

A LITERATURE REVIEW ON ILLEGAL FIREARMS



Dr. Irwin M. Cohen & Kevin Burk

November 2016

UNIVERSITY
OF THE FRASER VALLEY

CENTRE FOR PUBLIC SAFETY &
CRIMINAL JUSTICE RESEARCH

Introduction

According to the RCMP Firearms Operations and Enforcement Support, there were a total of 1,889 firearms offences in British Columbia in 2015, a decrease from 2,303 firearms offences in 2014 (RCMP Firearms Operations and Enforcement Support, 2016). This involved a wide range of offences, including robbery with a firearm, careless use of a firearm, the discharge of a firearm with intent, possession of a weapon, and unsafe storage of a firearm. In addition, 1,223 firearms were seized in the Lower Mainland District in 2015 compared to 1,363 in 2014. Using a different methodology, the Ministry of Justice for British Columbia reported a substantial decline in the number of firearms offences committed between 2005 and 2015 (Canadian Centre for Justice Statistics, 2016). For example, for offences related to the use of, discharging, or pointing a firearm, there was a 47% decrease from 2005 to 2015 (Canadian Centre for Justice Statistics, 2016). Similarly, there was a 40% reduction in weapon violation offences over the same time period (Canadian Centre for Justice Statistics, 2016). Moreover, in 2015, the firearms crime rate in British Columbia was 6 and the weapons violations crime rate was 62 (Masek et al., 2016). By comparison, in 2015, the firearms crime rate in Quebec was three and the weapons violations crime rate was 19, while in Ontario the firearms crime rate was five and the weapons violations crime rate was 28 (Masek et al., 2016). More broadly, according to the Canadian Firearms Program, in 2015, across Canada, public service agencies seized 20,731 non-restricted firearms, 3,333 restricted firearms, and 1,513 prohibited firearms (RCMP Canadian Firearms Program, 2016). The total number of firearms seized in British Columbia in 2015 was 4,874, which was third highest after Quebec (n = 7,101) and Ontario (n = 6,453) (RCMP Canadian Firearms Program, 2016).

In 2015 alone, a total of 399,086 individual firearms licences were issued in Canada (RCMP Canadian Firearms Program, 2016). This included both new and renewed licences. By 2015, there were a total of 2,026,011 firearms licences in Canada, of which 266,132 or 13.1% were for British Columbians (RCMP Canadian Firearms Program, 2016). Nonetheless, British Columbians are increasingly concerned with gun violence in their communities. Over the last few years, there have been spikes in firearms-related homicides and attempted homicides related to gang violence and the drug trade in several communities in British Columbia

(<http://globalnews.ca/news/2578192/surrey-residents-fed-up-with-recent-gun-violence/>; <http://www.news1130.com/2016/04/10/gun-violence-connected-to-drug-trade-isnt-just-happening-in-surrey-police/>; <https://www.250news.com/2016/06/23/violence-continues/>). In response, the police and local, provincial, and federal governments have been searching for effective solutions to reduce the presence of firearms on the streets, the possession of firearms among criminals and the mentally ill, and to better educate the public about both the risk and dangers of firearms and ways to safely and lawfully possess, store, and use firearms.

This literature review focuses on outlining the various strategies and processes that have been tried in Canada and internationally to reduce or remove illegal firearms from circulation, particularly from offenders. The focus of this review is on research published in English that evaluates legislative attempts, police-led, and community-led programs, tactics, or interdictions designed to address the issue of illegal firearm possession and use.

Legislative Approaches to Address the Possession and Use of Firearms

Most countries have introduced some form of firearms legislation in order to restrict who can possess firearms and the type of firearms that people can own. For the most part, the main theoretical basis for firearms legislation is that firearms are dangerous and contribute to increasing the rate of lethal violence in a jurisdiction (Friedland, 1975; Cook, 1981; Mauser & Maki, 2003). The assumption that follows is that by restricting access to firearms, particularly among those deemed at higher risk for engaging in violence, the volume of criminal violence involving a firearm will be reduced. As such, as part of a broader strategy to enhance public safety, countries have implemented some form of firearms legislation in order to restrict the possession of firearms by citizens, those convicted of an offence, those diagnosed with a mental illness, and minors. In addition, firearms legislation also aims to make the possession of certain types of firearms and ammunition illegal, such as fully automatic weapons, handguns, incendiary or hollow-point ammunition, and firearms with more than a certain magazine capacity.

In Canada, the history of firearms control is over 100 years old. In Canada's first *Criminal Code* (1892), individuals were required to have a permit, referred to as a certificate of exemption, in order to lawfully carry a pistol, unless the individual had reasonable grounds to fear assault or injury. It was also illegal to sell a pistol to someone under 16 years old, and those who sold pistols had to keep a record of who they sold a weapon to, when the sale took place, and any information that could be used to identify the gun (RCMP, 2010). In 1934, Canada implemented its first true handgun registration process, which required that not only was the person who issued the permit to be notified when the permit holder purchased a handgun, but created a non-centralized record keeping system that recorded the purchaser's name, address, and the handgun purchased (RCMP, 2010). Of note, this system was centralized in 1951 under the Commissioner of the RCMP. In addition, automatic weapons were added to the list of firearms that had to be registered. Following this, in 1968, the distinct categories of restricted and prohibited weapons were defined and implemented (RCMP, 2010). This allowed for the creation of legislative controls for each category of firearm.

In 1977, Canada passed Bill C-51, which required that all those who buy a firearm undergo a criminal record check and obtain a permit to buy a firearm, known as a firearms acquisition certificate (Langmann, 2012; RCMP, 2010; Cook, Cukier, & Krause, 2006). Moreover, to get a permit or licence, an individual had to either demonstrate that they needed a firearm because of their specific occupation, were part of an approved gun club, were a collector, or that a firearm was needed for personal protection in a situation in which the police could not protect them (Vernick, Hodge, & Webster, 2007). In addition, this piece of legislation outlined the ways in which firearms needed to be stored for safety, and banned certain types of firearms, such as M1 Carbines (Mauser & Maki, 2003). Included in this bill were provisions that allowed a court to prohibit someone from possessing a firearm for a certain period of time, removed the ability of people to register handguns at commercial addresses, created new definitions for prohibited and restricted weapons, centralized the registration of restricted weapons, eliminated the right to keep a handgun in a place of business, and removed protection of property as a reason for owning a handgun (Mauser & Maki, 2003; Langmann, 2012). Moreover, mandatory minimum sentences and increased penalties were included in the legislation (Langmann, 2012).

In 1991, Canada introduced Bill C-17, which was designed to enhance many of the provisions found in Bill C-51. For example, it was now required that an individual provide a photo ID when obtaining a firearms acquisition certificate, the Bill introduced a 28 day waiting period to acquire a firearm, required that mandatory written and practical safety tests be completed in order to obtain a firearms acquisition certificate, required that some military-looking firearms had to be registered, and introduced a ban on high-capacity ammunition magazines (McPhedran & Mauser, 2013; Cook, Cukier, & Krause, 2006; Vernick, Hodge, & Webster, 2007). The bill also increased the penalties for firearms-related offences, and created clearer regulations for the handling, storage, and transportation of firearms (RCMP, 2010).

In 1995, Canada introduced Bill C-68, which created the *Firearms Act* that removed most of the administrative and regulatory elements of firearms control out the Criminal Code (RCMP, 2010). In addition, the old firearms acquisition certificate system was replaced with a new licencing system that required licences to possess (POL) and possess and acquire (PAL) firearms and to purchase ammunition (RCMP, 2010; McPhedran & Mauser, 2013; Cook, Cukier, & Krause, 2006).¹ Of note, all firearms, including rifles and shotguns, had to be registered² and there were new requirements for businesses that engaged in any type of activity related to firearms and ammunition (RCMP, 2010; McPhedran & Mauser, 2013; Vernick, Hodge, & Webster, 2007). Importantly, all firearms had to be registered in a gun registry that could be searched by the police (McPhedran & Mauser, 2013). Moreover, safe storage, such as using secure lock containers, was also emphasized, and it was illegal to have a loaded firearm where it was not lawful to discharge it, such as in a car or a public space (Cook, Cukier, & Krause, 2006). As with the previous bills, there were amendments to the *Criminal Code* that included harsher penalties for certain types of offences committed with a firearm, such as kidnapping and murder (McPhedran & Mauser, 2013). The legislation also classified certain types of handguns, based on caliber and barrel length, as prohibited firearms (RCMP, 2010; McPhedran & Mauser, 2013; Vernick, Hodge, & Webster, 2007).

A number of provinces have also introduced additional pieces of legislation to address firearms. For example, in Ontario, in 2000, the *Imitation Firearms Regulation Act* was passed that made it an offence to buy, receive, sell, or transfer a convertible starter pistol, and set a minimum age of 18 years old to buy or receive a deactivated firearm (*Imitation Firearms Regulation Act*, 2000). This Act was amended in 2011 to include the provisions that, in running a business, no one shall sell or transfer an imitation firearm to an individual unless that person was over the age of 18, had a valid identification, provided a written statement that described their intentions regarding the use of the imitation firearm, and made a declaration that he or she will not use the imitation firearm for an unlawful purpose, and underwent a criminal background check that revealed that the purchaser had not been convicted of any criminal offence for which a pardon has not been granted (Bill C-6, 2011). Although not placed into law yet, in 2014, a private member's bill was introduced in Ontario to amend the *Highway Traffic Act* and the *Civil Remedies Act* to make it an offence to drive on a

¹ This came into effect in 2001.

² The registration of all rifles and shotguns was mandatory by 2003.

highway in a motor vehicle with an unlawfully possessed handgun. This Bill had its first reading in July 2014 (Bill 24, 2014).

In 2007, Quebec introduced Bill 9 that prohibited the possession of a firearm at childcare facilities, educational institutions, and in vehicles used for public transportation and school transportation. As part of this bill, those working for educational institutions, and public transportation and school transportation drivers must report to the police anyone who is acting in a way that may endanger themselves or anyone else with a firearm. Moreover, no one may be in possession of a firearm on the grounds of a designated institution, and this also applies to public transportation and school transportation (National Assembly of Quebec, 2007). This bill also regulated target shooting with restricted and prohibited firearms in shooting clubs and shooting ranges, in particular by requiring operators to obtain a licence. Additionally, no person may frequent a shooting range to use a restricted firearm or a prohibited firearm without being a member of a shooting club or being invited under the immediate supervision of a member (National Assembly of Quebec, 2007). In 2015, the Acting Minister of Public Security for Quebec introduced Bill 64, *The Firearms Registration Act*, which required that all firearms, including non-restricted firearms, must be registered. The purpose of this bill was to allow the authorities to know the location of all firearms in Quebec and to enhance the enforcement of prohibitions against the unlawful possession of firearms (National Assembly of Quebec, 2015).

In addition to these and other regulatory changes and additional processes put in place by individual provinces, in 2015, the national *Common Sense Firearms Licensing Act* was passed, which further amended the *Firearms Act* and the *Criminal Code*. In addition to making classroom participation in firearms safety courses mandatory for first time licence applicants, this act abolished the possession only licence, and converted all valid possession only licences to possession and acquisition licences (RCMP Canadian Firearms Program, 2016).

Together, what these pieces of legislation have created in Canada is a system through which those who wish to obtain a firearm must undergo a thorough background check, a waiting period, and demonstrate a lawful and compelling reason for needing a firearm before obtaining a permit to purchase or acquire a firearm. Upon comparing Canada's approach to firearms with those of other countries, some researchers have concluded that Canada has taken the approach that an individual's freedom is greatest when the community is safe, while other nations, such as the United States, have placed greater emphasis on an individual's right to own a firearm over community well-being (Vernick, Hodge, & Webster, 2007). The outcome of cultural differences, the view of firearms in society, and gun control policies between the United States and Canada has resulted in a much smaller proportion of households in Canada (22 per cent) having a firearm present compared to the United States (38 per cent) (Hoskin, 2011). According to Kozuskanich (2015), there are approximately 270 to 310 million guns in the United States or 88.8 to 101.1 guns per 100 people. By comparison, it is estimated that there are 10 million guns in Canada or 23.8 guns per 100 people (Kozuskanich, 2015).

Boyd (2003) argued that, rather than focusing on the role that Canadian legislation played in reducing the number of firearms in Canada, attention should be placed on a cultural change that occurred in Canada, which has not yet taken place in the United States. According to Boyd, well before the introduction of Bill C-68, Canadians were already shifting their attitudes about firearms.

More specifically, Boyd (2003) argued that Canadians were becoming less tolerant of the presence of guns in homes, less impressed with the image of violence represented by a gun, and increasingly aware of the damage that guns could cause to individuals, families, and communities. To support this claim, Boyd pointed to the trend of decreasing gun ownership beginning in the early 1990s; a trend not experienced in the United States, which took the view that gun ownership was a fundamental right.

For the most part, gun regulation in the United States is a state matter and each state has a somewhat unique approach to gun ownership and carrying a gun in public. However, in the most general sense, one does not need a permit, safety training or education, or a licence to own or carry a gun in the United States (Kozuskanich, 2015). In terms of federal legislation, since 1934 there have been eight pieces of legislation that control the manufacture, sale, and transportation of firearms in the United States (Kozuskanich, 2015). In some ways, the roots of the way the United States currently deals with firearms is a balance between concerns over gun violence and the rights of gun owners.

In 2009, it was estimated that there were about 200-250 million firearms in circulation in the United States, in a country of around 350 million (Cook, Ludwig, & Samaha, 2009). Further, it has been suggested that these 250 million firearms are owned by about 25% of the population, meaning that the ownership of firearms is concentrated with a relatively small percentage of the population.³ It would also indicate that individuals who do own a firearm tend to own more than one. Of note, around half the gun owners state that their primary reason for owning a firearm is for personal protection against crime, which is no longer a valid basis for gun ownership in Canada, Great Britain, or Australia (Cook, Ludwig, & Samaha, 2009).

It has been argued that gun related violence in the United States is high due to its lax gun control laws, most of which are created and enforced at the state or local level (Cook et al., 2015; Hirsch, 2015). Of the few federal laws in the United States is one restricting and regulating the manufacture, sale, or possession of fully automatic firearms, as well as one stating that any firearms businesses must hold a federal sales licence. There are also restrictions on minors purchasing firearms; however, there are no federal restrictions on youth using or possessing firearms (Hirsch, 2015). There are also no restrictions on semi-automatic weapons, handguns, or high-capacity magazines, as seen in other countries. As Hirsch (2015) pointed out, the United States has the weakest gun control laws of all industrialized nations, and a system that is full of loopholes, making it easy for even a prohibited person to obtain a firearm. The United States has made no progress in strengthening federal gun control laws, even in the wake of highly-publicized mass shootings, such as the Sandy Hook Massacre in 2013. Thus, little progress was made even while public support for legal change was very high. This is in stark contrast to what occurred in both Australia and the Great Britain, which, as will be discussed below, both introduced sweeping gun control laws to reduce mass shootings after multiple incidents of massacres in the early 1990's.

³ As mentioned above, it should be noted that Hoskin (2011) stated that there were 300 million firearms owned by Americans and that gun ownership comprised 38% of the population. This large discrepancy points to some of the challenges and limitations of firearm research in the United States.

Much of this failure to change federal law in the United States stems from the American constitution and Bill of Rights, and the entrenched right to keep and bear arms, which does not exist in Australia, Great Britain, or Canada. Two cases heard by the United States Supreme Court in 2008, *District of Columbia v Heller* and *McDonald v City of Chicago*, clarified that the second amendment of the Constitution, which grants the right to keep and bear arms, not only applied to a state's right to maintain a militia, but also protected an individual's right to keep and bear arms (Hirsch, 2015). This has created a difficult constitutional barrier that, if it was so inclined, the federal government would need to work around in order to change or create federal firearm laws (Cook et al., 2015).

In contrast, Great Britain is known for having some of the most restrictive gun control laws in the world. Most types of semiautomatic rifles and shotguns are restricted from private ownership by citizens, and only police officers, members of the armed forces, or individuals with written permission from the Home Secretary may lawfully own a handgun. It is likely that the very low use of firearms in crime are due, in large part, to these restrictive laws. For example, in 2008-2009, firearms were used in just 0.3% of all recorded crimes, and were responsible for the deaths of just 39 of the 651 murders that year (UK Home Office, 2010). Fatal injuries from firearms were also at the lowest point in more than 20 years in 2008-2009, with just 39 deaths.

Great Britain enacted a number of new restrictive laws and policies for firearms in response to rising crime rates, and a number of high profile mass shooting massacres (Leitzel, 1998). In Great Britain, these restrictive changes to firearm purchase and ownership had the overwhelming support of the public. Between 1968 and 1987, firearms laws in Great Britain were rather non-restrictive, with the only requirement being that a firearms owner had to carry a licence, which was often purchased at a local post office. Very little changed in regards to firearms legislation until 1987 when 16 people were shot and killed and 14 more were wounded in a mass shooting in Hungerford, Berkshire. The shooter in the Hungerford massacre used two military grade assault rifles, including a semiautomatic US M1 carbine assault rifle, as well as a handgun (Law Library of Congress, 2013). The response by the British government was prompt, and resulted in *the Firearms (Amendment) Act* of 1988, which included a complete ban of private ownership of high-powered semi-automatic rifles and rifles capable of burst fire, as well as strict regulations for ownership of pump action shotguns or shotguns with a carrying capacity of more than two rounds. The British government argued that the safety of the public was paramount, and that the interests of legitimate sport shooters were protected under the new legislation (Law Library of Congress, 2013). The same year that the new legislation came out, another public shooting occurred, where an individual killed one person and wounded 16 more; however, in this case, the shooter was suffering from schizophrenia and did not get the same amount of media attention, nor did this event lead to the creation of new firearms laws (Law Library of Congress, 2013). In fact, Great Britain had a mechanism in place during the licensing process that included medical records and background checks; however, it appears that in this case, the individual developed a mental health issue years after lawfully obtaining a firearm licence.

Ten years after the Hungerford massacre, in 1997, another mass shooting occurred. This time, the shooting occurred at an elementary school in Dunblane, Scotland. This shooting led to the deaths of 16 children, all aged four to five years old, as well as their teacher. In this instance, the offender lawfully possessed the two rifles used in the shooting, and also carried and used four handguns

(Law Library of Congress, 2013). The public outcry after the Dunblane school shooting was substantial, and led to a public inquiry. Although the inquiry led to a number of suggested restrictions, it stopped short of calling for an outright ban of all handguns, arguing that it would not have a substantial effect if guns could easily be illegally obtained. However, the British government went considerably further than the recommendations made in the public inquiry, and again amended the gun laws, leading to the *Firearm (Amendment) Act* of 1997. This revision, which was passed with overwhelming public support, banned the storage of handguns in private homes, and included an outright ban on high-calibre handguns altogether (Law Library of Congress, 2013). The new law required that low-calibre handguns could only be stored and used in licenced gun clubs.

After the two major legal changes, between 1997 and 2010, there were no mass shootings in Great Britain. That changed in 2010, when a mass shooting occurred in Cumbria, and resulted in the deaths of 12 people with another 25 people being injured. In this instance, the offender held licences for the firearms used in the mass shooting, and was a member of a gun club. Although there was, again, substantial outcry from the public to further restrict the ownership and possession of firearms in Great Britain, no revisions or new laws were made (Law Library of Congress, 2013).

In Great Britain, firearms owners must be at least 18 years of age, and hold a valid firearms certificate for each weapon they possess. Possessing, purchasing, or otherwise acquiring a firearm, shotgun, handgun, or ammunition without a certificate is illegal. The application process for a firearm certificate includes the requirement to show 'good reason' to possess each firearm applied for, which is validated by a chief officer of the police. Although there appears to be a significant amount of discretion given to the chief officer, the reason to hold a firearms certificate needs to be genuine and substantial, and the chief officer of the police is required to verify those reasons (Law Library of Congress, 2013). For example, if an individual applies for a certificate for the purpose of target shooting, the chief officer would likely verify that the applicant is a member of a shooting club. While the reasons for requesting firearms certificates can vary, British law specifically prohibits owning firearms simply for desire or for personal defence (Law Library of Congress, 2013). Further, individuals applying for a firearms certificate must include their medical history, showing they are free from alcoholism, drug abuse, mental illness, or a personality disorder, and must allow the police to follow up with their primary physician if the chief officer has any questions or concerns about the applicant's medical history as it pertains to firearms ownership (Law Library of Congress, 2013). Finally, laws in Great Britain also specifically outline how firearms are to be stored, including storing ammunition separately from firearms, and storing firearms in a locked steel safe. The storage must be secure against any unauthorized person accessing the stored firearms, and failure to do so can result in the firearms certificate being revoked (Law Library of Congress, 2013).

Similar to Great Britain, Australia has had three significant legal changes that have continually moved the country towards being more restrictive towards firearms. The first major change occurred in 1988 following two mass shootings on Hoddle Street and Queen Street, in Victoria (Ozanne-Smith, Ashby, Newstead, Stathakis, & Clapperton, 2004). These two mass shootings resulted in the deaths of 15 people, and was the impetus for the formation of the National Committee on Violence. After studying the issue of gun violence, this committee recommended a

national firearms policy. At the time, only the state of Victoria restricted rifles, while the other five states and two territories in Australia did not (Ozanne-Smith et al., 2004).

On April 28, 1996, a 28-year-old man armed with a semiautomatic rifle shot and killed 35 people and seriously wounded 18 more at several locations in and around Port Arthur, Tasmania, Australia. This event has become commonly referred to as the Port Arthur massacre. It was estimated that the shooter killed the first 20 victims in just 90 seconds due to the speed of his semiautomatic weapon (Chapman & Alpers, 2013). Prior to the Port Arthur mass shooting, gun laws in Australia were seen as relatively lenient, with large variations in firearms regulations across the six different states and two mainland territories (Law Library of Congress, 2013). In Australia, the regulations of firearms are the responsibility of the individual states and territories, and not the federal government. However, firearms importation laws can be enacted or modified by the Federal government through the overseas trade and commerce powers of Parliament (Law Library of Congress, 2013). Further, the Australian constitution does not contain any explicit gun ownership rights, such as those seen in the United States or Mexico.

Within days of the Port Arthur mass shooting, the Australian Police Ministers' Council (APMC) convened and agreed to a plan to regulate firearms ownership and possession across Australia. This plan, which was promoted by the Prime Minister of Australia, would apply to all territories and states in the country. These resolutions became the Nationwide Agreement on Firearms, and are commonly referred to as the *National Firearms Agreement*, or *1996 Firearms Agreement*. The agreement was announced on May 10, 1996, and was implemented across all jurisdictions in Australia between June 1996 and August 1998 (Chapman, Alpers, Agho, & Jones, 2006; Law Library of Congress, 2013). Many of the legal changes suggested by the APMC, which eventually became the *1996 Firearms Agreement*, emerged from earlier recommendations made by the National Committee on Violence after two separate mass shootings in Melbourne in 1988, both of which were perpetrated by shooters using high-powered rifles (Law Library of Congress, 2013). In particular, the *1996 Firearms Agreement* was aimed expressly at limiting the accessibility of automatic and semiautomatic firearms, as well as pump action shotguns, that could be used in mass shootings (Chapman et al., 2006).

The new *1996 Firearms Agreement* resulted in considerable changes to the laws surrounding firearms possession, ownership, selling, and the purchasing of rifles and shotguns in all of the states and territories in Australia. Under the new laws, Category D firearms, which included self-loading semiautomatic rifles, any firearm that duplicated the design of a military rifle, any self-loading rifle with an integral or detachable magazine, self-loading shotguns with integral or detachable magazines, pump action shotguns with a capacity of more than five rounds, or rim-fire rifles with a magazine capacity of more than ten rounds, were prohibited for civilian ownership or possession. The new laws included a full prohibition on the importation of any Category D firearms into Australia, including the importation of the firearm, all parts, including magazines, as well as a complete ban on the sale, resale, transfer, ownership, or manufacture of any Category D firearms (Law Library of Congress, 2013). The only exception to this prohibition was for military or law enforcement purposes.

The newly implemented *1996 Firearms Agreement* imposed new requirements for firearms acquisition permits, along with a mandatory 28 day waiting period (Chapman et al., 2006). It also

included the establishment of a new nationwide firearms registry system (Law Library of Congress, 2013). The sales of all firearms were restricted to licensed firearms dealers only, and set new requirements for firearms dealers to record information about any sales, which were open to police inspection. Also included in the new legislation were severe restrictions on the amount of ammunition that dealers could sell to a buyer at one time, and only allowed dealers to sell ammunition for weapons the purchaser held a license for (Chapman et al., 2006; Law Library of Congress, 2013).

Under the *1996 Firearms Agreement*, an individual could only apply for a firearms licence by showing a genuine reason for ownership, which did not include personal protection (Chapman et al., 2006). Acceptable reasons included hunting and recreational shooting, sport shooting, or collecting, as well as military or law enforcement requirements. Further, the licence holder must be at least 18 years old, and be a fit and proper person, meaning that they could not have a criminal record or a mental health issue. Holders must undertake a standardized safety training course, and must agree to store their firearms in a secure manner, including complying with the requirements that any firearms and ammunition be stored separately, and that both be stored in a locked steel safe that was bolted to the structure of a building (Chapman et al., 2006; Law Library of Congress, 2013).

Just six years after the Port Arthur massacre, on October 21, 2002, five people were seriously injured and two more were killed after a shooting at Monash University in Melbourne, Victoria. This time, the shooter was armed with several handguns, and was a licenced pistol owner and member of a local shooting club. The shooter was found not guilty of murder due to reduced mental capacity and sentenced to a psychiatric hospital (Law Library of Congress, 2013). Although the event did not meet the criteria for a mass shooting as only two people died, the event led to a significant national debate about gun control laws in relation to handguns (Law Library of Congress, 2013). Much like in 1996, the APMC met after the 2002 Monash University shooting and agreed to various resolutions and changes to the *1996 Firearm Agreement*, including the restriction of handguns that could be imported or possessed for sporting purposes. Specifically, licencing changes prohibited the importation or possession of any handgun greater than .38 calibre, unless the handgun was to be used in a sporting event specifically accredited by the state. Under those circumstances, permission could be obtained for a handgun up to .45 calibre. Most importantly, the new revisions to the *1996 Firearm Agreement* strictly prohibited public ownership of any handgun with a shot or magazine capacity of greater than 10 rounds.

The general intent of these legislative approaches to firearms has been to prevent those with criminal intentions, criminal histories, a mental illness, or youth from acquiring and using firearms. As will be discussed later in this report, there are still a variety of methods criminals utilize to gain access to firearms. However, before addressing that concern, it is important to review the general effect that these legislative approaches have had on firearms-related activities.

The Effect of Firearms Legislation on Crime

In terms of thinking about the relationship between firearms and crime, there are three basic hypotheses. The first hypothesis is that the absence or presence of a firearm has no effect on the

probability that a violent crime will occur. The second view is that the presence of firearms increases the risk of a violent crime being committed, while the third view is that the presence of firearms actually reduces the risk of both general and violent crime. The theoretical basis for each of these hypotheses are well established in criminology. For example, in suggesting that the presence of a firearm has no effect on the risk of a violent crime, Wolfgang (1958) argued that the degree of harm inflicted on a victim was based on the intention of the offender. In other words, the more harm an offender wished to cause to a victim, the more lethal the weapon would be that the offender selected. In this way, the accessibility of a firearm does not alter the risk of a violent crime (Hoskin, 2011).

To the second hypothesis that the presence of firearms increases the risk for violent crimes, Zimring (1968) argued that many offences are spontaneous and do not involve a large degree of planning. In these situations, the presence of a firearm might result in someone being killed where they would have either not been injured at all or injured to a lesser degree had a firearm not been present. In addition, firearms allow people to hurt or kill each other at range, which is one of the unique qualities of a firearm. In other words, in a situation where a victim might have had an opportunity to run away and escape injury, a firearm could still kill or injure a fleeing victim, thus the presence of a firearm increases the risk of serious injury or death in any criminal action. Kleck (1991) also argued that firearms can also have the effect of empowering a person that might allow them to commit an offence that they would not have otherwise without the presence of a firearm.

The third hypothesis draws on deterrence theory, rational choice theory, and routine activities theory. This hypothesis posits that some offenders are deterred from certain types of crimes, such as robbery or break and enter, because they fear the possibility that those they may victimize might possess a firearm and use it against them (Wright & Rossi, 1986). In terms of rational choice theory, this perspective posits that offenders weight the costs and benefits of engaging in an offence and select targets and crimes that maximize benefits, while minimizing risk (Becker, 1968). In effect, offenders seek out vulnerable victims and those targets that are least likely to put up a fight or resist. The presence of firearms increases the risk for offenders, thus reduces their likelihood of engaging in a personal offence (Hoskin, 2011). A similar conclusion is reached by proponents of routine activity theory. This theory argues that crime occurs when there is a meeting in time and space between a motivated offender, a suitable target, and a lack of guardianship (Cohen & Felson, 1979). Guardianship was defined as any security measure aimed at decreasing victimization, such as people or objects capable of preventing crime, including firearms. As such, routine activity theory contends that the real or perceived presence of firearms should reduce the amount of crime. These theories will be explored further by considering their relationship to the empirical evidence on firearms-related crime and activities.

HOMICIDE

As mentioned above, the per capita rate of gun ownership in the United States is much larger than in Canada, and one piece of evidence suggesting that there is a relationship between the presence of firearms and violence, in particular homicide, is the findings that for every Canadian shot with a gun, 50 Americans are intentionally killed by a firearm (Kozuskanich, 2015). In effect, the rate of

gun-related deaths in the United States is approximately seven times higher than in Canada (Dinshaw, 2015). According to Statistics Canada, in 2012, there were 8,813 murders in the United States involving the use of a firearm. In Canada, there were 172 firearm-related homicides. Another indicator of the role of firearms in violent crime is to consider mass murders or the killing of four or more people in a single location in a single event. In the past 30 years, the United States has had more than 70 mass murder with 33 occurring between 2006 and 2014. Since 1984, Canada has had eight gun-related mass murders with only two of them occurring between 2006 and 2014 (Kozuskanich, 2015).

According to Statistics Canada (2015), in 2014, 31% of all homicides in Canada were committed with a firearm, of which 67% involved a handgun. The number of firearm-related homicides in Canada increased from the previous year from 135 in 2013 to 156 in 2014 (Statistics Canada, 2015). Correspondingly, the firearm homicide rate increased from 0.38 per 100,000 in 2013 to 0.44 per 100,000 in 2014; an increase of 14% (Statistics Canada, 2015). Importantly, even with this slight increase, Statistics Canada (2015) reported that the firearm homicide rate in 2014 was the second lowest since 1974. In the same year, the American rate of firearm-related homicide was 3.4 per 100,000 (Centre for Disease Control, 2015).

There have been a number of studies on the effect of an increased or decreased presence of firearms on violent crime, especially homicide and robbery. In Canada, Mauser and Maki (2003) reported on five studies that examined the effect of Bill C-51 on homicide. Each of these studies used slightly different methodologies and analyses, although they each examined homicide rates with a firearm before and after the implementation of Bill C-51. In considering the conclusions of these five studies, three did not find a statistically significant effect of the legislation on homicide, while the other two studies did (Mauser & Maki, 2003). Similar findings were found by Langmann (2012) who used three distinct methodologies to analyse the effect of gun control legislation on the homicide rate in Canada.

Lester (2000) also hypothesized that the more available firearms were, the more likely that firearms would be used for homicide. In order to test this hypothesis, Lester measured the availability of firearms through the number of accidental firearm deaths and the average of the percentages of homicides using firearms. He found that firearm availability was positively associated with the firearm homicide rate. In effect, this study and another one by Bridges and Kunselman (2004), which found similar results, contended that one of the benefits of Bill C-68 was that it reduced the number of firearms in circulation, which had the effect that it was less common for homicides to involve the use of a firearm.

Focusing on the requirement in 1995 in Canada to register long guns, Stenning (2003) argued that the decline in firearm-related homicides in the latter part of the 1990s was a reflection of the general decline in overall crime in Canada and not this aspect of the 1995 gun control legislation. However, Stenning does concede that it is possible that other aspects of Bill C-68, such as the safe storage requirements and the introduction of mandatory safety courses and training, may have contributed, in part, to the reduction in firearm-related homicides in Canada (Stenning, 2003).

As expected, one of the leading explanations for the findings that Canadian legislation has not had a substantial effect on homicide rates is that the regulations target those who are most likely to

obtain a firearm legally. In other words, the law disproportionately affects people who were already at a very low risk for criminality. This is supported by the finding that more than 80% of firearm homicides in Canada are committed by persons using illicitly owned firearms (Dauvergne & De Socio, 2008; McPhedran, Baker, & Singh, 2011). As will be discussed in greater detail below, criminals are more likely to buy, trade, or lend firearms from each other or from those they know well, thus increasing the burden to obtain a firearm legally does not limit or deter their ability to get a gun.

Still, a comparison of these trends with those in the United States suggests that the Canadian firearms legislation likely reduced, at least, some portion of the violent crime rate, given that it restricts easy access to firearms. In contrast, to the Canadian trends, in one 14-month period, between July 2012 and September 2013, the United States suffered three separate mass shooting incidents, resulting in 72 people being killed, including 20 children, as well as dozens being wounded (Hirsch, 2015). It has also been estimated that firearm deaths in the United States total more than 30,000 people per year, when combining homicide, suicide, and accidental death. Further, in 2007, firearms were used to commit nearly 400,000 crimes in the United States, as well as 11,493 firearm-related homicides, which accounted for slightly more than 68% of all homicides (Hirsch, 2015). Cook, Harris, Ludwig, and Pollack (2015) estimated that gun violence in the United States costs more than \$100 billion US each year, and argued that gun violence tends to occur most often in poor, urban neighborhoods, where the homicide rate can be as high as 90 per 100,000 people. They attribute part of this exceedingly high murder rate to the greater availability of firearms in the United States. Although many violent crimes occur at similar rates to those seen in other industrialized nations, the United States' firearm-related homicide rate is 30 to 40 times higher than most other countries (Cook et al., 2015). For example, as mentioned above, in 2014, the firearm-related homicide rate in Canada was 0.44, in the United Kingdom it was 0.06, but it was 3.43 in the United States.

Based on the research conducted in the United States, the general consensus is that the findings are somewhat mixed on the relationship between the number of firearms and gun-related homicide crime rates (Hoskin, 2011). Hoskin (2011) tested the various hypotheses outlined above with respect to homicide and armed robbery by measuring gun ownership, controlling for 11 related variables, and examining the relationship between gun ownership and homicide and armed robbery rates in 120 of the most populous counties in the United States. Hoskin (2011) found a positive relationship between household gun ownership rates and homicide, which was consistent with a number of previous studies (see Azrael et al., 2004; Duggan, 2001; Hoskin, 1999, 2001; McDowall, 1991; Miller et al., 2002), but found that there was no relationship between household gun ownership rates and robbery rates, which was also consistent with previous research (see Cook, 1979; Killias et al., 2001; Kleck & Patterson, 1993; Lott, 2000; McDowall, 1986; Murray, 1975; Southwick, 1997). Given the results, Hoskin (2011) concluded that there was the most support for the notion that more guns meant more violent crime, particularly homicide and aggravated assault, but, unlike the findings from some of the research in Canada, not robbery. Hoskin (2011) concluded that there was no support for the notion that the availability of firearms is not related to violent crime, nor was there any support for the hypothesis that an increased level of firearms in a community served as a deterrent to criminals.

The academic research that has been produced since the major legal changes in Australia has shown mostly positive results, although few peer-reviewed academic papers have been published on the topic (Chapman et al., 2006). Many of these papers point out that, prior to the legal changes made in 1996, Australia had 13 mass shootings in 18 years, and for a period of nearly 20 years after the 1996 legal changes, had zero mass shootings (the first mass shooting since 1996 occurred in Lockhart, New South Wales, in 2014) (Ozanne-Smith, 2004; Chapman et al., 2006). That being said, some authors have more recently questioned the ability to link the firearm related crime reduction seen in the past 20 years in Australia to the legal changes made in 1996 and 2002, and have pointed out limitations to the statistical methods used in much of the available research (Baker & McPhedran, 2007; Neill & Leigh, 2007). However, it should also be pointed out that these studies, which argued that the legal changes made in 1996 and 2002 had little or no effect in the homicide or suicide rate, have been heavily criticized due to their methodology (Neill & Leigh, 2007; Alpers, 2013).

Prior to the *1996 Firearm Agreement*, in 1988, the Australian Institute of Criminology (AIC) reported that more than one-third of all murders reported to police in Australia were committed with a firearm, and further, stated that gunshot wounds were the single most common cause of death among homicide victims (Australian Institute of Criminology, 1988). Further, the AIC (1988) stated that death rates for violent incidents involving a gun were several times higher than violent incidents involving a knife or other weapon. They also concluded that the most common method of suicide in Australia between 1968 and 1981 was with the use of a firearm (Australian Institute of Criminology, 1988). Following the 1996 Agreement, the AIC reported in 2003 that firearm related deaths, from homicide, suicide, or accident, fell by nearly 50%, from 629 in 1991 to 333 in 2001 (Australian Institute of Criminology, 2003). In a 2008 report, the Australian Institute for Criminology reported that the use of firearms in a homicide had substantially declined as well, showing that in 1989-1990, 24% of homicide victims were killed by firearms, while 13 years later, between 2006 and 2007, just 12% of homicide victims were killed by firearms (Australian Institute of Criminology, 2008).

The firearm-related death rate (homicide, suicide, and accident) in Australia was fairly stable between 1979 and 1987, with rates typically fluctuating around four to five per 100,000 population (5.1 in 1979 and of 4.9 in 1987). Ozanne-Smith et al. (2004) noted a statistically significant 17% decline in firearm related deaths following the 1988 legal changes in Victoria following the Hoddle and Queen Street shootings between 1988 and 1996. The rate after the 1996 legislative changes continued the same downward trend, and, by 2000, the rate was 1.8 per 100,000 population, representing a decrease of nearly 65% since the 1979 rate. Comparatively, the firearm related death rate in Canada in 1999 was 3.3 per 100,000 (Ozanne-Smith et al., 2004).

Research by Neill and Leigh in 2007 found that, across Australia, the rate of firearm-related homicides declined between 1995 and 2006 from a rate of 0.37 per 100,000 in 1996 to 0.15 in 2006. This represents a 59% decrease, and when considering the Australian population was approximately 20 million people, this decline contributed to an estimated 40 fewer firearm-related murders each year. Chapman et al. (2006) reached a similar conclusion, but noted that the declines in firearm-related murders had been occurring prior to the *1996 Firearms Agreement*. However, the authors stated that the declines after the legal changes were nearly double that of the declines seen

prior to the implementation of the *1996 Firearms Agreement*. Further, Chapman et al. (2006) concluded that there was no evidence that weapons other than firearms, such as knives or blunt objects, had replaced firearms. Recently, Alpers (2013) stated that in 1996, 69 people died from firearm-related homicides, while in 2012, this number fell to just 20 individuals. Research by Taylor and Li (2015) also found evidence that the reformed gun control laws substantially reduced the number of armed robberies and attempted murder offences. It should be noted that, due to the small number of firearm-related homicides each year, it is difficult to directly attribute the declines in firearm related murder and suicide to the National Firearm Act of 1996 (Neill & Leigh, 2007; Chapman & Alpers, 2013). However, Chapman and Alpers (2013) pointed out that, as of 2013, no peer-reviewed research has provided any reasonable cause other than the changes made in the National Firearm Act that could account for the rapid decline in firearm related murder and suicide in Australia since 1996.

More recent research by Alpers (2013) found that, although gun ownership in Australia is still as high as it was prior to the Port Arthur massacre, most of the guns being imported and sold in the country are not military-style semiautomatic rifles and handguns, which, under the *1996 Firearms Agreement*, are very difficult to import. Further, he went on to argue that there is little evidence to suggest that illegally imported weapons are a significant issue in Australia, and instead, posited that the largest problem faced by law enforcement was criminals obtaining legal firearms that had been lost or stolen from the licenced owner. In regards to stolen firearms, the Australian Institute of Criminology (2008) estimated that around 1,500 firearms were stolen each year from licenced owners, with the majority being long-arms, and 40% of owners who had firearms stolen were not in compliance with storage laws. While there has been little research determining what percentages of those stolen firearms were used in a crime, one study found that only two murders were linked to a stolen firearm in Australia (McPhedran, Baker, & Singh, 2011). However, it was also shown that upwards of 90% of firearm-related murders in Australia were committed using an illegally obtained firearm, although it was not specific in explaining how they were illegally obtained (McPhedran, Baker, & Singh, 2011).

DOMESTIC VIOLENCE

In Canada, with respect to fatal domestic violence incidents, in 2006, 21% of all homicides were intimate partner homicides (Snider et al., 2009). And, while it was already rare for spousal violence in Canada to involve the use of a firearm (Langmann, 2012), after the introduction of Bill C-68, spousal homicide using a firearm further decreased by 36%. This finding suggests that stricter gun control laws had an effect in reducing the number of domestic violence murders, primarily against female victims. However, research examining female domestic firearm homicide victimization rates in the years before and after the introduction of gun control legislation in Canada suggested that there was little support for the conclusion that the introduction of Canadian's various pieces of gun control legislation was responsible for reductions in firearm-related domestic homicide, with the possible exception of Bill C-51, as decreases in this type of offence tended to occur before the gun control legislation came into effect (McPhedran & Mauser, 2013). One of the reasons why it was felt that there would have been a stronger relationship between the introduction of stricter gun control measures and a decrease in domestic violence homicides involving a firearm was the inclusion of

more thorough background checks. A longstanding principle in social science is that past behaviour is one of the best predictors of future behaviour. Given this, criminal background checks of those wanting to obtain a firearm should make it harder for those with a documented history of domestic violence to legally obtain a firearm, thus reducing the occurrence of firearm-related domestic homicide. However, the empirical research does not seem to support this view as legislation requiring mandatory criminal background checks did not significantly reduce the rate of firearm-related domestic violence homicides (McPhedran & Mauser, 2013). Of note, it is important to keep in mind that a large proportion of domestic violence homicides are perpetrated in couples where the police have not had any prior involvement.

ROBBERY

According to Sheptycki (2009), between 1976 and 2006, 50% of all gun related offences were robberies. Mauser and Maki (2003) examined the effect of Bill C-51 on robberies using a firearm and armed robberies. These researchers found that in the years following the implementation of Bill C-51 robberies using firearms and armed robberies actually increased. In effect, Mauser and Maki (2003) argued that Bill C-51 disarmed law-abiding people, but not the criminals. As the law made it more difficult to legally obtain a firearm and banned certain types of firearms, it did not have the intended effect of reducing the availability of firearms to criminals who typically do not seek to obtain a gun legally. Mauser and Maki (2003) supported this claim by pointing out that there were a number of studies from Canada, the United States, and the United Kingdom that demonstrated that a large proportion of the firearms used by criminals, especially armed robbers, were not obtained legally nor stolen from legal owners. Instead, firearms were purchased on the black market, or obtained from friends, family members, or acquaintances. Mauser and Maki (2003) posited that Bill C-51 reduced the deterrent effect on robbers by eliminating or reducing the number of handguns in businesses and homes, and by removing protection of property as a lawful basis for owning a handgun. In effect, the combination of having fewer businesses in possession of a handgun and not disarming criminals may help explain why robberies with a firearm and armed robberies increased in the years following the implementation of Bill C-51.

GANGS

As mentioned above, much of the concern around firearms in the Lower Mainland District and in other parts of the province, particularly on the part of the public, is related to gang violence. In 2007, 117 homicides were reported by police as being gang-related; this dropped to 84 homicides in 2014 (Statistics Canada, 2015). In fact, while the raw number of gang-related homicides that involved a firearm has dropped since its peak in 2008 through to 2014, the proportion of gang-related homicides that involved a firearm increased from 2007 (69 per cent) to 2014 (76 per cent). It is clear that there remains a relationship between the illicit drug trade, gangs, and firearm homicide in Canada (McPhedran, Baker, & Singh, 2011).

While it is beyond the scope of this review to detail the history of gang violence in Canada, it is important to note that research has demonstrated that the use of firearms in criminal activity, even

serious criminal activity, is somewhat sporadic or episodic, rather than commonplace, even when gangs or organized crime are involved (Desroches, 2005). Sheptycki's (2009) research does speak to the recent increase in firearm-related crimes associated with street criminals and within some economically disadvantaged, ethnic minority communities in Canada, and points to the finding that a growing proportion of gun violence is being committed by youth in their late teens and early 20s. The growing concern is that gang responses to minor transgressions or challenges to their drug market share were traditionally responded to by assaults; however, increasingly these actions are being responded to with firearms (Department of Justice, 2015). The suggestion is that younger gang members and criminals are gaining experience and knowledge of firearms (Sheptycki, 2009).

Research by Cook et al. (2015) attempted to trace the source of guns used by gang members in Chicago, which were subsequently confiscated by police over a five year period. This study concluded that guns were difficult to purchase on the underground market, and were far more expensive than anticipated. In fact, the majority of guns confiscated by police from gang members were quite old; often more than 10 years, and had been bought and sold many times during their lifespan. It is possible that the old age of the guns being used could be attributed to the success of legal restrictions, as well as police efforts to reduce access to firearms. While difficult to prove, the authors suspected that many of the newer guns confiscated from gang members, upwards of 15%, were purchased legally through 'straw buyers', such as a girlfriend or a wife, who then passed the gun on to someone who was prohibited from owning a firearm (Cook et al., 2015). However, the authors noted that there was no way to tell if the straw buyer purchased the gun with the intent to give it to a gang member, nor is there any way to tell if the seller or dealer knew that it was a straw purchase.

SUICIDE

According to Snider et al. (2009), suicide is the second most common cause of death for Canadians between 10 to 34 years of age. In 2011, Statistics Canada reported that, for those 24 years old or younger, suicide was the second leading cause of death followed by an unintentional accident. For those between 25 and 44 years old, suicide was the third leading cause of death behind accidents and cancer. Of the 40,088 death in 2011 in Canada for those between 45 and 64 years of age, only 4% were attributed to a suicide (Statistics Canada, 2015). As expected, the chance of a successful suicide attempt is greatly increased when a firearm is used. For example, nearly all suicide attempts with a firearm (96 per cent) result in the individual dying compared to just 6.5% of overdose suicide attempts (Snider et al., 2009).

Research has consistently concluded that there is an increased risk of a successful suicide when a firearm is present in the home (Snider et al., 2009). For example, Snider et al. (2009) presented the findings of a study from the United States in which suicide rates were compared to gun ownership rates over a 22 year period. In this study by Miller et al. (2006), for every 10% decrease in gun ownership, there was a corresponding 4.2% decrease in suicides by firearm and a 2.5% decrease in suicides overall. This effect was even more pronounced for those under the age of 19 years old (Snider et al., 2009). In Canada, when examining the relationship between firearm-related suicides and the implementation of Bill C-17 and Bill C-68, Snider et al. (2009) concluded there was a

reduction of 43% in firearm-related suicides after the implementation of Bill C-17 and another 23% decline after the introduction of Bill C-68.

However, other researchers have argued that, while the reductions in suicide after the introduction of stricter gun control legislation was real, the downward trend was not statistically significant after the implementation of the legislation when compared to the pre-existing downward trend that precipitated the period before the legislation (Caron et al., 2008). In effect, this research argues that the slope of the decline was not significantly larger after the introduction of either Bill C-17 or Bill C-68 because other means of committing suicide, such as by hanging, especially among males, simply replaced firearms. In other words, rather than having a significant effect on reducing suicides overall, the introduction of stricter gun control legislation simply forced people to find an alternative means to commit suicide. In effect, while the presence of a firearm in the home increased the risk of firearm-related suicide, it did not increase the overall risk of suicide (Caron et al., 2008).

Research conducted by Lester (2000) and Bridges and Kunselman (2004) examining the effect of firearm availability on suicide, concluded that, as a result of the reduction of firearms because of the implementation of stiffer gun control, the use of firearms in suicides declined after 1995. Again, these studies also identified that overall suicide rates did not decline substantially, just the use of firearms in suicide, suggesting additional support for the substitution hypothesis.

One of the important contributions of Bill C-17 and Bill C-68 are the provisions associated to the safe storage and transportation of firearms. It was hypothesized that the adoption of these measures by the firearm owning public would have a positive effect on the rate of suicides by firearms. Caron, Julien, and Huang (2008) studied the compliance rate with the safe storage regulations and its relationship to firearms-related suicides. They concluded that, although compliance with the safe storage regulations was high, it did not appear to reduce overall suicide rates. Instead, their findings tended to support the substitution hypothesis that safe storage practices simply resulted in people using other methods to commit suicide, rather than preventing the suicide attempt. Of course, one could argue that this was still a positive outcome because the survival rate of a suicide attempt with a firearm is significantly less than suicide attempts using other methods (Caron et al., 2008). In other research, Snider et al. (2009) concluded that safe storage regulations can protect children and adolescents from both suicide and accidental injury. Again, like much of the empirical research on firearms, there is a lack of consensus on the degree to which compliance with safe storage regulations decreases firearm-related suicide rates.

Research by Neill and Leigh (2007) found that, across Australia, the rate of firearm-related suicide declined between 1995 and 2006 by 65%, and based on the population of Australia at that time, the estimates are that the legislation contributed to an estimated 300 fewer firearm-related suicides each year. Chapman et al. (2006) reached a similar conclusion and noted that the declines in firearm-related suicides had been occurring prior to the *1996 Firearms Agreement*, but, similar to firearms-related homicides in Australia, the declines after the legal changes were nearly double that of the declines seen prior to the implementation of the *1996 Firearms Agreement*.

THE EFFECT OF FIREARM-RELATED LEGISLATION ON GUN VIOLENCE IN THE UNITED STATES

Hahn et al. (2003) examined the empirical evidence from the United States on specific elements of various pieces of gun control legislation to understand their effect on violence. As mentioned above, while the gun culture in the United States, and the sheer volume of firearms in the United States compared to Canada makes direct comparisons difficult, there may be some lessons learned that can be applied to the Canadian experience. To begin, Hahn et al. (2003) found six studies that examined the relationship between bans on specific types of firearms and ammunition on crime. The researchers found that the results from these studies were inconsistent as some studies found a positive relationship between reducing the availability of certain firearms and ammunition and decreases in firearm-related violence, while other studies found that crime increased after firearm bans were put in place.

Hahn et al. (2003) found four studies that examined the relationship between restrictions on who could acquire firearms and violence. These studies considered the effect of legislation, such as the *Brady Handgun Violence Prevention Act*, that prohibited persons defined as high risk to harm themselves or others, those with criminal histories, illegal immigrants, those with a mental illness, and youth from acquiring a firearm on rates of violence. As a result of a number of methodological problems that plagued these studies, the small number of studies, and inconsistent conclusions across these studies, Hahn et al. (2003) resolved that there was insufficient evidence to support or refute the effectiveness of restrictions on firearm acquisition on reducing gun-related violence.

One of the leading theories of crime is known as the general theory of crime. Originally developed by Hirschi and Gottfredson (1990), at its core, this theory argues that a leading cause of crime is a lack of self-control. The theory is an attempt to explain why there is a consistent positive correlation in crime research between age and crime. Given the implications of this theory, it would appear that waiting periods for firearm acquisition would result in a reduction in firearm-related violence. In reviewing seven studies that examined this effect, Hahn et al. (2003), once again, discovered that some studies found a positive association, while others did not. It should be noted that where a positive effect was found, it was related to a reduction in suicide among adults over 55 years old.

Of note, at the national level in the United States, the Firearm Ownership Protection Act (1986) precludes the federal government from establishing and maintaining a registry of firearms and their owners. Given that, it was not surprising that Hahn et al. (2003) only found four studies that examined the registration of firearms. The findings from these four studies were inconsistent, therefore, Hahn et al. (2003) could not reach any conclusions on the effect of gun registry on violence in the United States.

Another intervention that could limit the availability of illegal firearms is background screening laws. Wellford et al. (2005) used the example of the *Brady Handgun Violence Prevention Act* as an example of a background screening program that required any person purchasing a firearm to have a background check, along with a one week waiting period, before taking possession of their new

firearm. The main goal of laws requiring background checks for the purchase of a firearm are to prevent prohibited individuals from buying firearms, as well as limiting the availability of firearms for convicted offenders, individuals with drug addiction or mental health issues, individuals with a history of domestic violence, or individuals under the legal age limit (Wellford et al., 2005). The implementation of the *Brady Handgun Violence Prevention Act* led to more than 38 million background checks for firearms purchased in the United States between 1994 and 2001, and of those checks, over 800,000, or 2.2% of applicants, were rejected (Wellford et al., 2005). The reasons for rejections included: an applicant with a felony conviction (58 per cent), an applicant with a history of domestic violence (14 per cent), an individual who was a fugitive from the law (6 per cent), or an applicant who was disqualified for reasons of addiction or mental health issues (16 per cent). Supporters of the *Brady Handgun Violence Prevention Act*, and screening programs in general, argued that, due to the more than 800,000 individuals prevented from purchasing firearms through the screening process, not only should the Act be seen as a success, but believed it should be expanded to prevent a wider number of at-risk individuals from obtaining firearms. Examples of possible expansions to the bill included any individual who had been arrested, but not convicted of a felony offence, as well as any individual who had been convicted of a misdemeanor offence (Wellford et al., 2005). However, opponents to the *Brady Handgun Violence Prevention Act* pointed out that, when comparing the 32 American states with screening requirements to the 19 states without screening requirements, researchers failed to find any difference in homicide or suicide rates related to firearms, which they felt demonstrated the ineffectiveness of the screening process. Wellford et al. (2005) pointed out that similar to other intervention methods, screening programs are easily undermined by the unregulated secondary market, where offenders could easily purchase a firearm that they might otherwise not be able to purchase on the legal market. This, they felt, was the likely reason for the lack of difference between firearm related murder or suicide in states with or without screening laws. In terms of requiring an individual to obtain a licence or permit to purchase a firearms, Hahn et al. (2003) found five studies that looked at the effect of this policy on gun violence. Again, the evidence supporting these types of policies were inconsistent to such a degree that no conclusions could be drawn.

Several states in the U.S. have attempted to intervene in the illegal firearm market by passing laws limiting the number of firearms that can be purchased by a single individual at one time. Specifically, these types of laws attempt to limit straw purchasers, who may buy multiple guns from a licenced dealer, only to turn around and sell those guns to prohibited individuals. These laws are often based on research showing that firearms purchased in a multiple sale (more than one firearm purchased at once) are more likely to be used in a criminal offence later (Wellford et al., 2005). It is believed that, if an individual could only purchase one firearm over a designated period of time, it might limit the effectiveness of straw purchases and lead to fewer illegal guns on the black market. However, this type of intervention can only work if the secondary market is more controlled. If an offender can simply buy a second-hand firearm from a classified ad without any check, these types of interventions are unlikely to have any major effect. The state of Virginia implemented single purchase laws in an attempt to limit the number of firearms purchased in Virginia being used in crimes in neighboring states, particularly in Boston and New York City. The new law stated that only one handgun could be purchased every 30 days, and, within a two year period, research

showed that far fewer firearms purchased in Virginia were being used in Boston and New York crimes (Wellford et al., 2005).

Obtaining Illegal Firearms

In an analysis of how offenders obtained firearms, Wellford et al. (2005) outlined the two major markets; the primary (legal) market and the secondary (unregulated) market, and also discussed the theft of firearms. In the United States, the primary market consists of Federal Firearms License (FFL's) who are individuals or businesses holding a license allowing them to engage in firearms-related business, such as buying or selling firearms. Retail stores in the United States often sell new firearms, as well as buy and sell second hand firearms, and are required by law to record the identification of anyone purchasing a firearm. Further, registered FFL's are required to perform a basic criminal background check on any purchaser and maintain records of all purchases made. At any point, if requested by the Bureau of Alcohol, Tobacco, and Firearms (ATF), records must be handed over to law enforcement.

Retailers are not the only sellers of firearms in the United States. Private sales can be made in the secondary market and carry far fewer requirements from the seller. Private owners can advertise firearms sales through the internet, magazines or newspapers, or through different firearms trade shows. When a private individual sells a firearm to another private individual, the seller is not required to record the personal information of the buyer, nor are they required to carry out a criminal record check. This secondary market is substantial and Wellford et al. (2005) estimated that about two million private transactions take place each year, and often include the sale of multiple firearms at one time. In fact, this secondary market of private sellers' accounts for about 30-40% of all gun sales in the United States in any given year.

The final method through which an offender might obtain a firearm, other than the primary or secondary market, is through theft or other illegal methods. Typically, this approach is used by individuals that are prohibited from purchasing firearms, forcing them to use alternative methods outside of the formal primary or secondary markets. It has been estimated that around 500,000 firearms are stolen each year in the United States from a variety of sources, including private homes, manufacturers, importers, distributors, and local businesses (Wellford et al., 2005). Alternatively, an individual who is prohibited from purchasing a firearm, or is simply too young to purchase a firearm can attempt to either have a friend or family member purchase a firearm for them, which is often referred to as 'straw purchases', or could attempt to use false identification, described as 'lying and buying'. It is also possible that, in some cases, the individual selling the firearm is knowingly involved in this process, and could possibly forge records or later report the gun as stolen (Wellford et al., 2005).

Research has shown that offenders obtain their firearms from a variety of sources, through both legal and illegal channels (Wellford et al., 2005). It is also common for offenders to borrow or trade for firearms that they could then sell shortly after. In particular, Wellford et al. (2005) identified that it is very common for young offenders to be very active in the unregulated secondary market as both buyers and sellers of illegal firearms, through various friends or associates on the streets. Most commonly, in the United States, offenders got their firearms through non-retail sources on the

secondary market, likely due to the highly unregulated nature of person-to-person sales. In fact, only 21% of convicted offenders in the United States stated that they legally purchased the firearm they used in their offence. Instead, most identified that they obtained the firearm used from a friend or family member (44% of the time), or purchased it on the black market (26% of the time). It was also not uncommon for convicted offenders to admit that the firearm they used was stolen (32% of the time), as opposed to purchased (43% of the time), or borrowed (25% of the time). Typically, firearms used in a crime came from within the state, and were not imported from another neighboring state (Wellford et al., 2005).

While the authors assumed that the cost of an illegal firearm is related to the current demand on the street (supply and demand), there is no research regarding the specifics of cost and how it relates to demand in regards to illegal firearms (Wellford et al., 2005). They posited that making legal firearms more difficult to obtain, through policy and law, would make purchasing an illegal firearm more difficult. For example, if the punishment for breaking into a home and stealing a firearm was enhanced, it could lead to fewer thefts of firearms, and along with it, fewer firearms for sale on the street. This could also lead to an increase in price for illegal firearms available for sale on the black market due to less supply (Wellford et al., 2005). This could apply to straw purchasers and 'lying and buying' as well; if these offences were more difficult to carry out, or carried harsher penalties, it could lead to fewer individuals obtaining firearms through these methods, and fewer illegal firearms ending up in offenders hands.

Finally, the authors pointed out that gun shows are another channel for offenders to obtain an illegal firearm. Firearms are commonly sold at gun shows, both new and used, by both private individuals and retail vendors. In fact, in 1996, it was estimated that nearly 4% of all firearms, and 4.5% of handguns specifically, were purchased at gun shows in the United States. There is no specific research that has investigated what percentage of firearms used in crimes were purchased at a gun show (Wellford et al., 2005).

In considering the data on the illegal importation of firearms into Canada or the illicit gun market, it is important to remember that smuggled firearms qualify as crime guns simply by being illegally imported, regardless of whether the gun is ever used in the commission of another offence (Canadian Firearms Program, 2013). However, a domestically-sourced gun has to be associated to an offence for it to qualify as a crime gun. Given this, it is likely that the percentage of smuggled guns used in crime is lower than reported because a smuggled gun is defined as a crime gun regardless of whether it is used in another offence. For example, an American who legally owns a gun and brings to over the border without completing the necessary paperwork by mistake, with no intention to use the gun in an offence, will have their gun seized and, if reported, will have that gun count in the data as a smuggled crime gun.

Due to the strict gun control regulations in Canada, on both the manufacturing and acquisition of firearms, gun trafficking can be profitable. In particular, the United States is a relatively low-cost supplier of firearms. In 2006, in the United States, approximately 3.7 million firearms were produced, and 10% were legally exported (Cook, Cukier, & Krause, 2009). However, there is very little empirical research on the illegal firearms trade between Canada and the United States. As discussed above, in the United States, for the most part, rifles and shotguns may be purchased directly from licenced dealers in unlimited quantities in most states, handguns may be purchased in

unlimited quantities within one's state of residence, and ammunition purchases are unregulated by the federal government and in most states (Cook, Cukier, & Krause, 2009). Because many American states do not require gun owners to notify the authorities when a gun is sold or given away, trace results are often not useful because the results commonly identify an earlier owner who has no connection to the person who currently possesses the firearm (Canadian Firearms Program, 2013). Similar to Canada, in some cases, licenced dealers know that purchases are intended for illicit transfer. Moreover, firearms can be acquired at gun shows, which are pervasive in the United States, and allow individuals to sell guns without conducting a proper background check on the purchaser (Cook, Cukier, & Krause, 2009; Canadian Firearms Program, 2013). All of this contributes to the flow of illicit firearms into Canada.

Research has suggested that the main sources for illegal firearms are friends, family members, contacts, gun show dealers, straw purchasers, and street dealers (Morselli et al., 2010; Wright & Rossi, 1994, Morselli & Blais, 2014; Wintemute, 2002). As mentioned above, although there is some compelling research from the United States to suggest that a large proportion of crime guns come from thefts from private residences (Pierce et al., 2004; Wright & Rossi, 1994; Sheley & Wright, 1995), according to Wintemute (2002), these findings are overestimated, and the types of guns typically stolen from residences are not the types of firearms desired by criminals. In fact, some research indicates that rather than a large illegal market, jurisdictions may only have a small number of prolific licenced dealers who engage in the illegal sale of firearms (Morselli & Blais, 2014; Braga & Kennedy, 2001). In one study, Braga and Kennedy (2001) found that approximately 51% of guns recovered as part of a number of investigations by the ATF in the United States from 1996 to 1998 were acquired through a straw purchaser, 13.6% were stolen from a private residence, and only 6% were from a licenced dealer.

Given the resource challenges associated with tracing the origins of every firearm seized by the police or turned into the police, it is not possible to determine with any degree of certainty the percentage of crime guns in Canada that have been illegally exported from the United States. For example, the RCMP reported that their firearms tracing unit does approximately 3,500 traces per year. For context, in 2009, the RCMP reported that they seized approximately 14,000 firearms (RCMP, 2010). In this report, the RCMP contended that based on the traces they were able to complete, they determined that a high percentage of crime guns are smuggled into the country from the United States. This conclusion was also supported by Cook et al. (2009), who argued that there is some evidence to support the contention that the proportion of crime guns in Canada that originate from the United States was high.

In a comprehensive study of the sources of crime guns in Canada, the Toronto Metropolitan Police in 2006 reported on the characteristics of the firearms they recovered. In total, information was provided on 1,528 firearms, of which 54.4% were connected in some way to criminal activity (Cook, Cukier, & Krause, 2009). Moreover, of the 327 crime-related handguns recovered, 36.7% were traced to the United States (Cook, Cukier, & Krause, 2009).

Similarly, in 2007, Ontario's Firearms Tracing and Enforcement Program (FATE) traced 705 crime guns, of which 90% were prohibited or restricted. In this sample, 69% were traced to the United States (Heemskerk & Davies, 2008). Moreover, according to the Annual Report (2007) of the Tactical Analysis Unit, part of the Firearms Support Services Directorate of the Canadian Firearms

Program, 5,616 firearms were seized in 2007. Of these, slightly more than half were crime guns, the majority of those guns were handguns, and of the 12.6% of the seized guns in which the source of the firearm was known, 54.4% were smuggled from the United States (Heemskerk & Davies, 2008).

In another study examining 1,929 guns seized by the police in Quebec between 2010 and 2011, 86% of the firearms were crime guns and 65% were handguns (Morselli & Blais, 2014). Importantly, of the 1,595 firearms where information about where the gun originated was available, 84% were from the United States, while only 16.7% were sourced from Canada (Morselli & Blais, 2014). Morselli (2002) interviewed a number of inmates in Montreal, Quebec to better understand how offenders obtained firearms. He concluded that those involved in gangs and the drug trade had easy access to firearms and that the main sources of these guns were personal contacts or street sources. In effect, Morselli concluded that there was little need to break into a private residence in the hopes of stealing a firearm because they were readily available on the streets (Morselli, 2002). The common way of obtaining a firearm was to simply pay for it from an acquaintance, friend, or family member. It was also possible to trade goods, such as drugs, for a gun. In other cases, inmates reported being able to borrow a gun, especially from someone they knew (Morselli, 2002). As Morselli concludes, firearm legislation is designed to prevent certain people from securing a firearm through legal channels; however, preventing these type of people from obtaining a gun from a family member, friend, acquaintance, or indirectly connected strangers is extremely difficult.

Conversely, in the 2013 annual report by the Firearms Investigative and Enforcement Services Directorate (FIEDS), they concluded that of the 1,379 crime guns recovered in the Western Region of Canada, tracing determined that only 46% were smuggled (Canadian Firearms Program, 2013). Moreover, they argued that there were a large number of crime guns that could not be sourced, but if those were added to the data, 61% of the crime guns were likely domestic firearms. In addition, it was suggested that if the large number of guns that were not traced because they were non-restricted firearms, were included in the data, it is possible that as little as 23% of all crime guns seized in 2013 in the Western Region were illegally imported (Canadian Firearms Program, 2013). Similar to the findings of Morselli, this report indicated that, in 2013, only six recovered firearms were obtained by offenders as a result of a residential break and enter (Canadian Firearms Program, 2013). The conclusion reached was that it was extremely easy for offenders to obtain non-restricted firearms, thus reducing the need to risk committing a break and enter to obtain a firearm.

With respect to seized firearms, FIEDS reported that, of the 1,379 crime guns seized in the Western Region and reported to NWEST, only 335 were successfully traced. However, 46% of those firearms were confirmed smuggled, which was a decrease from 55% for the previous year (Canadian Firearms Program, 2013). Of note, FIEDS reported that the most commonly smuggled crime guns were prohibited or restricted pistols, which they concluded demonstrated the effectiveness of Canada's firearm legislation that made it difficult for offenders to obtain these types of guns domestically (Canadian Firearms Program, 2013).

One method proposed for lowering the rates of firearms on the street are market-based interventions, such as taxes on weapons or ammunition, stricter regulations and fees for licences, or limits on the number of firearms an individual can purchase at one time (Wellford et al., 2005). Further, methods such as requiring that firearms be stored in a locked safe, that ammunition be

locked separately from firearms, or requiring the use of trigger locks or similar devices, can also have a market effect. Although it is argued that these methods could reduce the number of firearms that end up in criminal hands, mainly due to making firearms harder for offenders to steal, there was very little research or evaluation available to support those claims (Wellford et al., 2005). In fact, there was very little research available even for basic information regarding firearms used in crimes, such as the type of firearms used or where the firearm was purchased or stolen. That being said, one of the commonly stated goals of safe firearm storage is preventing access to children. However, this area was also lacking in any analytical research (Wellford et al., 2005).

Firearm-Related Intervention Strategies

GUN AMNESTY AND BUYBACK PROGRAMS

Gun Amnesty and buyback programs have been used in various jurisdictions in order to reduce the number of firearms in the community and to reduce gun violence. In general, these programs allow citizens to turn in firearms, sometimes in exchange for money or some other benefit, with the promise that the individual will not face any charges or prosecution as a result of turning in a firearm. In Canada, there have been a number of implementations of amnesty or buyback programs. For the most part, these initiatives last for one month and do not offer an incentive to the firearm holder to turn the firearm in to the authorities. The results of these types of programs has not been extremely positive (Johnson, 2016). As one might expect, a large number of firearms have not been turned in and there has not been a significant reduction in firearm-related violence that could be attributed to these initiatives.

Other jurisdictions in Canada, such as Toronto, Halifax, Winnipeg, and Ottawa have used incentives to encourage people to turn in unwanted, restricted, or prohibited firearms. For example, in 2012, Winnipeg offered people a digital camera and a gift card valued at \$240 for each operational firearm turned in (Johnson, 2016). The incentive to turn in a non-working firearm or a replica firearm was a \$75 gift card. In addition, the police promised that no *Firearm Act* offences would be pursued as a result of someone turning in a firearm (Johnson, 2016). In June 2013, Toronto initiated a similar program. Here, immunity from prosecution was only associated to certain possession offences and other crimes were investigated, such as guns turned in that had their serial numbers removed (Johnson, 2016). Given his review, Johnson (2016) argued that gun amnesty programs should always include an award or an incentive for those who turn in guns, a record of who turned in which firearms should be kept, all prohibited weapons, handguns, and sawed-off weapons should be tested, and the public should be made clear as to what types and under what circumstances immunity will be awarded. Nonetheless, Johnson (2016) concluded that these types of programs are typically not associated with increases in public safety because the types of firearms turned in are commonly different from the type used in crime, those who relinquish firearms are typically not those who engage in firearm-related offences, and the number of firearms turned in during these programs is much too small a proportion of all the firearms in circulation to have a statistically significant effect on crime.

Similarly, Wellford et al. (2005) believed that the logic behind gun buyback or amnesty initiatives was fundamentally flawed, and argued that the majority of guns turned over in a buy-back program

are either old and malfunctioning, or are guns that were only recently acquired from methods such as inheritance. It makes little sense that a firearm would be turned into police for destruction when the firearm could be sold on the secondary market for a higher value. Further, it makes even less sense that a firearm acquired by a prohibited individual would be turned over, given the trouble these individuals go through to obtain the firearm in the first place. These prohibited individuals are likely using those firearms in their daily illegal activities, such as selling drugs, or carry a firearm for personal protection, and it seems very unlikely that these individuals would then voluntarily surrender that firearm. Further, due to the high number of firearms in the United States, and the unregulated secondary market, it would be easy to obtain another firearm anyway. Finally, Wellford et al. (2005) pointed out that the likelihood that a firearm will be used in the commission of a murder is rather low, as less than 1 in 10,000 firearms are ever connected to a murder. Given that most gun buy-back programs net fewer than 1,000 firearms, it is logical to assume a reduction of about 1/10th of one homicide per year due to the buy-back program (Wellford et al., 2005). They also pointed out that empirical research has consistently shown no decline in gun violence after a gun buy-back program in the United States, largely due to these reasons.

It should be noted that the limited research on these types of programs in the United States was similar to that found in Canada. In fact, much of the research either did not show a relationship between amnesty or buyback programs and reductions in firearms-related violence or the evidence was inconclusive (Johnson, 2016). However, as Johnson (2016) outlined, there are several key differences between the United States and other countries, such as the aforementioned gun culture, the size and extent of gangs, the drug trade, and the availability of guns, that make either direct comparisons or the expectation that the results in the United States would be replicated in other countries challenging.

Given this, it was not entirely surprising that other countries have reported much better results than those found in Canada and the United States. After the passing of the *Firearm (Amendment) Act of 1997*, the British Government created an amnesty program that included a 150 million GBP (\$250 million CAD) compensation program to buyback privately owned handguns affected by the new legislation. The amnesty and buyback program ran for a little less than one year, from July 1997 to February 1998, and resulting in the voluntary surrender and destruction of more than 162,000 weapons and over 700 tons of ammunition (Law Library of Congress, 2013). This initiative was said to contribute to an 80% decrease in firearm-related suicides and homicides, reducing the number of households with a firearm by 50%, and reducing the overall number of firearms in circulation by 20% (Johnson, 2016).

As part of the substantial changes to the law in Australia as a result of the implementation of the *1996 Firearms Agreement*, including new restrictions and licensing requirements, the government of Australia implemented a national firearm buyback and amnesty program in an attempt to encourage firearm owners to hand over weapons that were either already prohibited by law, or were newly prohibited under the new law. The national firearm buyback program included a public education campaign, along with warnings that possession of a prohibited firearm after the amnesty period would result in severe penalties (Law Library of Congress, 2013). The buyback program started in October of 1996, and ran for one year, until September 1997, and resulted in more than 640,000 prohibited firearms being purchased by the federal government at market value (Chapman

et al., 2006). Additionally, more than 60,000 non-prohibited firearms were also surrendered by the public, without compensation, during the amnesty period. In 2002, after another shooting and additions to the 1996 agreement, Australia had another government-funded buyback program, where more than 70,000 handguns were surrendered by the public (Law Library of Congress, 2013). When tallying up the firearms surrendered in the 1996-1997 and 2002 buyback programs, along with an additional 219,000 firearms surrendered that did not fall under the compensation program, nearly 1 million firearms were collected and destroyed in Australia between 1996 and 2003 (Alpers, 2013). This accounted for an estimated 33% reduction of firearms in Australia, and does not include firearms seized by the police, or firearms collected as part of any other amnesty programs.

Another type of intervention that can be carried out by the government are weapons bans, such as the assault weapon ban seen in the United States after 1994, or handgun bans. Wellford et al. (2005) argued that, in regards to the assault weapon ban, there was very little empirical evidence that crime declined after the ban. Although the goal was to prevent mass shootings or multiple wounds to a single victim, the implementation of assault weapon ban in the United States was flawed. For example, the assault weapon ban included a grandfather clause allowing owners to keep existing licenced assault weapons, and only banned the purchase of new assault weapons. This meant that a large number of assault weapons remained in private hands, and were still readily available on the unregulated secondary market. Further, many non-prohibited weapons could be easily modified into an assault weapon by a firearm enthusiast with simple instructions available on-line. Due to this, it is not surprising that no clear decline in violence was seen after the assault weapon ban.

Several American states have implemented handgun bans with the goal of reducing firearm-related violence and crime. The best example of this was the city of Washington, D.C., which prohibited the sale or transfer of handguns to private citizens in 1974 (Wellford et al., 2005). However, similar to the assault weapon ban, a grandfather clause was included, allowing individuals with existing handguns to keep their licenced weapons. The results of the handgun ban in Washington, D.C. have been mixed, with some researchers showing up to a 25% reduction in homicide and suicide by firearm. However, other researchers have pointed out that, when looking over a longer period of time, there was no difference in the homicide and suicide rate in Washington, D.C. compared to other major U.S. cities. In fact, Wellford et al. (2005) pointed out that some major cities, such as Baltimore, had the same or greater reductions in firearm related homicide or suicide as Washington, D.C., without imposing a handgun ban.

OTHER CRIMINAL JUSTICE APPROACHES

When reviewing what can be done about firearms-related violence in the United States, Ludwig (2005) argued that targeted enforcement by police remains one of the most effective methods for deterrence. For example, Ludwig (2005) pointed out that individual police departments can have a strong deterrent effect at the local level by using targeted police patrols, specifically aimed at high-risk individuals known to carry firearms, such as gang members or known violent criminals. Still, there are several large scale federal programs aimed at reducing or controlling firearm-related

violence in the United States. The largest is arguably Project Safe Neighborhoods (PSN), a three billion dollar federal program started in 2001 that provides funding for a number of different law enforcement programs across the United States, most of which are focused on deterring or reducing firearm violence, such as Project Exile in Richmond, Virginia, or Operation Ceasefire in Boston, Massachusetts. Some of the funding is also used to hire new criminal prosecutors or to provide additional training and education to law enforcement officers (McGarrell, Hipple, Corsaro, Bynum, Perez, Zimmermann, & Garmo, 2009).

At the core of the PSN are five components; (1) partnerships, (2) strategic planning and research, (3) training, (4) outreach, and (5) accountability (McGarrell et al., 2009). It was hoped that, through research and planning, the substantial investments made by the federal government would be used to develop quality partnerships in the community and training opportunities for law enforcement in an effort to drive down firearm-related crime. In an analysis of PSN outcomes, McGarrell et al. (2009) found one of the most substantial barriers to linking research to programming outcome was the lack of crime data, specifically any crime data linked to firearms offences. Further, accountability in the form of program review or analysis has proven problematic as well. Although accountability through evaluation, as well as research, are listed as key components of the PSN Project, by the end of 2005, only 10% of all of the programs funded by the PSN had been evaluated, and only one-third of those evaluations were deemed to be good or very good in terms of quality, accuracy, or completeness (McGarrell, 2009). For a number of reasons, including the previously stated lack of evaluation and research, it is difficult to fully measure the effectiveness or efficiency of many of the programs funded by the PSN across the United States, although several of the evaluated programs have shown some promise in reducing firearm-related violence.

Operation Ceasefire, described as a strategic program aimed at multiple interventions, was developed in Boston, Massachusetts, and was later implemented in several other major American cities. The project was a police driven strategy that attempted to reduce gang violence, illegal gun possession, and gun-related crime (Braga, Kennedy, Waring, & Piehl, 2001). It included a comprehensive strategy to arrest offenders who carried firearms, and attempted to educate and prevent other youths who were at-risk for the same behaviors. The main targets of this initiative were high-risk youth, gang members, and violent juvenile offenders. The program was rooted in deterrence theory, and was aimed at prosecuting violent offenders, particularly chronic offenders, and removing illegal firearms from the streets, while educating the public and promoting anti-violence (Braga et al., 2001). Education efforts focused on promoting the message to the community and the target population of zero-tolerance towards gun violence, as well as the dangers of adopting a gang lifestyle.

A review of youth-related firearm homicides prior to the implementation of Operation Ceasefire and after showed a statistically significant decrease in the number of firearm-related homicides in Boston. Prior to the program, there were an average of 3.5 youth-related homicides each month, and after the program, the rate dropped to 1.3 youth homicides per month (Braga et al., 2001). This decrease occurred at a statistically significant level, even when other social factors, such as unemployment or citywide trends in crime were controlled for. Further, Boston saw a 25% decrease in firearm-related assaults, and nearly 50% decrease in firearm-related assaults committed by youth after the program (Braga et al., 2001). When Operation Ceasefire was

implemented in seven other major US cities, such as Chicago and St. Louis, most experienced similar declines in firearm-related violence, even when controlling for other possible factors. Only Durham, North Carolina did not experience a decline in firearm-related crime (McGarrell, 2009).

Project Exile, originally implemented in Richmond, Virginia and later expanded to other states, was an effort aimed at deterring would-be offenders from using firearms in crimes or carrying illegal firearms. The long term goal was to reduce firearms-related crime and, in particular, firearms-related homicide. Prior to the start of the program, Richmond had one of the highest homicide rates in the United States, at 80 per 100,000 population (Rosenfeld, Fornango, & Baumer, 2005). The program consisted mainly of hiring additional prosecutors to ensure that cases were appearing in court sooner and that the overall court process worked quicker. The program also focused on enhancing criminal sentences for offenders found to be in possession of a firearm when arrested. The core of the program was based in deterrence and incapacitation, and aimed at longer, tougher sentences for offenders using firearms (Rosenfeld, Fornango, & Baumer, 2005). In an attempt to increase the deterrence effect, a public campaign was implemented, with a message that swift and certain penalties would be handed down to individuals who used a firearm during the commission of a crime. These messages were advertised on billboards, television, radio, and print media. Evaluations of this program demonstrated that, in Richmond, Virginia, as well as in the other states that implemented Project Exile, gun crime significantly decreased compared to other crimes (Rosenfeld et al., 2005; McGarrell, 2009). In cities using Project Exile, firearms-related homicides declined by about 20%, while the average in large American cities was just 10%.

Another approach to dealing with firearms related offences in the United States has been the implementation of specialized gun courts. Although gun courts can operate differently across the United States, they are all similar in that they are community based courts that involve the victim, offender, family or community members, as well as enhanced access to treatment services (Wellford et al., 2005). These firearms courts, which are structured similarly to drug courts or community courts, often feature smaller caseloads, leading to shorter waits for trials, and often include immediate punishment for a guilty offender. Gun courts in the United States have had very little research looking at their effectiveness, particularly in terms of long term outcomes (Wellford et al., 2005). One example of a juvenile gun court, in Birmingham, Alabama, has a punishment that includes mandatory involvement in a 28 day boot-camp, followed by intensive supervision in the community afterwards. This punishment extends past the youth in question, and can include education programs for parents, as well as fines or even jail time for parents who fail to complete the education program. Evaluation of the Birmingham juvenile gun court showed some promising results, with offenders showing lower rates of recidivism (17 per cent) compared to offenders exiting non-gun court (37 per cent) (Wellford et al., 2005).

Another response employed by the criminal justice system to try and prevent firearms-related violence has been stronger sentences for offenders, including longer jail sentences, and mandatory minimum prison sentences for crimes committed with a firearm (Wellford et al., 2005). It is argued that these types of enhanced punishments for offenders who commit crimes with a firearm are particularly popular with the public, as it still allows law abiding citizens to keep and carry firearms for personal, recreational, or self-defence purposes. In essence, instead of limiting access to firearms, or placing restrictions on purchasing, it punishes the offender, and not the general public.

Wellford et al. (2005) identified several smaller studies that looked at the effectiveness of enhanced sentencing methods in reducing firearm related crime with mixed results. While some studies have found statistically significant reductions in firearms related homicides, others have not found any such reduction. Larger studies conducted nationwide or statewide have also not found any reduction in homicide or other firearms-related crime in relation to enhanced sentencing laws (Wellford et al., 2005).

TRIGGER LOCKS

Firearm safety technology, such as trigger locks or gun safes, aim at preventing injury by ensuring that firearms cannot be discharged accidentally, or accessed by unauthorized individuals. For example, a firearm that is safely stored with a trigger lock in a secure gun safe with ammunition stored separately has little to no chance of being accessed and accidentally discharged by a child. However, there is very little research that looks at the effectiveness of these methods in preventing injury, or at the cost versus potential benefits of these options (Wellford et al., 2005). Some states have specific laws surrounding safe storage of firearms, which can make a gun owner liable for accidental discharge of a firearm that was improperly stored; however, Wellford et al. (2005) found no research providing evidence that these laws have been effective in reducing firearms-related injuries to children or others. Although Wellford et al. (2005) did find some research claiming to show a decrease in accidental injuries in states with safe storage laws, they found the research methods used to be of questionable value, and instead argued that until better empirical based research is available, it is impossible to state whether or not safe storage laws are effective.

Project Childsafe was a PSN-funded gunlock program aimed at reducing gun thefts, as well as accidental firearm shootings. Specifically, the project aimed at reducing some of the estimated 500,000 gun thefts that occur in the United States each year, as well as the unintentional or self-inflicted injuries from firearms discharged by children (Ludwig, 2005). Research has shown that approximately half of all long guns and nearly 60% of handguns in the United States are stored unlocked and unsecured. Project Childsafe distributes free cable-style gun locking devices, as well as safety education, including information on how to safely store and handle firearms. To date, Project Childsafe has distributed more than 30 million firearm locking devices. However, researchers have cast doubts on the effectiveness of the program by arguing that it is not the cost of a firearm trigger lock that prevents safe storage, as an effective trigger lock can be purchased for around \$5 dollars on the internet (Ludwig, 2005). Instead, it has been argued that firearm owners in the United States are leaving their firearms unlocked, not because they cannot afford a lock, but because they wish to have their firearms ready for self-defence purposes (Ludwig, 2005). Due to this, it is unlikely that the distribution of free locking devices will have much of an effect, even though the safe storage of firearms can have a dramatic effect on accidental firearm shootings (Ludwig, 2005). Other researchers, such as Grossman et al. (2005), have argued that enhanced public education combined with the distribution of gun safes and locks have successfully promoted safe storage.

EDUCATION PROGRAMS

Firearms prevention programs that run in school settings or through media campaigns are common in the United States. These programs target youth of all ages, as early as kindergarten or Grade 1 through to high-school aged young adults. Typically, the goals of these programs are to educate children about firearms, particularly about how to handle firearms safely, as well as the potential dangers of using or playing with firearms. Wellford et al. (2005) pointed out that, although these programs are often run by private or non-profit groups whose sole concern is the safety of children, they are rarely based on sound theoretical modeling, and rarely include any kind of evaluation component. Further, these programs are often structured in a way that do not take into account the developmental stages of the children they are targeted to, and are often inappropriate or ineffective for the age group they are trying to educate (Wellford et al., 2005).

Typically, these programs are evaluated based on changes in participant's behavior around firearms, or their knowledge and attitudes of firearms, such as safe handling or understanding the dangers of firearms (Wellford et al., 2005). So, for example, if a program was aimed at educating young children, the desired outcome would be teaching young children to stay away from firearms, and the method of evaluation might be looking at child accident rates with firearms. Unfortunately, these types of outcome measures make it difficult to determine the effectiveness of a program, as these events are often statistically rare to start with. Essentially, the program is evaluated on creating a statistically significant decrease in an already statistically rare event.

While firearms-based education programs are common in the United States, with teachers using a number of different methods to get the message out about the dangers of firearms, it would appear that these methods are not very effective (Wellford et al., 2005). In fact, it has been shown that, in some cases, these programs are actually related to an increase in firearm-related accidents and deaths in children, who may exhibit enhanced curiosity about firearms after taking part in these types of programs (Wellford et al., 2005). However, Wellford et al. (2005) also pointed out that very few of these programs are properly evaluated, if they are evaluated at all, and rarely look at outcomes beyond attitudes towards firearms. Of the 80 education programs identified by Wellford et al. (2005), only a small number have ever been evaluated for effectiveness, and few of those provided any evidence of a positive impact. Instead, Wellford et al. (2005) argued that it is far more likely that peer pressure, impulsivity, and the natural curiosity of kids tended to outweigh the potential dangers of firearms presented by teachers.

One of the most common prevention strategies funded by the PSN involves education and school-based prevention programs; however, researchers point out that this remains one of the most difficult to evaluate in terms of its effect on the violent crime rate (Braga et al., 2001; Ludwig, 2005). This is due, in part, to the need for parental consent when conducting research with children, as well as accounting for the numerous other social factors that might lead a youth to crime. That being said, one such school-based education program was the Gang Resistance Education and Training program (GREAT). This program is a life-skills program for middle school youth that includes education on methods for avoiding gangs, resolving conflict non-violently, and making responsible decisions. Ludwig (2005) argued that the benefits of the program were modest at best, and stated that no effect on gang involvement, drug use, or delinquency could be determined. He

further concluded that evaluations of other school-based firearm prevention programs were unlikely to be substantial.

According to Howard (2005), several firearms groups, including Canada's National Firearms Association, endorse the notion of "gun-proofing" children. In these types of program, age-appropriate training programs are delivered to children to teach them about the dangers of firearms. These types of programs have been studied extensively in the United States and one study that used a pre-test and post-test randomized trial methodology demonstrated that school-aged children retained the information they were taught. Importantly, however, the trial did not examine whether retaining the information had any effect on the child's behaviour with respect to firearms (Howard, 2005). This conclusion is supported by another study that analysed the actions of 8 to 12 year old boys where they were placed in a room with a friend, a sibling, or both. In the room was also one handgun and two water pistols. Snider et al. (2009) found that, among those boys were found the handgun, 76% handled it, 48% pulled the trigger, and 50% could not determine if the gun was real or a toy. Of note, of those who handled the handgun, 90% had previously received gun safety education (Snider et al., 2009). This led the researchers to conclude that programs that focused exclusively on promoting gun safety among children could not guarantee that kids would act accordingly when encountering a firearm. Rather, the researchers concluded that it was necessary to ensure that children simply could not gain access to firearms (Snider et al., 2009).

Conclusion

It seems clear that it is necessary to gather data and conduct empirical research on firearms and violence. The general lack of contemporary research makes it extremely difficult to assess the utility and effectiveness of current policies and intervention programs. Moreover, the lack of reliable empirical data on firearms and violence, including suicides, makes it virtually impossible to undertake comparative analysis or the ability to develop more effective responses. In sum, the current evidence is generally inconclusive and suffers from a range of methodological challenges and limitations.

While this literature review has attempted to highlight some of the more common firearm prevention initiatives, there remain many questions about the effectiveness and efficiency of these programs and their ability to achieve their objectives. The research literature on firearms and its relationship to violence, crime, and suicide appears to have contributed to a degree of confusion about the nature, size, and effect of firearms on society. Given this, it is clear that multi-disciplinary research in Canada is required to understand the complex relationship between firearms, crime, violence, and suicide. Considering that public safety agencies and communities in Canada and the United States continue to struggle with the issue of firearms, future research should focus on identifying the successes and failures of public safety and community-based intervention and prevention strategies.

Still, there are pieces of legislation and a number of initiatives that show some promise. For example, some national and international research has suggested that legislation restricting the type of firearms that individuals can acquire, as well as laws restricting who can legally acquire a firearm, has reduced the volume of firearms-related violence and suicide. Moreover, gun amnesties

and gun buyback programs are most effective when they include some form of incentive for turning in a firearm and informing the public about the nature and scope of the amnesty promise. In fact, some countries, such as Britain and Australia, have had tremendous success with their programs.

The research literature also demonstrates that gun violence can be reduced by the police when they engage in sustained, strategic, and intelligence-led enforcement practices that targets prolific offenders and gangs, and prolific locations where gun violence occurs. Finally, the results of education programs to teach people, especially children and youth, about gun safety is mixed. However, it remains critical to develop practical education and training programs that are well-designed, implemented properly, and evaluated to ensure that they are achieving their objectives. While Canadian's rate of firearms-related violence is comparatively low, continuing to develop and implement effective legislation, educating the public about gun safety, and supporting enforcement strategies against offenders and gang members who carry and use firearms, straw purchasers, and illegal firearms importers and sellers will assist in ensuring that firearm-related violence continues to decline.

References

- 250News. (2016). Gun Violence Continues: Update. <https://www.250news.com/2016/06/23/violence-continues/>.
- Alpers, P. (2013). The Big Melt: How One Democracy Changed After Scrapping a Third of its Firearms. In D. Webster and J. Vernick, Eds., *Reducing Gun Violence in America: Informing Policy with Evidence and Analysis*. Baltimore: Johns Hopkins University Press.
- Australian Institute of Criminology (1998). Firearms and Violence in Australia. *Trends & Issues in Crime and Criminal Justice*. Retrieved from <http://www.aic.gov.au>
- Australian Institute of Criminology (2003). Firearm Related Deaths in Australia, 1991-2003. *Trends & Issues in Crime and Criminal Justice*. Retrieved from <http://www.aic.gov.au>
- Australian Institute of Criminology (2008). Criminal Use of Handguns in Australia. *Trends & Issues in Crime and Criminal Justice*. Retrieved from <http://www.aic.gov.au>
- Azrael, D., Cook, P.J., & Miller, M. (2004). State and Local Prevalence of Firearms Ownership: Measurement, Structure, and Trends. *Journal of Quantitative Criminology*, 20(1), 43–62.
- Baker, J. & McPhedran, S. (2007). Gun Laws and Sudden Death: Did the Australian Firearms Legislation of 1996 Make a Difference? *British Journal of Criminology*, 47(3), 455-469.
- Becker, G. (1968). Crime and Punishment: An Economic Approach. *Journal of Political Economy*, 76, 169–217.
- Blanco, D.V. (2015). The Gun Control Debate: Why Experience and Culture Matters. *International Journal of Public Administration*, 39:8, 620-634.
- Boyd, N. (2003). Gun Control: Placing Costs in Context. *Canadian Journal of Criminology and Criminal Justice*, October, 473-478.
- Braga, A. A., & Kennedy, D. M. (2001). The Illicit Acquisition of Firearms by Youth and Juveniles. *Journal of Criminal Justice*, 29, 379–388.
- Braga, A., Kennedy, E., Waring, E., & Piehl, A. (2001). Measuring the Impact of Operation Ceasefire. in *Reducing Gun Violence: The Boston Gun Project's Operation Ceasefire*. Washington, DC: National Institute of Justice.
- Bridges, F.S., & Kunselman, J.C. (2004). Gun Availability and Use of Guns for Suicide, Homicide, and Murder in Canada. *Perpetual and Motor Skills*, 98, 594-598.
- Canadian Firearms Programs (2016). Commissioner of Firearms: 2015 Report. Royal Canadian Mounted Police. Canada.
- Caron, J., Julien, M., & Hua Huang, J. (2008). Changes In Suicide Methods in Quebec between 1987 and 2000: The Possible Impact of Bill C-17 Requiring Safe Storage of Firearms. *Suicide and Life Threatening Behaviour*, 38(2).
- Centre for Disease Control. (2015). Injury Mortality Reports 1999 and Onwards (USA). *Web-based Injury Statistics Query and Reporting System*. Atlanta: National Centre for Injury Prevention and Control, Centers for Disease Control and Prevention.

- Chapman, S., & Alpers, P. (2013). Gun-Related Deaths: How Australia Stepped Off 'The American Path'. *Annals of Internal Medicine*, 158(10) 770-772.
- Chapman, S., Alpers, P., Agho, K., & Jones, M. (2006). Australia's 1996 Gun Law Reforms: Faster Falls in Firearm Deaths, Firearm Suicides, and a Decade Without Mass Shootings. *Injury Prevention*, 12(6), 365-372.
- Cohen, L.E., & Felson, M. (1979). Social Change and Crime Rate Trends: A Routines Activities Approach. *American Sociological Review*, 44, 588-608.
- Cook, P. J. (ed.) (1981) Gun Control. *The Annals of the American Academy of Political and Social Science*, 455, May
- Cook, P., Harris, R., Ludwig, J., & Pollack, H. (2015). Some Sources of Crime Guns in Chicago: Dirty Dealers, Straw Purchasers, and Traffickers. *The Journal of Criminal Law & Criminology*, 104(4), 717-759.
- Cook, P., Ludwig, J., & Samaha, A. (2009). Gun Control After *Heller*: Threats and Sideshows From a Social Welfare Perspective. *UCLA Law Review*, 56, 1041-1093
- Cook, P.J. (1979). The Effect of Gun Availability on Robbery and Robbery Murder. In R. Havenman & B.B. Zellner (Eds.), *Policy studies review annual* (pp. 743-781). Beverly Hills, CA: Sage.
- Cook, P.J., Cukier, W., & Krause, K. (2009). The Illicit Firearm Trade in North America. *Criminology and Criminal Justice*, Vol: 9(3): 265-286.
- Dauvergne, M., & De Socio, L. (2008). Firearms and Violent Crime. *Canadian Center for Justice Statistics, Catalogue No. 85-002-XIE*. Ottawa, Ontario, Canada: Statistics Canada.
- Department of Justice Canada. (2015). The Nature of Canadian Urban Gangs and their Use of Firearms: A Review of the Literature and Police Survey. http://www.justice.gc.ca/eng/rp-pr/csj-sjc/crime/rr07_1/p2.html.
- Desroches, F. (2005). *The Crime That Pays: Drug Trafficking and Organized Crime in Canada*. Toronto: Canadian Scholars Press.
- Dinshaw, F. (2015). *How American Gun Deaths and Gun Laws Compare to Canada's*. <http://www.nationalobserver.com/2015/12/04/news/how-american-gun-deaths-and-gun-laws-compare-canadas>.
- Duggan, M. (2001). More Guns, More Crime. *Journal of Political Economy*, 109, 1086-1114.
- Friedland, M. (1975) Gun Control: The Options. *Criminal Law Quarterly*, 18(1), 29-71.
- Global News. (2016). Surrey Residents Fed Up with Gun Violence. <http://globalnews.ca/news/2578192/surrey-residents-fed-up-with-recent-gun-violence/>.
- Gottfredson, M.R. & Hirschi, T. (1990). *A General Theory of Crime*. Stanford, CA: Stanford University Press.

Grossman D.C, Mueller BA, & Riedy, C. (2005). Gun Storage Practices and Risk of Youth Suicide and Unintentional Firearm Injuries. *JAMA*, 293:707-14.

Hahn, R.A., Bilukha, O.O., Crosby, A., Fullilove, M.T., Liberman, A., Moscicki, E.K., Snyder, S., Tuma, F., & Briss, P. (2003). First Reports Evaluating the Effectiveness of Strategies for Preventing Violence: Firearms Laws Findings from the Task Force on Community Preventive Services.

Heemskerck, T. & Davies, E. (2008) A Report on the Illegal Movement of Firearms in British Columbia, November.

Hoskin, A.W. (1999). *The Impact of Firearm Availability on National Homicide Rates: A Cross-Sectional and Panel Analysis* (Unpublished doctoral dissertation). State University of New York, NY, Albany, NY.

Hoskin, A.W. (2001). Armed Americans: The Impact of Firearm Availability on National Homicide Rates. *Justice Quarterly*, 18, 569–592.

Hoskin, A.W. (2011). Household Gun Prevalence and Rates of Violent Crime: a Test of Competing Gun Theories. *Criminal Justice Studies*, Vol. 24, No. 1, March, 125–136.

Howard, P.K. (2005). Evaluation of Age-Appropriate Firearm Safety Interventions. *Journal of Pediatric Emergency Care*, 21:473-9.

Johnson, S. (2016). *Gun Amnesty Collection Program Research*. Royal Canadian Mounted Police.

Killias, M., van Keseteren, J., & Rindlisbacher, M. (2001). Guns, Violent Crime, and Suicide in 21 Countries. *Canadian Journal of Criminology*, 43, 429–448.

Kleck, G. (1991). *Point Blank: Guns and Violence in America*. Hawthorne, NY: Aldine de Gruyter.

Kleck, G., & Patterson, B.E. (1993). The Impact of Gun Control and Gun Ownership Levels on Violence Rates. *Journal of Quantitative Criminology*, 9, 249–288.

Kozuskanich, N. (2015). Good Guys and Bad Guys with Guns: Gun Control in Canada and the U.S. *Origins: Current Events in Historical Perspective*, Vol 8, Issue 4.

Langmann, C. (2012). Canadian Firearms Legislation and Effects on Homicide 1974 to 2008. *Journal of Interpersonal Violence*, 27(12) 2303-2321.

Legislative Assembly of Ontario. (2011). Bill C-6: Imitation Firearms Regulation Amendment Act. http://ontla.on.ca/web/bills/bills_detail.do?locale=en&Intranet=&BillID=2540.

Legislative Assembly of Ontario. (2014). *Bill 24: An Act to Amend the Highway Traffic Act and the Civil Remedies Act, 2001 to Promote Public Safety by Prohibiting Driving in a Motor Vehicle with an Unlawfully Possessed Handgun*. Private Member's Bill.

Leitzel, J. (1998). Evasion and Public Policy: British and US Firearm Regulation. *Policy Studies*, 19(2), 141-157.

Lester, D. (2000). Gun Availability and the Use of Guns for Suicide and Homicide in Canada. *Canadian Journal of Public Health*, 91, 186-187.

Lott, J.R. (2000). *More Guns, Less Crime* (2nd ed.). Chicago, IL: University of Chicago Press.

- Ludwig, J. (2005). Better Gun Enforcement, Less Crime. *Criminology & Public Policy*, 4(4), 677-716.
- Masek, C., Chenier, L., Greenland, J., & Walsh, P. (2016). *Police-Reported Crime Statistics in Canada, 2015: Provincial and Territorial Profiles*. Statistics Canada.
- Mauser, G. & Maki, D. (2003). An Evaluation of the 1977 Canadian Firearm Legislation: Robbery Involving a Firearm. *Applied Economics*, 35, 423-436.
- McDowall, D. (1986). Gun Availability and Robbery Rates: A Panel Study of Large US Cities, 1974–1978. *Law & Policy*, 8, 135–148.
- McDowall, D. (1991). Firearm Availability and Homicide Rates in Detroit, 1951–1986. *Social Forces*, 69, 1085–1099.
- McGarrell, E., Hipple, N., Corsaro, N., Bynum, T., Perez, H., Zimmermann, C., & Garmo, M. (2009). *Project Safe Neighborhoods – A National Program to Reduce Gun Crime: Final Project Report*. Retrieved from <https://www.ncjrs.gov>.
- McPhedran, S. & Mauser, G. (2013). Lethal Firearm-Related Violence Against Canadian Women: Did Tightening Gun Laws Have an Impact on Women’s Health and Safety? *Violence and Victims*, Volume 28, No. 5.
- McPhedran, S., Baker, J., & Singh, P. (2011). Firearm Homicide in Australia, Canada, and New Zealand: What Can We Learn From Long-Term International Comparisons? *Journal of Interpersonal Violence*, 26(2), 348-359.
- Miller M., Azrael D., & Hepburn L. (2006). The Association Between Changes in Household Firearm Ownership and Rates of Suicide in the United States, 1981–2002. *Journal of Injury Prevention*, 12: 178-82.
- Miller, M., Azrael, D., & Hemingway, D. (2002). Firearm Availability and Unintentional Firearm Deaths, Suicide, and Homicide Among 5–14 Year Olds. *Journal of Trauma*, 52, 267–275.
- Ministry of Justice Police Services. (2015). *British Columbia Crime Trends, 2005 – 2014*.
- Morselli, C. (2002). The Relational Dynamics of Illegal Firearm Transactions. *Canadian Journal of Criminology*, July 255-276.
- Morselli, C. & Blais, D. (2014). The Mobility of Stolen Guns in Quebec. *European Journal of Criminal Policy and Research*, 20:379–397.
- Morselli, C., Sévrine P., Mathilde T., & Claudine G. (2010). Identifying Illegal Firearm Market Acquisition Patterns. *Firearms and Operational Policing Policy Division, Public Safety Canada*.
- Murray, D.R. (1975). Handguns, Gun Control Laws and Firearm Violence. *Social Problems*, 23, 81–92.
- National Assembly of Quebec. (2007). *Bill 9: An Act Respecting the Safety of Persons on Certain Premises and Amending the Act Respecting Safety in Sports*.
- National Assembly of Quebec. (2015). *Bill 64: Firearms Registration Act*.
- Neill, C., & Leigh, A. (2007). Do Gun Buy-Backs Save Lives? Evidence from Time Series Variation. *Current Issues in Criminal Justice*, 20(2), 145-162.

- News 1130. (2016). Gun Violence Connected to Drug Trade Isn't Just Happening in Surrey: Police. <http://www.news1130.com/2016/04/10/gun-violence-connected-to-drug-trade-isnt-just-happening-in-surrey-police/>.
- Ozanne-Smith, J., Ashby, K., Newstead, S., Stathakis, V., & Clapperton, A. (2004). Firearm-Related Deaths: The Impact of Regulatory Reform. *Injury Prevention*, 10(5), 280-286.
- Pierce, G. L., Braga, A. A., Hayatt, R. R., & Koper, C. S. (2004). Characteristics and Dynamics of Illegal Firearms Markets: Implications for a Supply-Side Enforcement Strategy. *Justice Quarterly*, 2, 391-422.
- Rosenfeld, R., Fornango, R., & Baumer, E. (2005). Did *Ceasefire, Compstat, and Exile* Reduce Homicide? *Criminology & Public Policy*, 4(3), 419-450
- Royal Canadian Mounted Police. (2015). Criminal Use and Seizures of Firearms in British Columbia, 2015. *RCMP Firearms Operations and Enforcement Support*, RCMP.
- Sheley, J. F., & Wright, J. D. (1995). *In the Line of Fire: Youths, Guns and Violence in Urban America*. New York: Aldine de Gruyter.
- Sheptycki, J. (2009). Guns, Crime and Social order: A Canadian Perspective. *Criminology & Criminal Justice*, Vol: 9(3): 307-336
- Snider, C.E., Ovens, H., Drummond, A., & Kapur, A.K. (2008). CAEP Position Statement on Gun Control. *Canadian Journal of Emergency Medicine*, 11(1): 64-72.
- Southwick, L., Jr. (1997). Do Guns Cause Crime? Does Crime Cause guns? A Granger Test. *Atlantic Economic Journal*, 25, 256-273.
- Statistics Canada (2015). *Homicide in Canada, 2014*. <http://www.statcan.gc.ca/pub/85-002-x/2015001/article/14244-eng.htm#a4>.
- Statistics Canada. (2015). *The 10 Leading Causes of Death, 2011*. <http://www.statcan.gc.ca/pub/82-625-x/2014001/article/11896-eng.htm>.
- Stenning, P. (2003). Long Gun Registry: A Poorly Aimed Longshot. *Canadian Journal of Criminology and Criminal Justice*, October, 479-488.
- Taylor, B., & Li, J. (2015). Do Fewer Guns Lead to Less Crime? Evidence from Australia. *International Review of Law and Economics*, 42 (June 2015), 72-78.
- The Law Library of Congress (2013). *Firearms-Control Legislation and Policy*. Retrieved from <http://www.loc.gov/law/help/firearms-control>.
- UK Home Office (2010). Homicides, Firearm Offences, and Intimate Violence, 2008/2009. *Home Office Statistical Bulletin*. Retrieved from <http://homeoffice.gov.uk/rds>
- Vernick, J.S., Hodge, J.G., & Webster, D.W. (2007). The Ethics of Restrictive Licencing for Handguns: Comparing the United States and Canadian Approaches to Handgun Regulation. *Journal of Law, Medicine, and Ethics*, Winter.
- Wellford, C.F., Pepper, J.V., & Petrie, C.V. (2005). *Firearms and Violence: A Critical Review*. National Research Council of the National Academies. Washington D.C., The National Academies Press.

Wintemute, G. J. (2002). Where the Guns Come From: The Gun Industry and Gun Commerce. *Future of Children*, 12, 55–71.

Wolfgang, M.E. (1958). *Patterns of Criminal Homicide*. Philadelphia, PA: University of

Wright, J.D. & Rossi, P.H. (1986) *Armed and Considered Dangerous*, Aldine de Gruyter, New York.

Wright, J.D. & Rossi, P.H. (1994). *Armed and Considered Dangerous: A Survey of Felons and their Firearms*. Hawthorne: Aldine de Gruyter.

Zimring, F.E. (1968). Is Gun Control Likely to Reduce Violent Killings? *University of Chicago Law Review*, 35, 721–737.

