magazines will make law enforcement safer and protect citizens, and will not impede civilians' ability to protect themselves in their homes or businesses.

The foregoing is true and accurate to the best of my knowledge and belief.

FURTHER AFFIANT SAYTH NOT.

STATE OF CONNECTICUT
COUNTY OF HARTFORD


Thomas Sweeney
)
)ss: Glastonbury Connecticut
)

Subscribed and sworn to before me, this 16 th day of September, 2013.

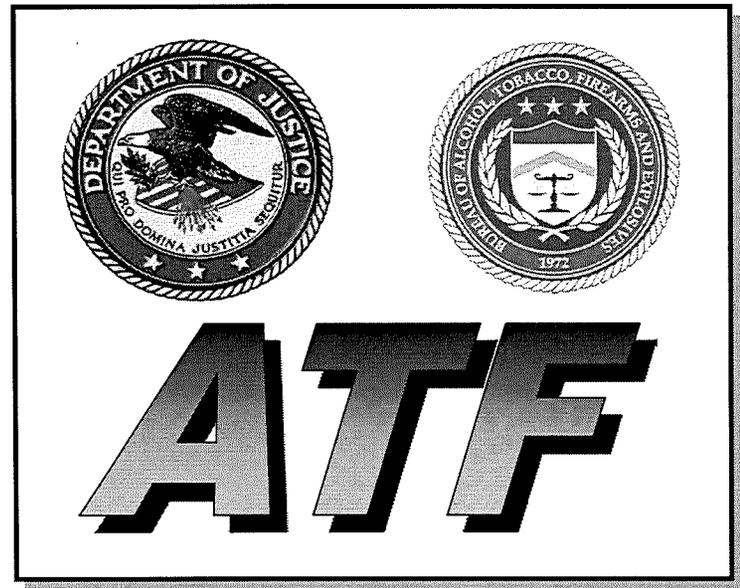
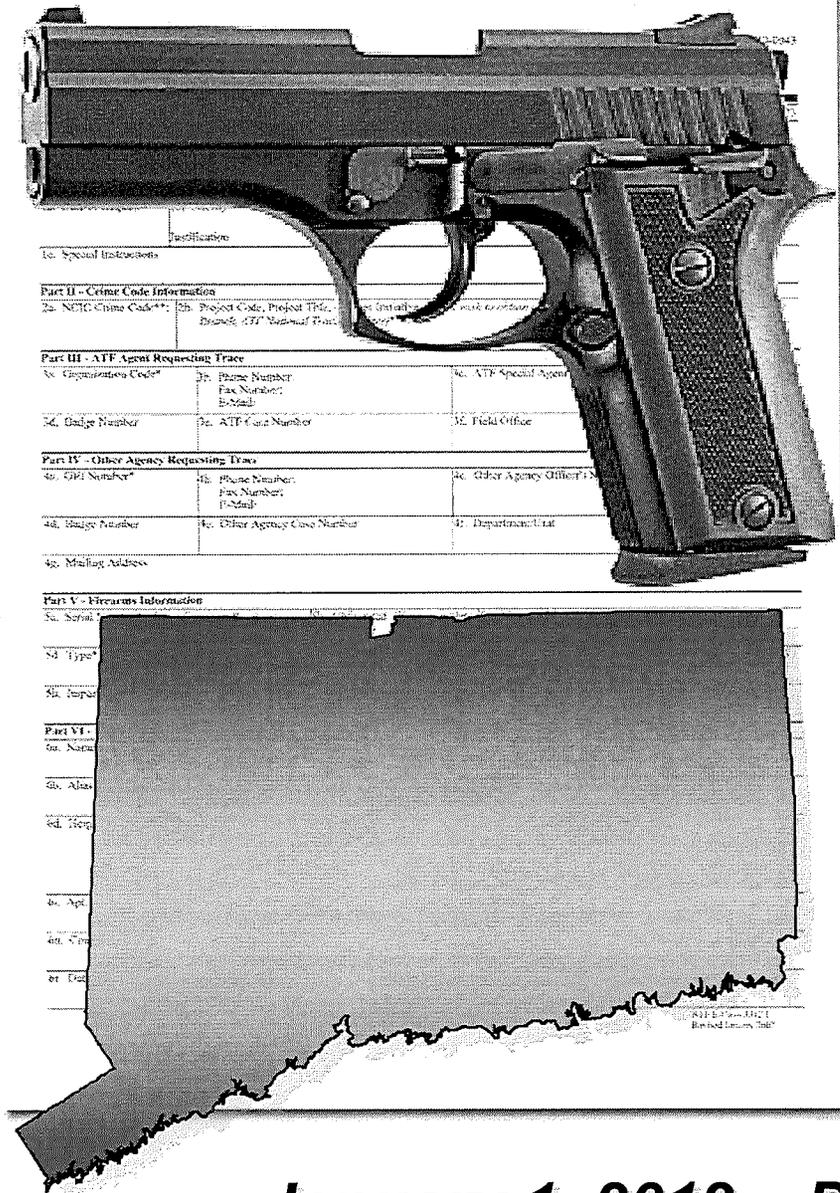

Commissioner of the Superior Court

CERTIFICATION

I hereby certify that on this 11th day of October, 2013, a copy of the foregoing Affidavit of Thomas Sweeney in support of Defendants' motion was filed electronically. Notice of this filing will be 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.

Maura Murphy Osborne
Assistant Attorney General

EXHIBIT 35



Connecticut

Department of Justice
Bureau of Alcohol, Tobacco,
Firearms and Explosives
 Office of Strategic Intelligence and Information
 Data Source: Firearms Tracing System

January 1, 2012 – December 31, 2012



ATF Firearms Trace Data Disclaimer



Public L. No. 113-6, Consolidated and Further Continuing Appropriations Act, 2013, Sec. 514

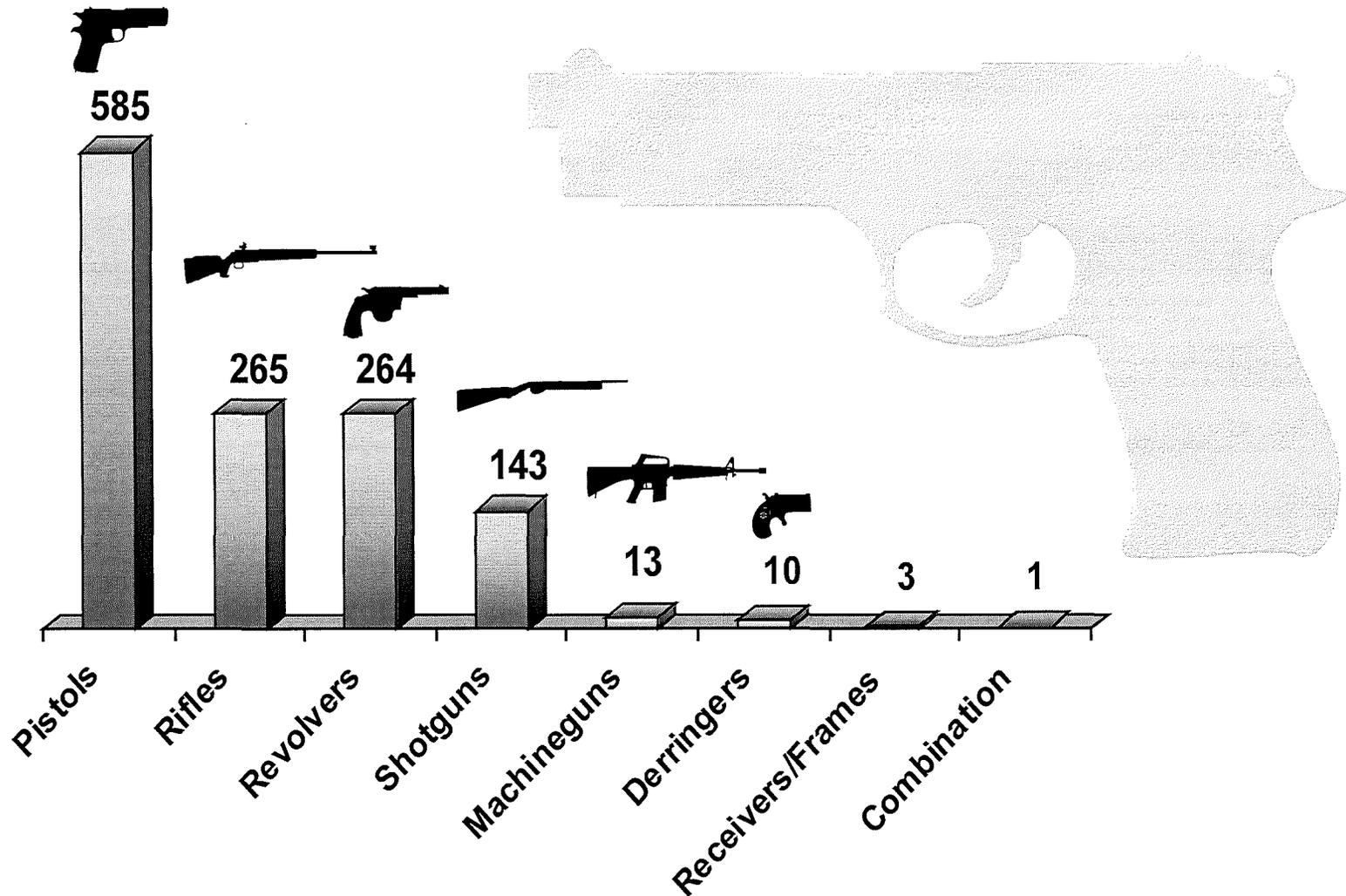
(1) Firearm traces are designed to assist law enforcement authorities in conducting investigations by tracking the sale and possession of specific firearms. Law enforcement agencies may request firearms traces for any reason, and those reasons are not necessarily reported to the Federal Government. Not all firearms used in crime are traced and not all firearms traced are used in crime.

(2) Firearms selected for tracing are not chosen for purposes of determining which types, makes or models of firearms are used for illicit purposes. The firearms selected do not constitute a random sample and should not be considered representative of the larger universe of all firearms used by criminals, or any subset of that universe. Firearms are normally traced to the first retail seller, and sources reported for firearms traced do not necessarily represent the sources or methods by which firearms in general are acquired for use in crime.

Total Number of Firearms Recovered and Traced in Connecticut by Calendar Year

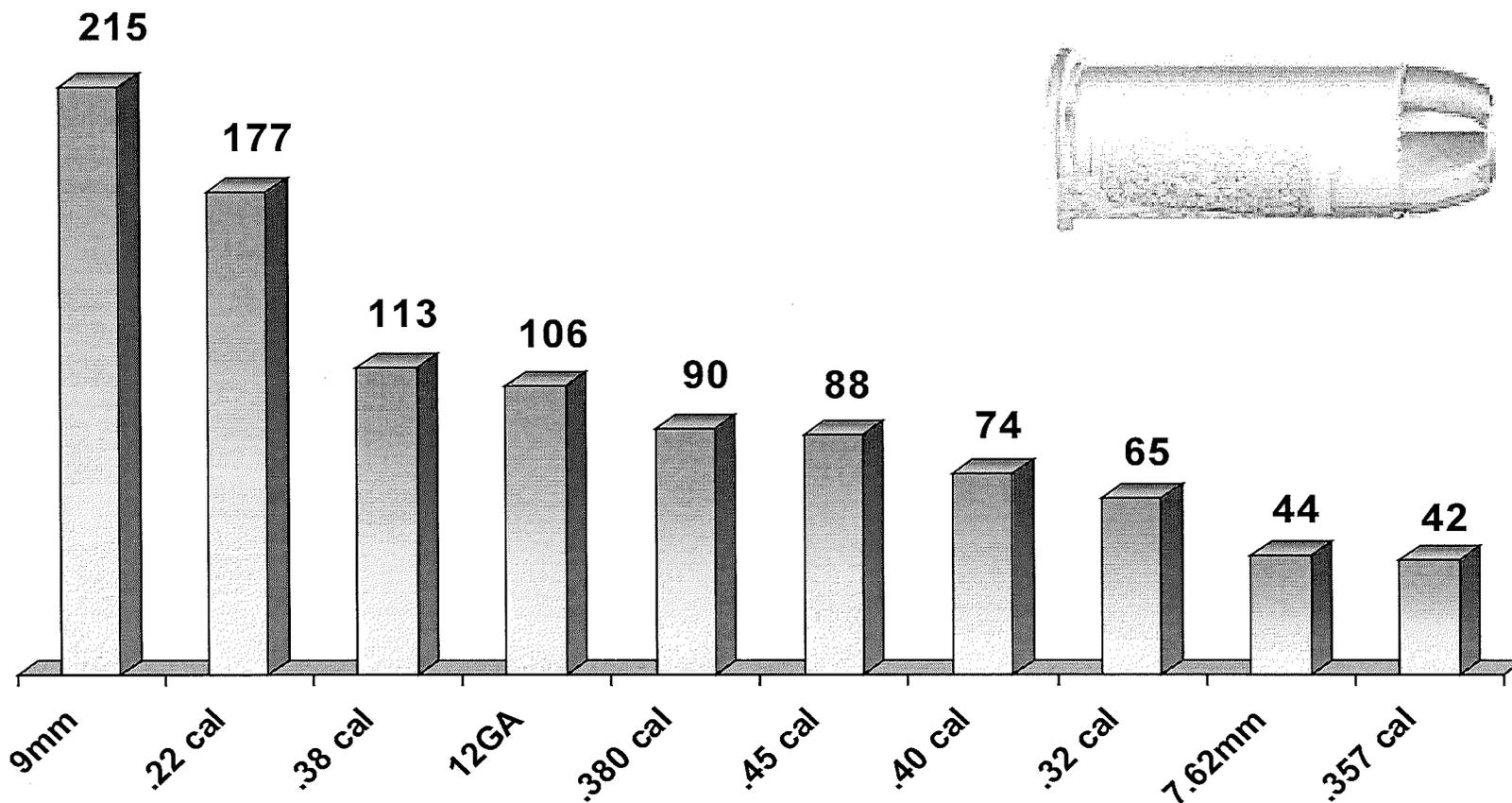


Firearm Types with a Connecticut Recovery ***January 1, 2012 – December 31, 2012***



Top Calibers Reported on Firearm Traces with a Connecticut Recovery

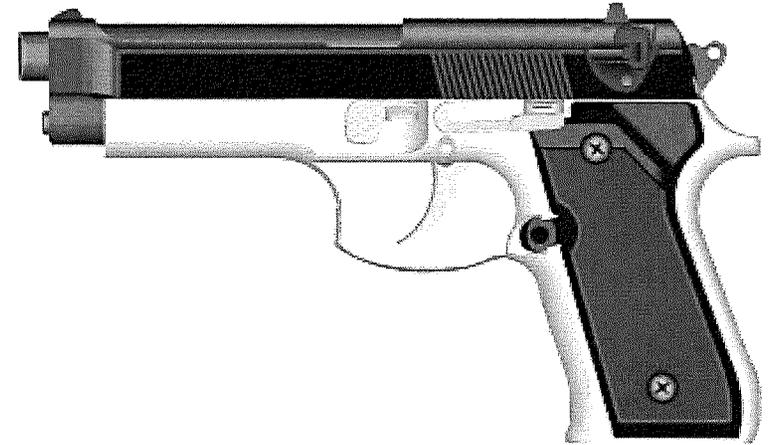
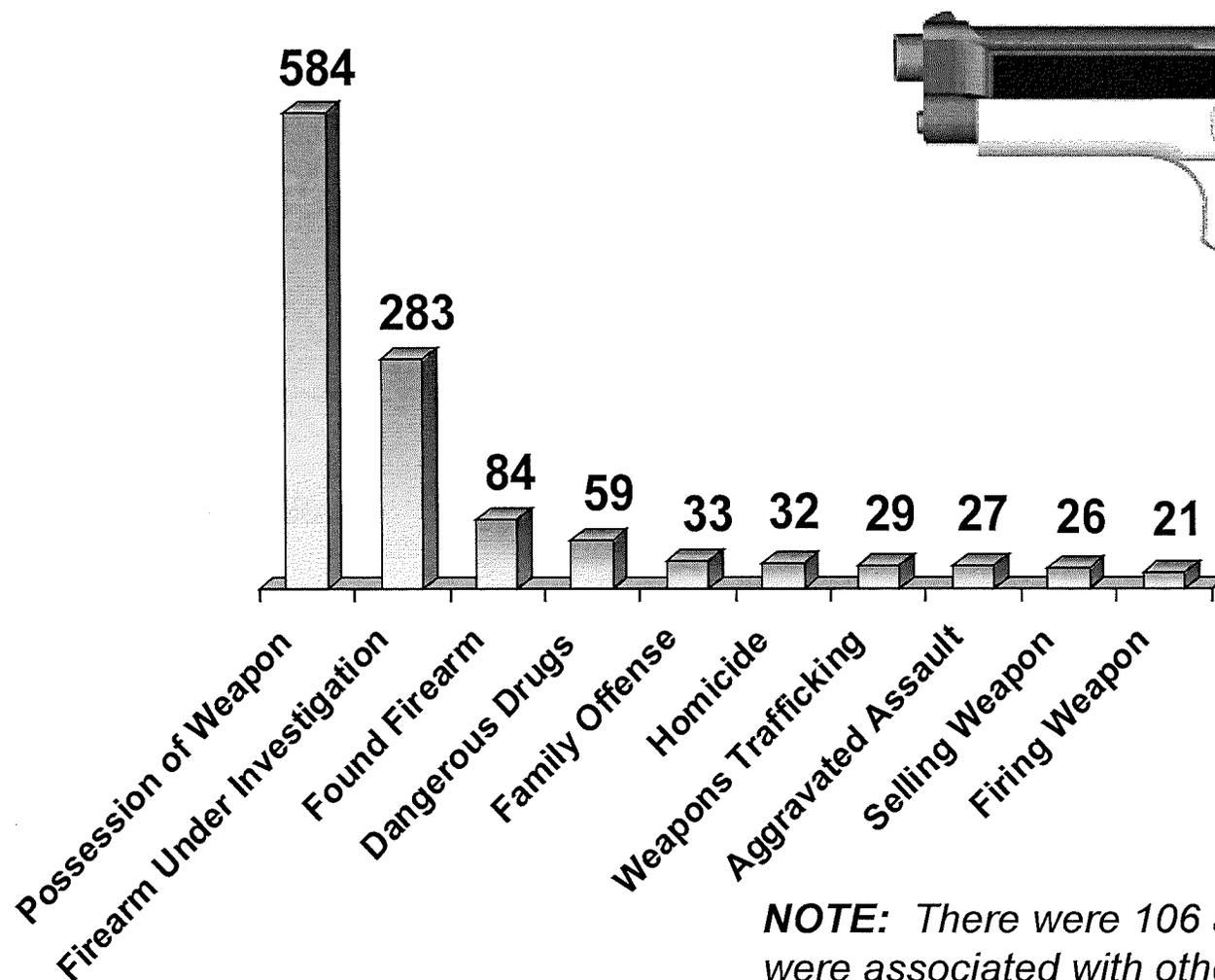
January 1, 2012 – December 31, 2012



NOTE: There were 270 additional traces that were associated with other calibers.

Top Categories Reported on Firearm Traces with a Connecticut Recovery

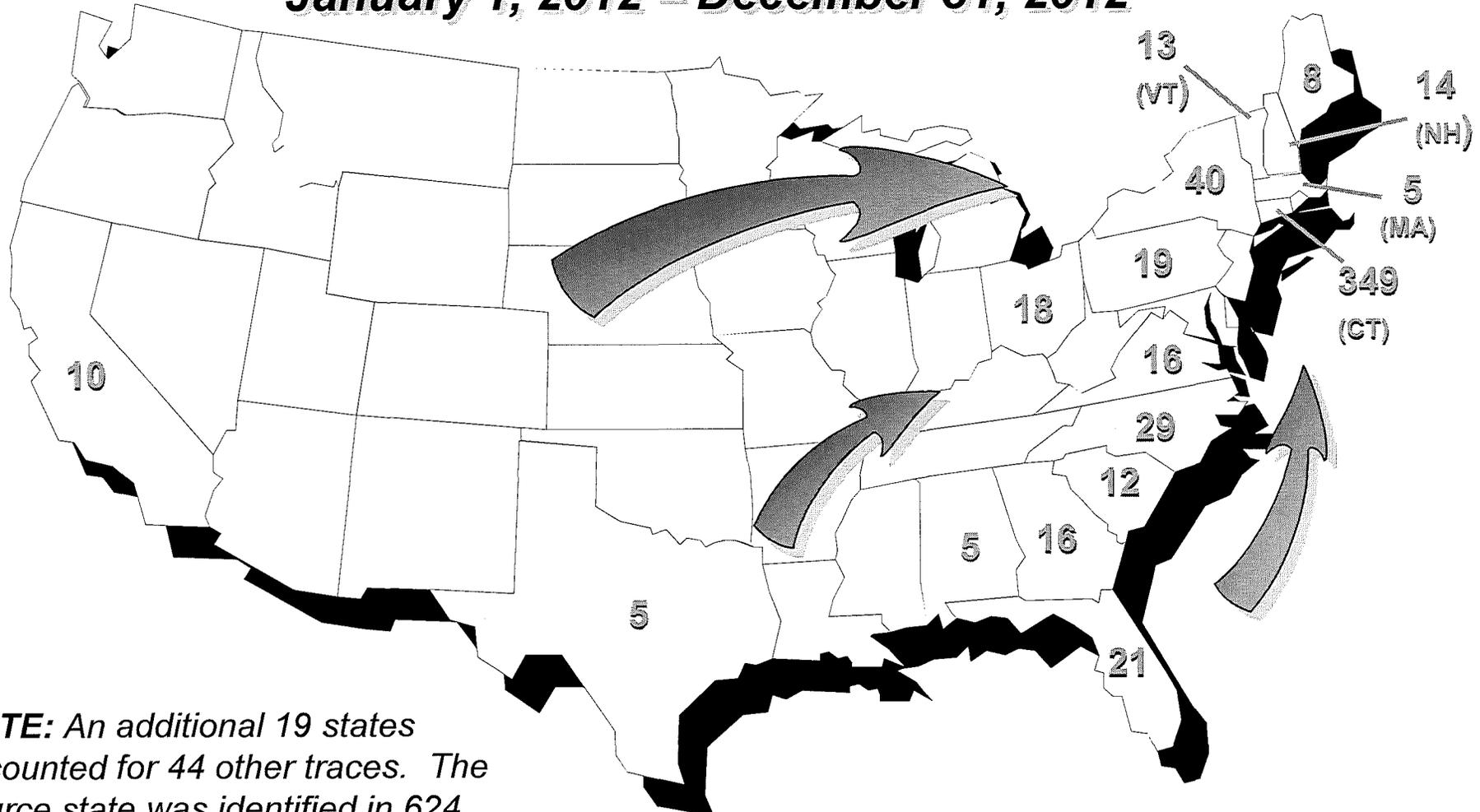
January 1, 2012 – December 31, 2012



NOTE: There were 106 additional traces that were associated with other categories.

Top 15 *Source* States for Firearms with a Connecticut Recovery

January 1, 2012 – December 31, 2012

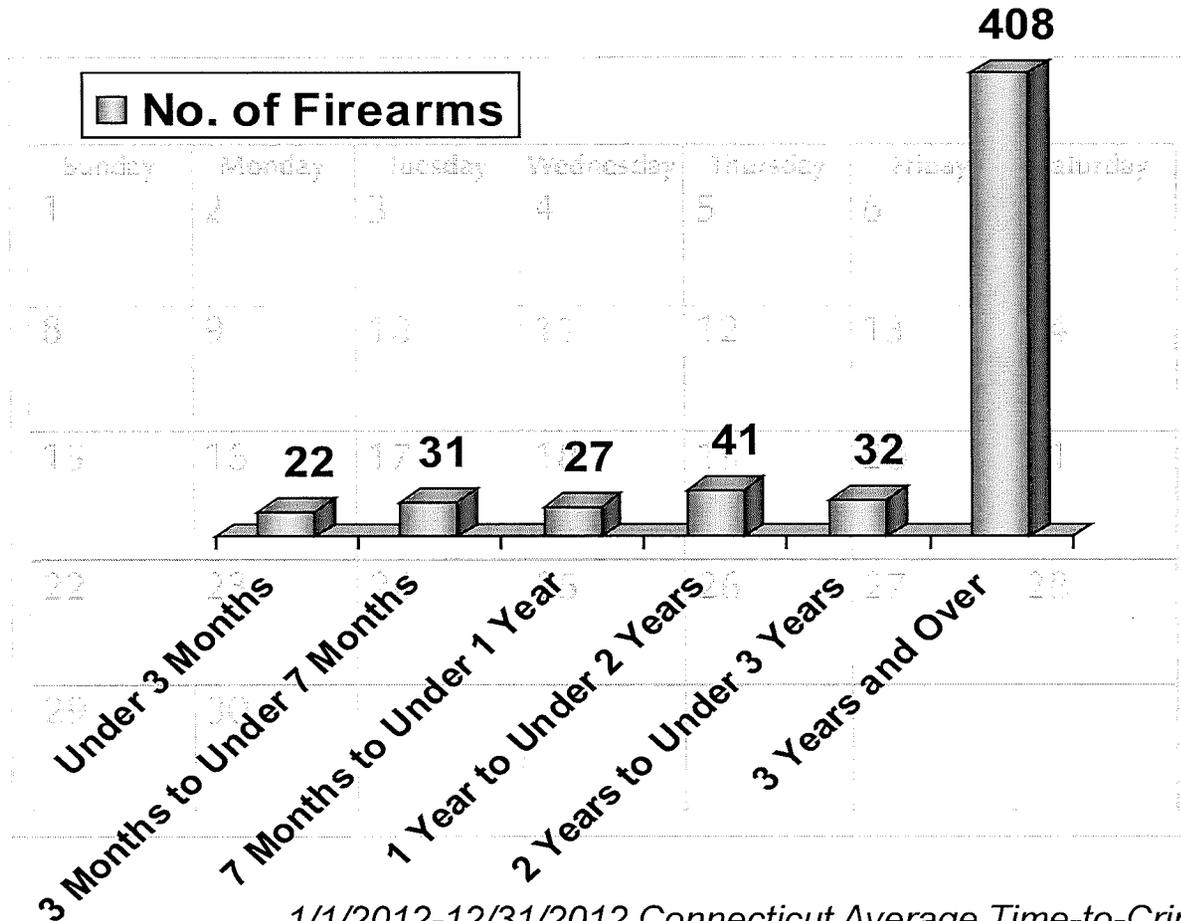
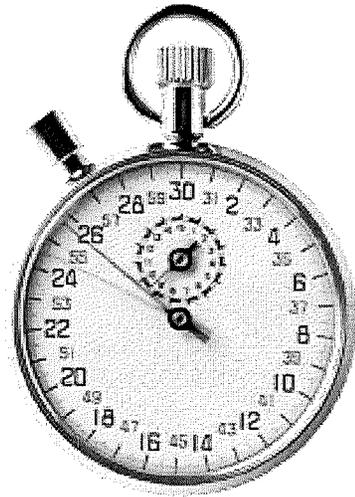


NOTE: An additional 19 states accounted for 44 other traces. The source state was identified in 624 total traces.

* There were 3 states tied with 5 traces each.

Time-To-Crime Rates for Firearms with a Connecticut Recovery

January 1, 2012 – December 31, 2012

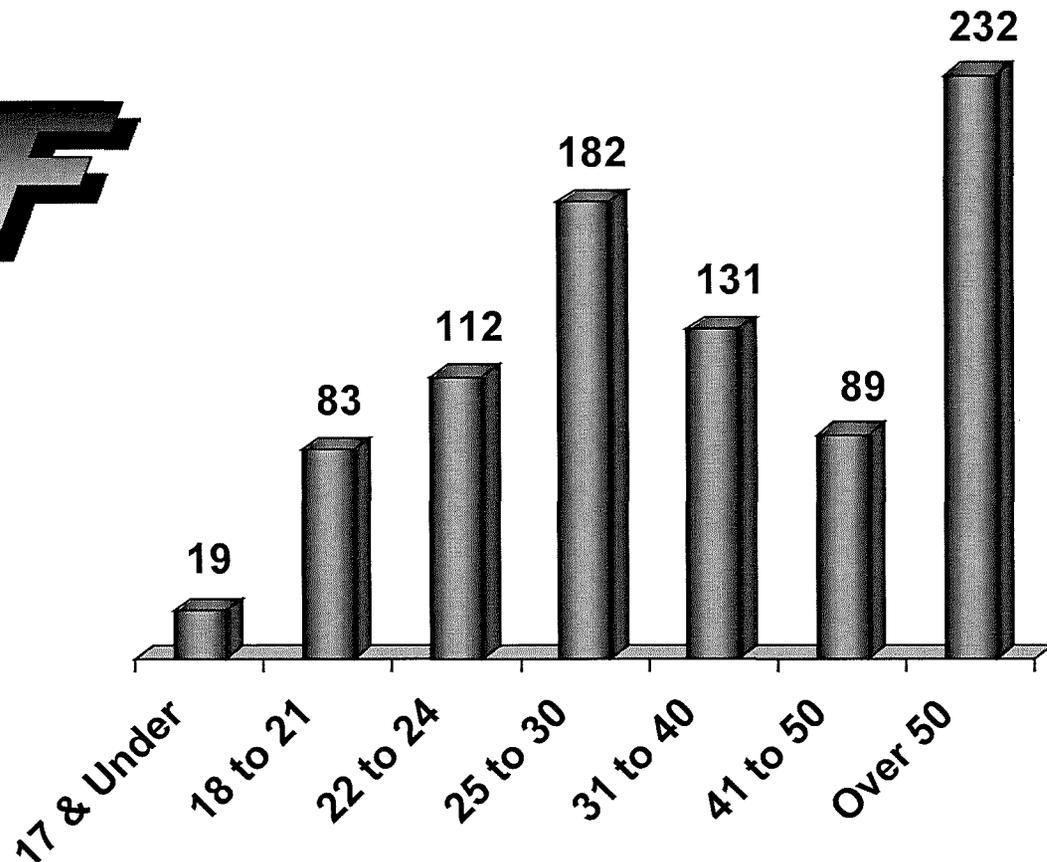
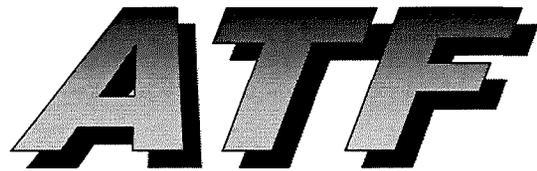


1/1/2012-12/31/2012 Connecticut Average Time-to-Crime: **12.27 Years**

1/1/2012-12/31/2012 National Average Time-to-Crime: **11.12 Years**

Age of Possessors for Firearms with a Connecticut Recovery

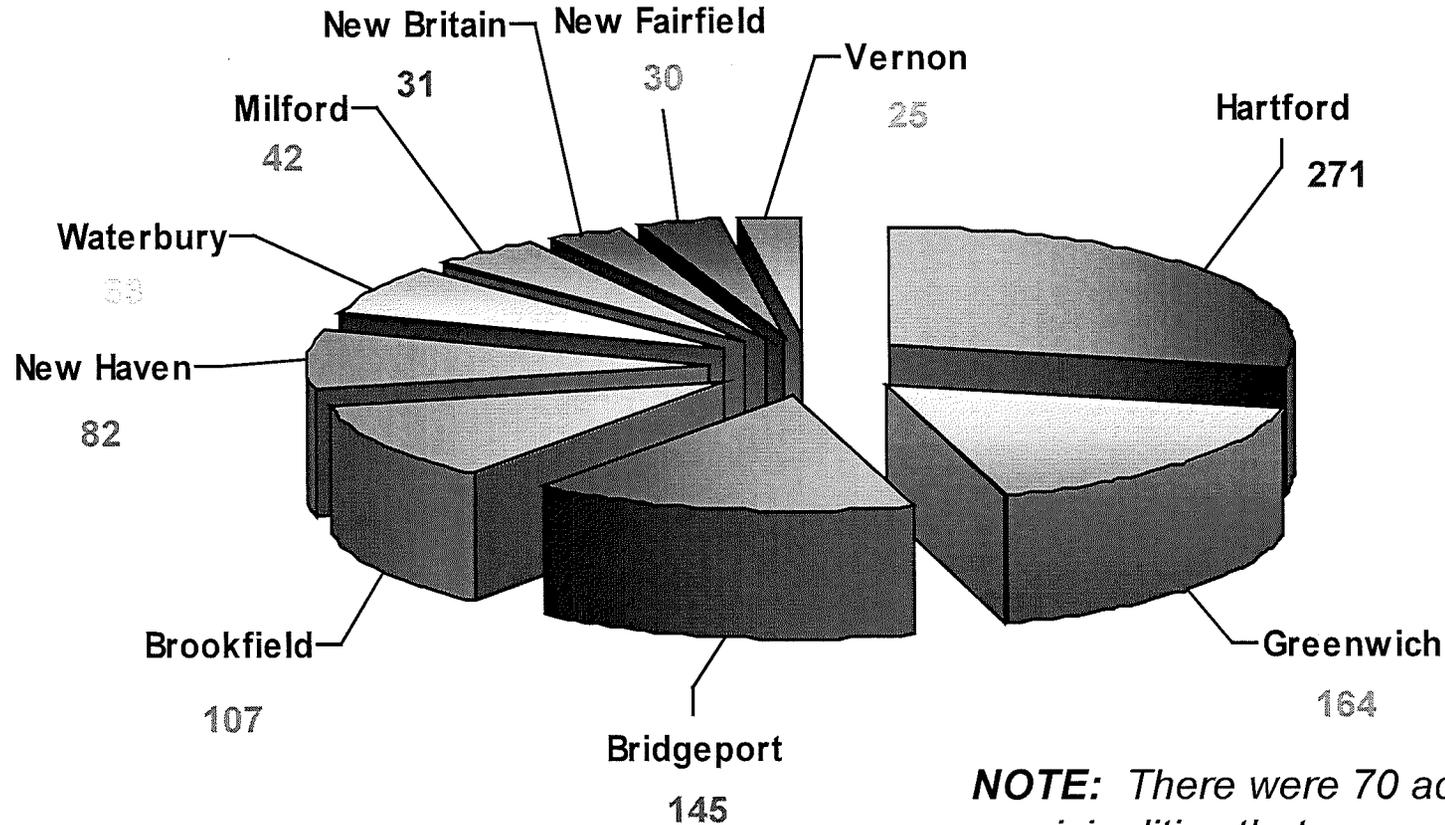
January 1, 2012 – December 31, 2012



1/1/2012-12/31/2012 Connecticut Average Age of Possessor: 39 Years
1/1/2012-12/31/2012 National Average Age of Possessor: 36 Years

Top Recovery Cities for Firearms with a Connecticut Recovery

January 1, 2012 – December 31, 2012



NOTE: There were 70 additional municipalities that accounted for 322 other traces. The recovery city could not be determined for two traces.

Analytical Criteria Used to Compile the Enclosed Statistics

● **Total Number of Firearms Recovered and Traced**

- Includes traces with a recovery state of Connecticut. Traces in which the recovery state was not provided were included when the requesting agency state was equal to Connecticut.
- Includes Firearms Recovered and Traced between 1/1/2012 – 12/31/2012, or, if the recovery date was blank, the trace entry date was between 1/1/2012 – 12/31/2012.
- Duplicate traces, Firearms Not Recovered, Gun Buyback and Firearms Turned In are not included in this figure.
- Data was extracted from the Firearms Tracing System (FTS) on May 1, 2013.
- All traces may not have been submitted or completed at the time of this study.

● **Firearm Types and Calibers with a Connecticut Recovery**

- Includes same criteria as Total Number of Firearms Recovered and Traced.

● **Top Categories Reported on Firearm Traces with a Connecticut Recovery**

- Includes same criteria as Total Number of Firearms Recovered and Traced. Beginning in CY 2010, attempted homicide, attempted suicide and negligent vehicular manslaughter are reported in separate categories.

● **Top Source States for Firearms with a Connecticut Recovery**

- Includes same criteria as Total Number of Firearms Recovered and Traced.
- Traces must identify a purchaser and the state in which the final dealer is located.

● **Time-to-Crime Rates for Firearms with a Connecticut Recovery**

- Includes same criteria as Total Number of Firearms Recovered and Traced.
- Traces must identify a purchaser.
- Time-to-Crime was calculated for those traces in which the purchase date could be subtracted from the recovery date.

● **Age of Possessors for Firearms with a Connecticut Recovery**

- Includes same criteria as Total Number of Firearms Recovered and Traced.
- Includes traces that provide a possessor and the possessor's date of birth.
- Possessor's age is calculated by subtracting the possessor's date of birth from the recovery date.

● **Top Recovery Cities for Firearms with a Connecticut Recovery**

- Includes same criteria as Total Number of Firearms Recovered and Traced.
- Includes traces with a recovery city, or, if the recovery city was not provided, the requesting agency had jurisdiction only within that city.

Bureau of Alcohol, Tobacco, Firearms and Explosives, Office of Strategic Intelligence and Information

EXHIBIT 36

2005 - 2010, United States
Homicide Firearm Deaths and Rates per 100,000
 All Races, Both Sexes, All Ages
 ICD-10 Codes: X93-X95, *U01.4

Number of Deaths	Population***	Crude Rate	Age-Adjusted Rate**
72,525	1,814,738,751	4.00	4.01

[Download Results in a Spreadsheet \(CSV\) File](#)

[Help with Download](#)

Reports for All Ages include those of unknown age.

* Rates based on 20 or fewer deaths may be unstable. Use with caution.

** Standard Population is 2000, all races, both sexes.

*** Population estimates are aggregated for multi-year reports to produce rates.

Produced by: National Center for Injury Prevention and Control, CDC

Data Source: NCHS Vital Statistics System for numbers of deaths. Bureau of Census for population estimates.

EXHIBIT 37



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- STUDIES & STATISTICS
- TAKE ACTION

Statistics on Gun Deaths & Injuries

Posted on November 16, 2012

In 2010, guns took the lives of 31,076 Americans in homicides, suicides and unintentional shootings. This is the equivalent of more than 85 deaths **each day** and more than three deaths **each hour**.¹

73,505 Americans were treated in hospital emergency departments for non-fatal gunshot wounds in 2010.²

Firearms were the third-leading cause of injury-related deaths nationwide in 2010, following poisoning and motor vehicle accidents.³

Between 1955 and 1975, the Vietnam War killed over 58,000 American soldiers – less than the number of civilians killed with guns in the U.S. in an average two-year period.⁴

In the first seven years of the U.S.-Iraq War, over 4,400 American soldiers were killed. Almost as many civilians are killed with guns in the U.S., however, *every seven weeks*.⁵

Homicide

Guns were used in 11,078 homicides in the U.S. in 2010, comprising almost 35% of all gun deaths, and over 68% of all homicides.⁶

On average, 33 gun homicides were committed each day for the years 2005-2010.⁷

Regions and states with higher rates of gun ownership have significantly higher rates of homicide than states with lower rates of gun ownership.⁸

Where guns are prevalent, there are significantly more homicides, particularly gun homicides.⁹

Suicide

Firearms were used in 19,392 suicides in the U.S. in 2010, constituting almost 62% of all gun deaths.¹⁰

Over 50% of all suicides are committed with a firearm.¹¹

On average, 49 gun suicides were committed each day for the years 2005-2010.¹²

White males, about 40% of the U.S. population, accounted for over 80% of firearm suicides in 2010.¹³

A study of California handgun purchasers found that in the first year after the purchase of a handgun, suicide was the leading cause of death among the purchasers.¹⁴

Firearms were used in nearly 44% of suicide deaths among persons under age 25 in 2010.¹⁵

More than 75% of guns used in suicide attempts and unintentional injuries of 0-19 year-olds were stored in the residence of the victim, a relative, or a friend.¹⁶

TAKE ACTION

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WHAT THE STUDIES SHOW

KNOW YOUR

Best matches for **center to prevent gun violence cdc 2010 firearm death**

In **2010, guns** took the lives of 31,076 Americans in homicides,... [Jump to text »](#)

Firearms were the third-leading cause of injury-related deaths... [Jump to text »](#)

Note: Users must agree to data use restrictions on the **CDC** site prior to accessing data). [Jump to text »](#)

LATEST TWEETS

The risk of suicide increases in homes where guns are kept loaded and/or unlocked.¹⁷

Unintentional Deaths and Injuries

In 2010, unintentional firearm injuries caused the deaths of 606 people.¹⁸

From 2005-2010, almost 3,800 people in the U.S. died from unintentional shootings.¹⁹

Over 1,300 victims of unintentional shootings for the period 2005–2010 were under 25 years of age.²⁰

People of all age groups are significantly more likely to die from unintentional firearm injuries when they live in states with more guns, relative to states with fewer guns. On average, states with the highest gun levels had nine times the rate of unintentional firearms deaths compared to states with the lowest gun levels.²¹

A federal government study of unintentional shootings found that 8% of such shooting deaths resulted from shots fired by children under the age of six.²²

The U.S. General Accounting Office has estimated that 31% of unintentional deaths caused by firearms might be prevented by the addition of two devices: a child-proof safety lock (8%) and a loading indicator (23%).²³

1. Nat'l Ctr. for Injury Prevention & Control, U.S. Centers for Disease Control and Prevention, *Web-Based Injury Statistics Query & Reporting System (WISQARS) Injury Mortality Reports, 1999-2010, for National, Regional, and States* (Dec. 2012), http://webappa.cdc.gov/sasweb/ncipc/dataRestriction_inj.html (hereinafter *WISQARS Injury Mortality Reports, 1999-2010*). Note: Users must agree to data use restrictions on the CDC site prior to accessing data). [__]
2. Nat'l Ctr. for Injury Prevention & Control, U.S. Centers for Disease Control and Prevention, *Web-Based Injury Statistics Query & Reporting System (WISQARS) Nonfatal Injury Reports*, at <http://webappa.cdc.gov/sasweb/ncipc/nfirates2001.html> (last visited Nov. 20, 2012) (hereinafter *WISQARS Nonfatal Injury Reports*). [__]
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2010, United States
Firearm Deaths and Rates per 100,000
All Races, Both Sexes, All Ages
ICD-10 Codes: W32-W34, X72-X74, X93-X95, Y22-Y24,
Y35.0, *U01.4

Number of Deaths	Population	Crude Rate	Age-Adjusted Rate**
31,672	308,745,538	10.26	10.07

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Reports for All Ages include those of unknown age.

* Rates based on 20 or fewer deaths may be unstable. Use with caution.

** Standard Population is 2000, all races, both sexes.

Produced by: National Center for Injury Prevention and Control, CDC

Data Source: NCHS Vital Statistics System for numbers of deaths. Bureau of Census for population estimates.

Overall Firearm Gunshot Nonfatal Injuries and Rates per 100,000
2010, United States, All Races, Both Sexes, All Ages
Disposition: All Cases

<u>Number of injuries</u>	<u>Population</u>	<u>Crude Rate</u>	<u>Age-Adjusted Rate**</u>
73,505	308,745,538	23.81	23.97

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Reports for All Ages include those of unknown age.

** Standard Population is 2000, all races, both sexes.

Produced by: National Center for Injury Prevention and Control, CDC

Data Source: NEISS All Injury Program operated by the Consumer Product Safety Commission for numbers of injuries. Bureau of Census for population estimates.

Overall Firearm Gunshot Nonfatal Injuries and Rates per 100,000
2011, United States, All Races, Both Sexes, All Ages
Disposition: All Cases

<u>Number of injuries</u>	<u>Population</u>	<u>Crude Rate</u>	<u>Age-Adjusted Rate**</u>
73,883	311,591,917	23.71	23.64

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Reports for All Ages include those of unknown age.

** Standard Population is 2000, all races, both sexes.

Produced by: National Center for Injury Prevention and Control, CDC

Data Source: NEISS All Injury Program operated by the Consumer Product Safety Commission for numbers of injuries. Bureau of Census for population estimates.

EXHIBIT 38

PEDIATRICS®

Prevalence of Household Firearms and Firearm-Storage Practices in the 50 States and the District of Columbia: Findings From the Behavioral Risk Factor Surveillance System, 2002

Catherine A. Okoro, David E. Nelson, James A. Mercy, Lina S. Balluz, Alex E. Crosby and Ali H. Mokdad

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Prevalence of Household Firearms and Firearm-Storage Practices in the 50 States and the District of Columbia: Findings From the Behavioral Risk Factor Surveillance System, 2002

Catherine A. Okoro, MS*; David E. Nelson, MD, MPH*; James A. Mercy, PhD‡; Lina S. Balluz, ScD*; Alex E. Crosby, MD, MPH‡; and Ali H. Mokdad, PhD*

ABSTRACT. *Objectives.* To examine the prevalence of household firearms and firearm-storage practices in the 50 states and the District of Columbia and estimate the number of children exposed to unsafe storage practices.

Methods. We analyzed data from the 2002 cross-sectional Behavioral Risk Factor Surveillance System survey of 240 735 adults from randomly selected households with telephones in the 50 states and the District of Columbia.

Results. Nationally, 32.6% of adults reported that firearms were kept in or around their home. The prevalence of adults with household firearms ranged from 5.2% in the District of Columbia to 62.8% in Wyoming (median: 40.8%). The prevalence of adults with loaded household firearms ranged from 1.6% in Hawaii, Massachusetts, and New Jersey to 19.2% in Alabama (median: 7.0%), and the prevalence of adults with loaded and unlocked household firearms ranged from 0.4% in Massachusetts to 12.7% in Alabama (median: 4.2%). Among adults with children and youth <18 years old, the prevalence of loaded household firearms ranged from 1.0% to 13.4% (median: 5.3%), and the prevalence of loaded and unlocked household firearms ranged from 0.3% to 7.3% (median: 2.3%); in each instance, Massachusetts had the lowest prevalence and Alabama had the highest. Findings indicate that ~1.69 million (95% confidence interval: 1.57–1.82 million) children and youth in the United States <18 years old are living with loaded and unlocked household firearms.

Conclusions. Substantial state variations exist in the prevalence of household firearms and firearm-storage practices. It is vital that surveillance systems such as the Behavioral Risk Factor Surveillance System continue to monitor the prevalence of household firearms and firearm-storage practices so that future interventions to promote safe storage of firearms can be evaluated and more widely implemented based on their efficacy. *Pediatrics* 2005;116:e370–e376. URL: www.pediatrics.org/cgi/doi/

10.1542/peds.2005-0300; *firearms, children, youth, behavior, risk taking, telephone, BRFSS.*

ABBREVIATIONS. BRFSS, Behavioral Risk Factor Surveillance System; CI, confidence interval.

Firearm-related injuries remained the second leading cause of injury mortality in 2002, accounting for 30 242 firearm-related deaths.¹ Of all firearm injury deaths, 56.6% were suicides, 39.1% were homicides, 2.5% were unintentional, and an additional 1.8% were legal interventions or of undetermined intent.¹ Furthermore, ~1400 firearm deaths were among persons <18 years old.² In addition, for every firearm-related death, ~4.6 persons in this same population received nonfatal firearm-related injuries.³ In 1997, the estimated lifetime costs of medically treated gunshot injuries in the United States totaled \$1.9 billion, of which \$0.9 billion was paid by the US government.⁴

Unintentional injuries, suicide, and homicide among youth may happen because young persons are able to access an improperly stored household firearm.^{5–10} Approximately 90% of fatal firearm incidents involving children occur within the home, and according to a study of children and youth aged 0 to 14 years by Wintemute et al⁸, 40% of firearm incidents involve a firearm stored in the room in which the shooting occurs. Miller et al⁷ found that twice as many firearm deaths among children and youth <18 years old occur in states with the highest proportion of people living in households with loaded firearms. In addition, Grossman et al⁹ reported that safe storage practices, including keeping firearms stored unloaded, locked, or separate from ammunition, are associated with significant reductions in the risk of unintentional injuries and suicides among children and youth. The National Rifle Association,¹¹ medical organizations,^{12–15} and public health agencies^{16,17} all support safe firearm-storage practices in homes with children and youth. For example, the American Academy of Pediatrics recommends that if families must have firearms in their homes, the firearms should be stored locked, unloaded, and separate from locked ammunition.¹² Efforts to promote proper storage of firearms in homes may help reduce the risk of both fatal and nonfatal injury.^{6,7,9,10,16,18–21}

Despite the fact that national estimates on the

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No conflict of interest declared.

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prevalence of household firearms and their manner of storage are available,^{21–23} limited information exists regarding these estimates at the state level.^{22,24–27} Thus, the purposes of this study were threefold: to estimate (1) the prevalence of adults with household firearms and their firearm-storage practices at the state level; (2) the prevalence of loaded and of loaded and unlocked household firearms among adults with children and youth <18 years old at the state level; and (3) by state the number of children and youth exposed to these firearm-storage practices.

METHODS

The Behavioral Risk Factor Surveillance System (BRFSS) is a state-based surveillance system operated by state health departments in collaboration with the US Centers for Disease Control and Prevention. A detailed description of the survey methods used by BRFSS is available elsewhere.^{28–30} Briefly, the primary purpose of BRFSS is to provide state-specific estimates of behaviors that relate to the leading causes of morbidity and mortality in the United States. Trained interviewers collect data on a monthly basis by using an independent probability sample of households with telephones among the noninstitutionalized US population aged ≥ 18 years. Individual respondents are selected randomly from all adults living in a household. All BRFSS questionnaires and data are available on the Internet (www.cdc.gov/brfss). Because the BRFSS is a surveillance system, the Centers for Disease Control and Prevention's Institutional Review Board has determined that the BRFSS is exempt from its review.

In 2002, all 50 states and the District of Columbia participated, and 240 735 persons aged ≥ 18 years completed the interview. Firearm-storage questions were added to the BRFSS for the first time in all 50 states and the District of Columbia in 2002. We limited our analyses to the 223 819 BRFSS respondents (88 928 men and 134 891 women) who answered all survey questions on household firearms and who reported whether their households included children and youth <18 years old. Respondents were excluded if they had unknown responses or refused to answer the questions. The median response rate, based on the number of individuals actually reached by telephone, was 76.7% (range: 62.5% [in California] to 99.8% [in Minnesota]).³¹ The more conservative response-rate formula based on Council of American Survey and Research Organizations' guidelines produced a median response rate of 58.3% (range: 42.2% [in New Jersey] to 82.6% [in Minnesota]).³¹

Survey Questions and Definitions of Firearm-Storage Practices

The interviewer began the firearm section of the survey by first informing the respondent that "the next three questions are about firearms. We are asking these in a health survey because of our interest in firearm-related injuries. Please include weapons such as pistols, shotguns, and rifles; but not BB guns, starter pistols, or guns that cannot fire. Include those kept in a garage, outdoor storage area, or motor vehicle." Presence of firearms in the home was assessed by asking the respondent, "Are any firearms kept in or around your home?" Firearm-storage patterns were derived from 2 questions: "Are any of these firearms now loaded?" and "Are any of these loaded firearms also unlocked? By 'unlocked' we mean you do not need a key or combination to get the gun or to fire it. We don't count a safety as a lock." We created 3 firearm-storage pattern categories: "any household firearm" (yes/no), "loaded household firearm" (yes/no), and "loaded and unlocked household firearm" (yes/no). However, the state of California used a different set of firearm questions than the other states, and as a result, we were only able to create 2 categories for California: "any household firearm" and "loaded and unlocked household firearm."

Statistical Analyses

Both SAS (SAS Institute, Cary, NC) and SUDAAN (Research Triangle Institute, Research Triangle Park, NC) were used in all analyses to account for the complex sampling design and to calculate 95% confidence intervals (CIs). BRFSS data were directly

weighted for the probability of selection of a telephone number, the number of adults in a household, and the number of telephones in a household. Finally, data were poststratified to adjust for nonresponse and noncoverage of households without telephones and to force the sum of the weighted frequencies to equal each state's adult population (ie, final weight). These data are representative of >200 million US adults in 2002 (117 million adults without children and youth <18 years old and 83 million adults with children and youth <18 years old). Data from all states are pooled to produce nationally representative estimates.

We first estimated the national and state prevalence of adults with household firearms; second, we estimated the national and state prevalence of adults with any loaded household firearms and any loaded and unlocked household firearms. Next, among adults with children and youth <18 years old, we estimated the national and state prevalence of loaded household firearms and loaded and unlocked household firearms. Finally, to estimate the number of children and youth <18 years old who were exposed to loaded firearms and to loaded and unlocked firearms among households with children and youth, we used the following formula: number of children and youth = [(final weight/number of adults in a household) $\times a$] $\times b$, where a equals the percentage of households with children and youth in which firearms were stored loaded or loaded and unlocked, and b equals the average number of children in households in which firearms were stored loaded or loaded and unlocked.

RESULTS

Nationally, 32.6% (95% CI: 32.2–32.9%) of adults reported that firearms were kept in or around their home. The prevalence of adults with household firearms ranged from 5.2% in the District of Columbia to 62.8% in Wyoming (median: 40.8%) (Table 1).

The national prevalence of adults with loaded household firearms and with loaded and unlocked household firearms was 7.6% (95% CI: 7.5–7.8%) and 4.3% (95% CI: 4.2–4.5%), respectively. The prevalence of adults with loaded household firearms ranged from 1.6% in Hawaii, Massachusetts, and New Jersey to 19.2% in Alabama (median: 7.0%), and the prevalence of adults with loaded and unlocked household firearms ranged from 0.4% in Massachusetts to 12.7% in Alabama (median: 4.2%).

Nationally, among adults with children and youth <18 years old, 5.5% (95% CI: 5.3–5.8%) reported having loaded household firearms and 2.5% (95% CI: 2.3–2.6%) reported having loaded and unlocked household firearms. Among adults with children and youth, the prevalence of loaded household firearms ranged from 1.0% in Massachusetts to 13.4% in Alabama (median: 5.3%), and the prevalence of loaded and unlocked household firearms ranged from 0.3% in Massachusetts to 7.3% in Alabama (median: 2.3%) (Table 2). In 7 states (Alabama, Alaska, Arkansas, Georgia, Louisiana, Mississippi, and Montana), the prevalence of loaded household firearms among adults with children and youth was $\geq 10\%$; in 6 states (Alabama, Alaska, Arkansas, Idaho, Montana, and Wyoming), the prevalence of loaded and unlocked household firearms among adults with children and youth was $>5\%$.

Although household firearms were less likely to be stored loaded or loaded and unlocked among adults with children and youth than among adults overall, an estimated 1 692 610 children and youth (95% CI: 1 569 320–1 815 910) in the United States were living in households with loaded and unlocked firearms (Table 2). The 6 states with $>75\ 000$ children and

TABLE 1. Prevalence Estimates of Adults With Household Firearms, Loaded Household Firearms, and Loaded and Unlocked Household Firearms, 2002

State	Any Household Firearm, % (95% CI)	Loaded Household Firearm, % (95% CI)	Loaded and Unlocked Household Firearm, % (95% CI)
Alabama	57.2 (55.1–59.4)	19.2 (17.4–20.9)	12.7 (11.2–14.1)
Alaska	60.6 (57.7–63.4)	15.0 (12.9–17.1)	10.8 (8.9–12.6)
Arizona	36.2 (33.4–39.0)	11.3 (9.4–13.2)	7.6 (6.2–9.0)
Arkansas	58.3 (56.4–60.2)	15.9 (14.5–17.3)	10.4 (9.2–11.6)
California*	19.5 (18.0–21.0)	NA	2.2 (1.7–2.7)
Colorado	34.5 (32.8–36.2)	6.9 (6.0–7.8)	4.2 (3.5–4.9)
Connecticut	16.2 (15.0–17.4)	2.1 (1.6–2.6)	1.0 (0.7–1.3)
Delaware	26.7 (24.8–28.7)	6.5 (5.3–7.7)	3.4 (2.5–4.3)
District of Columbia	5.2 (3.8–6.6)	1.9 (1.1–2.6)	0.8 (0.4–1.2)
Florida	26.0 (24.7–27.4)	8.8 (7.9–9.7)	4.9 (4.3–5.5)
Georgia	41.0 (39.1–42.9)	13.4 (12.2–14.7)	7.5 (6.6–8.5)
Hawaii	9.7 (8.7–10.6)	1.6 (1.2–2.1)	1.0 (0.6–1.3)
Idaho	56.8 (55.0–58.6)	11.8 (10.7–12.9)	7.9 (6.9–8.8)
Illinois	19.7 (18.0–21.4)	2.7 (2.0–3.3)	1.4 (0.9–1.9)
Indiana	39.0 (37.6–40.5)	9.3 (8.4–10.2)	5.7 (5.0–6.4)
Iowa	44.0 (42.1–46.0)	3.9 (3.1–4.7)	2.5 (1.9–3.1)
Kansas	43.7 (42.0–45.4)	6.8 (6.0–7.7)	4.1 (3.4–4.8)
Kentucky	48.0 (46.0–50.0)	12.2 (10.9–13.5)	6.6 (5.6–7.6)
Louisiana	45.6 (43.9–47.3)	13.1 (12.0–14.3)	7.2 (6.3–8.1)
Maine	41.1 (38.8–43.3)	3.2 (2.4–4.0)	2.0 (1.4–2.6)
Maryland	22.1 (20.6–23.6)	3.9 (3.1–4.6)	2.3 (1.7–2.9)
Massachusetts	12.8 (11.7–13.8)	1.6 (1.2–2.0)	0.4 (0.2–0.6)
Michigan	40.3 (38.7–41.9)	5.6 (4.8–6.4)	3.2 (2.7–3.8)
Minnesota	44.7 (43.0–46.4)	3.4 (2.7–4.0)	2.3 (1.8–2.8)
Mississippi	54.3 (52.4–56.3)	15.9 (14.5–17.3)	8.9 (7.8–9.9)
Missouri	45.4 (43.4–47.4)	9.9 (8.7–11.1)	5.5 (4.6–6.4)
Montana	61.4 (59.2–63.7)	12.8 (11.3–14.2)	8.6 (7.4–9.8)
Nebraska	42.1 (40.3–43.8)	4.0 (3.3–4.7)	2.3 (1.7–2.8)
Nevada	31.5 (29.2–33.8)	9.1 (7.7–10.5)	5.6 (4.5–6.6)
New Hampshire	30.5 (29.0–32.1)	3.9 (3.3–4.6)	2.1 (1.7–2.6)
New Jersey	11.3 (9.6–13.1)	1.6 (1.1–2.1)	0.9 (0.5–1.3)
New Mexico	39.6 (37.8–41.3)	10.0 (9.0–10.9)	6.6 (5.8–7.4)
New York	18.1 (16.7–19.4)	2.3 (1.7–2.8)	1.3 (0.9–1.7)
North Carolina	40.8 (38.9–42.7)	11.5 (10.3–12.6)	6.8 (5.9–7.7)
North Dakota	54.3 (52.2–56.3)	3.3 (2.6–4.0)	2.0 (1.5–2.5)
Ohio	32.1 (30.3–33.9)	5.4 (4.6–6.3)	3.6 (2.9–4.3)
Oklahoma	44.6 (43.1–46.1)	13.0 (12.0–13.9)	7.7 (6.9–8.5)
Oregon	39.8 (37.7–41.8)	10.3 (9.1–11.5)	7.1 (6.1–8.1)
Pennsylvania	36.5 (35.3–37.6)	5.4 (4.9–6.0)	3.5 (3.1–3.9)
Rhode Island	13.3 (11.9–14.7)	2.1 (1.4–2.8)	1.5 (0.8–2.1)
South Carolina	45.0 (43.0–47.1)	13.5 (12.0–14.9)	8.1 (7.0–9.1)
South Dakota	59.9 (58.3–61.6)	6.0 (5.2–6.8)	4.1 (3.5–4.8)
Tennessee	46.4 (44.3–48.4)	12.0 (10.7–13.3)	6.6 (5.6–7.5)
Texas	35.9 (34.5–37.4)	12.2 (11.3–13.2)	7.9 (7.1–8.7)
Utah	45.3 (43.1–47.5)	5.4 (4.5–6.3)	3.3 (2.6–3.9)
Vermont	45.5 (43.8–47.2)	3.7 (3.0–4.5)	2.4 (1.9–2.9)
Virginia	35.9 (33.9–38.0)	8.6 (7.4–9.8)	5.0 (4.1–5.9)
Washington	36.2 (34.4–38.0)	7.1 (6.2–8.0)	4.3 (3.6–5.0)
West Virginia	57.9 (55.9–59.8)	9.4 (8.2–10.5)	5.5 (4.6–6.3)
Wisconsin	44.3 (42.5–46.2)	3.4 (2.7–4.1)	2.2 (1.6–2.8)
Wyoming	62.8 (60.8–64.7)	12.8 (11.4–14.1)	8.3 (7.3–9.4)
Median	40.8	7.0	4.2
Range	5.2–62.8	1.6–19.2	0.4–12.7

Data are based on self-reports. NA indicates not available.

* California's firearm questions differed from those of other states.

youth living in households with loaded and unlocked firearms were Alabama, California, Florida, Georgia, North Carolina, and Texas.

DISCUSSION

To our knowledge, this is one of the first studies to comprehensively examine both the prevalence of adults with household firearms and firearm-storage patterns at the state level. Our study findings are similar to national studies that have shown that, regardless of whether children and youth live in the

home, approximately one third of US homes contain firearms.^{21–23} According to our study, during 2002, an estimated 33% of all adults lived in households with firearms, and an estimated 4% of adults lived in households with firearms stored in the least safe manner (ie, loaded and unlocked). Household firearms were less likely to be stored in an unsafe manner by adults with children and youth <18 years old; nonetheless, >1.6 million children lived in households with loaded and unlocked firearms.

We found substantial state variations in the prev-

TABLE 2. Prevalence Estimates of Loaded Household Firearms and Loaded and Unlocked Household Firearms Among Adults With Children and Youth <18 Years Old and the Estimated Number of Children and Youth Living With Loaded and Loaded and Unlocked Firearms, 2002

State	Loaded Household Firearm, % \pm 95% CI	Estimated No. of Children and Youth Living with Loaded Firearms, N (95% CI)	Loaded and Unlocked Household Firearm, % \pm 95% CI	Estimated No. of Children and Youth Living with Loaded and Unlocked Firearms, N (95% CI)
Alabama	13.4 \pm 2.5	145 560 (113 730–177 380)	7.3 \pm 2.0	76 110 (54 630–97 590)
Alaska	10.7 \pm 2.8	19 970 (14 480–25 470)	6.6 \pm 2.4	12 380 (7670–17 090)
Arizona	7.1 \pm 2.1	108 630 (74 080–143 180)	4.4 \pm 1.8	67 980 (38 480–97 480)
Arkansas	11.6 \pm 2.1	80 080 (63 690–96 480)	6.6 \pm 1.7	40 500 (29 610–51 400)
California*	NA	NA	1.0 \pm 0.6	84 440 (37 890–130 990)
Colorado	4.0 \pm 1.1	43 300 (30 850–55 750)	1.9 \pm 0.8	17 820 (10 110–25 540)
Connecticut	1.8 \pm 0.7	18 150 (9280–27 020)	0.5 \pm 0.3	3390 (850–5930)
Delaware	4.6 \pm 1.4	7910 (4960–10 860)	2.0 \pm 1.0	2890 (1400–4380)
District of Columbia	1.9 \pm 1.6	1420 (230–2610)	0.6 \pm 0.7	660 (0–1450)
Florida	6.5 \pm 1.4	248 430 (186 560–310 300)	3.2 \pm 1.0	128 860 (80 580–177 150)
Georgia	10.3 \pm 1.6	228 650 (189 220–268 080)	4.9 \pm 1.1	104 700 (78 130–131 270)
Hawaii	1.2 \pm 0.5	4040 (1790–6300)	0.6 \pm 0.3	1650 (840–2470)
Idaho	9.1 \pm 1.5	30 740 (25 360–36 120)	5.2 \pm 1.2	17 030 (12 960–21 090)
Illinois	2.2 \pm 0.9	70 620 (36 590–104 650)	1.0 \pm 0.7	28 650 (7080–50 230)
Indiana	7.8 \pm 1.3	111 810 (91 480–132 140)	3.8 \pm 0.9	51 410 (37 990–64 840)
Iowa	2.1 \pm 1.0	16 100 (7370–24 840)	1.4 \pm 0.8	10 080 (2860–17 290)
Kansas	5.5 \pm 1.2	40 540 (30 290–50 800)	2.4 \pm 0.8	16 330 (9830–22 820)
Kentucky	9.6 \pm 2.0	94 600 (73 690–115 500)	4.3 \pm 1.4	37 460 (26 970–47 950)
Louisiana	10.0 \pm 1.7	113 360 (90 900–135 820)	4.4 \pm 1.2	54 630 (37 130–72 140)
Maine	1.8 \pm 1.1	6030 (2180–9890)	0.9 \pm 0.8	2260 (400–4110)
Maryland	3.6 \pm 1.2	42 860 (27 070–58 650)	1.8 \pm 0.9	20 820 (9240–32 390)
Massachusetts	1.0 \pm 0.5	15 680 (8260–23 100)	0.3 \pm 0.2	4880 (800–8970)
Michigan	4.0 \pm 1.1	104 160 (73 680–134 630)	1.9 \pm 0.8	49 560 (28 050–71 070)
Minnesota	2.7 \pm 1.0	30 560 (17 640–43 480)	1.8 \pm 0.8	19 770 (9110–30 430)
Mississippi	11.1 \pm 1.9	87 350 (70 220–104 470)	4.7 \pm 1.2	36 780 (26 470–47 090)
Missouri	7.1 \pm 1.8	80 400 (60 150–100 650)	3.0 \pm 1.2	35 180 (21 420–48 950)
Montana	11.1 \pm 2.3	22 500 (17 660–27 340)	6.4 \pm 1.7	11 700 (8420–14 980)
Nebraska	3.2 \pm 1.1	12 070 (7520–16 620)	1.7 \pm 0.8	7170 (3400–10 930)
Nevada	5.9 \pm 1.7	36 220 (24 260–48 180)	2.6 \pm 1.1	14 560 (7510–21 610)
New Hampshire	2.8 \pm 0.9	7750 (5360–10 150)	1.1 \pm 0.6	2530 (1240–3820)
New Jersey	1.2 \pm 0.6	23 150 (10 870–35 420)	0.5 \pm 0.4	7710 (1900–13 520)
New Mexico	7.5 \pm 1.4	34 850 (27 850–41 850)	4.0 \pm 1.0	16 190 (11 960–20 410)
New York	1.8 \pm 0.7	95 640 (50 910–140 370)	1.0 \pm 0.5	52 430 (19 490–85 370)
North Carolina	7.7 \pm 1.7	168 360 (126 570–210 160)	3.8 \pm 1.2	82 110 (51 760–112 450)
North Dakota	2.4 \pm 1.0	3730 (1980–5470)	1.6 \pm 0.8	2880 (1270–4500)
Ohio	2.9 \pm 1.0	83 050 (52 380–113 730)	1.4 \pm 0.7	33 610 (14 860–52 350)
Oklahoma	8.9 \pm 1.3	78 680 (64 780–92 570)	4.4 \pm 0.9	40 560 (29 790–51 330)
Oregon	6.1 \pm 1.6	57 990 (41 620–74 370)	3.0 \pm 1.1	26 550 (15 520–37 570)
Pennsylvania	4.0 \pm 0.8	113 360 (88 180–138 530)	2.0 \pm 0.6	54 500 (37 990–71 010)
Rhode Island	1.8 \pm 0.9	4720 (2290–7150)	0.6 \pm 0.5	1950 (150–3740)
South Carolina	8.9 \pm 1.8	83 610 (64 840–102 380)	4.4 \pm 1.3	42 200 (28 850–55 550)
South Dakota	3.8 \pm 1.1	9390 (4830–13 950)	2.3 \pm 0.9	6000 (1750–10 250)
Tennessee	9.7 \pm 2.0	136 340 (104 570–168 100)	3.5 \pm 1.3	43 370 (27 530–59 210)
Texas	8.1 \pm 1.3	434 300 (348 180–520 410)	4.2 \pm 0.9	199 670 (152 140–247 190)
Utah	4.3 \pm 1.1	28 090 (19 750–36 420)	2.1 \pm 0.8	11 910 (6380–17 430)
Vermont	3.2 \pm 1.0	4220 (2740–5690)	1.5 \pm 0.8	1660 (780–2530)
Virginia	6.3 \pm 1.4	121 210 (88 320–154 090)	2.9 \pm 0.9	49 210 (32 570–65 850)
Washington	5.0 \pm 1.4	70 710 (50 350–91 060)	1.8 \pm 0.8	24 790 (14 240–35 340)
West Virginia	6.4 \pm 1.7	27 030 (19 400–34 660)	3.1 \pm 1.2	10 690 (6510–14 870)
Wisconsin	2.8 \pm 1.3	41 140 (22 590–59 700)	1.3 \pm 1.0	14 940 (4570–25 320)
Wyoming	9.4 \pm 1.9	12 640 (9750–15 530)	5.1 \pm 1.4	7540 (5100–9970)
Median	5.3	42 000	2.3	19 770
Range	1.0–13.4	1420–434 300	0.3–7.3	660–199 670

Data are based on self-reports. NA indicates not available.

* California's questions to assess loaded and unlocked firearms differed from those of other states.

alence of adults with household firearms, from 10% in Hawaii to 63% in Wyoming (the prevalence in the District of Columbia was 5%). Furthermore, among adults with children and youth, a >24-fold difference was found between Massachusetts and Alabama in the percentage of loaded and unlocked household firearms. Few national studies have reported population-based representative estimates of firearm-storage patterns. In a 1993 report, the US Department of Justice estimated that 49% of homes

in the United States had household firearms,³² a level of firearm ownership typically reported in the 1980s and early 1990s.^{23,33} Using this national estimate and data from his study, Hemenway et al³⁴ estimated that 10% of US homes had a firearm that was currently loaded and unlocked; this finding is more than double our estimate using a more direct approach (4.3%). The difference between our estimates may be a result of a secular decline in the proportion of households that reported having firearms and,

hence, the proportion of households that were likely to engage in unsafe storage practices. In addition, it is also possible that a proportion of the households that formerly stored firearms loaded and unlocked have since implemented safe storage practices in their homes.

These findings are consistent with an earlier BRFSS study conducted using 1991–1995 data from 21 states.²⁶ Specifically, Powell et al²⁶ reported that the prevalence of adults with household firearms ranged from 12% in New Jersey to 57% in Idaho. For these 21 states, our 2002 prevalence estimates ranged from 11% in New Jersey to 58% in West Virginia (Idaho: 57%). For 18 states, the authors reported that the prevalence of children living in households with a loaded firearm ranged from 2% in Connecticut and Delaware to 12% in Mississippi. For these same states, our prevalence estimates ranged from 1% in New Jersey to 11% in Mississippi.

Our study had some limitations. First, because BRFSS excludes households without telephones, our findings may have overestimated the prevalence of firearms in households, because low income is associated with both lack of telephone service and a lower prevalence of firearms.³⁵ Second, although the validity of self-reported firearm storage is not known, previous studies suggest that self-reports of firearm ownership are valid.^{36,37} However, our findings represent self-reports of the presence of a household firearm, not firearm ownership. Nevertheless, the interviews were conducted with a randomly selected adult in the home. As a result, some participants may not have known about a firearm that was kept by another household member.^{38–40} For example, female respondents in particular have been shown to underreport firearms in the home. Likewise, female respondents who are aware of a household firearm kept by their spouse may be less likely to know how it is stored.^{38,39} Thus, we may have underestimated firearm prevalence and unsafe storage practices in US households.

Our estimates on the prevalence of household firearms also lacked an appraisal of the types of firearms available (ie, handgun or long gun). For example, adults keeping a handgun for protection may be more apt to store it loaded, whereas adults keeping a rifle for sport may keep it locked and unloaded until needed.^{34,41,42} The population characteristics of adults owning only a handgun may also differ from adults owning only a long gun. In addition, as mentioned previously, California used a different set of questions to assess both firearm prevalence and loaded and unlocked firearms. Thus, comparison of California's firearm prevalence estimates to that of the other 49 states and the District of Columbia should be done cautiously.

These results demonstrate the wide range of household firearm prevalence and storage of household firearms among the states, and we estimate that >1.6 million children live in homes with firearms stored in the least safe manner. A better understanding of firearm owners' attitudes, beliefs, and gun-storage behaviors is needed to effectively develop

and evaluate community-based education programs that promote safe firearm storage.⁴³ In addition, there is an absence of direct empirical evidence on how firearm safety technologies (ie, locking, protection, sensor and tracking technology) impact injury.²⁷ These state-level prevalence estimates of household firearms and storage practices will permit future assessment of changes in the risk profile of US households as firearm safety technologies and strategies to encourage safe firearm storage are developed, implemented, and evaluated.^{22,27}

Public health measures are needed to encourage the safe storage of household firearms. Such measures could include counseling of parents by primary care providers, especially pediatricians, regarding safe firearm storage.^{12,15,44} However, although studies have shown that parents are open to screening and counseling about firearm storage and safety,^{5,45,46} these services are rarely performed.^{47,48} There is also conflicting evidence on the effectiveness of parental safe-firearm-storage counseling.^{5,45,46,49,50} Other strategies to decrease child access to firearms in the home may include child-access-prevention laws, currently in place in 18 states, specifically designed to limit children's access to and use of firearms in the home^{18,51}; safe firearm-storage-promotion programs^{52,53}; and the provision of safety devices.^{43,54} These and other measures may help reduce the number of children exposed to unsafe firearm-storage practices and, in turn, decrease the number of firearm-related injuries and deaths among children and youth. However, many of these prevention strategies have not been based on preliminary effectiveness data, nor have they been evaluated adequately, generally because of scant funding for evaluation of these programs.²⁷ It is crucial that firearm-injury-prevention programs incorporate evaluation into implementation efforts and that a sustained body of research be developed to study the effects of prevention programs on the rates of firearm-related morbidity and mortality.²⁷

It is important to identify, implement, and evaluate effective methods to prevent firearm-related morbidity and mortality—from counseling youth and adults with depressive symptoms, to evaluating firearm safety technologies, to a variety of safe storage options. This is of utmost importance for the most vulnerable segments of our population—children and youth, persons with depressive symptoms, and those who have threatened suicide. Surveillance systems such as the BRFSS can be used to effectively monitor the prevalence of household firearms and firearm-storage practices so that future interventions to promote safe storage of firearms can be evaluated and more widely implemented based on their efficacy.

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Prevalence of Household Firearms and Firearm-Storage Practices in the 50 States and the District of Columbia: Findings From the Behavioral Risk Factor Surveillance System, 2002

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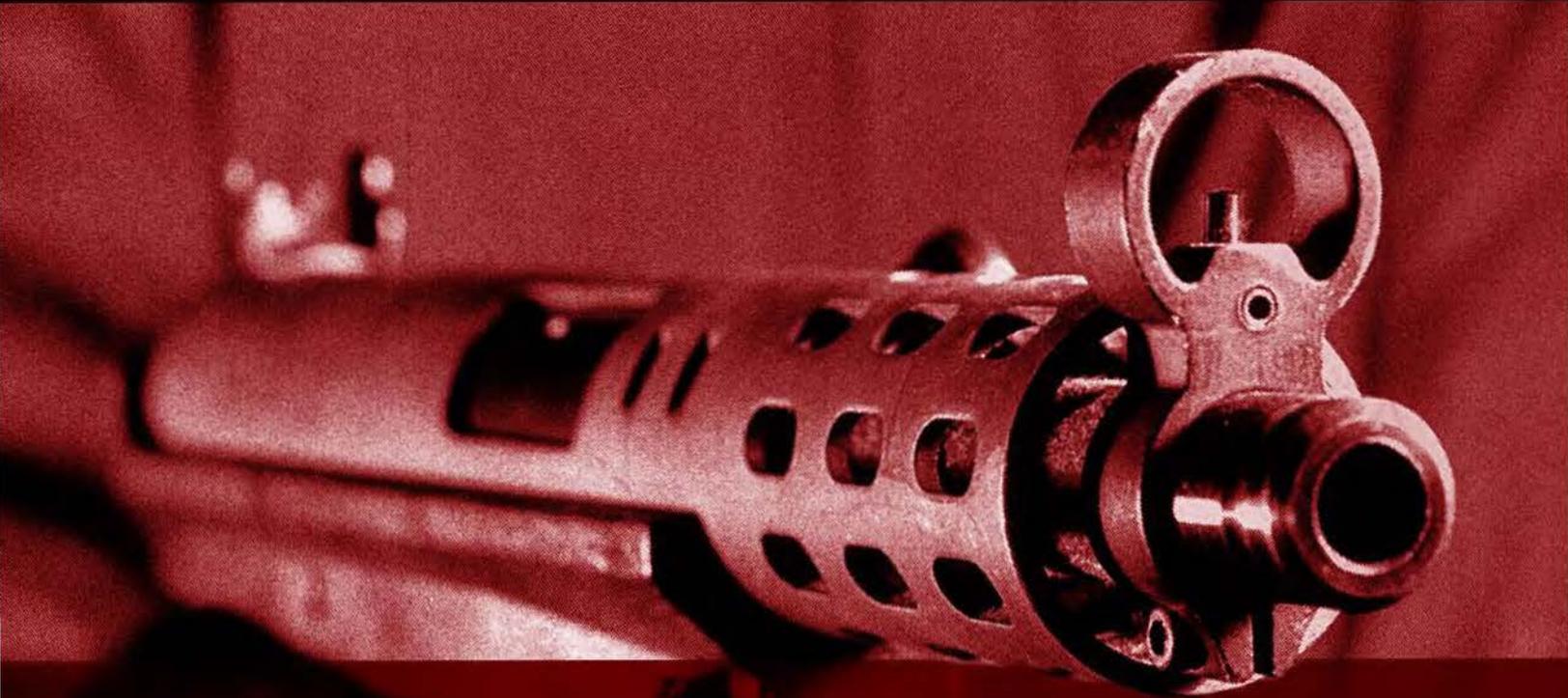
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EXHIBIT 39

Assault Weapons "Mass Produced Mayhem"



**Brady Center to Prevent Gun Violence
October 2008**

Assault Weapons: “Mass Produced Mayhem”

**Brady Center to Prevent Gun Violence
October 2008**



October 2008

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The Brady Center to Prevent Gun Violence is a national non-profit organization working to reduce the tragic toll of gun violence in America through education, research, and legal advocacy. Through its project, *Gun Industry Watch*, the Brady Center works to monitor and publicly expose gun industry practices that contribute to gun violence, with the goal of bringing about life-saving industry reform. The programs of the Brady Center complement the legislative and grassroots mobilization efforts of its sister organization, the Brady Campaign to Prevent Gun Violence and its network of Million Mom March Chapters.

Assault Weapons: "Mass Produced Mayhem" was written by Brian J. Siebel. Thanks go to Robyn Steinlauf, Sarah McLemore, Molly Warren, Lindsay Brooker, Talesia Simon, Natalie Durham, and Elizabeth Haile for their assistance in preparing this report. If you have questions about any part of this report, or would like a copy, please write to *Gun Industry Watch*, Brady Center to Prevent Gun Violence, 1225 Eye Street, N.W., Suite 1100, Washington D.C. 20005. The report and other Gun Industry Watch reports are also available at www.bradycenter.org/gunindustrywatch and www.gunlawsuits.org.

A Note About the Title

The phrase "mass produced mayhem" is taken from the federal Bureau of Alcohol, Tobacco, Firearms and Explosive's description of assault weapons in its "Assault Weapons Profile" (April 1994).

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Executive Summary

Assault weapons are military-style weapons of war, made for offensive military assaults. It is no accident that when a madman, Gian Luigi Ferri, decided to assault the law offices at 101 California Street in San Francisco, he armed himself with two TEC-9 assault weapons with 50-round magazines, which enabled him to kill eight people and wound six others.¹ Or that the Columbine high school shooters, who killed 12 students and a teacher, included a TEC-9 assault pistol in their arsenal.² Or that the Branch-Davidians at Waco, Texas, accumulated an arsenal of assault weapons to prepare for battle against the federal government, including 123 AR-15s, 44 AK-47s, two Barrett .50 calibers, two Street Sweepers, an unknown number of MAC-10 and MAC-11s, 20 100-round drum magazines, and 260 large-capacity banana clips.³ Or that James Huberty used an UZI assault pistol and a shotgun to kill 21 people and wound 19 others at a McDonald's in San Ysidro, California.⁴ Or that Patrick Purdy used an AK-47 assault rifle to kill five children and wound 29 others and a teacher at an elementary school in Stockton, California. Equipped with a 75-round "drum" magazine, Purdy was able to shoot 106 rounds in less than two minutes.⁵ The list of horrific attacks goes on.⁶

The federal Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) has called assault weapons "mass produced mayhem."⁷ They have been weapons of choice for gangs, drug dealers, and mass killers. They have been used to slaughter innocents in numerous high-profile shootings, and have been used to outgun police officers on the streets. They are of no use for hunters and are counterproductive for lawful defense of one's home. Law enforcement throughout the nation has called for them to be banned. Presidents Gerald Ford, Jimmy Carter, Ronald Reagan, Bill Clinton, and George W. Bush did not agree on much, but they all supported an assault weapons ban.

For ten years, from 1994-2004, federal law banned these weapons of war. Although this now-expired law was limited in scope, and was circumvented by many gun manufacturers, it reduced the use of assault weapons in crime. The experience suggests that a stronger, more comprehensive law would enhance public safety even more.

In the four years since the federal ban expired, hundreds of people have been killed in this country with military-style assault weapons. This report lists incidents in which at least 163 people have been killed and 185 wounded in with assault weapons, including at least 38 police officers killed or wounded by them. Moreover, as these incidents are only those that we could find reported in the press, the actual tally of fatalities and injuries is almost certainly much higher.

Since the federal assault weapon expired in 2004, politicians from President George W. Bush to Senator John Warner have called for its renewal. But on this issue, the two major presidential candidates offer two starkly opposing views: Senator Barack



Obama has stated as recently as his convention acceptance speech that it is imperative that criminals be denied the use of assault weapons. Senator John McCain, who has opposed the NRA on gun shows and other issues, has been firm in his opposition to assault weapon bans. The question should be asked of the candidates, "Senator, why should civilians be allowed to wield these weapons of war?"

This report provides the factual basis for answering that question, and makes the evidentiary case for an assault weapons ban. The report also outlines how the availability of assault weapons to criminals has altered the balance of power on urban streets between police and criminals, placing police officers in grave risk of harm.

SWD M-10, M-11, M-11/9, and M-12 Assault Pistol



AK-47 Assault Rifle (Many variants)



Assault Weapons Are Designed to Slaughter People

Assault weapons are semiautomatic versions of fully automatic guns designed for military use. These guns unleash extraordinary firepower. When San Jose, California, police test-fired an UZI, a 30-round magazine was emptied in slightly less than two seconds on full automatic, while the same magazine was emptied in just five seconds on semiautomatic.⁸

As the Bureau of Alcohol, Tobacco, Firearms and Explosives (“ATF”) has explained:

Assault weapons were designed for rapid fire, close quarter shooting at human beings. That is why they were put together the way they were. You will not find these guns in a duck blind or at the Olympics. **They are mass produced mayhem.**⁹

ATF has also described semiautomatic assault weapons as “large capacity, semi-automatic firearms designed and configured for rapid fire, combat use.... Most are patterned after machine guns used by military forces.”¹⁰ In short, as a Montgomery County, Alabama Sheriff has said: “[T]here’s only one reason for owning a gun like that – killing people. There’s no other use other than to kill people. That’s all they’re made for.”¹¹

Assault weapons have distinct features that separate them from sporting firearms.¹² While semiautomatic hunting rifles are designed to be fired from the shoulder and depend upon the accuracy of a precisely aimed projectile, the military features of semiautomatic assault weapons are designed to enhance their capacity to shoot multiple human targets very rapidly. Assault weapons are equipped with large-capacity ammunition magazines that allow the shooter to fire 20, 50, or even more than 100 rounds without having to reload. Pistol grips on assault rifles and shotguns help stabilize the weapon during rapid fire and allow the shooter to spray-fire from the hip position. Barrel shrouds on assault pistols protect the shooter’s hands from the heat generated by firing many rounds in rapid succession. Far from being simply “cosmetic,” these features all contribute to the unique function of any assault weapon to deliver extraordinary firepower. They are uniquely military features, with no sporting purpose whatsoever.¹³

Accordingly, ATF has concluded that assault weapons “are not generally recognized as particularly suitable for or readily adaptable to sporting purposes” and instead “are attractive to certain criminals.”¹⁴ An ATF survey of 735 hunting guides, conducted during the administration of President George H.W. Bush, found that sportsmen do not use assault weapons.¹⁵ These findings were confirmed in a second study performed by ATF under the Clinton Administration.¹⁶



A researcher hired by the Department of Justice to analyze the effect of the 1994 federal ban on assault weapons confirmed that the firepower of assault weapons gives them greater destructive potential. His analysis found that:

attacks with semiautomatics – including assault weapons and other semiautomatics equipped with large capacity magazines – result in more shots fired, more persons hit, and more wounds inflicted per victim than do attacks with other firearms.¹⁷

This contradicts the National Rifle Association’s (“NRA”) assertion that there are only “cosmetic” differences between the guns affected by the assault weapon ban and other firearms.

TEC-9, TEC-DC-9, and TEC-22 Assault Pistol



Steyr AUG Assault Rifle



Assault Weapons Threaten Law Enforcement and Terrorize Civilians

Since the federal assault weapons ban expired in September 2004, assault weapons have again flooded our streets, causing mayhem. Law enforcement agencies throughout the United States have reported an upward trend in assault weapons violence, forcing many police departments to invest in expensive assault weapons to keep from being outgunned by criminals. However, even with greater firepower and the availability of bulletproof vests, many officers have lost their lives to assault weapon attacks. Hundreds of civilians have also been victimized by assault weapons, many of them in multiple-victim attacks. In an appendix to this report, we list more than 200 assault weapons shootings and attacks that have occurred since the federal ban expired – and the list does not purport to be comprehensive. Assault weapons may not be used in the majority of crimes – handguns are – but they are disproportionately used in crime compared to their numbers in circulation. Moreover, assault weapons have special appeal to terrorists. They have no place in a civilized society.

Police Outgunned

Law enforcement has reported that assault weapons are the “weapons of choice” for drug traffickers, gangs, terrorists, and paramilitary extremist groups. As Los Angeles Police Chief William Bratton said:

There is a reason that these weapons are so appealing to criminals. They are designed to be easily concealed and kill as many people as possible as quickly as possible. Congress must act and act now to protect the American public and our police officers from these deadly weapons. This is about public safety and law enforcement.¹⁸

Law enforcement officers are at particular risk from these weapons because of their high firepower, which often leaves them outgunned by criminals. A researcher for the Department of Justice found that:

[A]ssault weapons account for a larger share of guns used in mass murders and murders of police, crimes for which weapons with greater firepower would seem particularly useful.¹⁹

Indeed, numerous law enforcement officers have been killed with high-firepower assault weapons.²⁰ In black sidebars on the following pages, we list ten cases of officers down since the federal assault weapons ban expired in September 2004. Unfortunately, there have been many more.²¹



OFFICERS DOWN

San Antonio, Texas. September 8, 2008.

A man shot two police officers with an assault rifle when the police attempted to arrest him. A standoff between the suspect and police followed, ending hours later when the suspect shot and killed himself.²²

Tucson, Arizona. June 1, 2008.

A man shot at several houses with an assault rifle, then lead police in pursuit across Tucson for more than an hour. During the chase, the gunman shot at police multiple times, fatally shooting one officer and injuring two Sheriff's deputies.²³

Philadelphia, Pennsylvania. May 3, 2008.

Officer Stephen Liczbinski was shot and killed by an assault rifle as he was responding to a robbery at a Bank of America branch. Three men robbed the bank and were fleeing when Officer Liczbinski stopped their car and exited his patrol car. At that time, one of the bank robbers opened fire with an SKS assault rifle, striking Liczbinski numerous times. One suspect was eventually shot and killed by police and the other two were arrested and charged with murder.²⁴

Miami, Florida. September 13, 2007.

Police spotted a vehicle driving erratically and followed it until it stopped in a residential complex. The suspect got out and hopped a fence to the rear of the home; the officers exited their patrol car and went to the front of the home and were granted permission to search by a female resident. The suspect grabbed a high-powered, military-style assault rifle and fired at the police officers through a window, killing Officer Jose Somohano. The suspect then exited the house and shot three other officers as he escaped. The shooter was caught later that day but would not relinquish his assault rifle so he was shot and killed by police officers.²⁵

Floyd County, Indiana. June 18, 2007.

Two officers responded to a domestic disturbance call between a mother and her son. The officers were speaking with the mother on the driveway when the 15-year-old son ambushed both officers from an upstairs window and shot at them with a high-powered assault rifle. One officer was killed and the other was seriously wounded.²⁶

In addition, police departments have found that the ban's expiration has led to increased criminal access to assault weapons and levels of violent crime, forcing many to outfit their officers with assault rifles of their own.²⁷ An informal survey of about 20 police departments conducted by the International Association of Chiefs of Police revealed that since 2004, all of the agencies have either added assault weapons to patrol units or replaced existing weapons with military-style assault weapons.²⁸

"We're in an arms race," said Police Chief Scott Knight, chairman of the firearms committee of the International Association of Chiefs of Police.²⁹ Indeed, data collected from ATF found that, since 2005, the first full year after the federal ban on assault weapons expired, ATF recorded an 11% increase in crime gun tracings of AK-47-type assault weapons.³⁰

The Chicago Police Department reported a 10% increase in the number of assault weapons seized. Superintendent Phil Cline said, "[t]hese are guns that can shoot up to 30 rounds with a couple pulls of the trigger. And it puts our police in grave danger out there. So, we'd like still to see some kind of ban, either by the state or federally."³¹

In 2006, law enforcement in Miami noted the effect of the expiration of the assault weapons ban on the rash of crimes used with these now-legal weapons.



County state attorney Katherine Fernandez-Rundle stated that the AK-47 is the “favorite weapon” of dangerous gangs gaining influence in Miami.³² Miami-Dade Police Director Robert Parker stated “there was nothing positively gained by the lifting of the ban on assault weapons by the government.”³³

Just over a year later, Miami police said that the amount of assault weapons they recovered, and homicides using assault weapons, had continued to increase. While just four percent of homicides in Miami in 2004 were committed with assault weapons, in 2007, it was one in five.³⁴ “It’s almost like we have water pistols going up against these high-powered rifles,” said John Rivera, president of the Dade County Police Benevolent Association. “Our weaponry and our bulletproof vests don’t match up to any of those types of weapons.”³⁵

The death of Miami police officer Sgt. Jose Somohano - killed by a shooter wielding a MAK-90 three years to the day after the federal ban expired - prompted Miami Police Chief John Timoney for the first time to authorize officers to start carrying assault weapons. The Chief blamed the expiration of the federal ban for the current “arms race” between police and drug gangs using assault weapons:

This is really a failure of leadership at the national level. We are absolutely going in the wrong direction here. The whole thing is a friggin disgrace.³⁶

He added:

Two or three years ago, we had the lowest homicide rate since 1967 in Miami. Then the homicides skyrocketed with the availability of AK-47s. And it went from 3% of all homicides being committed with AKs, up to 9% two years ago, then 18% last year, and this year it is around 20%. And it’s going up.... We’re being flooded with these AK-47s.³⁷

Shootings involving assault weapons were among the reasons U.S. Attorney R. Alexander Acosta set up an anti-gang task force of federal, state, and local law enforcement officials in Florida in 2007. Fifteen federal prosecutors were assigned to the effort. Said Acosta of assault weapons:

These bullets are very powerful: they go through walls, they go through cars, and if you just spray the general vicinity you’re going to get innocent bystanders. A shooting that might have been an injury previously is now a death.³⁸

Pittsburgh law enforcement also has noticed an increase in criminal use of assault weapons since the expiration of the ban. Firearms like the AK-47 and Soviet SKS Carbine have become the weapons of choice for street criminals. Pittsburgh’s Assistant Chief of Police William Mullen blamed the expiration of the ban for this



OFFICERS DOWN

Biloxi, Mississippi. June 5, 2007. A gunman with an AK-47 ambushed police officers in a shootout, killing one, then shooting himself. The gunman lured police by firing shots in the neighborhood and waiting. After shooting one officer, the gunman unloaded an additional round into the patrol car. The gunman had a cache of backup guns and ammunition waiting inside his home.³⁹

Chantilly, Virginia. May 8, 2006. A teenager with an AK-47 and 5 handguns engaged in a firefight at a police station in suburban Virginia, killing Detective Vicky Armel immediately and wounding two other officers, one of whom, Officer Michael Garbarino, died nine days later from his injuries.⁴⁰

Las Vegas, Nevada. February 1, 2006. A 22-year-old fired at least 50 rounds from an assault rifle, shooting two Las Vegas police officers and killing one, before being shot and killed by the surviving officer.⁴¹

Livingston County, Kentucky. June 2, 2005. A deputy was shot when he responded to a domestic disturbance call placed by a couple's 18-year-old daughter. When the officer entered the home, a male fired at least 8 rounds from an assault rifle at him, hitting him four times and killing him. The officer was able to fire one round which killed the gunman.⁴²

Ceres, California. January 9, 2005. A 19-year-old Marine armed with an SKS assault rifle shot two police officers, killing one, in a gun battle outside a liquor store.⁴³

increase and noted, “[t]here’s a lot more assault weapons in the area in districts now than ever before.”⁴⁴

In Houston, where homicides were up significantly in 2006, Police Chief Harold Hurtt said the AK-47 assault rifle had become “a weapon of choice” among warring gangs.⁴⁵

Palm Beach County police have noted an alarming trend of AK-47 use in violent crimes. Sheriff’s Lieutenant Mike Wallace said: “It seems to be the weapon of choice right now. It’s a weapon of war, and the function is to kill and maim. When somebody gets hit with that, it causes horrendous damage.”⁴⁶ Sergeant Laurie Pfiel of the same office said: “[Criminals] don’t have .38s anymore. They have AK-47s.”⁴⁷

Martin County Sheriff’s Office Captain Ed Kirkpatrick of Florida details the effect of criminal possession of assault weapons on effective law enforcement: “Everyone is taking more precautions. When you stop a car in the middle of the night, you [didn’t] think about it. Now you do. These are very powerful weapons.”⁴⁸

Franklin County, North Carolina Sheriff Pat Green said: “I’ve been in this business 25 years, and it’s just getting worse,” referring to a report that they have been finding more and more assault weapons at crime scenes in the state.⁴⁹ In South Carolina, Lieutenant Ira Parnell, head of the State Law Enforcement Division’s firearms lab, noted that investigators are seeing an increase in criminal use of AK-47 and SKS assault rifles.⁵⁰

Fort Wayne, Indiana police reported a significant spike in seizures of assault weapons since the ban expired, from two in 2003, to nine in 2004, eight in 2005, 29 in 2006, and 20 in 2007. “[W]e’re certainly seeing them more and more,” said Police Chief Rusty York.⁵¹ Similarly, Omaha, Nebraska police seized 39 assault rifles in 2007, up from nine in 2006.⁵²



In San Francisco, Police Officers Association President Gary Delanges said: “Just about every crook you run into out there [who] is a drug dealer or a gang banger’s got one of these weapons. And it’s putting our officers’ lives at risk.”⁵³ Deputy Chief Morris Tabak displayed some of the seized assault weapons, including a .22 caliber gun modified to hold 100 rounds. “These are what could be described only as anti-personnel weapons,” he said.⁵⁴

Israeli Military Industries Action Arms UZI Assault Rifle



Civilians Massacred

Assault weapons have been used to perpetrate some of the most horrific crimes, including mass murders, ever committed in the United States. Some of the most infamous ones are cited in the Executive Summary of this report. Unfortunately, this gruesome death toll has grown since the expiration of the 10-year federal ban on assault weapons.

As can be seen from the following examples, assault weapons have been used to kill civilians engaged in common activities of life, in all types of circumstances and places. The Appendix lists more than 200 examples from just the last four years.

- **Teens slaughtered at a swimming hole in Wisconsin**

On July 31, 2008, a man used an assault rifle to massacre a group of teenagers, killing three and injuring a fourth near Niagara, Wisconsin. The teens were gathered along a river to go swimming when the gunman emerged from surrounding woods and began shooting.⁵⁵



- **Apartment employees shot by a disgruntled tenant in Virginia**

On March 19, 2008, in Virginia Beach, Virginia, a man shot five people, killing two, with an AK-47 assault rifle and .9mm handgun before killing himself. The man was about to be evicted from his apartment and targeted the apartment complex's employees in his attack.⁵⁶

- **Churchgoers gunned down in Colorado**

On December 9, 2007, a man armed with an assault rifle attacked a missionary training center in Arvada and a church in Colorado Springs. He killed two people and injured two others in Arvada, and killed two and injured three others, including two teenage sisters, in Colorado Springs. He was injured by a security guard and then shot himself.⁵⁷

- **Mall shoppers massacred in Nebraska, Washington, and New York**

On December 5, 2007, nine people were shot to death and five others were injured after a 20-year-old shooter, armed with a military-style assault rifle, attacked shoppers in a department store in an Omaha, Nebraska mall.⁵⁸

On November 20, 2005, a 20-year-old male opened fire in a Tacoma, Washington mall, wounding six. The shooter took four hostages, all of whom were released unharmed.⁵⁹

On February 13, 2005, a gunman fired more than 60 shots from an AK-47 assault rifle in the Hudson Valley Shopping Mall in Ulster, New York, wounding two and causing tens of thousands of dollars of damage before being apprehended. A few hours earlier, the shooter had purchased armor-piercing ammunition from a nearby Wal-Mart.⁶⁰

- **Birthday party celebrants spray-fired in Louisiana**

On September 15, 2007, at least 28 bullets were fired from an AK-47 at an outdoor birthday party for five-year-old twins in the courtyard of a housing complex in Kenner, Louisiana. A 19-year-old was killed and three children were wounded, ages 7, 8 and 13.⁶¹

- **Pregnant woman and child shot while sleeping in Illinois**

On June 25, 2006, in Calumet City, Illinois, a 22-year old pregnant woman and her three-year old son were shot and killed while they were sleeping when an unknown gunman fired 30 rounds from an AK-47 into their home at 1:15 a.m.⁶²



- **Family massacred in a home robbery in Indiana**

On June 2, 2006, in Indianapolis, Indiana, seven family members, four adults and three children, were shot and killed in their home by a robber armed with an assault rifle. Nearly 30 shell casings were found.⁶³

- **Two young girls shot in their homes in Illinois**

On March 11, 2006, 10-year-old Siretha White was killed by a shot to her head as she was celebrating her birthday in her living room. A spray of bullets from an assault weapon peppered the house from a nearby fight.⁶⁴

Just over a week earlier, on March 3, 2006, a stray bullet from an assault rifle struck a 14-year-old honor student as she was looking out the window of her home, killing her instantly.⁶⁵

- **College students murdered while camping in Florida**

On January 7, 2006, two college students camping in the Ocala National Forest in Florida were randomly targeted by a man who shot and killed them with a stolen AK-47.⁶⁶

- **Domestic violence leads to mass shootout on courthouse steps in Texas and triple-slaying in Ohio**

On February 25, 2005, in Tyler, Texas, a gunman who was reportedly fighting with his ex-wife over child support for their two youngest children, shot over 50 rounds from an SKS assault rifle on the steps of his local courthouse, killing his ex-wife and a bystander. The shooter's 23-year-old son and three law enforcement officers were wounded in a shootout.⁶⁷

Just a day earlier in Akron, Ohio, a man shot and killed his girlfriend and her seven-year-old son using an AR-15 assault weapon, then fired more than 100 rounds at a dozen law enforcement officers as he fled the murder scene. The gunman was arrested the next morning inside the apartment of a Kent State University student, who he also murdered with the AR-15 assault weapon. Police subsequently seized 21 weapons kept by the suspect, including an Uzi and an AK-47.⁶⁸

- **Hunters gunned down in the woods in Wisconsin**

On November 21, 2004, near Hayward, Wisconsin, a 36-year-old man opened fire with an SKS semiautomatic rifle, killing six members of a hunting party and wounding two after being asked to leave another hunter's property.⁶⁹



Crime Use Disproportionate

The firepower of assault weapons makes them especially desired by violent criminals and especially lethal in their hands. Prior to the Act, although assault weapons constituted less than 1% of the guns in circulation,⁷⁰ they were a far higher percentage of the guns used in crime. ATF's analysis of guns traced to crime showed that assault weapons "are preferred by criminals over law abiding citizens eight to one.... Access to them shifts the balance of power to the lawless."⁷¹

In arguing against assault weapon bans, the NRA and its supporters have cited Justice Department studies based on surveys of state and federal prisoners to claim that assault weapons are used in only 2% of crimes nationally. These studies, however, actually confirm the disproportionate use of assault weapons in crime. More than 80% of these prisoners used *no firearm* in the commission of their crime. Within the category of inmates who used guns to commit crimes, semiautomatic assault weapons were actually used in 6.8% of state prosecutions and 9.3% of federal prosecutions.⁷² Both percentages are much higher than the estimated 1% of guns in circulation that are assault weapons.⁷³

In addition, research by Dr. Garen Wintemute of the University of California at Davis has found that gun buyers with criminal histories were more likely to buy assault weapons than buyers without such histories. Wintemute further found that the more serious the offender's crimes, the more likely he is to buy assault weapons. Assault weapon buyers also are more likely to be arrested after their purchases than other gun purchasers.⁷⁴

Fabrique Nationale FN/FAL, FN/LAR, and FNC Assault Rifle



Terrorists Armed

As our nation wages a war on terrorism – at home and abroad – one salient fact is especially unassailable: terrorists and assault weapons go together. The assault weapon's capacity to mass-murder within a matter of seconds makes it an ideal weapon for domestic and foreign terrorists alike. The oft-seen file footage of Osama Bin Laden,



aiming his AK-47 at an unknown target, is now a familiar reminder of the incontrovertible connection between terrorism and assault weapons.

After America's bombing of terrorist camps in Afghanistan after 9/11, the *Chicago Tribune* reported that, among the mounds of rubble found at a training facility in Kabul for a radical Pakistan-based Islamic terrorist organization, was a manual entitled "How Can I Train Myself for Jihad" containing an entire section on "Firearms Training."⁷⁵ Tellingly, the manual singles out the United States for its easy availability of firearms and advises al-Qaeda members living in the United States to "obtain an assault weapon legally, preferably AK-47 or variations." Further, the manual sets forth guidelines for how would-be terrorists should conduct themselves in order to avoid arousing suspicion as they amass and transport firearms.

As the following examples indicate, terrorists have sought and obtained assault weapons in the U.S.

- **Conspirators armed to attack within the United States**

On May 7, 2007, five New Jersey men were indicted for conspiring to attack the United States Army base at Fort Dix, NJ. Over several months, the conspirators managed to stockpile numerous assault weapons, along with shotguns and various other small arms, and used these weapons in tactical training for their attack. The men had also arranged to purchase five fully automatic AK-47s and several M-16s at the time of their arrest.⁷⁶

On March 16, 2005, in New York, Artur Solomonyan, an Armenian, and Christian Dewet Spies, of South Africa, were indicted for smuggling a small arsenal of assault weapons into the U.S. from Russia and Eastern Europe. The two men, who had entered the U.S. illegally, stored these weapons in storage lockers in New York, Los Angeles, and Fort Lauderdale. When approached by an FBI informant with ties to terrorist organizations, Solomonyan and Spies offered to sell him AK-47s and machine guns, along with RPG-launchers, mines, and other military-grade ordnance.⁷⁷

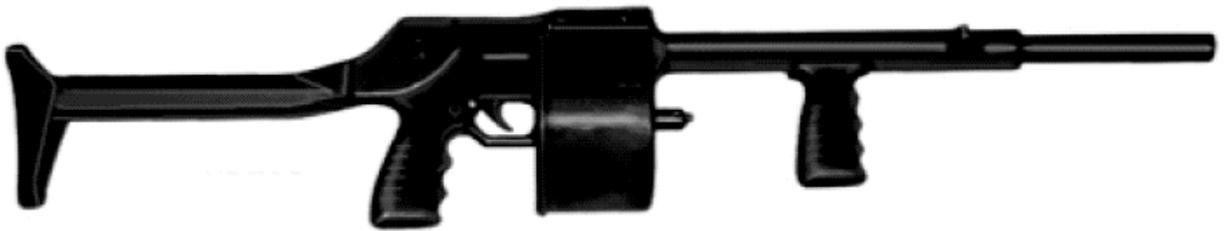
In late April 2004, Michael J. Breit of Rockford, Illinois, was arrested after firing his AK-47 in his apartment. Federal agents recovered seven guns, more than 1,300 rounds of ammunition, pipe bomb making components and other explosives, a list of government officials and political and public figures with the word "marked" written next to them, and a written plan for 15 heavily armed men to kill 1,500 people at a Democratic presidential event. Breit's library included *The Turner Diaries*, the anti-government cult novel that inspired Timothy McVeigh, and *Guns, Freedom and Terrorism*, the book authored by NRA CEO Wayne LaPierre, investigators said.⁷⁸

In September 2001, Ben Benu, Vincente Pierre and his wife were arrested in Virginia for illegally buying assault weapons and other guns. The arrests were part of the post-September 11th sweep of terrorism suspects. They were alleged to be part of a militant group called Muslims of America (also linked to a terrorist group called Al



Fuqra). They bought guns including an SKS assault rifle, a 9mm pistol, and AK-47 ammunition.⁷⁹

Street Sweeper/Striker 12 Assault Shotgun



- **Arming terrorists and criminals abroad with assault weapons bought here**

On May 6, 2008, Phoenix gun dealer George Iknadosian and two associates were arrested after receiving a shipment of weapons intended for sale to a Mexican drug cartel. An undercover investigation by ATF indicated that Iknadosian sold at least 650 AK-47 assault rifles for trafficking to Mexico but that the actual number might have been closer to 1,000. Such weapons feed the on-going conflict between drug traffickers and Mexican authorities, a conflict which resulted in more than 2,000 law enforcement deaths in an 18-month period.⁸⁰

Over several months in 2006, Adan Rodriguez purchased more than 100 assault rifles, along with many other weapons, from Dallas area gun shops on behalf of Mexican drug traffickers who paid him in cash and marijuana. Rodriguez's arrest was one of several key arrests in a five-year crack-down on weapons smuggling to Mexico. AK-47's, AR-15's, and other high-powered assault weapons, obtained either at gun shows or through straw purchasers, fuel an on-going war between major Mexican cartels and police and military officials. Over 4,000 people were killed in this drug-related violence during an 18-month period in 2007-2008.⁸¹

On September 10, 2001, Ali Boumelhem was convicted on a variety of weapons charges plus conspiracy to ship weapons to the terrorist organization Hezbollah in Lebanon. He and his brother had purchased an arsenal of shotguns, hundreds of rounds of ammunition, flash suppressors and assault weapons components at Michigan gun shows. Had it not been for a police informant, these purchases would have eluded any scrutiny.⁸²

Stephen Jorgensen purchased hundreds of firearms, including AK-47 clones called MAK-90s, with plans to ship them overseas from Tampa, Florida. Jorgensen bought 800 MAK-90s, loading them on to small planes. US customs officials say the guns were headed to the FARK guerilla movement in Colombia, a group on the U.S. terrorism watch list. Jorgensen was caught because he illegally exported the guns.⁸³



In June 2001 federal agents arrested Keith Glaude when he tried to purchase 60 AK-47 assault rifles and 10 machine guns in Florida. He told authorities that he intended to ship the guns to an Islamic extremist group in his native Trinidad. Previously, that group had acquired over 100 assault weapons in Florida that it used in a 1990 attempt to overthrow the government of Trinidad and Tobago.⁸⁴

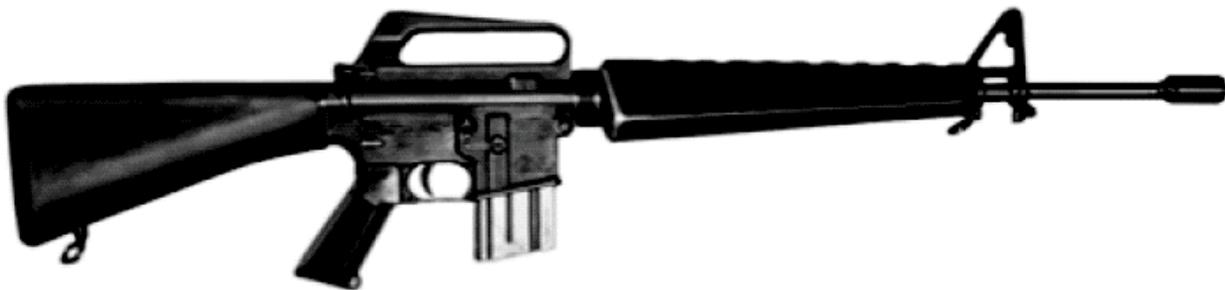
- **Using assault weapons in terrorist attacks**

Over a period of weeks in 2002, John Mohammed, a convicted felon, and his juvenile cohort, Lee Boyd Malvo, terrorized the entire metropolitan Washington, D.C. area by engaging in a series of sniper attacks on randomly-selected victims. In all, they shot 16 victims with a Bushmaster XM-15 E2S .223 caliber semiautomatic assault rifle that one of the snipers allegedly shoplifted from a Tacoma, Washington gun store. Each of the victims was randomly gunned down while going about simple activities of daily living, like closing up a store after work,⁸⁵ filling a car with gas at a service station,⁸⁶ mowing a lawn,⁸⁷ or loading one's car in a mall parking lot.⁸⁸ Both shooters have been convicted of their offenses.

On March 1, 1994, terrorist Rashid Baz opened fire on a van of Hasidic students crossing the Brooklyn Bridge, killing one student and wounding another. Baz used a Cobray M-11 assault pistol in the crime. He assembled it from a mail-order kit.⁸⁹

On January 25, 1993, Pakistani national Mir Aimal Kasi killed 2 CIA employees and wounded 3 others outside the entrance to CIA headquarters in Langley, Virginia. Kasi used a Chinese-made semiautomatic AK-47 assault rifle equipped with a 30-round magazine purchased from a Northern Virginia gun store.⁹⁰ After fleeing the country, he was arrested in Pakistan in June 1997 and convicted by a Virginia jury in November of that year.⁹¹

Colt AR-15 Assault Rifle



Assault Weapons Have No Sporting or Self-Defense Purpose

Prior to passage of the federal assault weapons ban, the importation of certain types of assault weapons from overseas was banned during the Reagan and George H.W. Bush Administrations. These import bans were ordered by ATF under the 1968 Gun Control Act, which bars the importation of guns that are not “particularly suitable for or readily adaptable to sporting purposes.”⁹²

Under the Reagan Administration, ATF blocked the importation of certain models of shotguns that were not suitable for sporting purposes. In 1989, during the George H.W. Bush Administration, ATF expanded this list to permanently ban the importation of 43 types of semiautomatic assault rifles that were also determined not to have a sporting purpose. Later, in 1998, President Clinton banned the importation of 58 additional foreign-made “copycat” assault weapons in order to close a loophole in the existing import ban.⁹³

Assault weapons, as opposed to hunting rifles, are commonly equipped with some or all of the following combat features that have no sporting value:

- **A high-capacity ammunition magazine** enabling the shooter to continuously fire dozens of rounds without reloading. Standard hunting rifles are usually equipped with no more than three or four-shot magazines.
- **A folding or telescoping stock**, which sacrifices accuracy for concealability and for mobility in close combat.
- **A pistol grip or thumbhole stock**, which facilitates firing from the hip, allowing the shooter to spray-fire the weapon. A pistol grip also helps the shooter stabilize the firearm during rapid fire.
- **A barrel shroud**, which allows the shooter to grasp the barrel area to stabilize the weapon, without incurring serious burns, during rapid fire.
- **A flash suppressor**, which allows the shooter to remain concealed when shooting at night, an advantage in combat but unnecessary for hunting or sporting purposes. In addition, the flash suppressor is useful for providing stability during rapid fire, helping the shooter maintain control of the firearm.
- **A threaded barrel designed to accommodate a flash suppressor or silencer**. A silencer is useful to assassins but clearly has no purpose for sportsmen. Silencers are also illegal.
- **A barrel mount designed to accommodate a bayonet**, which obviously serves no sporting purpose.



Combat Hardware Commonly Found on Assault Weapons

Assault weapons generally include features that are useful for offensive assaults on people, but have no sporting or self-defense function. Some of these are shown below.



- **A grenade launcher or flare launcher**, neither of which could have any sporting or self-defense purpose.
- **A shortened barrel** designed to reduce the length of an assault rifle to make it more concealable. This reduces accuracy and range.⁹⁴

In addition to utilizing military features useful in combat, but which have no legitimate civilian purpose, assault weapons are exceedingly dangerous if used in self defense, because the bullets many of the weapons fire are designed to penetrate humans and will penetrate structures, and therefore pose a heightened risk of hitting innocent bystanders. As Jim Pasco, executive director of the Fraternal Order of Police has explained: **“An AK-47 fires a military round. In a conventional home with dry-wall walls, I wouldn’t be surprised if it went through six of them.”**⁹⁵ A bullet fired in self-defense that penetrated a home’s walls, could strike bystanders in neighboring rooms, apartments, or houses.

High capacity magazines containing more than 10 rounds, which were also banned as part of the Federal Assault Weapons Act, are also not useful for self-defense, as former Baltimore County Police Department Colonel Leonard J. Supenski has testified:

The typical self-defense scenario in a home does not require more ammunition than is available in a standard 6-shot revolver or 6-10 round semiautomatic pistol. In fact, because of potential harm to others in the household, passersby, and bystanders, too much firepower is a hazard. Indeed, in most self-defense scenarios, the tendency is for defenders to keep firing until all bullets have been expended.⁹⁶

Assault weapons were designed for military use. They have no legitimate use as self-defense weapons.



Sportsman Jim Zumbo Speaks Out “Assault” Rifles are “Terrorist” Rifles

A long-standing writer for *Outdoor Life* magazine, Jim Zumbo, created a huge controversy within the gun lobby when he admitted in an online blog that assault rifles have no place as hunting weapons. Zumbo wrote:

“I must be living in a vacuum. The guides on our hunt tell me that the use of AR and AK rifles have a rapidly growing following among hunters, especially prairie dog hunters. I had no clue. Only once in my life have I ever seen anyone using one of these firearms.

I call them ‘assault’ rifles, which may upset some people. Excuse me, maybe I’m a traditionalist, but I see no place for these weapons among our hunting fraternity. I’ll go so far as to call them ‘terrorist’ rifles. They tell me that some companies are producing assault rifles that are ‘tackdrivers.’

Sorry, folks, in my humble opinion, these things have no place in hunting. We don’t need to be lumped into the group of people who terrorize the world with them, which is an obvious concern. I’ve always been comfortable with the statement that hunters don’t use assault rifles. We’ve always been proud of our “sporting firearms.

This really has me concerned. As hunters, we don’t need the image of walking around the woods carrying one of these weapons. To most of the public, an assault rifle is a terrifying thing. Let’s divorce ourselves from them. I say game departments should ban them from the prairies and woods.”⁹⁷

Israel Military Industries Action Arms Galil Assault Rifle



“Dangerous and Unusual Weapons” Are Not Protected by the Second Amendment

The Second Amendment does not provide constitutional protection for military-style assault weapons. In *District of Columbia v. Heller*,⁹⁸ the Supreme Court recently ruled that the Second Amendment protects an individual right to keep and bear arms for self-defense in the home.⁹⁹ However, the Court also went out of its way to indicate that the right is limited in a number of ways. One limitation, the Court held, is that not all “arms” are protected.

We also recognize another important limitation on the right to keep and carry arms. [*U.S. v.*] *Miller* said, as we have explained, that the sorts of weapons protected were those “**in common use at the time.**” We think that limitation is fairly supported by the historical tradition of prohibiting carrying of “**dangerous and unusual weapons.**”¹⁰⁰

Assault weapons are certainly “dangerous and unusual weapons” according to any reasonable analysis of that phrase. They are military-style offensive weapons designed to slaughter human beings.¹⁰¹ This differentiates them from all hunting rifles and shotguns, as well as common handguns, which are often used in crime but have also been used in self-defense.

Moreover, assault weapons have never been “in common use” at **any** time. As semi-automatic versions of machine guns developed for use during the World Wars of the 20th Century, they are a relatively recent invention. In addition to being banned by the federal government for 10 years, they have been banned in several states.¹⁰² Plus, ATF has twice concluded, after thorough analyses in 1989 and 1998, that assault weapons have no “sporting purpose.”¹⁰³ This conclusion has blocked them from being imported into the United States.

Another factor suggesting that the Second Amendment does not protect assault weapons is that state supreme courts have consistently upheld the constitutionality of assault weapon bans as reasonable regulations designed to protect public safety under broadly-worded right-to-bear-arms provisions in state constitutions.¹⁰⁴ The *Heller* Court relied on these state constitutional provisions, many of which were adopted in the 18th and 19th centuries, to support its interpretation that the Second Amendment protects an individual right to bear arms. Courts construing the Second Amendment, post-*Heller*, can be expected to apply a similar standard of review, and uphold a federal assault weapons ban.



A Strong Federal Assault Weapons Ban Should Be Enacted

In response to mass shootings and mounting public pressure, Congress finally passed a nationwide ban on assault weapons in 1994. In hearings on the bills, the Senate Judiciary Committee explained the need to:

address the carnage wrought by deadly military-style assault weapons on innocent citizens and the law enforcement officers who seek to protect us all. Recent events illustrate again, and with chilling vividness, the tragedy that results from the wide and easy availability of guns with fire power that overwhelm our police, of weapons that have no place in hunting or sport and whose only real function is to kill human beings at a ferocious pace.¹⁰⁵

Those factors are just as prevalent today. Indeed, after 9/11, the need may be greater.

Unfortunately, the 1994 statute's scope and effectiveness were limited in several important ways. First, the law included a 10-year sunset provision allowing it to lapse when it was not re-enacted in 2004. Second, the law contained a list of assault weapons banned by make and model, but this list was not comprehensive. Third, the statute also banned guns by reference to their military features, but required guns to have **two** of these features (in addition to being semiautomatic firearms capable of accepting a detachable, high-capacity ammunition magazine) in order to be banned. The requirement of two military features created a loophole that allowed gun makers to continue manufacturing and selling stripped-down assault weapons.¹⁰⁶

The result was a piece of legislation that was valuable at keeping many of the most dangerous assault weapons out of criminals' hands, but one that also had an opening for gun manufacturers to evade the ban. Some manufacturers evaded the ban by developing guns, like the Bushmaster XM-15, Intratec's AB ("After Ban")-10, and Olympic Arms PCR ("Politically Correct Rifle"), with only minor changes in features to banned weapons.

Effect of the 1994 Ban

According to a study published by the Brady Center in 2004 entitled *On Target: The Impact of the 1994 Federal Assault Weapons Act*, the federal assault weapons ban reduced the incidence of assault weapons use in crime. In the five-year period (1990-1994) before enactment of the ban, assault weapons named in the Act constituted 4.82% of the crime gun traces ATF conducted nationwide. In the post-ban period after 1995,¹⁰⁷ these assault weapons made up only 1.61% of the guns ATF has traced to crime – a drop of 66% from the pre-ban rate.¹⁰⁸ Moreover, ATF trace data showed a steady year-by-year decline in the percentage of assault weapons traced, suggesting that the longer the statute was in effect, the less available these guns became for



criminal misuse. Indeed, the absolute number of banned assault weapons traced also declined. An initial report issued by the Department of Justice supported these findings.¹⁰⁹ These findings were further supported in a later report by one of the same researchers.¹¹⁰

This analysis was based on crime gun trace data compiled by ATF of more than 1.4 million crime guns recovered across the United States between 1990 and 2001.¹¹¹ If the ban had not been enacted, and had the banned assault weapons continued to make up the same percentage of crime gun traces as before the Act's passage, it was estimated that approximately 60,000 more of the banned assault weapons would have been traced to crime in the 10 years the law was in effect. Former ATF officials at Crime Gun Solutions, LLC, including the former Special Agent in Charge of ATF's National Tracing Center, analyzed the data for the Brady Center.

On Target also looked at the problem of "copycat" assault weapons developed by the gun industry to enable the continued sale of high-firepower weapons. The study found that industry efforts to evade the federal ban through the sale of these "copycat" weapons was able to diminish, but not eliminate, the 1994 Act's beneficial effects. Even including copycats of the federally banned guns, there was still a 45% decline between the pre-ban period (1990-1994) and the post-ban period (1995 and after) in the percentage of ATF crime gun traces involving assault weapons and copycat models.

The lesson to be drawn from this study is that a new assault weapons ban should be passed to reduce criminal use of these dangerous weapons, but it should be stronger and more comprehensive than the original federal ban to reduce indirect evasion through the manufacture of "copycat" weapons. One model for a strong assault weapons ban is the law California enacted in 2000 that bans military-style weapons capable of accepting high-capacity ammunition magazines that have even a single combat feature.¹¹² Representative Carolyn McCarthy has introduced similar strong assault weapons legislation in the U.S. House of Representatives.¹¹³

Support by Law Enforcement, the Public, and Presidents

The law enforcement community has long supported strong assault weapons bans. Every major national law enforcement organization in the country supported the Federal Assault Weapons Act and urged its renewal, including the Law Enforcement Steering Committee, Fraternal Order of Police, National Sheriffs' Association, International Association of Chiefs of Police, Major City Chiefs Association, International Brotherhood of Police Officers, National Association of Police Organizations, Hispanic American Police Command Officers Association, National Black Police Association, National Organization of Black Law Enforcement Executives, Police Executive Research Forum, and Police Foundation.

In poll after poll, the American people, regardless of party affiliation, have consistently supported a federal ban on assault weapons. In an ABC/Washington Post poll conducted in August-September 1999, 77% of adults supported a nationwide ban



on the sale of assault weapons.¹¹⁴ That same percentage held firm through the end of 2003 when an NBC News/Wall Street Journal poll found that 78% of adults nationwide expressed support for renewing the federal ban.¹¹⁵ In September 2004, just after the assault weapons ban expired, a Harris poll found that a substantial majority of Americans, 71%, favored reinstatement of the ban.¹¹⁶ As more time has passed without a federal assault weapons ban in effect, support for a ban has grown. For example, a 2007 poll from Illinois found that 80% of voters favored banning semiautomatic assault weapons.¹¹⁷ Newspaper editorial boards have also continued their strong support for getting assault weapons off our nation's streets.¹¹⁸

Presidents across the political spectrum have supported an assault weapons ban. Former Presidents Ford, Carter, and Reagan wrote Congress in support of the 1994 ban to "urge you to listen to the American public and to the law enforcement community and support a ban on the further manufacture of these weapons."¹¹⁹ In 2004, Presidents Ford, Carter, and Clinton wrote to urge re-authorization of the ban.¹²⁰ President George W. Bush also stated that he supported the ban and would sign its reauthorization if it passed Congress.

- **Senator Obama Opposes Assault Weapons for Civilians, While Senator McCain Supports Them**

Of the Presidential candidates, Senator Barack Obama supports banning assault weapons. He also addressed the issue in his acceptance speech to the 2008 Democratic Convention, saying, "The reality of gun ownership may be different for hunters in rural Ohio than they are for those plagued by gang violence in Cleveland, but don't tell me we can't uphold the Second Amendment while keeping AK-47s out of the hands of criminals."

Senator John McCain has consistently opposed an assault weapon ban, saying it "represented an arbitrary restriction on the constitutional rights of law-abiding citizens."



Conclusion

Assault weapons are weapons of war that are sought after and used by street gangs, drug dealers, and terrorists, but are of no use to law-abiding persons who own guns for sporting purposes and self-defense. Law enforcement and an overwhelming majority of the American public realize that these guns have no place in civilian hands, and should be banned. For 10 years, America attempted to limit the mayhem caused by assault weapons and the high-capacity ammunition magazines that they utilize. Although the gun industry worked hard to evade the federal ban by marketing assault weapons stripped of enough features to get by, gun makers were not wholly effective at neutralizing the federal ban's effect. Even accounting for the industry's evasive efforts, the use of assault weapons in crime declined substantially. Unfortunately, President Bush and the 108th Congress allowed it to lapse.

We need to enact a new, stronger federal assault weapons ban to keep these dangerous guns off the streets – a law that will ban all military-style weapons and with no sunset provision.

The lives of our law enforcement officers and our citizens hang in the balance.

Beretta AR 70 Assault Rifle



APPENDIX: Examples of Assault Weapon Violence Since Federal Ban Expired

- **North Tulsa, Oklahoma. October 6, 2008.** A man accidentally shot his roommate with an SKS assault rifle. The victim and shooter were arguing with the victim's estranged wife and another man when the shooter fired warning shots, hitting his roommate inadvertently.¹
- **Madison, Illinois. October 6, 2008.** A 12-year-old boy died after getting caught in the middle of a gunfight. More than 40 shots were fired as a man with an assault rifle exchanged fire with gunmen in cars.²
- **Springfield, Missouri. October 4, 2008.** A 21-year-old shot two men with an AR-15 Assault Rifle during an argument at a nightclub.³
- **Kansas City, Missouri. October 2, 2008.** Two men, one armed with an assault rifle, shot at two undercover police officers. The officers returned fire, injuring the two assailants.⁴
- **Brownsville, Texas. September 30, 2008.** Two men armed with an AK-47 Assault Rifle and .38 revolver shot multiple rounds at a group of men gathered outside a home twice in one night. There was a long-standing argument between the shooters and one of the victims. Nobody was hurt in either incident.⁵
- **Battle Creek, Michigan. September 28, 2008.** A felon with an assault weapon shot two teenagers in retaliation for a shooting several weeks prior.⁶
- **Jackson, Mississippi. September 26, 2008.** Two men armed with an assault rifle shot repeatedly at a house, hitting a woman and a one year old boy inside.⁷
- **Lenoir, North Carolina. September 21, 2008.** A former police officer and army veteran, who was armed with an assault rifle, shot two sheriff's deputies, killing one of them.⁸
- **San Antonio, Texas. September 18, 2008.** A gunman with an AK-47 assault rifle fired more than 15 rounds at a home, hitting a woman sleeping inside twice.⁹

¹ *Man accidentally shot by roommate*, KJRH- TV 2, Tulsa, Oklahoma, Oct. 6, 2008.

² *12 Year Old Shot Dead In Madison, Illinois Overnight*, ASSOCIATED PRESS, Oct. 7, 2008.

³ Dirk Vanderhart, *Shooting prompted by conflict over woman, hat*, SPRINGFIELD NEWS-LEADER, Oct. 7, 2008.

⁴ *KCMO Officers Fired on with Assault Rifle*, WDAF-TV 4, Kansas City, Missouri, Oct. 2, 2008.

⁵ *Police: 10-year grudge prompts downtown shooting*, BROWNSVILLE HERALD, Oct. 3, 2008.

⁶ Trace Christenson, *B.C. man faces attempted murder charge*, BATTLE CREEK ENQUIRER, Oct. 2, 2008.

⁷ *2 men charged in shooting denied bond*, ASSOCIATED PRESS, Oct. 2, 2008.

⁸ Dee Henry, *Armed and dangerous*, HICKORY DAILY HERALD, Sept. 22, 2008.

⁹ Dee Henry, *Armed and dangerous*, HICKORY DAILY HERALD, Sept. 22, 2008.



- **Charlotte, North Carolina. September 15, 2008.** Two people were sitting in a car outside an apartment building when a man shot at them with an assault rifle. One person in the car was hit twice and the other individual was injured by shattered glass.¹⁰
- **Houston, Texas. September 9, 2008.** One person died and two were injured in an overnight shooting. The assailants were carrying several weapons, including an assault rifle.¹¹
- **San Antonio, Texas. September 8, 2008.** A man shot two police officers with an assault rifle when the police attempted to arrest him. A standoff between the suspect and police followed, ending hours later when the suspect shot and killed himself.¹²

Tulsa, Oklahoma. September 7, 2008. A gunman with an assault weapon opened fire on a car carrying five teenagers home from church. Four of the five passengers were hit: Donovan Crutcher died from his wounds, Adrion Crutcher sustained damage to his spinal cord, Jeremy Williams lost the sight in his left eye, and Jahmal Bryant was in the intensive care unit. Four days later, a suspect was arrested in connection with the shooting.¹³

- **Birmingham, Alabama. September 5, 2008.** A man shot and killed his landlord with an SKS assault rifle after the two argued over stolen property.¹⁴
- **Dayton, Ohio. August 26, 2008.** A 31-year-old man sustained severe leg injuries when he was shot multiple times with an assault rifle.¹⁵
- **Hope Mills, North Carolina. August 25, 2008.** An 18-year-old shot a man in the head with an assault rifle. The victim was leaving the shooter's house by car, along with a woman and baby, when the incident occurred.¹⁶
- **Miami, Florida. August 23, 2008.** An intoxicated customer was shot with an AK-47 assault rifle after being kicked out of a strip club. The shooter was then shot by another man, who was also carrying an assault rifle.¹⁷

⁹ *Shooter Opens Fire On Home, Sleeping Woman Hit Twice*, WOAI – TV 4 San Antonio, Sept. 18, 2008.

¹⁰ *Apartment Complex Evacuated After Double Shooting*, WSOC-TV 9, Sept. 16, 2008.

¹¹ *Suspects in Triple Shooting Had Assault Rifle, Multiple Weapons*, FOX 26 TV Houston, Sept. 10, 2008.

¹² *SAPD Details Monday Shooting Investigation*, KSAT12-TV, San Antonio, Texas, Sept. 10, 2008.

¹³ *Arrest made in deadly drive-by*, TULSA WORLD, Sept. 12, 2008.

¹⁴ *Landlord Killed After Argument Over Stolen Copper*, NBC13-TV, Birmingham, Alabama, Sept. 8, 2008.

¹⁵ *Man Targeted By Shooter With Assault Rifle*, WHIOTV, Dayton, Ohio, Aug. 27, 2008.

¹⁶ *Three charged in Hope Mills shooting*, THE FAYETTEVILLE OBSERVER, Aug. 28, 2008.

¹⁷ *2 Dead in Shootout At Strip Club*, NBC6-TV, Miami, Florida, Aug. 23, 2008.



- **Youngsville, North Carolina. August 22, 2008.** A 12-year-old boy accidentally shot an 11-year-old neighbor with an AK-47 assault rifle.¹⁸
- **San Antonio, Texas. August 20, 2008.** A man was chased by a group of young men outside an apartment complex and was shot twice with an assault rifle.¹⁹
- **West Valley City, Utah. August 15, 2008.** Three men in an SUV shot at another car with an assault rifle and then led police on a high-speed chase. The police recovered drugs, alcohol, live casings, and an assault rifle from the car.²⁰

Newark, New Jersey. August 14, 2008. 15-year-old Bukhari Washington was killed after a bullet fired from a Chinese-made Norinco SKS assault rifle struck his bed while he slept. The gun was fired accidentally when its owner, 19-year-old Terrance Perry, was “fiddling” with it in the apartment below. Washington was a student at Christ the King Preparatory School and interned at a nursing home for people with HIV and AIDS.²¹

- **Birmingham, Alabama. August 11, 2008.** A 17-year-old girl was in a car that was sprayed by bullets from an AK-47. The girl exited the car and tried to run home when she was shot twice, once in the chest and again in her left hand, severing it. She died moments later from her injuries.²²
- **New Orleans, Louisiana. August 10, 2008.** One man was injured and another man died after being shot with an AK-47 assault rifle.²³
- **New Orleans, Louisiana. August 8, 2008.** A gunman carrying an assault rifle shot two people.²⁴
- **Niagara, Wisconsin. July 31, 2008.** A man with an assault rifle massacred a group of teenagers, killing three and injuring a fourth. The group was gathered along a river to go swimming when the gunman emerged from surrounding woods and began shooting.²⁵

¹⁸ *Sheriff says boy, 11, shot with AK-47*, THE NEWS & OBSERVER, Aug. 24, 2008.

¹⁹ *Man Chased Down and Shot to Death*, WOAI-TV, San Antonio, Texas, Aug. 21, 2008.

²⁰ *Shooting triggers high-speed chase; 3 arrested*, THE SALT LAKE TRIBUNE, Aug. 15, 2008.

²¹ Jonathan Schuppe, *Senseless Shot, Random Death: Respected teen is slain in bed, to Newark's grief*, THE STAR-LEDGER, Aug. 15, 2008.

²² Dan Barry, *Gunshot, then silence: And the sorrow spreads*, NEW YORK TIMES, Aug. 17, 2008.

²³ Nicole Dungca & Ramon Antonio Vargas, *Two die Sunday in separate slayings*, THE TIMES-PICAYUNE, Aug. 11, 2008.

²⁴ Leslie Williams, *Mob scene follows double shooting*, THE TIMES-PICAYUNE, Aug. 9, 2008.

²⁵ *Niagara, Wisconsin shooting suspect caught*, THE CHICAGO TRIBUNE, Aug. 1, 2008.



- **Pittsburgh, Pennsylvania. July 31, 2008.** Two men with an assault rifle shot and killed two cousins as they talked outside a home.²⁶
- **Orlando, Florida. July 30, 2008.** A man with an assault rifle shot and killed two teenagers and another man over stolen property.²⁷
- **Dallas, Texas. July 29, 2008.** A Dallas Morning News deliveryman was shot multiple times with an assault rifle while delivering papers early in the morning. His 14-year-old son was with him, but was not injured.²⁸
- **Kansas City, Missouri. July 28, 2008.** Three men broke into a home and held up the occupants at 1:30 in the morning. The men were armed with an assault rifle with a bayonet attached.²⁹
- **Detroit, Michigan. July 27, 2008.** Three people died, including a 17-year-old girl, after being shot with an assault rifle while leaving a bar.³⁰
- **Salt Lake City, Utah. July 26, 2008.** A 19-year-old airman shot a 22-year-old with an assault rifle after the two argued at a nightclub. The airman shot another person several months earlier.³¹
- **Chattanooga, Tennessee. July 24, 2008.** Two men armed with an SKS assault rifle shot a 28-year-old man in the head and back.³²

Oakland, California. July 23, 2008. 23-year-old Amanda Hunter was killed when she was accidentally shot in the head with an assault rifle. Hunter was attempting to remove the weapon from her home when it fell to the ground and fired. Her boyfriend, the owner of the weapon and a convicted felon, was arrested for weapons related charges including being a felon in possession of a firearm.³³

- **New Orleans, Louisiana. July 15, 2008.** A man died after being shot repeatedly with an AK-47 while asleep in his trailer.³⁴

²⁶ Jill King Greenwood, *72 killings set bloody pace in city, county*, PITTSBURGH TRIBUNE-REVIEW, Aug. 2, 2008.

²⁷ Vincent Bradshaw & Willoughby Mariano, *Flurry of bullets near Orlando playground kills three*, THE ORLANDO SENTINEL, July 31, 2008.

²⁸ Scott Goldstein, *Father, son survive shooting during News delivery*, THE DALLAS MORNING NEWS, Aug. 7, 2008.

²⁹ Mike Rice, *Home invasion robbery reported in Gladstone*, KANSAS CITY STAR, July 28, 2008.

³⁰ Candice Williams, *Girl, 17, two men fatally shot outside Detroit bar*, THE DETROIT NEWS, July 27, 2008.

³¹ *Airman's arrest for shooting not his first*, STANDARD-EXAMINER, July 29, 2008

³² Jacqueline Koch, *Police investigate assault-rifle shooting*, CHATTANOOGA TIMES FREE PRESS, July 25, 2008.

³³ *Oakland woman killed when assault rifle accidentally fires*, July 24, 2008, available at:

http://www.insidebayarea.com/ci_9977524 (last visited Sept. 26, 2008).

³⁴ Ramon Antonio Vargas, *AK-47 fire kills sleeping former rapper*, THE TIMES PICAYUNE, July 16, 2008.



- **Daytona Beach, Florida. July 13, 2008.** A distraught man fired 30 rounds into the side of an occupied building with an AK-47 assault rifle.³⁵
- **Eatonville, Florida. July 8, 2008.** A father and son were shot during a robbery with an AK-47 assault rifle.³⁶
- **Youngstown, Ohio. July 8, 2008.** A man beat up and attempted to shoot his girlfriend with an assault weapon.³⁷
- **Edwardsville, Illinois. July 7, 2008.** Two 19-year-olds repeatedly shot at a sheriff's deputy with an assault weapon as he pursued them during a car chase.³⁸
- **Van Buren, Michigan. July 6, 2008.** Two 19-year-olds with an assault rifle shot and killed a man they had argued with earlier.³⁹
- **Beaumont, Texas. July 5, 2008.** One person was injured when a man shot an assault rifle into a crowd standing outside a nightclub.⁴⁰
- **Dallas, Texas. July 4, 2008.** A gunman shot at an apartment building with an AK-47 assault rifle, killing a 17-year-old girl inside. The gunman had been arguing with the girl's stepfather outside.⁴¹
- **Buena Vista, Michigan. July 3, 2008.** A gunman shot an AK-47 multiple times into a car carrying two teenage girls, hitting one in the leg.⁴²

³⁵ Julie Murphy, *Outlaws clubhouse shot up. Police: man fires 30 rounds, accuses members of rape*, DAYTONA BEACH NEWS JOURNAL, July 17, 2008.

³⁶ *Shooting may be linked to Orlando Incident*, WESH.COM, Orlando, FL, July 8, 2008, available at: <http://www.wesh.com/print/16817435/detail.html> (last visited Sept. 26, 2008).

³⁷ *Man charged with assault over domestic dispute*, VINDY.COM, July 9, 2008, available at: <http://www.vindy.com/news/2008/jul/09/man-charged-with-assault-over-domestic-dispute/> (last visited Sept. 26, 2008).

³⁸ Sandord J. Schmidt, *Two accused of shooting at deputy*, THE TELEGRAPH.COM, July 8, 2008, available at: http://www.thetelegraph.com/news/county_15966___article.html/madison_accused.html (last visited Sept. 26, 2008).

³⁹ Susan L. Oppat, *2 Van Buren teens charged in slaying*, THE ANN ARBOR NEWS, July, 10, 2008.

⁴⁰ Heather Nolan, *Beaumont police seek help in investigating shooting at night club*, BEAUMONTENTERPRISE.COM, July 7, 2008, available at: http://www.beaumontenterprise.com/news/local/beaumont_police_seek_public_s_help_in_investigaton_07-07-2008_10_43_01.html (last visited Sept. 26, 2008).

⁴¹ Seema Mathur, *Teen hit by stray bullet at dallas apartment*, CBS11TV.COM, July 6, 2008, available at: <http://cbs11tv.com/local/dallas.teen.shot.2.764557.html> (last visited Sept. 26, 2008).

⁴² *Buena Vista gunman fires AK-47, strikes girl*, WNEM.COM, July 8, 2009, available at: <http://www.wnem.com/print/16821122/detail.html> (last visited Sept. 26, 2008).



Warsaw, North Carolina. July 2, 2008. 18-year-old high school football star Derrick Barden was killed after being shot with an AK-47. Three teenagers were charged with his death, which occurred as a group of people played with an AK-47 outside of an apartment complex.⁴³

- **Adairsville, Georgia. June 29, 2008.** A man carrying an AK-47 assault rifle shot a woman twice in the chest during a robbery attempt.⁴⁴
- **Overtown, Florida. June 28, 2008.** A 15-year-old died after he was shot with an assault weapon during a drive-by shooting.⁴⁵
- **Mobile, Alabama. June 27, 2008.** A 6-year-old boy was shot three times and a man twice when a group of men fired AK-47 and SKS assault weapons at the two cars they were riding in.⁴⁶
- **Powhatan, Virginia. June 25, 2008.** A 17-year-old with an assault weapon shot and killed an 18 year old after the two argued.⁴⁷
- **Powhatan County, Virginia. June 24, 2008.** An 18-year-old high school student was shot and killed with an assault rifle following an altercation at a gas station. A juvenile was also wounded in the shooting.⁴⁸
- **Anderson, South Carolina. June 22, 2008.** A man fired more than 30 rounds from an assault rifle at a group of people, killing a 16-year-old who was hit three times and wounding a man.⁴⁹
- **Opa Locka, Florida. June 22, 2008.** A man shot an AK-47 assault rifle at a business, injuring three people inside.⁵⁰

⁴³ Steve Herring, *Three teens charged in player's shooting*, GOLDSBORO NEWS-ARGUS, July 9, 2008.

⁴⁴ Hayden Jennings, *Suspect arrested in Adairsville shooting*, ROMENEWSWIRE.COM, June 30, 2008, available at: <http://www.romenewswire.com/index.php/2008/06/30/suspect-arrested-in-adairsville-shooting/> (last visited Sept. 26, 2008).

⁴⁵ David Ovalle, *2 deaths raise 2008 homicides to 136*, THE MIAMI HERALD, July 2, 2008

⁴⁶ Ron Colquitt, *Four suspects denied bail*, THE PRESS-REGISTER, June 28, 2008.

⁴⁷ *Authorities: Powhatan teen's killer was 17-year-old*, INRICH.COM, June 30, 2008, available at: <http://www.inrich.com/cva/ric/news.PrintView.-content-articles-RTD-2008-06-30-0195.html> (last visited Sept. 26, 2008).

⁴⁸ Linda Dunham & Reed Williams, *Suspects in fatal shooting surrender: Sheriff: Trio wanted in Powhatan teen's death face murder charges; suspected weapon found*, RICHMOND TIMES-DISPATCH, June 29, 2008.

⁴⁹ Craig Stanley, *Westside student, shooting victim, is remembered*, INDEPENDENTMAIL.COM, June 27, 2008, available at: <http://www.independentmail.com/news/2008/jun/27/westside-student-shooting-victim-remembered/> (last visited Sept. 26, 2008).

⁵⁰ *3 shot in Opa Locka*, NBC6.NET, June 22, 2008, available at: <http://www.independentmail.com/news/2008/jun/27/westside-student-shooting-victim-remembered/> (last visited Sept. 26, 2008).



- **Little Rock, Mississippi. June 21, 2008.** A man died after being shot in the head with an AK-47 assault rifle. The gunman and victim had argued over a dice game.⁵¹
- **Elyria, Ohio. June 14, 2008.** A woman died after being shot with an AK-47 assault rifle during a robbery.⁵²
- **Miami, Florida. June 13, 2008.** A man shot six people at a graduation party with an assault rifle. One of the victims died.⁵³
- **Lavaca County, Texas. June 11, 2008.** A 14-year-old boy died after being accidentally shot by his grandfather with an AK-47 assault rifle.⁵⁴
- **Longview, Texas. June 10, 2008.** A man opened fire with an AK-47 assault rifle after arguing with his girlfriend, injuring three people, including a 7-year-old girl.⁵⁵
- **Wilkes, North Carolina. June 6, 2008.** A 17-year-old was seriously injured after being shot with an AK-47 assault rifle. Several teenagers were playing with the gun when it was fired.⁵⁶
- **Shreveport, Louisiana. June 1, 2008.** A 25-year-old man was seriously injured after being shot multiple times with an assault rifle while in his car.⁵⁷
- **Tucson, Arizona. June 1, 2008.** A man shot at several houses with an assault rifle, then lead police in pursuit across Tucson for more than an hour. During the chase, the gunman shot at police multiple times, fatally shooting one officer and injuring two Sheriff's deputies.⁵⁸

⁵¹ Tim Doherty, *Foxworth man held in slaying* THE HATTIESBURG AMERICAN, June 24, 2008.

⁵² Matt Suman, *AK-47 used in deadly Gas USA robbery*, THEMORNINGJOURNAL.COM, June 25, 2008 available at:

http://www.zwire.com/site/news.cfm?newsid=19801129&BRD=1699&PAG=461&dept_id=46371&rfi=6 (last visited Sept. 26, 2008).

⁵³ *Teen shot and killed while leaving graduation party*, WSVN.COM, Miami Gardens, FL, available at: <http://www.wsvn.com/news/articles/local/MI88522/> (last visited Sept. 26, 2008).

⁵⁴ *Teen shot, killed in hunting accident*, KSAT.COM, June 12, 2008, available at:

http://www.zwire.com/site/news.cfm?newsid=19801129&BRD=1699&PAG=461&dept_id=46371&rfi=6 (last visited Sept. 26, 2008).

⁵⁵ *3 wounded in Longview gunfire*, THE DALLS MORNING NEWS, June 10, 2008.

⁵⁶ *Wilkes teens play with rifle, one shot*, GOBLUERIDGE.NET, June 9, 2008, available at:

http://www.goblueridge.net/index.php?option=com_content&task=view&id=3821&Itemid=1 (last visited Sept. 26, 2008).

⁵⁷ Katrina Webber, *Violent weekend in Shreveport leaves 3 with gunshot wounds*, KSLA NEWS 12, June 2, 2008, available at: <http://www.ksla.com/Global/story.asp?S=8410023&nav=0RY5RQCK> (last visited Sept. 26, 2008).

⁵⁸ Brady McCombs & Alexis Huicochea, *Officer on life support after crosstown pursuit*, ARIZONA DAILY STAR, June 2, 2008.



- **New Orleans, Louisiana. May 26, 2008.** Two people were injured when a gunman carrying an AK-47 assault rifle fired more than twenty rounds at them.⁵⁹
- **Jackson, Mississippi. May 26, 2008.** Five people were shot, one fatally, at a Memorial Day barbecue. A man left the party after an argument and returned with an assault rifle and fired indiscriminately into the crowd.⁶⁰
- **Shreveport, Louisiana. May 19, 2008.** A 15-year-old shot a 14-year-old with an assault weapon.⁶¹
- **Brooklyn, Connecticut. May 14, 2008.** A 16-year-old boy with Asperger syndrome shot an assault rifle near a group of people playing basketball in a park who he had argued with earlier.⁶²
- **Miami, Florida. May 14, 2008.** A man was shot multiple times after his car was sprayed with bullets from an assault weapon.⁶³
- **San Jacinto, California. May 12, 2008.** A SWAT team was called in after a man and woman armed with assault rifles shot at security guards and then Sheriff's deputies. The two were killed in the resulting shootout.⁶⁴
- **Raceland, Louisiana. May 12, 2008.** Three men attacked three other men in their car, killing all three. Each victim was shot multiple times with an AK-47 assault rifle.⁶⁵

Calabash, North Carolina. May 8, 2008. James Murdock, 25, was killed in a drive-by shooting. Murdock was sitting in a car when a dark SUV pulled up and fired at him with an assault rifle. He died at the scene. Two men were charged with the murder.⁶⁶

- **San Jacinto, California. May 8, 2008.** A 26-year-old man shot at Sheriff's deputies with an assault rifle. The man was killed when the policemen returned fire.⁶⁷

⁵⁹ *Pair gunned down by AK-47*, WDSU.COM, May 27, 2008, available at:

<http://www.wdsu.com/news/16401761/detail.html> (last visited Sept. 26, 2008).

⁶⁰ Kathleen Baydala, *Man arrested in fatal holiday party shooting*, THE CLARION LEDGER, May 28, 2008.

⁶¹ *Arrest made in shooting of 14 year old boy*, KSLA NEWS 12, May 20, 2008, available at:

http://www.ksla.com/Global/story.asp?S=8350809&nav=menu50_11_16_4 (last visited Sept. 26, 2008).

⁶² Dustin Racioppi & Don Bond, *Conn. teen with autism held in assault rifle shooting*, THE METRO WEST DAILY NEWS, May 15, 2008, available at:

<http://www.metrowestdailynews.com/archive/x2118739287/Conn-teen-with-autism-held-in-assault-rifle-shooting> (last visited Sept. 26, 2008).

⁶³ *Man shot with high-powered assault weapon*, LOCAL 10 NEWS, May 14, 2008, available at:

<http://www.local10.com/print/16261614/detail.html> (last visited Sept. 29, 2008).

⁶⁴ Gillian Flaccus, *Deputies kill 2 in gun battle on Calif. Reservation*, ASSOCIATED PRESS ARCHIVE, May 14, 2008.

⁶⁵ Raymond Legendre, *Grand jury to consider Raceland triple-slaying case*, THE COURIER, August 11, 2008.

⁶⁶ Shannan Bowen, *Two charged in Calabash murder*, STAR-NEWS, May 20, 2008.



- **Ripon, Wisconsin. May 6, 2008.** A 19-year-old accidentally shot and killed an 18-year-old friend with an assault rifle while the two were at a friend's house.⁶⁸

Stafford, Virginia. May 5, 2008. Aaron Poseidon Jackson shot his children, 1-year-old Aaron and 2-year-old Nicole, with a .38 caliber handgun, then shot their mother, Latasha Thomas, with an AK-47. When police arrived at the home, Jackson, wearing a bulletproof vest and surrounded by guns and ammunition, was found dead from a self-inflicted gunshot wound.⁶⁹

- **Burien, Washington. May 4, 2008.** A man died when he was shot in the head with an assault rifle after arguing with the shooter in a bar. The shooter left after the initial incident but returned with the gun.⁷⁰
- **Chicago, Illinois. May 4, 2008.** A college student died after being shot with an assault rifle when she was caught in crossfire from a gang while in a car.⁷¹
- **Cordova, New Mexico. May 4, 2008.** A man killed his 17-month-old son by shooting him in the chest with an assault rifle.⁷²
- **Philadelphia, Pennsylvania. May 3, 2008.** A police officer was shot and killed by an assault rifle as he was responding to a bank robbery. Three men robbed the bank and were fleeing when the officer stopped their car and exited his patrol car. At that time, one of the bank robbers opened fire with an SKS assault rifle, striking the officer numerous times. One suspect was eventually shot and killed by police and the other two were arrested and charged with murder.⁷³
- **San Antonio, Texas. May 2, 2008.** Two teens armed with an assault rifle shot at a man after he tried to stop a fight between groups of teenagers.⁷⁴

⁶⁷ Jose Arballo Jr., Steve Fetbrandt & Michelle DeArmond, *Soboba member killed in gun battle with deputies*, THE PRESS-ENTERPRISE, May 8, 2008.

⁶⁸ *Teen charged with negligent homicide in Ripon shooting posts bond*, NBC 15 NEWS, Feb. 29, 2008, available at: <http://www.nbc15.com/home/headlines/15839617.html> last visited (Sept. 29, 2008).

⁶⁹ Keith Epps & Ellen Biltz, *Gunman heavily armed*, FREDERICKSBURG.COM, May 7, 2008, available at: <http://fredericksburg.com/News/FLS/2008/052008/05072008/377460> (last visited Sept. 26, 2008).

⁷⁰ Casey McNerthney, *Man shot after Burien bar fight dies*, SEATTLE POST-INTELLIGENCER, May 5, 2008.

⁷¹ Annie Sweeney & Stefano Esposito, *We had so many plans*, THE CHICAGO SUN-TIMES, May 6, 2008.

⁷² Isaac Paul Vasquez, *Police allege father killed son*, KFOXTV.COM, May 4, 2008, available at: <http://www.kfoxtv.com/news/16157794/detail.html> (last visited Sept. 26, 2008).

⁷³ Joseph A. Gambardello, *Liczbinski suspect's girlfriend to stand trial*, PHILADELPHIA INQUIRER, July 17, 2008; *Officer shot, killed after bank robbery*, NBC 10.COM, May 3, 2008; See Sergeant Stephen Liczbinski, www.odmp.org, available at: <http://www.odmp.org/officer/19359-sergeant-stephen-liczbinski> (last visited Sept. 30, 2008).

⁷⁴ *Man shot at after breaking up fight*, KSAT TV 12, May 2, 2008, available at: <http://www.ksat.com/news/16136482/detail.html> (last visited Sept. 26, 2008).



- **Compton, California. April 29, 2008.** A 19-year-old with an assault rifle exchanged fire with Sheriff's deputies. No one was injured in the incident.⁷⁵
- **Chicago, Illinois. April 21, 2008.** The owner of a plumbing company was shot in the stomach by an employee using an AK-47 and died as a result. The employee also shot at three police officers later in the evening.⁷⁶
- **York, Pennsylvania. April 11, 2008.** A man died after he was shot multiple times with an assault rifle. The victim and shooter had argued earlier.⁷⁷
- **Miami, Florida. April 5, 2008.** A 16-year-old boy died and his mother was injured when they were shot with an assault rifle outside of their home by people they had previously argued with.⁷⁸
- **Sharonville, Ohio. April 3, 2008.** A 14-year-old girl was shot in the leg when a man fired an assault weapon randomly into the street. The bullet went through a car door and hit the victim.⁷⁹
- **Miami, Florida. April 3, 2008.** A 20-year-old with over thirteen firearms, including four AK-47s, and more than 5,000 rounds of ammunition, was arrested after threatening over the internet that he was going to carry-out a Virginia Tech style massacre.⁸⁰
- **Tarpon Springs, Florida. March 30, 2008.** A man fired several rounds from an assault weapon toward another man who was exiting his car.⁸¹
- **Donaldsonville, Louisiana. March 22, 2008.** A five-year-old boy and a man were injured after being shot with an assault rifle on the street.⁸²
- **Virginia Beach, Virginia. March 19, 2008.** A man shot five people, killing two, with an AK-47 assault rifle and .9 mm handgun before killing himself. The man was

⁷⁵ *Suspect arrested in connection to Compton shootout*, CBS2.COM, May 1, 2008, available at: <http://cbs2.com/local/Compton.Shooting.Arrest.2.713125.html> (last visited Sept. 26, 2008).

⁷⁶ Lisa Donovan et. al., *SWAT will go on patrol*, CHICAGO SUN TIMES, Apr. 22, 2008.

⁷⁷ Kristin Thorne, *York man killed in shooting involving assault rifle*, ABC27 NEWS, Apr. 11, 2008, available at: <http://cfc.whtm.com/printstory.cfm?id=510600> (last visited Sept. 29, 2008).

⁷⁸ *Teen killed, mother injured in shooting*, NBC6.NET, Apr. 6, 2008, available at: <http://www.nbc6.net/news/15806302/detail.html> (last visited Sept. 26, 2008).

⁷⁹ *Teenage girl accidentally shot in Sharonville*, WCPO 9 NEWS, Apr. 3, 2008, available at: http://www.wcpo.com/news/local/story.aspx?content_id=c473d379-e54d-4b46-a24d-397f12369149 (last visited on Sept. 29, 2008).

⁸⁰ *Police: Man threatened to re-enact Virginia Tech-style killings*, ASSOCIATED PRESS, Apr. 4, 2008.

⁸¹ *Tarpon Springs man arrested in assault rifle attack*, TBO.COM, Mar. 31, 2008, available at: <http://suncoastpasco.tbo.com/content/2008/mar/31/tarpon-springs-man-arrested-assault-rifle-attack/> (last visited Sept. 26, 2008).

⁸² Samuel Irvin, *Sheriff promises to boost patrols*, THE ADVOCATE, Mar. 27, 2008 available at: <http://www.2theadvocate.com/news/17040851.html> (last visited Sept. 26, 2008).



about to be evicted from his apartment and targeted the apartment complex's employees in his attack.⁸³

- **Chattanooga, Tennessee. March 15, 2008.** A man fired more than 20 rounds from an assault rifle at another man outside of an apartment building. The victim was not hit.⁸⁴
- **Baton Rouge, Louisiana. March 7, 2008.** A 16-year-old male shot his father in the arm with an AK-47 and was placed in juvenile detention on one count of attempted murder.⁸⁵
- **Kansas City, Missouri. March 5, 6, 7, 2008.** One man was killed and three injured during a drive-by shooting of a tire store. The shooters used two .223-caliber assault rifles, one of which had two large drum magazines and could fire 100 bullets without reloading. Police pursued the shooters, who were eventually apprehended, and were shot at with the same assault rifles. The following day, three retaliatory shootings occurred; the day after, one retaliatory shooting occurred in which a woman was shot seven times in the chest and torso.⁸⁶
- **Roanoke, Virginia. February 29, 2008.** A car chase ended when the driver pulled over and began shooting at police with an SKS assault rifle. The police shot and seriously wounded the driver. None of the police were seriously injured.⁸⁷

Gainesville, Georgia. February 19, 2008. 52-year old Mary Bailey was killed after being shot with an AK-47. Bailey was sleeping on the sofa when her 19-year old son, Derrick Bailey, cleaned his assault weapon and it fired. Derrick claims he did not know the weapon was loaded.⁸⁸

- **Marrero, Louisiana. February 16, 2008.** An 18-year-old was killed and a 16-year-old wounded after being shot with an AK-47 multiple times. The shooter fired more than 20 rounds at the two victims.⁸⁹
- **Pulaski, Kentucky. February 9, 2008.** A man fired more than 50 rounds from his assault rifle into a mobile home and garage after arguing with the owner. The homeowner received only minor injuries in the incident.⁹⁰

⁸³ *Gunman in mass shooting identified*, WVEC 13 NEWS, Mar. 20, 2008, available at: http://www.wvec.com/news/vabeach/stories/wvec_local_031908_vb_shooting.79dfc43.html (last visited Sept. 29, 2008).

⁸⁴ Amy Katcher, *East Lake shootout caught on tape*, WDEF NEWS 12, Mar. 26, 2008, available at: http://wdef.com/news/east_lake_shootout_caught_on_tape/03/2008 (last visited Sept. 26, 2008).

⁸⁵ *Police and fire briefs*, BATON ROUGE ADVOCATE, Mar. 8, 2008.

⁸⁶ Christine Vendel, *Heavy firepower in KC: Officers outgunned by suspects*, KANSAS CITY STAR, Mar. 8, 2007.

⁸⁷ Jessica Marcy, *Shots end U.S. 220 chase in Roanoke County*, WWW.ROANOKE.COM, Mar. 1, 2008, available at: <http://www.roanoke.com/news/roanoke/wb/152736> (last visited Sept. 26, 2008).

⁸⁸ *Gainesville teen: 'I shot my mother'*, WSBT.V.COM, Feb. 19, 2008, available at: <http://www.wsbtv.com/news/15345707/detail.html> (last visited Sept. 26, 2008).

⁸⁹ *Harvey teen booked with murder*, THE TIMES PICAYUNE, Feb. 19, 2008.



- **Phoenix, Arizona. February 9, 2008.** A 17-year-old died and a 23-year-old was injured after being shot with an assault rifle during an attack by four men.⁹¹
- **Indianapolis, Indiana. February 8, 2008.** An 8-year-old girl died after being shot in the head when someone sprayed her house with bullets from an assault weapon.⁹²
- **Macon, Georgia. February 4, 2008.** A man fired over 70 rounds from an assault rifle into the front of a house, killing the woman at the door. The man was looking for the woman's son but shot her after learning he was not at home.⁹³
- **Cleveland, Tennessee. February 2, 2008.** A 20-year-old man died after being shot several times with an assault rifle as he exited a car. The gunman shot at the other people in the car and at a nearby house as well.⁹⁴
- **Pittsburgh, Pennsylvania. January 28, 2008.** A 12-year-old girl was killed and her mother badly injured after they were shot with an AK-47 assault rifle. The two were visiting a family member when an assailant sprayed the house with dozens of bullets.⁹⁵
- **Camp Hill, Alabama. January 22, 2008.** A 19-year-old shot a 17-year-old in the face with an assault rifle after the two argued over the stolen weapon.⁹⁶
- **Miami, Florida. January 20, 2008.** Three cousins were injured when dozens of rounds were fired from an assault rifle into their car. One of the cousins was left brain-dead.⁹⁷
- **Carmichael, California. January 16, 2008.** A 24-year-old man was shot with an assault rifle in a drive-by shooting and died.⁹⁸

⁹⁰ *Eubank man jailed following hail of bullets fired into residence*, WKYT.COM, Feb. 9, 2008, available at: <http://www.wkyt.com/home/headlines/15476381.html> (last visited Sept. 26, 2008).

⁹¹ David Biscobing, *Teen gunned down in Phoenix with rifle*, EAST VALLEY TRIBUNE, Feb. 9, 2008.

⁹² *Community mourns eight-year-old's shooting death*, WTHR 13 NEWS, Feb. 26, 2008, available at: <http://www.wthr.com/Global/story.asp?S=7853369> (last visited Sept. 29, 2008); *Man charged in 8-year-old's shooting death*, WTHR 13 NEWS, Feb. 27, 2008, available at:

<http://www.wthr.com/Global/story.asp?s=7865668> (last visited Sept. 29, 2008).

⁹³ Ashley Tusan Joyner, *Woman died after man sprays home with bullets*, THE MACON TELEGRAPH, Feb. 6, 2008.

⁹⁴ Ryan Harris, *Bradley murder victim identified*, CHATTANOOGA TIMES FREE PRESS, Feb. 5, 2008.

⁹⁵ Michael Hasch, *Girl, 12, killed as 40 shots blast into North Side home*, THE PITTSBURGH TRIBUNE-REVIEW, Jan. 29, 2008.

⁹⁶ *Teen shot in face by assault rifle*, WTVM.COM, Jan. 22, 2008, available at: http://www.wtvm.com/Global/story.asp?S=7757100&nav=menu91_2 (last visited Sept. 26, 2008).

⁹⁷ David Ovalle, *Little Haiti: Gun violence tears family*, THE MIAMI HERALD, January 24, 2008.

⁹⁸ *Two Carmichael killings may be connected*, KCRA.COM, Jan. 16, 2008, available at: <http://www.kcra.com/news/15067608/detail.html> (last visited Sept. 26, 2008).



- **Louisville, Kentucky. January 14, 2008.** A man carrying an assault rifle fired several rounds at a police officer during a traffic stop. The officer was not injured.⁹⁹
- **North Miami Beach, Florida. January 8, 2008.** An off-duty Miami police detective was killed by a man who shot him with an AK-47 assault rifle as he sat in his car.¹⁰⁰
- **Merrillville, Indiana. December 31, 2007.** A 25-year-old man shot a 20-year-old man with an assault rifle. The shooter asked the victim and another man to leave his apartment after they argued, then followed them outside and shot the victim multiple times.¹⁰¹

Little Rock, Arkansas. December 29, 2007. 6-year-old Kamy Weathersby was shot at least 7 times by gunmen outside her home as she was lying in bed. Police believe at least one assault rifle was used to fire 50 or more rounds at her home. The following day, Kamy died when her family made the decision to take her off life support.¹⁰²

- **Ozark, Alabama. December 29, 2007.** An 18-year-old man repeatedly shot a 22-year-old man using a SKS assault rifle after the two argued. The 22-year-old died from his injuries.¹⁰³
- **Southington, Connecticut. December 24, 2007.** One man shot another in the head with an assault rifle, killing him, after the two argued.¹⁰⁴
- **Arvada & Colorado Springs, Colorado. December 9, 2007.** One man with an assault rifle attacked a missionary training center in Arvada and a church in Colorado Springs. He killed two people and injured two others in Arvada, and killed two and injured three others in Colorado Springs. He died after being shot by a security guard and then shooting himself.¹⁰⁵

⁹⁹ 4th arrest made in SWAT case, WLKY.com, Jan. 14, 2008, available at: <http://www.wlky.com/news/15048297/detail.html> (last visited Sept. 26, 2008).

¹⁰⁰ David Quinones, *Dispute boils over mourning of detective*, MIAMI HERALD, Jan. 19, 2008; See Detective James Walker, www.odmp.org, available at: <http://www.odmp.org/officer/19128-detective-james-walker> (last visited Sept. 30, 2008).

¹⁰¹ *M'ville man charged in shooting*, THE TIMES ONLINE.COM, Jan. 4, 2008, available at: http://www.thetimesonline.com/articles/2008/01/04/news/lake_county/doc88e35a05299f4540862573c600061f09.txt (last visited Sept. 26, 2008).

¹⁰² *Girl, 6, dies after being shot 7 times – Ark. police search for suspects, motive*, MEMPHIS COMMERCIAL APPEAL, Jan. 1, 2008.

¹⁰³ *Ozark shooting suspect surrenders*, PRESS-REGISTER, Jan. 1, 2008.

¹⁰⁴ Chris Velardi, *\$2million bond for Southington murder suspect*, WTNH.COM, Jan. 2, 2008, available at: <http://www.wtnh.com/global/story.asp?s=7566985> (last visited on Sept. 29, 2008).

¹⁰⁵ Erin Emery, *Report details church shooting, the document chronicles the days leading up to the Dec. 9 deaths of four young people*, DENVER POST, Mar. 13, 2008.



- **Omaha, Nebraska. December 5, 2007.** Nine people were shot to death and five others were injured after a 20-year-old shooter, armed with a military-style assault rifle, attacked shoppers in a department store in a Nebraska mall.¹⁰⁶
- **Arden, South Carolina. December 4, 2007.** One man was injured when he was shot at close range in the leg and foot with an AK-47 assault rifle.¹⁰⁷
- **Memphis, Tennessee. November 13, 2007.** One man was killed and another injured after an unidentified man opened fire on a grocery store parking lot with an AK-47 assault rifle.¹⁰⁸
- **Vallejo, California. November 4, 2007.** One man died after being shot several times with an assault rifle while arguing with two other men. Witnesses of the shooting pursued the shooters by car and were also shot at, although none were injured.¹⁰⁹
- **Crandon, Wisconsin. October 7, 2007.** An off-duty Sheriff's deputy killed six and wounded a seventh person when he burst into a pizza party and started shooting with an assault weapon. The shooter later killed himself as the police closed in.¹¹⁰
- **West Palm Beach, Florida. September 18, 2007.** Two men were killed and another injured when they were attacked in their car by two men carrying a handgun and an assault rifle. The suspects shot at the police as they escaped.¹¹¹
- **New Orleans, Louisiana. September 15, 2007.** At least 28 bullets were fired from an AK-47 at an outdoor birthday party for 5-year-old twins in the courtyard of a public housing complex. A 19-year-old was killed and three children were wounded, ages 7, 8 and 13.¹¹²
- **Miami, Florida. September 13, 2007.** Police spotted a vehicle driving erratically and followed it until it stopped in a residential complex. The driver got out and hopped a fence to the rear of the home; the officers exited their patrol car and went to the front of the home where they were granted permission to search by a female resident. The suspect grabbed a high-powered, military-grade rifle and fired at the police officers through a window, killing one officer, then exited the house and shot

¹⁰⁶ *The American Way*, REGISTER-GUARD, Dec. 17, 2007.

¹⁰⁷ Clarke Morrison, *Arden man gets 12 years for assault rifle shooting*, THE CITIZEN-TIMES, Aug. 8, 2008.

¹⁰⁸ Chris Conley & Jody Callahan, *Drive-by shooting kills 1—police search for two gunmen in B-52 Market incident*, MEMPHIS COMMERCIAL APPEAL, Nov. 13, 2007.

¹⁰⁹ Henry K. Lee, *Two suspects sought in Vallejo homicide*, SFGATE.COM, Nov. 10, 2007, available at: <http://www.sfgate.com/cgi-bin/article.cgi?f=/c/a/2007/11/10/BAUJT9HSA.DTL> (last visited Sept. 26, 2008).

¹¹⁰ Todd Richmond, *Crandon mass murder-suicide: Questions linger in killing of seven, officials tight-lipped despite suspect's death*, ST. PAUL PIONEER PRESS, Dec. 4, 2007.

¹¹¹ *2 killed in West Palm shootings, suspects escape on foot after one fires at police officer pursuing them*, SOUTH FLORIDA SUN-SENTINEL, Sept. 19, 2007.

¹¹² Mary Sparacello, *Housing Authority reining in parties, Kenner shooting leads to regulations*, THE TIMES PICAYUNE, Oct. 11, 2007.



three other officers as he escaped. The shooter was caught later that day but would not relinquish his assault rifle so he was shot and killed by police officers.¹¹³

- **Aiken, South Carolina. September 12, 2007.** A 20-year-old man died after being shot multiple times with an assault rifle by a 19-year-old when they were having an argument.¹¹⁴
- **Rome, Georgia. August 26, 2007.** One man was killed and a woman seriously injured inside their home. The shooter was found with an AK-47, from which several clips of ammunition had been emptied, and a 12-gauge shotgun when police arrived at the scene.¹¹⁵
- **Treme, Louisiana. August 13, 2007.** Two men were killed and another was seriously wounded as a shooter sprayed the crowd with an AK-47 assault rifle at a recreational league basketball game.¹¹⁶
- **Dallas, Texas. August 12, 2007.** One person was killed and three others wounded in a shooting outside a poetry/coffee shop. The gunman, who used an assault rifle, fled the scene.¹¹⁷

Hialeah, Florida. August 5, 2007. Eric Lopez, 38, was fatally shot in his home, and his wife, Olga, was shot in the leg. The incident began around noon when gunmen entered their home and began firing with a military-style semi-automatic weapon. Police arrested four people in connection with the shooting.¹¹⁸

- **Oakland, California. August 4, 2007.** A gunman with an assault rifle unleashed a barrage of bullets at a van parked on a North Oakland street, killing one man who lived nearby and wounding his brother and their friend. The gunman then fled.¹¹⁹
- **Orangeburg, South Carolina. July 19, 2007.** A man brandishing an assault rifle shot a woman once in the leg. The man was charged with assault and battery with intent to kill.¹²⁰

¹¹³ David Ovalle et al., *The murder and the manhunt started in a South Miami-Dade townhouse, zigzagged...*, MIAMI HERALD, Sept. 15, 2007.

¹¹⁴ Michelle Guffey, *Police seek murder suspects*, THE AUGUSTA CHRONICLE, Sept. 19, 2007.

¹¹⁵ *Man goes on shooting rampage, kills one, severely injures another*, ROMENEWSWIFE.COM, available at: <http://www.romenewswire.com/index.php/2007/08/26/police-on-scene-of-possible-murder-in-west-rome/> (last visited Sept. 29, 2008).

¹¹⁶ Richard A. Webster, *Soaring murder rate in New Orleans undermines recovery strides*, NEW ORLEANS CITY BUSINESS, Aug. 20, 2007.

¹¹⁷ Marissa Alanis, *Peacekeeper is killed outside club, police say: Dallas 3 others injured as gunman fires assault rifle into crowd*, DALLAS MORNING NEWS, Aug. 13, 2007.

¹¹⁸ Laura Figueroa, *Hialeah: 4 charged in 'crime of passion'*, MIAMI HERALD, Aug. 7, 2007.

¹¹⁹ *Two more slain in Oakland weekend violence*, THE OAKLAND TRIBUNE, Aug. 5, 2007.

¹²⁰ Richard Walker, *Woman recovering after being shot with AK-47*, THE TIMES AND DEMOCRAT, July 20, 2007.



- **North Augusta, South Carolina. July 15, 2007.** Twenty-one bullets were shot from an assault rifle into a home, hitting a 14-year-old boy sleeping inside. The bullets reportedly came from a car outside, tore through a foosball table, couch, and the wall to a back bedroom, where they pierced furniture, blasted a TV to the floor, and hit the boy.¹²¹
- **Floyd County, Indiana. June 18, 2007.** Two officers responded to a domestic disturbance call between a mother and her son. The officers were speaking with the mother on the driveway when the 15-year-old son ambushed both officers from an upstairs window and shot at them with a high powered assault rifle. One officer was killed and the other was seriously wounded.¹²²
- **Biloxi, Mississippi. June 5, 2007.** A gunman with an AK-47 ambushed police officers in a shootout, killing one, then shooting himself. The gunman lured police by firing shots in the neighborhood and waiting. After shooting one officer, the gunman unloaded an additional round into the patrol car. The gunman had a cache of backup guns and ammunition waiting inside his home.¹²³
- **Dallas, Texas. March 23, 2007.** A Dallas police officer was killed when he was struck in the neck and chest by an assault weapon as he approached a suspect's car.¹²⁴
- **Metairie, Louisiana. February 27, 2007.** Two AK-47s were among several guns fired into a Metairie apartment that resulted in four men being shot, one fatally and another critically.¹²⁵
- **Philadelphia, Pennsylvania. February 13, 2007.** A gunman used an assault weapon to kill 3 and wound another before killing himself.¹²⁶
- **Palm Beach County, Florida. January 1, 2007.** An 8-month-old baby boy was shot in his car seat after his mom parked in front of a drug house and rivals opened fire with assault rifles.¹²⁷
- **New Bedford, Massachusetts. December 12, 2006.** Three people were killed and two police officers were injured when a gunman opened fire at the Foxy Lady strip

¹²¹ Meredith Anderson, *North Augusta 14-year-old shot*, WRDW 12 NEWS, July 16, 2007, available at: <http://www.wrdw.com/home/headlines/8526357.html> (last visited on Sept. 29, 2008).

¹²² See Officer Frank Charles Denzinger, odmp.org, available at: <http://www.odmp.org/officer/18926-officer-frank-charles-denzinger> (last visited Sept. 30, 2008).

¹²³ Ryan LaFontaine, *Gunman had a large arsenal, Police say Asher used AK-47*, SUN HERALD, June 9, 2007.

¹²⁴ Tanya Eiserer et al., *Dallas officer dies after shootout*, THE DALLAS MORNING NEWS, Mar. 24, 2007.

¹²⁵ Michelle Hunter, *Cops say victim not innocent bystander*, THE TIMES PICAYUNE, Feb. 28, 2007.

¹²⁶ Larry King & Joseph A. Gambardello, *Investor rage, lethal trap*, PHILADELPHIA INQUIRER, Feb. 14, 2007.

¹²⁷ Rochelle E.B. Gilken, *County has most homicides since '89*, PALM BEACH POST, Jan. 6, 2008.



club; the shooter was fatally shot. One of the weapons used was described as an AR-15.¹²⁸

- **Westboro, Massachusetts. December 2, 2006.** Police seized a semiautomatic assault rifle from the bedroom closet of a young Shrewsbury man who posted threatening internet messages and who claimed to admire one of the Columbine High School killers.¹²⁹
- **Newport, Kentucky. November 19, 2006.** A fight at a nightclub led to four people being shot that evening. A 23-year-old was shot several times and left for dead on a bridge. An hour later, police found a 20-year-old man shot dead in his vehicle. Two other people were taken to the hospital with gunshot wounds and police recovered casings from an assault weapon.¹³⁰
- **Chicago, Illinois. October 30, 2006.** Members of the New Breed Street gang shot at Chicago police officers with an AK-47 from their car, injuring one officer. One gang member was killed and another critically wounded in the shoot-out.¹³¹
- **Palm Beach County, Florida. August 15, 2006.** A 50-year-old landscaper was shot at least 15 times as he walked toward a house to collect money for completed yard work. The shooters used assault weapons in the drive-by and police say the shooters mistook the victim for a gang member.¹³²
- **Chapel Hill, North Carolina, July 29, 2006.** A gunman with an assault rifle shot a man multiple times outside a nightclub, killing him. The shooter fled in a getaway car and later turned himself in.¹³³

¹²⁸ Jessica Heslam, *Strip club gunman at 'crossroads', killer bid farewell in cell phone messages*, BOSTON HERALD, Dec. 14, 2006.

¹²⁹ Kevin Keenan, *State police seize weapons*, WORCESTER TELEGRAM & GAZETTE, Dec. 2, 2006.

¹³⁰ *A fight at a Northern Kentucky nightclub lead to a wild shooting spree*, WLEX TV 18, Lexington, KY, Nov. 19, 2006, available at: <http://www.lex18.com/Global/story.asp?S=5704257&nav=EQ1p> (last visited Oct. 2, 2008).

¹³¹ Lisa Donovan et al., *Shoot-out 'looked like a movie': Cops kill 2 men they say were about to execute gang rivals*, CHICAGO SUN TIMES, Oct. 31, 2006.

¹³² Tim Collie, *Two members offer a look inside a South Florida gang*, SOUTH FLORIDA SUN-SENTINEL; July 22, 2007; Jerome Burdi, *'Innocent victim' killing unsolved, family awaits arrest in 2006 Boynton drive-by shooting*, SOUTH FLORIDA SUN-SENTINEL, Aug. 20, 2007.

¹³³ *Chapel Hill nightclub under review after fatal shooting*, WRAL.COM, July 31, 2006, available at: <http://www.wral.com/news/local/story/1056918/> (last visited Sept. 29, 2008).



St. John the Baptist Parish, Louisiana. June 27, 2006. 25-year-old Kelvin Thomas Jr. died after being shot in the abdomen with an assault rifle. Alonzo Bolden, 20, was arrested and booked with second-degree murder in connection with the shooting. Police believe the two men were engaged in an argument that was part of a long-running feud and ended with Bolden firing multiple shots at Thomas at close range. Thomas had three young children.¹³⁴

- **Calumet City, Illinois. June 25, 2006.** A 22-year-old pregnant woman and her 3-year-old son were shot and killed while they were sleeping when an unknown gunman fired 30 rounds from an AK-47 into their home at 1:15 a.m.¹³⁵
- **St. John the Baptist Parish, Louisiana. June 20, 2006.** A man who had killed a deputy police officer and injured another during a crime spree broke into the house of an 81-year-old man and held him hostage with an AK-47 until he eventually gave himself up and released the hostage.¹³⁶
- **Metairie, Louisiana. June 15, 2006.** Police attempted to serve a man with an emergency committal order but the man barricaded himself in his home and engaged in a 12-hour standoff with police. Seven hours into the standoff, the man shot and wounded two Sheriff's deputies with an assault rifle.¹³⁷
- **Reno, Nevada. June 12, 2006.** An owner of a gun shop, with a license to carry concealed weapons and access to a cache of guns, stabbed his wife to death and then shot the family court judge presiding over his divorce with a Bushmaster .223 high-powered assault rifle with sniper capabilities. The judge survived.¹³⁸
- **Howard County, Maryland. June 8, 2006.** County police officers were shot at by a man wielding an assault rifle whom they were attempting to serve a warrant on.¹³⁹
- **Norman, Oklahoma. June 7, 2006.** Two men opened fire on a Native American gathering of over 300 with an SKS assault rifle, killing one man and injuring another.¹⁴⁰

¹³⁴ Allen Powell II, *Garyville man held in fatal shooting, Deputies suspect long-running feud*, THE TIMES PICAYUNE, June 27, 2006.

¹³⁵ Tom Rybarczyk, *Calumet City reels after spray of bullets*, CHICAGO TRIBUNE, June 26, 2006.

¹³⁶ Allen Powell II, *Mourners salute slain St. John deputy*, NEW ORLEANS TIMES PICAYUNE, June 21, 2006.

¹³⁷ Michelle Hunter & Walt Philbin, *2 deputies wounded in Metairie standoff*, THE TIMES PICAYUNE, June 16, 2006.

¹³⁸ FOX NEWS, June 24, 2006.

¹³⁹ Tyrone Richardson, *Man found guilty of murder attempt*, BALTIMORE SUN, Oct. 29, 2006.

¹⁴⁰ Tom Blakely, *Pair arraigned in Sunday crowd shooting*, THE NORMAN TRANSCRIPT, June 7, 2006.



- **Miami, Florida. June 6, 2006.** Three men were killed and another injured when the van they were riding in was shot numerous times by assault weapons. About 50 rounds were fired into the van.¹⁴¹
- **Indianapolis, Indiana. June 2, 2006.** Seven family members, four adults and three children, were shot and killed in their home by a robber armed with an assault rifle. Nearly 30 shell casings were found.¹⁴²
- **San Diego, California. June 2, 2006.** A 17-year-old was wounded in an accidental workplace shooting when the teen's co-worker brought an AK-47 to work and was unaware that there was a live round inside the rifle's chamber.¹⁴³
- **New Milford Township, Pennsylvania. May 27, 2006.** Two brothers were camping with their wives and children when they were awakened by gunshots coming from a neighbor's property at 3:00 a.m. The brothers knew the neighbor so they went to his house to ask him to stop shooting. The neighbor, armed with a shotgun, told the two brothers to leave and then told his stepson to pick up an AR-15 rifle. The brothers were both shot in the stomach and wounded severely.¹⁴⁴
- **West Palm Beach, Florida. May 17, 2006.** Two men carrying AK-47 assault rifles ordered a man out of his car at gun-point, mugged him, and ripped off his pants.¹⁴⁵
- **Kingston, Tennessee. May 14, 2006.** A deputy sheriff and another individual were shot and killed by high-powered assault rifles. The deputy had 33 gunshot wounds.¹⁴⁶
- **Port Salerno, Florida. May 12, 2006.** A deputy sheriff was shot and wounded with an AK-47 assault rifle.¹⁴⁷

¹⁴¹ David Ovalle, *Ambush takes lives of 3 men*, MIAMI HERALD, June 6, 2006.

¹⁴² Ashley M. Heher, *Suspect in slaying of 7 family members surrenders / Indianapolis police say he had nowhere else to go*, HOUSTON CHRONICLE, June 4, 2006.

¹⁴³ Debbi Farr Baker, *Man accidentally shoots co-worker*, SAN DIEGO UNION-TRIBUNE, June 3, 2006.

¹⁴⁴ Nyier Abdou, *Somerville brothers still hospitalized after shooting: Pa. Man charged with assaulting rescue squad members during family camping trip*, THE STAR-LEDGER, May 31, 2006.

¹⁴⁵ *Digest*, SOUTH FLORIDA SUN-SENTINEL, May 17, 2006.

¹⁴⁶ Duncan Mansfield, *'Anti-government' man sought in ambush of Tennessee deputy*, CHARLESTON GAZETTE, May 13, 2006.

¹⁴⁷ Leon Fooksman, *Police fearful of violent crime trend: AK-47 shootings*, SOUTH FLORIDA SUN-SENTINEL, May 13, 2006.



Fort Worth, Texas. May 9, 2006. 16-year-old Derick Giles, an innocent bystander, was killed after being shot in the abdomen in the crossfire of a gang shooting outside a convenience store. Five minutes later, one man was shot in the leg and another in the foot during a second drive-by shooting. One hour and half later, a 50-year-old woman was shot in the shoulder by gunfire from a high-powered assault weapon as she stood in her kitchen.¹⁴⁸

- **Chantilly, Virginia. May 8, 2006.** A teenager with an AK-47 and 5 handguns engaged in a firefight at a police station, killing a female detective immediately and wounding two other officers, one of whom died nine days later from his injuries.¹⁴⁹
- **Los Angeles, California. May 8, 2006.** Police arrested a man and found over 20 assault weapons in his home after the man fired multiple rounds in the air while driving through his neighborhood with a semiautomatic pistol. The man had his young son in the car with him.¹⁵⁰
- **Oskaloosa, Iowa. May 5, 2006.** A 17-year-old shot his 13-year-old friend in the chest with a military-style rifle and then shot himself.¹⁵¹
- **West Palm Beach, Florida. April 28, 2006.** Shots were fired into an apartment at 6:00 in the morning, hitting one man in the right leg and left knee. Seventeen shell casings from an AK-47 were found at the scene.¹⁵²

West Palm Beach, Florida. April 27, 2006. An AK-47 was used to shoot 24-year-old David Paulk and his 16-year-old sister. Mr. Paulk was critically injured and died four days later. The next day, the alleged gunman, Brandon Williams, was shot in the back with an assault rifle and taken to the hospital, where he was treated and left before police were able to find cause to arrest him.¹⁵³ However, he was arrested soon after.¹⁵⁴

¹⁴⁸ Deanna Boyd, *Teen killed in shooting at convenience store*, FORT WORTH STAR-TELEGRAM, May 9, 2006.

¹⁴⁹ Ian Urbina, *Fatal police station attack shocks tranquil community*, NEW YORK TIMES, May 10, 2006; *Officer Killed*, BOSTON GLOBE, May 18, 2006.

¹⁵⁰ *Man said to be on 'edge of Armageddon'*, LONG BEACH PRESS-TELEGRAM, May 9, 2006.

¹⁵¹ AP-News Agenda, Broadcast News, May 5, 2006.

¹⁵² *Police Blotter*, PALM BEACH POST, Apr. 29, 2006; Jerome Burdi, *Rash of shootings hits city in 2 days*, SOUTH FLORIDA SUN-SENTINEL, Apr. 29, 2006.

¹⁵³ Jerome Burdi, *Rash of shootings hits city in 2 days*, SOUTH FLORIDA SUN-SENTINEL, Apr. 29, 2006; Jerome Burdi, *New task force seeks man suspected in 2 shootings*, SOUTH FLORIDA SUN-SENTINEL, Apr. 30, 2006; *Police Blotter*, PALM BEACH POST, Apr. 30, 2006.

¹⁵⁴ Nirvi Shah, *West Palm slaying suspect jailed after Pensacola stop*, PALM BEACH POST, May 8, 2006.



- **Oakland, California. March 19, 2006.** A gunman with an AK-47 opened fire on an apartment building, filling it with bullets and killing a 49-year-old man.¹⁵⁵
- **Lake Worth, Florida. March 17, 2006.** A man angry over an argument with a woman, shot the woman and her roommate with an AK-47 and left the victims in the doorway of their home.¹⁵⁶
- **Chicago, Illinois. March 11, 2006.** A 10-year-old girl was killed by a shot to her head as she was celebrating her birthday in her living room. A spray of bullets from an assault weapon peppered the house from a nearby fight.¹⁵⁷
- **Chicago, Illinois. March 3, 2006.** A stray bullet from an assault rifle struck a 14-year-old honor student as she was looking out the window of her home, killing her instantly.¹⁵⁸
- **Las Vegas, Nevada. February 1, 2006.** A 22-year-old fired at least 50 rounds from an assault rifle, shooting two Las Vegas police officers and killing one, before being shot and killed by the surviving officer.¹⁵⁹
- **Brooklyn, New York. January 20, 2006.** A man was arrested after firing at least two rounds from an Uzi at two members of the New York Police Department.¹⁶⁰
- **Ocala, Florida. January 7, 2006.** Two college students who were camping in the Ocala National Forest were randomly targeted by a man who shot and killed them with a stolen AK-47.¹⁶¹
- **Indianapolis, Indiana. January 2, 2006.** A man dubbed the “Tec-9 Robber” was arrested after being wanted in connection with as many as 23 robberies in four months of fast food restaurants, convenience stores, and gas stations.¹⁶²
- **Caddo Parish, Louisiana. January 1, 2006.** A 19-year-old was arrested after he was found hiding in an alley with an assault weapon. He faces two counts of aggravated assault on a police officer and potential charges for riddling a house with bullets, injuring a man.¹⁶³

¹⁵⁵ Henry K. Lee, *Oakland: Two new slayings brings homicide total to 30*, SAN FRANCISCO CHRONICLE, Mar. 21, 2006.

¹⁵⁶ Kevin Deutsch, *Man arrested in assault-rifle shooting*, PALM BEACH POST, Mar. 17, 2006.

¹⁵⁷ *Gov. Blagojevich, victims' families, advocates urge lawmakers in Springfield to pass statewide assault weapons ban*, US STATE NEWS, Mar. 23, 2006.

¹⁵⁸ Charles Sheehan, *Neighborhood buries another child*, CHICAGO TRIBUNE, Mar. 19, 2006.

¹⁵⁹ Omar Sofradzija, *Processions to honor Prendes*, LAS VEGAS REVIEW-JOURNAL, Feb. 7, 2006.

¹⁶⁰ Veronika Belenkaya et al., *Uzi maniac shot by cops. Tied to 3 attacks on city's finest*, NEW YORK DAILY NEWS, Jan. 22, 2006.

¹⁶¹ Stephen Kudak & Sarah Lundy, *Cops: Suspect admits killing 2 campers in Ocala forest*, ORLANDO SENTINEL, Jan. 28, 2006.

¹⁶² CBS 8 WISH, Indianapolis, IN, Jan. 5, 2006.

¹⁶³ CBS 12 KSLA, Shreveport, LA, Jan. 2, 2006.



- **Harper Woods, Michigan. December 31, 2005.** A 40-year-old man was shot sixteen times with an assault weapon while standing on his front porch around 3:15 p.m. and died from his injuries. His wife and daughters were in the house at the time of the shooting. His murder, occurring on the last day of the year, was the first murder of 2005 in his town.¹⁶⁴
- **Miami, Florida. December 28, 2005.** A man dressed in all black used an assault weapon to fire multiple rounds into a house killing a 20-year-old man and injuring another man who was hit in the leg.¹⁶⁵
- **Fortville, Indiana. December 13, 2005.** A man slapped a female relative and fired a round from an assault weapon into his driveway then barricaded himself in his house and threatened to shoot anyone who came to the door. When the 8-hour standoff ended, police found more than 10 weapons in the home.¹⁶⁶
- **Tacoma, Washington. November 20, 2005.** A 20-year-old male opened fire in a Tacoma mall, wounding six. The shooter took four hostages, all of whom were released unharmed.¹⁶⁷

San Francisco, California. October 14, 2005. 22-year-old Derna Wysinger and his two-year-old son, Naemon, were killed when a man opened fire on their car with an assault weapon. The toddler's mother, Jazmanika Ridout, was shot in the foot and survived. The family was leaving the home of the toddler's great aunt, who had been babysitting Naemon so that Wysinger and Ridout could go on a date.¹⁶⁸

- **North Braddock, Pennsylvania. August 12, 2005.** A man was found dead, shot in the back and head. Police found assault rifle bullet casings near the body.¹⁶⁹
- **Denton County, Texas. August 9, 2005.** In a night-long standoff at his home, a man fired his SKS assault rifle at police to avoid being arrested. After shooting an officer in the leg and refusing to negotiate, police shot and killed the suspect.¹⁷⁰
- **New Orleans, Louisiana. August 8, 2005.** While driving, a man was shot and killed when an occupant of another car opened fire with an AK-47 assault rifle.¹⁷¹

¹⁶⁴ NBC 51 WDIV, Detroit, MI, Jan. 4, 2006.

¹⁶⁵ *Man killed in early morning shooting*, MIAMI HERALD, Dec. 28, 2005.

¹⁶⁶ *Eight-hour standoff ends peacefully*, THEINDYCHANNEL.COM, Dec. 13, 2005 available at: <http://www.theindychannel.com/news/5524484/detail.html> (last visited Sept. 29, 2008).

¹⁶⁷ *Suspect: 'follow screams', Man opens fire at mall in Tacoma; 6 wounded*, AKRON BEACON JOURNAL, Nov. 22, 2005.

¹⁶⁸ Christopher Heredia, *San Francisco police ask public for help in finding shooting suspect*, SAN FRANCISCO CHRONICLE, Oct. 16, 2005.

¹⁶⁹ Michael Hasch, *Shooting victim was teen suspect's uncle*, PITTSBURGH TRIBUNE REVIEW, Aug. 17, 2005.

¹⁷⁰ Domingo Ramirez Jr., *Trooper is shot; suspect is killed*, FORT WORTH STAR-TELEGRAM, Aug. 9, 2005.



- **West Palm Beach, Florida. June 25, 2005.** A man was killed and his 9-year-old daughter severely wounded when a man fired into their parked car with an assault weapon that police believe had been converted to fully automatic.¹⁷²
- **Cincinnati, Ohio. June 22, 2005.** Assailants armed with SKS-type assault rifles sprayed over forty armor-piercing bullets in twenty seconds, hitting two women leaving a grocery store.¹⁷³
- **Livingston County, Kentucky. June 2, 2005.** A deputy was shot when he responded to a domestic disturbance call placed by a couple's 18-year-old daughter. When the officer entered the home, a male fired at least 8 rounds from an assault rifle at him, hitting him four times and killing him. The officer was able to fire one round which killed the gunman.¹⁷⁴
- **Fresno, California. May 31, 2005.** A man fired at least eight shots from an assault rifle at two veteran police officers sitting in their patrol car outside the police K-9 facility. The police later found a partially loaded 30 round magazine in the assailant's car.¹⁷⁵
- **Kansas City, Missouri. May 29, 2005.** After being pulled over for a routine traffic stop, a recently fired elementary school janitor shot a Highway Patrol trooper nine times with a 9 mm assault rifle.¹⁷⁶
- **Tulsa, Oklahoma. May 29, 2005.** A gunman fired more than 20 shots from an assault rifle at an apartment building security guard, wounding the guard and hitting his car and surrounding buildings.¹⁷⁷
- **Camden, New Jersey. May 21, 2005.** A mother of three young children was killed by a stray bullet fired from an AK-47 during a shoot-out.¹⁷⁸
- **Jackson, Mississippi. May 18, 2005.** A man fired at least 17 shots from an SKS assault rifle and 9 mm pistol at police during a traffic stop.¹⁷⁹

¹⁷¹ Walt Philbin, *Three men killed in seven hours: All are shot to death on New Orleans streets*, NEW ORLEANS TIMES PICAYUNE, Aug. 9, 2005.

¹⁷² *Gun owners trade in arms, W. Palm Beach shootings spark city buyback*, SOUTH FLORIDA SUN-SENTINEL, July 10, 2005.

¹⁷³ *Two wounded in West End*, CINCINNATI POST, June 24, 2005.

¹⁷⁴ *Livingston County Kentucky Deputy Sheriff killed in gunfight*, LMPD.com, June 3, 2005, available at: <http://www.lmpd.com/index.php?name=News&file=article&sid=291&theme=AutoPrint> (last visited Sept. 30, 2008).

¹⁷⁵ *Two held in assault-rifle attack on two officers*, FRESNO BEE, June 1, 2005.

¹⁷⁶ *Accused man tells trooper he's sorry*, KANSAS CITY STAR, May 30, 2005.

¹⁷⁷ *Security guard at apartment is shot*, TULSA WORLD, May 29, 2005.

¹⁷⁸ *Two more men arraigned in fatal street shoot-out*, THE PHILADELPHIA INQUIRER, June 1, 2005.

¹⁷⁹ *Bond denied for man in shootout*, SUN HERALD, July 20, 2005.



Clayton County, Georgia. April 23, 2005. High school senior Larry Bishop Jr. was killed, and three other teens were wounded, when a gunman opened fire on a group of partygoers. 18-year old Artavious Rashad Abercrombie was arrested in connection with the crime.¹⁸⁰

- **Miami, Florida. April 10, 2005.** Three men were injured during a dispute in a strip club parking lot when a fourth man fired an AK-47 at them.¹⁸¹
- **Canton, Texas. April 8, 2005.** A man shot his son's football coach in the chest with an AK-47 after a dispute.¹⁸²
- **Houston, Texas. April 8, 2005.** Two robbers armed with AK-47s fired nearly twenty rounds at police during a shoot-out outside a pawnshop.¹⁸³
- **New Orleans, Louisiana. March 27, 2005.** A woman was shot in the chest outside her apartment with an AK-47 when she refused to give her purse to two armed robbers.¹⁸⁴

Pittsburgh, Pennsylvania. March 16, 2005. 16-year-old Keith Watts was killed, and two other students were injured, when a shooter fired at least eight rounds from an AK-47 into their parked vehicle.¹⁸⁵

- **Dallas, Texas. March 15, 2005.** Three people were killed after a man fired an assault rifle at them through the sunroof of his car.¹⁸⁶
- **Schertz, Texas. March 3, 2005.** After being pulled over, a man fired more than 30 bullets from a handgun and AK-47 at a state police officer.¹⁸⁷
- **Tyler, Texas. February 25, 2005.** A gunman with a history of domestic violence and a felony conviction, who was reportedly fighting with his ex-wife over child support for their two youngest children, shot over 50 rounds from an SKS assault rifle on the steps of his local courthouse when his ex-wife exited the building. His ex-wife was killed along with a bystander who tried to shoot the gunman. The shooter's 23-year-old son and three law enforcement officers were wounded during the shooting, including a 28-year-old deputy who was in grave condition. The

¹⁸⁰ *Teen faces murder charge*, THE ATLANTA JOURNAL-CONSTITUTION, May 28, 2005.

¹⁸¹ *Pair of early-morning shootings leave six hurt*, MIAMI HERALD, April 11, 2005.

¹⁸² *Gunman attacks coach at school*, FORT WORTH STAR-TELEGRAM, April 8, 2005.

¹⁸³ *Pawnshop heist ends in bloody shootout*, HOUSTON CHRONICLE, April 7, 2005.

¹⁸⁴ *Jeff woman shot in struggle with thief*, THE TIMES-PICAYUNE, March 29, 2005.

¹⁸⁵ *Schools need permission to shield kids from threats*, PITTSBURGH POST-GAZETTE, March 18, 2005.

¹⁸⁶ *Police say revenge went awry for slaying suspects*, DALLAS MORNING NEWS, March 18, 2005.

¹⁸⁷ *Man indicted in Schertz shootout*, SAN ANTONIO EXPRESS-NEWS, March 24, 2005.



gunman fled the scene but was pursued and shot by police when he exited his car and shot toward officers.¹⁸⁸

- **Los Angeles, California. February 24, 2005.** A disgruntled Los Angeles municipal employee opened fire with an AK-47 after being reprimanded at work, killing his supervisor and another employee.¹⁸⁹

Akron, Ohio. February 24, 2005. A man shot and killed his girlfriend and her seven year old son using an AR-15 assault rifle, then fired more than one-hundred rounds at a dozen law enforcement officers as he fled the murder scene. The gunman was arrested the next morning inside the apartment of a Kent State University student, who he also murdered with the AR-15 assault rifle. Police subsequently seized 21 weapons kept by the suspect, including an Uzi and an AK-47.¹⁹⁰

- **Las Vegas, Nevada. February 15, 2005.** A suspected murderer fled from police as his girlfriend fired an assault rifle with a 100 round magazine at pursuing police vehicles. The man was wanted in connection with a drug related murder and for a nonfatal shooting. The man also had convictions for attempted manslaughter and armed robbery, and was suspected of shooting at a Louisiana police officer five months earlier.¹⁹¹
- **Ulster, New York. February 13, 2005.** A gunman fired more than 60 shots from an AK-47 assault rifle in the Hudson Valley Shopping Mall, wounding two and causing tens of thousands of dollars of damage before being apprehended. A few hours earlier, the shooter had purchased armor-piercing ammunition from a nearby Wal-Mart.¹⁹²
- **Lebanon, Tennessee. February 10, 2005.** A second grade student found a Tec-9 inside a closet and brought it to school in his backpack, where it was confiscated by police. The gun was not fired but sixteen bullets were discovered in the magazine.¹⁹³
- **Dayton, Ohio. January 31, 2005.** Three teens were shot with a Russian-made assault rifle following an argument at a grocery store.¹⁹⁴

¹⁸⁸ Bill Hanna & Jack Douglas Jr., *Rampage in Tyler leaves three dead, four wounded*, FORT WORTH STAR-TELEGRAM, Feb. 25, 2005; Jack Douglas Jr. & Bill Hanna, *Police order emergency trace on weapon used in shootings*, FORT WORTH STAR-TELEGRAM, FEB. 26, 2005.

¹⁸⁹ *2 Are Shot to Death at Maintenance Yard*, LOS ANGELES TIMES, Feb. 25, 2005.

¹⁹⁰ Ed Meyer, *Police eye semiautomatic rifles, Brimfield officials want to be prepared after recent shooting rampage that killed 3 people*, AKRON BEACON JOURNAL, Feb. 24, 2005.

¹⁹¹ Brian Haynes, *Wild chase ends in arrests*, LAS VEGAS REVIEW-JOURNAL, Feb. 19, 2005.

¹⁹² *Mall Gunman Had Columbine Fixation, an Official Says*, THE NEW YORK TIMES, Feb. 15, 2005.

¹⁹³ WKRN TV NEWS 2, Nashville, TN, Feb. 10, 2005.

¹⁹⁴ Kelli Wynn, *Assault weapon used in shooting, police say*, DAYTON DAILY NEWS, Feb. 2, 2005.



- **Ravena, Ohio. January 21, 2005.** Three people were killed, including a mother and her seven year old son, when a man fired at least 18 bullets from an assault rifle.¹⁹⁵

Jackson, Tennessee. January 11, 2005. Donna Renee Jordan, 31, David Gordon, 41, and Jerry Hopper, 61, were killed when Jordan's estranged husband, David Jordan, opened fire in a Tennessee Department of Transportation maintenance garage. Two other employees, Larry Taylor and James Goff, were shot and wounded. When David Jordan was arrested shortly after the shootings, police found an SKS assault rifle, a 12-gauge shotgun, and two pistols in his truck. Jordan's wife, whom he shot four times, left behind two children and two stepchildren.

- **Ceres, California. January 9, 2005.** A 19-year-old Marine armed with an SKS assault rifle shot two police officers, killing one, in a gun battle outside a liquor store.¹⁹⁶
- **Newington, Connecticut. December 31, 2004.** A former correction officer used a fully automatic M-16 to fatally shoot a Newington policeman after the officer responded to a domestic disturbance call.¹⁹⁷
- **New Orleans, Louisiana. December 23, 2004.** A mentally challenged 19-year-old was chased through the streets with a high-powered assault rifle before being gunned down outside his former elementary school.¹⁹⁸
- **Hayward, Wisconsin. November 21, 2004.** After being asked to leave another hunter's property, a 36-year-old man opened fire with an SKS semiautomatic rifle, killing six members of a hunting party and wounding two.¹⁹⁹
- **Oak Creek, Wisconsin. November 5, 2004.** A man wearing body armor and armed with a machine gun fled the hotel room where he murdered his girlfriend, firing 30 to 40 rounds down the hotel hallway, killing one man and injuring two others.²⁰⁰
- **Portland, Oregon. October 28, 2004.** A 31-year-old aimed two machine guns out his front window to guard the marijuana growing operation run from his home, which was less than 400 feet from an elementary school. Police seized 29 guns from his home, including several AK-47s and Uzis, a MAC-10 submachine gun and a .50

¹⁹⁵ Stephen Dyer, *Murder suspect pleads insanity*, AKRON BEACON JOURNAL, Feb. 8, 2005.

¹⁹⁶ *Cop, gunman dead: Marine killed after shooting officers*, THE MODESTO BEE, Jan. 11, 2005.

¹⁹⁷ *Officer shot, held hostage*, HARTFORD COURANT, Dec. 31, 2004.

¹⁹⁸ *Barbarity beyond belief*, THE TIMES-PICAYUNE, Dec. 23, 2004.

¹⁹⁹ *Wisconsin Shooting Rampage*, ST. PAUL PIONEER PRESS, Nov. 23, 2004.

²⁰⁰ *2 dead, 2 wounded in hotel shootings*, MILWAUKEE JOURNAL SENTINAL, Nov. 6, 2004.



caliber anti-aircraft gun. He was later sentenced to more than eight years in prison.²⁰¹

- **Minneapolis, Minnesota. October 21, 2004.** A store clerk died after being shot in the chest with an assault rifle during a botched robbery attempt.²⁰²
- **Oakland, California. September 22, 2004.** A 16-year-old honor student was killed on the sidewalk near her home after being struck by errant assault rifle fire.²⁰³

²⁰¹ Local news – Washington County, THE OREGONIAN, May 4, 2006.

²⁰² *3 teens charged with clerk's slaying*, ST. PAUL PIONEER PRESS, Nov. 2, 2004.

²⁰³ *Girl, 16, gunned down in Oakland drive-by*, THE OAKLAND TRIBUNE, Sept. 24, 2004.



Endnotes

- ¹ *Ferri Used Guns That California Ban Does Not Forbid*, SAN FRANCISCO EXAMINER, July 4, 1993.
- ² Michael Janofsky, *Columbine killers thank gun suppliers taped comments revealed in hearing*, CLEVELAND PLAIN DEALER, Nov. 13, 1999.
- ³ *Cult's Massive Weapons Purchases Stir Up a Furor Over Federal Regulation*, FORT WORTH STAR-TELEGRAM, May 2, 1993.
- ⁴ *Satellite College Campus Helps to Heal the Scars at San Ysidro Massacre*, LOS ANGELES TIMES, Mar. 30, 1989; *A 77-Minute Moment in History That Will Never Be Forgotten*, LOS ANGELES TIMES, July 16, 1989.
- ⁵ *The Kinds of Guns School Killer Used*, SAN FRANCISCO CHRONICLE, Jan. 19, 1989; Michael Taylor & Leslie Guevarra, *Myterious Scrawlings and Slogans, School Killer's Last Days, Toy Army in his Room*, SAN FRANCISCO CHRONICLE, Jan. 19, 1989.
- ⁶ In an appendix of this report, we have included 27 pages of assault weapons shootings that have occurred in just the last four years. Moreover, this list is not comprehensive. It is merely representative examples.
- ⁷ ATF, *Assault Weapons Profile* 19 (1994)
- ⁸ Judith Bonderman, *In Search of Justice: Compensation for Victims of Assault Weapon Violence*, 20 PRODUCT SAFETY & LIABILITY REP. 25 (June 26, 1992). There are numerous examples of test-firing that display the firepower of semi-automatic assault weapons on YouTube. See, e.g., <http://www.youtube.com/watch?v=nCMEqCPCvV4>; <http://www.youtube.com/watch?v=cYRsPzUYMM4>; and <http://www.youtube.com/watch?v=A75O0-QoJJI>.
- ⁹ ATF, *Assault Weapons Profile*, *supra* note 7, at 19 (emphasis added).
- ¹⁰ *Id.*
- ¹¹ *Assault rifles concern police*, MONTGOMERY ADVERTISER, May 25, 2006.
- ¹² ATF, *Assault Weapons Profile*, *supra* note 7, at 20.
- ¹³ See *infra* p. 15.
- ¹⁴ Dep't of Treasury, *Study on the Sporting Suitability of Modified Semiautomatic Assault Rifles* 38 (1998).
- ¹⁵ ATF, *Report and Recommendations of the ATF Working Group on the Importability of Certain Semi-Automatic Rifles* (July 6, 1989)
- ¹⁶ Dep't of Treasury, *Study on the Sporting Suitability of Modified Semiautomatic Assault Rifles*, *supra* note 14.
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- ⁸⁷ James L. “Sonny” Buchanan, Jr. of Abingdon, VA, a 39-year-old landscaper, was shot and killed with the Bushmaster assault rifle while mowing grass at a car dealership in White Flint, Maryland On October 3.
- ⁸⁸ Linda Franklin, a 47-year-old FBI employee was shot and killed with the Bushmaster assault rifle while loading packages with her husband in their car in the parking garage of a Home Depot in Seven Corners Shopping Center in Fairfax County, Virginia On October 14.
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¹⁰⁰ *Id.* at 55.

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¹⁰⁷ The data available at the time of the study went up through the end of 2001.

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EXHIBIT 40

Man wanted in officer's slaying dies in gunbattle

By RICH MCKAY
SENTINEL STAFF WRITER

BEVILLE'S CORNER — A man wanted in the killing of a New Jersey police officer last week was slain during a gunfight Easter morning after a chase by Hernando

and abdomen, also wounding her partner before fleeing.

Hernando deputies called for backup as they began to pursue Marti and he sped off and shot at them, Bergen County, N.J., prosecutor John L. Molinelli said.

drove northeast on State crossing from Hernando in

ment, Caruthers said. The chase covered about 20 miles, Hernando sheriff's officials said.

When the car stopped about 9:50 a.m., Marti got out with an AK-47 assault rifle and again shot at the deputies, officials said. He was shot several times by deputies, Caruthers said.

Marti was airlifted to a Lakeland hospital where he was pronounced



“Officer Down”

Assault Weapons and the War on Law Enforcement

Rifle attack called officer's nightmare

B6 The Roanoke Times, Sunday, June 17, 2001

Suspect brandished 9 mm 'Uzi-style' weapon, authorities say

Slain officer wanted shift with most action

ACTION FROM 1-A

In his application, Cudnik said he wanted to be a police officer because it was "one of the most mentally and physically challenging and emotionally rewarding vocations that I can aspire to."

wanted to work when all the action was happening."

His personnel file showed no commendations. The only reprimand occurred in February 1995 when he was suspended for 60 days for leaving the scene of a three-car accident while off-duty, then failing to report his involvement in it.

Cudnik grew up in the Garfield Heights area and graduated from Parma Senior High School in 1967. He was the divorced father of three sons: Hilary Jr., 23, a Cleveland firefighter; Michael, 21, a student at the University of Dayton; and Daniel, 20, with the Coast Guard.

Even though he worked the grueling 8 p.m. to 4 a.m. shift in one of the city's toughest neighborhoods, Cudnik was a frequent presence at the bar, which opened at 6 a.m. to serve bacon and eggs to the no-nonsense working man's crowd at the nearby LTV Steel Co. mill.

"He was always here," said

The Violence Policy Center (VPC) is a national non-profit educational organization that conducts research and public education on firearms violence and provides information and analysis to policymakers, journalists, grassroots advocates, and the general public. The Center examines the role of firearms in America, analyzes trends and patterns in firearms violence, and works to develop policies to reduce gun-related death and injury.

This report was authored by VPC Legislative Director Kristen Rand and VPC Policy Analyst Marty Langley. It was edited by VPC Publications Coordinator Aimée Stenzel and VPC Executive Director Josh Sugarmann.

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- *Firearms Production in America 2002 Edition—A Listing of Firearm Manufacturers in America with Production Histories Broken Out by Firearm Type and Caliber* (March 2003)
- *“Just Like Bird Hunting”—The Threat to Civil Aviation from 50 Caliber Sniper Rifles* (January 2003)
- *When Men Murder Women: An Analysis of 2000 Homicide Data* (October 2002)
- *No Deal: The Drop in Federally Licensed Firearms Dealers in America* (September 2002)
- *Sitting Ducks—The Threat to the Chemical and Refinery Industry from 50 Caliber Sniper Rifles* (August 2002)
- *License to Kill IV: More Guns, More Crime* (June 2002)
- *American Roulette: The Untold Story of Murder-Suicide in the United States* (April 2002)
- *The U.S. Gun Industry and Others Unknown—Evidence Debunking the Gun Industry’s Claim that Osama bin Laden Got His 50 Caliber Sniper Rifles from the U.S. Afghan-Aid Program* (February 2002)
- *“A .22 for Christmas”—How the Gun Industry Designs and Markets Firearms for Children and Youth* (December 2001)
- *Kids in the Line of Fire: Children, Handguns, and Homicide* (November 2001)
- *Unintended Consequences: Pro-Handgun Experts Prove That Handguns Are a Dangerous Choice For Self-Defense* (November 2001)
- *Voting from the Rooftops: How the Gun Industry Armed Osama bin Laden, Other Foreign and Domestic Terrorists, and Common Criminals with 50 Caliber Sniper Rifles* (October 2001)
- *Shot Full of Holes: Deconstructing John Ashcroft’s Second Amendment* (July 2001)
- *Hispanics and Firearms Violence* (May 2001)
- *Where’d They Get Their Guns?—An Analysis of the Firearms Used in High-Profile Shootings, 1963 to 2001* (April 2001)
- *A Deadly Myth: Women, Handguns, and Self-Defense* (January 2001)
- *Handgun Licensing and Registration: What it Can and Cannot Do* (September 2000)
- *Pocket Rockets: The Gun Industry’s Sale of Increased Killing Power* (July 2000)
- *Gunland USA: A State-by-State Ranking of Gun Shows, Gun Retailers, Machine Guns, and Gun Manufacturers* (June 2000)
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- *Cease Fire: A Comprehensive Strategy to Reduce Firearms Violence* (Revised, October 1997)

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Introduction

In 1994, Congress passed, and President Clinton signed, a ban on the production of certain semiautomatic assault weapons as well as high-capacity ammunition magazines that hold more than 10 rounds. The law banned specific assault weapons by name and also classified as assault weapons semiautomatic firearms that could accept a detachable ammunition magazine and had two additional assault weapon design characteristics. The law is scheduled to end on September 13, 2004.

This study reveals the gun industry's efforts to evade the 1994 ban and documents the significant threat assault weapons still pose to law enforcement. These facts make clear the need to not only renew, but also *strengthen*, the ban before it expires next year. Legislation will soon be introduced in the U.S. Congress to accomplish this goal. Without action this Congress, the 1994 law will expire in 2004.

Both President Bush and Attorney General Ashcroft have expressed support for the assault weapons ban. President Bush's support for the ban has been longstanding. In October 2000, Bush campaign spokesperson Ray Sullivan told *Salon* magazine that he would expect then-candidate Bush to reauthorize the ban.¹ That position was reiterated by Attorney General John Ashcroft during his confirmation hearings on January 17, 2001, when he stated, "It is my understanding that the president-elect of the United States has indicated his clear support for extending the assault weapon ban, and I would be pleased to move forward that position, and to support that as a policy of this president, and as a policy of the Justice Department."² Most recently, in April of this year, White House spokesperson Scott McClellan told Knight Ridder news service, "The President supports the current law, and he supports reauthorization of the current law."³

This study contains three sections. *Section One: Assault Weapons, the Gun Industry, and Law Enforcement* reveals how the firearms industry has evaded the current ban, and how assault weapons continue to pose a stark threat to America's law enforcement personnel. *Section Two: Law Enforcement Officers Killed in the Line of Duty by Assault Weapons, 1998 Through 2001* is a chart listing the known incidents of police officers killed by assault weapons, including year, state, manufacturer, model of assault weapon, and caliber. *Section Three: Selected Incidents of Law Enforcement Officers Killed in the Line of Duty by Assault Weapons, 1998 Through*

¹ Jake Tapper, "Gore Shoots Blanks on Guns," *Salon*, October 24, 2000.

² "Day 2, Morning Session of a Hearing of the Senate Judiciary Committee," *Federal News Service*, January 17, 2001.

³ Shannon McCaffrey, "In Surprise Move, Bush Backs Renewing Ban on Assault Weapons," *Knight Ridder/Tribune News Services*, April 12, 2003.

2001 offers expanded narratives for 15 of the law enforcement shootings that occurred during this period. Each narrative also includes a representative illustration of the model of assault weapon used in the shooting (each weapon shown is representative of the brand or model of assault weapon and may not be identical to the specific weapon used in the shooting detailed in the narrative).

Section One: Assault Weapons, the Gun Industry, and Law Enforcement

Assault Weapons: A Clear Threat to Law Enforcement

A primary stimulus for the 1994 law was the severe threat that assault weapons pose to law enforcement officers. Police and other law enforcement personnel were some of the first victims of the assault weapon trend that emerged in the 1980s. For example, in October 1984, a San Jose, California, police officer was gunned down with an UZI carbine. In a high-profile shootout in April 1986, two agents from the Federal Bureau of Investigation (FBI) were killed by robbery suspects wielding a Ruger Mini-14 assault rifle. Five other agents were wounded in the gun battle. As high-capacity assault weapons became more commonplace, police routinely complained that they were being outgunned by suspects. As a result, major law enforcement organizations supported passage of the 1994 federal assault weapons ban.

In 1995, the first full year in which the ban was implemented, police continued to be victims of assault weapons. Approximately one in 10 of the 74 law enforcement officers killed in the line of duty in 1995 was slain with a banned assault weapon.⁴

The Gun Industry Evades the Law

Immediately after the 1994 law was enacted, the gun industry moved quickly to make slight, cosmetic design changes in their “post-ban” guns to evade the law, a tactic the industry dubbed “sporterization.” Of the nine assault weapon brand/types listed by manufacturer in the law,⁵ six of the brand/types have been re-marketed in new,

⁴ *Cop Killers: Assault Weapon Attacks on America’s Police*, Violence Policy Center, September 1995.

⁵ The law states, “The term ‘semiautomatic assault weapon’ means—(A) any of the firearms, or copies or duplicates of the firearms in any caliber, known as—(i) Norinco, Mitchell, and Poly Technologies Avtomat Kalashnikovs (all models); (ii) Action Arms Israeli Military Industries UZI and Galil; (iii) Beretta Ar70 (SC-70); (iv) Colt AR-15; (v) Fabrique National FN/FAL, FN/LAR, and

“sporterized” configurations.⁶ In fact, gunmakers openly boast of their ability to circumvent the assault weapons ban. Their success is described in an August 2001 *Gun World* magazine article about the new Vepr II assault rifle, a “sporterized” version of the AK-47:

In spite of assault rifle bans, bans on high capacity magazines, the rantings of the anti-gun media and the rifle’s innate political incorrectness, the Kalashnikov [AK-47], in various forms and guises, has flourished. Today there are probably more models, accessories and parts to choose from than ever before.

Equally blunt was an article in the May 2003 issue of *Gun World* reviewing the LE Tactical Carbine, a post-ban, “sporterized” AR-15 clone:

Strange as it seems, despite the hit U.S. citizens took with the passage of the onerous crime bill of 1994 [which contained the federal assault weapons ban], ARs are far from dead. Stunned momentarily, they sprang back with a vengeance and seem better than ever. Purveyors abound producing post-ban ARs for civilians and pre-ban models for government and law enforcement agencies, and new companies are joining the fray.⁷

Just such a post-ban AR, the Bushmaster XM15 M4 A3 assault rifle, was used by the Washington, DC-area snipers to kill 10 and injure three in October 2002. The Bushmaster is the poster child for the industry’s success at evading the ban. The snipers’ Bushmaster is even marketed as a “Post-Ban Carbine.” [Please see page four for catalog copy.]

The industry’s efforts have been aided by the fact that not all assault weapons are covered by the 1994 ban. For example, assault weapons with more conventional designs, such as the Ruger Mini-14, were not covered by the 1994 law—although gun experts define them as assault weapons. Furthermore, any gun that was legally possessed as of the date the 1994 law took effect may still be legally possessed and

FNC; (vi) SWD — 10, M-11/9, and M-12; (vii) Steyr AUG; (viii) INTRATEC TEC-9, TEC-DC9 and TEC-22; and (ix) revolving cylinder shotguns, such as (or similar to) the Street Sweeper and Striker 12....”

⁶ Assault weapons that have not been reintroduced are the Beretta AR70, Street Sweeper and Striker 12 assault shotguns (the latter two guns were re-classified by the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) as subject to the strict regulations of the National Firearms Act of 1934), and Steyr AUG, although Steyr has begun marketing a new assault weapon—the Vector—that, like the AUG, is of a bullpup design.

⁷ “Rock River’s LE Tactical Carbine,” *Gun World* (May 2003), p. 50.

4 Bushmaster Rifles & Carbines Internet: www.bushmaster.com

Bushmaster XM15 M4 Type 16" Post-Ban Carbine...

M4 Profile Barrel • Mini Y Comp Muzzle Brake • Fixed length BATF Approved Tele-style Stock

A new model from Bushmaster in 2001, this XM15 E2S M4 Type Post-Ban Carbine features a lightweight 14.5" Barrel machined in the distinctive M4 profile with a permanently attached Mini Y Comp muzzle brake. This configuration yields a total barrel length of 16" to comply with Post-Ban regulations. A BATF approved fixed tele-style buttstock is added to complete the military look of this new carbine. The 14.5" barrel is chrome lined in both bore and chamber for maximum longevity and ease of maintenance. The barrel's button rifling, in a 1 x 9" right hand twist, will stabilize a wide range of currently available ammunition with bullet weights up to 69 grains. The M16A2 dual aperture, rear sight system offers both windage and elevation adjustments - elevation is calibrated from 300 to 800 meters. The two different apertures give either a short range, quick target acquisition sight picture or a smaller "peep" aperture for long distance accuracy. The tele-stock style buttstock is pinned and fixed in an "open" position and has been BATF approved for use on Post-Ban manufactured carbines.

As with all other Bushmasters, the forged 7075T6 aircraft quality aluminum receivers are finished in a non-reflective mil. spec. hard anodize for durability, and include all M16A2 design improvements such as cartridge case deflector, last round bolt hold-open and raised ridges for magazine release button protection. A mil. spec. manganese phosphate coating insures complete protection against corrosion or rust on barrel and other exposed steel parts. The M4-16" Carbine is shipped in a lockable, hard plastic case - complete with 10 round magazine, carrying sling, and Operator's Safety and Instruction Manual.

**BATF Approved,
Fixed Position,
Tele-Style
Buttstock**



**M4
Profile
Chrome
Lined Barrel
& Mini Y Comp
Muzzle Brake**
(permanently pinned
and welded in place)

**SPECIFICATIONS:
XM15 M4 Type 16"
Post-Ban Carbine**

Caliber .223 Rem. (5.56 mm)
Mag. Capacity Shipped with 10 round
(accepts all M16 type)
Overall Length 34.875 inches (88.6 cm)
Barrel Length 16" total vs. Mini Y Comp
(40.6 cm)
Rifling R.H. twist; 1 turn in 9"
Weight w/o magazine 6.59 Lbs. (2.99 kg)
Mode of Operation Gas Operated -
Semi-Automatic

**Bushmaster XM15 E2S
M4 Type 16" Post-Ban Carbine**
(Model Number PCWA2X 14M4MY)
**Call your FFL Dealer for Price.
Shipped with 10 Round Magazine,
Sling and Operator's Manual in
Bushmaster's lockable rifle case.**



This new carbine is also available in an "A3" type model including the Bushmaster Flat-top Upper Receiver and Removable A3 Carry Handle to offer you the ultimate in sight and scope mounting versatility.

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Model # PCWA3X 14M4MY**

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All complete Bushmaster Rifles and Carbines are shipped in this foam lined, hard plastic, lockable case.
A \$14.95 Value!

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The Bushmaster XM15 used by the Washington, DC-area snipers to kill 10 and wound three in October 2002 is the poster child for the gun industry's cynical efforts to circumvent the federal assault weapons ban. Maine-based Bushmaster even advertises the gun—based on the banned Colt AR-15 assault rifle—as a "Post-Ban Carbine."

transferred without restriction. With respect to high-capacity ammunition magazines, manufacturers stockpiled thousands, or perhaps hundreds of thousands, of magazines before the ban took effect. Those magazines—some of which can hold up to 75 rounds of ammunition—are still widely available.

Still a Threat to Police—One in Five Law Enforcement Officers Slain in the Line of Duty is Killed With an Assault Weapon

The gun industry's evasion of the 1994 ban on assault weapons and high-capacity ammunition magazines continues to put law enforcement officers at extreme risk. Using data obtained from the Federal Bureau of Investigation, the Violence Policy Center has determined that ***at least 41 of the 211 law enforcement officers slain in the line of duty between January 1, 1998, and December 31, 2001, were killed with assault weapons.***⁸ ***Using these figures, one in five law enforcement officers slain in the line of duty was killed with an assault weapon.***

While no comprehensive information is yet available for the years 2002 and 2003, it is clear that law enforcement personnel continue to be killed by assault weapons. For example, on February 20, 2003, in Alexandria, Louisiana, two police officers were killed in an ambush with an AK-47-type assault rifle. Anthony Molette, age 25, had a long criminal history, including a charge of attempted first-degree murder. The day before the murders, Molette opened fire on an officer in his patrol car. The officer was not hurt, but 18 to 20 rounds were fired into the vehicle. Molette bragged to his friends about the shooting, prompting Alexandria police to search for him. When officers arrived at Molette's residence to serve a warrant, Molette opened fire, fatally wounding Officers Charles Ezernack, age 26, and Jeremy "Jay" Carruth, age 29. Molette was shot and killed as he charged two other police officers.⁹

The fact that from 1998 through 2001 one in five law enforcement officers slain in the line of duty was killed with an assault weapon indicates that the ban in its current form is inadequate to protect police and the public from the hazards presented by assault weapons.

⁸ The Federal Bureau of Investigation data does not identify the firearm used in some instances, in those cases the type of firearm is listed as "unknown." Therefore, the number of law enforcement officers killed with assault weapons may actually be higher. (This figure does not include the 72 law enforcement deaths that resulted from the events of September 11, 2001. The foreword of the FBI's *Law Enforcement Officers Killed and Assaulted, 2001* states, "Because a catastrophe such as the September 11 attacks falls far outside the normal course of police experience, the FBI has not included those fatalities in the 2001 rate, trend, or disposition tables for to do so would skew the data and render analyses meaningless.") The year 2001 is the most recent year for which complete information is available from the FBI.

⁹ "Police Killings Baffling," *State-Times/Morning Advocate*, February 22, 2003.

According to the Urban Institute's 1997 study of the effects of the 1994 ban,¹⁰ "the relatively high use of assault weapons in murders of police suggests that police gun murders should be more sensitive to the effects of the ban than gun murders of civilians." The stark reality that murders of law enforcement personnel committed with assault weapons have not abated demonstrates the need to not only renew, but significantly strengthen, the current ban.

¹⁰ Roth and Koper, *Impact Evaluation of the Public Safety and Recreational Firearms Use Protection Act of 1994 Final Report*, Urban Institute, March 13, 1997.

Section Two: Law Enforcement Officers Killed in the Line of Duty by Assault Weapons, 1998 Through 2001

Year	State	Manufacturer	Model	Caliber
1998	Alaska	Colt	AR-15	7.62mm
	Georgia	Iver Johnson	M1 Carbine	.30
	Oregon	Norinco	SKS ¹¹	7.62mm
	New York	Unknown	MAC-11	9mm
	California	Armalite	M151A	.223
	Mississippi	Colt	AR-15	.223
	Mississippi	Colt	AR-15	.223
	Michigan	DPMS, Inc.	AR-15	.223
	Florida	Unknown	SKS	7.62mm
	Colorado	Unknown	SKS	7.62mm
	Texas	Unknown	AR-15	.223
	Texas	Unknown	AR-15	.223
	Missouri	Unknown	MAK 90	7.62mm
	California	Ruger	Mini-14	.223
	Indiana	Norinco	SKS	7.62mm
1999	California	Ferunion/Hungarian Arms	SA85	7.62mm
	Indiana	Norinco	SKS	7.62mm

¹¹ The SKS is not banned by name under the 1994 federal assault weapons ban. Only SKS rifles that were modified to be defined as an assault weapon under Section (B) of the law were affected by the ban. Section (B) defines a "semiautomatic assault weapon" as "a semiautomatic rifle that has an ability to accept a detachable ammunition magazine and has at least 2 of—(i) a folding or telescoping stock; (ii) a pistol grip that protrudes conspicuously beneath the action of the weapon; (iii) a bayonet mount; (iv) a flash suppressor or threaded barrel designed to accommodate a flash suppressor; and (v) a grenade launcher...." Legislation to be introduced this Congress would explicitly ban any SKS able to accept a detachable ammunition magazine. Unless otherwise stated, the exact configuration of SKS weapons used in police shootings cited in this study cannot be determined.

Year	State	Manufacturer	Model	Caliber
	New Jersey	Intratec	TEC-9	9mm
	Arizona	Unknown	AK-47	7.62mm
	California	Norinco	MAK 90	7.62mm
	Oklahoma	Colt	AR-15 H-BAR	.223
	Texas	Norinco	MAK 90 Sporter	7.62mm
	Texas	Norinco	MAK 90	7.62mm
	Texas	Norinco	MAK 90	7.62mm
	Texas	Norinco	MAK 90	7.62mm
2000	North Carolina	Maadi	ARM	7.62mm
	Georgia	Ruger	AR-15 ¹²	.223
	California	Colt	CAR-15	.223
	Texas	Ruger	Mini-14	.223
	Georgia	Intratec	TEC-9	9mm
	Maryland	Unknown	M1 Carbine	.30
2001	California	Unknown	AR-15	.223
	Florida	SWD, Inc.	M-11	9mm
	Indiana	Unknown	AK-47	7.62mm
	Kentucky	Underwood	M1 Carbine	.30
	Kentucky	Underwood	M1 Carbine	.30
	Michigan	Unknown	SKS	7.62mm
	Tennessee	Maadi	MAK 90	7.62mm
	Texas	Unknown	M-11	9mm
	Texas	Norinco	SKS	7.62mm
	Utah	Norinco	SKS	7.62mm

¹² Inconsistency between manufacturer and weapon type from FBI data.

**Section Three: Selected Incidents of Law Enforcement Officers
Killed in the Line of Duty by Assault Weapons,¹³
1998 Through 2001**

¹³ Each weapon shown is representative of the brand or model of assault weapon and is not a picture of the specific weapon used in the shooting described in the narrative.

Date: January 27, 1998
Location: Portland, Oregon
Assault Weapon: Norinco SKS 7.62mm rifle

On January 27, 1998, one police officer was killed and two were wounded with a Norinco SKS 7.62mm rifle. The officers, working on a drug investigation in Portland, entered the home of Steven Douglas Dons and were met with gunfire. Colleen Waibel, a six-year veteran, was hit with multiple gunshots, becoming the first female officer killed in the line of duty in Portland. Kim Keist, a 15-year veteran, was wounded in the chest and arm despite wearing a bullet-proof vest. A third officer was treated for a gunshot wound to the hand. A neighbor reported that Dons was known to have a large arsenal of weapons and that police had been called to the house weeks before on a complaint of weapons being fired. Dons committed suicide while awaiting trial.

Lauren Dodge, "Three Portland Officers Ambushed at House; One Dead, Two Wounded," *Associated Press*, January 28, 1998; "Victim, Husband Have Mixed Feelings Over Apparent Suicide of Suspect," *The Columbian*, February 26, 1998.

AK MAGAZINE FED...SKS SPORTER RIFLE 7.62X39 CAL.
We Have The Only Ones In The U.S.!!

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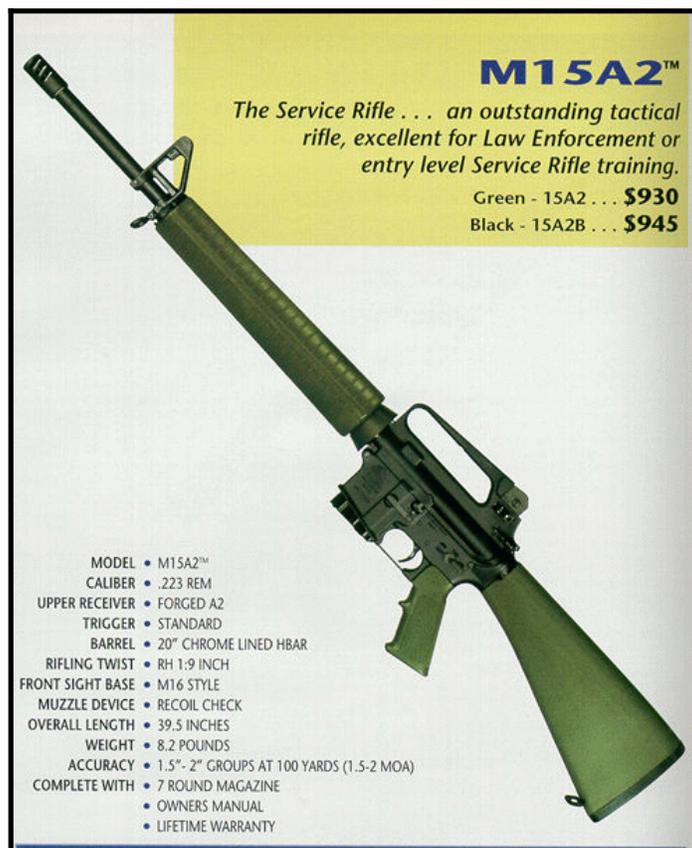
Date: April 25, 1998

Location: Millbrae, California

Assault Weapon: Armalite M151A .223 rifle

On April 25, 1998, one police officer was killed with an Armalite M151A .223 rifle. Officer David Chetcuti responded to another officer's call for help in a traffic stop on the Millbrae Avenue off-ramp of U.S. 101. Officer Seann Graham had pulled over Marvin Patrick Sullivan for not having a current registration sticker for his vehicle. Sullivan, who was heavily armed and had bombs strapped to his body, opened fire, wounding Officer Chetcuti. Chetcuti returned fire hitting the suspect once in the side before being killed by two shots to the head from close range. Several of the bullets penetrated Chetcuti's bullet-proof vest, and more than 40 bullet casings were recovered at the scene. Officer Graham escaped harm by diving into a drainage ditch. Sullivan was arrested after leading several police cars in a chase across the San Mateo Bridge. Sullivan has been repeatedly declared incompetent to stand trial, and sent to a California state mental hospital.

Tyche Hendricks and Jim Herron Zamora, "Cop Killing: No Fremont Tie," *San Francisco Examiner*, April 27, 1998; "Judge: Man isn't competent; Defendant Sent Back to Hospital in Millbrae Cop Slaying Case," *San Jose Mercury News*, July 23, 2002.



Date: May 29, 1998
Location: Cortez, Colorado
Assault Weapon: SKS 7.62mm rifle

On May 29, 1998, one police officer was killed and two were wounded with an SKS 7.62mm rifle. Officer Dale Claxton stopped a truck that had been reported stolen the day before. As Officer Claxton was checking the stolen truck's license plate, a passenger in the truck fired approximately 40 rounds through the front of Claxton's police cruiser. Montezuma County Sheriff's Deputy Jason Bishop responded to the radio call of an officer being shot, and was wounded as his cruiser was hit with approximately 40 more rounds from the SKS. Minutes later, Deputy Todd Martin was wounded in the left arm and right leg. The three suspects, described by authorities as "anti-government, end-of-the-world-fearing survivalists," escaped into Colorado. Two of the suspects were later found dead, while the third, Jason Wayne McVean, is still at large.

Greg Burton, "Posse Scours Badlands for 3 Cop Killers," *Salt Lake Tribune*, May 31, 1998; Julie Cart, "Answers Vanished Along With Four Corners Outlaw," *Los Angeles Times*, November 24, 1999.



Date: July 7, 1998
Location: San Benito, Texas
Assault Weapon: AR-15 .223 rifle

On July 7, 1998, two U.S. Border Patrol agents were killed with an AR-15 .223 rifle. Ernie Moore, reportedly enraged over a broken love affair, shot and wounded Dan Morin, who had been dating Moore's former girlfriend, and killed Morin's mother and sister. Two hours later, a shootout ensued between Moore and police officers resulting in the death of two Border Patrol agents before Moore was fatally wounded. In addition to a cocaine habit, Moore had a history of emotional problems and displayed Nazi posters and photos of Adolf Hitler in his bedroom.

James Pinkerton, "Two Border Patrol Agents Are Slain During Rampage," *Houston Chronicle*, July 8, 1998; "Assault Rifle Costs Border Town \$35M," *National Law Journal*, March 4, 2002.



Date: November 29, 1998
Location: Los Angeles, California
Assault Weapon: Ruger Mini-14 .223 rifle

On November 29, 1998, Los Angeles Police Department training officer Brian Brown was killed with a Ruger Mini-14 .223 rifle. Brown and his partner witnessed a drive-by shooting in Culver City and attempted to stop the suspects. The gunmen fired multiple rounds from the Mini-14, killing Officer Brown. Police shot and killed one of the suspects near the scene while the other managed to commandeer a taxi, leading police on a five-mile chase before also being fatally wounded.

Anthony Breznican, "Three Dead, Including Police Officer, During Violent Arrest for Drive-By Shooting," *Los Angeles Times*, December 1, 1998.



Date: January 10, 1999
Location: Oakland, California
Assault Weapon: MAK-90 or SA85 7.62mm rifle

On January 10, 1999, Officer James Williams was killed with a MAK-90 or SA85 7.62mm rifle. Officer Williams was among a group of officers who were searching for a rifle that had been discarded by the occupants of a vehicle that was involved in a chase with police. While they were searching for the rifle, a gunman opened fire from a nearby overpass, killing Officer Williams. Chad Rhodes was arrested and charged with special-circumstances murder, attempted murder, three counts of firing an assault weapon, and possessing an assault weapon. Rhodes pleaded guilty to second-degree murder and was sentenced to life in prison without parole.

Henry K. Lee, "Arrest in Oakland Sniper Slaying," *San Francisco Chronicle*, January 12, 1999; Henry K. Lee, "Sniper Suspect Enters Plea of Not Guilty," *San Francisco Chronicle*, February 6, 1999; "Man Pleads Guilty in Killing of Oakland Cop," *San Francisco Chronicle*, April 9, 2003.



Date: April 8, 1999
Location: Orange, New Jersey
Assault Weapon: TEC-9 9mm pistol

On April 8, 1999, Officer Joyce Carnegie was killed with a TEC-9 9mm pistol. Condell Woodson pleaded guilty to felony murder in the death of Officer Carnegie. Woodson claimed that his gun accidentally went off, shooting Carnegie in the head and abdomen as she was attempting to arrest Woodson for armed robbery. Woodson also pleaded guilty to robbery and weapons offenses. Carnegie was the second policewoman killed in the line of duty in New Jersey history.

Amy Westfeldt, "Man Pleads Guilty to Policewoman's Murder," *Associated Press*, May 13, 1999.



Date: June 12, 1999
Location: Orange County, California
Assault Weapon: MAK-90 or SA85 7.62mm rifle

On June 12, 1999, Sheriff's Deputy Brad Riches was killed with a MAK-90 or SA85 7.62mm rifle. Deputy Riches was sitting in his patrol car outside a 7-Eleven when his police cruiser was riddled with assault weapon fire. The 7-Eleven clerk said that a customer told him he was carrying an AK-47-style assault rifle to shoot a police officer. Maurice Steksal was convicted on November 19, 2002 of the first-degree murder of Deputy Riches.

Jack Leonard, "Thousands Pay Last Respects to Slain Deputy," *Los Angeles Times*, June 17, 1999;
Greg Hardesty, "Laborer Guilty of Deputy's Murder," *Orange County Register*, November 20, 2002.



Date: January 27, 2000
Location: Lexington, North Carolina
Assault Weapon: Maadi 7.62mm rifle

On January 27, 2000, Sheriff's Deputy Todd Cook was killed with a Maadi 7.62mm rifle. Deputy Cook was serving a warrant at the home of Christopher Lee Cooper who had been accused of trespassing and was also wanted by Lexington police for questioning about a statutory rape. Deputy Cook was shot at least five times from behind. After the shooting, Cooper led police on a car chase that ended when he crashed through a roadblock. Officers found Cooper dead in the car from a self-inflicted gunshot wound.

"Piedmont Community Mourns Loss of Slain Deputy," *Associated Press*, January 29, 2000.



Date: August 3, 2000
Location: San Marcos, Texas
Assault Weapon: Ruger Mini-14 .223 rifle

On August 3, 2000, State Trooper Randall Vetter was killed with a Ruger Mini-14 .223 rifle. Trooper Vetter stopped 72-year-old Melvin Hale for not wearing his seat belt. Hale got out of his car and aimed his rifle at Vetter because he believed the traffic stop violated his constitutional rights. Vetter raised his pistol and ordered him to put down his gun. Hale fired at least twice, hitting Vetter in the head as he sat in his patrol car. Six months earlier, another San Marcos trooper had written a letter warning Hays County law enforcement officers to exercise caution around Hale. The trooper said Hale had threatened him with a rifle when he stopped at Hale's ranch to ask about deer hunting on the 125-acre property. Hale pleaded guilty to the shooting and was sentenced to life in prison.

Jason Spencer, "A Somber Salute for a Fallen Officer," *Austin American-Statesman*, August 9, 2000; "Trooper's Shooter Gets Life Sentence; 74-year-old Accepted Surprise Plea Agreement as Jury Selection Began," *Austin American-Statesman*, January 24, 2002.



Date: March 29, 2001
Location: San Antonio, Texas
Assault Weapon: M-11 assault pistol

On March 29, 2001, San Antonio Police Officer Hector Garza, age 48, was shot and killed while responding to a domestic disturbance report. Jessica Garcia, age 21, had called police to ask for an officer's protection while she moved out of her home. When Garcia's husband, Frank, learned of her plans, he drove home and killed both Jessica and Officer Garza—a 25-year police veteran—by shooting them both in the head with an M-11 assault pistol. Frank Garcia, 28, was arrested at the scene and charged with two counts of capital murder and three counts of attempted murder. Garcia was convicted of the murders in February 2002.

Bill Hendricks, "Cop's Slaying Stuns City," *San Antonio Express-News*, March 30, 2001; "Garcia Gets Death Penalty; Cop Killer Sentenced," *San Antonio Express-News*, February 12, 2002.



Date: April 4, 2001

Location: Detroit, Michigan

Assault Weapon: SKS assault rifle

On April 4, 2001, Detroit Police Officer Neil Wells, age 41, was fatally shot during a drug raid at an abandoned apartment house. While on patrol, Wells and his partner received a complaint of drug sales at the building. When the officers arrived, the gunman was waiting in ambush behind a door. Wells was shot twice at close range with an SKS assault rifle. Lamont Smith, age 21, was charged with murder and felony firearm violations. Smith was convicted of second degree murder and sentenced to 60 to 90 years in prison.

Norman Sinclair, "Gun Owner Sought in Cop's Killing," *The Detroit News*, April 8, 2001; "Man Given 60-90 Years in Cop Killing," *Detroit Free Press*, January 16, 2002.



Date: September 6, 2001

Location: Hamilton County, Tennessee

Assault Weapon: MAK 90 assault rifle

On September 6, 2001, Hamilton County Sheriff's Deputy Donald Bond, age 35, was shot and killed when he stopped at a fruit and vegetable stand to check on a suspicious vehicle. When Deputy Bond did not respond to a 2:18 AM call from his dispatcher, an alert was sent out to locate him. A fellow deputy found Bond dead beside his patrol car, shot multiple times with an MAK 90 assault rifle. Later that morning, acting on a tip, a SWAT team evacuated the suspect's street and waited for a chance to make an arrest. After observing Marlon Duane Kiser, age 31, throw out a front panel of body armor and Deputy Bond's service weapon, police arrested Kiser and charged him with first-degree murder. Kiser is awaiting trial in the case.

Mike O'Neal and Gary Tanner, "Suspect Held in Deputy's Death," *Chattanooga Times Free Press*, September 7, 2001; "Law Enforcement Officers Killed and Assaulted, 2001," Federal Bureau of Investigation; "Courts News Digest," *Chattanooga Times Free Press*, February 18, 2003.



Date: September 17, 2001

Location: Indianapolis, Indiana

Assault Weapon: AK-47 assault rifle

On September 17, 2001, Marion County Sheriff's Deputy Jason Baker, age 24, was killed during a car chase and gun battle. On his way to a report of a domestic dispute, Deputy Baker tried to make a traffic stop. The driver refused to stop and a chase ensued. Allen Dumperth, a convicted felon, and Michael Shannon, both age 20, fired at Baker from their fleeing car. When Baker's fellow officers found him, he was dead from a gunshot wound to the head. The front and rear windows of his patrol car were shot out. After crashing his car, Dumperth was shot and killed by members of the police SWAT team. Shannon later pleaded guilty in court to shooting Deputy Baker.

Vic Ryckaert, "Role in Deputy Death Brings 40 Years; 21-Year-Old Bought the Assault Rifles Used by 2 Men Accused in Slaying of Jason Baker," *Indianapolis Star*, April 11, 2002.



Date: November 13, 2001

Location: Nicholasville, Kentucky

Assault Weapon: M1 Carbine

Jessamine County Sheriff's Deputies Billy Ray Walls, age 28, and Chuck Morgan, age 51, were shot and killed, and another deputy was wounded, when they tried to serve a warrant for misdemeanor terroristic-threatening to Phillip Walker, age 75, on his drydocked houseboat. Walker had threatened to kill a family member with a gun. While in the houseboat with the deputies, Walker fired 11 shots from a 30-caliber M1 Carbine, killing Deputy Walls and fatally injuring Deputy Morgan. Walker was killed in the gun battle.

Greg Kocher, "Man Who Killed Deputy Fired 11 Times Police Say," *Lexington Herald Leader*, November 15, 2001.



About the Violence Policy Center

The Violence Policy Center (VPC) is a national nonprofit educational organization working to reduce death and injury from firearms. As America's premier think tank on gun policy, the VPC studies current firearms issues and provides information to policymakers, journalists, public health professionals, and grassroots activists.

The virtually unrestricted distribution of firearms is more than a crime problem, it is a national health crisis. Unlike every other consumer product, firearms are exempt from federal health and safety laws. Guns—especially handguns and assault weapons—are inherently dangerous products, and the failure to regulate them like all other products costs thousands of lives and billions of dollars every year. By conducting research on key issues in firearms policy, the VPC counters the gun lobby's distortions and brings hard facts to the debate over firearms death and injury.



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