Prices and affordability in child restraint seats in Japan

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We were pleased to see the excellent article on child and family safety device affordability by country income level by Hendrie et al (2004). International research has shown that the use of child restraint seats (CRS) significantly reduces the risk and severity of injuries resulting from motor vehicle crashes. In the USA proper use of CRS is estimated to prevent approximately 53 000 injuries and 500 fatalities among children under 5 years. This conclusion is supported by one systematic review. Consequently, CRS laws and enhanced enforcement programs are “strongly recommended” interventions.

In contrast, in Japan the public health significance of motor vehicle injuries among children has not been adequately appreciated. This is despite the fact that from 1991 to 2002 there were 3582 motor vehicle crash related fatalities and 552 794 injuries involving children aged 0–5 years.

There are several reasons for the lack of CRS use among Japanese. Compared with salaries of North American and European families, the Japanese average family income is higher. Nevertheless, the majority of parents perceive prices of CRS as comparatively higher than in other countries. A CRS in Japan is costly—approximately US$250–400. Thus government subsidies were seen in 1982–84 when the Swedish government introduced a child seat lending community based intervention quickly lowered the proportion of CRS use.

Similarly, a recent national observational survey linked to current road traffic injury statistics, but does suggest recent success in this area. Further work is needed to confirm the patterns we have found elsewhere in the UK.
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This study used anonymous data and did not require ethical permission. All authors conceived the idea for this analysis. JA performed the analysis and drafted the manuscript. All authors contributed to interpretation of the data and results. All authors have read and approved the final version.

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Table 1 can be viewed on our website.

References


BOOK REVIEW

Evaluating Gun Policy


The United States has a big problem with gun injuries: it suffers tens of thousands of gun related deaths and injuries annually; its gun related death and injury rates dwarf those in other developed nations. The United States also has a big problem with addressing gun deaths and injuries: there is wide public support for many policies aimed at reducing the toll, but little political will to undertake policy changes. Both problems have gotten a lot better in the past decade, but both remain quite serious indeed.

The premise behind Evaluating Gun Policy is that the second problem may diminish in the face of clear information on the effects of policies designed to reduce gun injuries. The editors—both eminent American economic scholars with a longstanding interest in violence and criminology—undertook to summarize current policies related to guns, and to present current assessments of the effectiveness of policies that have been put in place over the past decade or so.

The resulting book is a valuable review and reference, which should be on the shelf of everyone in the United States who works on gun injury reduction and related policy development. It is likely also to be informative for those working on reducing deaths and injuries from small arms and light weapons around the globe and it is a welcome example of a serious examination of injury reduction policy effectiveness, and so relevant to injury prevention efforts everywhere.

The book starts with the editors’ thorough, lucid, and well referenced review of current gun policy in the United States. The book is divided into five sections: Gun Prevalence, Regulating Ownership, Restricting Gun Carrying, Facilitating Research, and The Policy Process. Guest contributors are leading scholars in relevant fields. Each chapter is a case study, in many cases with new data analyses, designed to assess the utility of policies of a particular sort by examining how it worked in a particular instance. Clarifying commentaries follow. The result is readable, relevant, and at times riveting.

In chapter 2, Duggan discusses the relationship between gun access and suicide. He uses state level data on rates of suicide and gun ownership. As commenter John Mullay summarizes Duggan’s findings: “[…]gun owners’ suicidal propensities may be above average, and…instrumentality effects may be important.”

Chapter 3, by the editors, explores whether guns in the home deter burglars. The authors conclude that “[…]T[he] trend is compatible with a conclusion that the ban and buy-back saves lives, but that conclusion cannot be offered with great confidence. But there is absolutely no evidence that the Australian policy innovations had a perverse effect, as has sometimes been claimed.”

Chapter 4, by Reuter and Mouzos, examines the (post-Port Arthur massacre) 1996–97 policy that led to a ban on long guns and a gun buy-back in Australia. They conclude that “[T]he trends are compatible with a conclusion that the ban and buy-back saves lives, but that conclusion cannot be offered with great confidence. But there is absolutely no evidence that the Australian policy innovations had a perverse effect, as has sometimes been claimed.”

Chapter 5, by Vigdor and Mercy, studies the effects of state laws that ban the ownership of guns by domestic abusers. They use a log linear model to assess the impact of laws at the state level and “[…] cautiously conclude that laws restricting access to firearms by abusers under restraining orders lead to reductions in intimate partner homicides”. In his commentary, Wintemute notes that studies that find no firm evidence of any effect are commonly misconstrued as presenting firm evidence of no effect.

Chapter 6, by Cohen and Ludwig, explores the effectiveness of police patrols for illegal handguns. They calculate estimates for the effects of the Pittsburgh program (on shots fired or gunshot injuries) in intervention—as compared to control—areas and conclude there was a reduction in shots fired and in injuries. The commentaries observe that this is the latest in a series of studies reaching the conclusion that this is an effective strategy. But they also note that the analytic methods used are not universally accepted.

Chapter 7, by Raphael and Ludwig, considers prison sentence enhancements by studying a famous example in Richmond,
Virginia. The authors conclude that: "...the impressive declines in gun homicide rates in Richmond around the time of Project Exile can be almost entirely explained by the fact that the city had unusually large increases in gun homicide through the mid-1990s...".

In chapter 8, John J. Donohue discusses concealed-carry laws. This policy has been a hot button issue in the United States. The chapter supports the book editors’ brief and noteworthy: “Whether the net effect of permissive gun-carry laws is to increase or reduce the burden of crime, there is good reason to believe that it is not large...” (p30)

The next section of the book points the way for better research in the future. In chapter 9, Vernick and Hepburn argue for multiple analyses of the same law, with differing (though complementary) methodologies. In chapter 10, Azrael, Barber, Hemenway, and Miller discuss how better data can contribute to better analyses of policy effectiveness focusing their attention on the emerging National Violent Death Reporting System.

The book concludes with Zimring, the pater familias of gun injury prevention in the United States, outlining the history of this work since the 1960s, sketching themes and floating predictions along the way.

The substantive criticism I have of the book is that the complex quantitative analyses offered are way too simple. By focusing on one level at a time—usually that of the city or state—the analyses inevitably fail to account for much of the variation in outcome. No case study is approached with methods that explicitly address more than one level of variation at a time. Yet such methods are available. They include, at least, cutting edge hierarchical modelling and bayesian approaches.

I believe that the need for multilevel analysis is the pressing methods issue facing injury prevention—and, indeed, public health—today. The most dire health problems that we now face are at once extremely complex and often also relatively rare in population terms. Efforts to prevent them will need to occur at multiple levels and analyses of effectiveness will need to take this into account...as this book really does not.

I applaud the editors for a tour de force application of econometric methods to the daunting task of analyzing the effectiveness of gun policies. The result is a few clear answers (targeted police patrols work; Project Exile does not) and, as important, heightened clarity about the challenges of analyzing policies in this way.

The next book to take these issues on will rely on this foundation and will, I hope, bring new methods to the endeavor.

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1st World Congress on Sports Injury Prevention
23–25 June 2005, Oslo, Norway. The 1st World Congress on Sports Injury Prevention will provide an overview of how injuries in sports can be effectively prevented. The second announcement and programme are now available on the conference website: http://www.ostrc.no/congress2005.

13th International Conference on Road Safety – Road Safety on Four Continents
5–7 October 2005, Warsaw, Poland. The conference, which is organized by the National Swedish Road and Transport Research Institute (VTI), with active involvement of GRSP (Global Road Safety Partnership), FERSI (Forum of European Road Safety Research Institutes), TRB (Transportation Research Board), CSIR of South Africa, and ECTRI (European Conferences of Transport Research Institute), will address the transfer of road safety knowledge and implementation, consider whether first world answers fit third world problems; and exchange evaluated good practices. The deadline for paper submissions is 15 April 2005. For more information: http://www.csi2005.rsc.org.

3rd Asian Regional Conference on Safe Communities

3rd New Zealand Injury Prevention Conference

3rd (Canadian) National Conference on Injury Prevention and Control

8th World Conference on Injury Prevention and Safety Promotion