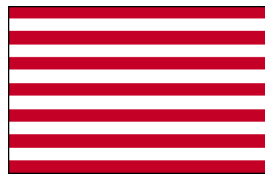


Testimony On SB288/SB1298 of 2004 Maryland Assault Weapons Ban of 2004

Dr. Philip F. Lee¹

February 9, 2004



<http://www.mcrkba.org/>

¹ Dr. Lee has a PhD in Mathematics from Georgia Institute of Technology

Long Guns Are NOT Favored by Thugs

- Almost 2/3 of guns owned by the people are long guns.
- Typically 12% of homicides involve long guns where firearms are used and the gun is known.

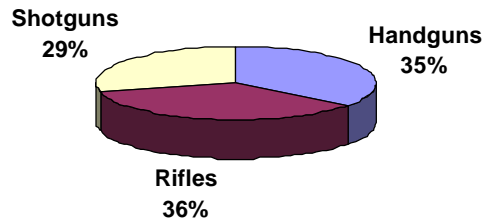
Shotguns tend to be used more than rifles (7% vs. 5%)

- **When firearms are used in homicides, handguns are preferred almost 9 to 1 (88%).**

Handguns are easy to conceal in public so criminals favor them – long guns are not.

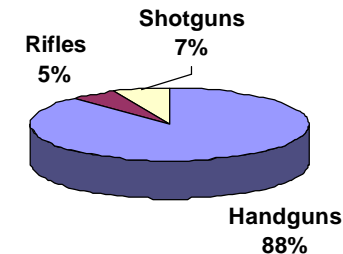
“... assault weapons are rarely used in gang-related drive-by shootings and other homicides” (<http://www.ojjdp.ncjrs.org/jjbulletin/9808/youth.html>)

Distribution of 254M firearms in US
Source: Commerce in Firearms in the United States, BATF
www.atf.treas.gov/pub/fire-explo_pub/020400report.pdf



Homicide of people 12 and over with known type of firearm for 1993-2001

Source: Weapon Use and Violent Crime, BJS, NCJ 194820
www.ojp.usdoj.gov/bjs/pub/pdf/wuvc01.pdf



Risks to LEOs from Long Guns Are Near All-Time Low

(outline of Enclosure A)

- Law Enforcement Officers (LEOs) risk of death from gunfire is lower than any time in the past 100 years!

Officer line of duty deaths have declined since the early 1970's as can be seen from Figure 1 and Figure 2 of Enclosure A. The data from Figure 2 is taken from the U.S. Justice Dept. web site:

<http://www.ojp.usdoj.gov/bjs/homicide/tables/leokweaptab.htm>

- LEOs risk from long guns has decreased over the past 30 years.

Officers deaths from "assault weapon" gunfire is not reported by the FBI, but the proportion of long gun deaths versus handgun deaths is virtually the same in the five-year periods 1998-2002 and 1973-1977.

Handguns account for 72.6% of the deaths in 1973-1977 and 70.5% in 1998-2002

In absolute numbers risks to LEOs from long guns have decreased to the same degree as handguns.

- There has been no shift in the proportion of officers killed with long guns versus handguns from the beginning of this 30-year period to its end!
- LEOs risk of death from career criminals is high and represents a problem that this legislature could address.

48% of LEO murderers had prior serious criminal convictions.

21% were on probation or parole – this is your valid 1 in 5 number.

Remember Sgt. Bruce Prothero and Cpl. Edward Toatley

Maryland LEOs Killed from Gunfire

- In the period 1988 through 2003, 40 sworn Maryland officers died from trauma received in the line of duty (see Enclosure A)

Twenty of these officers died from vehicle accidents and one died from accidentally being shot by other officers during a raid.

Nineteen died from felonious assaults

One stabbing.

One stabbing until officer was helpless, then his gun was used to kill him.

One assaulted with an automobile.

Sixteen shootings:

12 with handguns, 3 with shotguns, **One with a rifle.**

- Balt. County Officer John Stem died on 10/19/00 from a Rifle wound.

Shot on 7/6/1977. Also, Officer Charles Huckeba was killed in that incident.

ref. "Officer Critical After Shootout," **Baltimore Evening Sun**, July 7, 1977, pages C1 and C3

The rifle used was an M-1 Carbine – a rifle not on the U.S., Maryland, or California list of assault weapons.

- No Maryland Officer has been shot with an assault rifle and died during the 16 years 1988 through 2003.

Maryland Violence with Long Guns

(Outline of Enclosure B)

- In 2000, long guns (rifles and shotguns) were used in only 2.7% of all homicides in Maryland.
 - Long guns were used even less than knives**
 - 59 knife versus 12 long gun homicides**
- In 2001, long guns were used in 3.7% of all homicides in Maryland.
 - 52 knife versus 17 long gun homicides**
- In 2002, long guns were used in 3.2% of all homicides in Maryland.
 - 65 knife versus 17 long gun homicides**
- Enclosure B shows plots of Maryland homicide history from 1975 through 2000 and explains briefly the principal weapons used and how Maryland compares with neighboring states and the U.S.
 - Use of long guns has been decreasing while the heavily controlled handgun use has increased significantly.**
- **Given the small use of long guns in homicide in Maryland, it is difficult for a rational person to see the argument for the proposed ban in SB288.**

Manufactured Hysteria from the VPC and CeaseFire

- The Violence Policy Center (VPC) claims 41 of 211 officers slain in the line of duty were killed with assault weapons and one of them was from Maryland. That officer is John Stem, though not named by the VPC.

<http://www.vpc.org/studies/officetwo.htm> .

- CeaseFire Maryland also claims Maryland Officer Stem (not named) died from being shot by an “assault weapon.” See:

A Letter in Support of Banning Military-style Assault Weapons in Maryland or Press Release: <http://www.ceasefiremd.org/pub/press/110503.htm>

- That CeaseFire had to reach back to 1977 to the shooting of Officer Stem for an example with a military style semi-automatic rifle shows these events are rare and shows their arguments for banning such rifles are meritless.
- **Both VPC and CeaseFire have made false claims about the weapon used against Officer Stem; both are deceptive about the time of the incident; the VPC makes other false claims too:**

Phony number of police officer killings using “assault weapons.”

Phony claim that the ban will protect police and the public.

Alternatives to “assault weapons” may increase risk to the public and police officers. (“If, on the other hand, offenders substituted **shotguns for assault weapons**, there could be negative consequences for gun violence mortality.” “IMPACT EVALUATION OF THE PUBLIC SAFETY AND RECREATIONAL FIREARMS USE PROTECTION ACT OF 1994 Final Report,” Jeffrey A. Roth and Christopher S. Koper, March 13, 1997, **THE URBAN INSTITUTE**)

VPC Deceptions about Number of LEOs Killed Using "Assault Weapons"

- In addition to the false claim about the weapon used against Officer Stem, the VPC makes false claims about officers being killed with assault weapons in 15 of 41 cases covered at: <http://www.vpc.org/studies/officetwo.htm>.

Fourteen of the Officer killings used semi-automatic rifles that are not listed as "assault weapons" in the Federal or Maryland definitions.

Eight SKS carbines, 4 M-1 carbines, 2 Ruger Mini-14 rifles.



In fact the Federal Assault Weapons ban bill specifically protects the Ruger Mini 14 as a hunting arm (see the booklet produced for Senator Feinstein at: <http://feinstein.senate.gov/booklets/assault.pdf>) and the Mini 14 is explicitly listed in Appendix A of 18 USC Sec. 922 as NOT an assault weapon. You may remember this Appendix as the highly-touted "list of protected firearms that would never be banned" -- so much for protection from gun banners.

In one case the Officer who was killed had been fatally wounded with a shotgun prior to use of any "assault weapon."

- **For 15 of the 41 killings the VPC is engaging in a bit of bait-and-switch deception to magnify the significance of its claims.**

Bans on Guns Don't Have Positive Effects

Ignoring Prior Records of Criminality

- A legal ban on firearms that are rarely used by criminals will have little effect on violence.

Remember, the federal justice department says "... assault weapons are rarely used in gang-related drive-by shootings and other homicides"
(<http://www.ojjdp.ncjrs.org/jjbulletin/9808/youth.html>)

U.S. Department of Justice reports have been misunderstood by certain Maryland politicians or deceptively misquoted – a misunderstanding might stem from a lack of training in use of statistics.

The Federal 1994 ban is reported by the U.S. Dept. of Justice as having no detectable effect. -- **See Enclosure C for more details**

The Center for Disease Control and Prevention (CDC) has announced that they have no scientific evidence to prove that gun control reduces violence (see "First Reports Evaluating the Effectiveness of Strategies for Preventing Violence: Firearms Laws" at <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5214a2.htm> and their press conference at <http://www.cdc.gov/od/oc/media/transcripts/t031002.htm>).

Even the Brady Law has had no measurable effect on homicides. Ludwig and Cook said, "Our analyses provide no evidence that implementation of the Brady Act was associated with a reduction in homicide rates." This comment appears at the end of their article "Homicide and Suicide Rates Associated With Implementation of the Brady Handgun Violence Prevention Act" JAMA, August 2, 2000, Vol. 284, No. 5. (may be found at: <http://www.mcrkba.org/LudwigCookJAMA.pdf>)

- Killers for 26 of the 41 officer deaths identified by the VPC had prior records of serious crimes sufficient to disqualify them from owning firearms.

Each of these killers was already banned from owning the firearms they used (see <http://www.mcrkba.org/VPCTableWeb.html> for some more details and links to more information about these cases)

SB288's Ban is Against the U.S. Constitution

Legislators Have Responsibility to Judge Constitutionality of Bills

- The bill prevents, discourages, and makes it cost-prohibitive for law-abiding residents to exercise their right to keep and bear arms, their right to self-defense, and is being used to reduce effectiveness of the national governments reserve military – the militia.

The Militia is defined in United States Code (USC) TITLE 10--ARMED FORCES Section 311. Militia: composition and classes (a) The militia of the United States consists of **all able-bodied males at least 17 years of age** and, except as provided in section 313 of title 32, **under 45 years of age** who are, or who have made a declaration of intention to become, citizens of the United States and of female citizens of the United States who are commissioned officers of the National Guard. (b) The classes of the militia are-- (1) the organized militia, which consists of the National Guard and the Naval Militia; and (2) **the unorganized militia, which consists of the members of the militia who are not members of the National Guard or the Naval Militia.**

According to the U.S. Supreme Court in Presser v. Illinois (1886), "It is undoubtedly true that all citizens capable of bearing arms constitute the reserved military force or reserve militia of the United States as well as of the States." In the same decision the Court stated that even setting aside the Second Amendment, **"the states cannot prohibit the people from keeping and bearing arms so as to deprive the United States of their rightful resource for maintaining the public security, and disable the people from performing their duty to the general government."**

According to the U.S. Congressional Subcommittee Report on the Constitution in 1982: "The conclusion is thus inescapable that the history, concept, and wording of the second amendment to the Constitution of the United States, as well as its interpretation by every major commentator and court in the first half-century after its ratification, indicates that what is protected is an individual right of a private citizen to own and carry firearms in a peaceful manner."

On March 10, 1942 Maryland Governor Herbert L. O'Connor called for volunteers from the unorganized militia and said, "For the present the hard-pressed Ordnance Department of the United States Army cannot be expected to furnish sufficient arms, ammunition, or equipment. Hence, the volunteers, for the most part, will be expected to furnish their own weapons. For this reason, gunners (of whom there are 60, 000 licensed in Maryland), members of Rod and Gun Clubs, of Trap Shooting and similar organizations, will be expected to constitute a part of this new military organization.

- The sponsors and supporters of SB288 have forgotten our history of only 62 years ago. The Constitution gives control of the militia to the U.S. Congress, not the Maryland legislature.

The law will trap the law-abiding in technical violations

- It will ensnare law-abiding people moving to Maryland who bring long-guns with them not realizing they are banned.
- It will allow the official theft of private property.
- It will reduce the desirability of living in Maryland for millions of people -- look at what has happened to Baltimore.

Risks to Police from Firearms

Philip F. Lee, PhD², 1/10/04

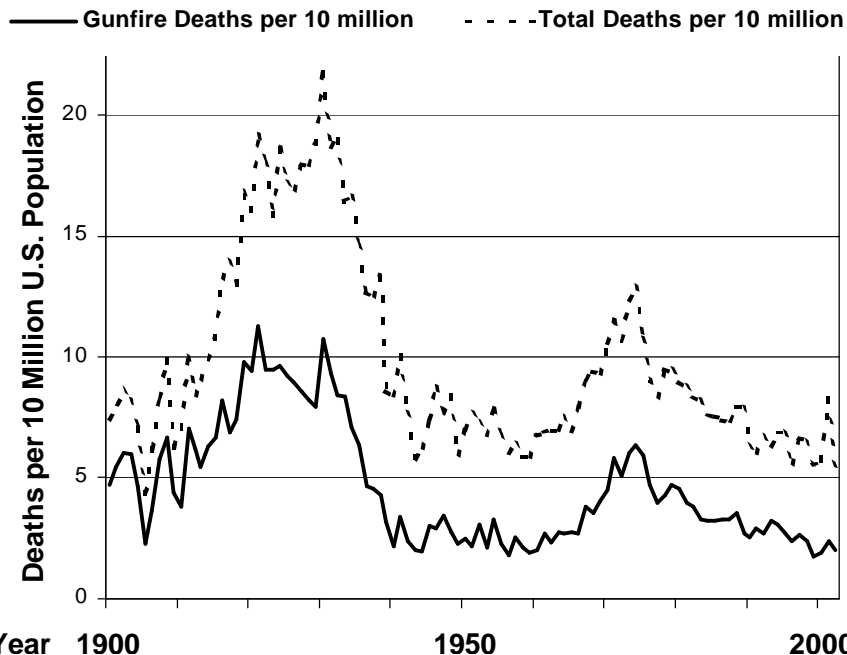
"The pure and simple truth is rarely pure and never simple." -- Oscar Wilde

Risks within the whole U.S.

In 1999 the United States saw 46 law enforcement officers (LEOs) killed by criminal and accidental use of firearms, the lowest recorded number of such deaths since 1962 when the U.S. population was 186.5 million.

(ref. http://www.findarticles.com/cf_dls/m2194/8_69/65241454/p1/article.jhtml)

Figure 1. Police Line of Duty Deaths



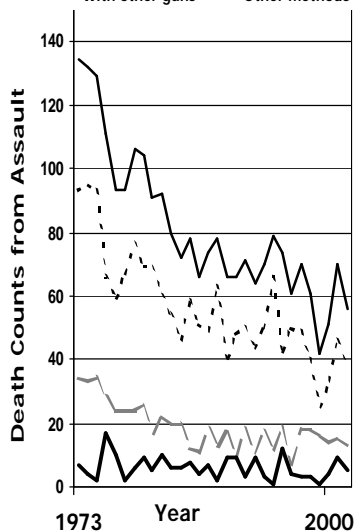
Examining LEO death rates (here the number of deaths per 10 million people) allows the comparison of safety over a span of years and different populations. In 2002, the rate of deaths from gunfire was 2.0 officers per 10 million people (57 officers and 288 million total US population so $57/28.8 = 1.979$).

Police death rates from firearm injury have been decreasing since 1974 and rates are lower than any time in the past 102 years as you can see from Figure 1. The figure graphs death rates per 10 million people from firearm injury (including accidents) and from all line of duty causes and is computed from census bureau data and deaths recorded at: <http://www.odmp.org/yeardisp.php>

Except for the blip showing the 9-11 attack in 2001, the total death risk for officers is trending near an all-time low

Figure 2. Police Feloniously Killed in the Line of Duty

— Total killed - - - With handguns
- - - With other guns — Other methods



for the past 100 years (only the 1905 rate of 4.3 deaths per million is lower than the 2002 rate of 5.3). In a typical year more officers die in vehicle accidents than are killed with firearms (see Figure 1).

Figure 2 shows counts reported by the FBI for LEOs killed in the line of duty from felonious assaults (but does exclude the 9/11 attack deaths). These counts are slightly smaller than those presented for the same years in Figure 1 since Figure 2 does not contain the accidents with firearms shown by Figure 1, since Figure 1 contains a small number of officers who had heart attacks while on duty not in Figure 2 and since reporting to the FBI is voluntary and the FBI does not get 100% of the reports (the report "Law Enforcement Officers Killed and Assaulted, 2000" addresses jurisdictions employing 441,311 officers protecting nearly 200 million people out of 280+ million residents of the U.S.). The FBI data shows in absolute numbers a similar improvement in officer safety. Generally, over the recent 30-year period **LEO safety has improved significantly.** (ref: <http://www.fbi.gov/ucr/ucr.htm>).

Averaging over the 30 year FBI data period shows assault with handguns produced 69.3% of the felonious assault deaths and other guns 23.1%. The five years 1998 through 2002 show typical small randomly varying deviations from these averages with handguns used to kill 65.6%, 59.5%, 64.7%, 65.7%, 67.9% of officers. In the same five years other guns, including semi-automatic long guns, have been used in

² Dr. Lee received a PhD in Mathematics from Georgia Institute of Technology in 1970.

29.5%, 38.1%, 27.5%. 21.4%, and 23.2% of the deaths. By comparison, the five years 1973 through 1977 show handguns used for 69.4%, 72.0%, 72.1%, 59.5% and 63.4% and other guns used for 25.4%, 25.0%, 26.4%, 25.2% and 25.8% of LEO deaths from felonious assaults. There is no obvious shift in LEO killings from handguns to long guns between the beginning and end of the period.

From 1976 through 1998, 48% of the murderers of police officers had prior criminal convictions and 21% were on probation or parole. (ref: "Policing and Homicide, 1976-98: Justifiable Homicide by Police, Police Officers Murdered by Felons," Jodi M. Brown, Patrick A. Langan, Ph.D., **BJS**, March 2001, NCJ 180987 see <http://www.ojp.usdoj.gov/bjs/abstract/ph98.htm> , page 45). Evidently, a major risk to police officers is an overly liberal parole system and a revolving door justice system with sentences incommensurate with the severity of crimes committed.

Being a police officer is not in the top 10 of risky jobs in the U.S. It is true that police officers' jobs are more dangerous than many – 22.2 officers per 100,000 died on the job annually compared with the national average of 4.0 per 100,000 for all occupations in 2002. The following table shows job fatality rates (per 100,000 employed) for selected occupations compared to risks for policemen.

Table 1. Census of Fatal Occupational Injuries, 2002

Number of deaths per 100,000 employed, Source: Bureau of Labor Statistics (ref. <http://money.cnn.com/2003/10/13/pf/dangerousjobs/>)

Timber cutting	117.8
Fishermen	71.1
Airplane Pilots & Navigators	69.8
Structural Metal Workers	58.2
Drivers Sales Workers	37.9
Roofers	37.0
Electrical Power Installers	32.5
Farmers	28.0
Construction laborers	27.7
Truck drivers	25.0
Sworn Police Officers *	22.2
National average:	4.0

* 2002 total deaths (data for Figure 1.) divided by 7.08 (708,000 employed officers in 2000 according to <http://www.ojp.usdoj.gov/bjs/sandlle.htm>)

Risks within Maryland

The FBI reports that nationally, an average of 12.0 out of every 100 LEOs were assaulted in the line of duty in 2002. The part of Maryland that reported to the FBI (police agencies covering approximately 86% of Maryland's population) had 3096 assaults on 11,755 officers for a rate of 26.3 out of every 100 officers, or 2.2 times the national rate (ref. **Law Enforcement Officers Killed And Assaulted, 2002**, FBI Uniform Crime Reports). This high level of violence against police officers is typical of other Maryland violence (Maryland robbery rate recently was 1.8 times the national rate).

Between 1988 and 2003, 40 sworn Maryland police officers died from trauma injuries received in the line of duty. Most frequently, the trauma was accidental and vehicle related (20 cases), in one case an officer was stabbed to death, in another an officer was stabbed until disabled then shot to death with his own firearm, in another case an officer was assaulted with an automobile and in one case an officer was shot accidentally by other officers in a raid. In the remaining 16 cases, 12 officers were killed with handguns, three officers were killed with shotguns, and one death, Officer Stem, was attributed to trauma from a rifle. The officers' names and trauma injury sources are listed in Table 2 below.

Of the 19 felonious killings of Maryland police officers in Table 2, 68.5% involved handguns, 15.8% shotguns, and 5.3% rifles. One officer was killed by assault with a car. By comparison, from 1991 through 2000, the U.S. saw 70.2% of officers slain with handguns (in 7.9% of the cases the officer's own handgun was used), 17.7 percent by rifles, and 5.4 percent by shotguns. Firearms were used in 17 of the 19 felonious killing of Maryland officers for 89.4%. That percentage is very similar to the national percentage of firearm usage in killing police officers.

Table 2. Maryland Officers Line-of-Duty Injury Deaths

Officer's Name	Year of Death	Vehicle Accident	Handgun	Shotgun	Rifle	Other
Anthony M. Walker	2003	X				
Joseph A. Mattingly	2003	X				
Thomas G. Newman	2002		X			
James V. Arnaud	2002		X			
Elizabeth L. Magruder	2002		X			
Crystal D. Sheffield	2002	X				
Kristin M. Pataki	2002	X				
Mark F. Parry	2002	X				
Michael J. Cowdery	2001		X			
Michael S. Nickerson	2001			X		
Jason C. Schwenz	2001			X		
Kilonzio M. Masembwa	2000	X				
Edward M. Toatley	2000		X			
John W. Stem*	2000				X	
Kevin J. McCarthy	2000	X				
John D. Platt	2000	X				
Brian K. Heller	2000	X				
Kevon M. Gavin	2000					X
Jamie A. Roussey	2000	X				
Bruce A. Prothero	2000		X			
Barry W. Wood	1998	X				
Harold J. Carey	1998	X				
Raymond G. Armstead, Jr.	1998	X				
Owen E. Sweeney, Jr	1997			X		
Timothy C. Minor	1996	X				
Joseph T. Lanzi, Sr	1995	X				
Edward A. Plank, Jr	1995		X			
John J. Novabilski	1995		X			
John L. Bagileo	1994	X				
James E. Walch	1994	X				
Herman A. Jones, Sr	1993		X			
Roger P. Fleming	1992	X				
Mark P. Groner	1992	X				
Ira N. Weiner	1992		X			X
Ryan C. Johnson	1992		X			
Theodore D. Wolf	1990		X			
Harry L. Kinikin, Jr	1990					X
William J. Martin**	1989		X			
Mark K. Murphy	1988		X			X
Eric D. Monk	1988	X				

* Officer Stem's shooting is described at <http://www.mcrkba.org/OfficerStem.html>

** Verified handgun from FBI supplemental homicide reports

The rifle used to kill Officer Stem is an M-1 carbine (ref. "Officer Critical After Shootout," **Baltimore Evening Sun**, July 7, 1977, pages C1 and C3). This rifle is not an "assault weapon" as defined in federal law, Maryland law or the stringent California law (ref: http://www.atf.gov/pub/fire-explo_pub/complete.htm , http://www.mdsp.maryland.gov/mdsp/downloads/assault_weapons.pdf , <http://caag.state.ca.us/firearms/forms/pdf/awguide.pdf>).

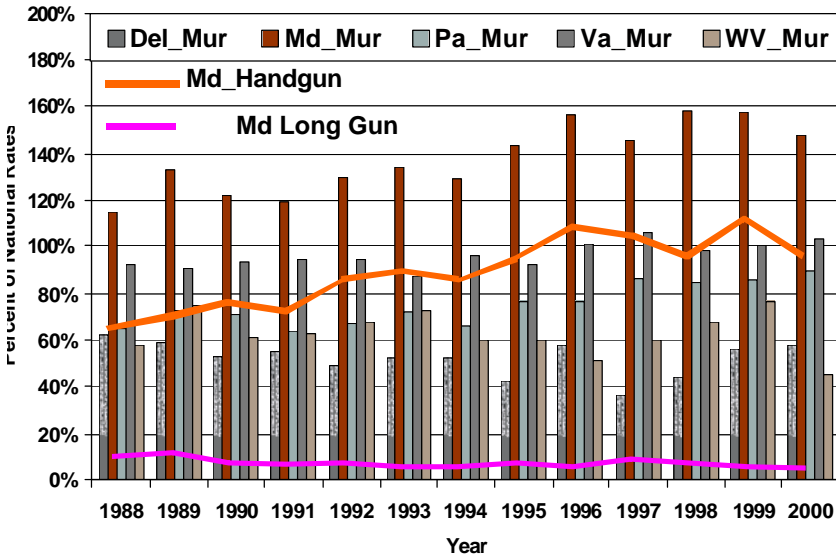
Despite ranking high in violence throughout the 1990's, **not a single police officer was killed in Maryland using an "assault rifle" during the 15 year period (1988-2003) examined.** Criminals rarely use "assault rifles" in Maryland and other states.

Use of Long Guns Versus Handguns in Maryland

Philip F. Lee, PhD¹

Figure 1 shows Maryland's murder rate as a percent of national rates for 1988 through 2000. So, in 2000 the whole United States had a murder rate of 5.5 per 100,000 and Maryland had a rate of 8.1 ($100 \times 8.1 / 5.5 = 147\%$). By showing rate as a percent of the national rate, we remove national induced trends from the data so that we can evaluate how Maryland does for itself. To provide a context for judging Maryland's performance we include results for the states bordering and surrounding Maryland.

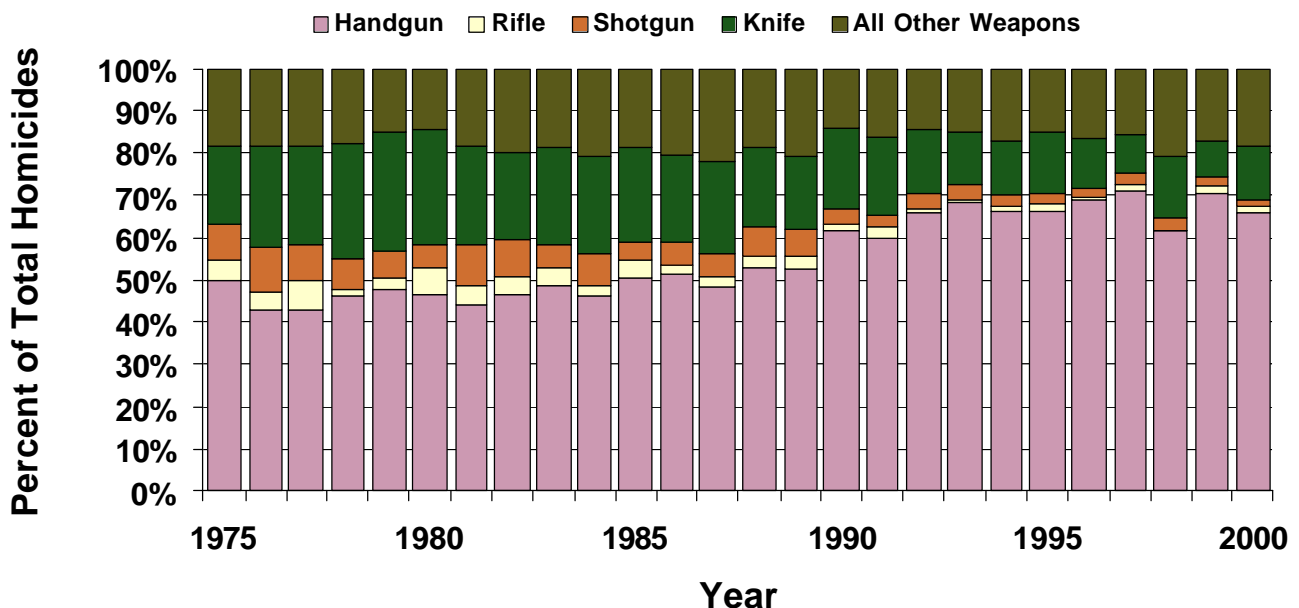
Figure 1 Murder Rates in Maryland and Neighboring



Also on the figure, we show line graphs of murders in Maryland using long guns and handguns to the same scale. Notice that since about 1995, Maryland's murder rate using handguns is approximately equal to the U.S. total murder rate (100%) by itself. The use of handguns in murder has grown as a percent of murders and in absolute number since 1988 when Maryland banned small cheap handguns. That is, handguns were

used in 241 (53%) of the 452 murders reported by the Maryland State Police (MSP) in 1988 but by 2000, handguns were used for 289 (66%) of 438 murders. By contrast, in 1988 long guns (rifles and shotguns) were used for 42 (9%) murders while in 2000 long gun use had shrunk to 12 (3%). In Figure 2 we see that knives are used more frequently than long guns for murder. Even hands and feet are used more frequently for murder than long guns in Maryland.

Figure 2 Weapon Use in Maryland Homicides



¹ Dr. Lee received a PhD in Mathematics from Georgia Institute of Technology in 1970

Justice Says 1994 Assault Weapon Ban Has No Detectable Effect

Philip F. Lee, PhD¹

Delegate Quinter is mistaken in his claim that the Federal 1994 gun ban produced a 6.7% decrease in homicides. That isn't his only mistake, but this mistake is the focus of this note since it involves statistics which few understand and many use (misuse).

The report "Impacts of the 1994 Assault Weapons Ban: 1994-96," Jeffrey A. Roth and Christopher S. Koper, March 1999, **National Institute of Justice**, <http://www.ncjrs.org/pdffiles1/173405.pdf#173405> on page 9 states: **"Random, year-to-year fluctuations could not be ruled out as an explanation of the 6.7-percent drop. ... the model lacks the statistical power to detect a preventive effect of even 20 percent under conventional standards of statistical reliability."**

The English translation of this finding is the post ban homicide data showing a 6.7% reduction is not sufficiently different from the pre-ban homicide data to say the ban had an effect. Actually, the statement is a bit stronger than this translation. The authors Roth & Koper really say that **the ban would not have a measurable effect even if the data had a 20% difference** in the totals (rather than the 6.7%) from pre-ban to post-ban homicides.

The problem of determining an effect of the federal 1994 ban on assault weapons is a classical case of statistical hypothesis testing. We see statistical fluctuations in real life all the time. It is human nature to try to read a pattern in random data (and sometimes those patterns do exist). A typical case is that of the Dow Jones Industrial stock level fluctuations. On an average day, the market will go up or down in no clear trend from the previous day and then something changes in the economy and a trend will develop for a while. Delegate Quinter believes that this study did the equivalent of detecting a stock market trend in the face of the random fluctuations and using only yesterday's and today's stock reports. The Justice report is saying the difference in the homicide levels is not sufficient to declare a trend in this case. Unfortunately, just like the stock market, emotions are high over these fluctuations.

The logic of statistical hypothesis testing answers the question (in this case) of how likely it is that the set of homicides after the ban has the same statistics as before the ban (i.e., the ban had no effect).

The logic behind statistical hypothesis testing may be compared to that of the American criminal court system: 1) suspects are presumed innocent until "proven" guilty, 2) evidence collected according to certain procedures is presented at the trial, 3) this evidence must establish the case for guilt "beyond a reasonable doubt," 4) the jury may decide either guilty or not guilty, 5) juries can be wrong in two ways: a suspect is really innocent, but the jury finds him guilty (type I error) a suspect is really guilty, but the jury finds him not guilty (type II error)

In statistical hypothesis testing we have similar error types where the ban really had no effect, but the statistical test says that it did have an effect (type I error); or where the ban had an effect, but the statistical test says that it had no effect (type II error). Statistical analysis replaces the trial and jury.

In the case of the Federal 1994 gun ban, we are looking for an effect which changes the pattern of homicides after the ban and which may be produced by the ban. "May be" is important, because there are statistical fluctuations all the time in homicides and it is possible that an observed change in homicide pattern is randomly produced. Also, it is possible the change is created by another effect (i.e., say a change in the economy). It is important not to fall into a "Post Hoc, ergo propter hoc" fallacy.

Statistics deals with the issues relating to the random fluctuations. When we talk about the significance level of our test we use a statistical term for how confident we are about our conclusions (that we have not made a type I or II error from random fluctuations).

Returning to the 6.7% claimed reduction in homicides after the ban, study authors Roth & Koper concluded that even a 20% reduction (rather than the 6.7%) from pre-ban to post-ban homicides would **NOT** be sufficiently different to support a claim that the ban had a significant impact according to typical standards of statistical analysis. In simple English, any effect is pure speculation.

If glove doesn't fit, you must acquit. The glove doesn't fit Del. Quinter's assertion.

¹ Dr. Lee received a PhD in Mathematics from Georgia Institute of Technology in 1970.