

Correcting the Record

SECU Committee Brief: C-21 Amendments

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Correcting the Record

Introduction

There have been multiple claims by groups and individuals, including some before Committee, that there is strong evidence that the firearm bans included in C-21 would reduce gun crime. Our examination of the research concludes that there is extremely little evidence for reduction through bans.

These claims are examined in detail below, with relevant direct quotes from the academic literature.

Summary

This brief will discuss in detail with supportive evidence the following:

- **Myth: The Research Says Gun Bans Reduce Gun Homicides and Mass Homicides**
- **Myth: The Research Says Firearm Registration Saves Lives**
- **Myth: The Research Says Firearm Control Reduces Suicide**
- **Myth: Firearms are Dominant in Intimate Partner Violence in Canada**
- **Myth: Australia is a Gun Control Success Story**

About the Authors

Dr. Caillin Langmann is a medical doctor, in addition to being one of Canada's preeminent firearm researchers. He has authored some of the most rigorous and highest-quality research on Canadian firearm laws. He has testified multiple times before parliamentary committees. Dr. Langmann is a specialist in Emergency Medicine and works at a major center in Hamilton, Ontario.

Tim Thurley is a firearm researcher and subject matter expert. He wrote his Master of Science thesis specializing on the impacts of the long-gun registry legislation on Canadian firearm homicide, which was shortlisted for the main thesis prize of the Dutch Criminology Society. He is a proud resident of the Northwest Territories and is a consistent advocate for transparent access to information on firearm issues.

Interpretation Issues

Interpreting studies on gun control and homicide can be difficult. It's important to be aware of common pitfalls.

One should be careful with the distinction between claims regarding *firearm* violence and *overall* violence or violence in general. A study indicating that *firearm* violence has been reduced by a particular law can only support the law's success if the study also indicates the law reduced *overall* violence.

In other words, if gun injuries and deaths are equally replaced by injuries and deaths by other methods then there is no policy success: the same number of people are dead.

Similarly, a study that claims gun control reduces overall violence despite showing no actual reduction in gun violence does not suggest that gun control was effective. Rather, it suggests some other possible causal intervention occurred. This may include a change in socioeconomic factors.

Method switching is the phenomenon when individuals substitute one method to commit a crime with another. They can also switch *sources*, such as switching to a smuggled firearm when unable to obtain a domestic one. *Source switching* occurred in the Portapique massacre case, where the individual smuggled illegally obtained firearms from the United States.

It is important to note that study design matters. Much initial evidence supporting control is from cross-sectional studies in the United States. These are poor research designs for analyzing effect, in part because they analyze only a single point in time. Time series papers, including the multiple papers by Langmann discussed below, are much more robust and more suited to analyzing this topic. They also often do not demonstrate any effect of these highly restrictive gun control measures.

Myth: The Research Says Gun Bans Reduce Gun Homicides and Mass Homicides

This widespread claim has been repeated regularly. It is not true. There is little evidence for it in the Canadian or comparable context.

There is very little evidence to support firearm bans or bans of specific firearm types. Four studies by Langmann showed:

- **No impact** of Canadian firearm legislation on homicide or spousal homicide (intimate partner violence) from 1974 – 2008, including the ban on automatic rifles in 1977 (Langmann, 2012);
- **No beneficial association** was found between Canadian firearm legislation and suicide or homicide rates from 1981 – 2016 (Langmann, 2020);
- While an analysis of thirteen studies found that firearm suicide may have been reduced by firearm legislation in some cases, the same research found that there were **no changes in overall suicide rates** (Langmann, 2021); and,
- **No impact on mass homicide was found** as a result of firearm legislation in Canada from 1974 – 2020, including bans and restrictions on a number of ‘paramilitary-style’ rifles similar to those at issue today, limitations on magazine capacity, or the ban on automatic rifles in 1977 (Langmann, 2023).¹

Some other research in Canada has found limited impacts, but many of these studies have substantial weaknesses and are nowhere near as robust as those quoted above. Sproule and Kennett (1988) concluded that C-51 had reduced homicide rates, but in addition to design weaknesses there was observed evidence of substitution and the wrong intervention years were chosen (the legislation was not fully implemented until 1979), leading to a skewed dataset. Leenars and Lester (2001) concluded that an impact existed even though they did not actually observe any impact on firearm homicide.

McPhedran and Mauser (2013) also concluded that there was likely no impact from these legislative changes. (McPhedran & Mauser, 2013)

It is important to note that the evidence from Australia – discussed at length below – does not support the case made by firearm prohibition advocates.

One erroneous claim made in favour of more prohibitions is based on a paper by Santaella-Tenorio, Cerdá, Villaveces, and Galea called *What Do We Know About the Association Between Firearm Legislation and Firearm-Related Injuries?* (Santaella-Tenorio, Cerdá, Villaveces, & Galea, 2016), but it is **not supported** by that paper.

- The Santaella-Tenorio paper suggests that background check quality, safe storage to prevent access by children, and maintaining existing permits can reduce homicide rates.
 - Canada has had all of these systems in place for multiple decades.
 - The paper says that “...evidence suggests **that laws restricting the sales of certain firearms are not associated with variations in all or firearm homicides.**”

¹ See Appendix for charts.

- A regularly updated RAND Corporation meta-analysis considered multiple studies and found that there was “...*inconclusive evidence for the effect of assault weapon bans on mass shootings* (RAND Corporation, 2023).”
 - This meta-analysis applies to the United States, where licensing controls are not present. The lack of controls should have tended toward evidence of an effect, given that purchasers would not have been as thoroughly screened. Therefore, we can anticipate seeing even less of an effect in Canada, where purchasers are thoroughly screened.
- Recent studies from the United States concerning bans of semi automatic “Assault Weapon” type firearms have not supported bans of assault weapons.
 - Examining state firearms laws between 1991-2016 found **no benefit from bans of assault weapons or large capacity magazines**. (Siegel, Pahn, Xuan, Fleegler, & Hemenway, 2019)
 - Examining state data of actual mass shooting events, laws banning assault weapons are unrelated to **whether an assault weapon is used in an event, and that the number of victims is not related to whether an assault weapon is used**. (Blau, Gorry, & Wade, 2016)
 - Examining data from 348 mass shootings from 1966-2018, a study found that **assault weapons bans and large magazine bans had no effect on number of casualties**. (Greene-Colozzi & Silva, 2020)
 - Using data from the FBI Supplementary Homicide Reports and public available databases from 1984-2017. **No benefit was found associated with assault weapons bans**. A potential decrease in the number of incidents was found associated with large capacity magazine bans but not with deaths. When removing domestic shootings, no benefit was found associated with large capacity magazines. Since there is unlikely a benefit associated with a large capacity magazine and domestic shootings, this is probably only an association and not causal. (Webster, McCourt, Crifasi, Booty, & Stuart, 2020)
- **“Evidence supporting the effectiveness of Canadian firearms legislation in reducing homicide and accidental death rates is inconclusive** (Bennett, Karkada, Erdogan, & Green, 2022).”
 - Langmann’s two studies (2012; 2020) finding no impact received the highest possible scores for quality when using both the Newcastle–Ottawa Scale for risk of bias and criteria from the *Guide to Community Preventive Services*, showing that these papers represent the best available evidence due to their quasi-experimental design.

Conclusion: This research **does not** support the firearm ban measures in Bill C-21. One likely factor for this is substitution, including the substitution of methods (i.e., non-firearm methods) and the substitution of sources (i.e., smuggled or 3D-printed firearms).

It is worth noting that a large number of firearms were prohibited in Canada in 1977 and in the 1990s. In each of those cases, no effect was seen.

Myth: The Research Says Firearm Registration Saves Lives

Some have indicated that the removal of the firearm registration system was problematic. This is not supported by evidence.

- One research paper (Blais et al. 2011) suggests that Bill C-68 was associated with saving lives between 1998 and 2004 and that registration was instrumental in this.
 - This suggestion is likely invalid, because:
 - Registration was not implemented *until* 2004 and most owners did not comply according to Canada's Auditor General until the last year of the process;
 - Only a few years of impact (2001-2004) are examined, making the results highly prone to error; and,
 - **Controls of Restricted firearms (handguns and many semi-automatic rifles) were examined and no benefit was found.**
- Other extensive research shows **no impact of Bill C-68** on overall Canadian firearm homicide rates (Langmann, Canadian Firearms Legislation and Effects on Homicide 1974 to 2008, 2012).
- Subsequent research utilized new data and isolated the firearm registry. It demonstrated "...the registry intervention had **no statistically significant impact on homicide** which could plausibly be attributed to it (Thurley, 2017)."

Conclusion: While there is mixed evidence on registration, the most rigorous research conducted **does not support registration of firearms** as an effective intervention in Canada.

Myth: The Research Says Firearm Control Reduces Suicide

While firearm control may reduce firearm suicides in some circumstances, there is little evidence in Canada that it reduces overall suicide rates.

*“...studies from Canada, New Zealand, and Australia (at least for the first post-NFA years) show that observed reductions in firearm suicides, after the implementation of these laws, were compensated by **substitution methods** that resulted in **no significant changes in overall suicide rates** (Santaella-Tenorio, Cerdá, Villaveces, & Galea, 2016).”*

- The above paper suggests that permits, licenses, and age requirements may be associated with reductions in suicide.
 - These are all measures which Canada already has in place.
 - It explicitly **does not support bans** on particular types of guns.
- This paper notes significant evidence of method switching in its analysis of Canadian research, meaning that those who do not have firearms available attempt suicide by other lethal methods.
- Another study commonly cited is *Firearm-related injuries and deaths in Ontario, Canada, 2002–2016* which suggests that reducing firearms ownership will prevent suicides.
 - The study in question cites only American papers to support its assertion. This is problematic because the United States is an outlier. It did not, and does not have the basic controls already present in Canada during the study period.
 - The authors of the study do not engage with method switching (Gomez, et al., 2020) despite that **switching from firearms to alternative methods for suicide has been well-demonstrated** in Canada (Langmann, Suicide, firearms, and legislation: A review of the Canadian evidence, 2021) by multiple sources (Bennett, Karkada, Erdogan, & Green, 2022).
- Canada already has interventions in place to address mental health concerns, such as mandatory disclosure of mental health history on firearm license applications.
- **Langmann (2020) demonstrates no impact on suicide by firearm interventions from 1981 – 2016, and no association between provincial firearm ownership rates and suicide.**²

Conclusion: Relevant research **does not indicate** that the measures in C-21 will have any impact on reducing homicide or suicide rates.

² See Appendix for chart.

Myth: Firearms are Dominant in Intimate Partner Violence in Canada

There is a claim that firearm bans will substantially reduce intimate partner violence.

- It is not appropriate to use American research to claim that reducing access to firearms will reduce intimate partner violence.
 - Canada has multiple rules meant to safeguard spouses and partners against domestic violence. Those rules are not present in much of the United States.
 - Existing Canadian rules include licensing, background checks, red flag laws, and spousal consent.
 - Canada **already has the measures** sometimes suggested by American research. Additional bans **are not demonstrated to have an impact**.
 - Recently a large well constructed study of red flag laws in California resulted in **no associated benefit**. (Pear, Wintemute, Jewell, & Ahern, 2022)
- Statistics Canada data from 2019 indicates that only about 1% of intimate partner violence victims were victimized by a firearm (Statistics Canada, 2021).
 - Knives, clubs, or other weapons were the dominant weapons used.
 - The Statistics Canada definition of victimization by a firearm includes a threat to use it and does not mean a firearm was used in the incident.
 - 1% of cases involved a firearm. Only 11% of the 1% involved serious injury or death.
- Measures to reduce intimate partner violence are important. The issue is **unlikely to be improved** by any sort of type-based firearm bans within the measures of C-21 or the relevant amendments. Assistance beyond gun laws must be provided to prevent the root causes of this type of violence.

Myth: Australia is a Gun Control Success Story

Australian research has been commonly cited by multiple groups as evidence for a ban in Canada. Many argue that the Australian National Firearms Agreement of 1996, which prohibited, confiscated, and destroyed most semi-automatic firearms, was an unqualified success in reducing homicides, mass shootings, and suicides.

What does the research evidence say?

One paper often cited in defense of Australian firearm bans is by Chapman, Alpers, Agho, and Jones. This 2006 paper claims that removing semi-automatic firearms reduced mass shootings, firearm homicide, and firearm suicide with little evidence of substitution. Those citing the paper often fail to note that the fall in firearm homicides was **not statistically significant**, meaning that no effect attributable to the law could be established (Chapman S. , Alpers, Agho, & Jones, 2006).

Many studies have been published reinforcing a lack of effect. Baker and McPhedran (2007) tested suicide and homicide, finding that homicide and possibly suicide were not impacted by the new legislation. They went on to state that there is **“insufficient evidence to support the simple premise that reducing the stockpile of licitly held civilian firearms will result in a reduction in either firearm or overall sudden death rates.”** McPhedran and Baker (2012) also found no impact on youth suicide.

Lee and Suardi (2010) further backed findings of no impact. Their rigorous paper used structural break tests and found no evidence of any significant effects on homicides or suicides, saying that “Although gun buybacks appear to be a logical and sensible policy that helps to placate the public’s fears, the evidence so far suggests that in the Australian context, **the high expenditure incurred to fund the 1996 gun buyback has not translated into any tangible reductions** in terms of firearm deaths.”

A more recent paper by Chapman, Alpers, and Jones in 2016 also found that **“it was not possible to determine whether the change in firearms deaths can be attributed to the [Australian] gun law reforms”**. This paper did not find any statistically significant changes in firearms homicide rates after the Australian Firearms Act was implemented in 1996. The paper implies that there were 13 mass homicides by firearms before the gun laws and 0 mass homicides afterwards. However, the paper does not examine these events in detail. 6 events were spree shootings of 2 or 3 victims that could have been done with any type of firearm. Out of the remaining 7 events, 5 used a firearm type that was not banned by the Australian gun laws, hence if the laws had been in place at the time these events would have still occurred. Since that paper was published, 4 other mass shooting events have occurred in Australia. It is interesting to note that the United Kingdom banned semi automatic rifles in 1986. In the 37 years prior to the ban there were 5 mass shooting events of 4 or more victims. In the 36 years after there have been 4 mass shooting events of 4 or more victims, a statistically insignificant difference. (Chapman, Alpers, & Jones, 2016)

A further research paper found “...detailed analysis of the law shows that it likely had a **negligible effect** on firearm suicides and homicides in Australia...” and “...that the NFA had **no additional effect on firearm-related suicide** among women and that among men the NFA had a **smaller effect** on the trend in firearm-related suicides than in non–firearm-related suicides ... that the effect of the NFA on firearm-related homicides **could not be distinguished statistically** from the trend in non–firearm-related homicides, for men or women.” (Gilmour, Wattanakamolkul, & Sugai, 2018).”

SECU Committee Brief: G4/G46 Amendments

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Significant Canadian research (see above) also indicates that many past Canadian interventions had no effect on Canadian homicide, firearm homicide, or mass shooting rates. Even the prohibition on assault rifles in 1977 did not impact Canadian homicide or mass shooting rates.

Conclusion: The main body of research does not indicate that Australia's firearm legislation was successful in reducing homicide or suicide. While the non-peer-reviewed submission to the Mass Casualty Commission claims that firearm regulation along the Australian model has been a 'notable public health success,' this claim is **not supported** by peer-reviewed research.

Recommendations and Insights

It is important that references to the research are accurate. Accurate reference to research ensures that Committee members may make the best possible decisions.

There is no strong evidence that firearm bans will save lives in Canada. On the contrary, the overwhelming body of relevant research indicates that proposed firearm bans would have no impact whatsoever on preventable deaths in Canada, whether by homicide or suicide.

The Committee is better served by examining alternative measures to achieve a reduction in deaths, including addressing the demand-side components of violent crime. The massive expenditure associated with such bans, and the time spent studying them, would be better directed toward these measures if homicide and suicide reductions are the goals of Committee. A previous discussion of potential methods has been addressed in prior submissions to the Committee.

Appendix

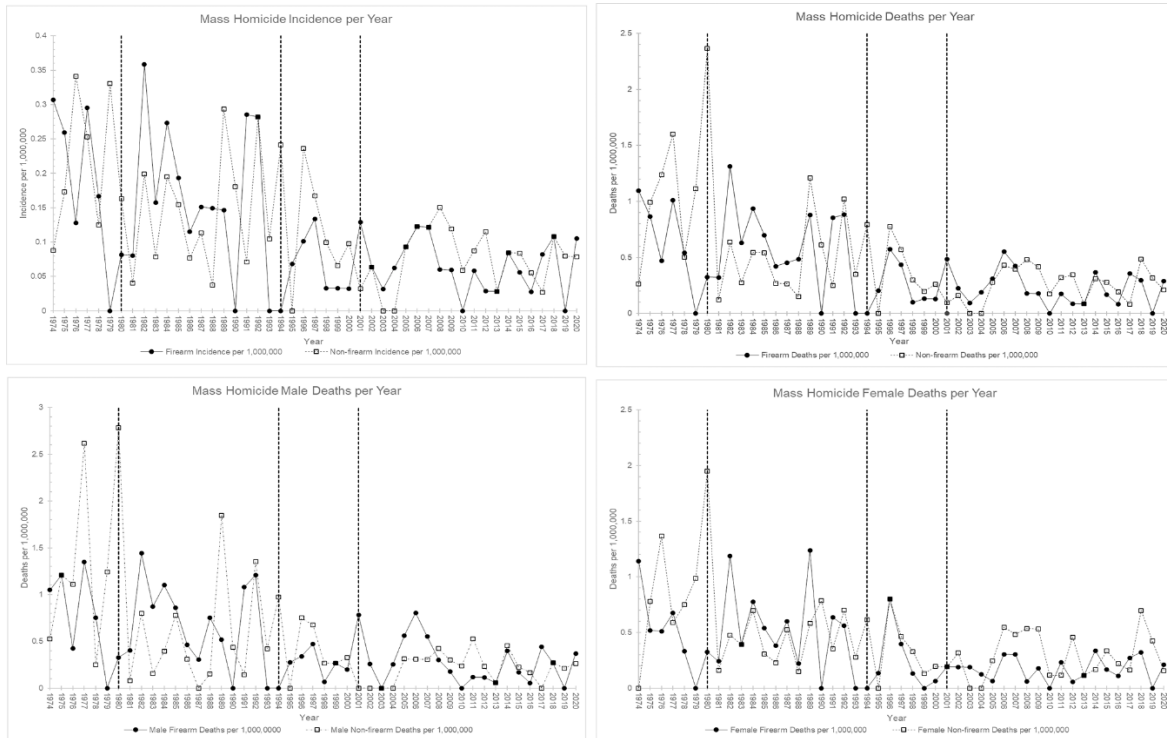


Figure 1: From Langmann (2023) showing the incidence of mass homicide rates per year. There was no impact on mass homicide at the intervention points or in the trend.

Suicide and Population Holding Firearms License

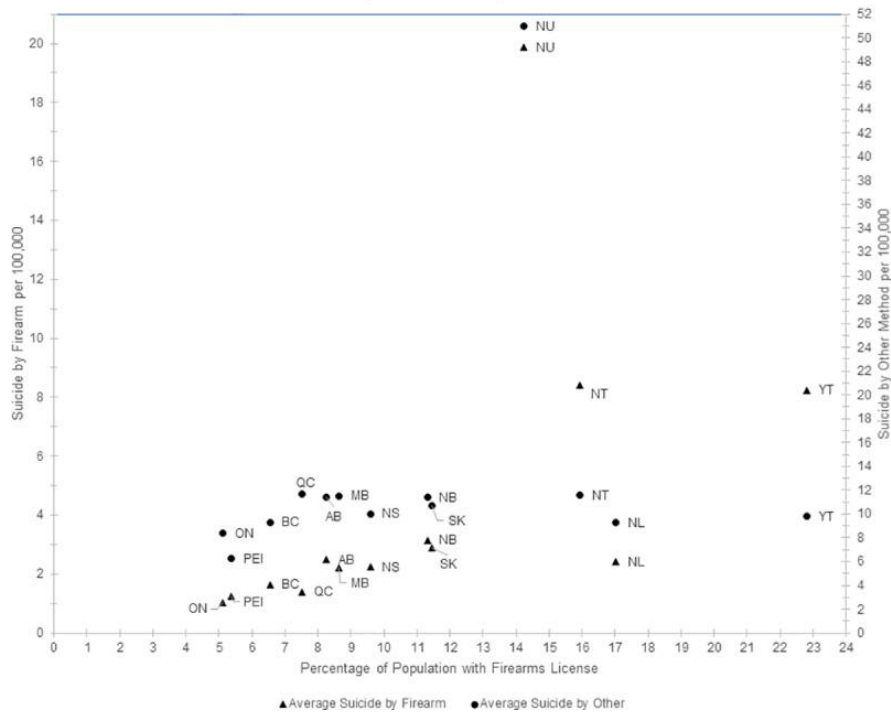


Figure 2: From Langmann (2020) showing no association between provincial firearm ownership rates and suicide rates.

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