Gun utopias? Firearm access and ownership in Israel and Switzerland

Janet E. Rosenbaum
Maryland Population Research Center, University of Maryland, College Park, MD 20742, USA.

Abstract The 2011 attempted assassination renewed the national gun control debate. Gun advocates claim mass-casualty events were mitigated and deterred with three policies: (a) permissive gun laws, (b) widespread gun ownership, (c) and encouragement of armed civilians who can intercept shooters. They cite Switzerland and Israel as exemplars. We evaluate these claims with analysis of International Crime Victimization Survey (ICVS) data and translation of laws and original source material. Swiss and Israeli laws limit firearm ownership and require permit renewal one to four times annually. ICVS analysis finds the United States has more firearms per capita and per household than either country. Switzerland and Israel curtail off-duty soldiers’ firearm access to prevent firearm deaths. Suicide among soldiers decreased by 40 per cent after the Israeli army’s 2006 reforms. Compared with the United States, Switzerland and Israel have lower gun ownership and stricter gun laws, and their policies discourage personal gun ownership.

Keywords: firearm; Switzerland; Israel; policy; systematic review

Introduction

The attempted assassination of a US Representative in Arizona in 2011, killing six bystanders, renewed interest in the question whether gun control improves or reduces public safety.1 Gun control advocates claim permissive gun laws such as Arizona’s increase the likelihood of such high-casualty violent events, as well as homicides and suicides within the households of gun owners.2,3 Gun advocates claim gun ownership deters and mitigates the impact of violent events by increasing the likelihood of intervention by armed bystanders, without increasing firearm morbidity and mortality.4–6 They cite Switzerland
and Israel as countries where permissive gun control and widespread gun ownership have improved public health and safety and make three primary claims. First, Swiss and Israeli gun control laws restrict gun ownership only minimally\textsuperscript{7–10} or not at all.\textsuperscript{8,11} Second, gun ownership and licensing rates in these countries are at least as high as in the United States.\textsuperscript{5,8,11,12} Third, these governments encourage citizens to own guns for crime and terrorism prevention\textsuperscript{5,8,13–17} and to carry private guns in public for personal defense.\textsuperscript{5,18}

This article evaluates these claims with survey-weighted analysis of four waves of International Crime Victimization Survey (ICVS) data, literature search, and translation of Israeli and Swiss gun laws. It will be useful for readers to keep in mind the populations of each of the countries: Israel: approx. 7,418,000; Switzerland: approx. 7,664,000; United States: approx. 310,384,000 (http://esa.un.org/unpd/wpp/unpp/panel_population.htm).

Methods

Literature search

The literature search included the following terms: Switzerland, Israel, Swiss, Israeli, guns, firearms, injury, suicide, homicide, regulations, legislation, military, civilian guard, civilian policing, and their Hebrew, French, and German translations. The databases included Proquest, Pubmed/Medline, JSTOR, Lexis/Nexis, and the Harvard University library catalog.

Legal translations

Swiss gun laws were obtained from the Swiss Consulate of Boston (420 Broadway, Cambridge, MA) in French and German languages and translated by the author. Israeli gun laws were obtained from the Israeli Ministry of the Interior website (moin.gov.il) in Hebrew language and translated by the author.

Data and analysis

Gun ownership data are from Israeli media reports, the Small Arms Surveys, and the ICVS. The ICVS, a nationally representative sample of United States and Swiss citizens, yields estimates on the prevalence and
reasons for gun ownership in 1989, 1996, 2000, 2004–2005. The ICVS questions were:

- ‘Do you or anyone in your household own a handgun, shotgun, rifle, or air rifle?’
- ‘Could you tell me which sort of guns you own?’
- ‘For what reason do you own the gun(s)?’

Survey-weighted ICVS data were analyzed in Stata. Plots used Andrew Gelman’s ‘secret weapon’-plotting method and were created using the plotCI function in R.

Results and discussion

Gun control laws

This section assesses gun control opponents’ claim Switzerland and Israel have permissive gun control laws.

**Gun control laws in Switzerland**

The Swiss federal government requires gun permit applicants to demonstrate need for protection against a specific risk and pass weapons safety and firearm use regulation tests (Swiss code RS 514.54, Ch. 6, art. 27 (1997)). Permit holders may own only one handgun for 6 months, and must subsequently renew permits every 3 months (Swiss code RS 514.54, Ch. 2, §1, art. 8 (1997)).

**Gun control laws in Israel**

Contrary to gun advocates’ claims that Israel places few or no restrictions on gun ownership, 7–11 Israel rejects about 40 per cent of gun permit applicants, more than any country in the western world. 21–23 All guns must have an Interior Ministry permit and identifying mark for tracing, and limits which citizens may apply for a permit, based on residence, occupation, or role in national defense (Table 1). 26 Applicants are excluded if they take psychotropic drugs or have been arrested for drug use or domestic violence (even if not convicted), and must pass a Hebrew language test. 26–28 Permit holders may own only one handgun and must renew their permit annually or whenever their residence, occupation, or national defense role changes.
Prevalence of gun ownership

This section assesses gun control opponents’ claims about the numbers of guns and gun owners in Switzerland and Israel.

Gun ownership in Switzerland

Poe called Switzerland ‘the most heavily armed nation on earth, per capita’, with 2 million guns.\(^7,8\) At the time of his writing, Poe was not correct: the 2002 Small Arms Survey estimated 1.2 million civilian firearms in Switzerland, or 16 per 100 residents,\(^25\) versus 83–97 civilian firearms per 100 residents in the United States for the same period.\(^21\) Swiss firearm ownership increased between the 2002 and 2007 Small Arms Surveys because military rifles were released to the public due to drastic army size reductions.\(^30,31\) In 2007, Switzerland had 31–60 total firearms per 100 residents, about the same as Finland, and less than the estimated 83–97 per 100 in the United States and 29–81 per 100 in Yemen.\(^31\)

On a per-household basis, the nationally representative ICVS data find more US households than Swiss households own handguns and at least as many own firearms (Figure 1). A quarter of Swiss households reported they own a gun for army service. Few Swiss households, fewer than 13 per cent, own a gun for non-military reasons.

Gun advocates claim the Swiss own guns due to tradition,\(^7,32,33\) but more than six times as many US households reported owning a gun

Table 1: Israel: Individuals eligible for gun permit (Ministry of Interior, 2010, www.moin.gov.il)

<table>
<thead>
<tr>
<th>Category</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residence</td>
<td>Current resident of Judea or Samaria</td>
</tr>
<tr>
<td>Employment</td>
<td>Employment in Judea/Samaria</td>
</tr>
<tr>
<td></td>
<td>Public transportation driver</td>
</tr>
<tr>
<td></td>
<td>Explosives transporter</td>
</tr>
<tr>
<td></td>
<td>Jeweler</td>
</tr>
<tr>
<td>Security</td>
<td>Former army, police</td>
</tr>
<tr>
<td></td>
<td>Former prison authority</td>
</tr>
<tr>
<td></td>
<td>Police officer</td>
</tr>
<tr>
<td></td>
<td>Fire fighter</td>
</tr>
<tr>
<td></td>
<td>Ambulance worker</td>
</tr>
<tr>
<td></td>
<td>Civil guard volunteer</td>
</tr>
<tr>
<td>Recreation</td>
<td>Inherited gun</td>
</tr>
<tr>
<td></td>
<td>Hunter</td>
</tr>
</tbody>
</table>

Gun access in Israel and Switzerland

because they have ‘always had one’ (Figure 2). Gun advocates claim Swiss own guns because shooting contests are the national sport, but only 5 per cent of Swiss households reported owning guns for sport versus 12 per cent of American households. Eight times as many American households reported owning a gun for ‘self-protection’ as did Swiss.

Switzerland’s limited gun access does not prevent gun violence. Greater firearm ownership predicts greater firearm suicide, homicide...
of females, and murder-suicide.\textsuperscript{34} Swiss gun owners are more likely than non-gun owners to report having seriously injured others.\textsuperscript{35} Respondents who owned a handgun or more than one gun reported more violence than respondents who owned long guns or just one gun.\textsuperscript{35} These findings imply that either owning a gun makes men more violent, or more violent men own guns, which Swiss law does not prevent.

Switzerland has a large proportion of firearm suicide relative to other European countries, and the proportion increased as household gun ownership increased between 1983 and 2000.\textsuperscript{36} Within Switzerland, Swiss cantons with greater household firearm ownership had more firearm suicide between 1998 and 2007, and firearm suicide decreased as household firearm ownership declined in this decade.\textsuperscript{37} Military weapons account for about 40 per cent of firearm suicides in Switzerland\textsuperscript{37} and at least a third of murder-suicides.\textsuperscript{34} Firearm prevalence in Switzerland is proportional to the prevalence of firearm homicide of women but not men.\textsuperscript{38} These ecological studies are correlational, but Martin Killias notes they are unlikely attributable to confounding by violent crime. High rates of violent crime might induce firearm ownership, but there is no ‘third variable which, simultaneously, might push people to buy guns, to kill female partners (but not male opponents), and to commit assault or suicide, but not robbery’.\textsuperscript{38}
**Gun ownership in Israel**

Gun advocates claim that in Israel over 10 per cent of Jewish adults have a permit to carry concealed handguns. In 2009, Israel issued about 200 000 permits for any type of gun. In 2002, at the time of Lott’s writing, Israelis held 265 000 permits for all types of guns, the largest number in the past decade. Only a subset of these permits allowed handgun possession, so that <5–6.7 per cent of the Jewish population over age 16 could have a handgun (Table 2). The Small Arms survey estimates 500 000 total firearms (400 000 of which are registered), or 7.3 per 100 people, implying that <7.3 per cent of Israelis own any type of firearm. Israel ranks 81 out of 179 countries in per capita gun ownership.

The low rate of gun ownership in Israel is associated with a low rate of firearm suicide, which is rare in the general population. In the general Israeli population, suicide by strangulation is more common than suicide by firearms: 2.45 per 100 000 versus 1.6 per 100 000. Among soldiers, the only subpopulation for whom guns are easily accessible, personal firearms were the most common suicide instrument, but decreasing soldiers’ access to guns when off-duty seems to have decreased their firearm suicide rate. In the mid-1980s, the annual suicide rate was 19.3 per 100 000 soldiers, and 84 per cent of suicides used their army-issued firearm. The Israel Defense Forces (IDF) reported subsequent suicide data in total number of suicides per year, rather than suicides per population.

### Table 2: Israel: (1) proportion of population with valid personal gun permit; (2) legally held guns per 100 population, excluding estimated 100 000 unlicensed guns

<table>
<thead>
<tr>
<th>Year</th>
<th>Number permits</th>
<th>Permits per 100 population</th>
<th>Source</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>285 000</td>
<td>5.25</td>
<td>5</td>
<td>—</td>
</tr>
<tr>
<td>2002</td>
<td>220 325</td>
<td>3.55</td>
<td>42</td>
<td>Excludes 45 000 expired</td>
</tr>
<tr>
<td>2002</td>
<td>265 153</td>
<td>4.28</td>
<td>5</td>
<td>—</td>
</tr>
<tr>
<td>2002</td>
<td>265 325</td>
<td>4.28</td>
<td>34</td>
<td>—</td>
</tr>
<tr>
<td>2007</td>
<td>500 000</td>
<td>7.3</td>
<td>21</td>
<td>—</td>
</tr>
<tr>
<td>2009</td>
<td>200 000</td>
<td>2.72</td>
<td>6</td>
<td>—</td>
</tr>
<tr>
<td>2009</td>
<td>200 000</td>
<td>2.72</td>
<td>35</td>
<td>5.04 per 100 Jewish adults</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year of Estimate</th>
<th>Number guns</th>
<th>Guns per 100 population</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993</td>
<td>308 955</td>
<td>6.51</td>
<td>36</td>
</tr>
<tr>
<td>Pre-1996</td>
<td>400 000</td>
<td>7.36</td>
<td>50</td>
</tr>
</tbody>
</table>

In 2003–2005, there were an average of 28 army suicides per year, of which 90 per cent used a firearm. In 2006, the IDF decreased soldiers’ access to firearms on weekends, and the suicide rate decreased by 40 per cent to 16.5 suicides per year in 2007–2008; weekend suicide using firearms decreased from 10 per year to 3 per year, but weekday suicide did not change.

Government gun-related programs
This section assesses gun control opponents’ claims that the governments of Switzerland and Israel increase civilian gun ownership for security purposes.

Government gun-related programs in Switzerland
Gun advocates cite the Swiss Army as a Swiss government program to encourage citizens to use guns for self-protection. Swiss men serve in the army until age 35 (age 50 for officers), yet the ICVS data find only a quarter of Swiss households reported having a gun in their home due to Army service (Figure 2). The media report large numbers of households keep their guns, but the ICVS data find only 2 per cent of households reported keeping an army gun post-service. Some cantons allow reservists to keep their service-issued guns in local gun depots and unit arsenals rather than inside their homes, but reservists in cantons without local depots were required to keep their guns at home.

Government gun-related programs in Israel
The Small Arms survey estimates that IDF has 1.8 million guns. Army service in Israel is nearly universal – non-Ultra Orthodox Jewish, Bedouin, Druze, and Circassian males serve 3 years and secular Jewish females serve 21 months, with men on reserve duty 4–6 weeks per year until age 40. Unlike Switzerland, Israeli army service does not result in substantial civilian gun access. Soldiers are issued guns only for their period of service, and most live on base during this time. Soldiers used to carry guns to civilian settings when off duty to prevent weapons theft and kidnapping, but in 2006 the IDF decreased soldiers’ access to firearms on weekends as a successful suicide prevention measure.

Gun advocates make extensive claims about non-military gun programs by the Israeli government, claiming Israeli citizens carry private
guns in public for personal defense and the Israeli government encourages citizen gun ownership to prevent crime and terrorism. The Interior Ministry bans citizens from using their personal guns for terrorism prevention guard duty and does not issue gun permits for the prevention of ordinary crime. The Israeli government has deliberately tightened gun restrictions with the goal of decreasing the number of civilian guns, such as after Prime Minister Yitzchak Rabin’s assassination. When the government has liberalized gun regulations, such as after the Second Intifada, the liberalization applied only to high-ranked army and police officers (captain or higher).

Gun advocates claim Israel has formal programs to encourage citizen arm-bearing, ‘routinely loan[ing] guns to millions of civilians’ (p. 254); ‘Any law-abiding Jew who needs an Uzi, or a handgun, may borrow it, like a library book, from an Israeli police armory’; and the Civil Guard includes many armed civilians (pp. 332–333). The Israeli army provides 32,000–56,000 weapons, mostly automatic rifles, in arsenals for communities in potentially dangerous areas, such as the Disputed Territories and along borders, areas with approximately 300,000 total residents (adults and children), substantially less than the millions claimed (p. 254). The communal arsenals are withdrawn during periods of fighting. The Civil Guard comprises 70,000 civilians supervised by the national police with the mission of terrorism prevention, although it is unknown whether the Civil Guard prevents terrorism. At its peak in the late 1970s, 3 per cent of Israelis participated in the Civil Guard, but some Civil Guard members carried out vigilante activities, spurring increased police supervision. Most Civil Guard members are unarmed because their duties do not require guns (for example, patrolling, traffic control, tourist support, rescue of injured or lost hikers, and bomb detection and disposal). Armed members carry weapons only during their shifts.

Gun advocates claim schools are guarded by armed retirees and armed school staff members. Armed civilians have not performed school guard duty since the 1970s. Licensed commercial security firms guard schools, and unarmed parents and teachers inspect schools for bombs. School field trips in Israel are often accompanied by an armed civilian, but few civilians are eligible for this role. Armed field trip chaperones must have completed army service and either participate in the Civil Guard or have a military long-gun permit for at least 2 years, implying fewer than 270,000 eligible chaperones: the sum of the 70,000 Civil Guard members.
Gun access in Israel and Switzerland

(only a subset of whom are post-army) and 200,000 total gun permits (only a subset of which are for military long guns, have been held for more than 2 years, and do not overlap with the Civil Guard).

Gun advocates claim Israel encourages citizens to use personal or borrowed guns to prevent crime and terrorism. Official government policy bans armed civilians from performing guard duty with personal arms, and maintains close control over the Civil Guard; only 70,000 civilians are Civil Guard members, and most are only armed during shifts while supervised by police; the Civil Guard may not be effective in preventing crime or terrorism; and fewer than 270,000 civilians are eligible to guard school field trips.

In addition to the arguments addressed above, some gun advocates’ claims are contradicted by their cited sources. For example, Kopel supported his claim that legal Swiss guns are not used in crime by citing a Swiss history book, which contrary to Kopel’s claim, described Swiss gun control regulations as ‘inadequate’, their enforcement as ‘lax’, and that terrorists own legally obtained military weapons. Similarly, LaPierre and Baker cited an Israeli newspaper article to support their claim that armed Israeli civilians prevent terrorist attacks, which was actually about terrorist attacks foiled by soldiers and security guards and reported a case where a civilian was ‘seriously wounded’ by Israeli soldiers after shooting at people he mistook for terrorists.

Conclusions

Swiss and Israeli gun ownership is rare, regulated stringently such as by putting the burden of proof on permit applicants to demonstrate a specific need for a gun, and neither country encourages gun ownership. The extensive gun control in both countries do not prevent guns from being associated with violent deaths, but increased gun control in the Israeli army may have reduced gun suicide. The firearm mortality evidence from Switzerland and Israel seems to concur with the public health literature.

Acknowledgements

The Joyce Foundation, Centers for Disease Control (T32AI050056), and National Institutes for Child Health and Development (R24HD041041) supported this work. Thanks to Roy Alcalay, Lorenz
Biberstein, Yaakov Gal, David Hemenway, Jonathan Joshua, Martin Killias, Rabbi Yoel Oz, Remo Steinmetz, Yael Tolub, and Jonathan Weitsman for helpful discussions.

About the Author

Janet E. Rosenbaum, PhD, is an Assistant Professor at the University College Park in the Maryland Population Research Center funded by the US National Institute for Child Health and Human Development (NICHD).

References


