



The Australian Gun Buyback

I. Introduction

The 1996 National Firearms Agreement (NFA), passed in response to the April 28, 1996 Port Arthur, Tasmania massacre of 35 people, banned semi-automatic and pump-action rifles and shotguns, bought back more than 650,000 of these weapons from existing owners, and tightened requirements for licensing, registration, and safe storage of firearms. The buyback is estimated to have reduced the number of guns in private hands by 20%, and, by some estimates, almost halved the number of gun-owning households.

This issue of *Bulletins* reviews the evidence on the effect of the NFA on firearm deaths. There have not been any studies examining the effect of the buyback on crime other than homicide. Some scientists believed that the buyback might reduce firearm crime, but most saw no reason to expect that it would significantly affect non-firearm crime. Most crimes in Australia before the NFA did not involve firearms, and few Australians owned handguns or carried them on their person, either before or after the buyback. Data from the Australian Bureau of Statistics indicate that after the buyback, the percentage of robberies where the assailant used a firearm did drop significantly. There was little change in “unlawful entry with intent,” one of the few types of crime where one might make a case for a possible deterrent effect of having a gun in the home.¹

II. Evidence the Buyback Saved Lives

For Australia, the NFA seems to have been incredibly successful in terms of lives saved. While 13 gun massacres (the killing of 4 or more people at one time) occurred in Australia in the 18 years before the NFA, resulting in more than one hundred deaths, in the 14 following years (and up to the present), there were no gun massacres.²

The NFA also seems to have reduced firearm homicide outside of mass shootings, as well as firearm suicide. In the seven years before the NFA (1989-1995), the average annual firearm suicide death rate per 100,000 was 2.6 (with a yearly range of 2.2 to 2.9); in the seven years after the buyback was fully implemented (1998-2004), the average annual firearm suicide rate was 1.1 (yearly range 0.8 to 1.4). In the seven years before the NFA, the average annual firearm homicide rate per 100,000 was .43 (range .27 to .60) while for the seven years post NFA, the average annual firearm homicide rate was .25 (range .16 to .33).³

Additional evidence strongly suggests that the buyback causally reduced firearm deaths. First, the drop in firearm deaths was largest among the type of firearms most affected by the buyback. Second, firearm deaths in states with higher buyback rates per capita fell proportionately more than in states with lower buyback rates.⁴

One evaluation of the law concluded that: The rates of total firearm deaths, firearm homicides and firearm suicides all at least doubled their existing rates of decline after the gun laws; there is no evidence of substitution for suicides or homicides.² A more recent evaluation, which examined the differences across states, concluded that “the buyback led to a drop in the firearm suicide rates of almost 80 per cent, with no significant effect on non-firearm death rates. The effect on firearm homicides is of similar magnitude, but is less precise”.⁴ This incredible size of the effect (80% reduction) strains credulity.

III. Opposing Evidence

Two evaluations found little effect of the law, but their design made it almost impossible to find an effect.

1. The authors (Australian gun lobby members) of one study⁵ claimed that “the policy has made no difference. There was a trend of declining deaths which has continued”.⁶ They made an assumption that the historical downward trend in firearm deaths would have continued unabated, and chose 1979 as the beginning year for the trend analysis, although data were available for each year back to 1915. The Australian firearm suicide rate in 1979 was higher than any other year from 1932-1996; the firearm homicide rate in 1979 was the third highest it had been during this same time frame. Identical analyses using data from 1915-2004 found that both firearm suicide and firearm homicide declined significantly after the NFA.⁷

The researchers also assumed that without the NFA, a linear trend of the actual death rate 1979-1996 would have continued forever. In other words, they assumed that if the historical rate fell from 3/100,000 to 2/100,000 in the initial period, it would fall to 1/100,000 in next period, then to 0/100,000, and then to -1/100,000. According to their assumption, without the NFA there would have been an ever-increasing percentage fall in firearm death. Indeed their model predicted that without the NFA, the number of firearm homicides in Australia would be negative by 2015. Critics labeled this a “Resurrection Problem”.⁷ Given their assumptions, if by 2004 the Australia firearm homicide rate had been zero (and remained there), that rate would not have been low enough for the researchers to find any beneficial effect of the law on firearm homicides.

Incredibly, even given their assumptions, they still found that firearm suicides fell significantly after the NFA. They legitimately wanted to determine not only whether the NFA was associated with a fall in firearm suicide, but whether (a) the NFA led to method substitution (e.g., hanging suicide replacing gun suicide), and (b) whether something other than the NFA may have affected suicide post-1996. In their discussion, they used non-firearm suicides as evidence for both these concerns. They set up the discussion so that if non-firearm suicides increased after the gun buyback, they could claim this was due to method substitution (i.e., the NFA may have reduced firearm suicide, but there was substitution, causing non-firearm suicides to rise, so the NFA really didn't have much effect on overall suicides). And if non-firearm suicides decreased, they could claim this showed that some factor other than the buyback was the real cause of the decrease in firearm suicides. When non-firearm suicides briefly increased after the NFA they attributed this to method substitution, and then when non-firearm suicide began to fall, the authors concluded that “society changes” (e.g., suicide prevention programs) could have been the cause of the observed reduction in firearm suicides.³

2. Another pair of researchers used sophisticated analyses to search for a single year structural time series break date as a means of identifying the impact of the NFA. They could not find any such

break, and concluded “the results of these tests suggest that the NFA did not have any large effects on reducing firearm homicide or suicide rates.”⁸ However, when policies have even modest lags, the structural break test can easily miss the effect. It can also miss the effect of a policy that occurs over several years. The massive Australian gun buyback occurred over two calendar years, 1996-97. Firearm homicide and firearm suicide dropped substantially in both years, for a cumulative two-year drop in firearm homicide of 46% and in firearm suicide of 43%. Never in any two year period, from 1915-2004 had firearm suicide dropped so precipitously.³

IV. Conclusion

It does not appear that the Australian experience with gun buybacks is fully replicable in the United States. Levitt provides three reasons why gun buybacks in the United States have apparently been ineffective: (a) the buybacks are relatively small in scale (b) guns are surrendered voluntarily, and so are not like the ones used in crime; and (c) replacement guns are easy to obtain.⁹ These factors did not apply to the Australian buyback, which was large, compulsory, and the guns on this island nation could not easily be replaced. For example, compared to the buyback of 650,000 firearms, annual imports after the law averaged only 30,000 per year, with many of these bought by law enforcement agencies.⁴

For Australia, a difficulty with determining the effect of the law was that gun deaths were falling in the early 1990s. No study has explained why gun deaths were falling, or why they might be expected to continue to fall. Yet most studies generally assumed that they would have continued to drop without the NFA. Many studies still found strong evidence for a beneficial effect of the law.

From the perspective of 1996, it would have been difficult to imagine more compelling future evidence of a beneficial effect of the law. Whether or not one wants to attribute the effects as being due to the law, everyone should be pleased with what happened in Australia after the NFA—the elimination of firearm massacres (at least up to the present) and an immediate, and continuing, reduction in firearm suicide and firearm homicide.

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