

**Introducing Controls on Small Arms and Light Weapons:
Some Precautionary Lessons**

By

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Submitted to the Brown Journal of World Affairs. September 10, 2002

With the end of the Cold War, the United Nations has increasingly become concerned with intrastate conflict rather than its more traditional focus of interstate conflict. Disarmament efforts have turned towards the international trade in small arms and light weapons (or SALW)¹. Activists have argued that the accessibility of SALW to civilians contributes to political violence and organized crime, and that the illicit distribution of such weapons should be more closely controlled by national governments.² Some activists, e.g., those taking a “public health” approach, would go even further to argue that governmental controls on civilian firearm ownership be tightened up in order to reduce the smuggling of illicit weapons.³ Unfortunately, the public health approach is too simplistic to be useful in analyzing social or political issues.

There are serious practical problems with attempting to reduce civilian access to SALW by tightening up legal controls on civilian firearms. First, it is predicated upon the assumption that general accessibility to weapons contributes to criminal violence. This claim does not have strong empirical support. Second, it is unrealistic to believe that tightening up governmental controls on civilian ownership of firearms will effectively reduce criminal violence. Furthermore, these proposals violate traditional freedoms of individual citizens of democratic countries.⁴ To illustrate the failure of strict controls on civilian firearm ownership, this paper will examine the effect of recent firearm legislation in a few countries with which I am familiar.

One of the fundamental problems in discussing SALW is that there is no clear definition of what this term means. This term always appears to include weapons that are uniquely useful for military purposes (e.g., rocket-propelled grenades and fully-automatic weapons). However, one UN Panel evidently expanded the term to include all firearms, including those that are traditionally owned by civilians in many countries, e.g., handguns and sporting rifles, particularly semi-automatic handguns and rifles.⁵ The inclusion of civilian firearms in the definition of SALW is problematic because firearm ownership is a right enjoyed by civilians in many democratic countries around the world, e.g., Australia, Canada, Finland, France, Germany, Great Britain, Israel, Norway, and the United States. In these countries, and others, firearm ownership serves a variety of socially useful functions such as hunting, predator control, and self defense. Additional governmental regulation may well be counter-productive. Whatever efforts are instituted

¹ Dhanapala, Jayantha. “Multilateral Cooperation on Small Arms and Light Weapons: From Crisis to Collective Response.” The Brown Journal of World Affairs, Vol. IX, Issue I, (Spring 2002) 163.

² Rodrigues, Camilo Reyes. “The UN Conference on Small Arms: Progress in Disarmament Through Practical Steps.” The Brown Journal of World Affairs, Vol. IX, Issue I, (Spring 2002): 173.

³ Cukier, Wendy, “Small Arms and Light Weapons: A Public Health Approach,” The Brown Journal of World Affairs, Vol. IX, Issue I, (Spring 2002) 261.

⁴ Mauser, Gary. *Misfire: Firearm registration in Canada*, A Fraser Institute Occasional Paper, 2001, and Malcolm, Joyce. *Guns and Violence. The English Experience*. Harvard Press, 2002.

⁵ United Nations, Expert Panel on Small Arms (New York, United Nations, 1997)

to control illicit weapons, these efforts should not unduly restrict legitimate civilian access to firearms.

The Public Health Approach

The public health approach is not an intellectually respectable framework with which to attempt to understand the issues involved with SALW. It is too simplistic in that it ignores important dimensions of international political problems, such as sociology and politics, which are crucial in understanding international world politics. Some of the governments that belong to the UN are democratic, in that they have been elected by their citizens through free elections; many are not, or have been elected in very much less than free elections (e.g., Zimbabwe). Some countries have a large middle-class, while others have a small elite, with a large proportion of the population still living in poverty. The people of some countries are well educated; the people of others are not. This great diversity suggests that any analytical approach is somewhat simplistic if it assumes that all governments have the best interests of their citizens in mind. Such a naive approach to international problems not only might not work; it may even be counterproductive.

The public health approach likens SALW to a disease agent and assumes that in civilian hands such weapons facilitate crime and political turmoil. Cukier argues that, "... regardless of the context – conflict, crime, 'terrorism,' domestic assault, suicide – access to small arms increases the severity of violence."⁶ Such a formulation is too narrow, as firearms are neither good nor evil; they are morally neutral in that individuals can use firearms for good as well as for evil. Clearly, firearms may be misused. Firearms are involved in accidents, suicides and violent crime. But civilians may also use firearms to help society. The presence of firearms in private households appears in many countries to contribute to keeping the peace. The police cannot be everywhere, and thus they rely upon civilians to deter criminals and even to defend themselves if necessary. In several countries where there are significant numbers of armed civilians, there are documented studies showing that they act to protect themselves from attack by wild animals or from vicious human predators.⁷

Illogically, despite assuming that SALW are a "vector/vehicle of injury," the public health approach also claims that SALW are only problematic in "inappropriate" hands; apparently the only appropriate hands are those of government.⁸ Cukier ducks the key questions of which governments are appropriate, and who is to decide. Firearms are morally ambiguous in the hands of governments as well as citizens. It certainly must be

⁶ Cukier, op. cit., p.262.

⁷ Kleck, Gary. Targeting Guns. Firearms and Their Control. Aldine de Gruyter, 1997; Mauser, Gary A. "Armed Self-Defense: the Canadian Case," Journal of Criminal Justice. Vol. 24(5): 1996: 393-406.

⁸ Cukier, op. cit., 262.

obvious that SALW used by the military can be beneficial or destructive, depending upon the government. There are many examples across the world where local police or military forces have acted for decades to safeguard their citizens (e.g., Canada, Australia, Singapore). It is also true that not all governments are benign and interested in the welfare of their citizens. Unfortunately, more people have been murdered by their governments in the 20th century -- between wars -- than by all the criminals in the world together. Professor Rummel estimates that during the 20th century alone governments have killed 174 million people.⁹ This total is more than three times the number of deaths attributable to SALW.¹⁰ It is only necessary to mention a few of these sad examples to make this point. Europe has witnessed both the Nazi regime in Germany, and the Communists in the USSR; Africa has experienced the Hutus and Tutsis, and Asia has seen the atrocities of Pol Pot in Cambodia. There are others, but the point has been made.

The Accessibility Assumption

The claim that general accessibility to weapons contributes to criminal violence does not have strong empirical support. Instead, it is based upon research that is severely methodologically deficient. Rather than being published in reputable social science journals, where one would expect such research to be found, it is instead published in medical journals. All too frequently the editors of medical journals have adopted an advocacy position on public policy issues, rather than the objective scientific approach that they should maintain when investigating medical issues.¹¹ A related concern is the quality of the review process in medical journals.¹² Despite the vigorous nature of the public debate about firearm control, the public health journals show little willingness for exposing their readers to studies that do not conform to their orthodox position. Articles in criminology or in other fields with contrary findings are rarely if ever acknowledged.¹³ This is simply not a respectable intellectual position.

Cukier cites several studies in support of her argument that accessibility to weapons contributes to violence.¹⁴ However, she should have informed the readers that these studies have been criticized for their serious methodological failings. In the interest of brevity, I will dissect only two of the studies which she, and other public health

⁹ Rummel, Rudy. Professor Rummel's website on democide (murder by government, such as genocide), peace, non violence, and democratic freedom. <http://www.hawaii.edu/powerkills>. 2002.

¹⁰ Dhanapala, Jayantha, op. cit.

¹¹ Kates, Don B., Jr., Henry E. Shaffer, John K. Lattimer, George B. Murray, and Edwin H. Cassem. "Guns and Public Health: Epidemic of Violence or Pandemic of Propaganda?" Tennessee Law Review, 62(3), (1995): 513 - 596.

¹² Suter, Edgar A. "Guns in the medical literature -- A Failure of Peer Review." The Journal of the Medical Association of Georgia, 83 (March, 1994): 133-148.

¹³ Kates et al, op. cit.

¹⁴ Cukier, op. cit., p. 267.

advocates, cite in support of the claim that access to weapons by the general public contributes to criminal violence in order to show that such a conclusion is unjustifiable.

The first study alleges that there is an international correlation between firearm death rates and firearm accessibility.¹⁵ In this study, Martin Killias correlated the national homicide and suicide rates with the proportions of households with firearms in 11 European countries, plus Australia, Canada, and the United States. He concluded that the positive correlations found in his study “suggest that the presence of a firearm in the home increases the likelihood of homicide or suicide.” Even a brief examination of this study shows that the findings were artificially created by questionable manipulations. His conclusions are in conflict with other research in criminology.¹⁶

The serious errors in this study undermine its internal and external validity. The most important is that the correlations collapse if the United States is excluded. The proper procedure to follow when results are dependent upon a few cases is to present the analysis both with and without such cases. The United States is unique because it simultaneously has many more households with firearms and a much higher homicide rate than any country in Western Europe. Killias does not mention that in the United States, most firearms are owned by rural hunters, and that homicide is primarily an urban phenomenon. As well, the U.S. has long-standing problems with racism, poverty, and drug abuse. For example, African Americans, who account for only 12% of the total population, constitute 54% of the homicide victims and 52% of the accused perpetrators.¹⁷

Another error arbitrarily inflates the correlation. Since his hypothesis is that the availability of firearms increases the likelihood of gun-related deaths, one would imagine that all firearms in private hands in the country should be included. Nevertheless, the analysis for Switzerland excludes military weapons and fails to provide a satisfactory explanation for this decision. Since Switzerland is a militia country, many households have military firearms. Thus, this decision to artificially reduce the number of households with firearms works to strengthen the correlation in the direction desired by the author, as the Swiss homicide rate is lower than for many other Western European countries.

¹⁵ Killias, Martin, “International correlations between gun ownership and rates of homicide and suicide.” Canadian Medical Association Journal, 148(10): (1993), 1721-1725.

¹⁶ Kates, Don B., Jr., Henry E. Schaffer, John K. Lattimer, George B. Murray, and Edwin W. Cassem. “Comparison among nations over time,” In Guns, Murder and the Constitution. Pacific Research Institute for Public Policy. San Francisco, CA. 1990: 36-43.

Kleck, Gary. Targeting Guns. Firearms and Their Control. Aldine de Gruyter, 1997; Kopel, David. The Samurai, the Mountie, and the Cowboy. Prometheus Books, 1992.

¹⁷ Flanigan, T.J. and Maguire K. (eds). Sourcebook of Criminal Justice Statistics, 1991. U.S. Department of Justice, Washington, DC, 1992: 403-404; World Almanac. Scripps Howard, New York. 1993: 383.

The study also has a serious problem with external validity. The countries included are not a representative sample of any identifiable set of countries, so it is impossible to claim that any empirical findings can be extrapolated to the “real world.” This study only includes countries (and regions) that were convenient to study. The results could well be different if a wider and more representative net were to be cast. The sampling problem is compounded because the data set is not even limited to countries. As he admits,¹⁸ the UK was subdivided into three regions and each region treated as if it were an independent country. Subdividing the UK artificially inflates the correlation between homicide and suicide rates and firearm ownership, since all regions in the UK are relatively low on both variables. Thus, since there is no set rule for including (or excluding) cases from this correlation, the correlation could be increased spuriously by simply adding (or deleting) cases. Such a correlation is simply not meaningful.

In summary, a brief examination of this study shows that the findings in it were artificially created by questionable manipulations. Therefore it cannot be used to support the claim that there is an international correlation between firearm death rates and firearm accessibility. In a surprising turnaround, Killias himself now admits that “cross-national data indicate that there is no significant association between national gun ownership rates and rates of homicide, suicide, robbery or assault.”¹⁹ Even his own most recently published work contradicts his earlier findings.

The second study compared Vancouver, British Columbia (Canada), with Seattle, Washington, and claimed that the differences in firearm legislation in Canada and Washington State explained the lower homicide rate in Vancouver.²⁰ This is an example of the mis-use of the ‘static-group comparison’ method to draw an illogical inference of causality. This pre-experimental method is too weak to be able to rule out alternative hypotheses that offer plausible explanations for the observed differences.

First, Vancouver, B.C., had a lower homicide rate than Seattle, Washington, long before the introduction of the present firearm legislation. It is logically impossible to argue that the introduction of the present laws could have caused this past history of lower homicide rates. The search for causal explanation for observed differences must continue.

Second, while these two cities are quite similar in many ways: size, income, West Coast weather, they differ dramatically in other important ways, such as their ethnic profiles: Seattle has sizable Black and Hispanic minorities, while Vancouver does not;

¹⁸ Killias, Martin, “A response to Professor Mauser.” *Canadian Journal of Criminology*. 38(2). 1996: 215-216.

¹⁹ Killias, M. “Guns, Violent Crime, and Suicide in 21 Countries,” *Canadian Journal of Criminology*, 43, 429.

²⁰ Sloan, J.H., Kellermann, A.L., et al. Handgun Regulations, Crime, Assaults, and Homicide: A Tale of Two Cities, *New England Journal of Medicine*, 319. 1988: 1256-1262.

Vancouver has a much larger Chinese population than Seattle. As Dr. Blackman has argued some time ago, comparative studies require comparing comparable populations.²¹ The closest match would be to compare the two cities' homicide rates for the same ethnic group. Unfortunately, this study does not do so. Comparing the non-Hispanic white populations in both cities one finds that the homicide rates are almost identical (6.4 for Vancouver; 6.2 for Seattle).²² Ethnicity turns out to be a powerful factor. Chinese homicide rates across North America are quite low, while the homicide rates for Blacks and Hispanics are much higher than those for other ethnic groups; Seattle's Asian population had a much higher homicide rate than White Seattle residents compared to Vancouver's disproportionately low rate compared to its White residents.

 Table 1 about here

If Canadian national laws were the principal factor driving the homicide rate, then all or almost all Canadian provinces should have lower homicide rates than adjacent border states. This follows because Canadian firearm laws are national in scope, while US firearms law often vary dramatically from state to state. As has been pointed out by Dr. Centerwall, this is not the case.²³ While BC, Ontario, Quebec, and New Brunswick do have lower homicide rates than the states south of them, Alberta, Saskatchewan, and the territories have higher homicide rates than do the abutting American states. Manitoba is anomalous because it is adjacent to two states: its homicide rate is lower than Minnesota's but higher than that of North Dakota.

It is interesting to note that the Prairie provinces have a higher homicide rate than the adjacent states even though the private ownership of handguns is 3 to 10 times greater in the US. As well, a few US states [viz., New York and Michigan] have firearms laws as strict as or stricter than Canada, but still manage to have higher homicide rates than the adjacent Canadian provinces. It would appear that the difference in homicide rates is determined more by the sociology of the jurisdiction, than by the firearm legislation or the availability of firearms.

In summary, neither of these studies is methodologically sound and so can not provide empirical support for the hypothesis that general accessibility to weapons is a contributory factor to criminal violence. Unfortunately, these studies are not exceptional

²¹ Blackman, Paul H., "A Critique of the Epidemiologic Study of Firearms and Homicide," Homicide Studies, 1, 169-189 (May 1997).

²² Blackman, P.H., D.C. Stolinsky, and J.W. Gryder. Handgun regulations, crime, assaults, and homicide: a tale of two cities, (letters). New England Journal of Medicine, Vol. 20. 1989: 1214-1216.

²³ Centerwall, Brandon. Homicide and the Prevalence of Handguns: Canada and the United States, 1976 to 1980. American Journal of Epidemiology, Vol 134. 1991: 1245 - 1260.

in the public health literature.²⁴ These criticisms are not new and should have been available to Cukier when she wrote her article on SALWs.

Firearm Accessibility and Violent Crime in Selected Countries

If firearm control is supposed to reduce violent crime, then eventually this must be demonstrated to be true, or it is no more than a hollow promise.

However, most criminologists admit (albeit reluctantly) that there is very little empirical support for the claim that laws designed to reduce general access to firearms reduce criminal violence.²⁵ Frequently, assertions that firearm laws work turn out to be bogus. In Canada, the government uses the falling homicide rate as support for their claim that firearm control laws are working. Unfortunately for this argument, the homicide rate has been falling even faster in the United States.

Figure 1 about here

The drop in criminal violence is much more dramatic in the US than it is in Canada.²⁶ Over the past decade, the Canadian homicide rate has declined about 25%, but the violent crime rate has not changed. In the US during the same time period, both the homicide and the violent crime rates have plummeted by more than 40%. We can not credit firearm laws entirely with these declines. In both countries, the aging population has helped bring down crime rates, and, in the US, long jail sentences for violent criminals has also been effective.

Figure 2 about here

The United States

Nevertheless, firearm laws may have played an important role in reducing crime rates in the US. Since 1986, more than 25 states have passed new laws not restricting firearms further but actually encouraging responsible citizens to carry concealed

²⁴ For further critical discussion of the public health literature, the reader is encouraged to consult Kates et al, op cit., or Gary Kleck and Kates, Don B, Armed: New Perspectives on Gun Control, Prometheus Books, 2001.

²⁵ Kleck, 1997, op cit.

²⁶ Gannon, Maire. "Crime comparisons between Canada and the United States." Juristat, Vol 21 (11), December 2001.

handguns. As a result, the numbers of armed Americans in malls and in their cars has grown to almost 3 million men and women. As surprising as it is to the news media, these new laws have caused violent crime rates to drop, including homicide rates. In his recent book, Professor John Lott shows how violent crime has fallen faster in those states that have introduced concealed carry laws than in the rest of the US.²⁷ His study is the most comprehensive analysis of American crime data ever completed. He shows that criminals are apparently rational enough to fear being shot by armed civilians.

Figures 3 & 4 about here

These graphs compare the relative drop in violent crimes in those states that recently introduced concealed-handgun laws with those that did not. Since these laws were introduced in various years, from 1986 to the 1990s, these changes are calculated from the year the law was introduced (“Year 0”). As can be seen, crime rates were increasing before the legislation was introduced, and the rates declined afterwards. Figure 4 examines the impact upon violent crime in general, and Figure 5 looks at homicide specifically.

The drop in the US crime rate is even more impressive when compared with the rest of the world. In 18 of 25 countries surveyed by the British Home Office violent crime increased during the 1990s.²⁸ This contrast should provoke Canadians and others contemplating further restrictions on private firearm ownership to wonder what happened in those countries where they believed that introducing more and more restrictive firearm laws would protect them from criminal violence.

Before we leap to the conclusion that our personal safety lies in making it ever more difficult for average citizens to own and use firearms, we should look around the world to see what other countries have done and how successful these experiments have been. Canadians are particularly interested in studying British-style firearm laws such as followed by other countries in the British Commonwealth.

Canada

There has been a drop in rates of criminal violence in Canada, but the firearm law has little to do with it. In a study Professor Dennis Maki and I did recently, which will be published later this year by Applied Economics, we found that this legislation may even have caused an increase in armed robbery.²⁹ In our study we evaluated 9 other factors in

²⁷ Lott, John, Jr. More Guns, Less Crime, Second Edition, University of Chicago Press. 2000.

²⁸ Barclay, G. C. Tavaré, and A. Siddique. “International comparisons of criminal Justice statistics, 1999.” Issue 6/01. England and Wales. British Home Office, May 2001.

²⁹ Mauser, Gary and Dennis Maki, “An Evaluation of the 1977 Canadian Firearm Legislation: Robbery Involving a Firearm,” Applied Economics. (forthcoming).

our model as co-variates. Once we factored out the effects of these other variables, the Canadian firearm law still had a significant effect. Unfortunately, this effect was positive, that is to say, the firearm law actually acted to increase criminal violence. Later, we extended the data set by another few years, introduced new variables, and included both the 1991 and the 1977 firearm legislation, but neither firearm law had a significant effect on criminal violence.³⁰

 Table 2 about here

Great Britain.

Next we will consider Britain, where they have endured a serious crime wave. In contrast to North America, where the homicide rate has been falling for over twenty years, the homicide rate in England and Wales has doubled over the past thirty years. In the 1990s alone, the homicide rate jumped 50%, going from 10 per million in 1990 to 15 per million in 2000.

In response to rising crime, British politicians, from both sides of the aisle, have brought in laws that increasingly restricted firearms ownership by the general public. Important changes to the firearm laws were made in 1988, and then again in 1992, before the banning of all handguns in 1997.³¹ The Home Office has also tightened up on enforcement of regulations to such an extent that the legitimate sporting firearm community has been virtually destroyed. Shotgun permits have dropped almost 30% since 1988.³² And the result of this Draconian firearm control law in Great Britain? It's not pretty. No end appears in sight for the continuing crime wave. The failure of firearm control in England is shown dramatically in a recent book.³³

 Figures 5 and 6 about here

Clearly, the firearm laws have not caused violent crime to fall, and, combined with criminalizing all forms of armed self defense, the firearm laws have probably increased criminal violence by disarming the general public.³⁴ Despite banning and

³⁰ Mauser, Gary and Dennis Maki, "Does Gun Control Reduce Criminal Violence? An Econometric Evaluation of Canadian Firearm Laws," presented to the Annual Meeting of the American Society of Criminology, Chicago, Illinois, November 2002.

³¹ Greenwood, Colin. "Labour's Gun Plan." *Shooting Times and Country Magazine*, 12 April 2001, p. 8; Munday, R.A.I. and J.A. Stevenson. *Guns and Violence*. Piedmont Publishing, 1996.

³² Greenwood, op. cit.

³³ British Home Office. *Criminal Statistics, England and Wales, 2000*. December 2001.

³⁴ Joyce Malcolm, *Guns and Violence, the English Experience*, Harvard, 2002.

confiscating all handguns, violent crime, and firearm crime, continue to grow. The number of violent crimes involving handguns has increased from 2,600 in 1997/98 to 3,600 in 1999/00. And firearm crime has increased 200% in the past decade. The British Home Office admits that only one firearm in 10 used in homicide was legally held.³⁵ But, the politicians continue their policy of disarming responsible citizens.

Australia

English-style firearm laws have failed in Australia too. In 1997, the Australian federal government panicked, following the horrific murders by a deranged man in 1996, and banned and confiscated 600,000 semi-automatic “military style” firearms from their licensed owners.³⁶ The result? Violent crime continues to increase.

 Figures 7 and 8 about here

The destruction of the confiscated firearms cost Australian taxpayers an estimated \$A 500 million, and there has been no visible impact on violent crime. Robbery and armed robbery rates continue to rise sharply. Armed robbery has increased 166% nationwide -- jumping from 30 per 100,000 in 1996 to 50 per 100,000 in 1999.³⁷ The homicide rate has not declined, and the share of firearm homicide involving handguns has doubled in the past five years.³⁸ As in Great Britain and Canada, few firearms used in homicide are legally held; in 99/00 only 12 out of 65 (18%) were identified as being misused by their legal owner.³⁹

Conclusion

This paper has argued that there are serious practical problems with attempting to reduce accessibility to SALW by tightening up legal controls on legitimate civilian firearms. First, the assumption that general accessibility to weapons contributes to criminal violence was criticized by showing that it did not have strong empirical support. Second, several case studies were analyzed to show that tightening up governmental

³⁵ British Home Office, op. cit.

³⁶ Lawson, James B. “New National Gun Laws: Are They Cost Effective,” Institute of Public Affairs Review, Volume 51, Number 4, December 1999.

³⁷ Australian Institute of Criminology. Australian Crime, Facts and Figures, 2000. AIC, 2001; Mouzos, Jenny and C. Carcach, Weapon involvement in armed robbery, Australian Institute of Criminology, Research and Public Policy Issues, No 38, 2001.

³⁸ Mouzos, Jenny. Homicide in Australia, 1999 – 2000, Australian Institute of Criminology, Trends and Issues, No 187, February 2001.

³⁹ Mouzos, 2001, op. cit.

controls on civilian ownership of firearms did not reduce criminal violence but actually may have increased it. Finally, it was argued that these proposals violate traditional freedoms of individual citizens of democratic countries.

No country in the English Commonwealth has managed successfully to reduce criminal violence by introducing strict controls on firearm accessibility. For example, in Canada, a number of problems have emerged in the past few years since the federal government has begun to implement Universal Firearm Registration (UFR). Not only have the costs soared far beyond the original estimates and are to the point of being out of control, but more importantly, the program has not been effective in reducing criminal violence or terrorism.

This brief review of firearm laws in the English-speaking world suggests that British-style restrictions on firearms have failed to reduce violent crime. However, more research needs to be done before this conclusion may be shown with much confidence. All that has been done so far is to examine simple two-way analyses. Econometric studies need to be conducted in order to disentangle the complex events that occurred at the same time that new firearm restrictions were introduced.

Nevertheless, it is clear that disarming the public has not reduced criminal violence in any country examined here: not Great Britain, not Canada, and not Australia. Only the United States has witnessed a dramatic drop in criminal violence. As uncomfortable as it may seem, the two important reasons for this may be that many states in the past two decades have encouraged responsible citizens to carry concealed handguns, and imposed longer prison sentences upon convicted violent offenders. Perhaps it is time to reassess the utility of attempting to reduce civilian access to weapons by tightening up legal controls.

Word count: 3,925

Tables appended to the paper.

Figures attached

Table 1. Homicide Rates for Adjacent Provinces and States
(per 100,000 population)

BC	3.7
Washington	5.0
Alberta	3.6
Montana	2.9
Saskatchewan	3.2
North Dakota	1.9
Manitoba	2.6
Minnesota	3.3
Ontario	2.4
Michigan [w/o Detroit]	4.1
Michigan [incl. Detroit]	9.9
Quebec	2.4
New York [w/o NYC]	3.7
New York [incl. NYC]	13.2
Quebec	2.4
New Hampshire	1.6
New Brunswick	1.5
Maine	1.7
Territories	17.8
Alaska	7.5

Source: Juristat, "Homicide in 1992," Vol. 14, No 4, Canadian Centre for Justice Statistics; Crime in the United States 1992, FBI. Based upon Centerwall, Brandon. Homicide and the Prevalence of Handguns: Canada and the United States, 1976 to 1980. American Journal of Epidemiology, Vol 134. 1991: 1245 - 1260.

Table 2. Pooled Regression Models for Robbery and Robbery with a Firearm.

<u>Independent Variable</u>	<u>Dependent Variables</u>				
	<u>Robberies</u>		<u>Total Robberies</u>		
	<u>Coeff.</u>	<u>T- ratio</u>	<u>Coeff.</u>	<u>T-ratio</u>	
1977 Gun Law		1.578	1.81*	4.518	2.11*
Registered Indians		-2.417	-1.36	-2.253	-0.47
Male youth		-0.805	-0.72	-2.146	-0.85
Unemployment rate		0.085	0.46	0.144	0.34
International immigration		522.13	6.14*	958.79	4.14*
Clearance Rate ¹		-0.003	-0.44	-0.074	-1.91*
Police Effectives		-0.008	-0.98	-0.032	-1.74*
UI benefits		9.993	0.90	37.701	1.55
Internal migration		31.731	1.11	-45.737	-0.63
Transients		-435.59	-2.37*	-592.33	-1.27
Constant		11.386	0.85	109.89	3.36*
Buse R square			0.521		0.576

Note 1: CR differs for each dependent variable.

*Indicates t-values significant at .05

Source: Mauser, Gary and Dennis Maki, "An Evaluation of the 1977 Canadian Firearm Legislation: Robbery Involving a Firearm," Applied Economics (forthcoming).

Titles for the Figures in, “Introducing Controls on Small Arms and Light Weapons: Some Precautionary Lessons.”

Figure 1. Homicide rates in the United States and Canada

Figure 2. Rates of Violent Crime in the United States and Canada

Figure 3. The Effect of Concealed Carry Laws on Murders

Figure 4. The Effect of Concealed Carry Laws on Violent Crimes

Figure 5. Shotgun Ownership and Robbery in England and Wales

Figure 6. Homicide Rates in England and Wales

Figure 7. Firearm Homicides Involving Handguns in Australia

Figure 8. Violent Crime Rates in Australia